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Chapter 26: Alternatives

A. INTRODUCTION

In accordance with the SEQRA and CEQR, this chapter presents and analyzes a full range of reasonable alternatives to the Proposed Action, including a “No Action” alternative. 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.

Under the SEQRA and CEQR, alternatives for evaluation in an EIS essentially are selected to reduce or eliminate adverse impacts of a Proposed Action and are assessed for whether they substantively meet the goals and objectives of the action. In this case, the Proposed Action is a comprehensive plan for redevelopment of the Project Area, consisting of various Zoning Amendments, the No. 7 Subway Extension, and specific facility components, including the development of an expanded Convention Center and a new Multi-Use Facility. Accordingly, in addition to considering alternatives that reduce or eliminate significant adverse impacts, this chapter considers other alternatives, some of which would have similar, or in some cases, greater significant adverse environmental impacts than the Proposed Action or which may not address all of the goals and objectives of the Proposed Action.

Alternatives are grouped in the following categories:

- No Action Alternative: Existing zoning controls would be maintained and there would be no No. 7 Subway Extension, Convention Center Expansion, or Multi-Use Facility development.
- Alternative Zoning Actions: The Proposed Action with various modifications to the proposed rezoning.
- Alternative Transportation Actions: The Proposed Action with a modified transportation component, including alternative transit modes.
- Alternative Planning Initiatives: Alternative comprehensive planning initiatives, including modifications to several different components of the Proposed Action.
- Alternative Development Actions: A series of alternatives that consider the four components of the Proposed Action separately and in combination, and which otherwise modify the design or location of various components of the Proposed Action.
- Public Comment Alternatives: Three new alternatives that reflect or respond to public comments on the DGEIS and the Proposed Action.

These alternatives are briefly described in Section C. Section D then describes the methodology used in evaluating the identified alternatives. Full descriptions and evaluations of each alternative are presented in Section E.

B. PRINCIPAL CONCLUSIONS

As part of this FGEIS, the Co-Lead Agencies have assessed a broad range of alternatives to the Proposed Action, some suggested by public comments during scoping. Three alternative zoning actions (Alternatives B, C and D) would slightly vary the boundaries or use provisions of the proposed Zoning Amendments, while four alternative transportation proposals (Alternatives E, F, G, and H) 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 (Alternatives I, J and K) would reduce or re-orient the commercial development

contemplated by the Proposed Action, while another set of alternatives (Alternatives L, M, N, O, P and R) would eliminate or focus solely on either the Convention Center Expansion or the Multi-Use Facility (or both) or relocate the Multi-Use Facility outside of the Hudson Yards area. Another alternative (Alternative Q) would link the Proposed Action’s open space to the new Hudson River Park in order to enhance waterfront access in the revitalized Hudson Yards community. Alternative S was developed by DCP in response to public comments and would adjust the Proposed Action by reducing its commercial and increasing its residential uses and somewhat redistributing its development across the area proposed to be rezoned. Two additional alternatives (Alternatives T and U) suggested in public comments on the DGEIS would reconfigure development in the West 34th Street area.

Each of these alternatives analyzed seeks either 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. On balance, however, except for Alternative S, none of the alternatives assessed would as effectively achieve the benefits or realize the goals of the Proposed Action, and many such alternatives, if feasible at all, would have environmental impacts substantially similar to or greater than the Proposed Action. Alternative S would realize all of the benefits of the Proposed Action with essentially the same environmental impacts, while achieving more residential uses in the Hudson Yards area. Alternative Q would facilitate access to the waterfront and active recreation for New Yorkers and visitors and thus advance the goals of the Proposed Action; however, no source of funding has been identified for that alternative, which would require independent review and approval by relevant State and federal agencies.

C. ALTERNATIVES TO THE PROPOSED ACTION

A total of 21 alternatives have been identified for evaluation. These include the No Action Alternative, three alternative zoning actions, four alternative transportation actions, three alternative planning initiatives, and seven alternative development actions, as well as three additional alternatives which reflect or respond to public comments on the DGEIS and the Proposed Action (Table 26-1). The site selection for the relocated DSNY and the NYPD Tow Pound facilities with the associated rooftop open space could occur independently of all the other elements of the Proposed Action, and their relocation is assumed as part of each of the alternatives described below. Alternative locations for the DSNY and the NYPD Tow Pound facilities are evaluated in Appendix X, DSNY Facilities and NYPD Tow Pound Siting Studies.

TABLE 26-1
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.

TABLE 26-1 (CONTINUED)
ALTERNATIVES TO THE PROPOSED ACTION

Alternative Designation/Name	Description
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.
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.

TABLE 26-1 (CONTINUED)
ALTERNATIVES TO THE PROPOSED ACTION

Alternative Designation/Name	Description
Alternative Public Comment-Based Actions	
S. Revised Zoning Alternative	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 excluding the three blocks south of Penn Station between Seventh and Eighth Avenues. Alternative S also creates a zoning floor area bonus for new theater space created in the Clinton District/West 42nd Street corridor.
T. Revised Community Organization	This revised community organization alternative provides 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 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 smaller network of open space to be constructed over open rail cuts.
U. Land Bridge Alternative	This alternative would concentrate future development on a structure with an approximately 2.57 million square-foot footprint covering the entire area from Ninth to Twelfth Avenues generally between West 30th and 34th Streets. A new convention center and, as an option, a new sports stadium would be built on this structure. 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 this in the future.

D. METHODOLOGY

As required under the SEQRA and CEQR, separate comparisons are included of the impacts of each feasible alternative to those of the Proposed Action. Alternatives determined not to be feasible do not warrant such an analysis. Feasible alternatives are generally evaluated for the years 2010 and 2025, or for the year when it is anticipated that maximum impacts would occur.

Assessments are included for the same impact categories that are evaluated for the Proposed Action. For each alternative, an initial evaluation is undertaken to identify those impacts that would be the same as those of the Proposed Action. A further analysis is then completed for impact categories where the impacts of an alternative are likely to differ from those of the Proposed Action. Except as noted, methodologies and study area definitions applied to assess the potential impacts of the alternatives and to develop needed mitigation measures are the same as those used for the Proposed Action. Technical analyses summarized in this chapter are found in appendices to this FGEIS or available at the offices of the Co-Lead Agencies.

E. DESCRIPTION AND EVALUATION OF ALTERNATIVES

The following information is provided in this section:

- A description of each alternative, including identification of the source of each alternative and the actions required for its implementation;

- A summary of the results of the evaluation, identifying those impacts of each feasible alternative that are greater than, equal to, or less than those of the Proposed Action, and an assessment of the extent to which each alternative would meet the goals and objectives of the Proposed Action;
- A summary of the impacts of each feasible alternative for each impact category for which the impacts of the alternative would be anticipated to be substantially different from those of the Proposed Action, both without and with mitigation.

Alternatives are evaluated in the order and within the categories listed in Table 26-1.

1. No Action

a) Alternative A: No Action

Description of the Alternative

Consideration of Alternative A, the No Action Alternative, is mandated by both the SEQRA and CEQR, and is intended to provide the co-lead and involved agencies with an assessment of the consequences of not selecting the Proposed Action or any of its “build” alternatives. As applied under “Future Without the Proposed Action” in Chapters 4 through 25 of this FGEIS, the No Action Alternative also provides a baseline against which impacts of the Proposed Action may be compared.

Under the No Action Alternative, development in the Project Area would continue to be controlled by 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. Development that would be anticipated to be in place in 2010 and 2025 under the No Action Alternative is summarized in Chapter 3, “Analytical Framework.” No discretionary approvals or public actions would be required by the City of New York City Planning Commission (CPC), the Metropolitan Transportation Authority (MTA), the Empire State Development Corporation (ESDC) or its subsidiaries, or any other public agency to implement the No Action Alternative.

Principal Conclusions

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.

The No Action Alternative (Alternative A) Compared to the Proposed Action

The No Action Alternative in 2010 and 2025 is compared to the Proposed Action in 2010 and 2025 for all impact categories, as summarized below.

(a) Land Use, Zoning and Public Policy

Unlike the Proposed Action, which would foster major land use changes, the No Action Alternative would result in a limited amount of new commercial and residential development in the Project Area by 2010 or 2025. New development would be limited to a relatively small number of major projects

compared to the Proposed Action, principally in the Clinton District/42nd Street Corridor, along the west side of Ninth Avenue, north of West 35th Street, and in the Farley Corridor. The existing manufacturing zoning in the Project Area would continue to be inconsistent with the observed trend toward the loss of manufacturing uses in the area.

Unlike the Proposed Action, the No Action Alternative would not result in major land use changes in the Large Scale Plan (Subdistrict A), the Tenth Avenue Corridor (Subdistrict D), the Other Areas (Subdistrict E), or the Convention Center Corridor. In the Farley Corridor (Subdistrict B), the Moynihan Station Development Corporation would redevelop the Farley Building as an Amtrak station, including retail and commercial office uses, by 2010. As a consequence, the Farley Corridor would become more strongly commercial than its current condition by 2010 with the No Action Alternative. The Fashion Institute of Technology (FIT) plans to renovate and convert an existing loft building at 406 West 31st Street into 1,104-bed dormitory. The changes to the Farley Building would support and enhance the existing mix of office, retail, restaurant, and residential uses in the 34th Street Corridor (Subdistrict C). Some development would also occur by 2010 in Hell's Kitchen (Subdistrict F) in the No Action Alternative in conformance with existing zoning. It is anticipated that the existing trend for high-rise residential uses and expansion of theater and entertainment uses would continue in the Clinton District/42nd Street Corridor. It is also expected that current trends would continue in the Special Garment Center District portion of the Project Area, where there would be an increase in land uses that can be classified as commercial, rather than manufacturing or industrial. The current underutilization of this portion of the Project Area would continue.

Unlike the Proposed Action, the No Action Alternative would not result in a high-density, 24-hour mixed use community. The Project Area would continue to contain a substantial number of large vacant and underutilized sites, largely dominated by storage, parking, automotive, and open rail yards, and transportation-related uses.

(b) Socioeconomic Conditions

Unlike the Proposed Action, the No Action Alternative would not result in substantial economic benefits in the Project Area in that it would not realize the construction-period employment and economic benefits from construction and operation of the Convention Center expansion, the Multi-Use Facility, the open space network, and the private development expected under the Proposed Action. The No Action Alternative would not support the City's economic growth and would make it more difficult to accommodate the long-term demand for a substantial amount of new commercial and residential space in Manhattan. Unlike the Proposed Action, projected development with the No Action Alternative would be limited and would displace fewer residents and businesses than under the Proposed Action. In 2010, the No Action Alternative would result in the development of seven anticipated development sites with about 2,553 new residential units and would displace 120 existing residential units. In 2025, the No Action Alternative would result in the development of three additional residential projects with 629 units and would displace three existing residential units. In comparison, in 2010 the Proposed Action would result in the development of seven Projected Development Sites with about 3,250 to 3,298 new residential units and would displace 34 existing residential units, while in 2025 the Proposed Action would result in the development of 38 Projected Development Sites with about 10,165 to 10,213 new residential units and would displace 85 existing residential units. It is expected that the No Action Alternative would increase Primary Study Area employment by about 2,842 persons and would displace about 289 existing jobs in 2010, and would increase Primary Study Area employment by about 5,420 persons. In comparison, in 2010 the Proposed Action would increase primary study area employment by about 11,900 to 15,200 persons and would displace about 1,500 existing jobs, while in 2025 the Proposed Action would increase primary study area employment by about 111,900 persons and would displace up to 2,734 additional existing jobs.

(c) Community Facilities and Services

Like the Proposed Action, it is expected that with the No Action Alternative the NYPD and FDNY would continue to adjust its allocation of personnel as the need arises; there would be a deficit of elementary, intermediate/junior high, and high school seats in both 2010 and 2025, although to a lesser degree than the Proposed Action; area libraries would continue to have adequate capacity; existing health care facilities would continue to have the capacity to serve the area's population; and there would continue to be a shortfall of available day care facilities. The No Action Alternative would differ from the Proposed Action in that West 33rd, West 39th, West 40th, and West 41st Streets would remain open, thereby continuing to provide the current level of access to the Project Area by FDNY vehicles. The new firehouse required as a result of the Proposed Action would not be required with the No Action Alternative.

(d) Open Space and Recreational Facilities

The No Action Alternative would result in less additional open space and fewer additional workers, visitors, and residents in the Project Area than the Proposed Action. Development as currently proposed would continue, and the open spaces associated with the Proposed Action would not be constructed. The No Action Alternative would have significantly fewer and lower quality open space resources than the Proposed Action in both 2010 and 2025.

As described in Chapter 7, "Open Space and Recreational Resources," the open space residential study area currently contains a total of 49 public open spaces and recreational facilities, containing 42.49 acres serving the residential and commercial populations; the smaller non-residential study area contains a total of 23.65 acres. Under the No Action Alternative, three new open spaces would be anticipated to be completed prior to 2010. The Chelsea Recreation Center would add an estimated 0.39 acres of predominantly active open space, New York City Department of Parks and Recreation would develop a 0.46-acre parking lot site on Tenth Avenue between West 48th and West 49th Streets as parkland, and Segments 5, 6, and 7 of Hudson River Park, beginning at West 14th Street and stretching north to West 59th Street, would provide 9.83 acres of publicly accessible open space. As a result of the three proposed open space projects, the total amount of open space acreage in the non-residential study area under the No Action Alternative would increase from 23.65 acres to 34.33 acres, with an increase in passive open space to 18.28 acres and an increase in active open space to 16.05 acres. In the residential study area open space would increase from 42.49 acres to 53.18 acres (35.47 acres passive and 17.71 acres active open space).

In addition to the three new open spaces mentioned above, there is the possibility that a fourth new open space, the High Line, an unused rail right-of-way, would be developed as an open space resource in the No Action Alternative. Preliminary plans for this space are currently being prepared by a design team. Potential amenities include a walkway, benches, landscaping, and kiosks. Approximately 85 percent, or 5.7 acres, of the High Line would fall within the open space study area for the Proposed Action. The open space analysis for the Proposed Action examines both the future in which the High Line would not be converted to open space, as well as the condition in which the High Line would be converted to useable passive open space.

Approximately 24.01 acres of new open space would be added to the Project Area under the Proposed Action. As a consequence, the No Action Alternative would not result in improved connectivity between existing and future open spaces along the West Side of Manhattan. Most open space ratios, in both 2010 and 2025 and in both the residential and non-residential study areas, would be slightly lower than under the Proposed Action, indicating less open space available per resident and non-resident (Table 26-2). The only ratios that would be higher under the No Action Alternative as compared to the Proposed Action would be the 2025 active open space ratios in the residential study area both with and without the High Line open space. All open space ratios under the No Action Alternative would be below the City's open space guidelines. Under the Proposed Action, all open

space ratios, with the exception of passive open space for the residential population, would remain below the City's open space guidelines.

**TABLE 26-2
NO ACTION ALTERNATIVE: ADEQUACY OF OPEN SPACE RESOURCES COMPARED TO THE
PROPOSED ACTION**

Study Area	Open Space Category	Open Space Ratio	
		Proposed Action	No Action Alternative
Without High Line Open Space, 2010			
Non-Residential Study Area	Passive/Non-Residents	0.126	0.088
	Passive/Total Population	0.101	0.068
Residential Study Area	Total/Residents	0.768	0.594
	Passive/Residents	0.534	0.396
	Active/Residents	0.234	0.198
	Passive/Total Population	0.092	0.073
With High Line Open Space, 2010			
Non-Residential Study Area	Passive/Non-Residents	0.149	0.115
	Passive/Total Population	0.118	0.088
Residential Study Area	Total/Residents	0.811	0.642
	Passive/Residents	0.583	0.449
	Active/Residents	0.228	0.193
	Passive/Total Population	0.102	0.084
Without High Line Open Space, 2025			
Non-Residential Study Area	Passive/Non-Residents	0.099	0.085
	Passive/Total Population	0.081	0.065
Residential Study Area	Total/Residents	0.646	0.561
	Passive/Residents	0.466	0.374
	Active/Residents	0.180	0.187
	Passive/Total Population	0.078	0.071
With High Line Open Space, 2025			
Non-Residential Study Area	Passive/Non-Residents	0.114	0.112
	Passive/Total Population	0.092	0.084
Residential Study Area	Total/Residents	0.678	0.602
	Passive/Residents	0.502	0.421
	Active/Residents	0.176	0.181
	Passive/Total Population	0.086	0.081

(e) Shadows

The few buildings anticipated to be constructed in the Project Area under the No Action Alternative would not cast shadows on any existing publicly accessible open space or architectural historic resource. Unlike the Proposed Action, the No Action Alternative would not result in potential significant adverse shadow impacts on the rose window of St. Raphael's Roman Catholic (RC) Church or on the Eighth Avenue façade of the Farley Building.

(f) Architectural Historic Resources

By 2010 with the Proposed Action, construction of the Multi-Use Facility and the open space over the western and eastern portions of Caemmerer Yard would partially remove sections of the High Line viaduct, an architectural resource eligible for listing on the National and State Registers of Historic Places. This would constitute a significant adverse impact. By 2025, construction of the open space corridor and development on Projected Development Sites would remove or alter a total of seven architectural historic resources eligible for listing on the National and State Registers of Historic Places. This would also constitute a significant adverse impact. Unlike the Proposed Action, the No Action Alternative would neither remove nor alter these resources.

(g) Archaeological Resources

Under the No Action Alternative, Projected Development Sites 11 and 41 would not be redeveloped. Consequently, the significant adverse impacts that could not be mitigated on these sites with the Proposed Action would not occur.

(h) Urban Design and Visual Resources

Unlike the Proposed Action, the No Action Alternative would not result in major improvements to the urban design of the Project Area. With the exception of a few anticipated developments, the Project Area would remain as it is today—typified by open underutilized areas punctuated by drab, nondescript structures and dominated by transportation uses that disrupt the street grid. This condition would prevail most clearly in the Large Scale Plan (Subdistrict A), the western portion of the Farley Corridor (Subdistrict B), the Tenth Avenue Corridor (Subdistrict D), Subarea E1, Subarea F2 of the Hell’s Kitchen Subdistrict, and the Convention Center Corridor. The portion of the Project Area within the Special Garment Center District would continue to be underutilized, resulting in a mix of vacant lots with some larger buildings more typical of the Special Garment Center District to the east, creating an inconsistent building pattern and urban design. The Clinton District/42nd Street Corridor and the 34th Street Corridor would continue to evidence a more regular developed form, while the portion of Hell’s Kitchen on Ninth Avenue would see some additional residential development that would introduce new moderate-scale buildings on currently vacant and underutilized properties pursuant to existing contextual zoning controls. The blocking of existing views and vistas would not take place, but, unlike the Proposed Action, new significant views from publicly accessible vantage points would not be created with the No Action Alternative. The development that would occur under the No Action Alternative would conform to existing design regulations and would not benefit from the flexibility in building design that would be provided by the Proposed Action.

(i) Neighborhood Character

Unlike the Proposed Action, the No Action Alternative would not result in dramatic improvements to neighborhood character in the Project Area. The existing neighborhood character of the Project Area would remain substantially unchanged. The No Action Alternative would not transform the Large Scale Plan and Tenth Avenue Corridor (Subdistricts A and D) from nondescript and underutilized areas with disrupted street patterns into a cohesive 24-hour community. Unlike the Proposed Action, the No Action Alternative would not benefit the Farley Corridor (Subdistrict B) by transforming this area into a major high-density commercial district. While the Farley Building and Projected Development Site 32 would be developed, thus supporting current trends toward commercial office use in the area, the corridor as a whole would not be transformed.

The 34th Street Corridor (Subdistrict C) would experience some development of office, retail, restaurant, and residential uses; however, the development under the No Action Alternative would not introduce as much development on prominent sites as under the Proposed Action or support the residential character of the western portion of Subdistrict C.

Subarea E2 and the portion of the Special Garment Center District within the Project Area would continue to undergo conversion from manufacturing to commercial uses. However, unlike these areas with the Proposed Action, no new commercial or residential buildings would be constructed, and transportation uses would continue to intrude on the low-rise community facilities located in Subarea E1. Mixed-use, low-rise commercial uses would remain in Subarea E2.

Like the Proposed Action, the No Action Alternative would result in some residential development in Hell’s Kitchen (Subdistrict F) that would support Hell’s Kitchen’s “Main Street” along Ninth Avenue.

High-rise development would still occur within the Clinton District/42nd Street Corridor in the No Action Alternative, but at a lower FAR than with the Proposed Action.

Unlike the Proposed Action, the No Action Alternative would not result in a change of the character of the Convention Center Corridor, which would continue to be dominated by the current Convention Center building and the large, full-block transportation uses. The sidewalks, particularly around the walls of Caemmerer Yard and near the other transportation uses, would remain drab and lifeless. Unlike the Proposed Action, the Midblock Park and Boulevard System would not be developed under the No Action Alternative.

(j) Natural Resources

The No Action Alternative would increase the concentration of pollutants during a combined sewer overflow discharge to the Hudson River, although to a lesser extent than the Proposed Action. The potential for avian strikes on buildings would be less, due to the reduced level of development that is anticipated with the No Action Alternative. No significant adverse impacts to natural resources are anticipated under the Proposed Action.

(k) Hazardous Materials

The No Action Alternative would include new development on far fewer sites in the Project Area than the Proposed Action. As a consequence, the overall potential for uncovering contaminated soil or groundwater would be less than that under the Proposed Action. Like the Proposed Action, it is not anticipated that the No Action Alternative would result in a significant adverse impact on hazardous materials. Most of the sites with the potential to contain hazardous materials that would be privately developed in the Project Area with the No Action Alternative are currently subject to the provisions of existing (E) Designations, which would avoid impacts from disturbing on-site hazardous materials.

(l) Waterfront Revitalization Program

The No Action Alternative would result in less development within the Coastal Zone than the Proposed Action; the Multi-Use Facility would not be constructed over the western portion of Caemmerer Yard; the Convention Center would not expand; Projected Development Sites 17 and 18 would contain substantially less residential and commercial floor area; and the site of the Convention Center Hotel would be occupied by a large residential development. As a consequence, it would generate significantly fewer visitors, residents, and workers to the Coastal Zone and Hudson River Park than the Proposed Action. Unlike the Proposed Action, the No Action Alternative would not further the goal of encouraging commercial and residential redevelopment within an appropriate Coastal Zone area. However, the Proposed Action would draw a greater number of visitors to the waterfront, encouraging increased commercial and recreational uses, compared to the No Action Alternative.

(m) Infrastructure

Like the Proposed Action, the No Action Alternative would not result in significant adverse impacts on the City water supply or wastewater systems. The No Action Alternative would result in less demand for City water supply and sewer services than the Proposed Action. The No Action Alternative would require approximately 1.6 million gallons per day (mgd) of potable water, compared to an estimated peak usage of 8.6 million mgd of potable water with the Proposed Action. DEP's planned implementation of the Manhattan Trunk Main Master Plan would provide sufficient water supply to serve the increased demand of either the Proposed Action or the No Action Alternative. Wastewater generated by the No Action Alternative would total approximately 1.6 mgd, less than the 8.6 mgd expected during a peak day under the Proposed Action. Additional sewer segment upgrades would be needed with the Proposed Action to a greater extent than under the No

Action Alternative. Like the Proposed Action, new connections and sewer upgrades would require DEP-approved Drainage Plan amendments. Additionally, the North River Wastewater Pollution Control Plant would have available capacity to treat the increased sewage generated by both the No Action Alternative and the Proposed Action.

Unlike the Proposed Action, the No Action Alternative would not have the potential to increase the pervious (absorptive) surfaces or potentially reduce the volume of stormwater generated within the Project Area. Currently, the Project Area contains virtually no parkland or other pervious surfaces. This situation would likely continue under the No Action Alternative. Under the Proposed Action, some pervious surfaces from proposed open spaces and water recycling systems would be in place and have the potential to reduce stormwater runoff.

It is anticipated that the number of combined sewer outflow (CSO) events under the No Action Alternative would be substantially the same as the Proposed Action. The DEP would continue to monitor and provide necessary wastewater system upgrades (Drainage Plan amendments) to limit the frequency of CSO events.

(n) Solid Waste and Sanitation Services

The No Action Alternative would generate less solid waste and demand for DSNY municipal solid waste collection services than the Proposed Action. Under the No Action Alternative, approximately 38 tpw of municipal solid waste and 439 tpw of commercial solid waste would be generated. The DSNY has indicated that this would not overburden the City municipal solid waste system or private hauler operations. These projected volumes would require approximately three additional DSNY truck trips per week in the M-4 service area compared to current operations. By comparison, the Proposed Action would require 18 additional DSNY truck trips per week compared to current operations. These truck trips would occur during off-peak (early morning) hours. Neither the No Action Alternative nor the Proposed Action would result in a significant adverse impact on DSNY services.

(o) Energy

Con Edison estimates that in 2025, the peak electrical demand in the Project Area would be 88 MW with the No Action Alternative, compared to 309 MW with the Proposed Action. The design capacity of the area substation currently serving the Project Area is 271 MW. Based on area substation design capacity, the No Action Alternative, in combination with other anticipated developments within the service area, would require a new area substation and a new transmission substation by 2020. Under the Proposed Action, a new area substation and transmission substation would be required by 2013 and a second area substation would be required by 2021. The new area substation and transmission substation required by the No Action Alternative might not need to be located in the Project Area, while the area substations required to accommodate the Proposed Action would need to be located within the Project Area. Under the Proposed Action, existing provisions in the Zoning Resolution would allow substations to be constructed as-of-right in manufacturing districts and by special permit from the Board of Standards and Appeals in commercial or residential districts. Under the No Action Alternative, substations could locate within most of the Project Area without need for a special permit, due to the continued presence of manufacturing zoning district designations.

(p) Traffic (2010 and 2025)

Traffic conditions under the No Action Alternative are described in Chapter 19, “Traffic and Parking,” under the Future Without the Proposed Action in 2010 and 2025. Overall, the traffic volumes in the Project Area would be lower under the No Action Alternative than under the Proposed Action. Traffic volumes in all analysis periods would reflect a lower level of commercial and residential development, while the weeknight Special Event peak hour volumes would not include

Multi-Use Facility event traffic, and Sunday Special Event peak hour volumes would not include Multi-Use Facility or incremental Convention Center expansion traffic.

West 33rd, West 39th, West 40th, and West 41st Streets would remain open under the No Action Alternative; the Midblock Park and Boulevard System and the midblock 950-space below-grade public parking garage would not be constructed.

During the AM, Midday, and PM peak hours in 2010, 229 signalized intersections were studied. During the AM peak hour, 71 intersections under the No Action Alternative would have at least one approach movement which could operate at LOS mid-D, E, or F, compared to 72 under the Proposed Action Without Mitigation and 56 under the Proposed Action With Mitigation. During the Midday peak hour, 59 intersections under the No Action Alternative would have at least one approach movement which could operate at LOS mid-D, E, or F, compared to 71 under the Proposed Action Without Mitigation and 48 under the Proposed Action With Mitigation. During the PM peak hour, 66 intersections under the No Action Alternative would have at least one approach movement which could operate at LOS mid-D, E, or F, compared to 69 under the Proposed Action Without Mitigation and 54 under the Proposed Action With Mitigation.

Of the 51 signalized intersections studied in 2010 for the weeknight and Sunday Special Event peak hours in 2010, 15 intersections would have at least one approach movement which could operate at LOS mid-D, E, or F under the No Action Alternative during the weeknight Special Event peak hour, compared to 25 under the Proposed Action Without Mitigation and 11 under the Proposed Action With Mitigation. During the Sunday Special Event peak hour, 16 intersections under the No Action Alternative could have at least one approach movement which could operate at LOS mid-D, E, or F, compared to 28 under the Proposed Action Without Mitigation and 13 under the Proposed Action With Mitigation.

During the AM, Midday, and PM peak hours in 2025, 238 signalized intersections were studied. During the AM peak hour, 89 intersections under the No Action Alternative would have at least one approach movement which could operate at LOS mid-D, E, or F, compared to 134 under the Proposed Action Without Mitigation and 68 under the Proposed Action With Mitigation. During the Midday peak hour 75 intersections under the No Action Alternative would have at least one approach movement which could operate at LOS mid-D, E, or F compared to 113 under the Proposed Action Without Mitigation and 49 under the Proposed Action With Mitigation. During the PM peak hour, 81 intersections under the No Action Alternative would have at least one approach movement which could operate at LOS mid-D, E, or F compared to 141 under the Proposed Action Without Mitigation and 61 under the Proposed Action With Mitigation.

Of the 60 signalized intersections studied in 2025 for the weeknight and Sunday Special Event peak hours, 17 intersections would have at least one approach movement which could operate at LOS mid-D, E, or F under the No Action Alternative during the weeknight Special Event peak hour, compared to 27 under the Proposed Action Without Mitigation and 12 under the Proposed Action With Mitigation. During the Sunday Special Event peak hour, 19 intersections under the No Action Alternative could have at least one approach movement which could operate at LOS mid-D, E, or F, compared to 35 under the Proposed Action Without Mitigation and 15 under the Proposed Action With Mitigation.

The No Action Alternative would result in lower traffic volumes on bridges and tunnels crossing the East, Hudson, and Harlem Rivers in the AM, Midday, and PM analysis hours as well as the weeknight and Sunday Special Event peak hours. Like the Proposed Action, the No Action Alternative would not create a significant adverse impacts at the river crossings in 2010. Unlike the Proposed Action, the No Action Alternative would not create a significant adverse impact at the river crossings in 2025.

(q) Parking

Peak period off-street parking supply, demand, and utilization for the Proposed Action and No Action Alternative were projected based on surveys of existing off-street parking supply and utilization, with adjustments for (i) background growth in parking demand, (ii) increased parking demand in the Future Without the Proposed Action from projects with inadequate parking provided on-site, (iii) existing parking capacity displaced by development, (iv) existing parking demand displaced by development, and (v) parking supply and demand associated with proposed development. Separate parking study areas were defined for individual project elements as necessary based on walking distances. For example, CEQR generally defines a parking study area as a quarter-mile walk from a proposed land use. However, for certain developments such as the Multi-Use Facility and Convention Center, CEQR assumes a parking supply area within a half-mile walk.

Under the No Action Alternative, most of the existing surface level parking lots in the Project Area would remain and would not be replaced with new commercial and residential buildings with below-grade parking. The 950-space off-street parking facility included in the Proposed Action would not be constructed.

Under the 2010 No Action Alternative, there would be a supply of approximately 23,200 total spaces available Midday on a weekday and 21,700 total spaces available Sunday in the parking study area, fewer than the approximately 24,000 total spaces available Midday on a weekday and 22,974 total spaces available Sunday projected under the Proposed Action. In 2025, under the No Action Alternative, there would be approximately 23,000 total spaces available Midday on a weekday and 21,500 total spaces available Sunday in the parking study area, far fewer than the approximately 30,500 total spaces available Midday on a weekday and 29,316 total spaces available Sunday projected under the Proposed Action.

Projected development in 2010 under the No Action Alternative would result in a weekday off-street parking facility peak utilization rate of 88 percent and a Sunday afternoon peak utilization rate of 63 percent. Approximately 1,760 surplus spaces would be available under weekday peak conditions, and 7,910 surplus spaces would be available on a Sunday afternoon. Under the Proposed Action, a deficit of approximately 50 spaces would occur under weekday peak conditions and a surplus of 640 spaces would be available on Sunday afternoons.

Projected development in 2025 under the No Action Alternative would result in a weekday off-street parking facility peak utilization rate of 93 percent and a Sunday afternoon peak utilization rate of 66 percent. Approximately 1,680 surplus spaces would be available under weekday peak conditions, and 7,310 surplus spaces would be available on a Sunday afternoon. Under the Proposed Action, approximately 20 surplus spaces would be available under weekday peak conditions and 2,205 surplus spaces would be available on Sunday afternoons. Thus, off-street parking capacity is projected to be sufficient under both the No Action Alternative and the Proposed Action.

(r) Transit

The No. 7 Subway line would not be extended to the Project Area under the No Action Alternative. Consequently, the Project Area would remain underserved by transit as described in Chapter 20, “Transit and Pedestrians,” under the Future Without the Proposed Action in 2010 and 2025. Individual station impacts would vary, but would generally be less under the No Action Alternative than under the Proposed Action. The significant adverse impacts with the Proposed Action described below would not occur under the No Action Alternative.

In 2010 with the Proposed Action, of the 311 station elements assessed under weekday AM and PM peak hour conditions, and 49 station elements evaluated under weeknight and Sunday Special Event conditions, only one significant adverse stairway impact (i.e., at the Grand Central-42nd Street station during the AM peak hour), could not be fully mitigated.

In 2025 with the Proposed Action, all significant adverse transit element impacts could be mitigated.

In 2010 with the No Action Alternative, no additional buses would be required during the AM peak hour, PM peak hour, weeknight Special Event peak hour, or the Sunday Special Event peak hour. Under the Proposed Action, the M-11 and M-34/M-16 would need four and one additional buses, respectively, to meet AM peak hour demand. During the PM peak hour, these routes would each require seven more buses than the existing schedule to accommodate peak hour demands. That is four and three more buses, respectively, than the No Action Alternative. Weeknight Special Event demands under the Proposed Action would require 11 additional buses on the M-34/M-16, while the M-11 and M-34/M-16 would require three and 10 additional buses, respectively, during the Sunday Special Event peak hour.

In 2025 with the No Action Alternative, two additional buses would be required on the southbound M-11 during the AM peak hour. During the PM peak hour, one additional bus would be required on the southbound M-11, while one and two additional buses would be required on the eastbound and westbound M-34/M-16, respectively, to accommodate projected demands. No additional buses would be required during the weeknight or Sunday Special Event peak hours. Under 2025 Proposed Action AM peak hour conditions, five routes, including the M-10/M-20, M-11, M-34/M-16, M-42, and Q-32, would require additional service as follows: four more standard buses on the southbound M-10/M-20, 14 additional buses on the westbound M-42, and two additional buses on the westbound Q-32. The Proposed Action would require conversion of the M-11 and M-34/M-16 routes to articulated bus service and increasing service to 32 buses per hour peak direction on each route.

In 2025 with the Proposed Action during PM peak hour, five bus routes, including the M-10/M-20, M-11, M-34/M-16, M-42, and Q-32, would not be able to provide sufficient capacity, based on their existing service plans. Sufficient capacity could be provided by adding 13 standard buses to the northbound M-10/M-20, 19 additional peak direction buses on the eastbound M-42, four more on westbound M-42, and three additional standard buses on the Q-32. The M-11 and M-34/M-16 would need to be converted to articulated bus service with 34 buses run on the M-11 and 31 buses run on the M-34/M-16 during the PM peak hour. During the weeknight Special Event peak hour, the M-11 would require one more regular bus in the northbound direction and five more buses in the southbound direction, while the M-34/M-16 would require 18 more buses in the westbound direction. During the Sunday Special Event peak hour, the M-10/M-20 would require one additional bus in the northbound direction. The M-11 would require five additional buses in the northbound direction and eight more in the southbound direction. The M-34/M-16 would require 13 more in the eastbound direction and four more in the westbound direction. The M-42 would require one additional bus in both directions. Thus, more bus service would be required for the Proposed Action when compared to the No Action Alternative. However, it is MTA NYCT policy to increase bus service to accommodate rider demand, and thus no significant adverse impacts to bus service would occur under the Proposed Action.

Ferry utilization would minimally increase in 2025 with the No Action Alternative compared to existing demand. It is projected that existing ferry services would be sufficient to handle the additional demand. Implementation of the Proposed Action would require an increase in ferry service above that required by the No Action Alternative. It is anticipated that additional ferry service would be provided to serve this demand and no adverse impact would occur.

(s) Pedestrians

Projected pedestrian conditions in the 2010 and 2025 No Action scenarios were used as a baseline to measure the pedestrian impacts associated with both the Proposed Action and its alternatives. The following paragraphs summarize the numbers of intersections that could not be mitigated under the Proposed Action when compared to the No Action Alternative using CEQR definitions of significant pedestrian impacts. These definitions and the mitigation measures proposed for implementation are

described in detail in Chapter 20, “Transit and Pedestrians.” The significant adverse impacts described below would not occur under this alternative.

In general, pedestrian operations would be better under the No Action Alternative than under the Proposed Action. While congested conditions could occur at some locations under No Action conditions in both 2010 and 2025, the significant adverse impacts projected under the Proposed Action would not occur. While the Proposed Action would generate higher pedestrian volumes than the No Action Alternative, it would also include wider sidewalks, more open space, a more inviting pedestrian environment, and improved pedestrian connections in many areas to support future development. Pedestrian conditions for the Future without the Proposed Action (No Action Alternative) are described in Chapter 20, “Transit and Pedestrians.”

In 2010, of the 54 intersections evaluated for the AM, Midday, and PM peak hours, two, three, and two intersections, respectively, would have significant adverse impacts under the Proposed Action when compared to the No Action Alternative. Of the 23 intersections evaluated for the weeknight and Sunday Special Event peak hours, six and nine intersections, respectively, would have significant adverse impacts under Special Event conditions (approximately 10 to 11 weeknights and eight to nine Sundays per year).

In 2025, of the 61 intersections evaluated for the AM, Midday, and PM peak hours, six, 21, and 11 intersections, respectively, would have significant adverse impacts when compared to the No Action Alternative. Of the 30 intersections evaluated during the weeknight and Sunday Special Event peak hours, five intersections would have significant adverse impacts under both peak hours at the times special events are at the Multi-Use Facility. Pedestrian operations in the area between Penn Station and the Multi-Use Facility would improve in 2025, primarily due to the completion of the West 32nd Street pedestrian corridor between Eleventh Avenue and Penn Station.

(t) Air Quality

(i) Mobile Source

Microscale Intersection Analysis. Under the No Action Alternative, 2010 and 2025 CO 8-hour levels and PM₁₀ 24-hour and annual levels would not exceed the NAAQS or the PM_{2.5} 24-hour and annual STV, and would not exceed the DEP *de minimis* criteria for CO, like the Proposed Action.

**TABLE 26-3
NO ACTION ALTERNATIVE : AIR QUALITY ANALYSIS SITES EXCEEDING NAAQS, CEQR
DE MINIMIS CRITERIA OR DEP STV**

	2010		2025	
	Proposed Action	No Action Alternative	Proposed Action	No Action Alternative
CO 8-hour NAAQS	0	0	0	0
CO <i>de minimis</i> Criteria	0	0	0	0
PM ₁₀ 24-hour NAAQS	0	0	0	0
PM ₁₀ Annual NAAQS	0	0	0	0
PM _{2.5} 24-hour STV	0	0	0	0
PM _{2.5} Annual STV	0	0	0	0

(ii) Stationary Source

Neither the No Action Alternative nor the Proposed Action would result in any exceedances of any NAAQS, CEQR *de minimis* criteria, or STV or DEC air toxic guidance. However, there would be potential exceedances of the SO₂ NAAQS and DEC guidance with the Proposed Action attributable to Quill Bus Depot emissions in 2010 and 2025, which would be fully mitigated in both years.

Neither the Proposed Action nor the No Action Alternative would result in exceedances of any NAAQS, CEQR *de minimis* criteria, or PM_{2.5} STV.

(u) Noise

Under the No Action Alternative, fewer new noise sensitive receptors would be introduced into the Project Area and vehicular traffic would not substantially increase from existing levels. As a consequence, noise levels would be substantially the same as existing levels.

(v) Construction Impacts

The amount of construction that would occur under the No Action Alternative would be significantly less than that under the Proposed Action in both 2010 and 2025. As a consequence, the potential for significant adverse impacts on historic resources would be less likely with the No Action Alternative than the Proposed Action. While the No Action Alternative would not have the same potential for PM_{2.5} air quality exceedances as the Proposed Action, it is anticipated that implementation of construction and carting emission control measures would avoid significant adverse impacts on air quality under the Proposed Action. Similarly, significant adverse construction period traffic in 2010 and 2025 would be avoided through implementation of standard traffic control measures.

2. Alternative Zoning Actions

Three zoning alternatives identified during the public scoping process for the DGEIS were evaluated to assess whether:

- Excluding the “Perimeter Area” of the Special Clinton District from the proposed rezoning would reinforce residential uses in the Clinton Neighborhood to a greater degree than would the Proposed Action, while continuing to meet the goals and objectives of the Proposed Action.
- Excluding the Special Garment Center District from the proposed rezoning would reduce the potential effects of the Proposed Action on the portion of the Special Garment Center District found in the area proposed for rezoning, while continuing to meet the goals and objectives of the Proposed Action.
- Allowing light manufacturing uses in high-density buildings would result in a greater number of manufacturing uses to locate within the Special Hudson Yards District than would the Proposed Action, while continuing to meet the goals and objectives of the Proposed Action.

The three alternatives – Alternative B: Proposed Action Without Modification of Special Districts, Alternative C: Proposed Action Without Modification of the Special Garment Center District, and Alternative D: Proposed Action With Light-Manufacturing Uses in High Density Buildings – are described and evaluated below.

a) Alternative B: Proposed Action Without Modification of Special Districts

Description of the Alternative

Alternative B was suggested by various individuals and groups during the public scoping process. Alternative B is intended to evaluate whether excluding the portions of three existing special zoning districts (i.e., the Special Clinton, Special Garment Center, and Special Midtown Districts) included in the Rezoning Area under the Proposed Action would promote greater consistency with the purposes of the Special Clinton District and reduce the potential effects of the Proposed Action on the Special Garment Center District, while continuing to meet the goals and objectives of the Proposed Action.

As depicted in Figure 26B-1, under Alternative B, portions of the Special Clinton, Special Garment Center, and Special Midtown Districts would be excluded from the Rezoning Area and not be subject

to new zoning controls. New development within these three existing special districts would continue to be subject to their respective existing zoning controls. All other aspects of the Proposed Action would remain unchanged under this alternative.

As depicted in Figure 26B-2, eliminating the portions of these three special zoning districts from the Rezoning Area would concentrate the same overall amount of development within a smaller rezoning area than the Proposed Action, comprising only of the Special Hudson Yards District. While the Perimeter Area of the Special Clinton District would be excluded from the Rezoning Area, like the No Action Alternative, development would be expected to continue in that area under the existing zoning. Under Alternative B none of the new development anticipated under the Proposed Action in the portion of the Special Garment Center District that lies within the Project Area would take place.

Because the projected demand would not be met with the portion of the Special Garment Center District within the Project Area, development that would have occurred on Projected Development Sites in these existing special districts would, instead, occur on Potential Development Sites in other portions of the Special Hudson Yards District. As a consequence, it is anticipated that 12 Potential Development Sites under the Proposed Action would become Projected Development Sites under Alternative B. Seven sites would contain new residential development in Subarea F1 of the Hell's Kitchen Subdistrict, between West 35th and West 39th Streets from Ninth to Tenth Avenues. Additional new office and residential development would also be anticipated on three sites in the blocks south of Penn Station (in and adjacent to Subarea E3). It is also assumed that additional residential development unrelated to the Proposed Action would occur on two sites in the Clinton District/42nd Street Corridor. The mix of market rate and low-to-moderate income units under Alternative B would be different from that under the Proposed Action. Excluding the portion of the Special Midtown District from the Proposed Action would have no effect on overall level of development in the Project Area.

Alternative B would require the same types of discretionary approvals and public actions as the Proposed Action.

Principal Conclusions

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 with 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 spaces (e.g., Site 49 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 differ 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, likewise, be generally the same with Alternative B as with the Proposed Action. However, the greater concentration of development with Alternative B would result in a larger number of pedestrian impacts than with the Proposed Action.

Alternative B Compared to the Proposed Action

Alternative B would have substantially the same overall impacts and require substantially the same impact mitigation measures as the Proposed Action for all impact categories dependent on the total amount of residential and commercial development in the area. These categories include: open space; demand for water, sewer, and solid waste, community facilities (other than schools); and energy resources. In addition, the shift in development locations within the Project Area would not result in a difference between Alternative B and the Proposed Action with regard to the extent of potential impacts on natural resources, hazardous materials, construction, public health, conformance with the Waterfront Revitalization Program, or required changes to Corona Yard. The remaining categories for which the impacts of Alternative B are expected to differ from those of the Proposed Action are discussed below.

(a) Land Use, Zoning, and Public Policy

Like the Proposed Action, Alternative B would introduce new land uses to most of the Project Area and not result in any significant adverse impacts to land use, zoning, or public policy. Alternative B would differ from the Proposed Action in terms of the potential effects in the portions of the Special Clinton District and the Special Garment Center District included in the Project Area.

While the Perimeter Area of the Special Clinton District would be excluded from the Rezoning Area, like the No Action Alternative, development would be expected to continue under the existing zoning. New development sites would be developed in accordance with the existing C6-4 zoning, which allows for residential uses at 10 FAR (12.0 FAR through the use of the Inclusionary Housing Bonus) and commercial uses at 10 FAR (12.0 FAR with plaza bonus), rather than a mix of residential development (12 FAR) and commercial development at 12, 15, and 18 FAR as under the Proposed Action. For analysis purposes it is assumed that new development, under the existing zoning regulations, would occur on Projected Development Sites 36 through 42 and 47 through 48. The development of predominantly residential uses in this area would be consistent with the goals of the Special Clinton District, but would not strengthen the connection between this area of West 42nd Street and the emerging commercial center to the east in Times Square and the more established Midtown district.

Alternative B would maintain the existing controls of the Special Garment Center District in the five-block area between Eighth and Ninth Avenues. The six Projected Development Sites (Projected Development Sites 37, 38, 39, 40, 41, and 42) in the Special Garment Center District portion of the Project Area would not be developed in Alternative B. Unlike the Proposed Action, the one Projected Development Site (Projected Development Site 36) in Subarea E2 of the Special Garment Center District would also not be developed in Alternative B. However, it is unlikely that retention of this small area under the current Special Garment Center District regulations would result in greater

retention of manufacturing uses than would implementation of the Proposed Action. Rather, under Alternative B, it is likely that current trends already under way in the Special Garment Center District would continue, i.e., an increase in land uses that can be classified as commercial, rather than manufacturing and industrial, together with some illegal residential use or residential development approved by the Board of Standards and Appeals. Major land use changes are not anticipated, and it is expected that there would be fewer beneficial land use effects in the Special Garment Center District portion of the Project Area and Subarea E2 in Alternative B than under the Proposed Action. Unlike the Proposed Action, Alternative B would not support the goals of the Fashion Center Business Improvement District (as described in Chapter 4, “Land Use, Zoning, and Public Policy”) established to promote the City’s apparel industry and to improve the quality of life and economic vitality of the Garment Center.

Likewise, it is not anticipated that Alternative B would reinforce or stimulate new manufacturing development, since land use trends in the area are already responding to market demand shifts for conversion of existing spaces. By maintaining obsolete zoning controls, Alternative B would neither reflect nor accommodate ongoing land use trends and market demands for conversions of smaller buildings. Unlike the Proposed Action, Alternative B would not provide an opportunity to create up-to-date zoning regulations responsive to current development trends, and would result in continued underutilization of this area.

Alternative B would differ from the Proposed Action in that the development would be concentrated in a smaller area. This concentration of land uses would not result in a significant adverse impact. Residential uses anticipated in the Special Garment Center District portion of the Project Area would likely be located instead in several buildings on Tenth Avenue and in the midblocks between Ninth and Tenth Avenues from West 35th to West 39th Streets in Subareas D2 and F1, in Subarea E3 south of Penn Station east of Eighth Avenue between West 29th and West 30th Streets, and on West 42nd Street, and just west of Tenth Avenue in the Clinton District/42nd Street Corridor. Specifically, two of the residential Potential Development Sites (Potential Development Sites 52 and 59) within Subarea D2 and five of the residential Potential Development Sites (Potential Development Sites 53, 54, 55, 56, and 57) within Subarea F1 for the Proposed Action would become Projected Development Sites in Alternative B. These differences would concentrate more residential development in the Tenth Avenue Corridor (Subdistrict D) and Hell’s Kitchen west of Ninth Avenue (Subarea F1) than the Proposed Action (a total of seven additional Projected Development Sites as compared to the Proposed Action), and result in the displacement of additional transportation uses from these areas. The commercial uses that would not be built under Alternative B in the Clinton District/42nd Street Corridor and in Subarea E2 would be found on West 31st Street between Seventh and Eighth Avenues in Subarea E3. Specifically, two potential commercial development sites (Potential Development Sites 92 and 95) and one potential residential development site (Potential Development Site 93) adjacent to Subarea E3 for the Proposed Action would become Projected Development Sites in Alternative B.

(b) Socioeconomic Conditions

Alternative B would have the same overall socioeconomic characteristics as the Proposed Action in terms of the generation of new employment and residential populations and the displacement of residential and commercial uses. Therefore, like the Proposed Action, Alternative B is not expected to result in significant adverse impacts due to either direct or indirect displacement of residential or commercial uses, nor would it result in significant adverse impacts on the apparel or theater industries.

As discussed above, the reduction in the size of the Rezoning Area under Alternative B would eliminate Projected Development Sites located in the Special Districts from the rezoning and result in a number of Potential Development Sites within the Special Hudson Yards District becoming

Projected Development Sites. As a consequence, there would be more Projected Development Sites along Tenth Avenue, the midblocks between Ninth and Tenth Avenues, and in the area south of Penn Station than the Proposed Action. While the uses likely to be displaced would be the same as the Proposed Action, displacement of existing uses on these sites would be more likely to occur under Alternative B than under the Proposed Action. These sites contain a variety of uses, including auto repair uses, parking lots and garages, food-related establishments, and a hotel. In addition, two residential units would be located on a Projected Development Site and would be more likely to be displaced under Alternative B, while 12 units located in the portion of the Special Garment Center District would not be displaced.

There would be no Projected Development Sites within the portion of the Special Garment Center District in the Project Area. As a consequence, there would be no displacement from within the five-block overlap area of the Special Garment Center District and the Project Area. Under the Proposed Action development on Projected Development Sites in this area would result in the displacement of fewer than 50 apparel jobs (about 2.7 percent of the 1,809 apparel jobs in the five-block overlap area, and only a small portion of the current apparel employment base of 61,000 workers in all of Manhattan) and somewhat higher levels of displacement, should there be development of any of the identified Potential Development Sites, rather than the Projected Development Sites. In the five-block overlap area, the decline of apparel industry employment would likely continue under Alternative B. It is expected that the Special Garment Center District would continue to attract more non-apparel businesses and new commercial uses would be expected to grow, possibly including development in the area between Eighth and Ninth Avenues.

While the density and mix of uses to be developed in the Special Clinton District would differ under Alternative B from those under the Proposed Action, the Projected Development Sites identified under the Proposed Action would still be expected to be developed with Alternative B. Like the Proposed Action, it is not expected that development in this area would result in any significant adverse impacts to socioeconomic conditions.

(c) Community Facilities and Services

Alternative B would have a slightly different total number of new dwelling units and affordable housing units as compared to the Proposed Action, since the Special Garment Center District portion of the Project Area would not be rezoned to allow for residential development and the available number and size of Potential Development Sites on which development would occur would not permit the development of as many units under Inclusionary Bonus provisions. By 2025, Alternative B would result in 130 more new dwelling units than the Proposed Action (10,029 total new units with Alternative B, compared to 9,899 total new units with the Proposed Action), and about the same number of affordable dwelling units as the Proposed Action (compared to 1,560 new affordable units). However, this difference in the number of housing units would result in only a 0.6 percent difference in the total population between Alternative B and the Proposed Action, an insignificant difference. As a consequence, the impacts on community facilities with Alternative B would be substantially the same as those under the Proposed Action.

(d) Shadows

Like the Proposed Action, under Alternative B development would take place on Projected Development Sites 14 and 15. Accordingly, like the Proposed Action, Alternative B would result in significant adverse shadow impacts on the Eighth Avenue façade of the Farley Building and on the rose windows of St. Raphael's RC Church.

(e) Architectural Historic Resources

Alternative B would have the same potential for significant adverse impacts on architectural historic resources in 2010 and 2025 as the Proposed Action, since it would affect the same significant architectural historic resources as the Proposed Action.

(f) Urban Design and Visual Resources

Like the Proposed Action, Alternative B would improve urban design in the Project Area and would not result in significant adverse impacts to urban design or visual resources, although development with Alternative B would take place on some sites different from those under the Proposed Action.

Alternative B would exclude portions of the area to be rezoned, but this would not result in a significant change in urban design from the Proposed Action. The principal differences would be a lower permissible bulk and building type along the south side of West 42nd Street in the Clinton District/42nd Street Corridor (a maximum FAR of 12.0 would apply, compared to maximum FARs of 15.0 and 18.0 under the Proposed Action), and a lower bulk, different building type, and different land uses in the Garment Center District portion of the Project Area. These differences would not result in significant changes in urban design and visual resources, except that new development that would occur in the Garment Center District portion of the Project Area with the Proposed Action would not occur with Alternative B. Alternative B would represent a lost opportunity to improve urban design in that area through the addition of building types and uses that would allow for a more mixed-use community, as well as a streetscape more animated by pedestrians and less interrupted by open parking lots and similar uses. In this regard, Alternative B would have fewer beneficial effects on urban design and visual resources than the Proposed Action.

The balance of the Project Area, including the Tenth Avenue Corridor, Hell's Kitchen Subarea F1, and Subarea E3, south of Penn Station, would experience somewhat more development with Alternative B than the Proposed Action. This additional development would have urban design characteristics consistent with the Proposed Action.

(g) Neighborhood Character

Like the Proposed Action, Alternative B would dramatically improve neighborhood character in the Project Area. Alternative B would differ from the Proposed Action in terms of the changes to neighborhood character in the Clinton District/42nd Street Corridor, Special Garment Center District portion of the Project Area, Tenth Avenue Corridor, Hell's Kitchen, and the area south of Penn Station. Specifically, the Clinton District/42nd Street Corridor would be developed as a more predominantly residential area with Alternative B, rather than the denser mix of residential and commercial uses as in the Proposed Action. Unlike the Proposed Action, Alternative B would not transform the Special Garment Center District portion of the Project Area from an area with a number of vacant and underutilized sites into a mixed-use, 24-hour, active and vital neighborhood.

The redistribution of development to a smaller rezoning area under Alternative B compared to the Proposed Action would increase the residential character along the east side of Tenth Avenue (Subarea D2) and in the adjacent Hell's Kitchen midblocks (Subarea F1).

(h) Waterfront Revitalization Program

Alternative B would result in the same level and type of development within the Coastal Zone as with the Proposed Action. Like the Proposed Action, Alternative B would be compatible with the Local Waterfront Revitalization Program by encouraging commercial and residential redevelopment within an appropriate Coastal Zone area.

(i) Traffic (2025)

Alternative B and the Proposed Action would result in the same levels of development and would therefore result in an equivalent number of vehicular trips and similar unmitigated significant adverse impacts as defined in the *CEQR Technical Manual*.

A targeted traffic level of service analysis was conducted at 33 intersections located in the vicinity of the potential sites likely to be developed under Alternative B and the Projected Development Sites which would no longer be developed. Based on this analysis, Alternative B would have nearly the same number of unmitigated AM, Midday, and PM peak hour significant adverse impacts (two, zero, and three, respectively) as the Proposed Action (i.e., two, one, and three, respectively). Significant adverse impacts that could not be mitigated in the Proposed Action refer only to those Proposed Action intersections located in the targeted area.

The majority of weeknight and Sunday Special Event traffic impacts under the Proposed Action are associated with events at the Multi-Use Facility and Madison Square Garden. (The Convention Center only contributes to Sunday Special Event traffic.) The Convention Center and Multi-Use Facility are identical for Alternative B and the Proposed Action. Therefore, while the commercial and residential development resulting from the Proposed Action and Alternative B also affect traffic during the Special Event periods, it is not anticipated that the reallocation of development from the Special District sites to other nearby sites under this alternative would significantly change traffic operations during the weeknight and Sunday peak periods from the Proposed Action. Therefore, Alternative B would have the same number of weeknight and Sunday Special Event peak hour significant adverse impacts that could not be mitigated in 2025 as the Proposed Action (i.e., four and four, respectively) in the full Special Event study area.

Alternative B would have the same bridge and tunnel volumes as the Proposed Action during all analysis periods, and the river crossings would have the same significant unmitigated adverse traffic impacts.

(j) Parking

As noted previously, peak period off-street parking supply, demand, and utilization were projected for the Proposed Action and Alternative B based on surveys of existing off-street parking supply and utilization, with adjustments for (i) background growth in parking demand, (ii) increased parking demand in the Future Without the Proposed Action from projects with inadequate parking provided on-site, (iii) existing parking capacity displaced by development, (iv) existing parking demand displaced by development, and (v) parking supply and demand associated with proposed development. Separate parking study areas were defined for individual project elements as necessary based on walking distances. For example, CEQR generally defines a parking study area by a quarter-mile walk from a proposed land use. The parking supply for certain developments such as the Multi-Use Facility and Convention Centers assumes a parking supply area within a half-mile walk.

Similar to the Proposed Action, Alternative B would create a shortfall for off-street parking during the 2025 Weekday Midday peak period, however, Alternative B would also create a shortfall for off-street parking during the 2025 Sunday afternoon peak period. During the weekday Midday period, Alternative B would result in a shortfall of approximately 3,000 spaces, compared to a small shortfall of spaces that would occur with the Proposed Action. During the 2025 Sunday afternoon period, Alternative B would result in a shortfall of approximately 697 spaces, compared to a surplus of 2,205 spaces that would occur with the Proposed Action.

These shortfalls would result from the displacement of existing parking facilities associated with the reallocation of projected development under Alternative B, as well as the inability of some of the potential development which would become Projected Development Sites to accommodate adequate new parking due to their size or configuration. For example, the existing parking facility on Site 49

contains 1,500 spaces and would likely be displaced under Alternative B, while parking requirements would be waived on Site 51 because of lot size.

During weeknight and Sunday Special Event periods, approximately 1,000 additional surplus parking spaces would be located in parking facilities within a half-mile of the Multi-Use Facility site which are currently closed because parking demand is low during these periods under current conditions. Many of these spaces would likely be available for Special Events, thereby eliminating the projected shortfall. However, if these facilities would not be available, there would be a parking shortfall. In addition, several thousand more spaces are located between a half-mile and mile from the Multi-Use Facility. Similar to the Proposed Action, Alternative B provides adequate off-street parking during the weekday overnight and weekday evening periods.

(k) Transit

Alternative B would result in the same number of transit riders as the Proposed Action in 2025; all impact in both could be mitigated. Peak hour demands on a limited number of existing subway station elements would vary insignificantly between the Proposed Action and Alternative B in the vicinity of relocated development sites.

The westbound M-34/M-16 bus route would require one less bus during the AM peak hour under Alternative B, while the westbound M-42 would require four fewer buses than the Proposed Action. During the PM peak hour, the eastbound M-34/M-16 would require one less bus under Alternative B, while the eastbound M-42 would require four fewer buses than the Proposed Action. In both cases, the additional bus service would address any potential significant impact. As under the Proposed Action, no ferry impacts are projected.

(l) Pedestrians

In 2025, Alternative B would result in the same number of pedestrian trips as the Proposed Action, since there would be the same overall level of development under the Proposed Action and Alternative B. However, the number of intersections within the Project Area that are subject to impacts would be greater under Alternative B, due to the greater concentration of development resulting from the elimination of Special District development sites. Specifically, Alternative B would result in impacts at one more intersection than the Proposed Action during the AM peak hour (i.e., seven vs. six), three more intersections during the Midday peak hour (i.e., 24 vs. 21), and seven more intersections during the PM peak hour (i.e., 18 vs. 11). Conditions during Special Event peaks would be essentially the same under the Proposed Action and Alternative B.

(m) Air Quality

(i) Mobile Source

Microscale Intersection Analysis. Under Alternative B, 2025 CO 8-hour levels and PM₁₀ 24-hour and annual levels would not exceed the NAAQS or the PM_{2.5} 24-hour and annual STV, and would not exceed the DEP *de minimis* criteria for CO, like the Proposed Action.

**TABLE 26-4
ALTERNATIVE B: AIR QUALITY ANALYSIS SITES EXCEEDING NAAQS, CEQR DE MINIMIS
CRITERIA OR DEP STV**

	2025	
	Proposed Action	Alternative B
CO 8-hour NAAQS	0	0
CO <i>de minimis</i> Criteria	0	0
PM ₁₀ 24-hour NAAQS	0	0
PM ₁₀ Annual NAAQS	5	5
PM _{2.5} 24-hour STV	0	0
PM _{2.5} Annual STV	0	0

(ii) Stationary Source

Like the Proposed Action, Alternative B would not cause significant adverse impacts on air quality from future HVAC sources. Neither Alternative B nor the Proposed Action would result in any exceedances of any NAAQS, CEQR *de minimis* criteria, or STV or DEC air toxic guidance. However, there would be potential exceedances of the SO₂ NAAQS and DEC guidance with the Proposed Action attributable to Quill Bus Depot emissions in 2010 and 2025, which would be fully mitigated in both years. Neither the Proposed Action nor Alternative B would result in exceedances of any NAAQS, CEQR *de minimis* criteria, or PM_{2.5} STV.

Like the Proposed Action, some Projected and Potential Development Sites within the proposed rezoning area with Alternative B would receive (E) Designations that would require the use of cleaner fuels and the placement of exhaust stacks at locations that would eliminate the potential for significant adverse air quality impacts. Some of the Potential Development Sites which would contain commercial development would be in close proximity to industrial sources, with a potential for significant adverse impacts; (E) Designations requiring inoperable windows and no air intakes would be placed on these sites (Potential Development Sites 92 through 99), to preclude the potential for significant adverse industrial source air quality impacts. With these measures, no significant air quality impacts would occur with either Alternative B or the Proposed Action.

(n) *Noise and Vibration*

Noise impacts from Alternative B would, like the Proposed Action, involve two areas of concern: (1) potential effects of introducing new noise-sensitive land uses (i.e., residences and community facilities) into an already noisy environment, and (2) effects of noise-generating activities associated with the alternative on existing noise-sensitive land uses in the area. Since new noise-sensitive receptors would be introduced into the same noisy area as the Proposed Action, (E) Designations would also be required for the new residences and community facilities contemplated by Alternative B. This alternative would also increase noise levels by 3 dBA or more at many of the same locations as with the Proposed Action and would result in the need for the same mitigation measures identified for the Proposed Action. With such mitigation measures, there would be no significant adverse noise impacts from Alternative B.

b) Alternative C: Proposed Action Without Modification of the Special Garment Center District*Description of the Alternative*

Alternative C was suggested by various individuals and groups during the public scoping process. Alternative C is intended to evaluate whether excluding the portions of the Special Garment Center District included in the Rezoning Area under the Proposed Action would reduce the potential effects of the Proposed Action on apparel-related uses, which are currently protected by the provisions of the Special Garment Center District, while continuing to meet the goals and objectives of the Proposed Action.

Under Alternative C, the Proposed Action would be modified to exclude proposed zoning text and mapping changes to portions of the Special Garment Center District in the Project Area. Unlike Alternative B, Alternative C would continue to include the proposed Zoning Amendments to the Special Clinton and Special Midtown Districts included in the Proposed Action. Alternative C would include all other elements of the Proposed Action, and the development controls for the Special Hudson Yards District would, otherwise, be the same as for the Proposed Action.

As depicted in Figure 26C-1, unlike the Proposed Action, development within the five-block area of the Special Garment Center District bounded by West 35th and West 40th Streets between Eighth and Ninth Avenues would continue to be controlled by the preservation requirements of the Special Garment Center District, and the light manufacturing zoning designations for the area would be

maintained. Unlike the Proposed Action, there would be no project-generated development within the Special Garment Center District with Alternative C. The easement for a future subway entrance on the northeast corner of Eighth Avenue and West 40th Street mandated under the Proposed Action would not be required with Alternative C.

As depicted in Figure 26C-2, eliminating the Special Garment Center District from the limits of the Project Area would concentrate the same overall level of development within a smaller rezoning area than the Proposed Action. Development that would have occurred on Projected Development Sites in the Special Garment Center District would, instead, occur on Potential Development Sites in other sections of the Project Area. As a consequence, it is anticipated that seven Potential Development Sites under the Proposed Action would become Projected Development Sites under Alternative C. These include five sites between West 35th and West 39th Streets between Ninth and Tenth Avenues, and two sites in the blocks south of Penn Station (Subarea E3). The mix of market rate and low-to-moderate income units would be different under Alternative C compared to the Proposed Action, since the available number and size of Potential Development Sites on which development would occur would not permit the development of as many units under Inclusionary Bonus provisions.

Alternative C would require the same type of discretionary approvals and public actions as the Proposed Action.

Principal Conclusions

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 that under the Proposed Action, resulting in substantially the same overall traffic and air quality effects as the Proposed Action. It is anticipated that by 2025 Alternative C would result in an off-street parking shortfall of approximately 1,200 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 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 of different existing land uses. The total number of pedestrians and demand for transit would, likewise, be generally the same with Alternative C as that under the Proposed Action. However, the greater concentration of development in some areas would result in a greater number of pedestrian impacts.

Alternative C Compared to the Proposed Action

Alternative C would have substantially the same overall effects and require substantially the same impact mitigation measures as the Proposed Action for all impact categories directly dependent on the total amount of residential and commercial development in the area. These categories include all community facilities except schools (because the percentage of affordable housing and thus demand for public school seats would differ slightly from the Proposed Action), open space, and demand for water, sewer, solid waste, and energy resources. In addition, the shift in development locations within the Project Area would not result in a difference between Alternative C and the Proposed Action with regard to the extent of potential impacts on archaeological resources, natural resources, hazardous materials, conformance with the Waterfront Revitalization Program, construction, public health, or changes required in Corona Yard. The remaining categories for which the impacts of Alternative C are expected to differ from those of the Proposed Action are discussed below.

(a) Land Use, Zoning, and Public Policy

Like the Proposed Action, Alternative C would introduce new land uses to most of the Project Area and not result in significant adverse impacts to land use, zoning, or public policy. Alternative C would differ from the Proposed Action in terms of the potential effects in the Special Garment Center District.

Alternative C would maintain the existing controls of the Special Garment Center District in the five-block area between Eighth and Ninth Avenues. Unlike the Proposed Action, the six Projected Development Sites (Projected Development Sites 37, 38, 39, 40, 41, and 42) in the Special Garment Center District portion of the Project Area would not be developed in Alternative C. Unlike the Proposed Action, the one Projected Development Site (Projected Development Site 36) in Subarea E2 of the Special Garment Center District would also not be developed with Alternative C. It is unlikely that retention of this small area under the current Special Garment Center District regulations would result in greater retention of manufacturing uses than would implementation of the Proposed Action. Rather, under Alternative C, it is likely that current trends already under way in the Special Garment Center District would continue, i.e., an increase in land uses that can be classified as commercial, rather than manufacturing and industrial, together with some illegal residential use or residential development approved by the Board of Standards and Appeals. Major land use changes are not anticipated, and it is expected that there would be fewer beneficial land use effects in the Special Garment Center District portion of the Project Area and Subarea E2 with Alternative C than under the Proposed Action. Unlike the Proposed Action, Alternative C would not support the goals of the Fashion Center Business Improvement District (as described in Chapter 4, “Land Use, Zoning, and Public Policy”) established to promote the City's apparel industry and to improve the quality of life and economic vitality of the Garment Center District.

Like the Proposed Action, it is not anticipated that Alternative C would reinforce or stimulate new manufacturing development, since land use trends in the area are already responding to market demand shifts for conversion of existing spaces. By maintaining obsolete zoning controls, Alternative C would neither reflect nor accommodate ongoing land use trends and market demands for conversions and concentration of manufacturing uses in larger buildings (over 70,000 square feet). Consequently, compared to the Proposed Action, Alternative C would result in a lost opportunity to create up-to-date zoning regulations responsive to current development trends, and in continued underutilization of this area.

Alternative C would differ from the Proposed Action, in that it would concentrate development in a smaller zoning area than the Proposed Action. This concentration of land uses would not result in a significant adverse impact on land use. Residential uses anticipated in the Special Garment Center District portion of the Project Area would likely be located instead in several buildings on Tenth Avenue and in the midblocks between Ninth and Tenth Avenues from West 35th to West 39th Streets in Subareas D2 and F1, east of Eighth Avenue between West 29th and West 30th Streets adjacent to Subarea E3, and on West 42nd Street in the Clinton District/42nd Street Corridor. Specifically, two of the residential Potential Development Sites (Potential Development Sites 52 and 59) within Subarea D2 and three of the residential Potential Development Sites (Potential Development Sites 53, 56, and 57) within Subarea F1 for the Proposed Action would become Projected Development Sites in Alternative C. These differences would concentrate more residential development in the Tenth Avenue Corridor (Subdistrict D) and Hell's Kitchen west of Ninth Avenue (Subarea F1) than the Proposed Action (a total of five additional Projected Development Sites as compared to the Proposed Action) and result in additional displacement of transportation uses from these areas, compared to the Proposed Action. The commercial use that would not be built under Alternative C in Subarea E2 would likely be found on West 31st Street between Seventh and Eighth Avenues in Subarea E3. Specifically, one of the commercial Potential Development Sites (Potential Development Site 95) and one residential Potential Development Site (Potential Development Site 93) adjacent to Subarea E3 for the Proposed Action would become Projected Development Sites in Alternative C.

(b) Socioeconomic Conditions

Alternative C would have the same overall socioeconomic characteristics as the Proposed Action in terms of the generation of new employment and residential populations and the displacement of residential and commercial uses. Like the Proposed Action, Alternative C is not expected to result in significant adverse impacts due to either direct or indirect displacement of residential or commercial uses, or significant adverse impacts on the apparel or theater industries.

As discussed above, the reduction in the size of the rezoning area under Alternative C would eliminate Projected Development Sites from the portions of the Special Garment Center District included in the Proposed Action and would redirect development to within a smaller rezoning area, resulting in a number of Potential Development Sites becoming Projected Development Sites. In particular, there would be more Projected Development Sites along Tenth Avenue, the midblocks between Ninth and Tenth Avenues, and in the area south of Penn Station than under the Proposed Action. As a result, displacement of existing uses on these sites would be more likely to occur under Alternative C than the Proposed Action. These sites contain a variety of uses, including auto repair uses, parking lots and garages, food-related establishments, and a hotel. Two residential units would be located on a Projected Development Site and be more likely to be displaced under Alternative C than under the Proposed Action, while 12 dwelling units located in the Special Garment Center District that would be displaced with the Proposed Action would not be displaced with Alternative C.

As there would be no Projected Development Sites within the portion of the Special Garment Center District in the Project Area, there would be no displacement within the five-block overlap area of the Special Garment Center District. The Proposed Action would result in the displacement of fewer than 50 apparel jobs (about 2.7 percent of the 1,809 apparel jobs in the five-block overlap area, and a small fraction of the current employment base of 61,000 apparel workers in Manhattan) and somewhat higher levels of displacement should there be development of any of the Potential Development Sites, rather than the Projected Development Sites. In the five-block overlap area, the decline of apparel industry employment would likely continue under Alternative C. It is expected that the Garment Center would continue to attract more non-apparel businesses. New commercial uses would be expected to increase, possibly including non-project-related development in the area between Eighth and Ninth Avenues.

(c) Community Facilities and Services

Alternative C would have a slightly different total number of new dwelling units and affordable housing units as compared to the Proposed Action, since the Special Garment Center District portion of the Project Area would not be rezoned to allow for residential development, and since the available number and size of Potential Development Sites on which development would occur would not permit the development of as many units under Inclusionary Bonus provisions. By 2025, Alternative C would result in 80 more new units than the Proposed Action (9,979 total new units with Alternative C, compared to 9,899 total new units with the Proposed Action) and about the same number of affordable units as the Proposed Action (1,560 new affordable units). However, this difference in the number of housing units would result in only a 0.1 percent difference in the total population between Alternative C and the Proposed Action, an insignificant difference. As a consequence, the impacts on community facilities with Alternative C would be substantially the same as the Proposed Action.

(d) Shadows

Like the Proposed Action, development under Alternative B would take place on Proposed Development Sites 14 and 15. Accordingly, like the Proposed Action, Alternative B would result in significant adverse shadow impacts on the Eighth Avenue façade of the Farley Building and on the rose windows of St. Raphael's RC Church.

(e) Architectural Historic Resources

Alternative C would result in the same potential significant adverse impacts on architectural historic resources in 2010 and 2025 as the Proposed Action, since it would have the potential to affect the same significant architectural historic resources as the Proposed Action.

(f) Urban Design and Visual Resources

Like the Proposed Action, Alternative C would improve urban design in the Project Area and would not result in significant adverse impacts to urban design or visual resources, although development with Alternative C would take place on some sites different from those under the Proposed Action.

Alternative C would exclude a portion of the area to be rezoned, but this exclusion would not result in a significant overall change in urban design compared to the Proposed Action. The difference would be a lower permissible bulk, different building type, and different land uses in the Special Garment Center District portion of the Project Area with Alternative C compared to the Proposed Action. These differences would not be significant with regard to urban design and visual resources, except that new development that would occur in the Special Garment Center District portion of the Project Area under the Proposed Action would not occur with Alternative C. This would represent a lost opportunity to improve street life through the addition of building types and uses that would allow for a more mixed-use community, as well as a streetscape more animated by pedestrians and less interrupted by open parking lots and similar uses. In this regard, Alternative C would have fewer beneficial effects on urban design and visual resources compared to the Proposed Action.

The balance of the Project Area (i.e., the Tenth Avenue Corridor, Hell's Kitchen Subarea F1, and Subarea E3, south of Penn Station) would experience somewhat more development with Alternative C than under the Proposed Action. This additional development would have urban design characteristics consistent with the Proposed Action.

(g) Neighborhood Character

Like the Proposed Action, Alternative C would dramatically improve neighborhood character in the Project Area. However, Alternative C would differ from the Proposed Action in terms of the neighborhood character changes in the Special Garment Center District. Unlike the Proposed Action, Alternative C would not transform the Special Garment Center District portion of the Project Area from an area with a number of vacant and underutilized sites into an active, mixed-use neighborhood.

The redirection of development to a smaller rezoning area that would occur under Alternative C would improve the residential character along the east side of Tenth Avenue (Subarea D2) and in the adjacent Hell's Kitchen midblocks (Subarea F1).

(h) Traffic (2025)

Alternative C would result in the same level of development as the Proposed Action and would result in an equivalent number of vehicular trips and significant adverse impacts as defined in the *CEQR Technical Manual*.

A targeted traffic level of service analysis was conducted at 33 intersections located in the vicinity of the potential sites likely to be developed under this alternative and the Special Garment Center District projected sites which would no longer be developed. Based on this analysis, Alternative C would have nearly the same number of unmitigated AM, Midday, and PM peak hour significant adverse traffic impacts (two, zero, and three, respectively) as the Proposed Action (i.e., two, one, and three, respectively). Significant adverse impacts that could not be mitigated in the Proposed Action refer only to those Proposed Action intersections located within the targeted area.

The majority of weeknight and Sunday Special Event significant adverse traffic impacts under the Proposed Action would be associated with events at the Multi-Use Facility and Madison Square Garden. The Convention Center would only contribute to Sunday Special Event traffic. These facilities are identical for Alternative C and the Proposed Action. Therefore, Alternative C would have the same number of weeknight and Sunday Special Event peak hour significant adverse impacts that could not be mitigated in 2025 as the Proposed Action (i.e., four and four respectively).

Alternative C would have the same bridge and tunnel volumes as the Proposed Action during all analysis periods. The 2025 peak hour significant adverse impact projected for the Proposed Action would remain in this Alternative.

(i) Parking

As noted previously, peak period off-street parking supply, demand, and utilization were projected for the Proposed Action and Alternative C based on surveys of existing off-street parking supply and utilization, with adjustments for (i) background growth in parking demand, (ii) increased parking demand in the Future Without the Proposed Action from projects with inadequate parking provided on-site, (iii) existing parking capacity displaced by development, (iv) existing parking demand displaced by development, and (v) parking supply and demand associated with proposed development. Separate parking study areas were defined for individual project elements as necessary based on walking distances. For example, CEQR generally defines a parking study area by a quarter-mile walk from a proposed land use. The parking supply for certain developments such as the Multi-Use Facility and Convention Centers assumes a parking supply area within a half-mile walk.

Both Alternative C and the Proposed Action would create an off-street parking shortfall during the weekday Midday period. Alternative C would result in a shortfall of approximately 1,200 spaces, compared to a small shortfall of parking spaces that would occur with the Proposed Action.

This shortfall would result from the displacement of existing parking facilities associated with the reallocation of proposed development (e.g., Site 49 contains a 1,500-space parking facility which would be displaced) under Alternative C, as well as the inability of some of the other potential sites to accommodate adequate new parking due to their size or configuration (e.g., the parking requirements waived on Site 51 because of lot size). Similar to the Proposed Action, Alternative C would not result in significant adverse impacts to off-street parking during the weekday overnight, weekday evening, or Sunday afternoon periods.

(j) *Transit*

Alternative C would result in the same number of transit riders; like the Proposed Action, all significant adverse transit impacts in 2025 could be mitigated for Alternative C. Peak hour demands on a limited number of existing subway station elements would vary insignificantly between the Proposed Action and Alternative C in the vicinity of relocated development sites.

The southbound M-11 bus route would require one additional bus during the AM peak hour under Alternative C, while the westbound M-34/M-16 and the westbound M-42 would each require one less bus than the Proposed Action. During the PM peak hour, the eastbound M-34/M-16 and M-42 would each require one less bus. In both the Proposed Action and this Alternative, additional bus service would be provided to address any adverse impacts to bus service. As with the Proposed Action, no ferry impacts are projected.

(k) *Pedestrians*

In 2025, Alternative C would result in generally the same number of pedestrian trips as the Proposed Action, since there would be the same overall level of development under the Proposed Action and Alternative C. The number of intersections within the Project Area that are subject to impacts would be greater under Alternative C, due to the greater concentration of development resulting from the elimination of Garment Center development sites. Specifically, Alternative C would cause two additional significant adverse impacts as the Proposed Action during the AM peak hour (i.e., eight vs. six), two more intersection during the Midday peak hour (i.e., 23 vs. 21), and four more intersections during the PM peak hour (i.e., 15 vs. 11).

(l) *Air Quality*

(i) Mobile Source

Microscale Intersection Analysis. Under Alternative C, 2025 CO 8-hour levels and PM₁₀ 24-hour and annual levels would not exceed the NAAQS or the PM_{2.5} 24-hour and annual STV, and would not exceed the DEP *de minimis* criteria for CO, like the Proposed Action.

TABLE 26-5
ALTERNATIVE C: AIR QUALITY ANALYSIS SITES EXCEEDING NAAQS, CEQR DE MINIMIS
CRITERIA OR DEP STV

	2025	
	Proposed Action	Alternative C
CO 8-hour NAAQS	0	0
CO <i>de minimis</i> Criteria	0	0
PM ₁₀ 24-hour NAAQS	0	0
PM ₁₀ Annual NAAQS	0	0
PM _{2.5} 24-hour STV	0	0
PM _{2.5} Annual STV	0	0

(ii) Stationary Source

Like the Proposed Action, Alternative C would not cause significant adverse impacts on air quality from future HVAC sources. Neither Alternative C nor the Proposed Action would result in any exceedances of any NAAQS, CEQR *de minimis* criteria, or STV or DEC air toxic guidance. However, there would be potential exceedances of the SO₂ NAAQS and DEC guidance with the Proposed Action attributable to Quill Bus Depot emissions in 2010 and 2025, which would be fully mitigated in both years. Neither the Proposed Action nor Alternative C would result in exceedances of any NAAQS, CEQR *de minimis* criteria, or PM_{2.5} STV.

Like the Proposed Action, some Projected and Potential Development Sites within the proposed rezoning area would receive (E) Designations that would require the use of cleaner fuels and the placement of exhaust stacks at locations that would eliminate the potential for significant adverse air quality impacts. Some of the Potential Development Sites which would contain commercial development would be in close proximity to industrial sources, with a potential for significant adverse impacts; (E) Designations requiring inoperable windows and no air intakes would be placed on these sites (Potential Development Sites 92 through 99), to preclude the potential for significant adverse industrial source air quality impacts. With these measures, no significant air quality impacts would occur with either Alternative C or the Proposed Action.

(m) Noise and Vibration

Noise impacts from Alternative C would, like the Proposed Action, involve two areas of concern: (1) potential effects of introducing new noise-sensitive land uses (i.e., residences and community facilities) into an already noisy environment, and (2) effects of noise-generating activities associated with the alternative on existing noise-sensitive land uses in the area. Since new noise-sensitive receptors would be introduced into the same noisy area as the Proposed Action, (E) Designations would also be required for the new residences and community facilities contemplated by Alternative C. This alternative would also increase noise levels by 3 dBA or more at many of the same locations as with the Proposed Action and would result in the need for the same mitigation measures identified for the Proposed Action. With such mitigation measures, there would be no significant adverse noise impacts from Alternative C.

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

Description of the Alternative

Alternative D was suggested by various individuals and groups during the public scoping process for the DGEIS. It is intended to evaluate whether allowing high-performance manufacturing uses to be located in certain high-density commercial and residential buildings would result in retaining or increasing manufacturing uses in the Project Area, and whether such uses would result in additional significant adverse impacts beyond those of the Proposed Action.

Under Alternative D, the Proposed Action would be modified to add high-performance manufacturing uses subject to strict performance standards as a permitted use in addition to commercial and residential uses in buildings with an FAR of 10 and over within Subdistricts A (Large Scale Plan), B (Farley Corridor) and C (34th Street Corridor), Subarea D1 of the Tenth Avenue Corridor, and Subdistrict E (Other Areas), of the Special Hudson Yards District (Figure 26D-1). This would be accomplished by adding Use Groups 16 and 17 to the proposed Zoning Amendments to allow high-performance industrial uses above street level in the affected buildings in addition to the custom manufacturing in Use Group 11 that would be permitted in the Proposed Action. Use Groups 16 and 17 include such uses as crematorium, carpentry, painting, glass cutting, printing and publishing, metal work, and laboratories. Building entrances and streetscape design provisions included in Alternative D would be the same as the Proposed Action.

Alternative D would include all other elements of the Proposed Action, including the extension of the No. 7 Subway, expansion of the Convention Center, and development of the Multi-Use Facility.

Alternative D would require the same type of discretionary approvals and public actions as the Proposed Action.

Principal Conclusions

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 D Compared to the Proposed Action

Because Alternative D would produce the same development as the Proposed Action, it would result in the same significant adverse impacts and benefits as the Proposed Action.

3. Alternative Transportation Actions

Four transportation alternatives were identified based on a review of previous transportation and planning studies for the Project Area, transportation planning studies completed during the development of the Proposed Action, and comments received during the public scoping process for the DGEIS. These options were evaluated to assess whether a transit connection was needed between the Project Area and Penn Station and to assess whether an alternative transit mode to the extension of the No. 7 Subway would satisfy the transportation needs of the Project Area. All four alternatives include the other components of the Proposed Action. The reasonable worst-case development scenario (RWCDS) and new public infrastructure and open space associated with the rezoning, the expansion of the Convention Center, and construction of the Multi-Use Facility would remain the same as those under the Proposed Action.

Alternatives E, F, and G assume that the No. 7 Subway would be extended as included in the Proposed Action, while Alternative H assumes that the No. 7 Subway would not be extended.

a) Alternative E: Proposed Action With Below-Grade Connection (Moving Walkway) to Penn Station

Description of the Alternative

Alternative E was identified by both the Co-Lead Agencies during the planning process that led to the identification of the Proposed Action and by various individuals and groups during the public scoping process for the DGEIS. It is intended to assess whether development of a below-grade moving walkway would result in greater or lesser significant adverse impacts than the Proposed Action, and whether introduction of this element would reduce anticipated traffic and pedestrian impacts of the Proposed Action. It is anticipated that the below-grade moving walkway would also serve an active retail environment. The walkway would be composed of a series of sections, allowing pedestrians to access these adjoining retail uses. In addition, a separate, 12-foot wide, non-moving walkway would be located adjacent to the moving walkway for the entire length of the pedestrian passage.

The walkway would be located within a 2,400-foot-long, climate-controlled tunnel, approximately 35 feet in width, that would accommodate the operation of three independent walkways moving in variable directions to accommodate peak flows (Figures 26E-2 and 26E-3). The three east- and west-moving walkways would be similar to those found in airport terminals and would be composed of a series of sections varying in length from 100 to 400 feet, moving at a speed of approximately 130 feet per minute. In addition to providing access to the west end of Penn Station and the 34th Street Terminal Station of the No. 7 Subway Extension, connections would be provided to the at-grade

sidewalks at Eighth, Ninth, and Tenth Avenues, and could also potentially be provided to the new commercial uses that would be developed along West 33rd Street, under the Proposed Action.

As depicted in Figure 26E-3, the roof of the walkway structure would be located approximately six to 10 feet below West 33rd Street to provide sufficient clearance for below-grade utilities. However, it is anticipated that some utilities under West 33rd Street could need to be relocated to provide sufficient space for the walkway. Consequently, vertical connections would be required between the below-grade walkway and the sidewalks above. Elevators would augment stairways at the southeast and southwest corners of West 33rd Street and Eighth, Ninth, and Tenth Avenues and would provide vertical connections between the moving walkway and the sidewalks above. It is anticipated that street entrances to the below-grade moving walkway would be incorporated into new proposed development along the south side of West 33rd Street.

The tunnel in which the below-grade walkway would be located would be constructed using standard “cut-and-cover” techniques, in which construction would be accomplished by closing sections of West 33rd Street to traffic, constructing each section to the desired depth, and then reestablishing the street above. Construction of the moving walkway would require approximately 18 to 24 months and would make use of existing underground spaces within the West 33rd Street right-of-way (i.e., between Eighth and Ninth Avenues) to the maximum extent practicable.

Operation and maintenance of the walkway would require a number of ancillary facilities, including mechanical rooms, maintenance areas, ventilation facilities, and associated mechanical and electrical equipment and instrumentation. The walkway would be designed to meet both normal and emergency conditions, and would include all necessary life-safety systems. Ventilation equipment would be designed to control smoke and other contaminants by providing sufficient fresh air to allow for the safe evacuation of pedestrians in the event of fires or other emergencies. Development of needed ventilation and other mechanical facilities could require the acquisition of additional private properties beyond those required for the Proposed Action. Based on schematic plans, it is estimated that the below-grade pedestrian connection with moving walkways would cost at least \$400 million to \$500 million to construct. It is uncertain which entity would build, operate, and maintain the walkway, or whether it is financially feasible, since it would generate no revenue.

Alternative E would require the same discretionary approvals and public actions as the Proposed Action. In addition, it would require the identification and agreement of a public or private entity to build, maintain, and operate the below-grade moving walkway.

Principal Conclusions

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 (at least \$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 or 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.

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.

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 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 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 E Compared to the Proposed Action

Since the only difference between the Proposed Action and Alternative E would be the inclusion of a below-grade moving walkway between Eighth and Eleventh Avenues, the only impacts of Alternative E that would differ from those of the Proposed Action would be those associated with construction and operation of the walkway. These include:

- Short-term (construction-related) impacts on traffic, air quality, noise, hazardous materials, historic architectural and archaeological resources, and infrastructure.
- Long-term (operation-related) impacts on energy use, traffic, and pedestrian conditions.

All other impacts of Alternative E would be substantially the same as those with the Proposed Action, including potential impacts on community facilities, neighborhood character, open space, shadows, natural resources, parking, urban design, and public health; conformance with the Waterfront Revitalization Program; and demand for water, sewer, and solid waste services.

(a) Architectural Historic Resources

Alternative E would have the same potential significant adverse impacts on architectural historic resources in 2010 and 2025 as the Proposed Action, since it would have the potential to affect the same significant architectural historic resources as the Proposed Action.

(b) Hazardous Materials

Like the Proposed Action, Alternative E would not result in significant adverse impacts to properties that have the potential to contain hazardous materials. A Construction Environmental Protection Program would be implemented for publicly supported projects. Private development would be governed by (E) Designations that would avoid significant impacts. Implementation of such measures would avoid potential significant adverse hazardous materials impacts due to construction along West 33rd Street between Eighth and Tenth Avenues.

(c) Energy

Alternative E would require the expenditure of an additional approximately 800 kilowatts of energy during peak usage to power the moving walkway and to provide needed lighting, heating, ventilation,

and air conditioning of the tunnel in which the moving walkway would be located, above energy requirements for the Proposed Action. The design of the moving walkway could incorporate features to minimize energy loads and to minimize the use of depletable energy sources. Like the Proposed Action, Alternative E would not result in significant adverse impacts on energy resources or systems.

(d) Traffic (2025)

Under Alternative E, 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. It would reduce pedestrian volumes on east-west sidewalks, street corners, and crosswalks, primarily on West 34th, West 33rd, West 31st, and West 30th Streets between Eighth and Eleventh Avenues, thereby mitigating significant adverse pedestrian impacts at several locations in this corridor, as discussed below. Traffic operations would be somewhat improved and turns facilitated through a reduction in pedestrian crosswalk volumes. 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 or reduce pedestrian volumes in areas with adverse traffic impacts that could not be mitigated.

During Special Events at the Multi-Use Facility, all three moving walkways would be operated inbound to the Multi-Use Facility before an event and outbound from the Multi-Use Facility to Penn Station after an event, removing approximately 12,000 inbound pedestrians from the sidewalks, corners, and crosswalks during the weeknight Special Event peak hour and 13,500 outbound pedestrians during the Sunday Special Event peak hour. These diversions would significantly improve pedestrian operations as described below. However, while traffic operations would improve somewhat, significant adverse traffic impacts would remain unmitigated at four intersections (i.e., West 34th Street at Eleventh, Tenth, Ninth, and Eighth Avenues) during the 19 weeknight and Sunday Special Event periods expected to occur each year.

Alternative E would have the same bridge and tunnel impacts as the Proposed Action during all analysis periods, and the same 2025 significant adverse impacts.

(e) Transit

The provision of a below-grade moving walkway would alter pedestrian circulation patterns at Penn Station, the 34th Street Station on the IRT Seventh Avenue Line, and the 34th Street Station on the Eighth Avenue Line. Pedestrians from each of these stations would be able to access the walkway without exiting to street level. Alternative E would result in one additional unmitigated significant impact to the stairs leading from the Eighth Avenue Subway to the LIRR concourse during the AM peak hour compared to the Proposed Action, due to increased usage by passengers traveling to the below-ground moving walkway. Bus and ferry impacts would generally be the same as those under the Proposed Action.

(f) Pedestrians

Alternative E would provide a convenient, climate-controlled pedestrian connection between Penn Station and the Multi-Use Facility, the Convention Center, and points between along West 33rd Street. 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. As such, it would result in pedestrian and traffic impacts different from those with the Proposed Action. The additional walkway capacity provided by Alternative E between Penn Station and Eleventh Avenue would reduce pedestrian flows on most sidewalks, corners, and crosswalks along West 33rd Street and other parallel streets and result in generally fewer pedestrian impacts in the vicinity of this corridor. Pedestrian impacts in other areas would generally be unaffected.

Specifically, under 2025 conditions, Alternative E would result in one additional intersection with significant adverse impacts as the Proposed Action during both the AM and Midday peak hours (i.e., seven vs. six and 22 vs. 21, respectively), one less intersection during the PM (10 vs. 11), weeknight Special Event peak hour (four vs. five), and Sunday Special Event peak hour (i.e., four vs. five).

The limited number of improvements during the AM and PM peak hours reflects the localized nature of the walkway benefits, generally the intersections on West 30th through West 34th Streets between Eighth and Eleventh Avenues, and the relative utility of the walkway when compared to walking at-grade to intermediate destinations. Most Midday peak hour trips would be local walking trips which could be completed more conveniently by walking at street level. Following Special Events, West 30th and West 33rd Streets would function as pedestrian streets. The walkway would provide significant additional pedestrian capacity, but significant adverse impacts would remain.

(g) Air Quality

As with the Proposed Action, no significant adverse air quality impacts or exceedances of applicable NAAQS, DEP *de minimis* criteria or STV levels would be expected in either 2010 or 2025 for Alternative E.

(h) Noise and Vibration

Noise impacts from Alternative E would, like the Proposed Action, involve two areas of concern: (1) potential effects of introducing new noise-sensitive land uses (i.e., residences and community facilities) into an already noisy environment, and (2) effects of noise-generating activities associated with the alternative on existing noise-sensitive land uses in the area. Since new noise-sensitive receptors would be introduced into the same noisy area as the Proposed Action, (E) Designations would also be required for the new residences and community facilities contemplated by Alternative E. This alternative would also increase noise levels by 3 dBA or more at many of the same locations as with the Proposed Action and would result in the need for the same mitigation measures identified for the Proposed Action. With such mitigation measures, there would be no significant adverse noise impacts from Alternative E.

Like the Proposed Action, Alternative E would not result in significant adverse impacts on noise or vibration from mechanical systems or subway operation. All building and mechanical systems, including subway ventilation facilities, would be required to comply with NYCBC requirements. In addition, subway ventilation buildings would be required to conform to MTA NYCT ventilation noise control design specifications. Both the NYCBC and MTA NYCT specifications require that community noise levels resulting from ventilation be no higher than 55 dBA at any adjacent residential or noise-sensitive receptor. These code requirements would avoid any significant adverse impacts occurring as a result of HVAC or other equipment. Like the Proposed Action, operation of the subway with Alternative E at a maximum operating speed of 35 mph along the proposed alignment would result in vibration and ground-borne noise levels well below applicable FTA impact criteria.

(i) Construction Impacts

Construction-related impacts with Alternative E would be greater than those with the Proposed Action, due to construction of the below-grade moving walkway using the cut-and-cover excavation method along West 33rd Street from a point just west of Eleventh Avenue to Eighth Avenue. This construction would require temporary lane closures along West 33rd Street and would result in exacerbated impacts to traffic, air quality, and ambient noise levels. Additional construction would be required for development of needed ventilation facilities and other mechanical equipment. Temporary utility disruptions would occur to a greater extent with Alternative E than with the Proposed Action. Mitigation measures would be the same as that required for the Proposed Action.

b) Alternative F: Proposed Action with Elevated Connection (Pedestrian Walkway) Between Penn Station and the High Line

Description of the Alternative

Alternative F was identified both during the planning process that led to the identification of the Proposed Action and by various individuals and groups during the public scoping process for the DGEIS. It is intended to assess whether development of an elevated pedestrian walkway along West 31st Street between the High Line near Eleventh Avenue and the Farley Building would result in greater or lesser significant adverse impacts than the Proposed Action and to assess whether the use of such an elevated walkway between the High Line and the Farley Building during normal working hours and before and after events at the Convention Center and the Multi-Use Facility would reduce any traffic or pedestrian impacts of the Proposed Action.

Under Alternative F, the Proposed Action would be augmented by the inclusion of an elevated pedestrian concourse above West 31st Street in the midblock between Eighth and Ninth Avenues, at the Farley Building, and Eleventh Avenue, where it would connect to the High Line (Figure 26F-1). Alternative F would include all other elements of the Proposed Action.

The elevated concourse would be approximately 1,800 feet long and would be located approximately 20.5 feet above West 31st Street and its adjacent southern sidewalk. This arrangement would allow for the free flow of vehicular traffic below. Stairway, ramp, and/or elevator connections would be provided to the at-grade sidewalks at the intersections of West 31st Street and Ninth, Tenth, and Eleventh Avenues. Direct connections would be provided to the Farley Building, the new commercial uses that would be developed along West 31st Street under the Proposed Action, and the Multi-Use Facility.

The covered walkway would be approximately 20 feet wide and could accommodate a maximum of approximately 15,000 pedestrians per hour walking in both directions; it would be expected to serve up to 3,000 pedestrians during the AM and PM peak hours. Utilization during the AM and PM peak hours reflects the relative inconvenience of accessing the elevated walkway, particularly from the subway where riders must first travel to street level and then access the walkway via added stairs or elevators. In addition, the walkway would serve a relatively narrow corridor for a relatively short distance. For most pedestrians traveling from Eighth to Eleventh Avenues or at intermediate points, walking at street level would be more convenient than using the walkway. A pedestrian walking along the pedestrian concourse would require approximately 10 to 15 minutes to travel between the Multi-Use Facility and the Farley Building. However, the walkway would not extend over Eighth Avenue, requiring pedestrians to traverse the Avenue at-grade before using stairways to access the walkway.

The concourse would be constructed using standard construction techniques and require approximately 12 months for construction. Based on schematic plans, the elevated walkway is estimated to cost at least \$150 million to \$200 million. It is uncertain which entity would build, operate, and maintain the walkway, or whether it would be financially feasible, since it would generate no revenues.

Alternative F would require the same type of discretionary approvals and public actions as the Proposed Action. It would require the identification and agreement of a public or private entity to build, operate, and maintain the covered walkway.

Principal Conclusions

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 or 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 adverse traffic impact 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 (at least \$150 million to \$200 million beyond the cost of the Proposed Action at Year 2006 midpoint of construction) 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 F Compared to the Proposed Action

Since the only difference between the Proposed Action and Alternative F would be the inclusion of a weather-protected elevated walkway between the Farley Building and the High Line, the only impacts of Alternative F that would potentially differ from those of the Proposed Action would be those associated with construction and operation of the walkway. These include:

- Short-term (construction-related) impacts on traffic, air quality, noise, hazardous materials, and historic architectural and archaeological resources.
- Long-term (operation-related) impacts on visual resources, architectural and archaeological resources, pedestrian, and traffic conditions.

All other impacts of Alternative F would be the same as those with the Proposed Action, including impacts on land use, socioeconomic conditions, neighborhood character, community facilities, open space, shadows, natural resources, parking, public health, conformance with the Waterfront Revitalization Program, and demand for water, sewer, and solid waste services.

(a) Architectural Historic Resources

Alternative F would have the same potential significant adverse impact on Architectural Historic Resources in 2010 and 2025 as the Proposed Action, since it would have the potential to affect the same significant architectural historic resources as the Proposed Action.

(b) Archaeological Resources

Like the Proposed Action, Alternative F would result in significant adverse impacts to potential archaeological resources on Projected Development Sites 11 and 41 due to the development that would result from the proposed rezoning. However, construction of an elevated pedestrian concourse above West 31st Street between Eighth and Tenth Avenues would not affect additional archaeological resources beyond those of the Proposed Action, because of the lack of such resources under West 31st Street.

(c) Urban Design and Visual Resources

Like the Proposed Action, Alternative F would not result in significant adverse impacts to urban design or visual resources in the Project Area. Alternative F would differ from the Proposed Action only in providing an elevated pedestrian connection between the Multi-Use Facility and the Farley Building, primarily along West 31st Street. Along its route, the elevated pedestrian connection would alter the streetscape by adding entry stairs and elevators on this local street. The presence of the elevated walkway would alter the urban design of the streets on which it would be built. An elevated structure would diminish the attractiveness of the streetscape on those blocks, compared to the Proposed Action.

Alternative F would alter views of the Farley Building and its context from street level, since the elevated pedestrian connection would parallel half the length of the West 31st Street elevation between Eighth and Ninth Avenues. Views from the south of the Ninth Avenue elevation would also be substantially altered. Neither the south nor west face of the Farley Building is considered a significant contributing element to the resource. As a consequence, this effect would not result in a significant adverse impact. Views of the eastern façade of the building, which is considered as a significant contributing element to the designation of the Farley Building as a historic landmark, would not be substantially affected. Views along Eleventh, Tenth, and Ninth Avenues would be affected, but these views are not significant and the impacts of the elevated pedestrian link would not be significant. Therefore, like the Proposed Action, no significant adverse impacts to Visual Resources are anticipated.

(d) Hazardous Materials

Like the Proposed Action, Alternative F would not result in significant adverse impacts to properties that have the potential to contain hazardous materials. A Construction Environmental Protection Program would be implemented to avoid impacts related to disturbing properties that potentially contain hazardous materials. Implementation of such measures would avoid potential significant adverse hazardous materials impacts due to construction along West 31st Street between Eighth and Tenth Avenues.

(e) Energy

Unlike the Proposed Action, Alternative F would require the expenditure of an additional 700 kilowatts of energy during peak usage beyond that required for the Proposed Action to provide needed lighting and elevator/escalator connections between the walkway and the sidewalk below. The design of the walkway could incorporate features to minimize energy loads and to minimize the use of depletable energy sources. Neither the Proposed Action nor Alternative F would result in significant adverse impacts to energy resources.

(f) Traffic (2025)

Under Alternative F, the elevated walkway is projected to serve 2,000 pedestrians during the AM peak hour and 3,000 pedestrians during the PM peak hour. Its projected usage would be less than the below-grade moving walkway because vertical access to it would be less convenient, especially for subway and commuter rail passengers. Nonetheless, it would reduce pedestrian volumes on east-west sidewalks, street corners and crosswalks, primarily on West 34th, West 33rd, West 31st, and West 30th Streets between Eighth and Eleventh Avenues, thereby mitigating pedestrian impacts at several locations in this corridor as discussed below. Traffic operations would be somewhat improved and turns facilitated through a reduction in pedestrian crosswalk volumes. Since these intersections could be mitigated in the Proposed Action, they could also be mitigated in Alternative F.

During Special Events at the Multi-Use Facility, approximately 12,000 inbound pedestrians could be removed from sidewalks, corners, and crosswalks and pedestrian operations improved during the

weeknight Special Event peak hour and 13,000 outbound during the Sunday Special Event peak hour. It is anticipated that the elevated walkway's direct connection into the Multi-Use Facility via the High Line would make it particularly attractive to pedestrians destined for the Farley Building. However, while traffic operations would improve somewhat, significant traffic impacts would remain at four intersections on West 34th Street (i.e., at Eleventh, Tenth, Ninth, and Eighth Avenues) during weeknight and Sunday Special Event periods in 2025 when Special Events are at the Multi-Use Facility.

Alternative F would have the same bridge and tunnel volumes as the Proposed Action during all analysis periods, and the same 2025 peak hour significant traffic impacts would remain.

(g) Transit

The provision of an elevated walkway would supplement pedestrian capacity in the West 31st Street corridor without significantly altering pedestrian circulation patterns at Penn Station, the 34th Street Station on the IRT 7th Avenue Line, or the 34th Street Station on the IND 8th Avenue Line. Pedestrians from each of these stations would be able to access the walkway at street level, but would not be projected to use the walkway in large numbers, given the need to use some type of vertical circulation (i.e., stairs and elevators) to access the walkway. Alternative F would result in substantially the same subway impacts, and increases in bus and ferry demand as the Proposed Action.

(h) Pedestrians

Alternative F would provide a weather-protected pedestrian connection between the Farley Building and the Multi-Use Facility via a connection to the High Line. As such, it would reduce pedestrian and traffic impacts associated with the Proposed Action.

Usage of the additional walkway capacity provided by Alternative F would reduce pedestrian flows on sidewalks, corners, and crosswalks along West 31st Street and other parallel streets and result in fewer pedestrian-related impacts than the Proposed Action. It was assumed that the staircases and elevators required to access the elevated walkway would be built initially with sidewalk landings on either the east side or west side of the avenue and set back from the intersection. Ultimately, some or all of these landings would be incorporated into buildings constructed along the alignment.

Specifically, under 2025 conditions, Alternative F would result in significant adverse impacts at the same number of intersections as the Proposed Action during the AM, and Midday peak hours and one fewer impact in the PM peak hour (i.e., 10 vs. 11). The numbers of affected elements (i.e., sidewalks, corners, and crosswalks) would be fewer than the Proposed Action during the AM and PM peak hours. Alternative F would result in one more significant adverse intersection impact during the weeknight Special Event peak hour (i.e., six vs. five) and the same number of significant adverse intersection impacts during the Sunday Special Event peak hour (i.e., five). The additional impact projected during the weeknight Special Event period would result from an increase in pedestrians in the vicinity of the walkway entrance near the Farley Building.

(i) Air Quality

As with the Proposed Action, no significant adverse air quality impacts or exceedances of applicable NAAQS, DEP de minimis criteria or STV levels would be expected in either 2010 or 2025 for Alternative F.

(j) Noise and Vibration

Noise impacts from Alternative F would, like the Proposed Action, involve two areas of concern: (1) potential effects of introducing new noise-sensitive land uses (i.e., residences and community facilities) into an already noisy environment, and (2) effects of noise-generating activities associated with the alternative on existing noise-sensitive land uses in the area. Since new noise-sensitive

receptors would be introduced into the same noisy area as the Proposed Action, (E) Designations would also be required for the new residences and community facilities contemplated by Alternative F. This alternative would also increase noise levels by 3 dBA or more at many of the same locations as with the Proposed Action and would result in the need for the same mitigation measures identified for the Proposed Action. With such mitigation measures, there would be no significant adverse noise impacts from Alternative F.

Like the Proposed Action, Alternative F would not result in significant adverse impacts on noise or vibration from mechanical systems or subway operation. All building and mechanical systems, including subway ventilation facilities, would be required to comply with NYCBC requirements. In addition, subway ventilation buildings would be required to conform to MTA NYCT ventilation noise control design specifications. Both the NYCBC and MTA NYCT specifications require that community noise levels resulting from ventilation be no higher than 55 dBA at any adjacent residential or noise-sensitive receptor. These code requirements would avoid any significant adverse impacts occurring as a result of HVAC or other equipment. Like the Proposed Action, operation of the subway with Alternative F at a maximum operating speed of 35 mph along the proposed alignment would result in vibration and ground-borne noise levels well below applicable FTA impact criteria.

(k) Construction Impacts

Alternative F would result in additional adverse construction-related impacts above those resulting from the Proposed Action, due to construction of the walkway and related stairways, ramps, and/or elevators along West 31st Street. This additional construction could result in temporary impacts to traffic along West 31st Street between Eighth and Eleventh Avenues, especially at intersections along the alignment. Construction impacts could include fugitive dust, construction vehicle emissions, increased noise levels, traffic impacts due to construction vehicles entering and leaving the site, and temporary disruptions to business activities along West 31st Street. Measures to address the conditions that would be caused by Alternative F would be the same as those required for the Proposed Action.

c) Alternative G: Proposed Action with Subway Connection to Penn Station

Description of the Alternative

Alternative G was identified both by the Co-Lead Agencies during the planning process that led to the identification of the Proposed Action and by various individuals and groups during the public scoping process for the DGEIS. Alternative G is intended to assess whether extending the No. 7 Subway from its proposed terminus at West 34th Street and Eleventh Avenue to Penn Station would:

- Enhance transportation options for Penn Station commuters
- Result in sufficient patronage to warrant its implementation
- Result in significant adverse impacts different from those under the Proposed Action.

Under Alternative G, the No. 7 Subway extension would be modified from that in the Proposed Action by extending the No. 7 Subway from its current terminus at Times Square westward under West 41st Street, southward under Eleventh Avenue, and eastward under West 31st Street to a new terminal station at West 31st Street and Eighth Avenue at Penn Station (Figure 26G-1). Tail tracks would extend eastward from Penn Station rather than southward from the 34th Street Terminal Station with the Proposed Action. The 34th Street Terminal Station included in the Proposed Action would be modified to become a second Intermediate Station, resulting in three subway stations, (i.e., one more station than the Proposed Action). Alternative G would include all other elements of the Proposed Action.

The subway that would be developed under Alternative G would include one track in each direction along the full length of the alignment between Times Square and Penn Station. A new three-track, two-platform West 31st Terminal Station would be built approximately 110 feet below ground level (Figures 26G-2a and 26G-2b). Due to the depth of the station, transfers from other subway routes would take about 10 minutes; transfers from commuter rail would average approximately eight minutes. The third track would allow trains to reverse direction or move in or out of service, depending on operational needs. Entrances to the station would be provided along the south side of West 31st Street at Seventh Avenue. Tracks would extend approximately 1,400 feet east of the new terminal station under West 31st Street to Sixth Avenue, to provide for necessary train storage. The extension from the Terminal Station on Eleventh Avenue to Penn Station is estimated to cost an additional \$1.4 billion to \$1.6 billion beyond the cost of the Proposed Action (cost estimate based on Year 2006 midpoint of construction).

Alternative G would require additional ventilation, air-tempering, and electrical facilities beyond those included in the Proposed Action. Additional switchgear beyond that included in the Proposed Action would also be required for the traction power system.

Alternative G would require more property acquisitions than the Proposed Action. The proposed configuration of the West 31st Street Terminal could not be accommodated within the 60-foot mapped right-of-way of West 31st Street. Development of the station would require the acquisition of a permanent 40-foot easement beyond the West 31st Street right-of-way between Eighth and Seventh Avenues, a distance of approximately 1,200 feet. Additional property acquisitions would be required for the development of the new Terminal Station, ancillary structures, and electrical substation.

Alternative G would require the same types of discretionary approvals and public actions as those of the Proposed Action.

Principal Conclusions

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 (at least \$1.27 billion to \$1.44 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 or reduce pedestrian volumes in areas with unmitigated traffic impacts. Parking and pedestrian conditions would be essentially the same as with the Proposed Action.

Alternative G Compared to the Proposed Action

Since the only difference between the Proposed Action and Alternative G would be the extension of the subway line between Eleventh Avenue and Penn Station, the only impacts of Alternative G that would differ from the Proposed Action would be those associated with construction and operation of the extended subway. These include:

- Short-term (construction-related) impacts on traffic, air quality, noise, hazardous materials, historic architectural and archaeological resources, and construction.
- Long-term (operations-related) impacts on socioeconomic conditions (due to additional property acquisition), neighborhood character, energy demands, pedestrian conditions (and associated traffic conditions), and transit ridership.

All other impacts of Alternative G would be the same as those under the Proposed Action, including land use, community facilities, open space, shadows, urban design, natural resources, noise, public health, parking, conformance with the Waterfront Revitalization Program, and demand for water, sewer, and solid waste services.

(a) Socioeconomic Conditions

The extension from the Terminal Station on Eleventh Avenue to Penn Station with Alternative G is estimated to cost an additional \$1.27 to \$1.44 billion beyond the cost of the Proposed Action (a total cost of \$3.4 billion to \$3.6 billion with Alternative G compared to a total cost of \$1.96 billion to \$2.33 billion with the Proposed Action, based on Year 2006 midpoint of construction). It is assumed that a permanent easement beyond the existing roadway and sidewalk right-of-way would not require acquisition and displacement of street level buildings and businesses. Some commercial uses would likely be displaced to provide new access and egress to the Terminal Station at West 31st Street and Eighth Avenue and to provide subway support infrastructure. Such acquisition within the high-density, mixed-use commercial district between Sixth and Eighth Avenues along West 31st Street would not create a significant adverse impact on the commercial character of the area.

Like the Proposed Action, Alternative G is not expected to result in significant adverse impacts due to either direct or indirect displacement of residential or commercial uses, nor would it result in significant adverse impacts on the apparel or theater industries.

(b) Architectural Historic Resources

Alternative G would have the same potential significant adverse impact on Architectural Historic Resources in 2010 and 2025 as the Proposed Action, since it would have the potential to affect the same significant architectural historic resources as the Proposed Action.

(c) Archaeological Resources

Like the Proposed Action, Alternative G could result in unmitigated significant adverse impacts to potential archaeological resources on Projected Development Sites 11 and 41.

Due to the additional subway connection to Penn Station along West 31st Street, the potential for significant adverse archaeological resource impacts under Alternative G would be greater than under the Proposed Action. Most of the additional construction for Alternative G would derive from excavation for the subway alignment along West 31st Street. Due to the lack of archaeological resource sensitivity within the streetbed, no additional archaeological resources would be anticipated for this area of West 31st Street. However, potential archaeological resources could be present at the proposed locations for ventilation; air-tempering and electrical facilities; the proposed Terminal Station at West 31st Street and Eighth Avenue; the 30-foot easement along West 31st Street beyond the West 31st Street right-of-way; and the TBM launch site at West 31st Street and Sixth Avenue.

(d) Neighborhood Character

Like the Proposed Action, Alternative G would dramatically improve neighborhood character in the Project Area. There would be very little difference in effects on neighborhood character between Alternative G and the Proposed Action. Alternative G would slightly reduce pedestrian volumes on sidewalks, street corners, and crosswalks, primarily on West 34th, West 33rd, and West 31st Streets between Eighth and Eleventh Avenues. While traffic operations would be slightly improved and some turns facilitated through a reduction in pedestrian crosswalk volumes under this alternative, these reductions would not significantly change the extent or severity of traffic impacts, as compared to the Proposed Action.

(e) Hazardous Materials

Like the Proposed Action, Alternative G would not result in significant adverse impacts to properties that have the potential to contain hazardous materials. A Construction Environmental Protection Program would be implemented in connection with the subway construction. Implementation of such measures for the subway connection would avoid potential hazardous materials impacts related to construction along West 31st Street between Eighth and Eleventh Avenues.

(f) Energy

The additional station at Penn Station with Alternative G would require an additional 11,800 MWh per year beyond that required by the Proposed Action. The energy required to power the added rail segment to Penn Station from the 34th Street Station would not require additional electricity, because of the nature of the third rail operations. Like the Proposed Action, Alternative G would not result in a significant adverse impact on energy services.

(g) Traffic (2025)

Under Alternative G, the subway extension to Penn Station is projected to attract fewer than 750 subway passengers to the No. 7 extension during the AM peak hour in 2025. It would reduce pedestrian volumes on east-west sidewalks, street corners, and crosswalks, primarily on West 34th, West 33rd, West 31st, and West 30th Streets between Eighth and Eleventh Avenues, thereby lessening pedestrian impacts at several locations in this corridor, as discussed below. Traffic operations would be somewhat improved and turns facilitated through a reduction in pedestrian crosswalk volumes. Since these intersections could be mitigated in the Proposed Action, they could also be mitigated in Alternative G.

During Special Events at the Multi-Use Facility, the benefits of the subway extension would be similar to the below-grade moving walkway. Pedestrian volumes on sidewalks, street corners, and crosswalks would be reduced, and pedestrian operations improved, as described below. However, while traffic operations would improve somewhat, significant traffic impacts would remain at four intersections on West 34th Street (i.e., at Eleventh, Tenth, Ninth, and Eighth Avenues) during weeknight and Sunday Special Event periods in 2025.

Alternative G would have virtually the same bridge and tunnel volumes as the Proposed Action during all analysis periods, and the same 2025 significant adverse traffic impacts at the river crossings would remain.

(h) Transit

Extension of the No. 7 Subway an additional stop to Penn Station is not projected to attract significantly more riders to the No. 7 Subway, because another project now under construction would already provide connections to most subway lines, Metro North, and the LIRR at Grand Central Terminal (GCT) following the completion of the East Side Access Project. Given the time and effort that would be required to transfer to a deep No. 7 station, the waiting time on the platform, and potentially the need to pay an additional fare, it is anticipated that most NJ Transit riders would

choose to walk at most three blocks (i.e., from Eighth Avenue to Eleventh Avenue) from Penn Station to Eleventh Avenue.

Nonetheless, subway transfer volumes to and from the No. 7 Line at the Times Square, Fifth Avenue, and Grand Central stations would be slightly lower under Alternative G than under the Proposed Action. This reduction would eliminate one 2010 AM peak hour Proposed Action unmitigated impact: the passageway connecting the No. 7 Subway line and Lexington Avenue Line at the Grand Central station, because LIRR riders would be more likely to transfer to the No. 7 line at Penn Station than at GCT. Bus and ferry shortfalls would generally be the same as the Proposed Action and would be addressed through similar increases in service, as would occur with the Proposed Action.

(i) Pedestrians

Alternative G would provide a direct rail connection between Penn Station and the Multi-Use Facility. However, given the excellent connectivity of the No. 7 Subway extension as included in the Proposed Action, the relatively short walking distance between Penn Station and the Multi-Use Facility (i.e., three blocks), and the station access and wait times associated with making this trip on the Alternative G extension, it is estimated that fewer than 750 additional commuters would be attracted to the new service during the morning and evening peak hours when compared to the Proposed Action. During Special Event periods, station access times to both the Alternative G extension and Proposed Action alignment would also be significant, given the high passenger volumes projected at the 34th Street station following an event at the Multi-Use Facility. It is not anticipated that the Alternative G extension would significantly change pedestrian service levels during commuting or Special Event peak hours.

(j) Air Quality

As with the Proposed Action, no significant adverse air quality impacts or exceedances of applicable NAAQS, DEP *de minimis* criteria or STV levels would be expected in either 2010 or 2025 for Alternative G.

(k) Noise and Vibration

Noise impacts from Alternative G would, like the Proposed Action, involve two areas of concern: (1) potential effects of introducing new noise-sensitive land uses (i.e., residences and community facilities) into an already noisy environment, and (2) effects of noise-generating activities associated with the alternative on existing noise-sensitive land uses in the area. Since new noise-sensitive receptors would be introduced into the same noisy area as the Proposed Action, (E) Designations would also be required for the new residences and community facilities contemplated by Alternative G. This alternative would also increase noise levels by 3 dBA or more at many of the same locations as with the Proposed Action and would result in the need for the same mitigation measures identified for the Proposed Action. With such mitigation measures, there would be no significant adverse noise impacts from Alternative G.

Like the Proposed Action, Alternative G would not result in significant adverse impacts on noise or vibration from mechanical systems or subway operation. All building and mechanical systems, including subway ventilation facilities, would be required to comply with NYCBC requirements. In addition, subway ventilation buildings would be required to conform to MTA NYCT ventilation noise control design specifications. Both the NYCBC and MTA NYCT specifications require that community noise levels resulting from ventilation be no higher than 55 dBA at any adjacent residential or noise-sensitive receptor. These code requirements would avoid any significant adverse impacts occurring as a result of HVAC or other equipment. Like the Proposed Action, operation of the subway with Alternative G at a maximum operating speed of 35 mph along the proposed alignment would result in vibration and ground-borne noise levels well below applicable FTA impact criteria.

(l) Construction Impacts

Like the Proposed Action, construction of the subway extension included in Alternative G would be completed through the use of a tunnel boring machine (TBM). A launch site for the TBM would most likely be located at Sixth Avenue and West 31st Street, while necessary construction staging would most likely be located at West 31st Street and Ninth Avenue. Like the Proposed Action, the TBM would be retrieved near Site L. The West 31st Street Terminal Station would be constructed using standard drill-and-blast and other mining techniques. Construction of the No. 7 Subway Extension under Alternative G would require approximately 75 months, approximately 12 months longer than the Proposed Action.

Construction impacts resulting from subway construction with Alternative G would be greater than the Proposed Action, due to the additional tunnel length and development of the West 31st Street station. Approximately 1.5 times the rock spoils would be generated with Alternative G compared to the Proposed Action. In addition, spoils would be transported from a more densely populated area (potentially West 31st Street and Eighth Avenue) than the Proposed Action (West 26th Street and Eleventh Avenue). Spoils trucking and construction materials deliveries would combine to create more trips from areas with worse levels of service than the Proposed Action. Operating from staging areas in the congested area adjacent to Penn Station would constitute an additional difficulty under Alternative G.

Under Alternative G, additional construction noise, vibration, traffic, and air quality impacts would result from the extensive construction of the new station at Eighth Avenue and West 31st Street, as well as drill-and-blast excavation for the tunnel along West 31st Street between the station and the end of the storage tracks at Sixth Avenue. Stringent construction protection measures would be implemented to avoid or mitigate potential significant adverse impacts.

d) Alternative H: Proposed Action with Light Rail Transit*Description of the Alternative*

Alternative H was identified both by the co-lead agencies during the planning process that led to the identification of the Proposed Action and by various individuals and groups during the public scoping process for the DGEIS. It is intended to assess whether a light rail transit (LRT) system, rather than an extension of the No. 7 Subway, would be sufficient to serve the level of development that would be generated by the Proposed Action, and whether development and operation of an LRT system would result in greater or lesser significant adverse impacts than the Proposed Action. All other components of Alternative H would be the same as the Proposed Action, including expansion of the Convention Center, development of the Multi-Use Facility, and the Zoning Amendments.

Under Alternative H, an 8,200-foot-long, at-grade LRT system would be developed between Sixth Avenue at West 42nd Street and Seventh Avenue at West 33rd Street in lieu of the No. 7 Subway Extension. The LRT system would replace the M42 bus route on a section of West 42nd Street and would need to accommodate M42 bus riders as well as passengers previously assigned to the No. 7 Subway extension.

As shown in Figure 26H-1, the LRT would begin at Sixth Avenue and West 42nd Street, extend westward along West 42nd Street to Eleventh Avenue, curve southward along Eleventh Avenue to West 33rd Street, and extend eastward along West 33rd Street to a terminus at Seventh Avenue. A total of seven at-grade station stops would be located along the alignment, including stops on West 42nd Street between Sixth Avenue and Broadway, Eighth and Ninth Avenues, and Tenth and Eleventh Avenues, stops on Eleventh Avenue between West 38th and West 37th Streets and between West 33rd and West 34th Streets, and stops on West 33rd Street between Tenth and Ninth Avenues and Eighth and Seventh Avenues. This route was chosen to minimize disruption to surface traffic and to offer connections to the No. 7 Subway line, Penn Station, and the Projected Development Sites.

To minimize the potential that LRT trains would block intersections, LRT train length would be no greater than 200 feet, the length of a north-south block in Midtown Manhattan. The LRT system would use modern light rail transit vehicles operated in two articulated-car trains on dual tracks between the West 42nd Street and West 33rd Street terminal stations. Each 180-foot long, two-car train would have a capacity of approximately 500 passengers. Passengers would pre-pay and board trains from island platforms along West 42nd Street and Eleventh Avenue and from sidewalk platforms on West 33rd Street.

An LRT system utilizing trains consisting of two articulated cars on three-minute headways could serve approximately 10,000 passengers per hour in each direction or 20,000 passengers per hour total into the Project Area (i.e., 10,000 passengers per hour from the north via West 42nd Street and 10,000 passengers per hour from the south via West 33rd Street). The three-minute headways reflect the constraints posed by a traffic signal system operating on a 90-second signal cycle. A three-minute LRT headway would result in one LRT train crossing each intersection at every 90-second signal cycle.

Assuming these optimal conditions, LRT capacity would still be substantially less than the capacity of the No. 7 Subway under the Proposed Action, which would be able to accommodate approximately 32,000 to 36,000 passengers per hour into the Project Area. Based on schematic plans, construction of an LRT system would cost between \$750 million and \$950 million, based on Year 2006 midpoint of construction, including a car storage and maintenance facility. By contrast, the cost of the No. 7 Extension is projected to be approximately \$1.96 to \$2.33 billion, based on Year 2006 midpoint of construction.

Construction of the LRT system would be completed using standard construction methods. Construction would require approximately 36 months to complete, during which segments of West 42nd Street, Eleventh Avenue, and West 33rd Street, and their intersections with cross streets and avenues, would be temporarily closed to traffic (Figure 26H-2). Utilities could need to be relocated from beneath the LRT right-of-way.

The LRT system would require the development and operation of a car storage and maintenance facility for the approximately 40 LRT vehicles that would be needed to maintain a three-minute headway between train sets in each direction. The facility would need to be of sufficient size to store, inspect, clean, and maintain all 40 cars and approximately 12 to 14 spares. Based on a length of a modern LRT vehicle of approximately 90 feet, the facility would require ten 400-foot-long tracks approximately twenty feet apart, in addition to an enclosed 75,000-square-foot facility fitted with necessary car wash, greasing/degreasing facilities, body repair shop, paint spray booth, and equipment for the inspection, cleaning, maintenance, and repair of electrical systems, brakes, HVAC units, doors, windows, and other components of the LRT vehicle. Such a car storage and maintenance facility would occupy a full City block (i.e., approximately 800 feet by 200 feet).

A specific location for such a facility has not been identified. Optimally, it should be located within a relatively short distance (approximately 1,000 feet) from the LRT alignment to minimize costs, required construction, and operational impacts. Potential locations include sites south of the proposed location of the Multi-Use Facility, including Block 675, or, at a significantly greater distance, locations along the alignment of the Empire Line in the vicinity of the Riverside South Development Project. Development of a car storage and maintenance facility on Block 675 would preclude the accommodation of the DSNY and Tow Pound facilities at that location.

At the present time no entity has been identified to construct, operate, or maintain the LRT system proposed in Alternative H.

Alternative H would require the same type of discretionary approvals and public actions as the Proposed Action, except that MTA approval for extension of the No. 7 Subway would not be

required. In addition, approval would be required from the City of New York for use of public rights-of-way.

Principal Conclusions

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 (at least \$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 could result from the at-grade track connections required to access the facility.

Alternative H Compared to the Proposed Action

Since the only difference between the Proposed Action and Alternative H would be the use of an LRT system rather than the extension of the No. 7 Subway, the only impacts of Alternative H that would differ from those of the Proposed Action would be those associated with construction and operation of the LRT system and the elimination of impacts from the No. 7 Extension. These include:

- Short-term (construction-related) impacts on traffic, air quality, noise, hazardous materials, historic architectural resources, and infrastructure.
- Long-term (operation-related) impacts on land use, zoning, and public policy, socioeconomic conditions, architectural historic resources, urban design and visual resources, neighborhood character, traffic, parking, transit, pedestrians, air quality, and noise.

All other impacts of Alternative H would be the same as the Proposed Action, including impacts on community facilities, open space, archaeological resources, conformance with the Waterfront Revitalization Program, and demand for water, sewer, and solid waste services. The LRT stations and appurtenances would not be tall enough to create shadow impacts (new structures must be 50 feet or higher to require a shadow analysis, based on guidance provided in the *CEQR Technical Manual*), so there would be no significant difference in shadow impacts with Alternative H compared to the Proposed Action.

The impacts of Alternative H on those impact categories that would differ from the Proposed Action are discussed below.

(a) Land Use, Zoning, and Public Policy

Like the Proposed Action, Alternative H would introduce major new land uses in the Project Area, and would not result in significant adverse impacts on land use, zoning, or public policy. However, unlike the Proposed Action, the LRT system would not provide sufficient transit capacity to support the development that would result from the Proposed Action. Therefore, while the change in uses brought about by the rezoning actions would be the same under both Alternative H and the Proposed Action, Alternative H could not support the full development potential of the Project Area and would not adequately meet the identified demand for new residential and commercial development. Unlike the Proposed Action, development of the LRT system under Alternative H would require the development of a new LRT car storage and maintenance facility within or near the Project Area. Since the location of this facility is currently unknown, it is uncertain whether such a facility would be compatible with other existing and proposed land uses in or near the Project Area.

(b) Socioeconomic Conditions

Construction of the LRT system with Alternative H is estimated to cost between \$750 million to \$950 million (based on Year 2006 midpoint of construction), approximately \$1.21 to \$1.38 billion less than the Proposed Action (based on Year 2006 midpoint of construction).

Neither construction of the LRT system nor extension of the No. 7 Subway would require residential displacement. However, the commercial displacement associated with extension of the No. 7 Subway (15 businesses employing approximately 686 workers) would not be necessary under Alternative H. Other socioeconomic effects of Alternative H would be the same as the Proposed Action. Therefore, like the Proposed Action, Alternative H is not expected to result in significant adverse impacts due to either direct or indirect displacement of commercial or residential uses, nor would it result in significant adverse impacts on the apparel or theater industries. However, unlike the Proposed Action, development of the LRT system under Alternative H would require the development of a new car storage and maintenance facility. Although the location of this facility is currently unknown, it would be optimally sited within approximately 1,000 feet of the proposed LRT alignment and would occupy a full City block. Development of such a facility could require more land acquisition and result in more potential displacement compared to the Proposed Action.

It is expected that the lower capacity of the LRT system compared to that of the No. 7 Subway Extension would not be adequate to support the anticipated level of development with the Proposed Action and would likely limit the growth or value of investment in the private real estate development projected for the Project Area. Alternative H would yield fewer economic benefits in terms of economic activity resulting from construction investment and during operation, or annual economic activity from new uses in the Project Area, than the Proposed Action. Overall, while Alternative H would be less costly than the Proposed Action, it would likely produce substantially fewer economic benefits than the Proposed Action.

(c) Architectural Historic Resources

Alternative H would have the same potential significant adverse impact on architectural historic resources in 2010 and 2025 as the Proposed Action, since it would have the potential to affect the same significant architectural historic resources as the Proposed Action.

(d) Urban Design and Visual Resources

Like the Proposed Action, Alternative H would result in dramatic improvement to the overall urban design of the Project Area, and not result in significant adverse impacts to urban design and visual resources, although its effects would be different from those of the Proposed Action. Unlike the

Proposed Action, Alternative H would add an LRT line along West 42nd Street, Eleventh Avenue, and West 33rd Street, and change street pattern and streetscape conditions from those of the Proposed Action. Alternative H would introduce a visible and permanent transportation feature at street level, with above-ground stations along the route, catenary wires overhead, and a dedicated facility for the storage and maintenance of LRT vehicles, thereby creating a new urban design and visual presence along its route. The street pattern would be altered, as West 33rd Street between Eleventh and Eighth Avenues would be closed to vehicular traffic to allow for the operation of the LRT. It would remain open for pedestrian access.

Under the Proposed Action, parking and service entrances for new development in the Large Scale Plan and the 34th Street Corridor Subdistricts would be located on West 33rd Street. However, with West 33rd Street between Eighth and Eleventh Avenues closed to vehicular traffic under Alternative H, provision for adequate access for loading and deliveries would have to be made. To accommodate the LRT alignment, entrances to these buildings could be located on West 34th Street or avenue frontages. However, this could compromise the urban design contemplated for this corridor, reducing the beneficial effects of the requirements included in the Proposed Action for widened and planted sidewalks that are intended to create a continuous, pedestrian corridor connecting to the Hudson River. Alternatively, deliveries to these sites could be limited to hours when there is little or no LRT service.

(e) Neighborhood Character

Like the Proposed Action, Alternative H would dramatically improve the overall character of the Project Area. However, the presence of a full City block facility for the storage and maintenance of LRT vehicles has the potential to adversely affect neighborhood character. In addition, the potential for concentration of service and pedestrian entrances on West 34th Street that could result from closure of West 33rd Street to vehicular traffic (see Urban Design and Visual Resources discussion) has the potential to adversely affect the character of the 34th Street Corridor. The changes in traffic patterns and the increase in traffic impacts and congestion and increase in pedestrian traffic (see Pedestrian discussion) could also detract from neighborhood character. Therefore, although Alternative H would result in significant overall improvement to the neighborhood character in the Project Area, the presence of the LRT system with Alternative H has the potential to reduce overall improvements due to effects on pedestrian and traffic congestion and the presence of a new car storage and maintenance facility.

(f) Hazardous Materials

Like the Proposed Action, Alternative H would not result in significant adverse impacts to properties that have the potential to contain hazardous materials. A Construction Environmental Protection Program would be implemented for publicly supported projects. Private development would be governed by (E) Designations that would avoid significant impacts. Implementation of such measures would avoid potential significant adverse hazardous materials impacts due to construction along West 33rd Street between Eighth and Tenth Avenues.

(g) Energy

Alternative H would result in a lower electricity demand than the Proposed Action due to the use of an LRT System. The annual energy demand of the No. 7 Extension (21,000 MWh) would be 12,346 MWh greater than the energy demand of the LRT System (8,654 MWh). Like the Proposed Action, Alternative H would require a new area substation and transmission substation by 2013 and a second area substation by 2021. Substations could be constructed within the Project Area at appropriate commercial sites pursuant to a Board of Standards and Appeals special permit.

(h) Traffic (2025)

Construction of an LRT system would significantly reduce the traffic capacity of the street network along its alignment and would result in traffic diversions and increased congestion on parallel streets. The construction of dual LRT tracks and stations on the west side of Eleventh Avenue would reduce the capacity of Eleventh Avenue by half in the vicinity of the Lincoln Tunnel and change its operation from two-way to one-way southbound, while facilities constructed on the north side of West 42nd Street would require conversion of that street from a two-way street to one-way eastbound operation. West 33rd Street would be closed to traffic.

Construction of LRT facilities on West 33rd Street, Eleventh Avenue, and on West 42nd Street would severely reduce automobile, truck, and taxi access to land uses fronting on the LRT's right-of-way, including the Convention Center and Multi-Use Facility. In addition, the required combination of full street closure (West 33rd Street) and partial street closures (West 42nd Street westbound, Eleventh Avenue northbound) required to implement this alternative would produce large traffic diversions to parallel streets, resulting in additional areawide traffic impacts compared to the Proposed Action.

Vehicles currently traveling westbound on West 42nd Street would be diverted to parallel westbound streets, primarily West 43rd Street and West 41st Street. As a result of the closure of West 33rd Street, traffic would divert primarily to West 31st Street and westbound West 34th Street. Partial street closure on Eleventh Avenue would result in diversion of Eleventh Avenue northbound traffic primarily to Tenth Avenue.

Under Alternative H, the following 2025 weekday AM peak hour traffic diversions would result: approximately 760 vehicles from Eleventh Avenue and 1,345 vehicles from West 42nd Street. During the Midday peak hour, approximately 575 vehicles would be diverted from Eleventh Avenue, and 1,150 vehicles from West 42nd Street. During the PM peak hour, approximately 895 vehicles would be diverted from Eleventh Avenue and 1,395 vehicles from West 42nd Street. Weeknight and Sunday Special Event peak period diversions would also be significant, including approximately 240 vehicles from Eleventh Avenue and 885 vehicles from West 42nd Street during the weeknight Special Event peak hour and 890 vehicles from Eleventh Avenue and 1,420 vehicles from West 42nd Street during the Sunday Special Event Peak hour. These diversions would negatively affect all streets and intersections along their diversion routes. For example, West 43rd Street volumes would more than triple during the AM and Midday peak hours, and more than double during the PM peak hour.

Closure of West 33rd Street to vehicular traffic would require the relocation of the access points to the garages on Projected Development Sites 1 and 32 located on the south side of West 33rd Street, and Projected Development Sites 2, 3, and 30 located on the north side of West 33rd Street along the proposed LRT alignment. The redevelopment of West 33rd Street frontage of Projected Development Site 1 (eastern portion of Caemmerer Yard) would also require that any new buildings locate parking entrances/exits along Eleventh and/or Tenth Avenues. Projected Development Site 2 could be accessed by a new entrance/exit from Eleventh Avenue. Projected Development Site 3 could be accessed on Tenth Avenue, Projected Development Site 30 from Ninth Avenue, and Projected Development Site 32 could be accessed on Ninth Avenue.

A targeted traffic assessment of 68 intersections was prepared for this alternative. In 2025, Alternative H would result in several more adverse impacts that could not be mitigated during the peak hours than the Proposed Action (14 vs. three in the AM peak hour; eight vs. two in the Midday peak hour; and 21 vs. four in the PM peak hour) along the diversion routes associated with the loss of traffic lanes. These additional unmitigated impacts would be particularly difficult for vehicles accessing the Lincoln Tunnel. Adverse impacts that could not be mitigated in the Proposed Action refer only to those Proposed Action intersections located in the targeted area.

Alternative H would have virtually the same bridge and tunnel volumes as the Proposed Action during all analysis periods and the same impacts to the river crossings.

(i) *Parking*

Alternative H is similar to the Proposed Action in terms of parking supply and demand in 2025. Both Alternative H and the Proposed Action would result in a small parking shortfall in the weekday Midday peak period.

(j) *Transit*

The proposed LRT system would operate in an exclusive right-of-way free from the delays associated with operations in mixed traffic. However, the proposed LRT system would still operate on-street and would therefore be subject to traffic signal delays at intersections, and potentially traffic spillback delays and turning movement delays, as well as delays associated with pedestrians crossing the at-grade alignment.

For example, projected peak period congestion on Eleventh Avenue at the approaches to the Lincoln Tunnel, and along West 42nd Street under the Proposed Action would be exacerbated by the requisite reduction in roadway capacity and associated vehicular diversions. This congestion would result in impacts on LRT operations and reliability. Heavy pedestrian volumes crossing the alignment to access the island platform or crossing West 33rd Street to access Penn Station and West 42nd Street to access the PABT could also result in impacts on service.

Most important, the LRT system could not provide the transit capacity necessary to support the development anticipated within the Project Area. Operating on a three-minute headway, the system could bring up to 20,000 workers into the study area during the morning peak hour; that is, 10,000 passengers from the north via West 42nd Street and 10,000 passengers from the south via West 33rd Street. This total capacity is 10,000 fewer passengers per hour than the projected demand during the 2025 AM peak hour and far less than the No. 7 extension's potential capacity. In addition to these 10,000 riders, the LRT would not be able to accommodate M-42 riders displaced by the LRT on West 42nd Street.

In order to carry the passenger volumes projected under the Proposed Action, not including displaced M-42 passengers, the LRT system would need to operate on a two-minute headway. This would not be feasible due to potential adverse impacts of traffic flow, especially on north-south avenues, and pedestrian circulation. The LRT system's inability to accommodate projected demands would likely result in significant increases in pedestrian volumes, and possibly taxi volumes, if additional taxis were available to serve the Project Area. Increases in pedestrian and taxi volumes would exacerbate projected traffic and sidewalk congestion.

Construction of vehicle storage, operations and maintenance, and power facilities would also be required to service the LRT system and would likely necessitate the acquisition of property. As LRT would be a new mode to the City, a system operator and implementation of a fare structure would need to be identified. In 2025, Alternative H would result in 21 more unmitigated subway station element impacts in the AM and PM peak hours than the Proposed Action. These impacts would be primarily stairways from subway mezzanines to street level, and reflect the more difficult transfer from a below-grade subway station to an at-grade LRT station. The extension of the No. 7 line would avoid these impacts.

During the AM peak hour, the westbound M-42 bus route, terminating at Sixth Avenue (i.e., replaced by the LRT system west of Sixth Avenue), would require 14 fewer buses per hour during the AM peak hour, and 19 fewer buses in the eastbound and four in the westbound per hour during the PM peak hour. In the AM peak hour, the M-10/M-20 would require one less bus, the M-11 southbound would require three less buses, the M-34/M-11 westbound would require five less buses, and the Q-32

westbound would require one less buss (all compared to the Proposed Action). In the PM peak hour, the M-20/M-20 northbound would require one less bus, the M-11 would require four fewer buses northbound and one less bus southbound, and the M-34/M-16 would require four fewer buses eastbound and one fewer bus westbound (all compared to the Proposed Action). Additional demand for ferry service would be similar to the demand generated by the Proposed Action.

(k) Pedestrians

Pedestrian impacts within the study area under this alternative would be significantly greater than the Proposed Action because, depending on the availability of taxis or utility of alternative modes, up to 15,000 pedestrians could be added to the sidewalk network as a result of the inadequate capacity provided by LRT.

It is anticipated that most of the unserved LRT riders would walk because additional taxis would be difficult to find, particularly with the projected traffic congestion. Alternative H would result in four more significant adverse pedestrian impacts than the Proposed Action during the AM peak hour (i.e., 10 vs. six), one more intersection affected by impacts during the Midday (i.e., 22 vs. 21), and four more intersections affected by impacts during the PM peak hour (i.e., 15 vs. 11).

(l) Air Quality

(i) Mobile Source

Microscale Intersection Analysis. Under Alternative H, 2025 CO 8-hour levels and PM₁₀ 24-hour and annual levels would not exceed the NAAQS or the PM_{2.5} 24-hour and annual STV, like the Proposed Action. Under Alternative H the DEP *de minimis* criteria for CO would be exceeded at one site, resulting in a significant adverse CO impact.

**TABLE 26-6
ALTERNATIVE H: AIR QUALITY ANALYSIS SITES EXCEEDING NAAQS, CEQR DE MINIMIS
CRITERIA OR DEP STV**

	2025	
	Proposed Action	Alternative H
CO 8-hour NAAQS	0	1
CO <i>de minimis</i> Criteria	0	0
PM ₁₀ 24-hour NAAQS	0	0
PM ₁₀ Annual NAAQS	0	0
PM _{2.5} 24-hour STV	0	0
PM _{2.5} Annual STV	0	0

Note: Shaded area indicates significant adverse air quality impacts that differ from the Proposed Action.

(ii) Stationary Source

Like the Proposed Action, Alternative H would not cause significant adverse impacts on air quality from future HVAC sources. Neither Alternative H nor the Proposed Action would result in any exceedances of any NAAQS, CEQR *de minimis* criteria, or STV or DEC air toxic guidance. However, there would be potential exceedances of the SO₂ NAAQS and DEC guidance with the Proposed Action attributable to Quill Bus Depot emissions in 2010 and 2025, which would be fully mitigated in both years. Neither the Proposed Action nor Alternative H would result in exceedances of any NAAQS, CEQR *de minimis* criteria, or PM_{2.5} STV.

(m) Noise and Vibration

Noise impacts from Alternative H would, like the Proposed Action, involve two areas of concern: (1) potential effects of introducing new noise-sensitive land uses (i.e., residences and community facilities) into an already noisy environment, and (2) effects of noise-generating activities associated

with the alternative on existing noise-sensitive land uses in the area. Since new noise-sensitive receptors would be introduced into the same noisy area as the Proposed Action, (E) Designations would also be required for the new residences and community facilities contemplated by Alternative H. This alternative would also increase noise levels by 3 dBA or more at many of the same locations as with the Proposed Action and would result in the need for the same mitigation measures identified for the Proposed Action. With such mitigation measures, there would be no significant adverse noise impacts from Alternative H.

(n) Construction Impacts

The overall level and length of construction activities with Alternative H would be less than with the Proposed Action, since Alternative H would not require the construction of the No. 7 Subway Extension. Instead, Alternative H would require greater surface construction than the Proposed Action as a consequence of the development of an 8,200-foot-long LRT system and full City block car storage and maintenance facility.

Alternative H would result in fewer construction period impacts associated with spoils removal than the Proposed Action. Although some excavation would be required under Alternative H, the volumes would be far less than the Proposed Action. However, traffic impacts during construction would be significantly greater with Alternative H than with the Proposed Action. Construction of the LRT system would affect traffic and pedestrian movement along West 42nd Street, Eleventh Avenue, and West 33rd Street, and restrict service at intersections along the alignment. Construction of the car storage and maintenance facility would require extensive land clearing and surface construction activities, including the development of a rail yard for over 50 LRT cars and a 75,000-square-foot car cleaning and maintenance building. The potential for air quality, noise, and vibration impacts would be slightly higher with Alternative H than with the Proposed Action due to its location at-grade. The construction schedule for the transit element with Alternative H would be shorter than that of the Proposed Action (36 months with Alternative H, compared to approximately 60 months with the Proposed Action).

4. Alternative Planning Initiatives

Three alternative planning initiatives that include modifications to multiple elements of the Proposed Action have been evaluated to assess whether they would reduce impacts of the Proposed Action and meet the land use, transportation, and environmental goals and objectives of the Proposed Action.

a) Alternative I: Lower Density Plan

Description of the Alternative

Alternative I was developed by the co-lead agencies in response to suggestions during the public scoping process for the DGEIS that an alternative be evaluated with lower density than the Proposed Action. Alternative I is intended to assess whether development with substantially lower density than the Proposed Action would result in impacts substantially different from those of the Proposed Action and whether it would meet the purpose and need for the Proposed Action identified in Chapter 1, "Purpose and Need."

Under Alternative I, the proposed zoning districts would be the same as the Proposed Action (C6-4, C2-8, C2-7A, C1-7A, C6-4M, C6-3X, and M1-6), but the additional density provided under the Proposed Action through the Large Scale Plan and through application of the District Improvement Bonus (DIB) would not be available. As depicted in Figures 26I-1 and 26I-2, Alternative I would be configured so that development would occur on substantially the same Projected Development Sites as the Proposed Action, but with a lower bulk than permitted under the Proposed Action. Alternative I would include all other elements of the Proposed Action.

In total, Alternative I would accommodate approximately 27 million square feet of new development, including approximately 18 million square feet of commercial office space, 1.4 million square feet of retail space, a 500,000 square-foot hotel (1,000 rooms), and 8,100 residential units. In comparison, the Proposed Action would permit approximately 43 million square feet of new development, including approximately 28 million square feet of commercial office space, a 1.4 million square feet of hotel use, one million square feet of retail use, and 12,600 residential units. In addition, but separate from the reasonable worst-case development scenario calculations, the Convention Center Hotel would be approximately 1.2 million square feet (1,500 rooms). For analytical purposes that development is assumed to occur on Projected Development Sites identified for the Proposed Action. Unlike the Proposed Action, Alternative I would not include a parking garage under the Midblock Park and Boulevard System.

Given the lower demand for transit use that would be generated by the reduced level of development with Alternative I, it is assumed that the 8,200-foot-long LRT system described in Alternative H would be developed in lieu of the extension of the No. 7 Subway. Based on schematic plans, construction of an LRT system would cost between \$750 million and \$950 million, based on Year 2006 midpoint of construction including a car storage and maintenance facility. By contrast, the cost of the No. 7 Extension is projected to be approximately \$1.96 to \$2.33 billion, based on Year 2006 midpoint of construction. (See Alternative H: Proposed Action with Light Rail Transit for a description of the construction and operation of the LRT system.) It is anticipated that payments in lieu of taxes (PILOTs) from the new development that would result from Alternative I would be sufficient to support financing of the LRT system as well as the open space elements of the Proposed Action. PILOT revenues under Alternative I would not be sufficient to support financing of the No. 7 Subway Line Extension.

Alternative I would require the same types of discretionary approvals and involvement of public agencies as those for the Proposed Action, except that MTA approval for extension of the No. 7 Subway would not be required. Additional approvals and actions associated with the LRT system, as with Alternative H, would be required.

Principal Conclusions

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 (see discussion in Chapter 1, “Purpose and Need”). 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 I Compared to the Proposed Action

Alternative I would result in a level of development in the Project Area different from that of the Proposed Action. In addition, it would include the development of an LRT System rather than the No. 7 Subway Extension with the Proposed Action. Development of the LRT System would eliminate the potential for adverse impacts in Corona Yard, since the LRT vehicles would not be stored or maintained at that facility. However, Alternative I would require the development of a full-block car storage and maintenance facility, the location of which is currently unknown. As a

consequence, impacts of Alternative I would potentially vary from those of the Proposed Action for all impact categories, except for archaeological resources and hazardous materials.

(a) Land Use, Zoning, and Public Policy

Like the Proposed Action, Alternative I would produce major changes in land use, but not result in significant adverse impacts on land use, zoning, or public policy. As depicted on Figures 26I-1 and 26I-2, land use changes with Alternative I would occur at the same locations as the Proposed Action, as would the locations, designs, capacities, and programs of the Multi-Use Facility and the Convention Center expansion.

While it is expected that development under Alternative I would occur on substantially the same Projected Development Sites as the Proposed Action, overall development would total approximately 18 million square feet of commercial office development and approximately 8,100 residential dwelling units, approximately 60 percent of the density of the Proposed Action. Although the level of development with Alternative I would differ from that of the Proposed Action, the overall effects of Alternative I on land use, zoning, and public policy would be substantially the same since both Alternative I and the Proposed Action would result in substantially the same types, locations, and distribution of land uses, and would be subject to substantially the same zoning controls. Unlike the Proposed Action, development of the LRT system under Alternative I would require the development of a new facility for the storage and maintenance of LRT vehicles. The location of this facility has not been identified, and it is uncertain whether such a facility would be compatible with other existing and proposed land uses in or near the Project Area.

(b) Socioeconomic Conditions

Construction of the LRT system with Alternative I is estimated to cost between \$750 million to \$950 million (based on Year 2006 midpoint of construction), approximately \$1.21 to \$1.38 billion less than the Proposed Action (based on Year 2006 midpoint of construction).

Development under Alternative I would occur on substantially the same Projected Development Sites as the Proposed Action, although the allowable density of development on those parcels would be reduced. As a result, there would be no significant change in direct commercial or residential displacement under Alternative I compared with the Proposed Action. Like the Proposed Action, Alternative I would not result in significant adverse impacts due to the direct or indirect displacement of either residential or commercial uses, nor would it result in significant adverse impacts on the apparel or theater industries.

As discussed above, development under Alternative I would be served by an LRT system. As a consequence, unlike the Proposed Action, no land would need to be acquired for construction and operation of the No. 7 Subway extension and Alternative I would, therefore, not result in the direct displacement of the approximately 15 businesses employing approximately 686 workers that would occur with the Proposed Action. However, unlike the Proposed Action, development of the LRT system under Alternative I would require the development of a new facility for the storage and maintenance of LRT vehicles. Although the location of this facility has not been identified, it would be optimally sited within approximately 1,000 feet of the proposed LRT alignment and would occupy a full City block. This would potentially require more land acquisition and result in more displacement compared to the Proposed Action.

Because Alternative I would result in less dense development than the Proposed Action, it would yield fewer long-term economic benefits than the Proposed Action in terms of economic activity resulting from construction investment, during operations, or annual economic activity from new uses in the Project Area. Alternative I could not accommodate the projected economic growth. However, the initial investment for development of transit facilities would be less with Alternative I than the

Proposed Action (\$1.96 to \$2.33 billion for the Proposed Action compared to \$750 to \$950 million for Alternative I).

Alternative I would not be as effective as the Proposed Action in satisfying the strong demand for housing in the Project Area, nor would it be as effective as the Proposed Action in reducing the resulting pressure toward higher land values, rents, and use conversions in other areas of Manhattan. Alternative I would create 722 fewer affordable housing units in the Project Area than the Proposed Action (about 838 units for Alternative I, compared to about 1,560 units with the Proposed Action).

(c) Community Facilities and Services

Like the Proposed Action, Alternative I would substantially increase the residential population in the Project Area, although not to the level with the Proposed Action. The Proposed Action is expected to result in a net increase of 844 residential units by 2010 and 9,899 additional residential units by 2025, compared with 533 residential units by 2010 and 5,214 residential units by 2025 with Alternative I. Of these totals, it is anticipated that the Proposed Action would generate approximately 192 units of affordable housing by 2010 and an additional 1,368 affordable units by 2025 (total of 1,560 affordable units), while Alternative I would generate approximately 126 units of affordable housing by 2010 and an additional 712 affordable units by 2025 for a total of 838 affordable units (Table 26-7). This would result in an estimated residential population in the Project Area of 1,543 by 2010 and 17,493 by 2025 with the Proposed Action, compared to an estimated population in the Project Area of 978 by 2010 and 9,228 by 2025 with Alternative I (Table 26-7). In summary, by 2025 Alternative I would result in approximately 53 percent of the total new residential population anticipated with the Proposed Action.

Like the Proposed Action, Alternative I would not result in significant adverse impacts with respect to police protection, library services, and health care.

**TABLE 26-7
ALTERNATIVE I RESIDENTIAL POPULATION AND HOUSING UNITS**

	2010	2010-2025	Cumulative
Units			
Low-Moderate Income	126	712	838
Market Rate	407	3,969	4,376
Total Units	533	4,681	5,214
Population			
Low-Moderate Income	315	1,790	2,095
Market Rate	664	6,469	7,113
Total Residents	978	8,249	9,228

Note: An average household size of 1.63 for market-rate units and 2.50 for low-moderate income units is assumed within the Project Area.

As with the Proposed Action, a new firehouse would likely be required to serve the increased commercial and residential populations in the Project Area by 2025 with Alternative I.

Regarding public schools, like the Proposed Action, Alternative I would increase the residential population in 2010 and 2025 and generate a student population in excess of available elementary school, intermediate school, and high school capacities, as shown in Table 26-8 and Table 26-9. New school construction would be required for both Alternative I and the Proposed Action.

TABLE 26-8
ALTERNATIVE I: 2010 SCHOOL ENROLLMENT

Public School Resource		Capacity	Proposed Action			Alternative T		
			Incremental Increase	Total Projected Enrollment	Available Seats in Program	Incremental Increase	Total Projected Enrollment	Available Seats in Program
Elementary Schools	Total Region 3	2,572	88	3,603	(1,031)	122	3,637	(756)
	Total CSD 2	15,185	88	16,910	(1,725)	122	16,944	(1,450)
Intermediate Schools	Total Region 3	273	19	414	(141)	25	421	(84)
	Total CSD 2	6,659	19	7,351	(692)	25	7,358	(635)
High Schools	Manhattan	55,129	30	60,364	(5,235)	27	60,373	(5,127)

Sources: DOE, DCP, AKRF

Note: Summary information obtained from Chapter 6, "Community Facilities," and school population projections for Alternative T.

TABLE 26-9
ALTERNATIVE I: 2025 SCHOOL ENROLLMENT

Public School Resource		Capacity	Proposed Action			Alternative T		
			Incremental Increase	Total Projected Enrollment	Available Seats in Program	Incremental Increase	Total Projected Enrollment	Available Seats in Program
Elementary Schools	Total Region 3	2,572	1,021	4,746	(2,174)	1,710	5,435	(1,454)
	Total CSD 2	15,185	1,021	18,044	(2,859)	1,710	18,733	(2,139)
Intermediate Schools	Total Region 3	273	214	669	(396)	359	814	(247)
	Total CSD 2	6,659	214	8,138	(1,479)	359	8,283	(1,345)
High Schools	Manhattan	55,129	328	57,537	(2,408)	554	57,732	(0)

Sources: DOE, DCP, AKRF

Note: Summary information obtained from Chapter 6, "Community Facilities," and school population projections for Alternative T.

Available publicly assisted day care for low- to moderate-income households within the Project Area and surrounding community is already over capacity. Like the Proposed Action, Alternative I would result in a significant adverse impact on publicly assisted day care, although the anticipated demand for such services would be less than that projected for the Proposed Action. By 2010, Alternative I would generate an additional demand of 15 children who are 12 years of age or younger, compared to 23 children who are 12 years of age or younger for the Proposed Action. By 2025, the additional demand is estimated to be 187 children for the Proposed Action and 85 for Alternative I. Like the Proposed Action, possible mitigation measures would include increasing the availability of family day care, providing vouchers for private group day care, or providing a new or expanded day care facility in or near the Project Area.

(d) Open Space and Recreational Facilities

Like the Proposed Action, Alternative I would not result in a significant adverse impact on open space and recreational facilities. Assuming that the open space and park elements included in the Proposed Action are financed and built through the application of PILOTs or other funding mechanisms, Alternative I would result in better open space ratios than the Proposed Action, since Alternative I would introduce fewer residents and employees than the Proposed Action, while maintaining the same amount of open space as the Proposed Action (Table 26-10).

TABLE 26-10
ALTERNATIVE I: ADEQUACY OF OPEN SPACE RESOURCES COMPARED TO THE
PROPOSED ACTION

Study Area	Open Space Category	Open Space Ratio	
		Proposed Action	Alternative I
Without High Line Open Space, 2010			
Non-Residential Study Area	Passive/Non-Residents	0.126	0.127
	Passive/Total Population	0.101	0.102
Residential Study Area	Total/Residents	0.768	0.772
	Passive/Residents	0.534	0.537
	Active/Residents	0.234	0.235
	Passive/Total Population	0.092	0.092
With High Line Open Space, 2010			
Non-Residential Study Area	Passive/Non-Residents	0.149	0.150
	Passive/Total Population	0.118	0.119
Residential Study Area	Total/Residents	0.811	0.816
	Passive/Residents	0.583	0.586
	Active/Residents	0.228	0.230
	Passive/Total Population	0.102	0.103
Without High Line Open Space, 2025			
Non-Residential Study Area	Passive/Non-Residents	0.099	0.116
	Passive/Total Population	0.081	0.094
Residential Study Area	Total/Residents	0.646	0.695
	Passive/Residents	0.466	0.501
	Active/Residents	0.180	0.194
	Passive/Total Population	0.078	0.086
With High Line Open Space, 2025			
Non-Residential Study Area	Passive/Non-Residents	0.114	0.133
	Passive/Total Population	0.092	0.107
Residential Study Area	Total/Residents	0.678	0.727
	Passive/Residents	0.502	0.538
	Active/Residents	0.176	0.189
	Passive/Total Population	0.086	0.094

(e) Shadows

Like the Proposed Action, Alternative I would result in significant adverse shadow impacts due to the incremental shadows from development that would occur on Projected Development Sites 14 and 45 that would fall on the Eighth Avenue façade of the Farley Building and the rose windows of St. Raphael’s RC Church. This would occur even with the reduced density and height of buildings that are projected to be developed at the two Projected Development Sites with Alternative I, since the shadow effects on the Farley Building and St. Raphael’s RC Church would be created by the lower floors of the new development. Like the Proposed Action, these impacts would be unavoidable and could not be mitigated.

(f) Architectural Historic Resources

Alternative I would have the same potential for significant adverse impacts as the Proposed Action, since it would affect the same significant architectural historic resources as the Proposed Action.

(g) Urban Design and Visual Resources

Like the Proposed Action, Alternative I would dramatically improve urban design in the Project Area and not result in a significant adverse impact on visual resources. Alternative I would have the same effects on street hierarchy and development patterns as the Proposed Action, with the exception of effects due to the LRT system. The same zoning regulations would control street width, streetwall heights, storefront requirements, landscaping, and other such design elements, so the streetscape with Alternative I would be very similar to that of the Proposed Action.

The major difference in urban design and visual resources would be due to the decreased size of the buildings that would be constructed with Alternative I compared to the Proposed Action, particularly in the Large Scale Plan and Farley Corridor Subdistricts, where buildings that would be developed under Alternative I could be half the FAR of those developed under the Proposed Action. However, the height of streetwalls under Alternative I would be the same as with the Proposed Action, as would the floor area in the bases of the buildings. The smaller towers that would be developed under Alternative I, compared to the Proposed Action, would principally affect the skyline of buildings. These differences would not be obvious from street level, where the perceptions of entrances, shops, sidewalk width, street trees and street furniture, and streetwall height would be stronger than the perception of tower height. Longer views of the building forms would more readily reveal differences in the overall skylines between Alternative I and the Proposed Action.

Unlike the Proposed Action, Alternative I would add an LRT system along West 42nd Street, Eleventh Avenue, and West 33rd Street, thereby changing the street pattern and streetscape conditions in the Project Area compared to the Proposed Action. Unlike the Proposed Action, Alternative I would introduce visible and permanent transportation features at street level, including above-ground stations along the route, catenary wires overhead, and a facility for the storage and maintenance of LRT vehicles, thereby creating a new urban design and visual presence along its routes. The street pattern would be altered, as West 33rd Street between Eleventh and Eighth Avenues would be closed to vehicular traffic, although it would remain open for pedestrian use and for the operations of the LRT.

Under the Proposed Action, parking and service entrances for new development in the Large Scale Plan and the 34th Street Corridor Subdistricts would be located on West 33rd Street. However, with West 33rd Street between Eighth and Eleventh Avenues closed to vehicular traffic under Alternative I, provision would have to be made to ensure adequate access for loading and deliveries. To accommodate the LRT alignment, entrances to these buildings could be located on West 34th Street or avenue frontages. This could compromise the urban design contemplated for this corridor, reducing the beneficial effects of the requirements included in the Proposed Action for widened and planted sidewalks that are intended to create a continuous, pedestrian corridor connecting to the Hudson River. Alternatively, deliveries to these sites could be limited to hours when there is little or no LRT service. This would increase costs to businesses at these locations and make such sites less attractive as a business location.

(h) Neighborhood Character

Like the Proposed Action, Alternative I would substantially improve neighborhood character in the Project Area, since both Alternative I and the Proposed Action would introduce new, higher-density uses than currently exist in the Project Area; would cover most of the transportation facilities that currently disrupt the orderly form of development and streets with new development and a substantial amount of new open space; and would create a new mixed-use community. The building bulks and forms with Alternative I would be different and less dense than the Proposed Action, but, as described under Urban Design and Visual Resources, the resultant streetscapes would be similar, and the consequent difference in neighborhood character would not be substantial.

However, the presence of the LRT system with Alternative I would potentially reduce overall improvements due to effects on pedestrian and traffic congestion, and the presence of a new car storage and maintenance facility.

(i) Natural Resources

Like the Proposed Action, Alternative I would not result in significant impacts on natural resources. This alternative would have a lower density and may result in fewer CSO events and volumes and

would cast shorter shadows, however, none of these issues are significant for the Proposed Action or Alternative I.

(j) Infrastructure

Alternative I would result in less demand for City water supply and sewer services compared to the Proposed Action. Alternative I would generate demand for approximately 4.6 million gallons per day (mgd) of potable water, compared to an estimated peak usage of 8.6 mgd of potable water under the Proposed Action. The DEP's planned implementation of the Manhattan Trunk Main Master Plan would provide sufficient water supply to serve the increased demand of either Alternative I or the Proposed Action and, consequently, neither alternative would result in significant adverse impacts to the City water supply system. Sewage generation for Alternative I would total approximately 4.6 mgd, less than the 8.6 mgd that would be generated during a peak day under the Proposed Action. As a consequence, Alternative I may require fewer upgrades to sewer segments than the Proposed Action. There would be no significant adverse impacts to wastewater service in the Project Area under Alternative I or the Proposed Action, as the design for DEP-approved sewer upgrades (Drainage Plan amendments) would account for twice the average sanitary flow of the service area. Additionally, the North River Wastewater Pollution Control Plant would have available capacity to treat the increased sewage generated by Alternative I or the Proposed Action.

Like the Proposed Action, additional pervious surfaces from proposed open spaces and water recycling systems (i.e., Multi-Use Facility water storage tanks providing flushing water) would be in place, with the potential to reduce stormwater runoff. Like the Proposed Action, Alternative I would not result in an increase in the number of combined sewer outflow (CSOs) events. Like the Proposed Action, Alternative I is not expected to result in any significant adverse impacts to Hudson River water quality at the time of a CSO event.

(k) Solid Waste and Sanitation Services

Like the Proposed Action, Alternative I would not result in a significant adverse impact on municipal solid waste management services. Alternative I would generate less solid waste and less demand for DSNY municipal solid waste collection services than the Proposed Action. The municipal solid waste volumes with Alternative I would require approximately six fewer DSNY truck trips per week in the M-4 service area than the Proposed Action.

(l) Energy

Alternative I would result in a lower peak electricity demand than the Proposed Action. Within the Rezoning Area, the commercial and residential developments under Alternative I would require 186 MW under peak conditions in 2025, compared to 309 MW under the Proposed Action. The annual energy demand of the No. 7 Extension (21,000 MWh) would be 12,346 MWh greater than the energy demand of the LRT System (8,654 MWh). Although the design capacity of the area substation currently serving the Project Area is 271 MW, which is substantially greater than the anticipated peak load with Alternative I, Con Edison indicates that, like the Proposed Action, Alternative I, in combination with other anticipated demand within the service area, would require a new area substation and a new transmission substation prior to 2025. By comparison, the Proposed Action would require a new area substation and transmission substation by 2013 and a second area substation by 2021. Like the Proposed Action, the new area substation and transmission substation required for Alternative I may have to be located in the Project Area. Like the Proposed Action, with these new facilities, Alternative I is not expected to result in a significant adverse impact on energy services.

(m) Traffic (2010 and 2025)

Construction of an LRT system as part of Alternative I would significantly reduce the vehicular capacity of the street network along its alignment and would result in traffic diversions and increased congestion on parallel and connecting streets. The construction of dual LRT tracks and stations on the west side of Eleventh Avenue would reduce the capacity of Eleventh Avenue by half in the vicinity of the Lincoln Tunnel and change its operation from two-way to one-way southbound, while facilities constructed on the north side of West 42nd Street would require conversion of that street from a two-way street to one-way eastbound operation. West 33rd Street would be closed to traffic.

Construction of LRT facilities on West 33rd Street, Eleventh Avenue and on West 42nd Street would severely reduce automobile, truck and taxi access to land uses fronting on the LRT's right-of-way including the Convention Center and Multi-Use Facility. In addition, the required combination of full street closure (West 33rd Street) and partial street closures (Eleventh Avenue northbound, West 42nd Street westbound) required to implement this alternative would produce large traffic diversions to parallel streets resulting in additional area wide traffic impacts compared to the Proposed Action.

Vehicles currently traveling westbound on West 42nd Street would be diverted to parallel westbound streets, primarily West 43rd Street and West 41st Street. As a result of the closure of West 33rd Street, traffic would divert primarily to westbound West 34th Street and West 31st Street. Partial street closure on Eleventh Avenue would result in diversion of Eleventh Avenue northbound traffic primarily to Tenth Avenue.

Under Alternative I, 2010 weekday AM peak hour traffic diversions to parallel streets and avenues would total approximately 540 vehicles from Eleventh Avenue, 1,210 vehicles from West 42nd Street and 390 vehicles from West 33rd Street. 2010 Midday peak hour traffic diversions to parallel streets and avenues would be approximately 500 vehicles from Eleventh Avenue, 990 vehicles from West 42nd Street and 525 vehicles from West 33rd Street. 2010 PM peak hour traffic diversions to parallel streets would be approximately 525 vehicles from Eleventh Avenue, 1,250 vehicles from West 42nd Street, and 625 vehicles from West 33rd Street. These diversions would adversely affect all streets and intersections along the diversion routes.

2025 weekday AM peak hour traffic diversions to parallel streets and avenues would total approximately 655 vehicles from Eleventh Avenue, 1,325 vehicles from West 42nd Street, and 790 vehicles from West 33rd Street. 2025 Midday peak hour traffic diversions to parallel streets and avenues would be approximately 560 vehicles from Eleventh Avenue, 1,120 vehicles from West 42nd Street, and 680 vehicles from West 33rd Street. 2025 PM peak hour traffic diversions to parallel streets would be approximately 750 vehicles from Eleventh Avenue, 1,380 vehicles from West 42nd Street, and 1,100 vehicles from West 33rd Street. These diversions would adversely affect all streets and intersections along their diversion routes. For example, West 43rd Street volumes would more than triple during the AM and Midday peak hours, and more than double during the evening peak hour. The operational impacts of these diversions are described below.

A targeted traffic assessment was conducted of 51 intersections in the Project Area. The results of this analysis indicate that in 2010, while the Proposed Action would result in no unmitigated traffic impacts in the AM, Midday, or PM peak periods, Alternative I would result in six unmitigated adverse impacts during the AM peak hour, six unmitigated adverse impacts during the Midday peak hour, and nine unmitigated adverse impacts during the PM peak hour. Adverse impacts that could not be mitigated in the Proposed Action refer only to those Proposed Action intersections located in the targeted area.

In 2025 Alternative I would result in 11 more significant adverse impacts that could not be mitigated during the AM peak hour (i.e., 3 vs. 14), six more intersections that could not be mitigated during the

Midday peak hours (i.e., eight vs. two), and 15 more adverse impacts that could not be mitigated during the PM peak hour than the Proposed Action (i.e., 19 vs. four).

Alternative I would result in lower traffic volumes on bridges and tunnels than the Proposed Action during the AM, Midday, and PM peak hours, but would still create significant adverse impacts to the river crossings. Weeknight and Sunday Special Event peak hour volumes would be similar to the Proposed Action.

In summary, Alternative I is similar to Alternative H, but with a lower level of proposed development. The number of significant adverse traffic impacts which could not be mitigated under Alternative I would be more numerous than those under the Proposed Action, although less severe than under Alternative H. This is because Alternative I would require the diversion of large numbers of vehicles to nearby streets which are themselves at or near capacity, even without the diverted traffic volumes. While the development traffic would be less under Alternative I than under the Proposed Action, the diversions would include high base traffic volumes common to both. Alternative I would generate fewer office and residential trips, but result in greater traffic impacts than the Proposed Action during five of the six periods evaluated, and the same number of significant unmitigated adverse impacts in the remaining period analyzed.

(n) Parking

Closure of West 33rd Street to vehicular traffic required for the development of the LRT system with Alternative I would require the relocation of the access points to the garages on Projected Development Sites 1 and 32 located on the south side of West 33rd Street, and Projected Development Sites 2, 3, and 30 located on the north side of West 33rd Street. The redevelopment of West 33rd Street frontage of Projected Development Site 1 on the eastern portion of Caemmerer Yard would also require that any new buildings locate parking entrances/exits along Eleventh and/or Tenth Avenues. Projected Development Site 2 could be accessed by a new entrance/exit off Eleventh Avenue. Projected Development Site 3 could be accessed from Tenth Avenue, Projected Development Site 30 from Ninth Avenue, and Projected Development Site 32 could be accessed on Ninth Avenue. Relocation of parking facility access from West 33rd Street to these avenues would result in greater adverse impact traffic and pedestrian operations at these locations than the Proposed Action.

Under 2010 conditions, both Alternative I and the Proposed Action would provide sufficient off-street parking capacity to accommodate projected demands. Under 2025 conditions, Alternative I would result in a parking shortfall of approximately 500 spaces during the weekday peak hour and approximately 442 spaces during the Sunday Special Event peak hour. These shortfalls would result primarily from the elimination of the midblock public parking garage under this plan. An additional 502 space off-street parking facility would be required to mitigate the weekday shortfall. It is assumed that the Sunday shortfall would be covered by existing parking facilities that are now closed on Sunday but would open on a game day in the future. In comparison, the Proposed Action will result in a minimum shortfall of approximately 50 spaces in the midday peak hour and surpluses in the remaining periods. Weekday overnight and weeknight Special Event capacity is sufficient under Alternative I.

(o) Transit

The LRT system included in Alternative I could support the density of development proposed under that alternative during the AM, Midday, and PM peak hours assuming that the LRT system is able to operate on a three-minute headway throughout the peak hour. Total peak hour capacity of the LRT system assuming a three-minute headway would be approximately 20,000 riders. During special event hours, the lower capacity of the LRT system would result in greater delays at the Multi-Use Facility or result in larger numbers of pedestrians walking to Penn Station or using other subway lines

or bus routes than the Proposed Action. Pedestrian and vehicular congestion in the corridor between Penn Station and the Multi-Use Facility could potentially be significantly worse than under the Proposed Action because, under this alternative, LRT operations on Eleventh Avenue and on 33rd Street would be in conflict with very high exiting volumes from the Multi-Use Facility.

The LRT system included in Alternative I would operate in an exclusive right-of-way free from the delays associated with operations in mixed traffic. However, the proposed LRT system would still operate on-street and would be subject to traffic signal delays at intersections, spillback delays and turning movement delays. Projected peak period congestion on Eleventh Avenue at the approaches to the Lincoln Tunnel and along West 42nd Street under the Proposed Action would be exacerbated by the requisite reduction in roadway capacity and associated vehicular diversions with Alternative I. Large volumes of pedestrians crossing the alignment to access the island platform or crossing West 42nd Street to access the PABT or crossing 33rd Street to access Penn Station could also adversely effect service on the LRT system.

In 2010, Alternative I would have no unmitigated subway station elements. In 2025, Alternative I would result in 12 more unmitigated subway station element impacts in the AM peak hour and 11 more in the PM peak hour, primarily stairs to street level, than the Proposed Action. These impacts reflect the large number of indirect transfers from the below grade subway stations to the at-grade LRT stations required by Alternative I.

Although the proposed development level is less in 2010 under Alternative I than the Proposed Action, the number of buses stays the same. Existing bus service on all routes evaluated would be sufficient to accommodate development proposed under both Alternative I and the Proposed Action.

In 2025, the M-11 and M-34/M-16 would both be converted to articulated service under both Alternative I and the Proposed Action. Articulated buses are the large hinged buses currently deployed on high volume bus routes. During the AM peak hour, Alternative I would require two fewer buses on the southbound M-10/M-20, one fewer on northbound M-11, five fewer on the southbound M-11, five fewer on the westbound M-34/M-16 and one fewer on the westbound Q-32. The M-42 route would be truncated at Sixth Avenue in the vicinity of the proposed LRT station and require 14 fewer buses. During the PM peak hour, Alternative I would require four fewer buses on the northbound M-10/M-20, six fewer on the northbound M-11, one fewer on the southbound M-11, five fewer on the eastbound M-34/M-16, and one fewer on the westbound M-34/M-16. The M-42 route would be truncated at Sixth Avenue in the vicinity of the proposed LRT station and require 19 fewer buses eastbound and four fewer westbound during the PM peak hour. With the added bus service, no adverse impacts to bus service would occur under this alternative. Additional demand for ferry service would not significantly increase in Alternative I.

(p) Pedestrians

Alternative I and the Proposed Action would generally result in few unmitigated adverse pedestrian impacts within the Project Area. However, Alternative I would result in worse pedestrian impacts during Special Event periods because the lower capacity of the LRT system could result in more attendees walking to Penn Station or other subway lines rather than waiting for the LRT.

Specifically, under 2010 conditions, Alternative I could result in one more significant adverse pedestrian impact than the Proposed Action during the AM peak hour (i.e., three vs. two). In the Midday and PM peak period, both Alternatives would result in no unmitigated impacts. Under 2025 conditions, Alternative I could result in one fewer significant adverse pedestrian impact than the Proposed Action during the AM peak hour (i.e., five vs. six), four fewer unmitigated significant adverse intersection impacts Midday (i.e., 17 vs. 21), and the same number of impacts during the PM peak hour (i.e., 11).

(q) *Air Quality*

(i) Mobile Source

Microscale Intersection Analysis. Under Alternative I, 2010 and 2025 CO 8-hour levels and PM₁₀ 24-hour and annual levels would not exceed the NAAQS or the PM_{2.5} 24-hour and annual STV, and would not exceed the DEP *de minimis* criteria for CO, like the Proposed Action.

TABLE 26-11
ALTERNATIVE I: AIR QUALITY ANALYSIS SITES EXCEEDING NAAQS, CEQR DE MINIMIS
CRITERIA OR DEP STV

	2010		2025	
	Proposed Action	Alternative I	Proposed Action	Alternative I
CO 8-hour NAAQS	0	0	0	0
CO <i>de minimis</i> Criteria	0	0	0	0
PM ₁₀ 24-hour NAAQS	0	0	0	0
PM ₁₀ Annual NAAQS	0	0	0	0
PM _{2.5} 24-hour STV	0	0	0	0
PM _{2.5} Annual STV	0	0	0	0

(ii) Stationary Source

Like the Proposed Action, Alternative I would not cause significant adverse impacts on air quality from future HVAC sources. Neither Alternative I nor the Proposed Action would result in any exceedances of any NAAQS, CEQR *de minimis* criteria or STV or DEC air toxic guidance. However, there would be potential exceedances of the SO₂ NAAQS and DEC guidance with the Proposed Action attributable to Quill Bus Depot emissions in 2010 and 2025, which would be fully mitigated in both years. Neither the Proposed Action nor Alternative I would result in exceedances of any NAAQS, CEQR *de minimis* criteria or PM_{2.5} STV.

(r) *Noise and Vibration*

Like the Proposed Action, significant adverse noise impacts would occur under Alternative J at some existing residential and commercial uses. These impacts would be fully mitigated through a City-sponsored window replacement program. Like the Proposed Action, significant adverse impacts at noise-sensitive receptors at new development would be avoided through the application of (E) Designations establishing necessary window-wall attenuation measures at Projected and Potential Development Sites. Neither Alternative J nor the Proposed Action would result in significant adverse vibration impacts.

Like the Proposed Action, Alternative J would not result in significant adverse impacts on noise or vibration from mechanical systems or subway operation. All building and mechanical systems, including subway ventilation facilities, would be required to comply with NYCBC requirements. In addition, subway ventilation buildings would be required to conform to MTA NYCT ventilation noise control design specifications. Both the NYCBC and MTA NYCT specifications require that community noise levels resulting from ventilation be no higher than 55 dBA at any adjacent residential or noise-sensitive receptor. These code requirements would avoid any significant adverse impacts occurring as a result of HVAC or other equipment. Like the Proposed Action, operation of the subway with Alternative J at a maximum operating speed of 35 mph along the proposed alignment would result in vibration and ground-borne noise levels well below applicable FTA impact criteria.

(s) *Construction Impacts*

The overall level and length of construction activities with Alternative I would be less than with the Proposed Action, since Alternative I would not require the construction of the No. 7 Subway

Extension. Instead, Alternative I would require greater surface construction than the Proposed Action as a consequence of the development of an 8,200-foot-long LRT system and full City block car storage and maintenance facility.

Alternative I would result in fewer construction period impacts associated with spoils removal than the Proposed Action. Although some excavation would be required under Alternative I, the volumes would be far less than the Proposed Action. However, traffic impacts during construction would be significantly greater with Alternative I than the Proposed Action. Construction of the LRT system would affect traffic and pedestrian movement along West 42nd Street, Eleventh Avenue, and West 33rd Street, and restrict service at intersections along the alignment. Construction of the car storage and maintenance facility would require extensive land clearing and surface construction activities, including the development of a rail yard for over 50 LRT cars and a 75,000-square-foot vehicle cleaning and maintenance building. The potential for air quality, noise and vibration impacts would be slightly higher and could potentially affect a larger segment of the City population with Alternative I than with the Proposed Action. The construction schedule for the transit element with Alternative I would be shorter than that of the Proposed Action (36 months with Alternative I compared to approximately 60 months with the Proposed Action).

b) Alternative J: Community Organization Plan

Description of the Alternative

Alternative J was derived from a proposal by the Hell's Kitchen Neighborhood Association and Community Board No. 4 during the public scoping process for the DGEIS. It is intended to assess whether an alternative development plan for the Project Area that would provide a similar overall level of development as the Proposed Action, but without the Multi-Use Facility, would result in substantially different benefits or fewer adverse impacts than the Proposed Action and would meet the goals and objectives of the Proposed Action.

Alternative J presents an alternative plan for the redevelopment of the Project Area. Under Alternative J, the Project Area would be redeveloped to the same total density as the Proposed Action, but would conform to an alternative land use plan and related zoning map and text amendments different from those included in the Proposed Action. Under Alternative J, the Convention Center would expand both northward to West 39th Street and to the south over the western portion of Caemmerer Yard. The new building over the western portion of Caemmerer Yard would be connected to the existing Convention Center by a pedestrian walkway over West 34th Street. West 39th, West 40th, and West 41st Streets would remain open under Alternative J, but West 33rd Street would be closed. The plan would not include development of a Multi-Use Facility. Approximately six million square feet of commercial development would also be constructed over the western portion of Caemmerer Yard.

The initial transportation improvement included as part of Alternative J is assumed to be a dedicated subway "shuttle" connecting Penn Station and Eleventh Avenue through a major commercial corridor. Extension of the No. 7 Subway would be completed at a later phase, as necessary, to support the ultimate level of development permitted under Alternative J.

In light of the revised Community Organization Plan, analyzed as Alternative T, the traffic, parking, transit, pedestrian, air quality, and noise analyses that follow were not revised from those provided in the DGEIS.

As depicted in Figures 26J-1 and 26J-2, Alternative J would result in an equivalent amount of development as the Proposed Action (i.e., approximately 28 million square feet of commercial development and approximately 12.4 million square feet of residential development), but in conformance with an alternative land use plan. A substantial portion of the commercial development in Alternative J would be concentrated over the western portion of Caemmerer Yard, and in an east-

west corridor between West 30th and West 35th Streets from Seventh to Eleventh Avenues, and along the east side of Eleventh Avenue. Most of the Special Clinton District between West 41st Street and West 43rd Street would remain unchanged from current zoning at 12 FAR and would be predominantly residential, as would Hell's Kitchen (at a lower density than the Proposed Action) and the Tenth Avenue Corridor. Alternative J would also include residential development between Eleventh and Twelfth Avenues and West 39th and West 41st Streets, north of the Convention Center. The portion of the Special Garment Center District within the Project Area would permit residential use and permit the same level of development as under the Proposed Action.

Alternative J would limit the amount of development between Ninth and Tenth Avenues between West 33rd and West 41st Streets to that of the existing bulk of the area. Ninth and Tenth Avenues (except between West 40th and West 41st Streets between Tenth and Dyer Avenues) would be zoned to permit residential uses at an FAR of 4.2 in the midblocks. The blocks between West 33rd and West 35th Streets, on which larger structures are currently located, would be zoned at an FAR of 10 to 12.

The block between West 29th and West 30th Streets would be used as a "multi-agency facility," which would include a truck marshalling facility for the Convention Center, and the DSNY and NYPD Tow Pound facilities (assumed to be relocated to Block 675 with the Proposed Action). The roof of the expanded Convention Center would be developed as a 10-acre public park and community recreation area. In addition, athletic fields would be provided on the roof of the multi-agency facility. Elevated pedestrian walkways over Route 9A would connect these open space and recreational areas with Hudson River Park.

Like the Proposed Action, Alternative J would require that the Quill Bus Depot be relocated to a site adjacent to the eastern and western portions of Caemmerer Yard along West 30th Street. Unlike the Proposed Action, which includes a Convention Center Hotel on the southwest corner of Eleventh Avenue and West 42nd Street, Alternative J would include a residential development with ground-floor retail on this site.

Like the Proposed Action, Alternative J would include the development of a major open space element over the eastern portion of Caemmerer Yard, on which gardens, cafes, and other public amenities would be developed. A major pedestrianway would connect this open space element with Penn Station through the West 30th to West 35th Street commercial corridor. The Proposed Action would also provide a West 32nd Street Pedestrianway in the scenario in which Madison Square Garden remains in its current location.

Like the Proposed Action, Alternative J would include the development of a new Midblock Park and Boulevard System between West 35th and West 38th Streets between Tenth and Eleventh Avenues. Unlike the Proposed Action, Alternative J would map an 80-foot wide boulevard with a public park system along its eastern edge and would not include the proposed parks and pedestrian bridge north of West 38th Street and the parks south of West 35th Street. Like the Proposed Action, development of this Midblock Park and Boulevard System would require the condemnation and acquisition of a number of properties. Unlike the Proposed Action, Alternative J proposes the acquisition and mapping of properties along the Dyer Avenue approaches to the Lincoln Tunnel as City parkland. However, acquisition of these sites from the Port Authority is not considered feasible, and the proposed open spaces are not assumed in the Open Space analysis for Alternative J.

As noted above, Alternative J calls for construction of a subway line from Penn Station to the vicinity of Eleventh Avenue and West 33rd Street. This subway line is proposed to be operated as a shuttle until development demands require an extension of the existing No. 7 Subway from Times Square to Eleventh Avenue. At Eleventh Avenue, passengers could transfer between the shuttle and the No. 7 line. The proposal envisions construction of a truncated system and utilization of existing Penn Station infrastructure to the greatest extent possible. To be completed by 2010, the proposed shuttle

is assumed to operate on LIRR “C” Yard tracks 9C and 10C in the lower level of Penn Station. Construction of an LIRR shuttle is estimated to cost at least \$1.9 billion to \$2.1 billion.

The second and final phase of transit improvements included in Alternative J would be extension of the No. 7 Subway to support the full buildout of Alternative J. The shuttle under West 33rd Street, constructed during the first phase, would be designed to incorporate a passenger transfer to the No. 7 Subway Extension included in the Proposed Action at Eleventh Avenue. The alignment, profile, and stations of the No. 7 Subway Extension in this second phase of transit improvements with Alternative J would be the same as the Proposed Action.

As part of this alternative, a number of individuals and groups suggested that the shuttle be the first leg of a U-shaped alignment for the full No. 7 Subway Extension (from Times Square, under West 41st Street to Eleventh Avenue, and back across West 33rd Street to Penn Station). However, such an arrangement is infeasible. If the first leg of the subway were actually built to act as this shuttle, it would have to be deep underground to later connect to the No. 7 Subway Extension. It would be separated by its deep grade from the rest of the subway system. Getting cars in and out of the shuttle right-of-way to gain access to a MTA NYCT subway maintenance facility would require construction of long non-revenue tracks to bring the cars to grade to connect with one of the existing subway lines in the area. Such a connection would be costly and its feasibility is uncertain. A connection from the existing LIRR tracks is also not feasible, because LIRR tracks cannot be used for an NYCT subway shuttle; the LIRR is under the jurisdiction of the Federal Railway Administration and, as such, cannot be part of the subway system.

Alternative J would require the same type of discretionary approvals and public actions as the Proposed Action. It would also require approvals by the MTA to operate a designated commuter shuttle between Eleventh Avenue and Penn Station. The proposed pedestrian connections over Route 9A would require federal review and approval. There is no financing plan associated with Alternative J.

Principal Conclusions

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 19 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 400 parking spaces with Alternative J, compared to a small parking shortfall during the weekday Midday peak with the Proposed Action. Construction of a 460-space parking facility in the vicinity of Hudson Yards could offset this shortfall. The concentration of commercial uses in the 34th Street Corridor, which is already heavily used, would produce more unmitigated pedestrian impacts during the Midday peak hour under 2025 conditions than the Proposed Action.

As noted above, 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 the \$1.4 billion construction investment 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), fiscal revenues (up to \$54.1 million), and overall economic activity generated by the Multi-Use Facility. However, the cost of platforming over the Yards would be the same as under the Proposed Action.

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 J Compared to the Proposed Action

Although Alternative J would result in the same level of new residential and commercial development as the Proposed Action, the location and scale of the development would be different from that of the Proposed Action. Eliminating the Multi-Use Facility from the Proposed Action would reduce the overall level of development and related activity in the Project Area. Related infrastructure, including proposed transit improvements, the design of the Midblock Park and Boulevard System, and the proposed open space included in Alternative J, would all differ from that of the Proposed Action. As a consequence, Alternative J would result in different impacts from those of the Proposed Action in most impact categories. Therefore, assessments are given below for all impact categories except infrastructure, solid waste, energy, and archaeological resources.

(a) Land Use, Zoning, and Public Policy

Like the Proposed Action, Alternative J would not result in significant adverse impacts to land use, zoning, or public policy. Alternative J would have the same overall level of commercial and residential development as the Proposed Action. However, Alternative J would have a different overall land use plan and related rezoning than the Proposed Action, as detailed below.

The Convention Center Corridor would result in a different land use pattern with Alternative J than the Proposed Action. The Convention Center would be expanded northward to West 39th Street. North of West 39th Street, the Quill Bus Depot would be relocated to provide space for a mix of residential, office, and retail uses along Eleventh and Twelfth Avenues. The Quill Bus Depot would be relocated to between West 30th and West 31st Streets, between Tenth and Twelfth Avenues. Unlike the Proposed Action, Alternative J would not include a Convention Center Hotel at the southwest corner of West 42nd Street and Eleventh Avenue. Instead, the site would be redeveloped for residential uses. Also unlike the Proposed Action, the platform to be constructed over the western portion of Caemmerer Yard would house most of the Convention Center expansion, and a substantial amount of office, hotel, and retail uses, rather than the Multi-Use Facility.

Like the Proposed Action, Alternative J would transform the Convention Center Corridor from an area with predominately transportation-related uses to a mixed-use area with a substantial amount of convention, commercial, and residential uses. Unlike the Proposed Action, Alternative J would not realize a number of beneficial land use effects, including the integration of the High Line into the Multi-Use Facility, the public open space between West 33rd and West 34th Streets, and the connection of these facilities to the public open space on the eastern portion of Caemmerer Yard and the Midblock Park and Boulevard System. Unlike the Proposed Action, which includes open space both within the Convention Center Corridor at grade and on the roof of the Convention Center, Alternative J would not provide any at-grade public open space within the Convention Center Corridor and publicly accessible open space would be limited to the roof of the Convention Center. Access to these rooftop facilities would be more difficult than access to the public open space that would be developed in the Proposed Action on the block between Eleventh and Twelfth Avenues between West 33rd and West 34th Streets. Like the Proposed Action, Alternative J would develop the roof of the multi-agency facility on Block 675 as a public park; however, the multi-agency facility under Alternative J would include the DSNY, NYPD Tow Pound, and Convention Center truck marshalling operations, thereby increasing the height of the roof and, in turn, the elevation of the park.

The density of development in Subdistrict A and the Tenth Avenue Corridor would be less with Alternative J than the Proposed Action. This area would be developed to FARs of 12 along Eleventh Avenue, 7.5 to the east of the Midblock Park and Boulevard System, and 15 over Caemmerer Yard, compared to FARs of 18, 15, and 19, respectively, with the Proposed Action. Like the Proposed Action, Alternative J includes a Large Scale Plan. However, it would be substantially smaller than the Proposed Action and be limited to the eastern portion of Caemmerer Yard and the two blocks to the north. Overall, the result of this zoning approach would be to concentrate the greatest commercial density along the east-west corridor between Seventh and Twelfth Avenues between West 30th and West 35th Streets.

(b) Socioeconomic Conditions

Like the Proposed Action, Alternative J would result in substantial economic benefits due to the development that would occur as a consequence of the proposed rezoning of the Project Area. Unlike the Proposed Action, Alternative J would not include development of the Multi-Use Facility, the Convention Center would be expanded mostly to the south rather than entirely to the north, and more dense development would be concentrated between West 30th to West 35th Streets than the Proposed Action. Projected Development Sites would remain the same as under the Proposed Action (although the allowable density of development on those parcels would be reduced) and new commercial and residential Projected Development Sites would be situated on parcels which, under the Proposed Action, would be developed with the Multi-Use Facility and the Convention Center expansion. As a result, there would be no additional direct commercial or residential displacement under Alternative J compared with the Proposed Action. Like the Proposed Action, Alternative J is not expected to result in significant adverse impacts with respect to either direct or indirect displacement of residential or commercial uses, or result in significant adverse impacts on the apparel or theater industries. The level of overall employment and economic benefit that would result from the projected commercial and residential development would be substantially the same as the Proposed Action.

Under Alternative J, there would be substantially the same number of residential units (10,004 in 2025, an increase over the No Action Alternative, for Alternative J compared with 9,899 for the Proposed Action). It is projected that Alternative J would generate slightly more affordable housing units than the Proposed Action (1,631 affordable units in 2025 for Alternative J compared to 1,560 for the Proposed Action).

Unlike the Proposed Action, Alternative J would not realize any of the socioeconomic benefits from the construction and operation of the Multi-Use Facility. It is estimated that the Multi-Use Facility would result in a \$1.4 billion construction investment during its four-year construction period and approximately 6,710 direct and indirect jobs resulting from operation of the facility. In addition, unlike the Proposed Action, Alternative J would not create a new venue with the capability to host major plenary events and other national sports and entertainment events, such as the Super Bowl and Final Four, nor would it provide alternative exposition space for users that are unable to be accommodated at the Convention Center or a New York home for the New York Jets. As a result, Alternative J would not realize the projected benefits of the Multi-Use Facility of \$54.1 million per year in tax revenues for the City and State. In addition, Alternative J would not realize the resulting annual wages and salaries (up to \$348.5 million), fiscal revenues (up to \$54.1 million), and overall economic activity generated by the Multi-Use Facility.

While Alternative J would realize some of the benefits of constructing and operating an expanded and modernized Convention Center, the substantially southward expansion of the Convention Center under Alternative J would not provide the Convention Center with an entrance on West 42nd Street, a prominent gateway and connection to the Convention Center expansion and modernization as set forth in the Proposed Action. More importantly, Alternative J would not permit the Convention Center to maximize its prime contiguous exhibition space. Alternative J does not meet the need of

the Convention Center to approximately double its prime contiguous exhibition space. Providing a substantial amount of new contiguous space is one of the main objectives of the Convention Center Expansion. The lack of sufficient contiguous space would constrain the Convention Center from accommodating certain of the largest shows or handling multiple events. In addition, the Convention Center would not benefit from its proximity to the new Multi-Use Facility included in the Proposed Action. As a consequence, Alternative J would not be as effective as the Proposed Action in meeting the purpose and need for the expanded and modernized facility as set forth in Chapter 1, "Purpose and Need," and would not be expected to generate the overall economic benefits from the new Convention Center in comparison with the Proposed Action.

As noted above, Alternative J incorporates a phased development of transportation investment, beginning with an east-west connection in the Penn Station corridor with a delayed investment in the No. 7 Subway Extension as demand grows. The potential benefit of the delayed investment could be offset by the restraint on new commercial development based on the real or perceived lack of transit connectivity at the time new commercial investment is being considered by owners or developers. This would limit the growth necessary to meet the redevelopment goals established for both Alternative J and the Proposed Action. Moreover, operational, technical, and jurisdictional issues are likely to make the shuttle infeasible, thereby negating any possible benefits of a phased investment.

The shift of development away from the interior of the Project Area and to the west and south would not result in significant adverse impacts on socioeconomic conditions.

(c) Community Facilities and Services

Because Alternative J and the Proposed Action would introduce substantially the same level of new demand on community resources, the potential for impacts is the same with both alternatives. The need for additional school space and publicly assisted day care would be substantially the same with both alternatives.

Unlike the Proposed Action, Alternative J would not result in the closure of West 39th, West 40th, and West 41st Streets between Eleventh and Twelfth Avenues although, like the Proposed Action, West 33rd Street would be closed between Eleventh and Twelfth Avenues. Without the street closures, Alternative J would minimize the potential for an adverse impact on the timely delivery of fire protection services identified by the FDNY with the Proposed Action, although such street closures under the Proposed Action would not result in any significant adverse impacts on FDNY services. However, like the Proposed Action, Alternative J would require construction of a new firehouse to respond to the additional development that would occur.

(d) Open Space and Recreational Facilities

Like the Proposed Action, Alternative J would not result in significant adverse impacts to open space resources. Alternative J would introduce slightly fewer residents to the Study Area in 2010, but would add slightly more residents by 2025 than the Proposed Action.

Alternative J would increase the total amount of open space in the Project Area, but in a different configuration than that of the Proposed Action. Instead of the five acres of publicly accessible open space that would be provided on the roof of the expanded Convention Center and the 3.6 acres of publicly accessible open space that would be provided on the block between Eleventh and Twelfth Avenues between West 33rd and West 34th Streets with the Proposed Action, Alternative J would provide 10 acres of publicly accessible open space on the roof of the southern expansion of the Convention Center. Like the Proposed Action, Alternative J would include development of the Midblock Park and Boulevard System.

Like the Proposed Action, by 2010 Alternative J would create the same full-block open space on the roof of the multi-agency facility between West 29th and West 30th Streets, between Eleventh and

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Twelfth Avenues. However, in Alternative J the multi-agency facility on this block would also contain the Convention Center truck marshalling facility in addition to DSNY and NYPD operations, and the rooftop park would consequently be at a higher elevation than under the Proposed Action. All proposed open space in the Convention Center Corridor with Alternative J would be located on top of other structures. Alternative J would develop the first phase of the Midblock Park and Boulevard System by 2010, as under the Proposed Action. Alternative J would provide substantially the same amount of publicly accessible open space on the eastern portion of Caemmerer Yard as the Proposed Action. Overall, Alternative J would provide 4.9 more acres of open space by 2010 than the Proposed Action, principally resulting from the additional public open space that would be provided on the roof of the expanded Convention Center with Alternative J compared to the amount of public open space that would be provided on the roof of the expanded Convention Center with the Proposed Action.

By 2025, like the Proposed Action, Alternative J would also create the same second phase of the Midblock Park and Boulevard System. Overall, Alternative J would provide 3.0 less acres of public open space between 2010 and 2025 than the Proposed Action. However, in total, by 2025 Alternative J would provide 1.9 more acres of open space than the Proposed Action (Table 26-12).

**TABLE 26-12
ALTERNATIVE J: OPEN SPACE RESOURCES (2010 AND 2025)**

Map	Name	Location	Proposed Action	Alternative J
2010				
5	Midblock Park and Boulevard System	W. 33rd to W. 34th Streets, Tenth to Eleventh Avenues	0.85	0.85
6	Eastern Caemmerer Yard	W. 30th to W. 33rd Streets, Tenth to Eleventh Avenues	7.50	8.00
7	Full-Block Open Space	W. 33rd to W. 34th Streets, Eleventh to Twelfth Avenues	3.60	N/A
8	Block 675	W. 29th to W. 30th Streets, Eleventh to Twelfth Avenues	3.60 ²	3.60 ²
9	Convention Center Roof	W. 34th to W. 39th Streets, Eleventh to Twelfth Avenues	2.00 ²	10.00 ²
Total			17.55	22.45
2025				
10	Midblock Park and Boulevard System Completion	W. 34th to W. 42nd Streets, Tenth to Eleventh Avenues	3.46	3.46
11	Convention Center Roof Completion	W. 39th to W. 41st Streets, Eleventh to Twelfth Avenues	3.00 ²	N/A ¹
Total			6.46	3.46
Cumulative Total			24.01	25.91

Note: All numbers are rounded to nearest hundredth of an acre.

1 The Convention Center expansion would not be phased under Alternative J.

2 Located on top of the referenced facility.

The modest difference in population and the additional acreage of public open space that would result for Alternative J compared to the Proposed Action would result in a small improvement in the open space ratios with Alternative J compared with the Proposed Action (Table 26-13). Both the Proposed Action and Alternative J would improve open space ratios relative to those of the 2010 and 2025 Future Without the Proposed Action (other than for active recreation space), and no significant adverse impact would occur under either scenario.

TABLE 26-13
ALTERNATIVE J: ADEQUACY OF OPEN SPACE RESOURCES COMPARED TO THE PROPOSED ACTION

Study Area	Open Space Category	Open Space Ratio	
		Proposed Action	Alternative J
Without High Line Open Space, 2010			
Non-Residential Study Area	Passive/Non-Residents	0.126	0.152
	Passive/Total Population	0.101	0.121
Residential Study Area	Total/Residents	0.768	0.823
	Passive/Residents	0.534	0.589
	Active/Residents	0.234	0.234
	Passive/Total Population	0.092	0.103
With High Line Open Space, 2010			
Non-Residential Study Area	Passive/Non-Residents	0.149	0.176
	Passive/Total Population	0.118	0.138
Residential Study Area	Total/Residents	0.811	0.865
	Passive/Residents	0.583	0.637
	Active/Residents	0.228	0.229
	Passive/Total Population	0.102	0.114
Without High Line Open Space, 2025			
Non-Residential Study Area	Passive/Non-Residents	0.099	0.108
	Passive/Total Population	0.081	0.087
Residential Study Area	Total/Residents	0.646	0.661
	Passive/Residents	0.466	0.481
	Active/Residents	0.180	0.180*
	Passive/Total Population	0.078	0.082
With High Line Open Space, 2025			
Non-Residential Study Area	Passive/Non-Residents	0.114	0.123
	Passive/Total Population	0.092	0.099
Residential Study Area	Total/Residents	0.678	0.692
	Passive/Residents	0.502	0.516
	Active/Residents	0.176	0.175*
	Passive/Total Population	0.086	0.090

* Indicates a ratio at or below the Future Without the Proposed Action ratio (see Chapter 7, "Open Space and Recreational Facilities").

(e) Shadows

Like the Proposed Action, Alternative J would result in significant adverse shadow impacts due to the incremental shadows from development that would occur on Projected Development Sites 14 and 45 that would fall on the Eighth Avenue façade of the Farley Building and the rose windows of St. Raphael's RC Church. This would occur even with the reduced density and height of buildings that are projected to be developed at the two Projected Development Sites with Alternative J, since the shadow effects on the Farley Building and St. Raphael's RC Church would be created by the lower floors of the new development. Like the Proposed Action, these impacts would be unavoidable and could not be mitigated.

(f) Architectural Historic Resources

Alternative J would have substantially the same impacts on architectural historic resources as the Proposed Action, since it would affect substantially the same significant architectural historic resources as the Proposed Action.

(g) Urban Design and Visual Resources

Like the Proposed Action, Alternative J would result in dramatic improvement to the urban design of the Project Area. Alternative J would result in the same level of development as the Proposed Action, but in a different arrangement. It would not, however, result in 2.7 million square feet of multi-use stadium exposition and plenary hall space, nor would it include a 1,500-room, Convention Center

Hotel. It would promote the same types of changes to building bulk, use and type, building arrangement, block form and street pattern, streetscape elements, street hierarchy, and natural features as the Proposed Action, although actual bulk and uses would differ, depending on location. The greatest densities and bulk with Alternative J would be concentrated along the east-west corridor between Seventh and Twelfth Avenues from West 30th to West 35th Streets in the Farley Corridor and the southerly portions of Subdistrict A and the Convention Center Corridor. In all other Subdistricts and in the Clinton District/42nd Street Corridor, bulk would be lower and residential use would be more prominent with Alternative J than the Proposed Action. The resulting urban design of the Special Garment Center District portion of the Project Area would be the same with Alternative J as the Proposed Action.

The greatest difference between Alternative J and the Proposed Action would be in the Convention Center Corridor. Under Alternative J, the Convention Center expansion would continue to cover a very large area, but most of the expansion would occur on the western portion of Caemmerer Yard, where it would be framed by four towers, one on each corner of the site, including a convention hotel and offices. The resulting urban design would be reminiscent of a 1960s-style superblock development. Unlike the Proposed Action, this grouping of structures would not open onto a major open space feature between Eleventh and Twelfth Avenues between West 33rd and West 34th Streets. Open space would instead be provided on the roof of the Convention Center and on the roof of the multi-agency facility between West 29th and West 30th Streets, between Eleventh and Twelfth Avenues. Like the Proposed Action, West 33rd Street would be closed between Eleventh and Twelfth Avenues under Alternative J. The three blocks north of the existing Convention Center in the Convention Center Corridor would not contain a large footprint building, in contrast to the Proposed Action. West 39th, West 40th, and West 41st Streets would remain open, and the blocks in between would each contain at least two buildings of differing commercial and/or residential uses.

It is assumed that the urban design controls included in the Proposed Action would also be applied to Alternative J, and thus, the desired pattern of sidewalk widenings and building setbacks, building bulks uses and types, streetscape improvements and reintegration of the fragmented built topography back into the adjacent grades, creating a continuous pedestrian environment, would occur with Alternative J, as with the Proposed Action. Similarly, the activation of the streetscape by the provision of retail uses, open spaces, and destinations that promote an active street life would occur with Alternative J, as with the Proposed Action.

With respect to visual resources, because the streets north of the Convention Center would remain open, Alternative J would preserve views of the historically significant Lincoln Tunnel vent buildings. However, the open views along West 34th Street would be constrained by a pedestrian bridge connecting the existing Convention Center to the proposed expansion of the Convention Center on the western portion of Caemmerer Yard. This would be a substantial, but not a significant, adverse impact of Alternative J.

(h) Neighborhood Character

Alternative J, like the Proposed Action, would result in dramatic improvements to neighborhood character in the Project Area. Overall, like the Proposed Action, Alternative J would transform the Project Area from an underutilized area to a lively, mixed-use 24-hour community.

The Farley and 34th Street Corridors with Alternative J would be very similar to these corridors under the Proposed Action. Although there would be slightly more residential development in the Farley Corridor with Alternative J than the Proposed Action, commercial development within the 34th Street Corridor would be substantially the same as the Proposed Action. The urban design of the Hell's Kitchen area would be substantially the same with Alternative J as with the Proposed Action.

The Clinton District/42nd Street Corridor would be generally more residential with Alternative J than the Proposed Action, but there would be no substantial differences between Alternative J and the Proposed Action in this area. There would be no substantial difference between the urban design of the Special Garment Center District with the Proposed Action and Alternative J.

(i) Natural Resources

Like the Proposed Action, Alternative J would not result in significant adverse impacts to natural resources. Effects on natural resources in the Project Area with Alternative J would be substantially the same as the Proposed Action, except that potential effects on natural resources at Corona Yard would be delayed until the No. 7 Subway was extended.

(j) Hazardous Materials

Like the Proposed Action, Alternative J would not result in significant adverse impacts to properties that have the potential to contain hazardous materials. Development sites that potentially contain hazardous materials would be mapped with (E) Designations, similar to the Proposed Action, thus avoiding any potential adverse impact. A Construction Environmental Protection Program would be implemented by the constructing or owning entity of major public project elements of this alternative to avoid impacts related to disturbing properties that potentially contain hazardous materials. Implementation of such measures for the subway shuttle between Eleventh Avenue and Penn Station would avoid potential hazardous materials impacts related to construction along the alignment.

(k) Waterfront Revitalization Program

Alternative J would result in a mix of development within the Coastal Zone different from that of the Proposed Action. Nevertheless, like the Proposed Action, Alternative J would generate significantly more visitors, residents, and workers to the Coastal Zone and Hudson River Park due to the additional residential and commercial development, and the expanded Convention Center. Compared to the Proposed Action, Alternative J would provide improved access to Hudson River Park via two pedestrian connections over Route 9A: one pedestrian bridge from the Convention Center roof to Hudson River Park at Pier 76 and an additional pedestrian connection from the western portion of Caemmerer Yard to Hudson River Park. Both Alternative J and the Proposed Action would be compatible with the Local Waterfront Revitalization Program, by encouraging commercial and residential redevelopment within an appropriate Coastal Zone area.

(l) Traffic (2010 & 2025)

Alternative J and the Proposed Action would generally produce an equivalent number of vehicular trips during the weekday peak hours, although the precise location of these impacts would differ somewhat between the alternatives. During the weeknight and Sunday Special Event peak hours, Alternative J would generate less traffic than the Proposed Action, because it does not include a Multi-Use Facility. Retention of West 39th and West 40th Streets, and West 41st Street in its current condition, would improve traffic operations in this area. However, the massing of development on the western portion of Caemmerer Yard in place of the Multi-Use Facility and along the 34th Street Corridor under Alternative J would result in an increase in unmitigated congestion along the 34th Street Corridor, thereby increasing traffic and bus delays.

Traffic level of service analyses were prepared for 229 intersections under 2010 weekday AM, Midday, and PM peak hour conditions, and 238 intersections under 2025 AM, Midday, and PM peak hour conditions. During the 2010 weekday Midday peak hours, Alternative J would result in one adverse impact that could not be mitigated and would not result in any adverse impacts that could not be mitigated in the AM and PM peak hours. The Proposed Action would produce no significant adverse impact that could not be mitigated during the AM, Midday, and PM time periods. Therefore, Alternative J would result in one more unmitigated impact (Midday) than the Proposed Action.

During the 2025 weekday AM peak hour Alternative J would result in two additional significant adverse impacts that could not be mitigated (i.e., eight vs. six) than the Proposed Action. The weekday Midday would result in five more (i.e., seven vs. two) significant adverse impact that could not be mitigated than the Proposed Action. The weekday PM would result in 12 more (i.e., 19 vs. seven) significant adverse impacts that could not be mitigated than the Proposed Action.

Weeknight Special Event peak hour traffic impacts are generally associated with events at the Multi-Use Facility and Madison Square Garden under the Proposed Action, together with traffic generated by the residential and commercial development generated by the Proposed Action. Sunday Special Event peak hour traffic impacts are generally Multi-Use Facility-related, combined with additional traffic generated by the Convention Center, a maximum capacity event at Madison Square Garden, and the new commercial and residential development resulting from the zoning action. Alternative J does not include a Multi-Use Facility and would not significantly impact traffic operations during the weeknight and Sunday peak periods when compared to the Proposed Action. However, it is important to note that the Multi-Use Facility is projected to serve only 17 stadium events and up to two national events in a typical year (i.e., eight to nine times on a weekend and ten to eleven on weeknights). Other event types would generate substantially less traffic and would not be expected to result in adverse traffic impacts.

Alternative J would result in virtually the same traffic volumes on bridges and tunnels crossing the East, Hudson, and Harlem Rivers in the AM, Midday, and PM analysis hours as the Proposed Action, and would also result in significant adverse impacts to the river crossings during 2025. Weeknight and Sunday Special Event peak hour traffic volumes would be lower than the Proposed Action Special Event peak hour impacts.

(m) Parking

As noted previously, peak period off-street parking supply, demand, and utilization for the Proposed Action were projected based on surveys of existing off-street parking supply and utilization, with adjustments for (i) background growth in parking demand, (ii) increased parking demand from No-Build projects with inadequate parking provided on-site, (iii) existing parking capacity displaced by development (iv) existing parking demand displaced by development and (v) parking supply and demand associated with proposed development. Separate parking study areas were defined for individual project elements as necessary based on walking distances. For example, CEQR generally defines a parking study area by a quarter-mile walk from a proposed land use. Parking supply for certain developments such as the Multi-Use Facility and Convention Centers assume a parking supply area within a half-mile walk.

Under 2010 conditions, both Alternative J and the Proposed Action provide adequate off-street parking under all conditions. Under 2025 conditions, both the Proposed Action and Alternative J would create off-street parking deficits during the weekday Midday period. Alternative J would result in a shortfall of approximately 400 spaces, compared to a small shortfall of spaces that would occur with the Proposed Action. Similar to the Proposed Action, Alternative J would not result in significant adverse impacts to off-street parking during the weekday overnight, weekday evening, or Sunday afternoon periods, when there would be parking surpluses of 10,490, 12,670, and 8,830 spaces, respectively. These results largely reflect the loss of the 950-space below-grade midblock public parking garage on a weekday Midday, and the reduced weeknight and Sunday parking demand during Special Events without the Multi-Use Facility under Alternative J. A new 460-space parking facility would be required to mitigate this impact.

(n) Transit

Alternative J calls for construction of a subway line from Penn Station to the vicinity of Eleventh Avenue and West 33rd Street. This subway line is proposed to be operated as a shuttle until

development demands require an extension of the existing No. 7 Subway from Times Square to Eleventh Avenue. At Eleventh Avenue, passengers could transfer between the shuttle and the No. 7 line. The proposal envisions construction of a truncated system and utilization of existing Penn Station infrastructure to the greatest extent possible. However, Alternative J does not recognize the full range of engineering, operational, and cost issues associated with the shuttle that would severely limit its utility and call into question its feasibility.

In order to be completed by 2010, the proposed shuttle is assumed to operate on LIRR "C" Yard tracks 9C and 10C in the lower level of Penn Station, and is assumed to be a LIRR commuter operation, since, due to the disparity in the size and weight of subway and commuter rail cars, a subway shuttle could not be operated safely on commuter tracks. Implementation of the shuttle would require approval from Amtrak and possibly the development of an operating agreement between the LIRR and NYCT. Operation of a 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 capacity, and the imposition of the shuttle would cause unacceptable impacts to existing LIRR service.

Unlike the moving walkway, the shuttle between Penn Station and Eleventh Avenue would not serve intermediate destinations or provide multiple access points. The distance between Penn Station and Eleventh Avenue is only three blocks. For trips of two blocks or less it would be impractical to use the shuttle. The initial shuttle service would therefore not be expected to serve a large market, because it would serve only those trips originating at Penn Station and terminating west of Tenth Avenue. In 2025, it is assumed that the shuttle would provide a connection to a No. 7 Subway extension, which would be similar to that in the Proposed Action. Construction of a LIRR shuttle alone is estimated to cost at least \$1.9 billion to \$2.1 billion.

Under 2010 conditions if a shuttle were to be in operation, the M-11 and M-34/M-16 routes each require two fewer buses per hour in the peak direction during the AM and PM peak hours under Alternative J than under the Proposed Action. This reflects the early development of Site No. 4 on 34th Street and Eleventh Avenue and the Multi-Use Facility under the Proposed Action. By 2025, Alternative J's massing of development on 34th Street and above the LIRR rail yard would result in the need for additional service on the M-11 and M-34/M-16 as compared with the Proposed Action. During the AM peak hour, Alternative J would require four additional articulated buses on the southbound M-11 and two additional articulated buses on the westbound M-34/M-16 above those required by the Proposed Action. The westbound M-42 would require five fewer buses and the westbound Q-32 would require one less bus under Alternative J. During the PM peak hour, the northbound M-11 would require five additional articulated buses in the northbound direction and one more in the southbound direction while the eastbound M-34/M-16 would require two additional articulated buses. The M-42 would require four fewer buses in the eastbound direction and one more bus in the westbound direction when compared to the Proposed Action. Alternative J does not include a Multi-Use Facility. Bus demands would be less during the weeknight and Sunday peak hours when compared to a Special Event day under the Proposed Action.

(o) Pedestrians

The overall pedestrian demand during weekday AM, Midday, and PM peak hours would be generally the same under Alternative J as under the Proposed Action. Specifically, under 2010 conditions, Alternative J would result in the same unmitigated significant adverse intersection impacts as the Proposed Action during the AM peak hour (i.e., two), nine fewer unmitigated significant adverse intersection impacts Midday (i.e., two vs. 11), and one less unmitigated significant adverse intersection impact during the PM peak hour (i.e., two vs. three). Under 2025 conditions, Alternative J would result in one less significant adverse pedestrian impact than the Proposed Action during the

AM peak hour (i.e., seven vs. eight), seven more unmitigated significant adverse intersection impacts Midday (i.e., 27 vs. 20), and the same unmitigated significant adverse intersection impacts during the PM peak hour (i.e., 11).

(p) *Air Quality*

(i) Mobile Source

Microscale Intersection Analysis. Based on Tier I analyses, Alternative J and the Proposed Action would result in significant adverse air quality impacts exceeding PM_{2.5} annual levels and PM₁₀ annual levels in 2010 and 2025. However, it is anticipated that more realistic Tier II analyses will demonstrate that no such exceedance would occur under the Proposed Action or Alternative J. Like the Proposed Action, 2010 and 2025 CO 8-hour levels and PM₁₀ 24-hour levels would not exceed the NAAQS or the PM_{2.5} 24-hour STV. CO levels would not exceed *de minimis* criteria in 2010 (with traffic mitigation) or in 2025 with Alternative J.

Like the Proposed Action, PM₁₀ annual levels would exceed the NAAQS and would result in significant adverse impacts at two analysis sites in 2010 and five analysis sites in 2025 based on Tier I analyses. However, it is expected that more realistic Tier II analyses will demonstrate that no significant adverse PM₁₀ impacts would occur in any analysis year under either this Alternative J or the Proposed Action.

Based on Tier I analysis, PM_{2.5} annual increases would exceed the STV and would not result in any significant adverse impacts in 2010, but would result in significant adverse impacts at two analysis sites in 2025 with Alternative J. However, it is anticipated that more realistic Tier II analyses will demonstrate that no significant adverse PM_{2.5} impacts would occur in any analysis year under either Alternative J or the Proposed Action.

**TABLE 26-14
ALTERNATIVE J: AIR QUALITY ANALYSIS SITES EXCEEDING NAAQS, CEQR *DE MINIMIS*
CRITERIA OR DEP STV WITH TIER I ANALYSIS**

	2010		2025	
	Proposed Action	Alternative J	Proposed Action	Alternative J
CO 8-hour NAAQS	0	0	0	0
CO <i>de minimis</i> Criteria	3	0	0	0
PM ₁₀ 24-hour NAAQS	0	0	0	0
PM ₁₀ Annual NAAQS	2	2	5	5
PM _{2.5} 24-hour STV	0	0	0	0
PM _{2.5} Annual STV	5	0	6	2

Note: Shaded area indicates significant adverse air quality impacts that differ from the Proposed Action.

(ii) Stationary Source

Like the Proposed Action, Alternative J would not cause significant adverse impacts on air quality from future HVAC sources. Neither Alternative J nor the Proposed Action would result in any exceedances of any NAAQS, CEQR *de minimis* criteria, or STV or DEC air toxic guidance. However, there would be potential exceedances of the SO₂ NAAQS and DEC guidance with the Proposed Action attributable to Quill Bus Depot emissions in 2010 and 2025, which would be fully mitigated in both years. Neither the Proposed Action nor Alternative J would result in exceedances of any NAAQS, CEQR *de minimis* criteria or PM_{2.5} STV.

(q) *Noise and Vibration*

Noise impacts from Alternative J would, like the Proposed Action, involve two areas of concern: (1) potential effects of introducing new noise-sensitive land uses (i.e., residences and community facilities) into an already noisy environment, and (2) effects of noise-generating activities associated

with the alternative on existing noise-sensitive land uses in the area. Since new noise-sensitive receptors would be introduced into the same noisy area as the Proposed Action, (E) Designations would also be required for the new residences and community facilities contemplated by Alternative J. This alternative would also increase noise levels by 3 dBA or more at many of the same locations as with the Proposed Action and would result in the need for the same mitigation measures identified for the Proposed Action. With such mitigation measures, there would be no significant adverse noise impacts from Alternative J.

Like the Proposed Action, Alternative J would not result in significant adverse impacts on noise or vibration from mechanical systems or subway operation. All building and mechanical systems, including subway ventilation facilities, would be required to comply with NYCBC requirements. In addition, subway ventilation buildings would be required to conform to MTA NYCT ventilation noise control design specifications. Both the NYCBC and MTA NYCT specifications require that community noise levels resulting from ventilation be no higher than 55 dBA at any adjacent residential or noise-sensitive receptor. These code requirements would avoid any significant adverse impacts occurring as a result of HVAC or other equipment. Like the Proposed Action, operation of the subway with Alternative J at a maximum operating speed of 35 mph along the proposed alignment would result in vibration and ground-borne noise levels well below applicable FTA impact criteria.

(r) Construction Impacts

Like the Proposed Action, Alternative J would have the potential to result in significant construction-related noise, air quality, and traffic impacts due to extension of the No. 7 Subway, expansion and modernization of the Convention Center, and development permitted under the proposed rezoning.

Construction impacts associated with Alternative J would be similar to those of the Proposed Action, although additional impacts would result due to construction of the shuttle service between Penn Station and Eleventh Avenue. The phased construction of the transit action would lengthen the construction period and result in longer duration of construction effects than the Proposed Action. Mitigation measures that would serve to avoid adverse impacts required for Alternative J would be similar to those with the Proposed Action.

c) Alternative K: Manhattan Borough President Plan

Description of the Alternative

Alternative K was suggested by the office of the Manhattan Borough President during the public scoping process for the DGEIS (Figure 26K-1). Under Alternative K, the Project Area would be redeveloped in accordance with a plan based on the *Vision for the West Side Rail Yards* study prepared in 2001 for the Manhattan Borough President. Although Alternative K would provide a greater proportion of residential space than the Proposed Action, it would result in substantially less development than the Proposed Action. Alternative K would include the same expansion of the Convention Center as with the Proposed Action, but would not include the development of a Multi-Use Facility. The initial transportation improvement included as part of Alternative K would be an LRT system similar to, but more extensive than that provided in Alternatives H and I. Extension of the No. 7 Subway would be completed as a later phase as necessary to support the ultimate level of development permitted under Alternative K.

The area that would be rezoned under Alternative K would differ from the area that would be rezoned under the Proposed Action on three of its boundaries; the northern boundary would be along West 39th Street, the eastern boundary would be Eighth and Ninth Avenues, and the southern boundary would be West 27th and West 33rd Streets (southern boundary varies) (Figure 26K-1.) Alternative K would result in a mix of low-, mid- and high-rise residential development throughout the Project Area. New housing, ranging in height between six and 30 stories, would be concentrated south of the

Convention Center, over the eastern and western portions of Caemmerer Yard. Infill residential would be located on certain parcels between West 34th and West 39th Streets. This infill residential development would be primarily low-rise (i.e., three to six stories) in the midblocks and mid-rise (i.e., 10 to 12 stories) along the avenues. Overall, a total of 7.3 million square feet of development would be expected: 4.2 million square feet of residential space, three million square feet of commercial space, and 100,000 square feet of institutional space. Approximately 5,000 to 6,000 new housing units would be created. Of these, at least 20 percent would be set aside for affordable housing for moderate- and middle-income households. Approximately 350,000 square feet of open space would be developed in the Project Area, as well.

A major element of Alternative K would be the development of a deck over the eastern and western portions of Caemmerer Yard to provide approximately 30 acres of space for redevelopment, including the majority of 4.2 million square feet of residential space and approximately eight acres of open space. Development on the deck would occur along a reinstated street grid, including extensions of West 31st and West 32nd Streets and two new midblock north-south streets.

New office and commercial development would be concentrated south of West 34th Street between Tenth and Eleventh Avenues and along West 34th Street. New mid- and high-rise buildings would form a new business center adjacent to the former Westyard Distribution building. Currently underutilized parcels, particularly along Eleventh Avenue, would be redeveloped with commercial uses. Retail uses intended to serve the new residential and employee populations would be concentrated along West 34th Street and Tenth and Eleventh Avenues. Existing light industrial uses south of West 30th Street between Tenth and Eleventh Avenues, and in the Hell's Kitchen neighborhood between West 34th and West 39th Streets between Tenth and Eleventh Avenues, would be retained.

Transit improvements with Alternative K would include the initial development of an LRT system extending westward along 42nd Street from First Avenue to either Eleventh or Twelfth Avenues, southward to West 34th Street, and then eastward along 34th Street to First Avenue. Extension of the No. 7 Subway would occur as a later phase. The LRT system and No. 7 Subway Extension would be augmented with expanded bus service to the Project Area. No entity has been identified to construct, operate and maintain the LRT system.

Expansion of the Convention Center would occur as with the Proposed Action, except that the truck marshalling area for the facility would be located below the expanded Convention Center between West 39th and 40th Streets from Eleventh to Twelfth Avenues. An east-west pedestrian corridor would be incorporated into the Convention Center Expansion. The existing Javits Plaza located on the east side of Eleventh Avenue between West 35th and West 36th Streets would be redesigned to provide an improved open space resource.

Alternative K would require the same type of discretionary approvals and public actions as the Proposed Action. It would also require additional discretionary approvals and public actions similar to those under Alternatives H and I for development of the LRT system.

Principal Conclusions

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 in subsequent discussion.

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 three 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. As noted in Chapter 2, "Description of the Proposed Action," the lack of a Convention Center Hotel is considered a "long-standing deficiency."

Alternative K would also not meet the project purpose and need, as described in Chapter 1, "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 30,000 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 Development Actions

Seven alternatives retaining, eliminating, or modifying various components of the Proposed Action were evaluated to identify the separate and combined effects of various subsets of the elements of the Proposed Action, to assess the viability and relative impacts of developing the Multi-Use Facility in Queens, and to evaluate the beneficial and adverse impacts of constructing a deck over Route 9A between the Multi-Use Facility and Hudson River Park. These alternatives were identified based on review of planning studies completed by the sponsors of the various elements of the Proposed Action and comments received during the public scoping process for the DGEIS.

d) Alternative L: Proposed Action without Expansion of the Convention Center

Description of the Alternative

Alternative L was identified by the co-lead agencies to provide an assessment of the impacts of the Proposed Action without expansion of the Convention Center. Assessing this alternative permits the co-lead and involved agencies to identify the degree to which failure to expand the Convention Center would result in different significant adverse impacts than those of the Proposed Action and the extent to which the remaining elements of the Proposed Action would meet the purpose and need for the Proposed Action identified Chapter 1, “Purpose and Need.”

Alternative L would include all the elements of the Proposed Action except the expansion of the Convention Center (Figure 26L-1). Under Alternative L, the Convention Center would continue to operate in its current location with its existing constraints to hosting major exposition, convention, and exhibition events. The Multi-Use Facility would be developed under Alternative L and could potentially provide convention or exposition space for use by some events that cannot be accommodated by the Convention Center. Unlike the Proposed Action, Alternative L would not include the development of a new Convention Center or require the relocation of the Quill Bus Depot. There would be no changes to the existing Convention Center open-air truck marshalling facility on the block between West 33rd and West 34th Street between Eleventh and Twelfth Avenues. West 33rd, West 39th, West 40th, and West 41st Streets would remain open under Alternative L. The site of the Convention Center hotel would be developed instead with a tall residential building, similar in height and bulk to the proposed hotel

Alternative L would require the same type of discretionary approvals and public actions as the Proposed Action, except that it would not require the discretionary actions and approvals associated with expansion of the Convention Center.

Principal Conclusions

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 a substantial amount of new open space.

Exclusion of the expansion and modernization of the Convention Center would not meet one of the principle 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 \$26.7 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.

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 result in an increase in roadway capacity in the vicinity of the Convention Center above that of the Proposed Action.

Alternative L Compared to the Proposed Action

Alternative L would affect the same impact categories considered for the Proposed Action, except for community facilities and services, shadows, architectural historic resources, archaeological resources, natural resources, and public health. The remaining categories in which the impacts of Alternative L are expected to differ from those of the Proposed Action are discussed below.

(a) Land Use, Zoning, and Public Policy

Like the Proposed Action, Alternative L would result in substantial improvements to land use in the Project Area. Like the Proposed Action, Alternative L would not result in any significant adverse impacts on land use, zoning, or public policy.

Unlike the Proposed Action, Alternative L would not realize all the beneficial effects in the Convention Center Corridor that would occur with the Proposed Action. Because Alternative L does not include the expansion of the Convention Center, there would be noticeable differences between Alternative L and the Proposed Action in land use in the areas immediately to the south and north of the existing Convention Center. Unlike the Proposed Action, under Alternative L, the existing transportation-related uses on the blocks immediately north of the Convention Center would remain in place, including the Quill Bus Depot. West 39th, West 40th, and West 41st Streets would remain open. Unlike the Proposed Action, Alternative L would not include the development of a Convention Center Hotel on the southwest corner of West 42nd Street and Eleventh Avenue. It is anticipated that residential development would be constructed instead, comprised of 532 dwelling units. Unlike the Proposed Action, the existing Convention Center open truck marshalling facility would not be redeveloped to include an expanded truck marshalling and publicly accessible open space. West 33rd Street would remain open. Also unlike the Proposed Action, Alternative L would not include the development of publicly accessible open space associated with the Convention Center. As a consequence, Alternative L would have 8.6 fewer acres of publicly accessible open space than the Proposed Action.

(b) Socioeconomic Conditions

Like the Proposed Action, Alternative L would result in substantial economic benefits to the Project Area due to the proposed rezoning, development of the Multi-Use Facility, and extension of the No. 7 Subway. Like the Proposed Action, Alternative L would not result in significant adverse impacts due to direct or indirect displacement of residential or commercial uses or cause significant adverse impacts on the apparel or theater industries.

However, unlike the Proposed Action, the economic activity and benefits associated with the modernization and expansion of the Convention Center would not be realized, including loss of the construction-period employment and economic benefits from the \$1.8 billion expansion and modernization of the Convention Center, nor would it realize the operational period benefits of an expanded and modernized Convention Center which has been identified as a critical investment in the increasingly important tourism, visitor, and convention sector. 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 \$26.7 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. In addition, the Garment and Theater

industries would not benefit from the additional visitors to the area for events at the Convention Center. 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.

Unlike the Proposed Action, Alternative L would not displace four businesses and an estimated 102 employees because of the expansion of the Convention Center, although this displacement is not considered a significant adverse impact. The site of the proposed Convention Center Hotel under the Proposed Action would be redeveloped with an estimated 532 residential units, as established in the Future Without the Proposed Action with Alternative L.

Under Alternative L, the Quill Bus Depot would not be relocated; therefore, the costs associated with relocating this facility would not be incurred.

(c) Open Space and Recreational Facilities

Unlike the Proposed Action, Alternative L would result in a significant adverse impact on passive and active open space resources. Alternative L would reduce the amount of passive open space in the Project Area by 5.6 acres in 2010 and a total of 8.6 acres in 2025 as compared to the Proposed Action, because Alternative L would not provide the 8.6 acres of passive open space associated with the Convention Center expansion. The five-acre, publicly accessible open space on the roof of the Convention Center and the 3.6-acre, full-block open space between West 33rd and West 34th Streets and Eleventh and Twelfth Avenues, would not be created. Alternative L would add only 11.95 total acres of open space (8.35 acres of passive open space and 3.6 acres of active open space) to the Project Area by 2010 and a total of 15.41 acres by 2025 (11.81 acres of passive open space and 3.6 acres of active open space). It is likely that residential development would occur in place of the Convention Center Hotel, to the north of the Convention Center. This residential development would be comprised of approximately 532 dwelling units and add approximately 888 residents to the Project Area that would not be included in the Proposed Action.

For both 2010 and 2025, all open space ratios are worse with Alternative L than the Proposed Action, because of the additional residential population and fewer acres of passive open space in Alternative L. Whereas only the active open space ratio in 2025 is lower under the Proposed Action than under the No Action condition, some of the passive open space ratios are also worse under Alternative L (

Table 26-15). Alternative L would also have a lower active open space ratio than the Proposed Action due to the additional residential units developed in place of the Convention Center hotel. Alternative L, unlike the Proposed Action, would result in a significant adverse impact based on the decrease in usable passive open space as compared to the No Action condition. By 2025, the passive non-residential open space ratio in Alternative L would decrease by greater than 5 percent from the No Action condition in the scenario Without the High Line.

Alternative L would also not result in the improved connectivity of open spaces provided by the Proposed Action.

TABLE 26-15
ALTERNATIVE L: ADEQUACY OF OPEN SPACE RESOURCES COMPARED TO THE
PROPOSED ACTION

Study Area	Open Space Category	Open Space Ratio	
		Proposed Action	Alternative L
Without High Line Open Space, 2010			
Non-Residential Study Area	Passive/Non-Residents	0.126	0.117
	Passive/Total Population	0.101	0.092
Residential Study Area	Total/Residents	0.768	0.708
	Passive/Residents	0.534	0.476
	Active/Residents	0.234	0.231
	Passive/Total Population	0.092	0.086
With High Line Open Space, 2010			
Non-Residential Study Area	Passive/Non-Residents	0.149	0.143
	Passive/Total Population	0.118	0.110
Residential Study Area	Total/Residents	0.811	0.752
	Passive/Residents	0.583	0.526
	Active/Residents	0.228	0.226
	Passive/Total Population	0.102	0.097
Without High Line Open Space, 2025			
Non-Residential Study Area	Passive/Non-Residents	0.099	0.084*
	Passive/Total Population	0.081	0.068
Residential Study Area	Total/Residents	0.646	0.575
	Passive/Residents	0.466	0.396
	Active/Residents	0.180	0.179*
	Passive/Total Population	0.078	0.069*
With High Line Open Space, 2025			
Non-Residential Study Area	Passive/Non-Residents	0.114	0.100*
	Passive/Total Population	0.092	0.080*
Residential Study Area	Total/Residents	0.678	0.602*
	Passive/Residents	0.502	0.421
	Active/Residents	0.176	0.181*
	Passive/Total Population	0.086	0.081

* Indicates a ratio at or below the Future Without the Proposed Action ratio (see Chapter 7, "Open Space and Recreational Facilities").

(d) Urban Design and Visual Resources

Like the Proposed Action, Alternative L would result in substantial improvements to the urban design of the Project Area. Like the Proposed Action, Alternative L would not result in significant adverse urban design and visual resource impacts. However, Alternative L would not realize all the beneficial effects of the Proposed Action on the urban design of the Convention Center Corridor. The northern portion of the Convention Center Corridor would remain as it is today, dominated, with the exception of the Convention Center, by large transportation facilities, unlike the blocks between West 30th and West 33rd Streets that would be transformed by development of the Multi-Use Facility. The existing open-air truck marshalling facility for the Convention Center would not be decked over for the creation of publicly accessible open space. Alternative L would not require the street closings associated with the Proposed Action and, therefore, would not alter street and traffic patterns in the area.

(e) Neighborhood Character

Like the Proposed Action, Alternative L would dramatically improve neighborhood character in the Project Area. However, with no expansion of the Convention Center, improvements to the neighborhood character of the Convention Center Corridor would not be fully realized. The proposed open space on the roof of the Convention Center and the full block open space located between West 33rd and West 34th Street in the Proposed Action would not be developed and the current Convention Center truck marshalling operations would remain on this block in Alternative L. This open-air truck

marshalling facility would be inconsistent with the character of the eastern side of Eleventh Avenue, including the open space and mixed-use development planned for the eastern portion of Caemmerer Yard.

The Convention Center Corridor would continue to include full-block transportation uses to the north of the Convention Center, including the Quill Bus Depot and two large truck garages, while the Multi-Use Facility would occupy the southern blocks. It is likely that residential development would occur in place of the Convention Center Hotel, to the north of the Convention Center. Overall, the northern portion of the Convention Center Corridor would stand in sharp contrast with the surrounding redevelopment areas.

(f) Hazardous Materials

Like the Proposed Action, the Alternative L would not result in significant adverse impacts related to the disturbance of properties having the potential to contain hazardous materials. The areas under construction which would occur due to the Convention Center expansion would remain undisturbed, with the exception of the Convention Center hotel site. That site would be redeveloped pursuant to a DEC consent order, with an as-of-right residential building. Due to DEC oversight of the project, no significant adverse impacts would occur.

(g) Waterfront Revitalization Program

Unlike the Proposed Action, Alternative L would not result in the northern extension of the Convention Center. As a consequence, the major land use change in the immediate vicinity of the Coastal Zone would be the development of the Multi-Use Facility. Compared to the Proposed Action, Alternative L would generate fewer visitors to the Coastal Zone and Hudson River Park due to the lack of events and exhibitions anticipated to occur at an expanded Convention Center. However, both Alternative L and the Proposed Action would be compatible with the Local Waterfront Revitalization Program, by encouraging appropriate commercial/residential redevelopment and recreational uses within the Coastal Zone area.

(h) Infrastructure

Alternative L would result in approximately 0.8 mgd less demand for potable water (peak usage) than the Proposed Action. Like the Proposed Action, this would not create a significant adverse impact on City water supply services, assuming that the Manhattan Water Trunk Main Master Plan would be implemented by DEP. Alternative L would also generate approximately 0.8 mgd less sewage during peak days than the Proposed Action. Because the sanitary volume generated by Alternative L would be less than the Proposed Action, no significant adverse impacts to the North River WPCP operations would occur. Like the Proposed Action, Alternative L would require DEP-approved upgrades to sewer segments.

(i) Solid Waste and Sanitation Services

Municipal waste generation with Alternative L would be the same as the Proposed Action. Like the Proposed Action, Alternative L would not result in significant adverse impacts on DSNY sanitation services.

(j) Energy

Alternative L would require approximately 58 MWh per year less electricity than the Proposed Action. Like the Proposed Action, Alternative L would require a new area substation by 2013 and an additional area substation and transmission station by 2021, as these improvements would still be required for the anticipated residential and commercial developments, No. 7 Subway Extension, and the Multi-Use Facility.

(k) Traffic (2010 & 2025)

Under Alternative L, West 33rd, West 39th, West 40th, and West 41st Street would not be closed or modified and Convention Center expansion traffic would not grow.

A traffic assessment was conducted of 62 intersections in the vicinity of the Convention Center expansion under 2010 conditions and 71 intersections in the vicinity of the Convention Center expansion under 2025 conditions. The results of this analysis indicate that in 2010, both Alternative L and the Proposed Action would result in no unmitigated significant impacts in the AM, Midday, and PM peak hours.

The results of this analysis indicate that in 2025 Alternative L would result in two more adverse impacts that could not be mitigated during the AM peak hour (i.e., four vs. two), the same number of adverse impacts that could not be mitigated during the Proposed Action Midday peak hour (i.e., zero), and the same number of adverse impacts that could not be mitigated during the PM peak hour (i.e., four vs. four) when compared with the Proposed Action.

The majority of weeknight and Sunday Special Event traffic impacts under the Proposed Action would be associated with events at the Multi-Use Facility and Madison Square Garden. (The Convention Center would only contribute to Sunday Special Event traffic.) The Multi-Use Facility would be identical for Alternative L and the Proposed Action. Therefore, Alternative L would have the same weeknight and Sunday Special Event peak hour significant unmitigated impacts in 2025 as the Proposed Action (i.e., four and four, respectively).

Alternative L would result in virtually the same traffic volumes on bridges and tunnels crossing the East, Hudson, and Harlem Rivers in the AM, Midday, and PM analysis hours, as well as the weeknight and Sunday Special Event peak hours, resulting in the same significant adverse peak hour impacts to the river crossings as the Proposed Action.

(l) Parking

The proposed Convention Center Expansion would include a 350-space off-street parking facility as part of the proposed Convention Center Hotel. In 2010, both Alternative L and the Proposed Action, would provide adequate off-street parking capacity under all conditions. In 2025, Alternative L would result in an 1-space shortfall in the Midday peak period. Although the Proposed Action would have a small shortfall of spaces, the shortfall for the Proposed Action would be larger than for Alternative L. Adequate off-street parking capacity would be provided during the remaining peak periods.

(m) Transit

The Convention Center expansion is projected to generate a small percentage of the total 2025 projected transit growth in the Project Area under the Proposed Action. Alternative L would therefore result in essentially the same subway and ferry impacts as the Proposed Action in 2010 and 2025.

In 2010, Alternative L would require one less standard bus on the westbound M-34/M-16 during the AM peak hour, and two fewer standard buses on the eastbound M-34/M-16 during the PM peak hour when compared with the Proposed Action. In 2025, Alternative L would require one fewer articulated bus on the westbound M-34/M-16 and one fewer standard bus on the westbound M-42 during the AM peak hour, and two fewer articulated buses on the eastbound M-34/M-16 and one less bus on the westbound M-42 during the PM peak hour when compared with the Proposed Action.

(n) Pedestrians

The Convention Center expansion is projected to generate a small percentage of the total 2010 or 2025 projected pedestrian growth in the Project Area under the Proposed Action. Alternative L

would result in one fewer impact than the Proposed Action in the AM peak period (one vs. two), two fewer in the Midday (one vs. three), and one more in the PM (three vs. two). In 2025, Alternative L would result in one more significant unmitigated impact in the AM peak period (seven vs. six), one less in the Midday (20 vs. 21), and the same number in the PM (11).

(o) Air Quality

(i) Mobile Source

Microscale Intersection Analysis. Under Alternative L, 2010 and 2025 CO 8-hour levels and PM₁₀ 24-hour and annual levels would not exceed the NAAQS or the PM_{2.5} 24-hour and annual STV, and would not exceed the DEP *de minimis* criteria for CO, like the Proposed Action.

TABLE 26-16
ALTERNATIVE L: AIR QUALITY ANALYSIS SITES EXCEEDING NAAQS, CEQR DE MINIMIS
CRITERIA OR DEP STV

	2010		2025	
	Proposed Action	Alternative L	Proposed Action	Alternative L
CO 8-hour NAAQS	0	0	0	0
CO <i>de minimis</i> Criteria	0	0	0	0
PM ₁₀ 24-hour NAAQS	0	0	0	0
PM ₁₀ Annual NAAQS	0	0	0	0
PM _{2.5} 24-hour STV	0	0	0	0
PM _{2.5} Annual STV	0	0	0	0

(ii) Stationary Source

Like the Proposed Action, Alternative L would not cause significant adverse impacts on air quality from future HVAC sources. Neither Alternative L nor the Proposed Action would result in any exceedances of any NAAQS, CEQR *de minimis* criteria, or STV or DEC air toxic guidance. However, there would be potential exceedances of the SO₂ NAAQS and DEC guidance with the Proposed Action attributable to Quill Bus Depot emissions in 2010 and 2025, which would be fully mitigated in both years. Neither the Proposed Action nor Alternative L would result in exceedances of any NAAQS, CEQR *de minimis* criteria, or PM_{2.5} STV.

(p) Noise and Vibration

Noise impacts from Alternative L would, like the Proposed Action, involve two areas of concern: (1) potential effects of introducing new noise-sensitive land uses (i.e., residences and community facilities) into an already noisy environment, and (2) effects of noise-generating activities associated with the alternative on existing noise-sensitive land uses in the area. Since new noise-sensitive receptors would be introduced into the same noisy area as the Proposed Action, (E) Designations would also be required for the new residences and community facilities contemplated by Alternative L. This alternative would also increase noise levels by 3 dBA or more at many of the same locations as with the Proposed Action and would result in the need for the same mitigation measures identified for the Proposed Action. With such mitigation measures, there would be no significant adverse noise impacts from Alternative L.

(q) Construction Impacts

Like the Proposed Action, Alternative L would not result in significant adverse construction period impacts. Since Alternative L does not include the expansion of the Convention Center or the relocation of the Quill Bus Depot, there would be fewer potential construction impacts than under the Proposed Action. Although construction of the Convention Center expansion program would require only limited lane and sidewalk closures, these closures would no longer be necessary under Alternative L. Alternative L would require fewer truck trips to deliver construction material and to

remove debris and excavated material than with the Proposed Action. Measures to avoid or mitigate the significant adverse impacts of Alternative L would be selected from among the same measures as identified for the Proposed Action.

e) **Alternative M: Proposed Action without Development of the Multi-Use Facility**

Description of the Alternative

Alternative M was suggested by various individuals during the public scoping process for development of the DGEIS, and was identified by the co-lead agencies to provide a direct separate assessment of the impacts of the Proposed Action in the event that the development of the Multi-Use Facility fails to proceed. Assessing this alternative permits the co-lead and involved agencies to determine whether failure to develop the Multi-Use Facility would result in substantially different significant adverse impacts than those of the Proposed Action, and to determine the extent to which the remaining elements of the Proposed Action would meet the purpose and need for the Proposed Action identified in Chapter 1, “Purpose and Need.”

Alternative M would include all the elements of the Proposed Action except the development of a Multi-Use Facility on the western portion of Caemmerer Yard (Figure 26M-1). As a consequence, unlike the Proposed Action, Alternative M would not require modification to the existing alignment of the High Line. Unlike the Proposed Action, the western portion of Caemmerer Yard would continue to be an open rail facility that would continue to detract from the neighborhood character and urban design of western Hudson Yards. Like the Proposed Action, the Quill Bus Depot would be relocated to a location between Tenth and Twelfth Avenues between West 30th and West 31st Streets. However, it would not be partially covered by the Multi-Use Facility between Eleventh and Twelfth Avenues.

Without development of the Multi-Use Facility, the Proposed Action would not provide a venue for major sports, entertainment, exhibition, and Convention Center-related events anticipated at the Multi-Use Facility and would not provide a New York home for the New York Jets.

Alternative M would require the same discretionary approvals and public actions as the Proposed Action, except those required for the development of the Multi-Use Facility.

Principal Conclusions

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 large-scale 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.

Exclusion of the Multi-Use Facility from the Proposed Action would eliminate its 180,000 square feet of convertible exhibition space and 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 eliminate 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, fiscal benefits, up to \$54.1 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 could 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 impacts different 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 Midday peak hours in 2010 and 2025. In the PM, Alternative M would result in the same number of unmitigated significant impact in 2010 (i.e., 2 vs. 2) and one less unmitigated significant adverse impacts in 2025 (i.e., 3 vs. 4). However, the absence of the Multi-Use Facility in Alternative M would result in 70 percent less traffic generated during the weeknight and Sunday Special Event peak hours than with the Proposed Action during the 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 Special Event peak periods under Alternative M.

Alternative M Compared to the Proposed Action

Alternative M would remove a major land use component from the Proposed Action. As such, Alternative M would affect most impact categories considered for the Proposed Action except for community facilities and services, archaeological resources, natural resources, and public health. The remaining categories in which the impacts of Alternative M are expected to differ substantially from those of the Proposed Action are discussed below.

(a) Land Use, Zoning, and Public Policy

Like the Proposed Action, Alternative M would result in substantial improvements to land use in the Project Area. Like the Proposed Action, Alternative M would not result in significant adverse land use, zoning, or public policy impacts.

Unlike the Proposed Action, Alternative M would not realize all the beneficial effects of the Proposed Action in the Convention Center Corridor. Alternative M would not include construction of the Multi-Use Facility, which would be a noticeable difference between Alternative M and the Proposed Action in land use in the Convention Center Corridor. Because no other uses are contemplated on the western portion of Caemmerer Yard in the absence of development of the Multi-Use Facility, this superblock would continue in its current land use, that of the open Caemmerer Yard. Overall, the site would stand in sharp contrast with the surrounding redevelopment areas, and Alternative M would not supplement the Convention Center expansion and the rezoning of the Project Area. The presence of the open railroad yard could impede future development in the western section of the Project Area, including the southern portion of the Large Scale Plan.

(b) Socioeconomic Conditions

Alternative M would differ from the Proposed Action in that the Multi-Use Facility would not be constructed. All other aspects of the Proposed Action would be expected to be the same as with the Proposed Action. Therefore, like the Proposed Action, Alternative M is expected to result in significant economic benefits to the Project Area, and is not expected to result in significant adverse impacts due to either direct or indirect displacement of residential or commercial uses, or significant adverse impacts on the apparel or theater industries.

Alternative M would not realize any of the socioeconomic benefits from the construction and operation of the Multi-Use Facility. During the four-year construction period, the Multi-Use Facility

would result in a \$1.4 billion construction investment and create approximately 6,710 direct and indirect jobs. In addition, Alternative M would not create a new venue with the capabilities to host major plenary events in conjunction with the Convention Center, and other national sports and entertainment events, such as the Super Bowl and Final Four, nor would it provide a New York City home for the New York Jets. Alternative M would not realize the resulting annual wages and salaries (up to \$348.5 million), fiscal benefits (up to \$54.1 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.

(c) Open Space and Recreational Facilities

Like the Proposed Action, Alternative M would not result in any significant adverse impacts to open space resources. Alternative M would introduce fewer non-residents to the Project Area than the Proposed Action, as the Multi-Use Facility workers and associated visitors would not be present in the Project Area. Open space resources with Alternative M would be the same as the Proposed Action. Therefore, open space ratios associated with the non-residential population alone or the non-residential and residential populations combined would be slightly better with Alternative M than the Proposed Action. However, there would be no adverse impact to open space resources under either the Proposed Action or Alternative M. Blank walls and the continued open-air western portion of Caemmerer Yard would make new open spaces in the surrounding area less attractive and less useful.

TABLE 26-17
ALTERNATIVE M: ADEQUACY OF OPEN SPACE RESOURCES COMPARED TO THE PROPOSED ACTION

Study Area	Open Space Category	Open Space Ratio	
		Proposed Action	Alternative M
Without High Line Open Space, 2010			
Non-Residential Study Area	Passive/Non-Residents	0.126	0.132
	Passive/Total Population	0.101	0.104
Residential Study Area	Total/Residents	0.768	0.768
	Passive/Residents	0.534	0.534
	Active/Residents	0.234	0.234
	Passive/Total Population	0.092	0.094
With High Line Open Space, 2010			
Non-Residential Study Area	Passive/Non-Residents	0.149	0.156
	Passive/Total Population	0.118	0.122
Residential Study Area	Total/Residents	0.811	0.811
	Passive/Residents	0.583	0.582
	Active/Residents	0.228	0.228
	Passive/Total Population	0.102	0.104
Without High Line Open Space, 2025			
Non-Residential Study Area	Passive/Non-Residents	0.099	0.103
	Passive/Total Population	0.081	0.083
Residential Study Area	Total/Residents	0.646	0.646
	Passive/Residents	0.466	0.466
	Active/Residents	0.180	0.180
	Passive/Total Population	0.078	0.080
With High Line Open Space, 2025			
Non-Residential Study Area	Passive/Non-Residents	0.114	0.118
	Passive/Total Population	0.092	0.095
Residential Study Area	Total/Residents	0.678	0.677
	Passive/Residents	0.502	0.501
	Active/Residents	0.176	0.176
	Passive/Total Population	0.086	0.087

* Indicates a ratio at or below the Future Without the Proposed Action ratio (see Chapter 7, "Open Space and Recreational Facilities").

(d) Architectural Historic Resources

Like the Proposed Action, Alternative M would result in a significant adverse impact on architectural historic resources.

(e) Urban Design and Visual Resources

Like the Proposed Action, Alternative M would result in significant improvements to urban design in the Project Area and would not significantly adversely impact visual resources. However, the southern portion of the Convention Center Corridor would remain in its current condition, dominated by the western portion of the open-air Caemmerer Yard, surrounded on three sides by unattractive concrete walls. The continued use of the open-air Caemmerer Yard would be out of context with the surrounding urban design vision for the Project Area. The Quill Bus Depot would be relocated to the southern portion of Caemmerer Yard (West 30th to West 31st Street, between Tenth and Twelfth Avenues) and would appear as a one-story building on the north side of West 30th Street between Eleventh and Twelfth Avenues. As a consequence, Alternative M would be less beneficial to urban design in the Project Area than the Proposed Action. Rather than presenting a cohesive urban design vision for the area, with connected uses, Alternative M would leave a large portion of the Convention Center Corridor with its current unattractive street presence. This would reduce the beneficial urban design effects of the Proposed Action.

(f) Neighborhood Character

Like the Proposed Action, Alternative M would result in dramatic improvement to neighborhood character in the Project Area. However, the southern portion of the Convention Corridor would remain in its current condition, dominated by the western portion of the open Caemmerer Yard. Rather than a lively sports, exhibition, and entertainment use with retail along Eleventh Avenue and a potential connection to the High Line, this area would continue to be dominated by the open Caemmerer Yard. This remaining use would not be compatible with the new uses anticipated under the Proposed Action.

(g) Hazardous Materials

Like the Proposed Action, the Alternative M would result in no significant adverse impacts related to the disturbance of properties having the potential to contain hazardous materials. Private development sites having the potential to contain hazardous materials would be mapped with (E) Designations, similar to the Proposed Action. Implementation of measures to be incorporated into a Construction Environmental Protection Program to be implemented by the constructing or owning entity of major public project elements of this alternative would avoid impacts related to disturbing any property having the potential to contain hazardous materials related to such elements. Hazardous conditions that may be present in the western Caemmerer Yard would not be disturbed, but would also not be addressed or remediated.

(h) Waterfront Revitalization Program

Under Alternative M, no development would occur over the western portion of Caemmerer Yard and fewer visitors would be potentially attracted to Hudson River Park. However, both Alternative M and the Proposed Action would both be compatible with the Local Waterfront Revitalization Program, by encouraging appropriate commercial redevelopment (including the Convention Center expansion) and recreational uses within the coastal zone. However, Alternative M would be less compatible with waterfront uses than the Proposed Action, since the western portion of Caemmerer Yard would remain an open transportation facility, and fewer visitors would be attracted to the Hudson River Park from the Hudson Yards.

(i) Infrastructure

Alternative M would require approximately 0.4 mgd less potable water (peak usage) than the Proposed Action, an insignificant difference from the Proposed Action. Neither the Proposed Action nor Alternative M would result in significant adverse impacts on City water supply services, assuming that the Manhattan Water Trunk Main Master Plan is implemented by DEP. Alternative M would also generate approximately 0.4 mgd less sewage during peak days than the Proposed Action. Like the Proposed Action, Alternative M would not result in significant adverse impacts to the North River WPCP operations. However, Alternative M would still require DEP-approved upgrades to sewer segments similar to the Proposed Action. Potential impacts to Hudson River water quality with Alternative M would be substantially the same as the Proposed Action.

(j) Solid Waste and Sanitation Services

Like the Proposed Action, Alternative M would not result in a significant adverse impact on municipal solid waste and sanitation services.

(k) Energy

Alternative M would require approximately 21 less MWh per year of electricity than the Proposed Action. This reduction in electrical usage would not be a significant difference compared to the Proposed Action. Like the Proposed Action, Alternative M would still require a new area substation by 2013 and an additional area substation and transmission station by 2021 as these improvements would still be required for the anticipated residential and commercial developments, No. 7 Subway Extension, and the expanded Convention Center.

(l) Traffic (2010 & 2025)

A traffic assessment was conducted of 62 intersections in the vicinity of the Multi-Use Facility under 2010 conditions and 71 intersections in the vicinity of the Multi-Use Facility under 2025 conditions. The results of this analysis indicate that in 2010 both the Proposed Action and Alternative M would result in no significant adverse impacts that could not be mitigated during the AM, Midday, and PM peak hours.

In 2025, Alternative M would result in the same adverse traffic impacts that could not be mitigated as the Proposed Action during the weekday AM and Midday peak hours (two and zero, respectively). Alternative M would result in one fewer unmitigated significant adverse impact on the PM peak hour (i.e., three vs. four). The absence of the Multi-Use Facility in Alternative M would result in less traffic generated during the weeknight and Sunday Special Event peak hours on the approximately 19 times a year that Special Events would occur under the Proposed Action. During these periods, there would be fewer overall traffic impacts in Alternative M than in the Proposed Action.

Alternative M would result in virtually the same traffic volumes on bridges and tunnels crossing the East, Hudson, and Harlem Rivers in the AM, Midday, and PM analysis hours as the Proposed Action and the same significant adverse impacts to the river crossings during the 2025 peak hours. Weeknight and Sunday Special Event peak hour bridge and tunnel volumes would be less than the Proposed Action and not result in significant adverse impacts.

(m) Parking

The Multi-Use Facility would provide a limited number of reserved parking spaces on-site. Elimination of the Multi-Use Facility would reduce parking demand related to activities at the Multi-Use Facility while largely maintaining off-street parking capacity in the Project Area. Under 2010 and 2025 demands, Alternative M would provide adequate off-street parking capacity under all conditions, while the Proposed Action would result in a small shortfall of parking spaces in the Midday peak period.

(n) Transit

During the weekday AM, Midday, and PM peak hours, Alternative M would be nearly identical to the Proposed Action, because the Multi-Use Facility generates relatively few trips during weekday peak hours. During the weeknight and Sunday Special Event peak hours, demand for transit would be less during the 19 major events projected to occur at the Multi-Use Facility each year, and no adverse impacts would occur that could not be mitigated.

(o) Pedestrians

During the weekday AM, Midday, and PM Peak Hours, Alternative M would be nearly identical to the Proposed Action, because the Multi-Use Facility would generate relatively few pedestrian trips during these hours. During the weeknight and Sunday Special Event peak hours, pedestrian volumes in the vicinity of the Multi-Use Facility and corridor from the Multi-Use Facility to Penn Station would be significantly less during the 19 major events projected to occur at the Multi-Use Facility each year, and there would be no unmitigated pedestrian impacts.

*(p) Air Quality**(i) Mobile Source*

Microscale Intersection Analysis. Under Alternative M, 2010 and 2025 CO 8-hour levels and PM₁₀ 24-hour and annual levels would not exceed the NAAQS or the PM_{2.5} 24-hour and annual STV, and would not exceed the DEP *de minimis* criteria for CO, like the Proposed Action.

TABLE 26-18
ALTERNATIVE M: AIR QUALITY ANALYSIS SITES EXCEEDING NAAQS, CEQR DE MINIMIS
CRITERIA OR DEP STV

	2010		2025	
	Proposed Action	Alternative M	Proposed Action	Alternative M
CO 8-hour NAAQS	0	0	0	0
CO <i>de minimis</i> Criteria	0	0	0	0
PM ₁₀ 24-hour NAAQS	0	0	0	0
PM ₁₀ Annual NAAQS	0	0	0	0
PM _{2.5} 24-hour STV	0	0	0	0
PM _{2.5} Annual STV	0	0	0	0

(ii) Stationary Source

Like the Proposed Action, Alternative M would not cause significant adverse impacts on air quality from future HVAC sources. Neither Alternative M nor the Proposed Action would result in any exceedances of any NAAQS, CEQR *de minimis* criteria, or STV or DEC air toxic guidance. However, there would be potential exceedances of the SO₂ NAAQS and DEC guidance with the Proposed Action attributable to Quill Bus Depot emissions in 2010 and 2025, which would be fully mitigated in both years. Neither the Proposed Action nor Alternative M would result in exceedances of any NAAQS, CEQR *de minimis* criteria or PM_{2.5} STV, except for both Alternative M and the Proposed Action.

(q) Noise and Vibration

Noise impacts from Alternative M would, like the Proposed Action, involve two areas of concern: (1) potential effects of introducing new noise-sensitive land uses (i.e., residences and community facilities) into an already noisy environment, and (2) effects of noise-generating activities associated with the alternative on existing noise-sensitive land uses in the area. Since new noise-sensitive receptors would be introduced into the same noisy area as the Proposed Action, (E) Designations would also be required for the new residences and community facilities contemplated by

Alternative M. This alternative would also increase noise levels by 3 dBA or more at many of the same locations as with the Proposed Action and would result in the need for the same mitigation measures identified for the Proposed Action. With such mitigation measures, there would be no significant adverse noise impacts from Alternative M.

(r) Construction Impacts

Alternative M would result in slightly less construction-related activity and effects than the Proposed Action, due to the elimination of construction activities for the Multi-Use Facility. Fewer truck trips would be required to transport spoils and construction materials, thereby reducing associated traffic disruptions and traffic-generated air quality effects in the area surrounding Caemmerer Yard; however, construction of the Multi-Use Facility is only a minor amount of the overall activity expected in Hudson Yards, and the construction-related effects of the rest of that activity would continue to occur. Fugitive dust impacts would be similar to the Proposed Action.

Measures required to mitigate or avoid construction-related impacts for Alternative M would be selected from among the same measures as identified for the Proposed Action.

f) Alternative N: Proposed Action without Expansion of the Convention Center or Development of the Multi-Use Facility

Description of the Alternative

Alternative N was identified by the co-lead agencies to provide a direct assessment of the impacts of the remaining elements of the Proposed Action in the event that expansion of the Convention Center and the development of the Multi-Use Facility failed to proceed. Assessing this alternative permits the co-lead agencies to identify the differences in anticipated impacts if both of these elements fail to proceed, and the extent to which the remaining elements of the Proposed Action would meet the purpose and need of the Proposed Action identified in Chapter 1, “Purpose and Need.”

Alternative N would include all elements of the Proposed Action except the expansion of the Convention Center and the development of the Multi-Use Facility (Figure 26N-1). The Convention Center would continue to operate at its current location and with its current limits to hosting major convention, exposition, and exhibition events. The Multi-Use Facility would not be available to provide sports, entertainment, additional exhibition space, or a home stadium for the New York Jets. Unlike the Proposed Action, Alternative N would not include the development of a new hotel at the southwest corner of West 42nd Street and Eleventh Avenue or the relocation of the Quill Bus Depot.

Since Alternative N does not include the development of a Multi-Use Facility, the western portion of Caemmerer Yard would continue to operate as an open air rail facility. Unlike the Proposed Action, the open space and park elements associated with the Convention Center between West 33rd and West 34th Streets between Eleventh and Twelfth Avenues and the Multi-Use Facility between West 30th and West 31st Streets between Eleventh and Twelfth Avenues would not be developed. There would be no changes to the High Line.

Like the Proposed Action, Alternative N would include the rezoning and related land used actions for the Project Area and the extension of No. 7 Subway.

Alternative N would require the same discretionary approvals and discretionary actions as the Proposed Action, except for those required for expansion of the Convention Center and development of the Multi-Use Facility.

Principal Conclusions

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 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 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 \$26.7 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.

Unlike the Proposed Action, Alternative N would not result in the projected benefits of \$54.1 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), fiscal benefits (up to \$54.1 million), and overall economic activity expected with the Multi-Use Facility.

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 could 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.

The areas in which Alternative N would result in different impacts from those of the Proposed Action are discussed below.

Alternative N Compared to the Proposed Action

Alternative N would remove two major land use components from the Proposed Action. As such, the effects of Alternative N on most impact categories would be different from those of the Proposed Action except for shadows, archaeological resources, natural resources, and public health. The remaining categories in which the impacts of Alternative N are expected to differ from those of the Proposed Action are discussed below.

(a) Land Use, Zoning, and Public Policy

Like the Proposed Action, Alternative N would result in significant improvements to land use in the Project Area due to effects of the proposed rezoning and No. 7 Subway Extension. Like the Proposed Action, Alternative N would not have any significant adverse land use, zoning, or public policy impacts.

Alternative N would not realize any of the beneficial effects in the Convention Center Corridor that would accrue with the Proposed Action. Alternative N would have similar effects on land use, zoning, and public policy in the Project Area outside the Convention Center Corridor; however, anticipated development in the Large Scale Plan area along the east side of Eleventh Avenue could be constrained as a result of the largely incompatible land uses, other than the existing Convention Center, that would exist west of Eleventh Avenue with Alternative N.

Because Alternative N would not include the expansion of the Convention Center or the construction of the Multi-Use Facility, there would be significant differences between Alternative N and the Proposed Action in the Convention Center Corridor. It is likely that residential development would occur in place of the Convention Center Hotel, to the north of the Convention Center. This residential development would comprise of approximately 532 dwelling units. Alternative N would have 8.6

fewer acres of open space than the Proposed Action, due to the loss of the public open space on the roof of the Convention Center and on the block between Eleventh and Twelfth Avenues between West 33rd and West 34th Streets. Under Alternative N, the blocks to the north of the existing Convention Center would remain in their current use. West 33rd, West 39th, West 40th, and West 41st Streets would remain open. In the absence of development of the Multi-Use Facility, the superblock on which it would be located with the Proposed Action would continue in its current land use, that of the open rail facility. The presence of the open railroad yard and its unattractive walls could impede future development in the southwest section of the Project Area, including on the eastern portion of Caemmerer Yards. The Convention Center would continue to be an isolated use in the Corridor.

(b) Socioeconomic Conditions

Without the Convention Center expansion or creation of the Multi-Use Facility, Alternative N would retain all other elements of the Proposed Action including the subway extension and the proposed rezoning. Therefore, like the Proposed Action, Alternative N is not expected to result in significant adverse impacts due to either direct or indirect displacement of residential or commercial uses or impacts on the apparel or theater industries. Alternative N would result in fewer of the substantial overall economic benefits of the Proposed Action in the Project Area due to the development that would occur as a consequence of the rezoning. However, the economic activity and benefits associated with both the modernization and expansion of Convention Center and the new investment in the Multi-Use Facility would not be realized, and some of the economic benefits expected from the Large Scale Plan could be delayed or constrained.

Unlike the Proposed Action, Alternative N would not require the displacement of four businesses and estimated 102 employees because of the expansion of the Convention Center. However, this is not considered a significant adverse impact under the Proposed Action.

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 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 \$26.7 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.

Unlike the Proposed Action, Alternative N would not result in the projected benefits of \$73 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), fiscal benefits (up to \$54.1 million), and overall economic activity expected with the Multi-Use Facility.

(c) Open Space and Recreational Facilities

Unlike the Proposed Action, Alternative N would result in significant adverse open space impacts. Without the Convention Center expansion or the Multi-Use Facility, Alternative N would result in fewer non-residents, as well as fewer acres of passive open space than the Proposed Action. Alternative N would effectively reduce the amount of passive open space in the Study Area by 5.6 acres in 2010 and a total of 8.6 acres in 2025 as compared to the Proposed Action. Alternative N would not provide the 8.6 acres of passive open space associated with the Convention Center expansion. In total, Alternative N would add only 11.95 acres total acres of open space (8.35 acres of passive open space and 3.6 acres of active open space) to the Project Area by 2010 and a total of 15.41 acres by 2025 (11.81 acres of passive open space and 3.6 acres of active open space).

All open space ratios would be lower with Alternative N than with the Proposed Action. It is likely that residential development would occur in place of the Convention Center Hotel, to the north of the Convention Center. This residential development would comprise approximately 532 dwelling units and add approximately 888 residents to the Project Area that would not be included in the Proposed Action. Therefore, the additional residential population and fewer acres of passive open space in Alternative N would be available for residential use, thereby reducing open space ratios calculated specifically for residential populations as shown for the active and passive residential ratios presented in

Table 26-19. As a result, Alternative N, unlike the Proposed Action, would result in a significant adverse impact based on the decrease in usable passive open space as compared to the No Action condition. Alternative N would also have a lower active open space ratio than the Proposed Action due to the additional residential units developed in place of the Convention Center hotel. By 2025, the passive non-residential open space ratio in the scenario Without the High Line in Alternative N would decrease by greater than five percent from the Future Without the Proposed Action. In addition, an important goal of the Proposed Action – to create a comprehensive open space network in Hudson Yards – would not be achieved.

In addition to resulting in less open space than the Proposed Action, Alternative N would not achieve the improve integration of open spaces as provided by the Proposed Action. Key open spaces, such as the five-acre publicly accessible open space on the roof of the Convention Center and the 3.6-acre full-block open space between West 33rd and 34th Streets and Eleventh and Twelfth Avenues, would not be created. This would result in a significant adverse qualitative impact as compared to the Proposed Action.

TABLE 26-19
ALTERNATIVE N: ADEQUACY OF OPEN SPACE RESOURCES COMPARED TO THE PROPOSED ACTION

Study Area	Open Space Category	Open Space Ratio	
		Proposed Action	Alternative N
Without High Line Open Space, 2010			
Non-Residential Study Area	Passive/Non-Residents	0.126	0.123
	Passive/Total Population	0.101	0.095
Residential Study Area	Total/Residents	0.768	0.708
	Passive/Residents	0.534	0.476
	Active/Residents	0.234	0.231
	Passive/Total Population	0.092	0.088
With High Line Open Space, 2010			
Non-Residential Study Area	Passive/Non-Residents	0.149	0.149
	Passive/Total Population	0.118	0.114
Residential Study Area	Total/Residents	0.811	0.752
	Passive/Residents	0.583	0.526
	Active/Residents	0.228	0.226
	Passive/Total Population	0.102	0.099
Without High Line Open Space, 2025			
Non-Residential Study Area	Passive/Non-Residents	0.099	0.087
	Passive/Total Population	0.081	0.069
Residential Study Area	Total/Residents	0.646	0.575
	Passive/Residents	0.466	0.396
	Active/Residents	0.180	0.179*
	Passive/Total Population	0.078	0.071
With High Line Open Space, 2025			
Non-Residential Study Area	Passive/Non-Residents	0.114	0.104
	Passive/Total Population	0.092	0.082*
Residential Study Area	Total/Residents	0.678	0.608
	Passive/Residents	0.502	0.434
	Active/Residents	0.176	0.174
	Passive/Total Population	0.086	0.079

* Indicates a ratio at or below the Future Without the Proposed Action ratio (see Chapter 7, "Open Space and Recreational Facilities").

(d) Architectural Historic Resources

Unlike the Proposed Action, Alternative N would not result in a significant adverse impact on the High Line due to construction of the Multi-Use Facility on the western portion of Caemmerer Yard.

(e) Urban Design and Visual Resources

Like the Proposed Action, Alternative N would significantly improve the urban design of the Project Area. However, unlike the Proposed Action, it would not alter the urban design or visual quality of the Convention Center Corridor. The Corridor would remain underutilized and its urban design would continue to be dominated by the Convention Center and the western portion of the open Caemmerer Yard and Convention Center truck marshalling facility. Unlike the Proposed Action, Alternative N would not result in new open space on the Convention Center roof or on the full-block between West 33rd and West 34th Streets between Eleventh and Twelfth Avenues and would not create an important new visual resource between West 33rd and 34th Streets. Rather than presenting a cohesive urban design vision for the area, with connected uses, this Alternative would leave a large portion of the area with its current unattractive street presence. This would reduce the beneficial urban design effects of the Proposed Action.

(f) Neighborhood Character

Like the Proposed Action, Alternative N would dramatically improve neighborhood character in the Project Area. However, with no expansion of the Convention Center or development of the Multi-

Use Facility, improvements in neighborhood character would occur outside the Convention Center Corridor. The Convention Center Corridor would continue to be dominated by existing transportation uses. The Convention Center would remain isolated in the midst of these uses. Alternative N would forgo the opportunity to introduce a lively sports/entertainment use with retail on the site of the existing open Caemmerer Yard.

(g) Hazardous Materials

Like the Proposed Action, the Alternative N would result in no significant adverse impacts related to the disturbance of properties having the potential to contain hazardous materials. Development sites having the potential to contain hazardous materials would be mapped with (E) Designations, similar to the Proposed Action. Implementation of measures to be incorporated into a Construction Environmental Protection Program to be implemented by the constructing or owning entity of major public project elements of this alternative would avoid impacts related to disturbing any property having the potential to contain hazardous materials related to such elements.

(h) Waterfront Revitalization Plan

Under Alternative N, within the Coastal Zone, no development would occur over the western portion of Caemmerer Yard and there would be no expanded Convention Center. Unlike the Proposed Action, Alternative N would not further the goal of encouraging commercial and residential redevelopment (including the Convention Center Expansion) within an appropriate Coastal Zone area. Both Alternative N and the Proposed Action would be compatible with the Waterfront Revitalization Plan.

(i) Infrastructure

Alternative N would require approximately 1.2 mgd less potable water (peak usage) than the Proposed Action. Like the Proposed Action, the resulting demand would not create a significant adverse impact on City water supply services, assuming that the Manhattan Water Trunk Main Master Plan would be implemented by DEP. Alternative N would also generate approximately 1.2 mgd less sewage during peak days than the Proposed Action. No significant adverse impacts to the North River WPCP operations would occur under the Proposed Action or Alternative N. However, Alternative N would still require upgrades to sewer segments similar to the Proposed Action.

(j) Solid Waste/Sanitation

Alternative N would generate the same amount of municipal solid waste as the Proposed Action. Like the Proposed Action it would not result in a significant adverse impact to DSNY services.

(k) Energy

Alternative N would require approximately 79 less MWh per year of electricity than the Proposed Action. This reduction in electrical usage would not create a significant difference in on energy demand compared to the Proposed Action. Like the Proposed Action, Alternative N would still require a new area substation by 2013 and an additional area substation and transmission station by 2021, as these improvements would still be required to serve the anticipated residential and commercial development and the No. 7 Subway Extension.

(l) Traffic (2010 & 2025)

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 better traffic operations during the AM, Midday, and PM peak hours than the Proposed Action. Weeknight and Sunday Special Event peak hour conditions would be significantly better on the 19 days that Special Events are anticipated.

Alternative N would result in virtually the same traffic volumes on bridges and tunnels crossing the East, Hudson, and Harlem Rivers in the AM, Midday, and PM analysis hours as the Proposed Action and the same significant adverse impacts to the river crossings during the 2025 peak hours. Weeknight and Sunday Special Event peak hour bridge and tunnel volumes would be less, resulting in fewer impacts than the Proposed Action.

(m) Parking

The Multi-Use Facility would provide a limited number of reserved parking spaces on-site while the Convention Center Expansion would provide 350 parking spaces as part of the Convention Center Hotel. Elimination of the Multi-Use Facility and Convention Center Expansion would reduce parking demand while largely maintaining off-street parking capacity in the Project Area. Under 2010 and 2025 demands, Alternative N would provide adequate off-street parking capacity under all conditions, while the Proposed Action would result in a small shortfall of spaces in the Midday peak period.

(n) Transit

Under Alternative N, in 2010 and 2025, transit ridership and operations would be essentially the same as the Proposed Action throughout most of the Project Area during the AM, Midday, and PM peak hours, because both the Convention Center expansion and Multi-Use Facility are relatively small trip generators relative to the commercial and residential development proposed. Consequently, the same adverse impacts as the Proposed Action would be expected to occur, the same mitigation would be required to address significant impacts, and the same unmitigated impacts would remain as with the Proposed Action.

During the weeknight and Sunday Special Event peak hours, transit volumes would be significantly less during the nineteen major events projected to occur at the Multi-Use Facility each year. Transit operations under this scenario would be similar to Alternative M (Proposed Action Without the Multi-Use Facility), and no adverse impacts would occur that could not be mitigated.

(o) Pedestrians

Under Alternative N, in 2010 and 2025, pedestrian volumes and operations would be essentially the same as those of the Proposed Action throughout most of the Project Area during the AM, Midday, and PM peak hours, because both the Convention Center expansion and Multi-Use Facility would constitute a relatively small number of trips during these periods as compared to the projected commercial and residential development proposed.

During the weeknight and Sunday Special Event peak hours, pedestrian volumes would be significantly less during the 19 major events projected to occur at the Multi-Use Facility each year. No adverse impacts would occur that could not be mitigated.

(p) Air Quality

(i) Mobile Source

Microscale Intersection Analysis. Unlike the Proposed Action, Alternative N would result in fewer locations with significant air quality impacts in 2010 and 2025 due to the elimination of the Convention Center expansion, the Multi-Use Facility, and their associated street closures and traffic impacts. Air quality impacts for Alternative N would be similar to those of Alternative L during AM, Midday, and PM peak hour and similar to Alternative M during weeknight and Sunday Special Event peak hours. As with the Proposed Action and those alternatives, it is expected that with traffic mitigation measures and the more realistic Tier II analyses, no significant adverse air quality impacts or exceedances of applicable NAAQS, DEP *de minimis* criteria or STV levels would be expected in either 2010 or 2025 for Alternative N.

(ii) Stationary Source

Like the Proposed Action, Alternative N would not cause significant adverse impacts on air quality from future HVAC sources. Neither Alternative N nor the Proposed Action would result in any exceedances of any NAAQS, CEQR *de minimis* criteria, or STV or DEC air toxic guidance. However, it should be noted that, with the Proposed Action, there would be potential exceedances of the SO₂ NAAQS and DEC guidance attributable to Quill Bus Depot emissions in 2010 and 2025, which would be fully mitigated in both years. Neither the Proposed Action nor Alternative N would result in exceedances of any NAAQS, CEQR *de minimis* criteria, or PM_{2.5} STV.

(q) *Noise and Vibration*

Noise impacts from Alternative N would, like the Proposed Action, involve two areas of concern: (1) potential effects of introducing new noise-sensitive land uses (i.e., residences and community facilities) into an already noisy environment, and (2) effects of noise-generating activities associated with the alternative on existing noise-sensitive land uses in the area. Since new noise-sensitive receptors would be introduced into the same noisy area as the Proposed Action, (E) Designations would also be required for the new residences and community facilities contemplated by Alternative N. This alternative would also increase noise levels by 3 dBA or more at many of the same locations as with the Proposed Action and would result in the need for the same mitigation measures identified for the Proposed Action. With such mitigation measures, there would be no significant adverse noise impacts from Alternative N.

Like the Proposed Action, Alternative N would not result in significant adverse impacts on noise or vibration from mechanical systems or subway operation. All building and mechanical systems, including subway ventilation facilities, would be required to comply with NYCBC requirements. In addition, subway ventilation buildings would be required to conform to MTA NYCT ventilation noise control design specifications. Both the NYCBC and MTA NYCT specifications require that community noise levels resulting from ventilation be no higher than 55 dBA at any adjacent residential or noise-sensitive receptor. These code requirements would avoid any significant adverse impacts occurring as a result of HVAC or other equipment. Like the Proposed Action, operation of the subway with Alternative N at a maximum operating speed of 35 mph along the proposed alignment would result in vibration and ground-borne noise levels well below applicable FTA impact criteria.

(r) *Construction Impacts*

Alternative N would result in less construction in 2006 than would occur under the Proposed Action and construction-related impacts and inconveniences would be less during this analysis period under this alternative than under the Proposed Action. Construction-related impacts would be the same in the 2017 analysis year. Mitigation measures and measures to avoid significant adverse impacts required for Alternative N would be the same as for the Proposed Action.

g) Alternative O: Convention Center Expansion Only

Description of the Alternative

Alternative O was identified by the co-lead agencies to provide an assessment of the impacts of the expansion of the Convention Center in the event that the other elements of the Proposed Action fail to proceed. Assessing this alternative permits the co-lead and involved agencies to identify and assess impacts directly attributable to expansion of the Convention Center. Overall, expansion of the Convention Center alone is anticipated to result in fewer significant adverse impacts than the Proposed Action. Alternative O also allows the co-lead and involved agencies to assess the extent to which expansion of the Convention Center alone would meet the purpose and need for the Proposed Action identified in Chapter 1, “Purpose and Need.”

Alternative O would only include the expansion of the Convention Center (Figures 26O-1 to 26O-3). It would not include the No. 7 Subway Extension, the proposed rezoning and related land use actions for the Project Area, or the development of a Multi-Use Facility. As such, it would not result in the substantial economic benefits of the proposed rezoning and development of 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 \$26.7 million annually for New York City. None of these benefits would accrue with Alternative O. However, Alternative O would not require the public expenditure of \$1.8 billion for expansion and modernization of the Convention Center.

Alternative O would not provide accommodation for the relocation of the NYPD Tow Pound or the DSNY facility on the block south of West 30th Street between Eleventh and Twelfth Avenues, although these facilities could be relocated independent of Alternative O or the Proposed Action. There would be no new open space on Block 675, nor would there be any other of the public open spaces proposed as part of the rezoning component of the Proposed Action. Like the Proposed Action, Alternative O would include development of publicly accessible open space on the roof of the expanded Convention Center. Unlike the Proposed Action, Alternative O would not include the public open space between Eleventh and Twelfth Avenues between West 33rd and West 34th Streets.

Also like the Proposed Action, Alternative O would require the relocation of the Quill Bus Depot and would close West 39th, West 40th, and West 41st Streets between Eleventh and Twelfth Avenues. Like the Proposed Action, expansion of the Convention Center would occur in two phases. During the first phase, the Convention Center would be expanded northward to West 40th Street, a new 1,500 room hotel and associated parking facility would be developed at the southwest corner of West 42nd Street and Eleventh Avenue, and the existing Convention Center truck marshalling facility would be expanded to provide for additional truck storage capacity. During the second phase, the Convention Center would be expanded to West 41st Street, requiring the relocation of the Quill Bus Depot. Like the Proposed Action, trucks would circulate between the truck marshalling facility and the expanded Convention Center via a dedicated off-street roadway developed along an unused rail right-of-way along the right-of-way of the Amtrak Empire Line rail cut.

Unlike the Proposed Action, the Multi-Use Facility would not be available to augment the space that would be available at the expanded Convention Center with a Plenary Hall. The eastern and western portions of Caemmerer Yard would continue to function as open air rail facilities.

Development in the Project Area would continue to be controlled by existing obsolete zoning mapping and related requirements.

Alternative O would require the approval of the Empire State Development Corporation, the Convention Center Operating Corporation, the Convention Center Development Corporation, and the Metropolitan Transportation Authority.

Principal Conclusions

Alternative O would not provide for the long-term economic growth of the City as described in Chapter 1, “Purpose and Need” for the Proposed Action. 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 O Compared to the Proposed Action

Alternative O would remove all land use components from the Proposed Action except expansion of the Convention Center. As such, Alternative O would affect all impact categories considered for the Proposed Action.

(a) Land Use, Zoning, and Public Policy

Alternative O would differ substantially from the Proposed Action. Without development of the Multi-Use Facility, the rezoning, or No. 7 Subway Extension, it is expected that development in the Project Area would continue as it would in the Future Without the Proposed Action, except for the expansion of the Convention Center. Unlike the Proposed Action, Alternative O would not meet the objective to transform the Project Area from an underutilized area dominated by transportation uses to a lively, mixed-use 24-hour community. The creation of a Convention Center Hotel of West 42nd Street would meet the objective of the Convention Center to have a front door along the 42nd Street Corridor. Alternative O would have some minimal localized beneficial effects in the Convention Center Corridor. However, with no other development projects proposed for the Convention Center Corridor, Alternative O would not substantially change land use in this area. While expansion of the Convention Center would create a full-superblock building and land use requiring the closure of West 33rd, West 39th, West 40th, and West 41st Streets, the lack of related zoning and transit actions would result in the continued isolation of the Convention Center use.

Under Alternative O, the obsolete and ineffective Special Jacob K. Javits Convention Center District zoning would remain. As described in Chapter 2, “Description of the Proposed Action,” the range of uses, densities, and other regulations in the Special Jacob K. Javits Convention Center District has not been successful in attracting development to the area near the Convention Center. This small island

of commercial zoning would continue to not meet the goals of the Special Convention Center District. Under Alternative O, the Convention Center would likely remain an exception among predominantly transportation-related uses. Without the zoning map and text amendments and without the No. 7 Subway Extension, Alternative O would not realize the benefits of a comprehensive effort to realize the development potential of the Project Area. The out-of-date zoning regulations would continue and the Project Area would remain underutilized and dominated by transportation uses.

(b) *Socioeconomic Conditions*

Alternative O would only realize the benefits of constructing and operating an expanded and modernized Convention Center. This would enable the Convention Center to meet its stated goals of creating a facility to handle larger and multiple events that it currently cannot accommodate. Unlike the Proposed Action, however, Alternative O would not benefit from supplementary space available for Convention Center use at the Multi-Use Facility and would not have the benefit of the plenary hall.

The residential and commercial displacement necessary as part of the other components of the Proposed Action would not be required with Alternative O. Alternative O would not realize the substantial economic benefits associated with the other elements of the Proposed Action as outlined in Chapter 5, "Socioeconomic Conditions" or meet the economic development goals established in Chapter 1, "Purpose and Need."

Alternative O would require the displacement of 4 businesses and an estimated 102 employees on the Yale Truck site (this building is already owned by the Convention Center) and the relocation of the Quill Bus Depot. It is assumed that the Quill Bus Depot would be relocated to the same site as with the Proposed Action, but would not be integrated with the Multi-Use Facility or the eastern rail yard open space. Based on the limited displacement, Alternative O, like the Proposed Action, is not expected to result in significant adverse impacts due to either direct or indirect displacement of residential or commercial uses, or significant adverse impacts on the apparel or theater industries.

Unlike the Proposed Action, Alternative O would realize only a small portion of the construction-period economic activity and employment generated by the new development (\$1.8 billion by 2010 for Alternative O compared with \$23.5 billion by 2025 for the Proposed Action). Alternative O would not achieve the estimated 110,000 new jobs in Hudson Yards.

Alternative O would not realize any of the economic benefits from the construction and operation of the proposed rezoning and the development of the Multi-Use Facility. However, it would result in the substantial economic benefits from 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 \$26.7 million annually for New York City.

The exclusion of the Multi-Use Facility from the Proposed Action would also eliminate its 180,000 square feet of convertible exhibition space and 30,000 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 Convention Center’s expansion and would deprive the City and State of the additional revenues attributable to such business. Pursuing this alternative would forfeit the City’s ability to host the estimated three conventions per year that would require the seating capacity of the plenary hall configuration.

(c) Community Facilities and Services

With only the Convention Center expansion, Alternative O would not result in the impacts on community facilities from the Proposed Action, including effects on public schools and day care. Unlike the Proposed Action, Alternative O would not require the development of a new firehouse in the Project Area.

(d) Open Space and Recreational Facilities

Expansion and modernization of the Convention Center would include the five acres of publicly accessible open space on the roof of the Convention Center, but would not include the development of the full-block open space between West 33rd and West 34th Streets between Eleventh and Twelfth Avenues. The 0.76-acre Jacob Javits Convention Center Plaza (Javits Plaza) would remain in its current condition under Alternative O and would not be directly displaced as with the Proposed Action. All passive open space ratios would be significantly worse with Alternative O than the Proposed Action, as shown in Table 26-20

Unlike the Proposed Action, Alternative O would not increase the residential population in the Project Area. However, fewer acres of passive open space in Alternative O would be available for residential use, thereby reducing open space ratios calculated specifically for residential populations as shown for the active and passive residential ratios presented in Table 26-20.

Unlike the Proposed Action, Alternative O would not result in the improved connections between open spaces on the west side of Manhattan that would occur with the Proposed Action. Key open spaces such as the Midblock Park and Boulevard System, the open space on the eastern portion of Caemmerer Yard, and the full-block park between West 29th and West 30th Streets (Block 675) would not be created.

TABLE 26-20
ALTERNATIVE O: ADEQUACY OF OPEN SPACE RESOURCES COMPARED TO THE PROPOSED ACTION

Study Area	Open Space Category	Open Space Ratio	
		Proposed Action	Alternative O
Without High Line Open Space, 2010			
Non-Residential Study Area	Passive/Non-Residents	0.126	0.088
	Passive/Total Population	0.101	0.070
	Total/Residents	0.768	0.616
Residential Study Area	Passive/Residents	0.534	0.418
	Active/Residents	0.234	0.198
	Passive/Total Population	0.092	0.074

TABLE 26-20 (CONTINUED)
ALTERNATIVE O: ADEQUACY OF OPEN SPACE RESOURCES COMPARED TO THE PROPOSED ACTION

Study Area	Open Space Category	Open Space Ratio	
		Proposed Action	Alternative O
With High Line Open Space, 2010			
Non-Residential Study Area	Passive/Non-Residents	0.149	0.113
	Passive/Total Population	0.118	0.088
Residential Study Area	Total/Residents	0.811	0.663
	Passive/Residents	0.583	0.470
	Active/Residents	0.228	0.193
	Passive/Total Population	0.102	0.085
Without High Line Open Space, 2025			
Non-Residential Study Area	Passive/Non-Residents	0.099	0.092
	Passive/Total Population	0.081	0.072
Residential Study Area	Total/Residents	0.646	0.577
	Passive/Residents	0.466	0.402
	Active/Residents	0.180	0.176
	Passive/Total Population	0.078	0.072
With High Line Open Space, 2025			
Non-Residential Study Area	Passive/Non-Residents	0.114	0.114
	Passive/Total Population	0.092	0.089
Residential Study Area	Total/Residents	0.678	0.616
	Passive/Residents	0.502	0.445
	Active/Residents	0.176	0.171
	Passive/Total Population	0.086	0.082

* Indicates a ratio at or below the Future Without the Proposed Action ratio (see Chapter 7, "Open Space and Recreational Facilities").

(e) Shadows

Unlike the Proposed Action, Alternative O would not result in significant adverse shadow impacts on open spaces or historic resources. The expansion of the Convention Center would have no potential to cause significant adverse shadow impacts on either the Eighth Avenue façade of the Farley Building or St. Raphael's RC Church, due to its distance from and orientation to these buildings.

(f) Architectural Historic Resources

Unlike the Proposed Action, there would be no significant adverse impacts with Alternative O on architectural historic resources, since there would be no effects on the High Line or on the architectural historic resources on the seven Projected Development Sites that would be affected by the Proposed Action.

(g) Archaeological Resources

Unlike the Proposed Action, no significant adverse impacts to archaeological resources are anticipated with Alternative O. There are no significant archaeological resources located in the Convention Center Expansion area.

(h) Urban Design and Visual Resources

Unlike the Proposed Action, Alternative O would not result in improvement in urban design and visual resources throughout most of the Project Area. Most of the Project Area would remain underutilized, with vast open areas punctuated by transportation uses. Unlike the Proposed Action, Alternative O would only result in limited improvements to the urban design of the Convention Center Corridor. Although the expanded Convention Center would represent a substantial improvement, both the western and eastern portions of the open Caemmerer Yard would remain in their current conditions surrounded by forbidding walls. Like the Proposed Action, West 33rd, West

39th, West 40th, and West 41st Streets would be closed with Alternative O. The Quill Bus Depot would be relocated and be less visible than in its current location.

(i) Neighborhood Character

Unlike the Proposed Action, Alternative O would not result in any substantial improvement to neighborhood character in most of the Project Area. While expansion of the Convention Center would improve the Convention Center site itself and create five acres of new open space on the roof of the expanded facility, it is not anticipated that expansion of the Convention Center alone would result in an overall improvement in neighborhood character. The Convention Center would continue to be an atypical use isolated on the west side of Manhattan. Alternative O would not meet the objectives of creating a vital 24-hour community in the Project Area and providing space for the economic growth of the City.

(j) Natural Resources

Like the Proposed Action, Alternative O would not result in a significant adverse impact on natural resources.

(k) Hazardous Materials

Like the Proposed Action, the Alternative O would not result in significant adverse impacts related to the disturbance of properties having the potential to contain hazardous materials. Implementation of measures to be incorporated into a Construction Environmental Protection Program to be implemented in expanding the Convention Center would avoid impacts related to disturbing any property having the potential to contain hazardous materials related to such elements.

(l) Waterfront Revitalization Program

Unlike the Proposed Action, the only changes that would occur in the Coastal Zone would be expansion of the Convention Center. No development would occur over the western portion of Caemmerer Yard and there would be no new residential or commercial development north of the existing Convention Center. Both Alternative O and the Proposed Action would be compatible with the Local Waterfront Revitalization Program by encouraging appropriate commercial (including the Convention Center expansion) and recreational uses within the Coastal Zone.

(m) Infrastructure

Alternative O would require approximately 7.8 less mgd of potable water (peak usage) than the Proposed Action. The Convention Center expansion would require approximately 0.8 mgd on peak days. Like the Proposed Action, this demand would not create a significant adverse impact on City water supply. Alternative O would also generate approximately 7.8 less mgd sewage during peak days than the Proposed Action. Sanitary volume generated by Alternative O would be significantly less than the Proposed Action, and, like the Proposed Action, would not result in significant adverse impacts to the North River WPCP operations. Alternative O would not require upgrades to sewer segments as in the Proposed Action.

(n) Solid Waste and Sanitation Services

No additional municipal waste would be generated with Alternative O. No DSNY solid waste collection services would be required for this alternative.

(o) Energy

Alternative O would require approximately 57 MW in electricity, compared to an energy demand of 309 MW under the Proposed Action. Unlike the Proposed Action, Alternative O would not require a new area substation by 2013 or an additional area substation and transmission station by 2021, as in the Proposed Action.

(p) Traffic (2010)

Under the Proposed Action, the extension of the No. 7 Subway line would significantly improve transit access to the Convention Center and surrounding area. This improvement would result in a reduction in vehicular traffic generated by the existing Convention Center as current patrons switch from cars to transit. Vehicular trips generated by the expansion under the Proposed Action would reflect this greater proclivity for transit use. In addition, the construction of two new hotels (2,500 rooms total) in the immediate vicinity of the expanded Convention Center, as part of the Proposed Action, would result in a reduction in taxi trips from Midtown hotels and an increase in walk trips from the new hotels to the Convention Center. The mode changes resulting from the extension of the No. 7 Subway and provision of 2,500 nearby hotel rooms largely offset the increased peak hour travel demand associated with the Convention Center expansion. These benefits are lost if the subway and hotels are not constructed.

A targeted traffic level of service analysis was prepared for 66 intersections in the vicinity of the Convention Center under 2010 weekday AM, Midday, and PM peak hour conditions. Alternative O would result in no unmitigated impacts during any of the peak hours; this is the same as the Proposed Action.

Alternative O would result in lower traffic volumes on bridges and tunnels crossing the East, Hudson, and Harlem Rivers in the AM, Midday, and PM, weeknight and Sunday Special Event peak hours than the Proposed Action and no significant impacts.

(q) Parking

The Alternative O parking analysis reflects available off-street parking capacity located within a half mile of the full Convention Center rather than the much larger Proposed Action off-street parking area. Alternative O does not include the 950-space midblock boulevard parking facility. Like the Proposed Action, Alternative O provides adequate off-street parking during the 2010 weekday Midday, weekday evening, and Sunday afternoon peak periods. During the 2010 weekday Midday peak period, the Proposed Action would have a surplus of approximately 2,400 spaces, while Alternative O would produce an approximate 400-vehicle surplus. This reflects the elimination of the mid-block facility and other nearby Proposed Action parking facilities. During the Sunday Special Event peak period the projected off-street parking surplus would be much higher for Alternative O (2,920 spaces) than for the Proposed Action (590 spaces), reflecting the absence of the Multi-Use Facility.

(r) Transit

Under the Proposed Action, the extension of the No. 7 Subway line would significantly improve transit access to the Hudson Yards and produce a modal shift from automobile to subway for new developments including the Convention Center. This benefit is lost if the subway is not extended, and more visitors would be expected to drive to the Convention Center and other proposed developments. This reduction in overall transit usage, coupled with the reduction in overall trip generation associated with the reduced level of development under the No Action Alternative, would result in significantly lower transit volumes under this alternative. No significant increase to demand for ferry service would be anticipated as a result of Alternative O.

In 2010, Alternative O would require four fewer standard buses on the southbound M-11 and one less standard bus on the westbound M-34/M-16 during the AM peak hour, and four fewer standard buses on the northbound M-11 and one more standard bus on the eastbound M-34/M-16, during the PM peak hour when compared with the Proposed Action.

(s) Pedestrians

Under the Proposed Action, the extension of the No. 7 Subway line would significantly improve transit access to the Hudson Yards and produce a modal shift from automobile to subway for new developments including the Convention Center. This benefit is lost if the subway is not extended, and more visitors would be expected to drive to off-street parking facilities and walk to the Convention Center.

Under 2010 conditions, Alternative O would result in one more significant adverse pedestrian impact as the Proposed Action during the AM peak hour (i.e., three vs. two), one fewer pedestrian impact Midday (i.e., two vs. three), and one more pedestrian impact during the PM peak hour (i.e., three vs. two).

(t) Air Quality

(i) Mobile Source

Microscale Intersection Analysis. Under Alternative O, 2010 CO 8-hour levels and PM₁₀ 24-hour and annual levels would not exceed the NAAQS or the PM_{2.5} 24-hour and annual STV, and would not exceed the DEP *de minimis* criteria for CO, like the Proposed Action.

TABLE 26-21
ALTERNATIVE O: AIR QUALITY ANALYSIS SITES EXCEEDING NAAQS, CEQR DE MINIMIS
CRITERIA OR DEP STV

	2010	
	Proposed Action	Alternative O
CO 8-hour NAAQS	0	0
CO <i>de minimis</i> Criteria	0	0
PM ₁₀ 24-hour NAAQS	0	0
PM ₁₀ Annual NAAQS	0	0
PM _{2.5} 24-hour STV	0	0
PM _{2.5} Annual STV	0	0

(u) Noise and Vibration

Noise impacts from Alternative O would, like the Proposed Action, involve two areas of concern: (1) potential effects of introducing new noise-sensitive land uses (i.e., residences and community facilities) into an already noisy environment, and (2) effects of noise-generating activities associated with the alternative on existing noise-sensitive land uses in the area. Since new noise-sensitive receptors would be introduced into the same noisy area as the Proposed Action, (E) Designations would also be required for the new residences and community facilities contemplated by Alternative O. This alternative would also increase noise levels by 3 dBA or more at many of the same locations as with the Proposed Action and would result in the need for the same mitigation measures identified for the Proposed Action. With such mitigation measures, there would be no significant adverse noise impacts from Alternative O.

(v) Construction Impacts

Construction-related impacts associated with Alternative O would be considerably less than those of the Proposed Action. Overall traffic and air quality impacts would be less with Alternative O due to lesser materials deliveries and spoils removals than with the Proposed Action. Construction activity would occur only between Eleventh and Twelfth Avenues from West 38th to West 42nd Streets and north of West 30th Street between Tenth and Twelfth Avenues for development of a new Quill Bus Depot. The associated traffic, air quality, and noise impacts would approach the magnitude expected under the Proposed Action in these areas. Mitigation measures required for Alternative O would be selected from among the same measures as specified for the Proposed Action. Without the

construction of the Multi-Use Facility, excavation would not be required for development of the Convention Center truck marshalling facility, resulting in lesser impacts in that area than the Proposed Action.

h) Alternative P: Multi-Use Facility Only

Description of the Alternative

Alternative P was identified by the co-lead agencies to provide a direct assessment of the impacts of the development of the Multi-Use Facility alone in the event that the other elements of the Proposed Action fail to proceed. Assessing this alternative permits the co-lead agencies to identify and assess impacts directly attributable to the development of the Multi-Use Facility. Overall, development of the Multi-Use Facility alone is anticipated to result in fewer significant adverse impacts than the Proposed Action. Alternative P also allows the co-lead and involved agencies to assess the extent to which development of the Multi-Use Facility alone would meet the purpose and need for the Proposed Action identified in Chapter 1, “Purpose and Need.”

Alternative P would be limited to the development of the Multi-Use Facility on a deck over the western portion of Caemmerer Yard (Figure 26P-1). Alternative P would not include the No. 7 Subway Extension, Convention Center Expansion, or the proposed rezoning and related land use actions for the Project Area. Without the Convention Center Expansion, Alternative P would not require the relocation of the Quill Bus Depot, nor would it include the improvements to the existing Convention Center truck marshalling facility or the development of the full-block public open space between West 33rd and West 34th Streets between Eleventh and Twelfth Avenues. The Multi-Use Facility would contain 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 seating capacity of up to approximately 75,000, and exposition configuration that would include approximately 180,000 square feet of exhibition space or a plenary hall configuration that would provide a maximum seating capacity of approximately 40,000. Unlike the Proposed Action, West 33rd, West 39th, West 40th, and West 41st Streets would remain open with Alternative P.

Alternative P would require the same approvals by the MTA and/or the Empire State Development Corporation as would be required for development, operation, and maintenance of the Multi-Use Facility as part of the Proposed Action. It would also require the public financing of the platform over the western portion of Caemmerer Yard.

Principal Conclusions

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, fiscal benefits, of up to \$604.46 million, and overall economic activity 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. Such a facility would be inconsistent with the proposed land uses for the surrounding area and could impair the full development of the eastern portion of Caemmerer Yard and other development sites across Eleventh Avenue. 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 Special Event peak hour, both Alternative P and the Proposed Action would result in two adverse impacts that could not be mitigated. During the Sunday Special Event peak hour, Alternative P would result in one more adverse impact that could not be mitigated than the Proposed Action (3 vs. 2), respectively, during the 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 P Compared to the Proposed Action

Since Alternative P would not include several of the major components from the Proposed Action, it would result in substantially different (and generally fewer) impacts than the Proposed Action in all impact categories.

(a) Land Use, Zoning, and Public Policy

Without the rezoning and related land use actions, extension of the No. 7 Subway, and the Convention Center expansion, it is expected that development in the Project Area would continue substantially as it would in the Future Without the Proposed Action, except for construction of the Multi-Use Facility. Unlike the Proposed Action, Alternative P would not, by itself, meet the objective to transform the Project Area to a lively, mixed-use 24-hour community. With no other development projects proposed for the Convention Center Corridor, Alternative P would not substantially change land use in this area, other than in the western portion of Caemmerer Yard. Development of the Multi-Use Facility would create a new sports, exhibition, and entertainment use in the Corridor and would provide a home stadium for the New York Jets, but its land use benefits would be limited to the vicinity of the site on which it is constructed. Existing uses, including the eastern portion of Caemmerer Yard and existing open Convention Center truck marshalling facility, would remain in their current conditions. Although some development in the immediate area could occur, without the zoning map and text amendments and without the No. 7 Subway Extension, Alternative P would not realize the benefits of a comprehensive plan to foster the development potential of the Project Area. The out-of-date zoning regulations would continue and the Project Area would remain largely dominated by transportation uses that disrupt the street grid.

(b) Socioeconomic Conditions

Alternative P would not result in the extensive benefits from the expansion and modernization of the Convention Center or the proposed rezoning, but would realize the benefits of constructing and

operating the Multi-Use Facility as a stand-alone entity. This would enable the Multi-Use Facility to meet its stated goals of creating a viable new sports, exhibition, and entertainment facility and generating economic activity for the City. It would be adjacent to the existing Convention Center and would be able to provide supplementary exposition space and plenary hall for Convention Center use. However, the Convention Center would not benefit from its needed expansion and modernization, including development of additional needed contiguous exhibition space. Unlike the Proposed Action, Alternative P would not realize the substantial economic benefits associated with the other elements of the Proposed Action as outlined in Chapter 5, “Socioeconomic Conditions” or meet all the economic development goals established in Chapter 1, “Purpose and Need.”

With no change in the surrounding community in terms of new infrastructure, open space, or new residential and commercial development, Alternative P would not create indirect displacement pressures due to increasing rents and property values. Alternative P, like the Proposed Action, is not expected to result in significant adverse impacts due to either direct or indirect displacement of residential or commercial uses or due to impacts on the apparel or theater industries.

Alternative P would realize only a small portion of the construction-period economic activity and employment generated by the new development that would occur under the Proposed Action (\$1.4 billion by 2010 for Alternative P compared with \$23.5 billion by 2025 for the Proposed Action), nor would Alternative P accommodate the 110,000 new jobs in Hudson Yard associated with private real estate development generated by the remainder of the Proposed Action.

(c) Community Facilities and Services

Unlike the Proposed Action, Alternative P would not result in significant adverse impacts on the demand for public schools and day care, or the need for a new firehouse, and would eliminate the potential adverse impact on the delivery of FDNY services.

(d) Open Space and Recreational Facilities

With only the development of the Multi-Use Facility, there would be no additions or improvements to the existing open space resources in the Project Area. The 0.76-acre Javits Plaza would remain in its current condition and would not be directly displaced, as would occur with the Proposed Action. Unlike the Proposed Action, Alternative P would not increase the residential population in the Project Area. However, fewer acres of passive open space in Alternative P would be available for residential use, thereby reducing open space ratios calculated specifically for residential populations as shown for the passive residential ratios presented in Table 26-22. All passive open space ratios would be significantly worse with Alternative P than the Proposed Action, as shown in Table 26-22.

Without the open space elements included in the Proposed Action, Alternative P would not result in the improved connectivity to other open space resources on the West Side of Manhattan that would occur with the Proposed Action. The open space inventory in the Project Area would continue to be below minimum requirements as defined in the *CEQR Technical Manual*, a significant adverse impact regarding the quantity of available public open space.

TABLE 26-22
ALTERNATIVE P: ADEQUACY OF OPEN SPACE RESOURCES COMPARED TO THE PROPOSED ACTION

Study Area	Open Space Category	Open Space Ratio	
		Proposed Action	Alternative P
Without High Line Open Space, 2010			
Non-Residential Study Area	Passive/Non-Residents	0.126	0.084*
	Passive/Total Population	0.101	0.065*
Residential Study Area	Total/Residents	0.768	0.594
	Passive/Residents	0.534	0.396
	Active/Residents	0.234	0.198
	Passive/Total Population	0.092	0.071*
With High Line Open Space, 2010			
Non-Residential Study Area	Passive/Non-Residents	0.149	0.110*
	Passive/Total Population	0.118	0.085*
Residential Study Area	Total/Residents	0.811	0.642
	Passive/Residents	0.583	0.449
	Active/Residents	0.228	0.193
	Passive/Total Population	0.102	0.083*
Without High Line Open Space, 2025			
Non-Residential Study Area	Passive/Non-Residents	0.099	0.075*
	Passive/Total Population	0.081	0.059*
Residential Study Area	Total/Residents	0.646	0.528*
	Passive/Residents	0.466	0.352*
	Active/Residents	0.180	0.176*
	Passive/Total Population	0.078	0.065*
With High Line Open Space, 2025			
Non-Residential Study Area	Passive/Non-Residents	0.114	0.099*
	Passive/Total Population	0.092	0.076
Residential Study Area	Total/Residents	0.678	0.568*
	Passive/Residents	0.502	0.397*
	Active/Residents	0.176	0.171*
	Passive/Total Population	0.086	0.075*

* Indicates a ratio at or below the Future Without the Proposed Action ratio (see Chapter 7, “Open Space and Recreational Facilities”).

(e) Shadows

Unlike the Proposed Action, Alternative P would not result in significant adverse shadow impacts on the Eighth Avenue façade of the Farley Building or St. Raphael’s RC Church. No significant adverse shadow impacts would occur under this alternative.

(f) Architectural Historic Resources

Like the Proposed Action, Alternative P would result in a significant adverse impact on the High Line. However, Alternative P would not result in significant adverse impacts on the architectural historic resources on the seven Projected Development Sites that would be affected by the Proposed Action.

(g) Archaeological Resources

Unlike the Proposed Action, no significant adverse impacts to archaeological resources are anticipated under Alternative P. By comparison, the Proposed Action could result in unmitigated significant adverse impacts to potential archaeological resources on Projected Development Sites 11 and 41.

(h) Urban Design and Visual Resources

Unlike the Proposed Action, Alternative P would not result in substantial improvements to the overall urban design to the Project Area. Alternative P would only make improvements in urban design and

visual resources to the western portion of Caemmerer Yard, along Eleventh Avenue in the vicinity of the Multi-Use Facility, and in the immediately surrounding area. Unlike the Proposed Action, the Project Area would remain underutilized, with vast open areas punctuated by non-descript structures and transportation uses. The Multi-Use Facility would introduce a prominent new structure with engaging architecture and a major public amenity and visual resource, and eliminate the disruptive impact of the western portion of Caemmerer Yard and its surrounding concrete walls. Its beneficial effects would not occur within the context of a revitalized project area.

(i) Neighborhood Character

Unlike the Proposed Action, Alternative P would not result in widespread improvements in neighborhood character in the Project Area. While construction of the Multi-Use Facility would benefit neighborhood character on the site itself and its immediate surroundings, it would not improve neighborhood character beyond this area. Alternative P would not realize the extensive beneficial effects of the Proposed Action. Overall, Alternative P, on its own, would not meet the objectives of creating a vital, 24-hour community in the Project Area and providing space for the economic growth of the City.

(j) Natural Resources

Like the Proposed Action, Alternative P would not result in significant adverse impacts to natural resources. Potential effects on natural resources at Corona Yard would be eliminated because the No. 7 Subway would not be extended.

(k) Hazardous Materials

Like the Proposed Action, the Alternative P would result in no significant adverse impacts related to the disturbance of properties having the potential to contain hazardous materials. A Construction Environmental Protection Program to be implemented in constructing the Multi-Use Facility would avoid impacts related to disturbance of any property containing hazardous materials.

(l) Waterfront Revitalization Program

Alternative P would not result in any new residential and commercial development in the Coastal Zone beyond the Multi-Use Facility, a compatible use. Both Alternative P and the Proposed Action would be compatible with the Local Waterfront Revitalization Program, by encouraging commercial redevelopment and recreational uses within an appropriate Coastal Zone area.

(m) Infrastructure

Alternative P would result in a demand of approximately 0.4 mgd of potable water (peak usage) compared to 8.6 mgd with the Proposed Action. Like the Proposed Action, this demand would not create a significant adverse impact on City water supply services. Alternative P would generate approximately 8.2 less mgd of sewage during peak days than the Proposed Action. As a result, Alternative P would not require as many upgrades to DEP-approved sewer segments as in the Proposed Action. Alternative P would create significantly less sanitary volume than the Proposed Action, and like the Proposed Action, would not result in significant adverse impacts to the North River WPCP operations. Like the Proposed Action, Alternative P would not result in a significant adverse impact on Hudson River water quality.

(n) Solid Waste and Sanitation Services

Under Alternative P, no additional municipal waste would be generated, and therefore, additional DSNY solid waste management services would not be required and no adverse impact would occur.

Based on DSNY's proposed Solid Waste Management Plan (SWMP), it is anticipated that municipal solid waste generate within the Rezoning Area would be delivered to the West 59th Street marine transfer station and barged out of the City for ultimate disposal. If the proposed SWMP is not in

place under the No Action Alternative or the Proposed Action, DSNY collection trucks would continue to transport municipal solid waste directly to out-of-city transfer facilities and/or disposal sites.

(o) Energy

Alternative P would require approximately 21 MW during peak electricity demand compared to 309 MW with the Proposed Action. Unlike the Proposed Action, Alternative P would not require a new area substation by 2013 or an additional area substation and transmission station by 2021, as in the Proposed Action.

(p) Traffic (2010)

Under the Proposed Action, the extension of the No. 7 Subway line would significantly improve transit access to the Hudson Yards and produce a modal shift from automobile to subway for new developments including the Multi-Use Facility. This benefit is lost if the subway is not extended.

A targeted traffic level of service analysis was prepared for 66 intersections in the vicinity of the Multi-Use Facility under 2010 weekday AM, Midday, and PM peak hour conditions, and 32 intersections under 2010 weeknight and Sunday Special Event peak conditions. Alternative P and the Proposed Action would both produce no unmitigated impacts during the weekday AM, Midday, and PM peak hours. Adverse impacts that could not be mitigated in the Proposed Action only refer to those Proposed Action intersections located in the targeted area.

During the 2010 weeknight Special Event peak hour, both Alternative P and the Proposed Action would result in two unmitigated impacts. In the Sunday Special Event peak hour, Alternative P would result in one more unmitigated impact than the Proposed Action (three vs. two). This reflects the projection that the Multi-Use Facility would be the single largest trip generator during these periods. However, it is important to note that the Multi-Use Facility is projected to serve only 17 stadium events and up to two national events in a typical year. Other event types would generate substantially less traffic.

Alternative P would result in lower traffic volumes on bridges and tunnels crossing the East, Hudson, and Harlem Rivers in the 2010 AM, Midday, and PM analysis hours than the Proposed Action. Weeknight and Sunday Special Event peak hour bridge and tunnel volumes would be similar to the Proposed Action. There would be no significant bridge or tunnel impacts under Alternative P.

(q) Parking

In 2010, unlike the Proposed Action, Alternative P would create adverse impacts to off-street parking during the weekday evening nine to 10 times per year and Sunday afternoon periods eight to nine times per year. During the weekday evening period, Alternative P would result in a shortfall of 3,698 spaces within ½-mile radius of the Multi-Use Facility, compared to a surplus of 6,083 spaces that would occur for the same area with the Proposed Action. Additionally, during the Sunday afternoon period, Alternative P would result in a shortfall of 4,980 spaces within ½-mile radius of the Multi-Use Facility, compared to a surplus of 640 spaces that would occur for the same area with the Proposed Action.

These conditions reflect the absence of additional off-street parking facilities that would be constructed as part of the Proposed Action, including the Midblock Boulevard facility as well as the high rate of auto usage to access the Multi-Use Facility without the No. 7 Subway Extension. There are approximately 1,000 off-street parking spaces located in facilities within a half-mile of the Multi-Use Facility that are currently closed at night or on Sundays. If these facilities would stay open later on a Monday or open on a Sunday when games are scheduled, the shortfall would be reduced. In addition, based on past studies, it appears that adequate off-street parking would be available within a mile of the Multi-Use Facility to accommodate the projected demand. This parking is beyond the

CEQR threshold but, based on experience in the Meadowlands, it appears to be within the distances fans are willing to walk. Similar to the Proposed Action, Alternative P would not result in significant adverse impacts to off-street parking during the weekday Midday period.

(r) *Transit*

2010 weeknight and Sunday Special Event conditions were evaluated for this alternative. Under the Proposed Action, the extension of the No. 7 Subway line would significantly improve transit access to Hudson Yards and produce a modal shift from automobile and bus to subway for new developments including the Multi-Use Facility. This benefit would be lost if the subway is not extended.

Under Alternative P, the total person travel demand during the weeknight and Sunday Special Event periods would be reduced somewhat with the reduction in proposed commercial and residential development and elimination of the Convention Center expansion. However, this reduction in total person trip generation would be offset by a modal shift from subway to other modes including bus.

Overall, bus demand during Special Event periods would increase under this alternative. During the weeknight Special Event peak hour, three and two more standard buses would be required on the northbound and southbound M-11, respectively and 23 additional standard buses would be required on the westbound M-34/M-16. During the Sunday Special Event peak hour, two more standard buses would be required on the northbound M-10/M-20, three more buses would be required on the M-11 in both directions, and 20 buses would be required on the eastbound M-34/M-16. This level of demand would suggest conversion of the M-34/M-16 to articulated service by 2010. During the AM, Midday, and PM peak hours, transit operations would be similar to those under the No Action Alternative, and the additional bus service required under the Proposed Action would not be needed. Similar to the Proposed Action, Alternative P would increase demand on ferry services, especially during the Special Event peak period. These increases could be accommodated in both the Proposed Action and Alternative P.

(s) *Pedestrians*

Under the Proposed Action, the extension of the No. 7 Subway line would significantly improve transit access to the Hudson Yards and produce a modal shift from automobile to subway for new developments including the Multi-Use Facility. This benefit is lost if the subway is not extended.

Pedestrian impacts during weeknight and Special Event peak hours would be worse in the vicinity of the Multi-Use Facility under Alternative P when compared to the Proposed Action, because more people would drive to outlying parking areas and walk to the Multi-Use Facility or access the Project Area via Penn Station and walk to the Multi-Use Facility. These increases in Multi-Use Facility-related pedestrian volumes more than offset any Special Event period reduction in residential or office trip generation. Alternative P would result in five more intersection impacts during the weeknight Special Event peak hour and one more intersection impacts during the Sunday Special Event peak hour in 2010. Unlike the Proposed Action, no significant unmitigated impacts are projected during the AM, Midday, and PM peak hours under Alternative P.

(t) *Air Quality*

(i) Mobile Source

Microscale Intersection Analysis. Under Alternative P, 2010 CO 8-hour levels and PM₁₀ 24-hour and annual levels would not exceed the NAAQS or the PM_{2.5} 24-hour and annual STV, and would not exceed the DEP *de minimis* criteria for CO, like the Proposed Action.

TABLE 26-23
ALTERNATIVE P: AIR QUALITY ANALYSIS SITES EXCEEDING NAAQS, CEQR DE MINIMIS
CRITERIA OR DEP STV

	2010	
	Proposed Action	Alternative P
CO 8-hour NAAQS	0	0
CO <i>de minimis</i> Criteria	0	0
PM ₁₀ 24-hour NAAQS	0	0
PM ₁₀ Annual NAAQS	0	0
PM _{2.5} 24-hour STV	0	0
PM _{2.5} Annual STV	0	0

(ii) Stationary Source

Like the Proposed Action, Alternative P would not cause significant adverse impacts on air quality from future HVAC sources. Neither Alternative P nor the Proposed Action would result in any exceedances of any NAAQS, CEQR *de minimis* criteria, or STV or DEC air toxic guidance. However, it should be noted that with the Proposed Action, there would be potential exceedances of the SO₂ NAAQS and DEC guidance attributable to Quill Bus Depot emissions in 2010 and 2025, which would be fully mitigated in both years. Neither the Proposed Action nor Alternative P would result in exceedances of any NAAQS, CEQR *de minimis* criteria, or PM_{2.5} STV.

(u) Noise and Vibration

Noise impacts from Alternative P would, like the Proposed Action, involve two areas of concern: (1) potential effects of introducing new noise-sensitive land uses (i.e., residences and community facilities) into an already noisy environment, and (2) effects of noise-generating activities associated with the alternative on existing noise-sensitive land uses in the area. Since new noise-sensitive receptors would be introduced into the same noisy area as the Proposed Action, (E) Designations would also be required for the new residences and community facilities contemplated by Alternative P. This alternative would also increase noise levels by 3 dBA or more at many of the same locations as with the Proposed Action and would result in the need for the same mitigation measures identified for the Proposed Action. With such mitigation measures, there would be no significant adverse noise impacts from Alternative P.

(v) Construction Impacts

Significantly fewer construction impacts would be expected under Alternative P than under the Proposed Action. Construction activity would be confined to the western portion of Caemmerer Yard. Far fewer truck trips would be required to support construction of this alternative, and fewer lanes of streets and avenues would be closed due to construction activity. Impacts to air quality, noise, and traffic would be considerably less. Additionally, Alternative P would avoid construction activity and potential impacts in residential areas. No construction or related impacts would occur at Corona Yard. Mitigation measures required for Alternative P would be selected among the same measures as identified for the Proposed Action. No significant construction-related impacts would occur under this alternative.

i) Alternative Q: Proposed Action with Development of a Deck Over Route 9A between the Multi-Use Facility and Hudson River Park

Description of the Alternative

Alternative Q was identified by the sponsor of the Multi-Use Facility and the co-lead agencies to assess the impacts of adding a deck over Route 9A to connect the open space elements of the Multi-Use Facility and Hudson River Park and to provide direct access to the Hudson River waterfront.

Under Alternative Q, the Proposed Action would be augmented by the inclusion of a deck over Route 9A extending between the Multi-Use Facility and Hudson River Park.

As depicted in Figures 26Q-1 and 26Q-2, the deck would extend between West 30th and West 34th Streets, a linear distance of approximately 1,000 feet. The resulting 120-foot wide, landscaped deck would connect the full-block open space between West 33rd and West 34th Streets between Eleventh and Twelfth Avenues and the Multi-Use Facility with Hudson River Park currently under development on the west side of Route 9A. The deck would provide approximately 3.19 acres of additional public open space beyond that included in the Proposed Action, and provide a direct grade-separated connection over Route 9A.

Alternative Q would require the approval of the New York State Department of Transportation (NYSDOT) and the Federal Highway Administration (FHWA) for construction over the right-of-way of Route 9A in addition to the same discretionary approvals and public actions as the Proposed Action.

Principal Conclusions

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 Q Compared to the Proposed Action

Alternative Q would result in the same impacts as the Proposed Action except for those impacts directly related to the construction and presence of a deck over Route 9A. As a consequence, the evaluation of Alternative Q is limited to an assessment of the impacts of the deck on land use, open space, architectural historic resources, archaeological resources, urban design and visual resources, neighborhood character, hazardous materials, conformity with the Waterfront Revitalization Program, traffic, transit, parking, air quality, noise, and construction impacts.

(a) Land Use, Zoning, and Public Policy

Like the Proposed Action, Alternative Q would not result in any significant adverse impacts to land use, zoning, or public policy. Alternative Q would include the construction of a deck, which would create more open space and pedestrian circulation area over Route 9A. This deck would create a livelier western façade for the Multi-Use Facility and an improved transition to the west side of Route 9A and to Hudson River Park than the Proposed Action and would support the land use and public policy goals of the Proposed Action, including creating better connectivity of open spaces in the Hudson Yards area.

(b) Open Space and Recreational Facilities

Alternative Q would result in a 3.19-acre passive open space spanning Route 9A directly west of the Multi-Use Facility. The additional 3.19 acres would supplement the open space stock in the Project

Area. All open space ratios (with the exception of the ratio of active open space per 1,000 residents) would be better with Alternative Q than the Proposed Action and significantly better than would occur in the Future Without the Proposed Action (Table 26-24). In addition, the approximately four-block long connection between Hudson River Park and upland open spaces would provide a significant qualitative improvement to open space resources.

TABLE 26-24
ALTERNATIVE Q: ADEQUACY OF OPEN SPACE RESOURCES COMPARED TO THE PROPOSED ACTION

Study Area	Open Space Category	Open Space Ratio	
		Proposed Action	Alternative Q
Without High Line Open Space, 2010			
Non-Residential Study Area	Passive/Non-Residents	0.126	0.138
	Passive/Total Population	0.101	0.110
Residential Study Area	Total/Residents	0.768	0.800
	Passive/Residents	0.534	0.567
	Active/Residents	0.234	0.234
	Passive/Total Population	0.092	0.098
With High Line Open Space, 2010			
Non-Residential Study Area	Passive/Non-Residents	0.149	0.161
	Passive/Total Population	0.118	0.127
Residential Study Area	Total/Residents	0.811	0.843
	Passive/Residents	0.583	0.615
	Active/Residents	0.228	0.228
	Passive/Total Population	0.102	0.108
Without High Line Open Space, 2025			
Non-Residential Study Area	Passive/Non-Residents	0.099	0.107
	Passive/Total Population	0.081	0.087
Residential Study Area	Total/Residents	0.646	0.671
	Passive/Residents	0.466	0.491
	Active/Residents	0.180	0.180
	Passive/Total Population	0.078	0.082
With High Line Open Space, 2025			
Non-Residential Study Area	Passive/Non-Residents	0.114	0.122
	Passive/Total Population	0.092	0.099
Residential Study Area	Total/Residents	0.678	0.702
	Passive/Residents	0.502	0.526
	Active/Residents	0.176	0.176
	Passive/Total Population	0.086	0.090

* Indicates a ratio at or below the Future Without the Proposed Action ratio (see Chapter 7, “Open Space and Recreational Facilities”).

(c) Architectural Historic Resources

The Hudson River Municipal Bulkhead is the only significant historic resource in the vicinity of the deck. The berm that would provide transition between the deck and Hudson River Park would not be constructed in the immediate vicinity of the bulkhead. Construction of the deck is not expected to have significant adverse direct impacts on the historic Hudson River Municipal Bulkhead from accidental construction damage, since necessary construction period measures would be implemented by the public agencies to safeguard against potential impacts.

(d) Archaeological Resources

Construction for Alternative Q would include excavating the area of the footings for the deck in the general vicinity of the Hudson River Municipal Bulkhead. The portion of the bulkhead that would be potentially affected by the deck construction dates from 1876 to 1898 and is composed of a granite wall on narrow concrete blocks. Construction of the deck between West 30th and 34th Streets could result in potential impacts on archaeological resources associated with the Hudson River Municipal Bulkhead. Any potential impact would be avoided by undertaking appropriate surveys and site

investigations to assure that any foundations or piers for the deck would not significantly impact this resource.

(e) Urban Design and Visual Resources

Although the deck over Route 9A could disrupt long north-south views along Route 9A, it would result in a significant improvement to the open space inventory in the area and would introduce a new visual resource into that area, with striking views of Hudson River Park and the Hudson River. The deck would also provide improved public access to the waterfront itself and would integrate Hudson River Park with the park system on the west side of Route 9A, including the open space surrounding the Multi-Use Facility, the potential High Line open space, the new park on Block 675, the open spaces above the eastern portion of Caemmerer Yard, and the Midblock Park and Boulevard System. Development of the deck would result in a significant improvement to the urban design of the Convention Center Corridor and adjacent areas and would not result in any adverse impacts to urban design or visual resources.

(f) Neighborhood Character

Alternative Q would provide greater benefits to neighborhood character beyond those resulting from the Proposed Action by creating additional open space and improved connections to the existing and proposed open space network. The deck would connect the open spaces proposed as part of the Proposed Action with Hudson River Park.

(g) Hazardous Materials

Like the Proposed Action, the Alternative Q would not result in significant adverse impacts related to the disturbance of properties having the potential to contain hazardous materials. Implementation of measures to be incorporated into a Construction Environmental Protection Program to be implemented by the constructing or owning entity of major public project elements of this alternative would avoid impacts related to disturbing any property having the potential to contain hazardous materials related to such elements.

(h) Pedestrians

Alternative Q would improve pedestrian access to the Hudson River Park waterfront and the ferry terminal, compared to the Proposed Action. The pedestrian overpasses at West 33rd Street and Twelfth Avenue and West 39th Street and Twelfth Avenue required for pedestrian impact mitigation in the Proposed Action would not be required in Alternative Q.

(i) Waterfront Revitalization Program

The deck over Route 9A would greatly improve pedestrian access to Hudson River Park. Compared to the Proposed Action, Alternative Q would enhance patronage of the Hudson River waterfront and provide for improved pedestrian access between the Project Area and the Coastal Zone. Both Alternative Q and the Proposed Action would be compatible with the Local Waterfront Revitalization Program, by encouraging appropriate commercial and residential redevelopment within the Coastal Zone.

(j) Air Quality

(i) Mobile Source

Microscale Intersection Analysis. Like the Proposed Action, 2025 CO 8-hour levels and PM₁₀ 24-hour levels would not exceed the NAAQS or the PM_{2.5} 24-hour STV and CO levels would not exceed *de minimis* criteria under either 2010 or 2025 with Alternative Q.

Alternative Q would not result in exceedances of any NAAQS at any location in 2010 or 2025. However, Alternative Q would result in exceedances of the 24-hour and annual PM_{2.5} DEP STV

guidance for both analysis years at locations along Route 9A near the portals of the covered roadway that would be created by development of the deck. These significant adverse air quality impacts could be avoided through the incorporation of a mechanical ventilation system into the design of the deck, by shortening the deck or by developing two shorter decks rather than one longer deck as currently envisioned in Alternative Q.

(k) Noise

Alternative Q would have the potential to increase noise levels in the immediate vicinity of the portals of the enclosed roadway that would be created by development of the deck. This would be a localized condition and would not result in a significant adverse impact, since necessary acoustic treatment would be incorporated in the design of the deck to avoid potential impacts at the tunnel portals. Alternative Q would improve noise levels in Hudson River Park along the length of the deck.

(l) Construction Impacts

Construction of the deck over Route 9A would result in temporary lane closures on the highway during certain construction activities. In addition, slight increases in fugitive dust and construction vehicle emissions would be expected due to construction of the berm located west of the highway and the small increase in construction vehicle traffic resulting from the deck construction and improvements to Hudson River Park. Mitigation measures and measures to avoid impacts required for Alternative Q would be the same as for the Proposed Action, with additional measures required for management and protection of traffic on Route 9A.

j) Alternative R: Proposed Action With Development of Multi-Use Facility in Queens

Description of the Alternative

Alternative R was suggested by a number of individuals during the public scoping process for the DGEIS to determine the extent to which development of a Multi-Use Facility in Queens would eliminate or reduce significant adverse impacts in the Project Area of Manhattan, the extent to which it would reduce public costs, and the extent to which it would meet the purpose and need of the Proposed Action. In addition to locating a Multi-Use Facility in Queens, Alternative R would include all other elements of the Proposed Action, including the extension of the No. 7 Subway, the expansion of the Convention Center, and the rezoning and related land use actions for the Project Area. In developing this alternative, consideration was given to the type of facility that could be built in Queens, its location, infrastructure and other requirements for the facility, and discretionary approvals that would be required, as discussed below. The New York Jets, a major sponsor of the Multi-Use Facility in the Proposed Action, have indicated that they will not consider developing either a Multi-Use Facility or football stadium in Queens, and accordingly the Facility would not have a private use or sponsor.

(a) Multi-Use Facility in Queens

To provide a direct comparison against the Proposed Action, Alternative R assumes a Multi-Use Facility with the same program as the Multi-Use Facility under the Proposed Action. However, it is highly unlikely there would be demand for convention facilities in this location, and the viability of this use is unclear at this location. Alternative R would include all the elements of the Proposed Action, except that the Multi-Use Facility would be developed in Willets Point adjacent to Shea Stadium along the alignment of the No. 7 Subway rather than in the Project Area (Figures 26R-1 to 26R-3). The Multi-Use Facility would be able to house events similar to those that would be held at the Multi-Use Facility with the Proposed Action. Given its location in Queens, the meeting and exhibition spaces would not be convenient for use for convention events. The plenary hall included in the Multi-Use Facility would not be in a convenient location to support large conventions, and the amount of convention activity at a Multi-Use Facility in Queens would be limited. It also would not

be located near the City's major hotels, restaurants, and tourist attractions, limiting the desirability of the Facility for exposition events, and limiting visitor spending while attending conventions.

With Alternative R, there would be no Multi-Use Facility in the Project Area, and the western portion of Caemmerer Yard would remain an open air train storage facility. Alternative M: Proposed Action without Development of the Multi-Use Facility fully analyzes the effect of not developing the Multi-Use Facility in Hudson Yards. Accordingly, the analysis of Alternative R contained in this section is limited to the potential impacts associated with a Multi-Use Facility in Queens.

(b) Location at Willets Point

Two areas large enough to accommodate a Multi-Use Facility were identified in Queens: Sunnyside Rail Yard in Long Island City and Willets Point in Flushing. Development of a Multi-Use Facility at Sunnyside Yard would be similar to that which would be used in developing the Multi-Use Facility in the Proposed Action, and entail constructing a deck over Sunnyside Yard on top of which the Multi-Use Facility would be constructed. Constructing over Sunnyside Rail Yard was found to be infeasible, since the track configuration at Sunnyside Rail Yard would not accommodate the piles needed to support the required deck. Willets Point was chosen as the site for a Multi-Use Facility primarily because it is a large area adjacent to Flushing Meadow–Corona Park, which contains several sports and entertainment facilities (i.e., Shea Stadium and the National Tennis Center), and has adjacent transportation facilities, including the No. 7 Subway, LIRR, and major highways such as the Van Wyck Expressway and Grand Central Parkway. It is also close to LaGuardia Airport. Willets Point has been considered for a series of stadium proposals including one in the 1980s to accommodate the New York Generals, a team in the now-defunct World Football League, and a replacement option for Shea Stadium (the anticipated location for a new Shea Stadium—as set forth in a 2003 EIS—is in Flushing Meadows–Corona Park).

Willets Point is a 55-acre triangular shaped area located in north-central Queens. The site is bounded by Shea Stadium and 126th Street on the west, Northern Boulevard and Grand Central Parkway on the north, Van Wyck Expressway and the Flushing River on the east, and Roosevelt Avenue on the south. Willets Point is currently zoned for heavy manufacturing (M3-1) and is predominantly composed of industrially classified uses. These uses include auto repair/salvage businesses, food service production businesses, privately operated waste transfer facilities, and a construction debris recycling operation located on MTA property adjacent to the Van Wyck Expressway and the Flushing River.

(c) Infrastructure and Other Requirements to Support the Multi-Use Facility

The Willets Point location offers very limited access by automobile from the Van Wyck Expressway and the Grand Central Parkway. The only direct connection between the regional highway system and Willets Point is a ramp from the northbound lanes of the Van Wyck Expressway to Northern Boulevard. Access ramps and other transportation improvements would be needed to provide direct connections to the Van Wyck Expressway and Grand Central Parkway. Willets Point is served by the Willets Point Station of the No. 7 Subway line, located along Roosevelt Avenue at Shea Stadium. The LIRR also maintains a station within Flushing Meadows–Corona Park, located southwest of the site. In addition, Flushing Bay includes ferry slips currently used for weekend New York Mets baseball games and leisure cruises.

Development of a Multi-Use Facility at Willets Point would require significant investment because it would necessitate the acquisition of a substantial number of privately owned sites, significant improvements to dilapidated surface infrastructure, significant improvements to the roadway network, and significant anticipated remediation of probable environmental contamination in the Willets Point site. In addition, there is limited subsurface utility infrastructure in the area. The project site under Alternative R is filled-in marshland and would require deep pilings to support the structure of any

new facility. Because of the need for extensive land acquisition, infrastructure improvements, remediation of potential on-site contamination, highway improvements, development of parking structures, and a pedestrian walkway connecting the new facility with the Willets Point subway station, and deep pilings, the proposed facility would be approximately as costly to build as the Multi-Use Facility in Manhattan under the Proposed Action (i.e., approximately \$1.4 billion). Although a Multi-Use Facility in Queens is assumed to be constructed to accommodate full stadium events for football and other uses, the New York Jets have indicated that they would not relocate from their current venue at the New Jersey Meadowlands to a stadium in Queens. Thus, the Multi-Use Facility under Alternative R would not have an identified sponsor, and the \$800 million that the New York Jets indicated they would invest in a new Hudson Yards facility would not be available for a facility in Queens.

(d) Discretionary Approvals

Alternative R would require separate discretionary approvals and public actions compared to the Proposed Action. A Multi-Use Facility at Willets Point would not require the City and MTA approvals and actions required for construction and operation of the Multi-Use Facility over the western portion of Caemmerer Yard. A Multi-Use Facility in Willets Point would require a site selection process, and land acquisition by a State or City entity (Figures 26R-1, 26R-2, and 26R-3). Once the land is acquired, the facility would be constructed on City, State, or ESDC property. Improved access to the Grand Central Parkway and the Van Wyck Expressway would occur through parkland, requiring approval by the FHWA, and possibly the New York State Legislature. The facility would also require approval by the Federal Aviation Administration (FAA), given its height and proximity to LaGuardia Airport.

Principal Conclusions

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 could 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 types 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.

Alternative R Compared to the Proposed Action

Given its potential for resulting in significant adverse impacts and its unique location compared to the Proposed Action and other alternatives, the analysis of Alternative R addresses all impact categories.

(a) Land Use, Zoning, and Public Policy

The introduction of a Multi-Use Facility to Queens would substantially change the land use of the Willets Point site. This would not result in a significant adverse impact on land use, zoning, or public policy. Auto repair and salvage uses comprise approximately 68 percent of the Willets Point site. In addition, there are other industrial uses and limited retail and office space. Two privately operated waste transfer facilities and a construction debris recycling operation are located on MTA-owned land adjacent to the Van Wyck Expressway and Flushing River. The area is primarily in private ownership, with over 60 separate land owners on 130 total lots. Four lots are in public ownership. The surface infrastructure within Willets Point is substantially absent and deteriorated; there are currently no paved roads, sidewalks, water mains, or sanitary sewers.

Willets Point is zoned entirely M3-1, which allows for heavy industrial uses that involve considerable danger of fire, explosion, or other hazards to public health and safety. However, the auto-related land uses occupying the area are allowed in both M1 and M2 zones as well.

Current land uses at Willets Point are incompatible with the surrounding park, recreation, and entertainment uses in the area. This incompatibility creates a distinct separation among surrounding uses on the west side of the Flushing River and Downtown Flushing on the east side of the Flushing River. The *Flushing Framework Study*, prepared by the DCP and EDC, recommends redevelopment of Willets Point into a large-scale public-oriented development that is compatible with the development around the Flushing River waterfront, College Point Boulevard, and Main Street. Redevelopment of Willets Point is recommended to reduce land use conflicts and minimize the adverse influence of existing industrial land uses on recreational uses to the west and south at Shea Stadium and Flushing Meadows–Corona Park, and with mixed-use development planned to the east across the Flushing River in Downtown Flushing. One of the redevelopment goals identified in the *Flushing Framework Study* is that development should complement and enhance the existing and adjacent recreational and sporting facilities.

Alternative R would replace current uses incompatible with the surrounding area with a use consistent with the goals of the *Flushing Framework Study*, in that it would create a large-scale land use that would complement and enhance the adjacent recreational and sporting facilities. Alternative R would also contribute to the transformation of the Flushing area into a regional destination and tie development on the west side of the Flushing River with that on the east side in Downtown Flushing. If restricted to use as a football stadium with only occasional other events, the Multi-Use Facility would result in a substantially more limited benefit than a facility that could host a broader range of uses. Like the Proposed Action, Alternative R would not have significant adverse impacts on land use, zoning, and public policy.

(b) Socioeconomic Conditions

Willets Point is primarily in private ownership, with over 60 separate land owners on 130 total lots. Four lots are in public ownership. As estimated by Department of Labor statistics, there are 105

businesses in the area, employing 1,254 workers. While zoned M3-1 for heavy industry, the majority of commercial and industrial uses are auto service-based and would be permitted in most other manufacturing zones and some commercial zones. Analysis as part of the *Flushing Framework Study* indicates that Willets Point is significantly less productive than other M3-1 zoned areas in the City in terms of employment and value added.

Unlike the Proposed Action, Alternative R would displace a substantial number of existing businesses on Willets Point. However, given the presence of auto service and other light industrial uses that characterize the businesses throughout the City and in concentrated subareas similar in character to Willets Point, including locations in Queens such as Long Island City and Jamaica, this direct displacement of uses would not undermine the viability of any given industry of significant economic value to the City. Commercial uses currently located in Willets Point could be relocated to other areas of Queens or elsewhere in the City. While the auto uses and other light industrial activities occurring in Willets Point are characteristic of the project site, these uses have been found to be a negative presence in the larger area. Redevelopment of Willets Point under Alternative R would provide an opportunity to address key problems as identified in the *Flushing Framework Study*, including: dilapidated and non-existent infrastructure, inadequate storm sewers, the absence of sanitary sewers, unstable soil conditions, flooding, and a high likelihood of environmental contamination.

Based on guidance from the *CEQR Technical Manual* regarding the preliminary assessment of direct business or institutional displacement, Alternative R would not be expected to result in significant adverse impacts on socioeconomic. There are no residential uses in Willet Point, eliminating the potential for direct or indirect displacement of residences. There would be no indirect business or institutional displacement, since displacement would be limited to the direct displacement of businesses on the site.

For these reasons, Alternative R, like the Proposed Action, is not expected to result in significant adverse impacts due to either direct or indirect residential displacement, or to direct or indirect commercial displacement.

It is estimated that the cost of constructing a Multi-Use Facility at Willets Point would be approximately the same as constructing a Multi-Use Facility over the western portion of Caemmerer Yard. The platform and foundation costs to develop a Multi-Use Facility over Caemmerer Yard would be about equal to the land acquisition and related site improvement and foundation costs at Willets Point. Both would be approximately \$250 to \$350 million (\$600 million total public cost for the Multi-Use Facility). The cost of the structure would be substantially the same at both locations. However, the public costs for developing a facility in Willets Point would be greater than that for developing a facility in the Project Area, since there is no identified private owner for the facility in Queens.

The overall level of investment and economic activity associated with Alternative R would be similar to that of the Proposed Action, since Alternative R would include all of the elements of the Proposed Action, including the No. 7 Subway Extension, the rezoning and redevelopment of the Project Area, and the expansion and modernization of the Convention Center. However, the Convention Center would not benefit from the Plenary Hall and meeting rooms provided by the Multi-Use Facility in the Project Area, thereby limiting the Convention Center's ability to host large events requiring a plenary facility. The economic activity associated with the Multi-Use Facility in Willets Point would likely be substantially less than a Multi-Use Facility located in the Project Area. 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. If developed as a football-only stadium, all the economic activity

generated by the Multi-Use Facility's exhibition space would be lost. Unless a user for the stadium is identified, the economic benefits of stadium activity would be lost.

(c) Community Facilities and Services

Alternative R would result in an increased demand for FDNY and NYPD services, but would be similar to those for the Proposed Action. Alternative R would not create additional residential units in Queens and would not affect the demand for schools and publicly funded day care.

(d) Open Space and Recreational Facilities

Alternative R would neither create new open space in Queens nor remove open space, because there are no open space parcels located within the Willets Point site. However, necessary improvements to roadway ramps and the introduction of new parking facilities would potentially result in some loss of parkland. With the proximity of the Flushing Meadows–Corona Park, the area is adequately served in terms of its available open space for both resident and daytime populations. The added demands of attendees at the Multi-Use Facility in Willets Point are not expected to significantly adversely affect or overburden local open space resources. Like the Proposed Action, Alternative R would not result in a significant adverse impact on open space resources.

(e) Shadows

A shadow screening analysis was performed for the proposed Multi-Use Facility in Queens to determine whether the Multi-Use Facility would result in the potential for significant adverse impacts on Flushing Meadows–Corona Park or the open spaces and bike paths proposed in the *Flushing Framework Study*. The height of the Multi-Use Facility would equal that of the Multi-Use Facility in the Proposed Action, i.e., 338 feet at its highest elevation. This height was applied in the screening analysis to determine maximum shadow that would be cast by the facility. The facility would require approval by the FAA, given its height and proximity to LaGuardia Airport. The *CEQR Technical Manual* prescribes a multiplier of 4.3 to determine maximum potential shadow impact, which would result in a maximum potential shadow of 1,505 feet for the Multi-Use Facility. Based on this screening analysis, there would be potential for the Multi-Use Facility to cast shadows on bike and pedestrian paths proposed in the *Flushing Framework Study*, flanking the Van Wyck Expressway during a brief period in the afternoon hours. Impacts on the open spaces proposed in the *Flushing Framework Study* would be similarly short, and would not result in a significant adverse impact.

(f) Architectural Historic Resources

There are no designated, listed, or eligible architectural historic resources within 400 feet of the Willets Point site for the Multi-Use Facility, and no potential resources were identified in a field survey. Therefore, Alternative R would not result in any additional impacts on architectural historic resources.

(g) Archaeological Resources

There are no known areas with potential sensitivity for archaeological resources in Willets Point at the proposed Multi-Use Facility location.

(h) Urban Design and Visual Resources

Alternative R would improve the urban design of the Willets Point area, but would introduce parking structures in and next to Flushing Meadows–Corona Park. As such, it would have a substantial effect on urban design and visual resources. The low-scale, auto-related activities in Willets Point would be replaced by a large Multi-Use Facility, assumed to be of the same or similar design to the Multi-Use Facility proposed for the Proposed Action. The facility would be surrounded by parking structures. The urban design of Willets Point would change from a relatively isolated area with a traditional street grid and a variety of small buildings and open lots to an area with very large, attractively

designed sports structures. Alternative R would not result in a significant adverse impact on urban design or visual resources.

(i) Neighborhood Character

Although Alternative R would alter the neighborhood character of Willets Point, it is not expected to change the character of the surrounding area or result in a significant adverse impact. Flushing Meadows–Corona Park is located directly south and west of Willets Point, and is a major recreation and entertainment destination containing large sporting venues, including Shea Stadium and the USTA National Tennis Center, as well as many other recreational opportunities and cultural institutions. Alternative R would add to the recreation and entertainment uses associated with the Park. The year-round use of the Multi-Use Facility and increased frequency of off-season events would represent a more intense use. However, this would not represent a significant adverse effect, as football games would be held only once a week from late August through January. The greatest part of this time, from October through January, is not the peak time for Park use and, except for the World Series, is during the baseball off-season. Alternative R is not expected to significantly affect the character of Flushing Meadows–Corona Park.

The Multi-Use Facility would be the tallest building in the study area and, as such, would have a strong visual presence in the area. However, the proposed location of the Multi-Use Facility in Alternative R is separated from the waterfront area to the north by Northern Boulevard and from the large commercial and retail district of Flushing to the east by the Flushing River and Van Wyck Expressway. These physical barriers would reduce the visual effects of the Multi-Use Facility to the surrounding areas of greater elevation than the Multi-Use Facility. Overall, Alternative R would not significantly adversely affect the character of the surrounding neighborhood areas.

(j) Natural Resources

The potential for effects on natural resources, including groundwater and surface water, during construction of the Multi-Use Facility in Willets Point would be greater than the Proposed Action, due to its location near the Flushing River and because it would be located on filled wetlands. It is likely that tidal wetlands permits would need to be obtained, as the site lies within the 100-year flood zone.

(k) Hazardous Materials

Like the Proposed Action, the Alternative R would not result in significant adverse impacts related to the disturbance of properties having the potential to contain hazardous materials. Implementation of measures to be incorporated into a Construction Environmental Protection Program to be implemented by the constructing or owning entity of major public project elements of this alternative would avoid impacts related to disturbing any property having the potential to contain hazardous materials related to such elements. Specifically, implementation of such measures by the constructing or owning entity of a Multi-Use Facility in Queens would avoid impacts related to disturbing any properties having the potential to contain hazardous materials on which such a facility would be constructed. Based on the types of previous uses that have occupied the site, it is anticipated that contamination of portions of the site is likely.

(l) Waterfront Revitalization Program

Under Alternative R, the number of visitors within the Flushing Bay Coastal Zone would be expected to increase if the Multi-Use Facility were located in Willets Point. Both Alternative R and the Proposed Action would be compatible with the Local Waterfront Revitalization Program, by encouraging appropriate commercial development and recreational uses – the Multi-Use Facility – within the Coastal Zone.

(m) Infrastructure

Substantial improvements to City water supply and sewer infrastructure would be required to provide adequate service to the Multi-Use Facility in Willets Point. Like the Proposed Action, DEP-approved connections to the water supply and sewer infrastructure would be required. Upgrades to the local water supply and sewer network serving the Flushing area could be required to provide proper water and sewer service to the Multi-Use Facility. Coordination with DEP would be necessary to ensure that proper service is provided and no significant adverse impacts occur.

(n) Energy

Alternative R would require substantially the same electricity demand generated by the Multi-Use Facility under the Proposed Action (21 MWh per year). Coordination with the service providers would be needed to assure the provision of adequate electric and gas service at this location. Like the Proposed Action, Alternative R would require a new area substation by 2013 or an additional area substation and transmission station by 2021, to accommodate the other elements of the Proposed Action in the Project Area.

(o) Traffic

Willets Point is accessible by car from the Van Wyck Expressway and Grand Central Parkway. However, there are currently no direct connections from these highways to Willets Point, and cars must access the site via local streets. For the purposes of this analysis, it is assumed the new stadium would be located on the southern portion of Willets Point, just north of Roosevelt Avenue, and would be oriented north-south to maximize on-site parking and minimize the distance from the subway station. Placing the footprint of Giants Stadium (approximately 447,500 square feet) on the site of the new stadium would leave room for approximately 7,700 surface parking spaces. This is significantly less than the 25,000 spaces available at Giants Stadium. Unlike Giants Stadium, however, the stadium would rely on significant mass transit use.

This analysis assumes the continued use of Shea Stadium, with a capacity of 56,000 seats and the development of a football stadium with a capacity of 75,000 seats. The vast majority of events at Shea Stadium and a Willets Point football stadium would not overlap. However, there would be a period starting in August during the NFL pre-season and continuing until late October when there could be a dual-event scenario. Additionally, the United States Tennis Open typically occurs the last week of August through the first week of September just south of Shea Stadium within Flushing Meadows–Corona Park. The Tennis Open relies on many of the same parking lots that Shea Stadium utilizes and there are approximately three to eight days in which both events can overlap.

Given the once-a-week frequency of football games, it is highly unlikely that a triple-event scenario would occur with the Tennis Open, Mets baseball game, and Jets football game all taking place in the course of the same day. It is reasonable to assume that some coordination would take place to avoid this scenario, because it would be extremely challenging from a transportation planning perspective. Therefore, a more reasonable worst-case scenario would be a fully attended Mets game and fully attended Jets game during the same day, with start times of 1:00 PM and 4:00 PM, respectively.

A dual event scenario would present transportation planning challenges to coordinate the exit of baseball patrons and entry of football patrons. Accordingly, a transportation and parking plan would have to be developed for this scenario. This scenario would most likely rely upon separating exiting baseball patrons from entering football patrons through police control plans and placement of variable message signs (VMS) at strategic locations. Additionally, because there would be greater total parking demand in the area and less available parking supply, mass transit use would have to be encouraged and service enhancements considered. Other options could include utilizing shuttle buses from off-site lots.

Under existing conditions, Shea Stadium typically generates approximately 5,700 vehicle trips during the peak hour following a baseball game. Applying Shea Stadium's travel characteristics to a new 75,000-seat stadium, and assuming full attendance, the new stadium would generate approximately 10,500 vehicles. The confluence of these flows would significantly increase traffic congestion on the roadway network serving Shea Stadium.

The 2001 EIS for the redevelopment of Shea Stadium presented a traffic improvement plan to enhance access and parking capacity for a redeveloped Shea Stadium. The plan includes direct connections to the regional highways, arterial roadway improvements, an improved VMS system, and structured parking for the stadium. The plan was developed to reduce reliance on local streets, spread traffic more evenly between the Grand Central Parkway and Van Wyck Expressway, provide separate routings for traffic from various directions in order to reduce conflicting traffic movements at critical locations, and provide additional parking to reduce reliance on parking lots and grassy areas south of the LIRR tracks during high attendance events.

Included in this plan are modified interchanges between Northern Boulevard and both the Grand Central Parkway and Van Wyck Expressway in order to provide more direct connection from the various approaches to the site. The interchange improvements with the Van Wyck Expressway would allow cars to exit directly onto roadways leading to structured and surface parking lots. Several improvements to City streets are also included. However, these improvements were intended to accommodate traffic access to a proposed smaller replacement for Shea Stadium. It is unlikely that sufficient additional traffic capacity could be provided to accommodate simultaneous games at Shea and the proposed stadium without substantial congestion on the local network and significant unmitigated impacts, even with the proposed improvements. Under current conditions, significant traffic congestion and delays are common in the vicinity of Shea Stadium on game days.

Alternative R would result in virtually the same bridge and tunnel volumes as the Proposed Action during the AM, MIDDAY, and PM peak hours, and would create the same significant adverse impacts at the river crossings during the 2025 peak hours. During the weeknight and Sunday Special Event peak hours, Alternative R would generate the same Hudson River bridge and tunnel use as the Proposed Action, but different travel patterns on the East and Harlem River Bridges. For example, inbound trips from Queens would be replaced by inbound trips from New Jersey on the East and Harlem River bridges and tunnels.

(p) Parking

Shea Stadium currently has 8,800 controlled parking spaces. This includes 7,720 spaces directly on-site and an additional 1,080 just north of the Stadium at the Flushing Bay Marina. Additionally, 7,940 controlled and uncontrolled spaces are located off-site. These spaces include available on-street parking as well as several areas within Flushing Meadows-Corona Park both north and south of the LIRR tracks. Thus, the combined maximum number of spaces available when one event is held between the stadium and Shea Stadium would total 16,500 spaces on-site, and 24,440 spaces including potentially available off-site spaces.

Structured parking lots providing 7,200 spaces and a re-organization of parking on the site and parking lots located adjacent to the site on the north would allow for a total of 12,000 controlled on-site spaces compared with the existing 8,800 spaces. One structure could be constructed on the north side of Shea Stadium in existing Parking Lot A, with new ramp connections to the local street system and the Grand Central Parkway. A second garage could be provided on the south of Shea Stadium in existing Parking Lot D just north of Corona Yard and west of the No. 7 Subway Willets Point station. Access to the garage would be via Roosevelt Avenue. A third parking structure would be required in existing Parking Lot D, east of the Willets Point No. 7 Subway station.

Additional parking would be needed on days when concurrent events occurred at both the new facility and Shea Stadium; a location for this supplemental parking has not been identified. A system of new roads and ramps would be required to connect this parking structure with the Van Wyck Expressway, Grand Central Parkway, Northern Boulevard, and local streets.

(q) Transit

Willetts Point is currently served by local bus routes and the No. 7 Subway Willetts Point–Shea Stadium station, which is located along Roosevelt Avenue. The LIRR also maintains a station within Flushing Meadows–Corona Park, which is located southwest of the site. In addition, Flushing Bay has ferry slips which are currently utilized for weekend New York Mets baseball games and leisure cruises. There is no direct, delineated pedestrian connection between Willetts Point and the Flushing Bay. Charter buses also provide service to Shea Stadium on game days.

Fewer than 70 fans currently use the local bus system to access Shea Stadium for a game. It is not anticipated that the proposed football stadium would generate more than 150 peak hour bus riders. This increase could be accommodated through adding one or two standard buses to the existing game day bus service. Charter buses carry significantly more fans (approximately 1,000) to Shea Stadium. A dozen additional charter buses would be required to serve the proposed football stadium. Provisions for these additional buses would be required in the parking lot. Similarly, ferries currently serve approximately 600 fans on game days at Shea Stadium. Additional ferry service could be provided to serve the projected increase in ferry use for a proposed football stadium event.

Subway and LIRR service would also need to be increased to accommodate the increased trip generation associated with a Multi-Use Facility. However, the additional special event service required is within the peak capacity of the No. 7 Subway and LIRR.

In addition to the transportation recommendations proposed in the Shea EIS, two specific improvements to enhance access to public transportation assets would be necessary to locate a football stadium within Willetts Point. The first would involve enhancing access to the existing Willetts Point–Shea Stadium subway station. This station currently has its ingress/egress points along Roosevelt Avenue, and within the Shea Stadium site. The ingress/egress points are over 500 feet from 126th Street, which serves as the boundary between the Shea Stadium site and Willetts Point. A platform extension or direct connection from the station or platform east of 126th Street into Willetts Point would be needed to provide for the access to the station. This connection would also allow for access from the LIRR station, as a walkway from the park where the LIRR station is located connects into the Willetts Point subway station.

A second improvement would facilitate access to the Flushing Bay Promenade where ferries currently disembark and pick up Shea Stadium patrons traveling from Manhattan and New Jersey. The existing access from Willetts Point is extremely poor, as there is no direct, properly marked crossing. Additionally, ferry demand could feasibly increase from current levels to serve the many Jets fans that reside in New Jersey. The most direct route would most likely be an at-grade, delineated crossing over Northern Boulevard and under the Grand Central Parkway at 126th Street.

(r) Pedestrians

Locating a football stadium east of 126th Street in Willetts Point would place the facility significantly farther from the LIRR and No. 7 Subway Willetts Point station than Shea Stadium. A new pedestrian connection would be required from the current subway station ramp to the proposed football stadium. Alternatively, subway and LIRR passengers would be required to walk through the parking lot. The Shea Stadium FEIS recommends replacement of the existing No. 7 Subway Willetts Point–Shea Stadium station rotunda and stairs with a new pedestrian bridge to accommodate anticipated increased pedestrian volumes. Similar improvements would be required to accommodate the proposed football stadium pedestrian demands.

(s) Air Quality

Although Alternative R would result in fewer locations in Manhattan with significant air quality impacts in 2010 and 2025 due to the elimination of the Multi-Use Facility in Manhattan, significant air quality impacts would be expected at Willets Point, Queens at sites along the existing and proposed roadway network serving the Multi-Use Facility that would be affected by project-generated traffic, in addition to traffic generated by concurrent events at Shea Stadium or the United States Tennis Stadium.

(t) Noise

The proposed Multi-Use Facility in Willets Point, Queens would not result in significant adverse noise impacts due to operation of the facility. The December 2001 *Shea Stadium Redevelopment Final Environmental Impact Statement* evaluated potential noise impacts for relocating Shea Stadium in the vicinity of the proposed Multi-Use Facility site at Willets Point, Queens. Five sites where maximum noise effects due to project-generated traffic would be expected to occur were evaluated, including:

- College Point Boulevard between 58th Avenue and 58th Road
- College Point Boulevard between 37th and 39th Avenues
- 114th Street between 37th and 38th Avenues
- 126th Street between 36th and 37th Avenues
- Park service road.

An evaluation of both in-season and off-season events concluded that the noise from No Action sources (i.e., roadways and other noise sources) would be greater than or equal to noise produced by the stadium-related motor vehicles. Changes in noise levels were found to be imperceptible and insignificant. Like the Proposed Action, noise from stadium events would not contribute significantly to total community noise levels. Therefore, the proposed Multi-Use Facility would not result in significant adverse noise impacts on nearby noise-sensitive land uses.

(u) Construction Impacts

Construction-related activities in Queens would result in traffic, noise, and air quality effects similar to those that would result from construction of the Multi-Use Facility in Manhattan. Mitigation measures and measures to avoid construction-related impacts with Alternative R would be similar to the Proposed Action.

k) Alternative S: Revised Zoning Alternative (Entirely New Text)

Description of the Alternative

Alternative S is a proposal by the Department of City Planning that is intended to address comments received during the public review process and at public hearings. It is intended to assess whether an alternative development plan for the Project Area that would provide a similar overall level of development as the Proposed Action, but with more residential and less commercial use, would result in greater benefits or fewer adverse impacts than the Proposed Action and would meet the goals and objectives of the Proposed Action. This alternative is reflected in ULURP Application Nos. C040099 (A)ZMM and N040500 (A)ZRM (see Appendix A.1.b, “Revised Zoning Map and Text Amendments”).

Under Alternative S, the rezoning area, and thus the Project Area, would be reduced by excluding the three blocks south of Penn Station between Seventh and Eighth Avenues (i.e., Subarea E3 and a small extension of the C6-3X district). Overall, the Project Area would be redeveloped to slightly less total density than under the Proposed Action, and would conform to an alternative land use plan and related zoning map and text amendments (see Figures 26S-1 through 26S-5). The other elements of

the Proposed Action, including the No. 7 Subway Extension, Multi-Use Facility, Convention Center Expansion, relocation of the Quill Bus Depot, a multi-agency facility for DSNY and NYPD Tow Pound operations on Block 675, and the creation of new open spaces, would all be the same as the Proposed Action.

As shown in Table 26-25 and depicted on Figures 26S-6 and 26S-7, Alternative S would result in less commercial development and more residential, hotel, retail, and theater space than under the Proposed Action.

**TABLE 26-25
ALTERNATIVE S: COMPARISON OF THE TOTAL BUILD CONDITION IN THE 2025 FUTURE WITH
THE PROPOSED ACTION AND ALTERNATIVE S**

	Proposed Action Total Build (by 2025)	Alternative S Total Build (by 2025)	Difference between the Build Conditions
Office	28,340,919	26,200,768	(2,140,151)
Residential	12,870,417	13,608,487	738,070
Hotel	500,000	977,000	477,000
Retail	998,637	1,043,891	45,254
Theater	-	195,898	195,898
Total	42,709,973	42,026,044	(683,929)

Source: NYCDOP RWDCS tables for Proposed Action (see Appendix A.2.a) and Alternative S (see Appendix A.2.b).

Under Alternative S, the Large Scale Plan (Subdistrict A) would reduce the minimum commercial FAR requirement from 20 to 18 for mixed-use buildings, thereby allowing six FAR (four FAR under the Proposed Action) for residential development. Subarea A1, the eastern portion of Caemmerer Yard (Projected Development Site 1), would have the flexibility to retain more development on-site (11 FAR vs. nine FAR under the Proposed Action) through the addition of residential FAR (three FAR vs one FAR).

Within a portion of the Clinton District/42nd Street Corridor, the as-of-right commercial density would be reduced. Within the Farley Corridor (Subarea B1, Projected Development Site 31), as-of-right density would increase from 18 to 21.6 FAR, partially offsetting the reduction in the Clinton District/42nd Street corridor. The density in Subarea B2 (Projected Development Sites 32 and 33) of the Farley Corridor would also be increased from 15 to 19 FAR to allow for four FAR of residential development (see Figure 26S-5).

Alternative S would also create a floor area bonus for new theater space created in the Clinton District/42nd Street Corridor, along the south side of West 42nd Street generally between Eighth and Eleventh Avenues. This is projected to result in an additional three FAR of development or a total of 15 FAR (12 maximum residential FAR plus up to 3 FAR of up to one-third theater, and two-thirds other permitted non-residential uses) on Projected Development Sites 15, 16, 19, and 35 (see Figures 26S-6 and 26S-7).

The density in Subarea E1, the full block west of the Port Authority Bus Terminal, would be reduced from 18 to 15 FAR within approximately 150 feet of the Tenth Avenue frontage and from 18 to six FAR along the Ninth Avenue frontage and from 18 to 7.5 for the remainder of the block. Subarea E2, the full block south of the Port Authority Bus Terminal, originally proposed as an 18 FAR commercial only district would be changed to a predominantly commercial zone with a maximum density of 18 FAR, which would allow for three FAR of residential use.

Under Alternative S, the No. 7 Subway Extension, the Convention Center Expansion, and the Multi-Use Facility would be the same as with the Proposed Action. However, Alternative S contains an option in which the design of the Convention Center would be altered to permit West 41st Street to remain open between Eleventh and Twelfth Avenues (see Figure 26S-9 and Figure 26S-10) . That

option is discussed, as appropriate, in the analyses below. In addition, Alternative S assumes, as stated by Madison Square Garden management, that Madison Square Garden would not relocate.

Alternative S would require the same type of discretionary approvals and public actions as the Proposed Action.

Principal Conclusions

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, with (E) Designations Alternative S 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, energy, or public health, 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 intersections 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.

Rezoning and Related Land Use Actions for Alternative S—Detailed Description

Like the Proposed Action, the rezoning and related land use actions proposed for the Hudson Yards area in Alternative S 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. Alternative S is a

modification of the Proposed Action, reflecting comments received during public review of the DGEIS and the ULURP application to reduce density along West 42nd Street and adjacent sites, increase density in the Farley Corridor and provide more opportunities for residential use. Both Alternative S and the Proposed Action would reinforce the existing mixed-use communities, primarily along Ninth Avenue and along West 42nd Street, and create new high-density mixed-use commercial and residential districts. The modifications to the Proposed Action contained in Alternative S includes changes to the underlying zoning map and zoning text, as discussed below.

(a) Underlying Zoning—Zoning Map

Alternative S provides three major modifications to the Zoning Map included in the Proposed Action:

- The first is the removal of the three blocks south of Penn Station from the rezoning area, as suggested by Community Board 5.
- The second addresses the Hell’s Kitchen midblocks. Community Board 4 recommended that this area be zoned a residential district instead of a commercial district. Alternative S proposes that Subarea F1 of the Special Hudson Yards District be mapped as R9A with a C2-5 overlay, instead of C2-7A (see Figure 26S-4). This would not alter the densities or use and bulk regulations.
- The third change relates to the area between West 40th and West 41st Streets/Ninth and Tenth Avenues. Community Board 4 recommended that this area allow more residential uses instead of being commercial. In response, Alternative S would modify the C6-4 district in this location to C2-8 along Tenth Avenue, C6-3 in the midblocks, and C1-7A along Ninth Avenue. These map changes along with related text changes (discussed below) would reduce the commercial density but increase residential and community facility density in this area.

(b) Use and Density Regulations

Many of the comments, including those of Community Board 4 and community groups, proposed that the rezoning concentrate the highest density on the eastern portion of Caemmerer Yard and the Farley Corridor, away from the existing residential neighborhood within Hell’s Kitchen South, and allow more residential use within the Special Hudson Yards District. In response, Alternative S contains the following differences from the Proposed Action (see Figure 26S-5):

- West 40th Street to West 41st Street/Ninth Avenue to Tenth Avenue: Density would be lower and more flexibility of uses would be allowed. Text changes in conjunction with zoning map changes (described above) would reduce density from 18 FAR commercial to 15 FAR primarily residential along Tenth Avenue by extending Subarea D1. The midblock would remain Subarea E1, but the density would be reduced from 18 FAR primarily commercial to 7.2 for commercial and increased to 7.5 for residential and 10 for community facility. Along Ninth Avenue, Subarea F2 would be extended one half block north reducing the FAR from 18 primarily commercial to 6.02 primarily residential.
- Farley Corridor (Subdistrict B): Density would increase in the Farley Corridor and more residential use would be permitted. The Western Block Subarea density would be increased from 18 to 21.6 FAR. The Central Blocks Subarea density would be increased from 15 to 19 FAR, and four FAR of residential use would be allowed.
- Large Scale Plan Subdistrict A: The total amount of permitted floor area in Subdistrict A would be the same in Alternative S and the Proposed Action, but the distribution of the bulk would differ. On the eastern portion of Caemmerer Yard (Subarea A1), the floor area that could be used on site would be increased from 9 to 11 FAR. Additionally, the amount of residential FAR that could be used on-site would be increased from one to three FAR; as in the Proposed Action, residential use would not be permitted until after at least eight FAR of commercial use was

developed. In Subareas A2 and A3, residential use would be increased from four to six FAR. The minimum nonresidential FAR needed before residential floor area could be built would be decreased from 20 to 18 FAR.

- **Predominantly Commercial Areas (Subdistricts A and B):** Under Alternative S, greater flexibility in constructing residential uses would be permitted. A CPC Chair's Certification for the development of residential floor area prior to the development of commercial floor area would be available, provided that the total development would adhere to the established ratio of residential to commercial floor area. On lots greater than 69,000 square feet, an entirely residential building could be developed prior to the development of commercial floor area; a Chair's Certification would be required to demonstrate that an area of at least 50,000 square feet was available to accommodate a commercial building on the site in the future that could attain the minimum commercial FAR.
- **Clinton District/42nd Street Corridor:** Under Alternative S, the District Improvement Bonus would not be available in the Clinton District/42nd Street Corridor. The provisions of the Special Clinton District which permit use of the Inclusionary Housing bonus for residential and non-residential buildings would be retained. The Inclusionary Housing Bonus would be available to increase development from 10 to 12 FAR in the C6-4 district. In addition, a theater bonus could be used to increase density on blocks on the south side of West 42nd Street east of Eleventh Avenue, but only after use of the Inclusionary Housing Bonus. This could bring the FAR from 12 to 15.

(c) Other Regulations

In addition to differences in the Zoning Map and in land uses and densities among Subdistricts and Subareas in the Project Area, Alternative S would alter certain special permit, design, bulk, and parking regulations compared to the Proposed Action, as follows:

- **Special Permits:** Alternative S would offer more flexibility in siting certain additional service uses than would the Proposed Action. Public transit, railroad or electrical utility substations would be allowed within residence and commercial districts by Special Permit of the Board of Standards and Appeals and, where modification or waiver of a Special Hudson Yards District regulation is required, by Special Permit of the City Planning Commission; however, the (a) findings of ZR Sections 73-16 and 74-61 that the substation could not otherwise be located as-of-right in an adjacent area would not apply.
- **Clinton District/42nd Street Corridor:** Alternative S would not have the minimum tower regulations that are included in the Proposed Action. The existing tower regulations of the Special Clinton District, 42nd Street Perimeter Area, would remain in effect.
- **Special Garment Center:** The bulk controls, which under the Proposed Action require one setback above the maximum streetwall, would instead be governed by the sky exposure plane in Alternative S, to better reflect the existing context of buildings in the Garment Center.
- **Special Hudson Yards District:** Under Alternative S, a Special Permit would be available to modify the special height and setback regulations applicable in Subdistricts A through E. Non-conforming automobile uses could enlarge up to five FAR if such construction is completed within 10 years of adoption. In the Farley Corridor Subdistrict B, mandatory public improvements (i.e., through-block walkway) would not be required under Alternative S until such sites were developed above 10 FAR; the issuance of a certificate of occupancy for floor area above 10 FAR would be tied to the completion of the mandatory improvement. In addition, transit easements for future subway access could provide for temporary construction or use within the easement area upon CPC Chair Certification of the applicant's commitment to make the space available to NYCT upon later request.

- Hell's Kitchen Midblocks (Subdistrict F1): Within this Subdistrict, a height restriction of two stories or 30 feet on commercial uses would apply under Alternative S.
- Parking: Several changes to parking regulations in the Special Hudson Yards District would apply in Alternative S—(1) the mix of uses resulting from the different use and density regulations under Alternative S would require fewer parking spaces than the Proposed Action, so the parking requirement for commercial development under Alternative S would be 0.29 spaces per 1,000 square feet of floor area, compared to 0.35 spaces per 1,000 square feet under the Proposed Action; (2) reductions in parking requirements for government assisted projects (e.g., affordable housing) would be applicable; (3) renewal of existing parking garage special permits would not be subject to the Special District's below-grade parking requirements, and new above grade parking would be permitted by authorization and not by Special Permit; (4) porte-cocheres would be allowed on zoning lots over 80,000 square feet; and (5) accessory parking spaces to residential uses in the Hell's Kitchen Subdistrict F would not be available as public parking except by Special Permit (the Proposed Action would make these spaces publicly available by certification of the City Planning Commission).

Alternative S Compared to the Proposed Action

(a) Land Use, Zoning, and Public Policy

Like the Proposed Action, Alternative S would not result in significant adverse impacts to land use, zoning, or public policy. Land use changes with Alternative S would occur at generally the same locations as the Proposed Action, as would the locations, designs, capacities, and programs of the Multi-Use Facility and the Convention Center expansion.

It is expected that development under Alternative S would occur on the same Projected Development Sites as the Proposed Action. Alternative S would have a similar overall level of development as the Proposed Action, but with more residential use and approximately 2 million square feet less office use. The overall effects of Alternative S on land use, zoning, and public policy would be substantially the same since both Alternative S and the Proposed Action would result in substantially the same types, locations, and distribution of land uses, and would be subject to substantially the same zoning controls.

The zoning requirements for the Large Scale Plan (Subdistrict A) would reduce the minimum commercial FAR requirement and increase the allowable residential FAR requirement. As a result, a greater level of residential use would be developed along with commercial use in Subareas A1 and A3, while Subarea A2 would be the most intensely and completely commercial in use. A decrease in commercial density in and near the Clinton District/42nd Street Corridor under Alternative S (see below) would be partially offset by an increase in development density in the Farley Corridor (Subdistrict B). Subarea B1 would be developed to 21.6 FAR compared to 18 for the Proposed Action. Subarea B2 would be developed to 19 FAR as compared to 15 for the Proposed Action and would allow for four FAR for residential uses; by contrast, the Proposed Action would not allow residential uses in Subarea B2. Projected development in the Farley Corridor and the adjacent Subarea A1 (eastern portion of Caemmerer Yard) would produce more residential use under Alternative S than under the Proposed Action.

Under Alternative S, commercial density in the Clinton District/42nd Street Corridor would be lower than under the Proposed Action, and no bonus for contributions to the DIF would apply. Residential development could utilize the Inclusionary Housing Bonus to bring the FAR from 10 to 12, and Alternative S would also include a zoning bonus for new theater space created in the Clinton District/42nd Street Corridor, along the south side of West 42nd Street generally between Eighth and Eleventh Avenues. This bonus would allow up to an additional 3 FAR of development or a total of 15 FAR (12 FAR residential plus 3 FAR of which one-third must be theater uses). As shown on

Figures 26S-6 and 26S-7, it is anticipated that Projected Development Sites 15, 16, 19, and 35 would make use of this zoning bonus and would contain predominately residential uses with theater space at 15 FAR as compared to predominately residential uses with office space in the Proposed Action at 15 or 18 FAR. The lower commercial density allowed under Alternative S and the zoning bonus for theater space would support the existing residential and theater uses in the Clinton District/42nd Street Corridor.

Under Alternative S, residential uses would be permitted in Subarea E2, the full block south of the Port Authority Bus Terminal, whereas the Proposed Action would not allow residential uses in Subarea E2. Although the rezoning would permit commercial development in Subarea E1, such development is not be projected under Alternative S; it is expected that the existing Hunter College building would remain. For the east side of Tenth Avenue between West 40th and West 41st Street in expanded Subarea D1, a predominantly residential building with theater use is projected.

(b) Socioeconomic Conditions

Alternative S is similar to the Proposed Action, differing somewhat in the anticipated mix and distribution of future development, but with Projected Development Sites remaining essentially the same. The development of the No. 7 Subway Extension, the Multi-Use Facility, and the Convention Center Expansion remain the same as with the Proposed Action. As such, Alternative S, like the Proposed Action, would not result in any significant adverse impacts with respect to residential or commercial displacement, or effects on the garment and theater industries. Alternative S would also be expected to have the same economic benefits generated by the Hudson Yards development as under the Proposed Action.

Alternative S is expected to result in an increase of 10,637 residential dwelling units by 2025 over the Future Without the Proposed Action, which represents an increase of 738 units over the Proposed Action's increment of 9,899 units. Alternative S is expected to result in 1,642 affordable units compared to 1,560 for the Proposed Action. Conversely, Alternative S would reduce the overall office development potential from 28.3 million square feet in the Proposed Action to 26.2 million square feet with Alternative S, a reduction of 2.1 million square feet. This reduces the workforce capacity of the new office space by about 3,700 workers from 111,900 workers in the Proposed Action to 108,200 workers under Alternative S. Retail development is essentially the same as with the Proposed Action. The development scenario for Alternative S results in 3,954 hotels rooms as part of the projected redevelopment compared with 3,100 in the Proposed Action.

Like the Proposed Action, Alternative S would result in the direct residential displacement of 85 existing housing units. As in the case of the Proposed Action, there are no anticipated indirect residential displacement impacts associated with Alternative S. The increase in housing supply offered by Alternative S compared with the Proposed Action would be beneficial but would not significantly alter overall housing market characteristics.

Similarly, there is only a modest variation in potential direct displacement of commercial and other uses in the Hudson Yards. At Projected Development Site 20, the redevelopment site no longer would displace the Hunter College Voorhees Campus buildings. Projected Development Site 45 (Madison Square Garden) is now a Potential Development Site. It is assumed that the total commercial displacement would involve up to 2,734 workers by the 2025 completion of the development plan. Like the Proposed Action, the analysis of businesses affected and commercial trends in the Hudson Yards area indicates that Alternative S would not have a significant impact on indirect commercial displacement. Alternative S eliminates Potential Development Sites in the area east of Eighth Avenue and south of Penn Station. As a result, any potential commercial displacement associated with these Potential Development Sites would not occur.

Like the Proposed Action, Alternative S would have no significant adverse impacts on the Theater Industry. Unlike the Proposed Action, Alternative S would establish zoning incentives (see (a) Land Use Zoning, above) for theater space in the West 42nd Street corridor.

Alternative S would provide similar long-term fiscal benefits to those of the Proposed Action. As summarized by the EDC fiscal benefits analysis, the 2010 cumulative revenues to New York City and State from construction would be \$573.6 million with Alternative S, slightly larger than the \$569.1 million generated by the Proposed Action (there is more early hotel development activity by 2010 in Alternative S). With the smaller amount of commercial development, the cumulative public revenues by 2025 would be \$1.41 billion for Alternative S compared with \$1.47 billion for the Proposed Action, a reduction of about two percent). Future annual fiscal benefits generated by the real estate development in the full build-out of Project Sites under Alternative S are estimated at an annual revenue of \$642.0 million (in 2003 dollars), smaller than the Proposed Action at \$689.4 million. As with construction benefits, the difference primarily results from the higher proportion of residential units in Alternative S compared to the Proposed Action. Fiscal benefits generated by the Multi-Use Facility and the Convention Center would remain the same in Alternative S as with the Proposed Action.

(c) Community Facilities and Services

As with the Proposed Action, there would be no significant adverse impacts on NYPD services with this alternative and, as a result, no mitigation is proposed. As with the Proposed Action, there would be no anticipated adverse impacts on health care services with this alternative, and no mitigation is proposed. However, the residential and visitor population increase with this alternative would require a new firehouse similar to the Proposed Action by 2025. Therefore, as with the Proposed Action, the FDNY would monitor growth and development in the Project Area and would respond, first with administrative actions, and finally, if necessary, with a new firehouse that could be constructed on any of the development sites and which would be subject to the City's site selection process that includes ULURP and CEQR.

Unlike the Proposed Action, Alternative S includes an option that would not result in the closure of West 41st Street between Eleventh and Twelfth Avenues. Like the Proposed Action, West 33rd, West 39th, and West 40th Streets would be closed between Eleventh and Twelfth Avenues. With West 41st Street open, Alternative S would minimize the potential for an adverse impact on the timely delivery of fire protection services identified by the FDNY with the Proposed Action, although such street closures under the Proposed Action would not result in any significant adverse impacts on FDNY services.

Like the Proposed Action, Alternative S would substantially increase the residential population in the Project Area, although to a higher level with Alternative S at full buildout. Like the Proposed Action, Alternative S would result in significant adverse impacts on elementary and intermediate schools. In 2010, this shortfall would be the same as the Proposed Action. In 2025, Alternative S would increase the shortfall expected in CSD 2 under the Proposed Action from approximately 2,859 to 2,943 for elementary schools and from approximately 1,479 to 1,497 for intermediate schools (see Table 26-26).

Absent the West Chelsea rezoning, a new school would not be warranted as mitigation for the impacts of Alternative S in 2010. Instead, enlargement of an existing school, such as P.S./I.S. 51 Elias Howe School, and administrative actions by DOE would suffice to mitigate the impacts of Alternative S at that time. If the West Chelsea rezoning is approved, the City would construct or lease a new 630-seat, K-8 elementary/intermediate school in the Project Area between 2010 and 2013 (West Chelsea's build year) in addition to this enlargement of an existing school. This mitigation would be supplemented as necessary through administrative actions that the DOE would undertake to mitigate

the shortfall in school seats, such as adjusting catchment areas and/or reorganizing grade levels within schools.

Without the West Chelsea rezoning, a new elementary/intermediate school would be required between 2010 and 2025, as the development associated with Alternative S proceeds. If the West Chelsea rezoning is approved, it is likely that a second K-8 elementary/intermediate school would be required between 2010 and 2025. DOE would continue to monitor trends in demand for school seats in the area. The DOE responses to identified demand could take place in stages and include administrative actions and/or enlargement of existing schools, followed by the later construction or lease of new school facilities at an appropriate time.

**TABLE 26-26
ALTERNATIVE S: 2010 AND 2025 SCHOOL ENROLLMENT**

Public School Resource		Capacity	2010			2025		
			Incremental Increase	Total Projected Enrollment	Available Seat in Program	Incremental Increase	Total Projected Enrollment	Available Seat in Program
Elementary Schools	Total Region 3	2,572	88	3,603	(1,031)	1,097	4,830	(2,258)
	Total CSD 2	15,185	88	16,910	(1,725)	1,097	18,128	(2,943)
Intermediate Schools	Total Region 3	273	19	414	(141)	229	687	(414)
	Total CSD 2	6,659	19	7,351	(692)	229	8,156	(1,497)
High Schools	Manhattan	55,129	30	60,364	(5,235)	352	57,564	(2,435)

Sources: DOE, DCP, AKRF

Note: Summary information obtained from Chapter 6, “Community Facilities,” and school population projections for Alternative S.

Available publicly assisted day care for low- to moderate-income households within the Project Area and surrounding community is already over capacity. Like the Proposed Action, Alternative S would result in a significant adverse impact on publicly assisted day care. By 2025, the additional demand is estimated to be 187 children for the Proposed Action and 137 for Alternative S. Like the Proposed Action, possible mitigation measures could include adding a capacity to existing facilities or providing a new daycare facility in or near the Project Area. As with the Proposed Action, ACS will monitor development of the Project Area and respond as appropriate to provide the capacity needed.

(d) Open Space and Recreational Facilities

Like the Proposed Action, Alternative S would not result in significant adverse impacts to open space resources. Alternative S would introduce approximately the same number of residents to the Study Area in 2010, but would add slightly more residents by 2025 than the Proposed Action. Alternative S would contain all the open space and park elements included in the Proposed Action. Since Alternative S would have a similar overall level of development as the Proposed Action, but with more residential use and slightly less commercial use, Alternative S would result in the same open space ratios as the Proposed Action in 2010. However, Alternative S would result in slightly lower residential open space ratios in 2025 (Table 26-27). Both the Proposed Action and Alternative S would improve open space ratios relative to those of the 2010 and 2025 Future Without the Proposed Action (other than for active recreation space), and no significant adverse impact would occur under either scenario.

TABLE 26-27
ALTERNATIVE S: ADEQUACY OF OPEN SPACE RESOURCES COMPARED TO THE
PROPOSED ACTION

Study Area	Open Space Category	Open Space Ratio	
		Proposed Action	Alternative S
Without High Line Open Space, 2025			
Non-Residential Study Area	Passive/Non-Residents	0.099	0.101
	Passive/Total Population	0.081	0.082
Residential Study Area	Total/Residents	0.646	0.639
	Passive/Residents	0.466	0.461
	Active/Residents	0.180	0.178
	Passive/Total Population	0.078	0.079
With High Line Open Space, 2025			
Non-Residential Study Area	Passive/Non-Residents	0.114	0.116
	Passive/Total Population	0.092	0.093
Residential Study Area	Total/Residents	0.678	0.670
	Passive/Residents	0.502	0.496
	Active/Residents	0.176	0.174
	Passive/Total Population	0.086	0.086

(e) Shadows

Like the Proposed Action, Alternative S would result in one significant adverse shadow impact due to the incremental shadows from development that would occur on Projected Development Site 14 that would fall on the rose windows of St. Raphael's RC Church. This would occur even with a lower building height and size on Development Site 14, since the shadow effects on St. Raphael's RC Church would be created by the lower floors of the new development. Like the Proposed Action, this impact would be unavoidable and could not be mitigated. Under this alternative, the significant, adverse shadow impact on the Farley Building would not occur.

(f) Historic Architectural Resources

Alternative S would have substantially the same impacts on architectural historic resources as the Proposed Action, since it would affect substantially the same architectural resources as the Proposed Action. However, with no potential development sites located south of Madison Square Garden, Alternative S would not have the potential to affect the architectural resources located between Seventh and Eighth Avenues and West 31st and West 28th Streets, unlike the Proposed Action.

(g) Archaeological Resources

Because Alternative S would disturb the same sites as the Proposed Action, like the Proposed Action, it could result in potential significant adverse impacts on archaeological resources at two development sites.

(h) Urban Design and Visual Resources

Like the Proposed Action, Alternative S would result in a dramatic improvement to the urban design of the Project Area. However, the differences between Alternative S and the Proposed Action would enhance compatibility with surrounding urban design and visual context in certain areas. These include: lower density along West 42nd Street and reliance on existing design regulations of the Special Clinton District 42nd Street Perimeter Area, for the new development; and changes in bulk regulations in the Garment Center portion of the Project Area to rely on the sky exposure plane, to ensure that new development is compatible with the existing urban design context.

Beyond these changes, Alternative S and the Proposed Action would be similar. Alternative S would result in the same level of development as the Proposed Action, but in a different arrangement. It would promote the same types of changes to building bulk, use, and type, building arrangement,

block form and street pattern, streetscape elements, street hierarchy, and natural features as the Proposed Action, although actual bulk and uses would differ, depending on location. The greatest densities and bulk with Alternative S would be concentrated along a north-south corridor between Tenth and Eleventh Avenues, from West 30th to West 41st Streets in Subdistrict A, and an east-west corridor between West 31st and West 33rd Streets, from Seventh to Tenth Avenues in the Farley Corridor. Development would be more concentrated in Subdistricts B1 and B2 than under the Proposed Action and residential use would be more prominent with this alternative in Subdistricts A and B than with the Proposed Action. Building bulk would be lower in the Clinton District/42nd Street Corridor and in Subdistrict E1, and there would be no development in Subdistrict E3 as it is not included in this alternative. The resulting urban design would have somewhat lower and smaller buildings in the Clinton District/42nd Street Corridor and somewhat larger and taller buildings in the Farley Corridor. In all other Subdistricts, the resulting urban design would be the same with Alternative S as the Proposed Action.

The urban design controls included in the Proposed Action would also be applied to Alternative S, and, thus, the pattern of sidewalk widenings and building setbacks, building bulk, uses, and types, streetscape improvements and reintegration of the fragmented built topography back into the adjacent grades, creating a continuous pedestrian environment, would occur with Alternative S, as with the Proposed Action. Similarly, the activation of the streetscape by the provision of retail uses, open spaces, and destinations that promote an active street life would occur with Alternative S, as with the Proposed Action.

If West 41st Street were to remain open under Alternative S, a view under the bridge connecting the expanded Convention Center and the Convention Center Hotel on West 42nd Street towards the waterfront would be preserved, but because this view is blocked by Twelfth Avenue traffic and structures on the waterfront, the benefit would not make a material difference in the effect of Alternative S on urban design and visual resources compared to the Proposed Action.

(i) Neighborhood Character

Alternative S, like the Proposed Action, would result in dramatic improvements to neighborhood character in the Project Area. Overall, like the Proposed Action, Alternative S would transform the Project Area from an underutilized area to a lively, mixed-use 24-hour community and not result in significant adverse impacts to neighborhood character.

The Farley and 34th Street Corridors with Alternative S would be very similar to these corridors under the Proposed Action. Although there would be slightly more residential development and higher densities in the Farley Corridor with Alternative S than the Proposed Action, commercial development within the 34th Street Corridor would be substantially the same as the Proposed Action.

The Hell's Kitchen area and the Special Garment Center would be substantially the same as under the Proposed Action. Use of the sky exposure plane in the Special Garment Center District would help ensure that new development is compatible with the existing urban design context.

The Clinton District/42nd Street Corridor would be generally more residential, containing less office use with Alternative S than the Proposed Action. It would be slightly less dense, but there would be no substantial differences between Alternative S and the Proposed Action in this area. Neighborhood character in the Convention Center Corridor would be the same as with the Proposed Action.

Views to significant resources would be similar to the Proposed Action except that if West 41st Street remained open under Alternative S, this would preserve a view toward the waterfront under the bridge connecting the expanded Convention Center and the Convention Center Hotel on West 42nd Street. However, because this view is blocked by Twelfth Avenue traffic and structures on the waterfront, the benefit would not make a material difference compared to the Proposed Action. If the Convention Center is expanded in a configuration that leaves West 41st Street open between Eleventh

and Twelfth Avenues, this would be a benefit to neighborhood character, since pedestrian access to the waterfront would be improved, but it would not be a significant difference.

With respect to traffic conditions, Alternative S would have the same number and location of unmitigated traffic impacts by 2010 with the exception of one additional unmitigated impact at Tenth Avenue and West 31st Street (Subareas A1 and B1) during the Sunday Special Event peak hour. By 2025, Alternative S would have the same AM and PM peak hour unmitigated impacts and one less Midday unmitigated impact in the Farley Corridor, as compared to the Proposed Action. Alternative S would have the same number and location of unmitigated traffic impacts by 2025 during the Sunday Special Event peak hour with the exception of one additional unmitigated impact in the Clinton District/42nd Street Corridor. Although the additional traffic congestion would detract from the character of the area, it is a common occurrence now, and the increase under Alternative S would not represent a significant adverse impact on neighborhood character, as with the Proposed Action.

Alternative S would have substantially the same noise impacts as the Proposed Action and would require the same (E) Designations and other mitigation measures.

(j) Natural Resources

Like the Proposed Action, Alternative S would not result in significant adverse impacts to natural resources. Alternative S provides a similar level of development as the Proposed Action. It provides more residential use and slightly less commercial use while maintaining other elements of the Proposed Action such as the No. 7 Extension, Convention Center Expansion, Multi Use Facility, etc. Given the relative similarity in intensity of development, the impacts to natural resources are expected to be similar. Wastewater discharge under this alternative would be expected to be of similar magnitude. Therefore as described in Chapter 13, "Natural Resources" there will be no significant adverse impact to water quality in the Hudson River. Building heights are expected to be similar in extent to the Proposed Action, therefore shadow impacts to the Hudson River are expected to be similar to those described in Chapter 13 "Natural Resources" for the Proposed Action. Impacts for the Corona Yards area would be similar to those described in Chapter 13 "Natural Resources" for the Proposed Action. Similar to the Proposed Action, 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.

(k) Hazardous Materials

Like the Proposed Action, no significant impacts from hazardous materials would occur from this alternative. This is due to the management measures such as a Construction Environmental Protection Program (including a Health and Safety Plan, a Soils Management Plan, a Groundwater Management Plan, and a Soil Gas Management Plan) that would be implemented by the Project Sponsors to avoid potential significant adverse impacts (see Chapter 14, "Hazardous Materials" for a discussion of these measures). Since the projected and potential development sites that have been identified as likely to be developed under Alternative S and that potentially contain hazardous materials would be mapped with (E) Designations, as under the Proposed Action, construction would follow the regulations, procedures and protocols developed by the New York City Department of Environmental Protection, providing a similar level of control to avoid potential significant adverse impacts.

(l) Waterfront Revitalization Program

Alternative S would result in a mix of development within the Coastal Zone similar to that of the Proposed Action. Like the Proposed Action, Alternative S would generate significantly more visitors, residents, and workers to the Coastal Zone and Hudson River Park due to the additional residential and commercial development, and the expanded Convention Center. Compared to the Proposed

Action, Alternative S would provide improved access to Hudson River Park under the Convention Center Expansion option with West 41st Street open between Eleventh and Twelfth Avenues. Both Alternative S and the Proposed Action would be consistent with the Local Waterfront Revitalization Program, by encouraging commercial and residential redevelopment within an appropriate Coastal Zone area.

(m) Infrastructure

Alternative S would result in a slightly lower demand for City water supply and sewer services compared to the Proposed Action. Alternative S would generate peak demand of approximately 8.5 million gallons per day (mgd) of potable water, compared to an estimated peak usage of 8.6 mgd of potable water under the Proposed Action. The DEP's planned implementation of the Manhattan Trunk Main Master Plan would provide sufficient water supply to serve the increased demand of either Alternative S or the Proposed Action. DEP has advised that there will be a sufficient water supply for Alternative S and the Proposed Action, consequently, neither would result in significant adverse impacts to the City water supply system. Sewage generation for Alternative S would total approximately 8.5 mgd, slightly less than the 8.6 mgd that would be generated during a peak day under the Proposed Action. There would be no significant adverse impacts to wastewater service in the Project Area under Alternative S or the Proposed Action. The North River Wastewater Pollution Control Plant would have available capacity to treat the increased sewage generated by Alternative S or the Proposed Action.

Like the Proposed Action, additional pervious surfaces from proposed open spaces and water recycling systems (i.e., Multi-Use Facility water storage tanks providing flushing water) would be in place, with the potential to reduce stormwater runoff. Like the Proposed Action, Alternative S would result in a small increase in the number of combined sewer outflow (CSO) events. Like the Proposed Action, Alternative S is not expected to result in any significant adverse impacts to Hudson River water quality from CSO events.

(n) Solid Waste and Sanitation Services

Like the Proposed Action, Alternative S would not result in a significant adverse impact on municipal solid waste management services. Alternative S would generate more solid waste and more demand for DSNY municipal solid waste collection services than the Proposed Action. The municipal solid waste volumes with Alternative S would require approximately one additional DSNY truck trip per week by 2025 in the M-4 service area than the Proposed Action.

(o) Energy

Alternative S would require approximately 300 MW under peak conditions in 2025, compared to 309 MW under the Proposed Action. Although the design capacity of the area substation currently serving the Project Area is 271 MW, Con Edison indicates that, as with the Proposed Action, Alternative S would require a new area substation and transmission substation shortly after 2010 and a second area substation by 2025. Like the Proposed Action, the new area substations and transmission substation required for Alternative S may have to be located in the Project Area. Like the Proposed Action, with these new facilities, Alternative S is not expected to result in a significant adverse impact on energy services.

(p) Traffic (2010 and 2025)

Alternative S and the Proposed Action would produce comparable vehicular trips during the peak hours, although the precise location of impacts would differ very slightly. Both Alternative S and the Proposed Action would result in no unmitigated impacts in the 2010 AM, Midday, and PM peak hours (see Table 26-28, and Figure 26S-11 through Figure 26S-13). In the weeknight Special Event peak hour, Alternative S and the Proposed Action would result in four unmitigated impacts at the

same locations (West 34th Street at Eighth, Ninth, Tenth, and Eleventh Avenues; see Figure 26S-14). In the Sunday Special Event peak hour, the Proposed Action would result in impacts to four intersections (West 34th Street at Eighth, Ninth, Tenth, and Eleventh Avenues), while Alternative S would result impacts to those four intersections plus a fifth (Tenth Avenue at West 31st Street; see Figure 26S-15). The additional impact in Alternative S is attributed to the residential development at Site 33.

**TABLE 26-28
ALTERNATIVE S: 2010 TRAFFIC IMPACTS AT INTERSECTIONS**

	Analyzed	Total Significant Adverse Impacts		Mitigated Significant Adverse Impacts		Unmitigated Significant Adverse Impacts	
		Alternative S	Proposed Action	Alternative S	Proposed Action	Alternative S	Proposed Action
AM	229	42	33	42	33	0	0
Midday	229	30	35	30	35	0	0
PM	229	39	39	39	39	0	0
Weeknight	51	25	22	21	18	4	4
Sunday	51	26	26	21	22	5	4

In 2025, Alternative S and the Proposed Action would result in unmitigated impacts at the same locations in the AM and PM peak hours (i.e., 6 and 7 each, respectively; see Table 26-29, and Figure 26S-16 and Figure 26S-18). In the Midday peak hour, Alternative S would result in one unmitigated impact (at West 34th Street at Broadway/Sixth Avenue; see Figure 26S-17), while the Proposed Action would result in this impact plus a second unmitigated impact at West 34th Street at Ninth Avenue.

**TABLE 26-29
ALTERNATIVE S: 2025 TRAFFIC IMPACTS AT INTERSECTIONS**

	Analyzed	Total Significant Adverse Impacts		Mitigated Significant Adverse Impacts		Unmitigated Significant Adverse Impacts	
		Alternative S	Proposed Action	Alternative S	Proposed Action	Alternative S	Proposed Action
AM	238	110	122	104	116	6	6
Midday	238	94	99	93	97	1	2
PM	238	124	134	117	127	7	7
Weeknight	60	27	26	23	22	4	4
Sunday	60	36	34	31	30	5	4

Special Event peak hour traffic impacts are generally associated with events at the Multi-Use Facility and Madison Square Garden under the Proposed Action, together with traffic generated by the residential and commercial development generated by the Proposed Action. In the weeknight Special Event peak hour, Alternative S and the Proposed Action would result in four unmitigated impacts at the same locations (West 34th Street at Eighth, Ninth, Tenth, and Eleventh Avenues; see Figure 26S-19). In the Sunday Special Event peak hour, the Proposed Action would result in impacts to four intersections (West 34th Street at Eighth, Ninth, Tenth, and Eleventh Avenues), while Alternative S would result impacts to those four intersections plus a fifth (Tenth Avenue at West 42nd Street; see Figure 26S-20). This additional unmitigated impact under is attributed to additional residential development in Alternative S, resulting in more trips in non-commuter hours.

Alternative S would result in similar traffic volumes on bridge and tunnel crossings the East, Hudson, and Harlem Rivers in the AM, Midday, and PM analysis hours as the Proposed Action in 2010 and 2025, and would result in the same number of significant adverse impacts to the river crossings during the 2010 and 2025 peak hours.

The same categories of measures are recommended to mitigate potential intersections impacts in both the Proposed Action and Alternative S. These recommended measures include:

- Modification of signal phasing and/or timing;
- Elimination of on-street parking within 150 feet of intersections to add a limited travel lane (known as “daylighting”);
- Enforcement of existing parking restrictions to ensure traffic lanes are available to moving traffic;
- Channelization and lane designation changes to make more efficient use of available street widths;
- Restriction of turn movements;
- Elimination of sidewalk bulbouts along Route 9A;
- Installation of traffic signals at appropriate unsignalized intersections (if warranted).
- Limiting the number of traffic lanes on West 33rd Street between Eighth and Eleventh Avenues and West 30th Street between Tenth and Twelfth Avenues during Special Event peak hours to serve only parking garages;
- Utilize traffic enforcement agents to manage traffic and pedestrian flows along the perimeter of the Multi-Use Facility;
- Installation of pedestrian overpasses over Route 9A at West 33rd Street and between West 39th and West 40th Streets.

(q) Parking

As noted previously, peak period off-street parking supply, demand, and utilization were projected based on surveys of existing off-street parking supply and utilization, with adjustments for (i) background growth in parking demand, (ii) increased parking demand from No-Build projects with inadequate parking provided on-site, (iii) existing parking capacity displaced by development (iv) existing parking demand displaced by development and (v) parking supply and demand associated with proposed development. Adjustments were then applied for the revised zoning proposal.

Similar to 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 small parking surplus in all periods, while the Proposed Action would result in a small shortfall in the Midday peak period. The difference in demand for parking between Alternative S and the Proposed Action is attributable to the shift from commercial to residential space, which generates less demand for parking in the Midday peak period.

(r) Transit

The overall transit demand during weekday AM, Midday, and PM peak hours under Alternative S would be comparable to the Proposed Action. Under 2010 conditions, Alternative S would result in fewer potential impacts to subway station elements than the Proposed Action in all peak periods, and no unmitigated impacts (compared to one unmitigated impact under the Proposed Action (see Table 26-30).

TABLE 26-30
ALTERNATIVE S: 2010 SUBWAY ELEMENTS

	Analyzed	Total Significant Adverse Impacts		Mitigated Significant Adverse Impacts		Unmitigated Significant Adverse Impacts	
		Alternative S	Proposed Action	Alternative S	Proposed Action	Alternative S	Proposed Action
AM	311	7	9	7	8	0	1
PM	311	2	4	2	4	0	0
Weeknight	49	1	1	1	1	0	0
Sunday	49	1	1	1	1	0	0

The following is a comparison of the potential impacts and proposed mitigation measures for Alternative S and the Proposed Action, by subway station:

- Times Square–42nd Street Station (Four mitigated impacts under Alternative S; six mitigated impacts under the Proposed Action)
 - Stairway PL7AB and PL8AB could be mitigated by widening the stairways by three feet each in both Alternative S and the Proposed Action.
 - Stairway ML6/ML8 and Stairway ML10/ML12 could both be mitigated by construction of a new stairway and extension of the Lower Mezzanine in the Proposed Action. Alternative S would require this mitigation for Stairway ML6/ML8, but not for ML10/ML12, which would not have an impact. (Construction of this measure would require track outages on the Seventh Avenue Express line tracks during selected nights and weekends for approximately two years, based on similar work at Atlantic Avenue station.)
 - Stairway ML5/ML7 and Stairway P3/P5 could be mitigated by construction of a new stairway and extension of the Lower Mezzanine in the Proposed Action. Alternative S would require this mitigation for Stairway ML5/ML7, but not Stairway P3/P5, which would not have an impact. (Construction of this measure would require track outages on the Seventh Avenue Express line tracks during selected nights and weekends for approximately two years based on similar work at Atlantic Avenue station.)
- Grand Central–42nd Street Station (Four mitigated impacts under Alternative S; Two mitigated impacts and one unmitigated impact under the Proposed Action)
 - Stairway U7 could be mitigated by widening the stairways by three feet in both Alternative S and the Proposed Action.
 - Stairway M6ABC/M7ABC could be mitigated by replacing the existing stairway with a new high-speed escalator in both Alternative S and the Proposed Action.
 - Stairway P14 could be mitigated by reopening a previously closed stairway (P16); this mitigation would only be required in Alternative S, as an impact would not occur in the Proposed Action.
 - Stairway P22 could be mitigated by constructing at new stairway at the north end of the Lexington Avenue line platform; this mitigation would only be required in Alternative S, as an impact would not occur in the Proposed Action.
 - An unmitigated impact would occur at Stairway PL6 in the Proposed Action; this impact would not occur in Alternative S.
- 42nd Street–Port Authority Bus Terminal Station (no impacts under Alternative S; one mitigated impact under the Proposed Action)

The HEET at the northwest corner of Eighth Avenue and West 42nd Street could be successfully mitigated by installation of a third HEET at the same location (to supplement the two existing

HEETs). This mitigation would only be required in the Proposed Action, as an impact would not occur in Alternative S.

Under 2025 conditions, Alternative S would result in five fewer potential impacts to subway station elements in the PM peak period than the Proposed Action (i.e., 9 vs. 14), and the same number of potential impacts in the remaining periods. Upon incorporation of mitigation measures, both alternatives would result in no unmitigated impacts (see Table 26-31). The following is a comparison of the potential impacts and proposed mitigation measures for Alternative S and the Proposed Action, by subway station:

- 34th Street–Herald Square (No impacts under Alternative S; six mitigated impacts under the Proposed Action)
 - Stairway H&M 300 could be mitigated by widening the stairway by two feet. This mitigation would only be required in the Proposed Action, as an impact would not occur in Alternative S.
 - Stairway H&M 307, and Escalator E221, E222, E223, and E224 could be mitigated by re-opening the existing, but closed stairway at the southwest corner of Sixth Avenue at 33rd Street (including widening the stairway and recreating a street level vestibule). This mitigation would only be required in the Proposed Action, as an impact would not occur in Alternative S.
- Times Square–42nd Street Station (Eleven mitigated impacts under both Alternative S and the Proposed Action)
 - Stairway PL5AB could be mitigated by widening the stairway by three feet in both Alternative S and the Proposed Action.
 - Stairway PL7AB could be mitigated by reconstructing a previously removed stairway (Stairway PL4AB) in both Alternative S and the Proposed Action.
 - Stairway PL8AB could be mitigated by widening the stairway by three feet, in both Alternative S and the Proposed Action.
 - Stairway ML5/ML7 and Stairway ML9/ML11 could be mitigated by construction of a new stairway and extension of the Lower Mezzanine, in both Alternative S and the Proposed Action. Construction of this measure would require track outages on the Seventh Avenue Express line tracks during selected nights and weekends for approximately two years, based on similar work at Atlantic Avenue station.
 - Stairway ML6/ML8 and ML10/ML12 could both be mitigated by construction of a new stairway and extension of the Lower Mezzanine, in both Alternative S and the Proposed Action. Construction of this measure would require track outages on the Seventh Avenue Express line tracks during selected nights and weekends for approximately two years, based on similar work at Atlantic Avenue station.
 - Stairway P3/P5 and Stairway P7/P9 could both be mitigated by construction of a new stairway and extension of the Upper Mezzanine, in both Alternative S and the Proposed Action. Construction of this measure would require track outages on the Seventh Avenue Express line tracks during selected nights and weekends for approximately two years, based on similar work at Atlantic Avenue station.
 - Stairway P4/P6 could be mitigated by construction of a new stairway and extension of the Upper Mezzanine, in both Alternative S and the Proposed Action. Construction of this measure would require track outages on the Seventh Avenue Express line tracks during selected nights and weekends for approximately two years, based on similar work at Atlantic Avenue station.
 - Escalator E-216 (up) could be mitigated by replacing the existing escalator with a higher speed model, in both Alternative S and the Proposed Action.

- Grand Central–42nd Street Station (Nine mitigated impacts under Alternative S; seven mitigated impacts under the Proposed Action)
 - Stairway P12 and Stairway P14 could both be mitigated by reconstructing a previously removed stairway (Stairway P16) to the Lexington Avenue Line platform (southbound), in both Alternative S and the Proposed Action.
 - Stairway P22 could be mitigated by construction of a new stairway, in both Alternative S and the Proposed Action.
 - Stairway U5 and Stairway U7 could both be mitigated by widening the stairways by two feet, in both Alternative S and the Proposed Action.
 - Stairway P23 could be mitigated by construction of a new stairway at the Lexington Avenue Line platform (northbound), in both Alternative S and the Proposed Action.
 - Stairway M6ABC/M7ABC could be mitigated by replacing a portion of the stairway with a new high-speed escalator, in both Alternative S and the Proposed Action.
 - Stairway PL9AB could be mitigated by widening the stairway by one foot, in Alternative S; this impact would not occur under the Proposed Action.
 - The passageway connecting the middle of the No. 7 line platform to both Lexington Avenue line platforms could be mitigated by widening the passageway by one foot, in Alternative S; this impact would not occur under the Proposed Action.
- 42nd Street–Port Authority Bus Terminal Station (No impacts under Alternative S; one mitigated impact under the Proposed Action)
 - The HEET at the northwest corner of Eighth Avenue and West 42nd Street could be successfully mitigated by installation of a third HEET at the same location (to supplement the two existing HEETs). This mitigation would only be required in the Proposed Action, as an impact would not occur in Alternative S.
- 34th Street–Penn Station, Eighth Avenue (Three mitigated impacts under Alternative S; no impacts under the Proposed Action)
 - Stairway S8 could be mitigated by adding a partner “T” stairway. This mitigation would only be required under Alternative S, as an impact would not occur in the Proposed Action.
 - Stairway S4 could be mitigated by widening the stairway by two feet. This mitigation would only be required under Alternative S, as an impact would not occur in the Proposed Action.
 - Stairway P3 could be mitigated by widening the stairway by two feet. This mitigation would only be required under Alternative S, as an impact would not occur in the Proposed Action.

**TABLE 26-31
ALTERNATIVE S: 2025 SUBWAY ELEMENTS**

	Analyzed	Total Significant Adverse Impacts		Mitigated Significant Adverse Impacts		Unmitigated Significant Adverse Impacts	
		Alternative S	Proposed Action	Alternative S	Proposed Action	Alternative S	Proposed Action
AM	311	21	21	21	21	0	0
PM	311	9	14	9	14	0	0
Weeknight	49	1	1	1	1	0	0
Sunday	49	1	1	1	1	0	0

In 2010, Alternative S would require two more standard buses overall than the Proposed Action. The additional buses required for mitigation in Alternative S are attributed to the increased residential development at Site 33. Alternative S in the AM peak hour would require one more bus each on the M-11 southbound and the M-34/M-16 westbound routes, than in the Proposed Action. In the PM

peak hour, the M-11 southbound would require three fewer buses, the M-11 northbound would require one additional bus, and the M-34/M-16 would require one additional bus eastbound, than in the Proposed Action. The same impacts would occur under both Alternative S and the Proposed Action in the Special Event peak hours.

In 2025, Alternative S would require four more articulated buses and three fewer standard buses overall than the Proposed Action. The increased capacity from the additional articulated bus required for mitigation in Alternative S is attributed to the increased density and residential development in the 34th Street corridor. In 2025, Alternative S in the AM peak hour would require two fewer buses on the M-10/M-20 southbound, two more buses each on the M-11 southbound and the M-34/M-16 westbound routes, and one less bus on the Q-32 westbound, than in the Proposed Action. In the PM peak hour, the M-10/M-20 northbound would require three fewer buses, and M-11 northbound and the M-34/M-16 eastbound would require two more buses each, than in the Proposed Action.

Alternative S would require fewer buses than the Proposed Action on the M-11 and M-34/M-16 routes during both Special Event peak hours (eleven and three total buses, respectively). During the Weeknight Special Event peak hour, Alternative S would require five fewer buses on the M-11 southbound and six less buses on the M-34/M-16 westbound. During the Sunday Special Event peak hour, Alternative S compared to the Proposed Action would require two fewer buses on the M-11 southbound, three fewer buses on the M-34/M-16 westbound, one more on the M-11 northbound, and one more on the M-42 eastbound.

(s) Pedestrians

Alternative S and the Proposed Action would produce comparable pedestrian demand throughout the study area. In 2010 AM peak hour, the Proposed Action would result in unmitigated pedestrian impacts at two intersections (Eighth Avenue at West 33rd and West 42nd Streets), while Alternative S would result in these two unmitigated impacts, plus a third at Ninth Avenue at West 33rd Street (see Table 26-32). In the Midday peak hour, the Proposed Action would result in unmitigated pedestrian impacts at three intersections (Eighth Avenue at West 39th and West 42nd Streets, and Ninth Avenue at West 42nd Street), while Alternative S would result in these three unmitigated impacts plus four more (Eighth Avenue at West 33rd Street, and Ninth Avenue at West 30th, West 31st, and West 33rd Streets). In the PM peak hour, the Proposed Action would result in unmitigated impacts at two intersections (Eighth Avenue at West 33rd Street and Ninth Avenue at West 42nd Street), while Alternative S would result in these two unmitigated impacts plus two more (Eighth Avenue at West 39th Street and Ninth Avenue at West 33rd Street). The additional impacts resulting from Alternative S compared to the Proposed Action in 2010 are attributed to the development of Projected Development Site 33 (at Ninth Avenue at West 31st Street) instead of Projected Development Site 4 (which is adjacent to the new terminal station at Eleventh Avenue at West 34th Street). The same unmitigated pedestrian impacts would occur in the Proposed Action and Alternative S in the Weeknight and Sunday Special Event peak hours (i.e., six and nine, respectively).

**TABLE 26-32
ALTERNATIVE S: 2010 PEDESTRIAN IMPACT LOCATIONS**

	Analyzed	Total Significant Adverse Impacts		Mitigated Significant Adverse Impacts		Unmitigated Significant Adverse Impacts	
		Alternative S	Proposed Action	Alternative S	Proposed Action	Alternative S	Proposed Action
AM	54	5	3	2	1	3	2
Midday	54	9	3	2	0	7	3
PM	54	7	5	3	3	4	2
Weeknight	23	12	12	6	6	6	6
Sunday	23	13	13	4	4	9	9

Under 2025 conditions, in the AM peak hour, Alternative S would result in unmitigated impacts at five intersections (Eighth Avenue at West 33rd and West 39th Streets, Ninth Avenues at West 33rd and West 42nd Streets, and Eleventh Avenue at West 36th Street; see Table 26-33), while the Proposed Action would result in these six unmitigated impacts (Seventh Avenue at West 33rd Street, Eighth Avenue at West 33rd Street, Ninth Avenue at West 33rd and West 42nd Streets, Tenth Avenue at West 33rd Street, and Eleventh Avenue at West 36th Street).

**TABLE 26-33
ALTERNATIVE S: 2025 PEDESTRIAN IMPACT LOCATIONS**

	Analyzed	Total Significant Adverse Impacts		Mitigated Significant Adverse Impacts		Unmitigated Significant Adverse Impacts	
		Alternative S	Proposed Action	Alternative S	Proposed Action	Alternative S	Proposed Action
AM	61	12	18	7	12	5	6
Midday	61	32	36	14	15	18	21
PM	61	17	20	7	9	10	11
Weeknight	30	7	6	2	1	5	5
Sunday	30	7	10	2	5	5	5

In the 2025 Midday peak hour, Alternative S would result in unmitigated impacts at the following 18 intersections:

- Seventh Avenue at West 33rd Street;
- Eighth Avenue at West 33rd Street;
- Eighth Avenue at West 39th Street;
- Eighth Avenue at West 42nd Street;
- Ninth Avenue at West 30th Street;
- Ninth Avenue at West 31st Street;
- Ninth Avenue at West 33rd Street;
- Ninth Avenue at West 34th Street;
- Ninth Avenue at West 42nd Street;
- Tenth Avenue at West 29th Street;
- Tenth Avenue at West 30th Street;
- Tenth Avenue at West 33rd Street;
- Tenth Avenue at West 34th Street;
- Tenth Avenue at West 35th Street;
- Tenth Avenue at West 36th Street;
- Tenth Avenue at West 37th Street
- Eleventh Avenue at West 30th Street; and
- Eleventh Avenue at West 36th Street.

The Proposed Action would result in the same 18 unmitigated impacts, plus three additional unmitigated impacts (at Eighth Avenue at West 31st and West 34th Streets, and Broadway at West 34th Street) for a total of 21 unmitigated impacts.

In the 2025 PM peak hour, Alternative S would result in unmitigated pedestrian impacts at the following ten intersections:

- Eighth Avenue at West 33rd Street;
- Eighth Avenue at West 34th Street;
- Eighth Avenue at West 39th Street;
- Ninth Avenue at West 33rd Street;

- Ninth Avenue at West 34th Street;
- Ninth Avenue at West 42nd Street;
- Tenth Avenue at West 33rd Street;
- Tenth Avenue at West 34th Street;
- Tenth Avenue at West 41st Street; and
- Eleventh Avenue at West 36th Street.

In the 2025 PM peak hour, the Proposed Action would result in unmitigated pedestrian impacts at the following 11 intersections:

- Sixth Avenue at West 33rd Street;
- Broadway at West 34th Street;
- Seventh Avenue at West 33rd Street;
- Eighth Avenue at West 33rd Street;
- Eighth Avenue at West 34th Street;
- Eighth Avenue at West 39th Street;
- Ninth Avenue at West 33rd Street;
- Ninth Avenue at West 34th Street;
- Ninth Avenue at West 42nd Street;
- Tenth Avenue at West 33rd Street; and
- Tenth Avenue at West 34th Street.

The reduction in unmitigated significant pedestrian impacts in Alternative S compared to the Proposed Action during the commuter periods is attributed to the shift from office to residential development.

During the 2025 Weeknight Special Event peak hours, Alternative S and the Proposed Action would result in unmitigated impacts at the same five intersections: Eighth Avenue at West 34th Street, Ninth Avenue at West 33rd Street, Tenth Avenue at West 33rd Street, and Eleventh Avenue at West 33rd and West 34th Streets.

During the 2025 Sunday Special Event peak hours, both Alternative S and the Proposed Action would result in five unmitigated intersection impacts. The five unmitigated impacts under Alternative S would be at Tenth Avenue at West 31st and West 33rd Streets, Eleventh Avenue at West 33rd and West 34th Streets, and Twelfth Avenue at West 34th Street. In the Proposed Action, the five unmitigated impacts would occur at Eighth Avenue at West 33rd Street, Ninth Avenue at West 33rd Street, Tenth Avenue at West 33rd Street, and Eleventh Avenue at West 33rd and West 34th Streets.

The same categories of measures are recommended to mitigate potential pedestrian impacts in both the Proposed Action and Alternative S. Proposed mitigation measures for both would include construction of wider sidewalks and corners, repainting crosswalks for additional width, and construction of above-grade pedestrian bridges at Twelfth Avenue at West 33rd Street, and at Twelfth Avenue between West 39th and West 40th Streets to provide a connection to the east side of Twelfth Avenue. Mitigation during Special Event peak hours would also include limiting West 30th Street and West 33rd Street each to one lane of vehicular traffic, with the remaining space dedicated to pedestrian movements.

(t) Air Quality

(i) Mobile Sources

Microscale Intersection Analysis. Like the Proposed Action, under Alternative S, 2010 and 2025 CO 8-hour levels and PM₁₀ 24-hour and annual levels would not exceed the NAAQS or the PM_{2.5} 24-hour and annual STV, and would not exceed the DEP *de minimis* criteria for CO.

Like the Proposed Action, under Alternative S (with and without mitigation), 2010 and 2025 CO 8-hour levels and PM₁₀ 24-hour and annual levels would not exceed the NAAQS or the PM_{2.5} 24-hour and annual STV, and would not exceed the DEP *de minimis* criteria for CO.

(ii) Stationary Sources

HVAC Source Impact Analysis: Projected Development Sites. To ensure that there would be no significant air quality impact from HVAC sources, Alternative S proposes (E) Designations at Projected Development Sites 21, 31 and 33. As a comparison, the Proposed Action would require five (E) Designations for HVAC sources (including Projected Development Sites 6 and 7 in addition to Projected Development Sites 21, 31 and 33 noted above for Alternative S). The results of the analysis of Projected and Potential Development Sites for Alternative S are provided in Table 26-34. Like the Proposed Action, with (E) Designations, Alternative S would cause no violations of NAAQS and would have no significant adverse environmental impacts on air quality.

HVAC Source Impact Analysis: Projected and Potential Development Sites. As with the Proposed Action, Alternative S would require (E) Designations on several Projected and Potential Development Sites. Alternative S would result in (E) Designations at the following 32 Projected and Potential Development Sites: 21, 23, 28, 31, 33, 38, 39, 40, 41, 42, 44, 46, 53, 54, 55, 56, 57, 58, 63, 67, 69, 75, 76, 79, 80, 81, 83, 84, 85, 86, 90, and 91. This is a conservative analysis that assumes all Projected and Potential Development Sites would be built, thereby increasing the proximity of an HVAC system to an adjacent building in most cases. As noted in Chapter 3, “Analytical Framework,” the Potential Development Sites are unlikely to be fully developed in a cumulative manner, particularly if Projected Development Sites are developed.

The results of the analysis of Projected and Potential Development Sites for Alternative S are provided in Table 26-34. With (E) Designations as described above, Alternative S would cause no violations of NAAQS and would have no significant adverse environmental impacts on air quality regarding Projected and Potential Development Sites.

Industrial Source Analysis. A quantified analysis of impacts from industrial sources on Projected and Potential Development Sites associated with Alternative S was performed in the same manner as the analysis for the Proposed Action. The analysis demonstrated that the impacts from nearby industrial sources on Projected and Potential Development Sites containing residential uses would be under NYSDEC short-term and annual guideline concentration thresholds. Also, the analysis of cumulative health risks posed by multiple air toxic contaminants affecting Projected and Potential Development Sites concludes that, like the Proposed Action, Alternative S would not create significant adverse impacts on air quality from industrial sources.

TABLE 26-34
ALTERNATIVE S: RESULTS OF HVAC SOURCE IMPACT ANALYSIS - PROJECTED AND
POTENTIAL SITES

HVAC Source Identification	CEQR Screening Results for No. 2 Fuel Oil	CEQR Screening Results for Natural Gas	ISC3 Modeling Results for No.2 Fuel Oil ⁽²⁾	ISC3 Modeling Results for Natural Gas ⁽²⁾
Site 1	Pass	Pass	---	---
Site 2	Pass	Pass	---	---
Site 3	Pass	Pass	---	---
Site 4	Pass	Pass	---	---
Site 5	Pass	Pass	---	---
Site 6	Pass	Pass	---	---
Site 7	Pass	Pass	---	---
Site 8	Fail	Fail	Pass	Pass
Site 9	Fail	Fail	Pass	Pass
Site 10	Pass	Pass	---	---
Site 11	Fail	Fail	Pass	Pass
Site 12	Fail	Fail	Pass	Pass
Site 13	Fail	Fail	Pass	Pass
Site 14	Pass	Pass	---	---
Site 15	Pass	Pass	---	---
Site 16	Fail	Pass	Pass	---
Site 17	Fail	Fail	Pass	Pass
Site 18	Fail	Fail	Pass	Pass
Site 19	Pass	Pass	---	---
Site 20	Fail	Pass	Pass	---
Site 21	130 feet ⁽¹⁾	100 feet ⁽¹⁾	N/A	N/A
Site 22	Fail	Pass	Pass	---
Site 23	Fail	Fail	10 feet ⁽³⁾	Pass
Site 24	Pass	Pass	---	---
Site 25	Fail	Fail	Pass	Pass
Site 26	Fail	Fail	Pass	Pass
Site 27	Fail	Fail	Pass	Pass
Site 28	96 feet ⁽¹⁾	73 feet ⁽¹⁾	N/A	N/A
Site 29	Pass	Pass	---	---
Site 30	Pass	Pass	---	---
Site 31	Fail	Fail	95 feet ⁽¹⁾	Pass
Site 32	Pass	Pass	---	---
Site 33	270 ⁽¹⁾	215 ⁽¹⁾	N/A	N/A
Site 35	Pass	Pass	---	---
Site 36	Pass	Pass	---	---
Site 37	Fail	Fail	Pass	Pass
Site 38	42 feet ⁽¹⁾	30 feet ⁽¹⁾	N/A	N/A
Site 39	Fail	Fail	40 feet ⁽³⁾	Pass
Site 40	42 feet ⁽¹⁾	30 feet ⁽¹⁾	N/A	N/A
Site 41	138 feet ⁽¹⁾	110 feet ⁽¹⁾	N/A	N/A
Site 42	Fail	Fail	20 feet ⁽³⁾	Pass
Site 43	Pass	Pass	---	---
Site 44	59 feet ⁽¹⁾	48 feet ⁽¹⁾	N/A	N/A
Site 46-potential	Fail	Fail	80 feet ⁽³⁾	Pass
Convention Center Hotel	Pass	Pass	---	---
Site 47	Fail	Fail	Pass	Pass
Site 48	Fail	Fail	Pass	Pass
Site 49	Pass	Pass	---	---
Site 50	Pass	Pass	---	---
Site 51	Pass	Pass	---	---
Site 52	Pass	Pass	---	---
Site 53	Fail	Fail	35 feet ⁽³⁾	Pass
Site 54	Fail	Fail	5 feet ⁽³⁾	Pass
Site 55	Fail	Fail	15 feet ⁽³⁾	Pass
Site 56	71 feet ⁽¹⁾	57 feet ⁽¹⁾	N/A	N/A
Site 57	63 feet ⁽¹⁾	50 feet ⁽¹⁾	N/A	N/A

TABLE 26-34 (CONTINUED)
ALTERNATIVE S: RESULTS OF HVAC SOURCE IMPACT ANALYSIS - PROJECTED AND
POTENTIAL SITES

HVAC Source Identification	CEQR Screening Results for No. 2 Fuel Oil	CEQR Screening Results for Natural Gas	ISC3 Modeling Results for No.2 Fuel Oil ⁽²⁾	ISC3 Modeling Results for Natural Gas ⁽²⁾
Site 58	Fail	Pass	5 feet ⁽³⁾	Pass
Site 59	Fail	Pass	Pass	---
Site 60	Pass	Pass	---	---
Site 61	Pass	Pass	---	---
Site 62	Fail	Fail	Pass	Pass
Site 63	97 feet ⁽¹⁾	77 feet ⁽¹⁾	N/A	N/A
Site 65	Pass	Pass	---	---
Site 66	Pass	Pass	---	---
Site 67	15 feet ⁽¹⁾	15 feet ⁽¹⁾	N/A	N/A
Site 68	Pass	Pass	---	---
Site 69	130 feet ⁽¹⁾	103 feet ⁽¹⁾	N/A	N/A
Site 70	Pass	Pass	---	---
Site 71	Pass	Pass	---	---
Site 72	Pass	Pass	---	---
Site 73	Pass	Pass	---	---
Site 74	Pass	Pass	---	---
Site 75	64 feet ⁽¹⁾	53 feet ⁽¹⁾	N/A	N/A
Site 76	41 feet ⁽¹⁾	30 feet ⁽¹⁾	N/A	N/A
Site 77	Fail	Fail	Pass	Pass
Site 78	Fail	Pass	Pass	---
Site 79	57 feet ⁽¹⁾	46 feet ⁽¹⁾	N/A	N/A
Site 80	64 feet ⁽¹⁾	53 feet ⁽¹⁾	N/A	N/A
Site 81	51 feet ⁽¹⁾	40 feet ⁽¹⁾	N/A	N/A
Site 82	Fail	Pass	Pass	---
Site 83	54 feet ⁽¹⁾	42 feet ⁽¹⁾	N/A	N/A
Site 84	57 feet ⁽¹⁾	46 feet ⁽¹⁾	N/A	N/A
Site 85	58 feet ⁽¹⁾	47 feet ⁽¹⁾	N/A	N/A
Site 86	54 feet ⁽¹⁾	43 feet ⁽¹⁾	N/A	N/A
Site 87	Fail	Fail	Pass	Pass
Site 88	Fail	Fail	Pass	Pass
Site 89	Pass	Pass	---	---
Site 90	55 feet ⁽¹⁾	42 feet ⁽¹⁾	N/A	N/A
Site 91	65 feet ⁽¹⁾	57 feet ⁽¹⁾	N/A	N/A

Notes:

- Some sites are immediately adjacent to each other and the analysis could not be further refined without additional design data; therefore the minimum distance for which the source would pass the CEQR screening procedures was provided for these sites using CEQR nomographs. The following (E) Designation would be placed on these development sites: Unless authorized by the DEP as the result of further modeling, any new development on the property must locate the HVAC stack no closer than the distance indicated to the wall of an adjacent building.
- For site analyses that failed using the CEQR screening procedures, a refined ISC3 modeling analysis was performed.
- The following (E) Designation would be placed on these development sites: Unless authorized by the DEP as the result of further modeling, any new development on the property must locate the HVAC stack no closer than the distance indicated to the wall of an adjacent building or use natural gas as the type of fuel for the HVAC systems.

(u) Noise

Noise impacts from Alternative S would, like the Proposed Action, involve two areas of concern: (1) potential effects of introducing new noise-sensitive land uses (i.e., residences and community facilities) into an already noisy environment, and (2) effects of noise-generating activities associated with the alternative on existing noise-sensitive land uses in the area. Since new noise-sensitive receptors would be introduced into the same noisy area as the Proposed Action, (E) designations would also be required for the new residences and community facilities contemplated by Alternative S.

As indicated in Table 26-35, like the Proposed Action, Alternative S would result in perceptible (3 dBA) increases in noise levels at six receptor sites in 2010, while in 2025 Alternative S would result in perceptible increase at nine receptor locations compared to eight with the Proposed Action. Alternative S would result in the need for the same mitigation measures identified for the Proposed Action. With such mitigation measures, there would be no significant adverse noise impacts from Alternative S.

**TABLE 26-35
ALTERNATIVE S: 2010 AND 2025 FUTURE WITH THE PROPOSED ACTION - NOISE RECEPTOR
SITES AT WHICH THERE WOULD BE A PERCEPTIBLE (3 DBA) CHANGE IN NOISE LEVELS**

Site	Location	2010		2025	
		Proposed Action	Alternative S	Proposed Action	Alternative S
N5	Eleventh Avenue between West 35th and West 36th St.	X	X	X	X
N6	Eleventh Avenue @ West 30th Street				X
N7	Tenth Avenue @ West 37th Street	X	X	X	X
N8	Tenth Avenue @ West 33rd Street	X	X	X	X
N9	Tenth Avenue @ West 30th Street		X	X	X
N11	West 34th Street between Ninth and Tenth Avenues	X	X	X	X
N13	West 34th Street between Eighth and Ninth Avenues	X		X	X
N18	West 38th Street between Tenth and Eleventh Avenues	X	X	X	X
N19	Ninth Avenue between West 36th and West 37th Streets			X	X
	Total	6	6	8	9

(v) Construction Impacts

Like the Proposed Action, Alternative S would have the same potential to result in significant construction-related noise, air quality, and traffic impacts due to extension of the No. 7 Subway, expansion and modernization of the Convention Center, and development permitted under the proposed rezoning and would require the same mitigation measures as the Proposed Action.

(w) Public Health

Like the Proposed Action, Alternative S would have the same potential to result in construction and operational public health impacts and would require the same mitigation measures as the Proposed Action. With such mitigation measures, there would be no significant adverse public health impacts under Alternative S, as with the Proposed Action.

1) **Alternative T: Revised Community Organization Plan (Entirely New Text)**

Description of the Alternative

Alternative T has been formulated based on series of comments received from the Hell's Kitchen Neighborhood Association (HKNA) and Community Board No. 4 during the public comment period for the DGEIS. It is intended to assess whether an alternative development plan for the Project Area would result in substantially different benefits or fewer adverse impacts than the Proposed Action and would meet the goals and objectives of the Proposed Action. The Revised Community Organization Plan was developed for the FGEIS based upon the following general assumptions (see Figure 26 T-1):

- The alternative would allow for a level of redevelopment equivalent to the Proposed Action, but with a change in the relative mix of uses, so that the amounts of office and residential development would be approximately the same, as well as a change in their geographic distribution in the project area.
- Transit would be provided in stages, with a moving walkway (see Alternative E) first and the No. 7 Subway Extension to come later.
- There would be no Multi-Use Facility. Instead, the Convention Center would expand both northward to West 39th Street and southward from West 34th Street, over the western portion of Caemmerer Yard, sharing this area with a mix of uses, including residential and office towers, a 1,500 room Convention Center hotel, and rooftop open space.
- Commercial density would be emphasized along the Farley Corridor (with FARs ranging from 15 to 19.5), and the eastern portion of Caemmerer Yard, (with an FAR of 15) would contain substantial commercial uses (office, hotel, retail) as well as a large open space.
- High commercial density would also be available to the west and south of the Port Authority Bus Terminal in Subdistricts E1 and E2 of the Special Hudson Yards District as defined in the Proposed Action.
- A mix of uses (FAR 12) with a strong residential component would be allowed north of West 35th Streets, north of the Convention Center west of Eleventh Avenue to West 41st Street, along the 34th Street Corridor, in the Clinton District/42nd Street Corridor and in the Garment Center portion of the Project Area.
- The center of the Project Area, from West 35th Street to West 40th/41st Street, between the Empire Line rail cut and the eastern frontage on Ninth Avenue, would be reserved for residential use (with FARs of 6 and 7.5) with limited commercial uses at lower densities.
- Substantial open space would be provided, but in a different configuration from the Proposed Action. The park on Block 675, included in the Proposed Action, would also be included in Alternative T.
- There would be no midblock boulevard or other change to the street grid in the Project Area, except that West 33rd Street would be closed between Eleventh and Twelfth Avenues.
- There would be no 950-space public parking garage under the midblocks between Tenth and Eleventh Avenues.
- The Quill Bus Depot would relocate as in the Proposed Action.
- The DSNY garage and NYPD tow pound would be located on Block 675 together with the marshalling facility for the Convention Center.
- Madison Square Garden would remain in its current location.

A recommendation to mandate the provision of 30 percent affordable housing was not considered feasible, principally because such a mandatory requirement would not function successfully to produce housing under variable market conditions, and was therefore, not included in Alternative T for analysis purpose. Likewise, a recommendation to acquire Port Authority property between Ninth and Tenth Avenues and map it as City parkland is not feasible without Port Authority consent, which is not likely forthcoming.

As shown on Figure 26T-2 and Table 26-36, development under Alternative T would occur on Projected Development Sites and in the Convention Corridor, but in a different pattern from the Proposed Action. Alternative T would accommodate approximately the same overall amount of commercial and residential development (although with a significantly different mix of commercial and residential uses) as the Proposed Action, but without the Multi-Use Facility.

**TABLE 26-36
ALTERNATIVE T: COMPARISON OF THE TOTAL BUILD CONDITION IN THE 2025 FUTURE WITH
THE PROPOSED ACTION AND ALTERNATIVE T**

	Proposed Action Total Build (by 2025)	Alternative T Total Build (by 2025)	Difference between the Build Conditions
Office	28,340,919	20,510,617	(7,830,302)
Residential	12,870,417	19,351,691	6,481,274
Hotel	500,000	1,579,952*	1,079,952
Retail	998,637	1,800,000	801,363
Theater	-	0	0
Total	42,709,973	43,242,260	532,287

* Hotel floor area for Alternative T includes 1.3 million square feet for 1,500-room Convention Center hotel on the western portion of Caemmerer Yard.

Under Alternative T, the Convention Center would expand both northward to West 39th Street and southward from West 34th Street over the western portion of Caemmerer Yard and down to West 30th Street. The new development over the western portion of Caemmerer Yard would be connected to the existing Convention Center by a pedestrian walkway over West 34th Street. West 33rd Street would be closed between Eleventh and Twelfth Avenues. Unlike the Proposed Action, there would be no other changes to the street system with Alternative T. West 39th, West 40th, and West 41st Streets would remain open and there would be no midblock boulevard running north-south from West 34th Street to West 40th Street in the midblocks between Tenth and Eleventh Avenues.

The initial transportation improvement included as part of Alternative T is assumed to be a below-grade moving sidewalk connecting Penn Station and Eleventh Avenue (as described in Alternative E) through a major commercial corridor. Extension of the No. 7 Subway would be completed at a later phase, as necessary, to support the ultimate level of development permitted under Alternative T.

Virtually all of the commercial development in Alternative T would be concentrated at the southern end of the Project Area—on the superblock between Ninth and Tenth Avenues/West 31st and West 33rd Streets, over both the eastern and western portions of Caemmerer Yard, and on Projected Sites 2, 3, 4 and 5, between West 33rd and West 35th Streets, Tenth Avenue to Eleventh Avenue. All of the remaining Projected Sites would be developed as residential use, except Site 36 which, as under the Proposed Action, would be commercial with some residential use, and Site 21 which, as under the Proposed Action, would house a new bus facility for the Port Authority. Residential densities on Projected Development Sites east of the Empire Line rail cut between West 33rd and West 39th Streets would be similar to those of the Proposed Action. Overall densities in the Clinton District/42nd Street Corridor would be lower than those of the Proposed Action, although residential densities, at 12 FAR, would be the same. Alternative T would also introduce residential development north of the Convention Center between Eleventh and Twelfth Avenues from West 39th Street to

West 42nd Street, on three Projected Development Sites, which would be added in this alternative: Sites 47, 48 and 49 (see Figure 26 T-2).

The block between West 29th and West 30th Streets and Eleventh and Twelfth Avenues would be used as a “multi-agency facility,” which would include a truck marshalling facility for the Convention Center, in addition to the DSNY and NYPD Tow Pound facilities relocated to Block 675 with the Proposed Action. The roof of the expanded Convention Center would be developed as a 10-acre public park and community recreation area. In addition, athletic fields would be provided on the roof of the multi-agency facility. Elevated pedestrian walkways over Route 9A would connect these open space and recreational areas with Hudson River Park.

Like the Proposed Action, Alternative T would include the development of a major open space element over the eastern portion of Caemmerer Yard, on which gardens, cafes, and other public amenities would be developed. A major pedestrian way on West 32nd Street would connect this open space element with Moynihan Station in the Farley Building. The Proposed Action would also provide a West 32nd Street pedestrian way in the scenario in which Madison Square Garden remains in its current location.

Unlike the Proposed Action, Alternative T would not include the development of a new Midblock Park and Boulevard System between West 33rd and West 42nd Streets between Tenth and Eleventh Avenues. However, Alternative T does propose open spaces generally located in the midblocks between Tenth and Eleventh Avenues and West 35th to West 42nd Streets, which would be formed by decking over the Amtrak Empire Line rail cut. Open space is also proposed along the Eleventh Avenue frontages between West 33rd to West 35th Streets. Unlike the Proposed Action, Alternative T proposes the acquisition and mapping of Port Authority properties along the Dyer Avenue approaches to the Lincoln Tunnel as City parkland.

As noted above, Alternative T calls for construction of a below-grade moving sidewalk from Penn Station to the vicinity of Eleventh Avenue and West 33rd Street. As described in Alternative E, construction of a below-grade moving sidewalk is estimated to cost at least \$400 million to \$500 million.

The second and final phase of transit improvements included in Alternative T would be extension of the No. 7 Subway to support the full buildout of Alternative T. The alignment, profile, and stations of the No. 7 Subway Extension in this second phase of transportation improvements with Alternative T would be the same as the Proposed Action.

Alternative T would require the same type of discretionary approvals and public actions as the Proposed Action. It would also require approvals to build and operate a below-grade moving sidewalk between Eleventh Avenue and Penn Station.

Principal Conclusions

Although Alternative T proposes an overall amount of development equivalent to that under the Proposed Action, it would reduce the level of commercial development by 25 percent. Thus, Alternative T would not fully meet the goals of the Proposed Action of accommodating long-term growth and employment in the Project Area. Moreover, the delayed phasing of the No. 7 Subway Extension would make achievement of even this reduced level of office development uncertain due to lack of transit 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, therefore, 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, energy, and public health, and it would be consistent with the City's Waterfront Revitalization Program.

While Alternative T would not have any significant adverse impacts on socioeconomics, it 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. Under Alternative T, the vast majority of the new exhibition space 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 proposed southerly expansion with the existing Convention Center would physically connect separate exhibition spaces, but would not create a large contiguous exhibition space. Thus, Alternative T 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. Alternative T 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. Combined with an absence of parking associated

with redevelopment of the western portion of Caemmerer Yard and other factors, this would result in a significant parking shortfall during the 2025 weekday Midday peak of approximately 2,400 parking spaces, compared to a slight parking deficit under 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.

Under both 2010 and 2025 conditions, Alternative T would have fewer impacts on subway station elements than in the Proposed Action. In 2010, Alternative T would result in one impact each in the AM and PM peak periods (both of which could be mitigated), compared to nine and four in the Proposed Action (where all but one could be mitigated). In 2025, Alternative T would result in three impacts in the AM and two in the PM peak periods (all of which could be mitigated); compared to 21 and 14 impacts, respectively, in the Proposed Action (where all impacts could also be mitigated). Since Alternative T does not include a Multi-Use Facility, subway demands would be considerably reduced during the weeknight and Sunday peak hours in both 2010 and 2025 compared to a Special Event day under the Proposed Action.

Under 2010 conditions under Alternative T, if a moving sidewalk were to be in operation, the M-11 southbound would require one more bus per hour in the AM peak hour and two fewer buses than the Proposed Action. This shift reflects the additional demand generated along West 34 Street. By 2025, Alternative T's combination of massing of commercial development in the southern end of the Project Area combined with operation of both the walkway and the extended No. 7 subway line would result in the need for eight fewer buses overall in the AM peak period and 12 fewer buses overall in the PM peak period, with decreases on M-10/M-20, M-42, and Q-32, and additional service on the M-11 and the M-34/M-16 as compared with the Proposed Action. Bus demands would be considerably reduced during the weeknight and Sunday peak hours when compared to a Special Event day under the Proposed Action.

Under 2010 conditions, Alternative T would result in one less unmitigated significant adverse pedestrian intersection impact than the Proposed Action during the AM peak hour (i.e., one vs. two), four more unmitigated significant adverse intersection impacts Midday (i.e., seven vs. three), and two more unmitigated significant adverse intersection impact during the PM peak hour (i.e., four vs. two). Under 2025 conditions, Alternative T would result in three less significant adverse pedestrian impacts than the Proposed Action during the AM peak hour (i.e., three vs. six), one less unmitigated significant adverse intersection impact during the Midday (i.e., 20 vs. 21), and one less unmitigated significant adverse intersection impact during the PM peak hour (i.e., 10 vs. 11). Since Alternative T would not include a Multi-Use Facility, pedestrian demands would be greatly reduced during the weeknight and Sunday peak hours when compared to Special Event periods under the Proposed Action.

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 T Compared to the Proposed Action

Although Alternative T would result in a similar overall level of development as the Proposed Action, the location and scale of the development would be different from that of the Proposed Action. Alternative T would contain more residential and significantly less commercial development than the Proposed Action, and would eliminate the Multi-Use Facility from the Proposed Action. Related

infrastructure, including proposed transit improvements and open space, would all differ from that of the Proposed Action. Therefore, assessments are given below for all impact categories.

(a) Land Use, Zoning, and Public Policy

Like the Proposed Action, Alternative T would not result in significant adverse impacts to land use, zoning, or public policy. Overall, Alternative T would have substantially more residential and less commercial development than the Proposed Action. Alternative T also would have a different overall land use plan and related rezoning than the Proposed Action, as detailed below.

The Convention Center Corridor would have a different land use pattern under Alternative T compared to the Proposed Action. The Convention Center would be expanded northward to West 39th Street. The Quill Bus Depot would be relocated to between West 30th and West 31st Streets, between Tenth and Twelfth Avenues, in order to provide space for a residential and retail uses north of West 39th Street between Eleventh and Twelfth Avenues. Unlike the Proposed Action, Alternative T would not include a Convention Center Hotel at the southwest corner of West 42nd Street and Eleventh Avenue. Instead, the site would be redeveloped for residential uses. Also unlike the Proposed Action, the platform to be constructed over the western portion of Caemmerer Yard would house most of the Convention Center expansion, as well as a substantial amount of office, hotel, residential, retail uses, and convention/exhibition space, rather than the Multi-Use Facility.

Like the Proposed Action, Alternative T would transform the Convention Center Corridor from an area with predominately transportation-related uses to a mixed-use area with a substantial amount of convention, commercial, and residential uses. Unlike the Proposed Action, which includes open space both within the Convention Center Corridor at grade and on the roof of the Convention Center, Alternative T would not provide any at-grade public open space within the Convention Center Corridor and publicly accessible open space would be limited to the roof of the Convention Center. Access to these rooftop facilities would be more difficult than access to the public open space that would be developed in the Proposed Action on the block between Eleventh and Twelfth Avenues between West 33rd and West 34th Streets. Like the Proposed Action, Alternative T would develop the roof of the multi-agency facility on Block 675 as a public park; however, the multi-agency facility under Alternative T would include the DSNY, NYPD Tow Pound, and Convention Center truck marshalling operations, thereby increasing the height of the roof and eliminating the ability of the rooftop public park to be accessed at-grade on Eleventh Avenue.

Unlike the Proposed Action, Alternative T proposes open spaces in the midblocks between Ninth and Tenth Avenues and West 34th and West 39th Streets. The open spaces would comprise both at-grade spaces located surrounding the Lincoln Tunnel access ramps as well as open space on top of decks where the access ramps are covered. In total, these spaces could theoretically provide approximately 3.34 acres of passive open space. However, the proposal to acquire Port Authority property for mapped City park is not feasible without Port Authority consent, which is not likely forthcoming.

The density of development in Subdistrict A and the Tenth Avenue Corridor would be less under Alternative T than the Proposed Action. This area would be developed to FARs of 12 along Eleventh Avenue north of West 35th Street, 7.5 in the Tenth Avenue Corridor, and 15 over Caemmerer Yard and south of West 35th Street, compared to FARs of 18, 15, and 19, respectively, with the Proposed Action. Like the Proposed Action, Alternative T includes a Large Scale Plan. However, it would be substantially smaller than the Proposed Action and be limited to the eastern portion of Caemmerer Yard and the two blocks to the north. Residential development would predominate along the east side of Eleventh Avenue while this area is predominately office under the Proposed Action. Overall, the result of this zoning approach would be to concentrate the greatest commercial density along the east-west corridor between Seventh and Twelfth Avenues between West 30th and West 35th Streets.

(b) Socioeconomic Conditions

The development projected for Alternative T is unlikely to be fully realized with delayed transit investment in the No. 7 Subway Extension. Assuming, however, that this development were to occur, Alternative T would result in substantial economic benefits, though less than the Proposed Action. Unlike the Proposed Action, Alternative T would not include development of the Multi-Use Facility, the Convention Center would be expanded mostly to the south rather than entirely to the north, and more development would be concentrated along the east-west corridor between Seventh and Twelfth Avenues between West 30th and West 35th Streets than under the Proposed Action. Projected Development Sites would be similar as under the Proposed Action (although the allowable density of development on those parcels would be reduced) and new commercial and residential Projected Development Sites would be situated on parcels which, under the Proposed Action, would be developed with the Multi-Use Facility and the Convention Center expansion. 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. Therefore, the configuration of some of the projected development sites in this location would be different from that of the Proposed Action.

Alternative T proposes the creation of midblock open space through decking over open cuts of the Empire Rail line, thereby allowing an open space network to be created without public acquisition of parcels in this area that have existing commercial or residential uses. As a result, there would be less direct commercial and residential displacement under Alternative T compared with the Proposed Action. Both Alternative T and the Proposed Action would require public acquisition of the FedEx building on West 34th Street and commercial uses on Block 675 for open space. Like the Proposed Action, Alternative T is not expected to result in significant adverse impacts with respect to either direct or indirect displacement of residential or commercial uses, or result in significant adverse impacts on the apparel or theater industries.

While Alternative T would realize some of the benefits of constructing and operating an expanded and modernized Convention Center, the substantially southward expansion of the Convention Center under Alternative T would not provide the Convention Center with an entrance on West 42nd Street, a prominent gateway and connection to the Convention Center expansion and modernization as set forth in the Proposed Action. More importantly, Alternative T would not permit the Convention Center to maximize its prime contiguous exhibition space. By adding only a modest amount of prime contiguous exhibition space in the one-block northerly expansion of the facility, Alternative T would not meet the need of the Convention Center to approximately double its prime contiguous exhibition space. The vast majority of the new exhibition space with Alternative T would be located south of West 34th Street, which would not be contiguous with the remainder of the facility to the north. Providing a substantial amount of new contiguous space is one of the main objectives of the Convention Center Expansion. The lack of sufficient contiguous space would constrain the Convention Center from accommodating certain of the largest shows or handling multiple events. In addition, the Convention Center would not benefit from its proximity to the new Multi-Use Facility included in the Proposed Action. As a consequence, Alternative T would not be as effective as the Proposed Action in meeting the purpose and need for the expanded and modernized Convention Center as set forth in Chapter 1, "Purpose and Need," and would not be expected to generate the overall economic benefits from the new Convention Center in comparison with the Proposed Action.

Unlike the Proposed Action, Alternative T would not realize any of the socioeconomic benefits from the construction and operation of the Multi-Use Facility. It is estimated that the Multi-Use Facility would create approximately \$1.4 billion in construction investment and approximately 6,710 direct and indirect jobs resulting from operation of the facility. In addition, unlike the Proposed Action, Alternative T would not create a new venue with the capability to host major plenary events and other national sports and entertainment events, such as the Super Bowl and Final Four, nor would it provide

alternative exposition space for users that are unable to be accommodated at the Convention Center or a New York home for the New York Jets. As a result, Alternative T would not realize the projected benefits of the Multi-Use Facility of \$54.1 million per year in tax revenues for the City and State. 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.

As noted above, Alternative T proposes a phased development of transportation investment, beginning with a below-grade moving sidewalk connection in the Penn Station corridor and later construction of the No. 7 Subway Extension. The moving walkway would connect with the commuter rail operations at Pennsylvania Station and the Seventh and Eighth Avenue subway lines. It would not connect with the Broadway, Sixth and Lexington Avenue subways, the No. 7 Line or Metro North, leaving a substantial portion of the regional commuter shed inaccessible to the area. Thus, the ostensible benefit of delayed investment in the No. 7 Subway Extension would likely be offset by a restraint on new commercial development due to lack of transit connectivity at the time new commercial investment is being considered by owners or developers. This would limit the growth necessary to meet the goals of the Proposed Action.

(c) Community Facilities and Services

Alternative T would substantially increase the residential population in the Project Area, to a higher level than under the Proposed Action. The Proposed Action is expected to result in a net increase of 844 residential units by 2010 and 9,899 residential units by 2025, compared with 1,189 residential units by 2010 and 16,514 residential units by 2025 with Alternative T. Of these totals, it is anticipated that the Proposed Action would generate approximately 192 units of affordable housing by 2010 and an additional 1,368 affordable units by 2025 (total of 1,560 affordable units), while Alternative T would generate approximately 167 units of affordable housing by 2010 and an additional 2,748 affordable units by 2025 for a total of 2,915 affordable units (Table 26-37). (The lower number of affordable units under Alternative T in 2010 compared with the Proposed Action results from reduced availability of the Inclusionary Housing bonus at the 2010 Projected Development Sites due to lowering of maximum allowable density under Alternative T.) This would result in an estimated residential population in the Project Area of 1,543 by 2010 and 17,493 by 2025 with the Proposed Action, compared to an estimated population in the Project Area of 2,083 by 2010 and 29,454 by 2025 with Alternative T.

As with the Proposed Action, a new firehouse would likely be required to serve the increased commercial and residential populations in the Project Area by 2025 with Alternative T.

**TABLE 26-37
ALTERNATIVE T: RESIDENTIAL POPULATION AND HOUSING UNITS**

	2010	2010-2025	Cumulative
Units			
Low-Moderate Income	167	2,748	2,915
Market Rate	1,022	12,577	13,599
Total Units	1,089	15,325	16,514
Population			
Low-Moderate Income	418	6,870	7,288
Market Rate	1,666	20,501	22,166
Total Residents	2,083	27,371	29,454

Note: An average household size of 1.63 for market-rate units and 2.50 for low-moderate income units is assumed within the Project Area.

Regarding public schools, like the Proposed Action, Alternative T would increase the residential population in 2010 and 2025 and generate a student population in excess of available elementary school, intermediate school, and high school capacities, as shown in Table 26-38 and Table 26-39. Alternative T would generate approximately 39 percent more elementary school children and 32

percent more intermediate school children than the Proposed Action by 2010, and 68 percent more elementary school children and 68 percent more intermediate school children than the Proposed Action by 2025. This would result in a future condition in 2010 of 141 percent utilization in elementary schools and 154 percent in intermediate schools, and in 2025 of over 210 percent utilization in elementary schools and almost 300 percent in intermediate schools. Alternative T would therefore, require more new school construction than required for the Proposed Action.

TABLE 26-38
ALTERNATIVE T: 2010 SCHOOL ENROLLMENT

Public School Resource		Capacity	Proposed Action			Alternative T		
			Incremental Increase	Total Projected Enrollment	Available Seats in Program	Incremental Increase	Total Projected Enrollment	Available Seats in Program
Elementary Schools	Total Region 3	2,572	88	3,603	(1,031)	122	3,637	(1,065)
	Total CSD 2	15,185	88	16,910	(1,725)	122	16,944	(1,759)
Intermediate Schools	Total Region 3	273	19	414	(141)	25	421	(148)
	Total CSD 2	6,659	19	7,351	(692)	25	7,358	(699)
High Schools	Manhattan	55,129	30	60,364	(5,235)	27	60,373	(5,244)

Sources: DOE, DCP, AKRF

Note: Summary information obtained from Chapter 6, "Community Facilities," and school population projections for Alternative T.

TABLE 26-39
ALTERNATIVE T: 2025 SCHOOL ENROLLMENT

Public School Resource		Capacity	Proposed Action			Alternative T		
			Incremental Increase	Total Projected Enrollment	Available Seats in Program	Incremental Increase	Total Projected Enrollment	Available Seats in Program
Elementary Schools	Total Region 3	2,572	1,021	4,746	(2,174)	1,710	5,435	(2,863)
	Total CSD 2	15,185	1,021	18,044	(2,859)	1,710	18,733	(3,548)
Intermediate Schools	Total Region 3	273	214	669	(396)	359	814	(541)
	Total CSD 2	6,659	214	8,138	(1,479)	359	8,283	(1,624)
High Schools	Manhattan	55,129	328	57,537	(2,408)	554	57,732	(2,603)

Sources: DOE, DCP, AKRF

Note: Summary information obtained from Chapter 6, "Community Facilities," and school population projections for Alternative T.

Available publicly assisted day care for low- to moderate-income households within the Project Area and surrounding community is already over capacity. Like the Proposed Action, Alternative T would result in a significant adverse impact on publicly assisted day care. By 2010, Alternative T would generate an additional demand of 14 children who are 12 years of age or younger, compared to 23 children who are 12 years of age or younger for the Proposed Action. By 2025, the additional demand is estimated to be 187 children for the Proposed Action and 243 for Alternative T. Like the Proposed Action, possible mitigation measures could include adding capacity to existing facilities or providing a new day care facility in or near the Project Area. As with the Proposed Action, ACS would monitor development of the Project Area under this alternative and respond as appropriate to provide the capacity needed.

Unlike the Proposed Action, Alternative T would close only West 33rd Street, leaving West 39th through West 41st Streets open between Eleventh and Twelfth Avenues. This would minimize the potential for an adverse impact on the timely delivery of fire protection services identified by the FDNY with the Proposed Action, although such street closures under the Proposed Action would not result in any significant adverse impacts on FDNY services. However, like the Proposed Action, Alternative T would require construction of a new firehouse by 2025 to respond to the additional development that would occur. Like the Proposed Action, there would be no anticipated significant adverse impacts on NYPD services.

(d) Open Space and Recreational Facilities

Alternative T would introduce substantially more residents to the Study Area in 2010, and would nearly double the residential increase by 2025, compared to the Proposed Action. However, like the Proposed Action, Alternative T would not result in significant adverse impacts to open space resources since the increase in population would be accompanied by an increase in open space.

Alternative T would increase the total amount of open space in the Project Area, but in a different configuration than that of the Proposed Action. Instead of the five acres of publicly accessible open space that would be provided on the roof of the expanded Convention Center and the 3.6 acres of publicly accessible open space that would be provided at grade on the block between Eleventh and Twelfth Avenues between West 33rd and West 34th Streets with the Proposed Action, Alternative T would provide 10 acres of publicly accessible open space on the roof of the southern expansion of the Convention Center. 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 also create a full-block open space on Block 675, between West 29th and West 30th Streets and Eleventh and Twelfth Avenues. Alternative T would also provide substantially the same amount of publicly accessible open space on the eastern portion of Caemmerer Yard as the Proposed Action.

Like the Proposed Action, Alternative T would create the full-block open space on the roof of the multi-agency facility between West 29th and West 30th Streets, between Eleventh and Twelfth Avenues, by 2010. However, in Alternative T the multi-agency facility on this block would also contain the Convention Center truck marshalling facility in addition to DSNY and NYPD operations. As a result, the rooftop park would be at a higher elevation than under the Proposed Action and could not be accessed at-grade from Eleventh Avenue. By 2010, an open space area would be located midblock between Tenth and Eleventh Avenues and West 33rd and West 34th Streets, similar to the Proposed Action. Overall, Alternative T would provide 4.9 more acres of open space by 2010 than the Proposed Action, principally resulting from the additional public open space that would be provided on the roof of the expanded Convention Center with Alternative T compared to the amount of public open space that would be provided on the roof of the expanded Convention Center with the Proposed Action.

By 2025, similar to the Proposed Action, Alternative T would create open spaces between Tenth and Eleventh Avenues. Alternative T would also increase open spaces along the Eleventh Avenue frontages between West 33rd and West 35th Streets. Alternative T would also create passive open spaces in the midblocks between Ninth and Tenth Avenues by 2025. Overall, Alternative T would provide 1.19 more acres of public open space between 2010 and 2025 than the Proposed Action. In total, Alternative T would provide 6.1 more acres of open space than the Proposed Action (Table 26-40); however, 3.34 of those acres would require acquisition of Port Authority property, which is not considered feasible.

Overall, the differences in relative amounts of population increase and the additional acreage of public open space under Alternative T compared to the Proposed Action would result in a small improvement in the open space ratios with Alternative T compared with the Proposed Action for all ratios except for the active open space ratios in both 2010 and 2025 and the total ratio for residents in 2025 (Table 26-41). However, that improvement is attributed in large part to the proposed acquisition of the Port Authority Property for mapping as City Park, which as noted above, is not considered feasible. Both the Proposed Action and Alternative T would improve open space ratios relative to those of the 2010 and 2025 Future Without the Proposed Action (other than for active recreation space by 2025), and no significant adverse impact would occur under either scenario.

TABLE 26-40
ALTERNATIVE T: OPEN SPACE RESOURCES (2010 AND 2025)

Name	Location	Proposed Action	Alternative T
2010			
Midblock Park and Boulevard System (No Boulevard in Alternative T)	W. 33rd to W. 34th Streets, Tenth to Eleventh Avenues	0.85	0.86
Eastern Caemmerer Yard	W. 30th to W. 33rd Streets, Tenth to Eleventh Avenues	7.50	8.00
Full-Block Open Space	W. 33rd to W. 34th Streets, Eleventh to Twelfth Avenues	3.60	N/A
Block 675	W. 29th to W. 30th Streets, Eleventh to Twelfth Avenues	3.60	3.60
Convention Center Roof	W. 34th to W. 39th Streets, Eleventh to Twelfth Avenues	2.00	10.00
Total		17.55	22.46
2025			
Midblock Park and Boulevard System Completion (No Boulevard in Alternative T)	W. 34th to W. 42nd Streets, Tenth to Eleventh Avenues	3.46	4.31
Convention Center Roof Completion	W. 39th to W. 41st Streets, Eleventh to Twelfth Avenues	3.00 ²	N/A
Midblock between Ninth and Tenth Avenues		N/A	3.34
Total		6.46	7.65
Cumulative Total		24.01	30.11

TABLE 26-41
**ALTERNATIVE T: ADEQUACY OF OPEN SPACE RESOURCES COMPARED TO THE
PROPOSED ACTION**

Study Area	Open Space Category	Open Space Ratio	
		Proposed Action	Alternative T
Without High Line Open Space, 2010			
Non-Residential Study Area	Passive/Non-Residents	0.126	0.151
	Passive/Total Population	0.101	0.120
Residential Study Area	Total/Residents	0.768	0.817
	Passive/Residents	0.534	0.584
	Active/Residents	0.234	0.232
	Passive/Total Population	0.092	0.103
With High Line Open Space, 2010			
Non-Residential Study Area	Passive/Non-Residents	0.149	0.175
	Passive/Total Population	0.118	0.137
Residential Study Area	Total/Residents	0.811	0.859
	Passive/Residents	0.583	0.631
	Active/Residents	0.228	0.227
	Passive/Total Population	0.102	0.113
Without High Line Open Space, 2025			
Non-Residential Study Area	Passive/Non-Residents	0.099	0.123
	Passive/Total Population	0.081	0.096
Residential Study Area	Total/Residents	0.646	0.634
	Passive/Residents	0.466	0.470
	Active/Residents	0.180	0.164*
	Passive/Total Population	0.078	0.088
With High Line Open Space, 2025			
Non-Residential Study Area	Passive/Non-Residents	0.114	0.138
	Passive/Total Population	0.092	0.108
Residential Study Area	Total/Residents	0.678	0.663
	Passive/Residents	0.502	0.503
	Active/Residents	0.176	0.160*
	Passive/Total Population	0.086	0.096

* Indicates a ratio at or below the Future Without the Proposed Action ratio (see Chapter 7, "Open Space and Recreational Facilities").

(e) Shadows

Like the Proposed Action, Alternative T would result in one significant adverse shadow impact due to the incremental shadows from development that would occur on Projected Development Site 14 that would fall on the rose windows of St. Raphael's RC Church. This would occur even with a lower building height and size on Development Site 14, since the shadow effects on St. Raphael's RC Church would be created by the lower floors of the new development. Like the Proposed Action, this impact would be unavoidable and could not be mitigated. Under Alternative T, the significant, adverse shadow impact on the Farley Building would not occur.

Alternative T would bring much taller buildings to Twelfth Avenue north of the Convention Center and would contain several towers on the superblock between West 34th and West 30th Streets along Twelfth Avenue. The westward shadows cast by these structures in the morning would be greater than those of the Proposed Action but, like the Proposed Action, the shadows would be of relatively short duration in any one location and would not result in significant adverse impacts to the Hudson River or to the use and enjoyment, utility or planting of Hudson River Park. Alternative T would not create any new significant adverse shadow impacts over those of the Proposed Action.

(f) Architectural Historic Resources

Alternative T would have substantially the same impacts on architectural historic resources as the Proposed Action, since it would affect substantially the same architectural resources. For the most part, the development sites under Alternative T would be the same as those under the Proposed Action, but with no potential development sites located south of Madison Square Garden, Alternative T would not have the potential to affect the architectural resources located between Seventh and Eighth Avenues and West 31st and West 28th Streets, unlike the Proposed Action.

(g) Archaeological Resources

Because Alternative T would disturb essentially the same sites as the Proposed Action, like the Proposed Action, it could result in potential significant adverse impact on archaeological resources at two development sites.

(h) Urban Design and Visual Resources

Like the Proposed Action, Alternative T would result in dramatic improvement to the urban design of the Project Area. It would promote the same types of changes to building bulk, use and type, building arrangement, block form and street pattern, streetscape elements, street hierarchy, and natural features as the Proposed Action, although actual bulk and uses would differ, depending on location. The greatest densities and bulk with Alternative T would be concentrated along the east-west corridor between Seventh and Twelfth Avenues from West 30th to West 35th Streets in the Farley Corridor and the southerly portions of Subdistrict A and the Convention Center Corridor. In all other Subdistricts and in the Clinton District/42nd Street Corridor, bulk would be lower and residential use would be more prominent with Alternative T than the Proposed Action. The resulting urban design of the Special Garment Center District portion of the Project Area would be the same with Alternative T as the Proposed Action.

The greatest difference between Alternative T and the Proposed Action would be in the Convention Center Corridor. Under Alternative T, the Convention Center expansion would continue to cover a very large area, but most of the expansion would occur on the western portion of Caemmerer Yard, where it would be framed by four towers, one on each corner of the site, including a convention hotel and offices. The four corner towers would be taller than the Multi-Use Facility under the Proposed Action, and the resulting urban design would be reminiscent of a 1960s-style superblock development. Unlike the Proposed Action, this grouping of structures would not open onto a major open space feature between Eleventh and Twelfth Avenues between West 33rd and West 34th Streets.

Open space would instead be provided on the roof of the Convention Center and on the roof of the multi-agency facility between West 29th and West 30th Streets, between Eleventh and Twelfth Avenues. Like the Proposed Action, West 33rd Street would be closed between Eleventh and Twelfth Avenues under Alternative T. The three blocks north of the existing Convention Center in the Convention Center Corridor would not contain a large footprint building, in contrast to the Proposed Action, but the buildings in this location would be taller under this alternative. West 39th, West 40th, and West 41st Streets would remain open, and the blocks in between would each contain at least two buildings of residential uses with ground-floor retail.

It is assumed that the urban design controls included in the Proposed Action would also be applied under Alternative T and, thus, the same pattern of sidewalk widenings and building setbacks, building bulks uses and types, streetscape improvements and reintegration of the fragmented built topography back into the adjacent grades, creating a continuous pedestrian environment, would occur with Alternative T, as under the Proposed Action. Similarly, the activation of the streetscape by the provision of retail uses, open spaces, and destinations that promote an active street life would occur with Alternative T, as with the Proposed Action.

With respect to visual resources, because the streets north of the Convention Center would remain open, Alternative T would preserve views of the historically significant Lincoln Tunnel vent buildings. However, unlike the Proposed Action, the open views along West 34th Street would be constrained by a pedestrian bridge connecting the existing Convention Center to the proposed expansion of the Convention Center on the western portion of Caemmerer Yard. This would be an adverse, but not a significant, impact of Alternative T.

(i) Neighborhood Character

Alternative T, like the Proposed Action, would result in improvements to neighborhood character in the Project Area. Overall, like the Proposed Action, Alternative T would transform the Project Area from an underutilized area to a lively, mixed-use 24-hour community.

The Clinton District/42nd Street Corridor would have a more residential character under Alternative T than the Proposed Action and the commercial character of the Farley Corridor and Convention Center Corridor would be greater than under the Proposed Action. Neighborhood character in Hell's Kitchen area and the Special Garment Center District would be substantially the same with Alternative T as with the Proposed Action.

There would be no substantial difference between the urban design of the Special Garment Center District with the Proposed Action and Alternative T.

(j) Natural Resources

Like the Proposed Action, Alternative T would not result in significant adverse impacts to natural resources. Alternative T provides a similar overall level of development as the Proposed Action, while providing for more residential use and less commercial use. Given the overall similarity in intensity of development, the impacts to natural resources are expected to be similar. Wastewater discharge under this alternative would be expected to be of similar magnitude. Therefore as described in Chapter 13, "Natural Resources" there will be no significant adverse impact to water quality in the Hudson River. Building heights are expected to be similar in extent to the Proposed Action, therefore shadow impacts to the Hudson River are expected to be similar to those described in Chapter 13 "Natural Resources" for the Proposed Action. Assuming later development of the No. 7 Subway Extension under Alternative T, impacts for the Corona Yards area would be similar to those described in Chapter 13 "Natural Resources" for the Proposed Action. Similar to the Proposed Action, 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.

(k) Infrastructure

Alternative T would result in more demand for City water supply and sewer services compared to the Proposed Action, largely due to the higher amount of residential development. Alternative T would generate peak demand of approximately 9.4 million gallons per day (mgd) of potable water, compared to an estimated peak usage of 8.6 mgd of potable water under the Proposed Action. The DEP's planned implementation of the Manhattan Trunk Main Master Plan would provide sufficient water supply to serve the increased demand of either Alternative T or the Proposed Action. DEP has advised that there will be a sufficient water supply for Alternative T and the Proposed Action, consequently, neither would result in significant adverse impacts to the City water supply system. Sewage generation for Alternative T would total approximately 9.4 mgd, more than the 8.6 mgd that would be generated during a peak day under the Proposed Action. There would be no significant adverse impacts to wastewater service in the Project Area under Alternative T or the Proposed Action. The North River Wastewater Pollution Control Plant would have available capacity to treat the increased sewage generated by Alternative T or the Proposed Action.

Like the Proposed Action, additional pervious surfaces from proposed open spaces and water recycling systems (i.e., Multi-Use Facility water storage tanks providing flushing water) would be in place, with the potential to reduce stormwater runoff. Like the Proposed Action, Alternative T would result in a small increase in the number of combined sewer outflow (CSO) events. Like the Proposed Action, Alternative T is not expected to result in any significant adverse impacts to Hudson River water quality from CSO events.

(l) Solid Waste and Sanitation Services

Like the Proposed Action, Alternative T would not result in a significant adverse impact on municipal solid waste management services. Alternative T would generate more solid waste and more demand for DSNY municipal solid waste collection services than the Proposed Action. By 2025, the municipal solid waste volumes with Alternative T would require DSNY to purchase at least one more collection truck than the Proposed Action, and to add approximately 10 more DSNY truck trips per week in the M-4 service area than the Proposed Action. However, this would not constitute a significant adverse impact.

(m) Energy

Within the Project Area, the commercial and residential developments under Alternative T would require approximately 280 MW under peak conditions in 2025, compared to 309 MW under the Proposed Action. Alternative T would also require the expenditure of an additional approximately 800 kilowatts of energy during peak usage to power the moving walkway and to provide needed lighting, heating, ventilation, and air conditioning of the tunnel in which the moving walkway would be located, above energy requirements for the Proposed Action.

Con Edison indicates that, like the Proposed Action, Alternative T, in combination with other anticipated demand within the service area, would require a new area substation and a new transmission substation shortly after 2010 and a second area substation by 2025. Like the Proposed Action, the new area substations and transmission substation required for Alternative T may have to be located in the Project Area. Like the Proposed Action, with these new facilities, Alternative T is not expected to result in a significant adverse impact on energy resources, systems, or services.

(n) Hazardous Materials

Like the Proposed Action, Alternative T would not result in significant adverse impacts to properties that have the potential to contain hazardous materials. Development sites that potentially contain

hazardous materials would be mapped with (E) Designations, similar to the Proposed Action, thus avoiding any potential adverse impact. A Construction Environmental Protection Program would be implemented by the constructing or owning entity of major public project elements of this alternative to avoid impacts related to disturbing properties that potentially contain hazardous materials. Implementation of such measures for the subway shuttle between Eleventh Avenue and Penn Station would avoid potential hazardous materials impacts related to construction along the alignment.

(o) Waterfront Revitalization Program

Alternative T would result in a mix of development within the Coastal Zone different from that of the Proposed Action. Nevertheless, like the Proposed Action, Alternative T would generate significantly more visitors, residents, and workers to the Coastal Zone and Hudson River Park due to the additional residential and commercial development, and the expanded Convention Center. Compared to the Proposed Action, Alternative T would provide improved access to Hudson River Park with West 39th, West 40th, and West 41st Streets open between Eleventh and Twelfth Avenues. Both Alternative T and the Proposed Action would be consistent with the Local Waterfront Revitalization Program, by encouraging commercial and residential redevelopment within an appropriate Coastal Zone area.

(p) Traffic (2010 and 2025)

Alternative T would produce approximately 20 percent fewer peak hour vehicular trips than the Proposed Action. However, in 2025 Alternative T would produce more unmitigable traffic impacts than the Proposed Action during the AM and PM peak hours. These impacts are the result of a greater concentration of development on the western portion of Caemmerer Yard and along the Farley Corridor. During the weeknight and Sunday Special Event peak hours, Alternative T would generate less traffic than the Proposed Action, because it does not include a Multi-Use Facility. Retention of West 39th, West 40th, and West 41st Streets in their current conditions, would improve traffic operations marginally in this area.

Traffic level of service analyses were prepared for 229 intersections under 2010 weekday AM, Midday, and PM peak hour conditions, and for 238 intersections under 2025 AM, Midday, and PM peak hour conditions. During the 2010 weekday AM, Midday, and PM peak hours, Alternative T and the Proposed Action would both result in no unmitigated significant adverse impacts.

During the 2025 weekday peak hours Alternative T would result in nine more unmitigated significant adverse impacts than the Proposed Action in the AM peak hour (e.g., 15 vs. six), one less in the Midday peak hour (e.g., one vs. two), and one more significant adverse impact in the PM peak hour (e.g., eight vs. seven). These additional impacts would generally be located at intersections in the West 34th Street area along Tenth and Twelfth Avenues.

Weeknight Special Event peak hour traffic impacts are generally associated with events at the Multi-Use Facility and Madison Square Garden under the Proposed Action, together with traffic generated by the residential and commercial development generated by the Proposed Action. Sunday Special Event peak hour traffic impacts are generally Multi-Use Facility-related, combined with additional traffic generated by the Convention Center, a maximum capacity event at Madison Square Garden, and the new commercial and residential development resulting from the zoning action. Alternative T would not include a Multi-Use Facility and would not significantly impact traffic operations during the weeknight and Sunday peak periods when compared to the Proposed Action.

Neither the Proposed Action nor Alternative T would result in significant impacts to bridge or tunnel crossings during the AM, Midday, or PM peak hours in 2010. Alternative T would produce marginally lower traffic volumes on bridge and tunnel crossings of the East, Hudson, and Harlem Rivers in the AM, Midday, and PM analysis hours in 2025, and would result in the same significant adverse impacts to certain river crossings as the Proposed Action.

Alternative T would not include a Multi-Use Facility. Consequently, weeknight and Sunday Special Event peak hour traffic volumes would be significantly lower than the Proposed Action and would not result in any Special Event peak hour significant impacts on the river crossings in 2010 and 2025.

(q) Parking

As noted previously, peak period off-street parking supply, demand, and utilization for the Proposed Action were projected based on surveys of existing off-street parking supply and utilization, with adjustments for (i) background growth in parking demand, (ii) increased parking demand from No-Build projects with inadequate parking provided on-site, (iii) existing parking capacity displaced by development (iv) existing parking demand displaced by development and (v) parking supply and demand associated with proposed development.

Under 2010 conditions, both Alternative T and the Proposed Action would provide adequate off-street parking under all conditions. Under 2025 conditions, during the weekday Midday period, Alternative T would result in a shortfall of approximately 2,400 spaces, compared to a small shortfall that would occur with the Proposed Action. The significant shortfall in Alternative T largely reflects the absence of the 950-space below-grade midblock public parking garage, maintenance of the existing Midtown parking regulations of the zoning resolution, which would discourage the inclusion of garages in new development, and the inclusion of substantial development over Caemmerer Yard without any associated parking. Similar to the Proposed Action, Alternative T would not result in significant adverse impacts to off-street parking during the weekday overnight, weekday evening, or Sunday afternoon periods, when there would be parking surpluses of 6,830, 9,581, and 5,858 spaces, respectively. These significant surpluses reflect the reduced weeknight and Sunday parking demand during Special Events without the Multi-Use Facility under Alternative T.

(r) Transit

Alternative T calls for initial construction of a moving sidewalk from Penn Station to the vicinity of Eleventh Avenue and West 33rd Street. The walkway would not connect to the Sixth Avenue, Broadway, Lexington Avenue or No. 7 subways or to Metro North, and would therefore be of limited utility. The moving sidewalk could later be followed by an extension of the existing No. 7 Subway from Times Square to Eleventh Avenue. At Eleventh Avenue, passengers could transfer between the moving sidewalk and the No. 7 line when the No. 7 line is completed.

Under 2010 conditions, Alternative T would have fewer impacts on subway station elements than in the Proposed Action. Alternative T would result in one impact each in the AM and PM peak periods; both of these impacts could be mitigated. The Proposed Action would result in nine impacts in the AM peak period and four impacts in the PM peak period; all of these impacts could be mitigated except for one in the AM peak period. Since Alternative T does not include a Multi-Use Facility, subway demands would be considerably reduced during the weeknight and Sunday peak hours compared to a Special Event day under the Proposed Action.

Under 2025 conditions, because it would have a smaller workforce than the Proposed Action, Alternative T would have fewer impacts to subway station elements than the Proposed Action. Alternative T would result in three impacts in the AM peak period and two in the PM peak period; these impacts could be mitigated. The Proposed Action would result in 21 impacts in the AM peak period and 14 impacts in the PM peak period; all of these impacts could be mitigated. Since Alternative T does not include a Multi-Use Facility, subway demands would be considerably reduced during the weeknight and Sunday peak hours compared to a Special Event day under the Proposed Action.

Under 2010 conditions under Alternative T, if a moving sidewalk were to be in operation, the M-11 southbound would require one more bus per hour in the AM peak hour than under the Proposed Action. In the PM peak hour, Alternative T would require three fewer buses on the M-11 northbound

and one more bus on the M-11 southbound, resulting in a net of two fewer buses than the Proposed Action. This shift reflects the additional demand generated along West 34th Street and the mitigation provided by the walkway. By 2025, Alternative T's combination of massing of commercial development in the southern end of the Project Area combined with operation of both the walkway and the extended No. 7 subway line would result in the need for less service on the M-10/M-20, M-42, and Q-32, and additional service on the M-11 and M-34/M-16 as compared with the Proposed Action. During the AM peak hour, compared to the Proposed Action, Alternative T would require two fewer buses on the M-10/M-20 southbound, 14 fewer buses on the M-42 westbound, and one less bus on the Q-32 westbound, as well as additional buses on the M-11 (one more northbound and four more southbound), and four additional articulated buses on the westbound M-34/M-16. During the PM peak hour, compared to the Proposed Action, Alternative T would require three fewer buses on the M-10/M-20 southbound, 19 fewer buses on the M-42 westbound, and one less bus on the Q-32 westbound, as well as additional buses on the M-11 (five more northbound and one more southbound), additional buses on the westbound M-34/M-16 (four more eastbound and one more westbound), and one more bus on the M-42 westbound. Since Alternative T does not include a Multi-Use Facility, bus demands would be considerably reduced during the weeknight and Sunday peak hours when compared to a Special Event day under the Proposed Action.

(s) *Pedestrians (2010 and 2025)*

The overall pedestrian demand during weekday AM, Midday, and PM peak hours would be generally the same under Alternative T as under the Proposed Action. Specifically, under 2010 conditions, Alternative T would result in one less unmitigated significant adverse intersection impact than the Proposed Action during the AM peak hour (i.e., one vs. two), four more unmitigated significant adverse intersection impacts Midday (i.e., seven vs. three), and two more unmitigated significant adverse intersection impact during the PM peak hour (i.e., four vs. two). Under 2025 conditions, Alternative T would result in three less significant adverse pedestrian impact than the Proposed Action during the AM peak hour (i.e., three vs. six), one less unmitigated significant adverse intersection impact during the Midday (i.e., 20 vs. 21), and one less unmitigated significant adverse intersection impact during the PM peak hour (i.e., 10 vs. 11). The results primarily reflect the increased demand in the West 34th Street area. Since Alternative T would not include a Multi-Use Facility, pedestrian demands would be greatly reduced during the weeknight and Sunday peak hours when compared to Special Event periods under the Proposed Action.

(t) *Air Quality*

(i) *Mobile Source*

Microscale Intersection Analysis. Under Alternative T, 2010 and 2025 CO 8-hour levels and PM₁₀ 24-hour and annual levels would not exceed the NAAQS or the PM_{2.5} 24-hour and annual STV, and would not exceed the DEP *de minimis* criteria for CO, like the Proposed Action.

(ii) *Stationary Source*

Like the Proposed Action, Alternative T would not cause significant adverse impacts on air quality from future HVAC sources. Neither Alternative T nor the Proposed Action would result in any exceedances of any NAAQS, CEQR *de minimis* criteria, or STV or DEC air toxic guidance. Neither the Proposed Action nor Alternative T would result in exceedances of any NAAQS, CEQR *de minimis* criteria or PM_{2.5} STV.

(u) *Noise and Vibration*

Noise impacts from this alternative would, like the Proposed Action, involve two areas of concern: (1) potential effects of introducing new noise-sensitive land uses (i.e., residences and community facilities) into an already noisy environment, and (2) effects of noise-generating activities associated with the alternative on existing noise-sensitive land uses in the area. Since new noise-sensitive

receptors would be introduced into the same noisy area as the Proposed Action, (E) designations would also be required for the new residences and community facilities contemplated by the alternative. This alternative would also increase noise levels by 3 dBA or more at many of the same locations as with the Proposed Action and would result in the need for the same mitigation measures identified for the Proposed Action. With such mitigation measures, there would be no significant adverse noise impacts from this alternative.

(v) Construction Impacts

Like the Proposed Action, Alternative T would have the same potential to result in significant construction-related noise, air quality, and traffic impacts due to expansion and modernization of the Convention Center and development permitted under the proposed rezoning, and would require the same mitigation measures. While Alternative T would not include development of a Multi-Use Facility, similar levels of construction activity would take place on the western portion of Caemmerer Yard for development of the southerly Convention Center expansion and significant commercial and residential development at that location. Without the No. 7 Subway Extension, fewer truck trips would be required to remove tunnel spoils and deliver construction material during early phases of development under Alternative T. However, the below-grade moving sidewalk included in Alternative T would potentially cause significant impacts in the vicinity of construction, including air quality, noise and vibration, and traffic impacts. In addition, later construction of the No. 7 Subway Extension would result in construction impact from that project element at a time when more commercial and residential development would be in place.

(w) Public Health

Like the Proposed Action, Alternative T would have the same potential to result in construction and operational public health impacts and would require the same mitigation measures as the Proposed Action. With such mitigation measures, there would be no significant adverse public health impacts under Alternative T, as with the Proposed Action.

m) Alternative U: LandBridge Alternative (Entirely New Text)

Description of the Alternative

Alternative U was developed at the Steven L. Newman Real Estate Institute (NREI) at Baruch College of the City University of New York and was submitted to the Project Sponsors during public review of the DGEIS. The proposal contains virtually all of the program elements of the Proposed Action, but in a radically different configuration. The centerpiece of the NREI plan is a “LandBridge”—actually a structure with a 2.57 million-square-foot footprint covering the entire area (including streets) from Twelfth Avenue to Tenth Avenue between West 30th and West 34th Streets, and from Ninth Avenue to Tenth Avenue between West 31st and West 33rd Streets.

The LandBridge megastructure, combined with the two superblocks containing the Farley Building and Madison Square Garden/Two Penn Plaza and a proposed approximately 400-foot deck over Twelfth Avenue leading to a heliport and ferry landing in the Hudson River, would create an east-west development corridor that could contain an expanded Convention Center, a stadium version of the Multi-Use Facility (optional), a relocated Madison Square Garden (optional), a substantial amount of commercial office development of up to 19.2 million square feet, major retail (900,000 square feet), a 1,000-room hotel, and a large park. The Quill Bus Depot and the Fed Ex facility would be relocated underneath the LandBridge. The street-level edges of the LandBridge would contain retail appropriate to the character of West 34th Street and West 30th Street/Chelsea. Additional office towers with up to 12.8 million square feet could be built along West 34th Street, which would be an adjacent secondary east-west corridor in the Hudson Yards.

Transportation infrastructure would consist of an elevated automated rapid transit (ART) loop constructed to convey passengers from the subways at Seventh and Eighth Avenues, on to Moynihan Station and beyond to the west end of the LandBridge, and back. The proposal also contains moving walkways at grade and on the top (Level 1) deck of the Land Bridge structure to help people cover the long east-west distances within the structure. The proposal states that extension of the No. 7 Subway is not a necessary component of the overall program, but purports to allow the No. 7 Subway extension to eventually serve the LandBridge with a station at Level 5 (approximately ground level).

By demolishing the existing Convention Center and relocating it on the LandBridge, the plan would reestablish the cross streets between West 34th and West 38th Streets, between Eleventh and Twelfth Avenues. By adding a north-south street through the center of these blocks north of West 35th Street to West 41st Street, the plan would create buildable sites for a new residential district between Eleventh and Twelfth Avenues. The new residential area would be largely R10 under Alternative U, with C6-4 zoning on the blocks between West 34th and West 36th Streets to allow additional office development at the western end of the West 34th Street commercial corridor. The Garment Center would be excluded from the rezoning area under Alternative U, as would the Special Clinton District and the blocks between Ninth and Tenth Avenues north of West 35th Street.

Alternative U contains four options for development on the LandBridge as follows:

- Under Option A, the LandBridge would contain an expanded Convention Center, eight commercial towers ranged along its north and south edges, a hotel, and a plenary hall on the eastern end of the structure.
- Under Option B, the LandBridge would be the same as Option A except that Madison Square Garden would be relocated to the site of the plenary hall in Option A.
- Under Option C, the LandBridge would contain the Convention Center, a stadium above the Convention Center, four commercial towers, a hotel and a plenary hall (see Figure 26U-1 and 26U-2) in the same locations as in Option A.
- Under Option D, the LandBridge would be the same as under Option C, except that Madison Square Garden would be relocated to the site of the plenary hall.

Of the four options, the LandBridge under Option C contains the largest number of program elements also found in the Proposed Action, and has therefore been selected for analysis purposes as Alternative U.

Comparison of Alternative U with Project Goals and Objectives

As discussed in Chapter 1, “Project Purpose and Need,” three major goals and a number of related objectives have been established for the Proposed Action. Although Alternative U purports to include virtually all of the program elements of the Proposed Action in the Hudson Yards area, it does not meet critical goals and objectives of the Proposed Action, and as discussed below, is infeasible.

(a) Goal 1: Ensure the Future Growth of the City through Redevelopment of the Hudson Yards Area

Objectives of this goal include: provide zoning to permit a mix of uses and densities for new commercial (including significant new office development), residential, recreational and open space uses, and to reinforce the existing residential neighborhood; promote transit-oriented development; expand and modernize the Convention Center; develop a new Multi-Use Facility for a variety of large-scale sports, exhibition, and entertainment events; accommodate siting for public facilities needing relocation and/or consolidation; and improve the pedestrian environment and access to Hudson River Park from upland areas.

- (i) Provide zoning to permit a mix of uses and densities and reinforce the existing residential neighborhoods
- Alternative U would not provide zoning to permit a mix of uses and densities throughout the Hudson Yards area. Instead, commercial development would be heavily concentrated on the LandBridge structure, with residential use allowed west of Tenth Avenue including in the area opened up by the demolition of the Javits Convention Center. The Alternative would not remove the existing manufacturing zoning elsewhere, so that a mix of uses could not develop over time in areas east of Tenth Avenue and in the Garment Center.
 - The elevated LandBridge structure would effectively create a city-within-a-city, which would relate poorly to surrounding neighborhoods, despite efforts to make its edges compatible with existing streetscapes. The LandBridge would function differently and in isolation from at-grade development. The time and effort for people to get from the street to their destinations within the LandBridge development would be considerable, and would further isolate the activities within the LandBridge from surrounding street life. This separation would be contrary to the past 30 years of City planning policy which has sought to integrate development with the City’s historical streetscape and street grid. The intense concentration of development within the LandBridge in physical isolation from surrounding neighborhoods would likely reduce and retard redevelopment elsewhere in the Hudson Yards area.
 - While a stated goal of Alternative U is to connect public venues with Midtown, this would be achieved with a massive structure that would create a new and forbidding barrier between neighborhoods. The public realm would essentially be lifted onto an artificial “plateau” that would cover two blocks of Twelfth Avenue, four blocks of Eleventh Avenue, four blocks of Tenth Avenue, and three blocks of Ninth Avenue. This would create an east-west wall, nearly 10 north-south blocks long (2,600 feet) and 110 feet high, that would separate West Chelsea from Clinton both visually and physically.
 - Development on the LandBridge would alter the City’s normal pattern of long-term development and growth—a pattern in which new development rises alongside the old, to the benefit of both, and works within the fabric of the existing neighborhood. Instead, Alternative U would involve the wholesale removal of virtually all existing structures in the Convention Center Corridor, from West 30th to West 34th Street between Ninth and Tenth Avenues, and from West 34th to West 35th Street from Tenth Avenue to Eleventh Avenue. These structures include the Javits Convention Center, a successfully operating facility of more than a million square feet, which is not yet 20 years old, the Daily News Building, and many older loft buildings. This “sweep clean” approach would not reinforce existing neighborhoods.
- (ii) Promote Transit-Oriented Development
- The transportation systems proposed for Alternative U would be inadequate to serve the needs of the area and are infeasible. The ART system would consist of a single, low-speed elevated loop with ten closely spaced stations. Service would be provided by two- or three-car trains carrying up to 300 people. NREI describes the line as having a capacity of 15,000 people per hour; however, under optimum performance criteria, the system’s capacity would be expected to reach no more than 9,000 passengers per hour (assuming 300 passengers per three-car trainset operating at a two-minute headway).
 - Alternative U purports to allow for the extension of the No. 7 Subway during a later phase, with a station located in Level 5 of the LandBridge at approximately street level. However, given the subsurface conditions and various tunnels and other major infrastructure in the Project Area, it would not be possible to extend the No. 7 Subway southward to a station that is essentially at grade level. Even if it were possible to bring the subway up to grade level, this could not be done

without disrupting east-west streets for several blocks, given the depth from which it would have to rise.

- The location for the ART maintenance facility on the roof of the Convention Center is not workable. Even assuming it could be operated successfully in that location, the maintenance facility would be incompatible with its neighbors primarily due to noise and vibration.
- Any ostensible benefit of delayed investment in the No. 7 Subway Extension would be offset by a restraint on new commercial development due to lack of transit connectivity at the time new commercial investment is being considered by owners and developers.

In summary, because Alternative U proposes infeasible and inadequate rapid transit, it would not promote transit-oriented development.

(iii) Expand and modernize the Convention Center

- The Alternative U design for the expanded Convention Center is not functional, because nearly half of the exhibition space lacks contiguous prefunction space, has no or inadequate loading docks and service areas, is disconnected from other 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 it does not provide for a grand entry that could service all the exhibition areas. The Alternative also provides hundreds of thousands of square feet of unnecessary meeting and ballroom space.
- The Alternative 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 all the trucks and buses from the Convention Center, stadium, relocated Quill Bus Depot and Fed Ex facility, and proposed big-box retail to 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.

In summary, although Alternative U could provide enough space on the LandBridge for a very large Convention Center, it could not be arranged efficiently so that it could function as a modern convention and exhibition facility.

(iv) Develop a new Multi-Use Facility for a variety of large-scale sports, exhibition, and entertainment events

- The location of a stadium on the roof of the Convention Center raises serious questions about the feasibility and cost associated with the structural requirements for both facilities. The ability to move people in and out of the stadium safely and quickly at such a location is also questionable. It also appears that there could be no truck service to the stadium event level, which would make many events impossible.
- The footprint of the stadium would be reduced by a full block under Alternative U making it inadequate since, even with a reorganization of circulation outside the building, there would not be enough room to accommodate the required number of patrons for stadium events. Moreover, the combined circulation system for the Convention Center and stadium 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.

In summary, the proposed location, size, circulation, and support systems for the stadium are inadequate for a modern, professional football stadium.

(v) Accommodate siting for public facilities needing relocation and/or consolidation

- Alternative U does not propose the relocation of the DSNY faculty or the NYPD Tow Pound. In addition, the space planned under the LandBridge for the Quill Bus Depot appears to be half the size required, and it is proposed to be shared with a relocated FedEx distribution center. This is not a feasible for both operational and security reasons.

(vi) Improve the pedestrian environment and access to Hudson River Park from upland areas.

- Alternative U turns four avenues—Ninth through Twelfth—into tunnels. The tunnels over Tenth and Eleventh Avenues would be approximately 1,000 feet long; the tunnels over Ninth and Twelfth Avenues would be approximately 500 feet and 750 feet, respectively. No matter what design features are added to improve the quality of the tunnel, covering over four major streets in Midtown is not pedestrian friendly and would degrade the pedestrian environment.
- In its proposed configuration, the ART loop would add elevated structures to both West 31st and West 33rd Street from Seventh to Ninth Avenue, where it would enter the LandBridge at Level 4. As noted in the analysis of Alternative F, the intrusion of an elevated structure would have adverse effects on, among others, neighborhood character and historic resources along those streets, and would detract from the pedestrian environment.
- The plans for Alternative U show West 35th, West 36th, West 37th, and West 38th Streets open between Eleventh and Twelfth Avenues, which would theoretically offer better waterfront access than the Proposed Action. However, the description of the alternative nowhere addresses the major change in grade between Eleventh Avenue, which is on a viaduct, and ground level at Twelfth Avenue. These four streets would have to be constructed essentially as bridges or ramps. There is no discussion of timetable or funds for the opening of these streets. Moreover, the design of Route 9A and the plans for the Hudson River Park do not include access points in these locations. To provide pedestrian crossings here would reduce the capacity of Route 9A and interfere with the left-turn lane at West 34th Street.

(b) Goal 2: Provide Transit Services to Support Hudson Yards Development

Objectives associated with this goal include: provide transit service to Hudson Yards from the rest of the City and metropolitan area to accommodate the level of development anticipated with the proposed rezoning; minimize impacts from construction and operation of new service on the existing transit system; maximize use of existing transit infrastructure capacity and connectivity; and maximize operating and capital cost-effectiveness.

(i) Provide transit service to Hudson Yards to accommodate the level of development anticipated with the proposed rezoning.

As discussed above, the ART transit service proposed to serve the LandBridge and commercial corridor would not have the capacity to support the level of development anticipated under Alternative U. Also as discussed above, the No. 7 Subway Extension could not be designed to integrate successfully into the LandBridge at a later date. Deferring or eliminating construction of the No. 7 Subway Extension would delay or retard development due to lack of transit access.

(ii) Maximize use of existing transit infrastructure capacity and connectivity

The ART system would introduce an entirely new type of transit infrastructure, at a different level from the existing subways, and would not in any way maximize use of existing capacity and connectivity. Moreover, because the ART would be a brand-new system, entirely new support facilities would be needed for its operations and there would be no opportunity to achieve efficiencies through use of existing facilities. Without any identified source of revenues, it is unclear what agency would operate this system.

(iii) Maximize operating and capital cost-effectiveness

Since the ART system, upon which Alternative U relies, would not accommodate the level of anticipated development and would be an entirely new transportation system unable to utilize existing transit infrastructure, Alternative U would not maximize operating and capital cost-effectiveness.

(c) Maintain or Improve Environmental Conditions

Objectives associated with this goal include: protect significant cultural, community, park and open space resources; provide an opportunity for the relocation of incompatible uses from Hudson River Park; minimize energy consumption, non-transit vehicle miles of travel, and congestion by providing enhanced transit access; support sustainable design and development; minimize community disruption and environmental impacts during construction; avoid, minimize and mitigate significant adverse environmental impacts.

(i) Help to relocate incompatible uses from Hudson River Park

Alternative U does not propose the relocation of DSNY or NYPD Tow Pound facilities.

(ii) Minimize community disruption and environmental impacts during construction

As noted above, Alternative U proposes demolition of major structures and construction of a LandBridge megastructure, which would involve many years of construction and include work in and above an active rail corridor, active train yards, and major city arteries. Among other things, the plan would require removal or relocation of all the associated utilities and buildings of the LIRR and Amtrak simply in order to install the LandBridge foundations, thereby creating both temporary and possibly permanent disruptions to, and reductions of, rail service. Alternative U would therefore likely maximize impacts during construction.

(iii) Avoid, minimize and mitigate significant adverse environmental impacts

It is assumed that, as in the Proposed Action, under Alternative U every effort would be made to meet this objective. However, given the extraordinary amount of demolition and construction involved in this proposal, it is likely that the number, size, and scale of significant adverse environmental impacts in a number of impact categories would be greater than those of the Proposed Action.

Constructability and Cost

The LandBridge would be extremely difficult, if not impossible, to construct. Given the placement of rail tracks between Tenth and Eleventh Avenues and the location of underground high-powered duct banks, the structural systems assumed under Alternative U would not appear feasible, because the required 6-foot diameter of the foundation caissons would prevent caissons being placed between the tracks without permanent removal of a large number of tracks. Loss of track storage capacity at Caemmerer Yard would have a serious negative impact on the LIRR's ability to provide service to Penn Station. Moreover, review of the plans indicates that these caissons would be too small to support the structural loads of the buildings. In addition, the caissons could not be laid out in a standard pattern in the area where the yard tracks start to converge, with the result that locations where structural loads can be supported would be extremely limited and asymmetrical.

The public costs for Alternative U would be exorbitant. Accepting all of the assumptions provided by the NREI, the cost to the public sector of completing the alternative would total between \$7.6 billion (if the No. 7 Subway extension does not take place) and \$9.6 billion (if the No. 7 extension does take place). This would represent an enormous increase in public cost over the Proposed Action. Moreover, the estimated costs may be understated for a variety of reasons, since Alternative U as proposed by NREI 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 Javits Center necessary to support the proposed residential/mixed-use neighborhood.

Summary

For the reasons set forth above, Alternative U does not meet the goals and objectives of the Proposed Action. As such, it does not warrant further analysis. ❖