DEPARTMENT OF CITY PLANNING
CITY OF NEW YORK

ENVIRONMENTAL ASSESSMENT AND REVIEW DIVISION

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Department of City Planning

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NOTICE OF COMPLETION OF THE FINAL SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT

First Avenue Properties Rezoning

Project Identification
CEQR No. 06DCP039M
ULURP Nos. 070529ZMM, N070530ZRY, 070531ZSM, 070532ZSM, 070533ZSM, 070534ZSM, 070522ZMM, 070523ZSM, 070524ZSM, 070523(A)ZSM, N070530(A)ZRM, 070531(A)ZSM, 070532(A)ZSM
SEQRA Classification: Type I

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Pursuant to City Environmental Quality Review (CEQR), Mayoral Executive Order No. 91 of 1977, CEQR Rules of Procedure of 1991 and the regulations of Article 8 of the State Environmental Conservation Law, State Environmental Quality Review Act (SEQRA) as found in 6 NYCRR Part 617, a Final Supplemental Environmental Impact Statement (FSEIS) has been prepared for the action described below. Copies of the FSEIS are available for public inspection at the office of the undersigned. The proposal involves actions by the City Planning Commission and Council of the City of New York pursuant to Uniform Land Use Review Procedures (ULURP). A public hearing on the Draft Supplemental Environmental Impact Statement (DSEIS) was held on December 5, 2007. Written comments on the DSEIS were requested and were received by the Lead Agency until December 17, 2007. This FSEIS incorporates responses to the public comments received on the DSEIS and additional analysis conducted subsequent to the completion of the DSEIS.

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A. PROJECT IDENTIFICATION

East River Realty Company, LLC (ERRC) proposes to rezone and obtain other land use approvals, including special permits, for four parcels along First Avenue in Midtown Manhattan for predominantly residential and commercial mixed-use development. Owned by ERRC, the four parcels (which ERRC purchased from Con Edison in March 2005 and June 2005) are located between East 35th Street and East 41st Street (see Figure S-1). The specific addresses are 616 First Avenue, 685 First Avenue, 700 First Avenue (Waterside), and 708 First Avenue. The Proposed Actions would permit development of the parcels with a mix of residential, commercial, retail, community facility, and open space uses. It is expected that development would be complete in 2014.

Potential development resulting from Con Edison's sale of the properties to ERRC was the subject of a Final Generic Environmental Impact Statement (FGEIS) completed by the New York State Public Service Commission (PSC) in January 2004. Because the development program under the Proposed Actions may result in significant adverse environmental impacts not identified in the FGEIS, this Supplemental Environmental Impact Statement (SEIS) has been prepared. The SEIS analyzes the extent to which the development and zoning actions as currently proposed could result in any significant adverse environmental impacts not previously identified in the FGEIS.

Specifically, the SEIS considers differences between the illustrative programs and site plans described in the FGEIS, and the current proposed program, site plan, and zoning actions. The SEIS also considers changes in background conditions in the study areas to reflect the new anticipated year of completion for the development program and the current status of other planned and proposed projects. While the proposed development program falls within the maximum development envelope analyzed as the Rezoning Scenario in the FGEIS, the particular programming, placement, and size of the buildings are different. In several instances, the FGEIS was unable to rule out the possibility of significant adverse impacts due to the absence of a specific site design—the proposed development now includes the detail required for these assessments. Specific zoning actions have now been proposed that require environmental review, and some zoning actions require analysis with respect to their potential application beyond the project area.

Numerous discretionary actions are involved in the implementation of the proposed development program from the City Planning Commission (CPC), as well as the modification of a special permit by the New York City Board of Standards and Appeals (BSA). Because the proposed project requires discretionary actions, it is subject to environmental review. This SEIS has been prepared in accordance with Executive Order 91 of 1977, as amended, and City Environmental Quality Review (CEQR) Rules and Procedures adopted in 1991 (62 Rules of the City of New York, Chapter 5). The technical analyses in this SEIS follow the guidance of the *New York CEQR Technical Manual*. CPC is the CEQR lead agency.

Since the issuance of the Draft SEIS, ERRC has submitted revised text amendment, special permit, and certification applications to designate the properties at 616, 700, and 708 First Avenue as an "Inclusionary Housing Designated Area" and thus facilitate use of the Inclusionary Housing program on the portions of the project site east of First Avenue. The potential environmental effects of the revised application are considered in this Final SEIS under the Affordable Housing

Scenario.[1] The revised applications (ULURP Nos. 070523(A)ZSM, N070530(A)ZRM, 070531(A)ZSM, 070532(A)ZSM) are under consideration by the CPC.

B. PROJECT PURPOSE AND NEED

PURPOSE OF THE PROPOSED ACTIONS

The rezoning and other land use approvals proposed by ERRC for the four parcels on First Avenue would permit high-density development and a range of land uses. In general, the primary purposes of ERRC's Proposed Actions are to facilitate the development of the underutilized First Avenue parcels, accommodate long-term economic growth, serve the area and the city as a whole through construction of substantial new residential and commercial facilities, and provide publicly accessible open space and views of the East River.

Although they are located close to the Midtown Central Business District (CBD) and largely surrounded by medium- to high-density residential, commercial, and institutional uses, the four parcels are underutilized and currently zoned for low-density manufacturing and commercial uses. Their current uses do not benefit the surrounding community. The 616 and 708 First Avenue parcels are currently vacant. The 685 First Avenue parcel is currently used as a parking and staging area for work associated with the demolition and remediation efforts on the development parcels. The 700 First Avenue (Waterside) parcel formerly contained outdated and inefficient power generating facilities (Waterside No. 1 and Waterside No. 2) that were decommissioned and have been demolished independently of the Proposed Actions. The proposed development program (described below) is intended by ERRC to contribute significantly to the vitality of the area and city through the creation of new residential, commercial, retail, community facility, and open space uses in a coherently designed plan that would link the surrounding neighborhood to the waterfront.

PROJECT BACKGROUND AND PRIOR ENVIRONMENTAL REVIEW

Con Edison entered into a November 15, 2000 contract of sale with ERRC for the transfer of its fee interest in the four development parcels ("Purchase Agreement"). Con Edison's objective for the sale, as provided in the Purchase Agreement, was to realize and maximize proceeds on behalf of its customers, consistent with responsible development. The sale of the parcels required discretionary approval from the PSC and, therefore, compliance with Article 8 of the Environmental Conservation Law, State Environmental Quality Review Act (SEQRA), and its implementing regulations (6 NYCRR Part 617).

On April 12, 2001, Con Edison and ERRC filed an environmental assessment form and a Draft scope of work for a Generic Environmental Impact Statement (GEIS) to be prepared in conjunction with PSC's consideration of the proposed transfer. The PSC review used a GEIS, because it was considered the appropriate document in which to analyze the impacts of a concept or overall plan rather than a specific project plan for a development. On May 9, 2001, PSC, with the approval of CPC, the New York City Department of Transportation (DOT), and the BSA, declared itself SEQRA lead agency and issued a positive declaration of significance, formally

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[1] In addition, ERRC has submitted revised applications (special permit and a certification) to reflect new requirements and section references of the public plaza regulations for the 685, 700, and 708 First Avenue parcels. The revisions are considered under both the proposed development program and the Affordable Housing Scenario.

commencing a coordinated environmental review process. Over the next four months, PSC solicited and analyzed comments from regulatory agencies and the public on the scope of work for the GEIS. Four public scoping meetings were conducted and the public was able to provide comments in writing, electronically, and via telephone. By Order issued September 6, 2001, PSC approved the Final Scope of Work and directed Con Edison and ERRC to prepare and file a Draft GEIS (DGEIS). On June 24, 2002, PSC accepted the DGEIS as complete and issued it for public comment. During an extended comment period, PSC held two public informational forums and two public hearings on the DGEIS.

Based on the comments received and announcements of other projects in the immediate area of the parcels, Con Edison and ERRC determined that additional environmental analysis would be necessary and prepared a Supplemental DGEIS, which was completed on May 23, 2003, and issued for public comment. During the subsequent two month public comment period, two public hearings were held, and on January 30, 2004, PSC adopted and issued an FGEIS, which incorporated the DGEIS and Supplemental DGEIS, the comments received, and the analysis of and responses to the comments received.

THE FINAL GENERIC ENVIRONMENTAL IMPACT STATEMENT

At the time the FGEIS was completed, no specific development proposals for the parcels had been developed. The FGEIS therefore assessed the full range of reasonable environmental impacts that would be likely to result from the approval of the sale and subsequent development of the parcels under future zoning actions that could be undertaken. Accordingly, the FGEIS identified certain prototypical programs that were reasonably expected to occur. These development programs were "reasonable worst-case development programs," which consisted of maximum development envelopes for a variety of potential uses.

The FGEIS assessed several reasonable worst-case development scenarios:

- As-of-Right Scenario. The as-of-right scenario assumed that PSC approved the sale and the development parcels were improved in accordance with the provisions of the Zoning Resolution (ZR) applicable to the parcels.
- Rezoning Scenario. Because there was no specific project plan for future improvement of the development parcels, the FGEIS analyzed reasonable worst-case development programs that could result if the parcels were rezoned to allow for a maximum Floor Area Ratio (FAR) of 12.0:
  - Residential Development Program. This program included approximately 5.1 million gross square feet (gsf) of residential space (6,131 dwelling units), 39,243 gsf of retail space, 132,000 gsf of medical community facility uses, 3.3 acres of open space, and 1,700 parking spaces. A variation providing a portion of the dwelling units for low-income families was also assessed.
  - Mixed-Use Development Program. This program included approximately 2.8 million gsf of office space, 2.4 million gsf of residential space (3,000 units), 70,300 gsf of retail uses, 132,000 gsf of medical community facility uses, 3.3 acres of open space, and 2,100 parking spaces. A variation of this plan in which the uses would be distributed differently across the parcels was also assessed.

The FGEIS examined the potential for significant impacts resulting from the disposition and redevelopment of the properties in the areas of: land use, zoning and public policy; socioeconomic conditions; community facilities; open space; shadows; historic resources; urban design and visual resources; neighborhood character; hazardous materials; infrastructure, solid

waste and energy; traffic and parking; transit and pedestrians; air quality; noise; coastal resources; and construction impacts. With respect to land use, zoning and public policy, socioeconomic conditions, historic resources, hazardous materials, infrastructure, solid waste and energy, parking, and coastal resources, the FGEIS found that no significant adverse environmental impacts would result from the development scenarios. Potentially significant impacts were identified for certain community facilities, open space, shadows, traffic, transit and pedestrians, air quality, noise, and construction. In addition, given the generic nature of the development scenarios, different or additional significant impacts could not be ruled out for open space, urban design, neighborhood character, and air quality.

PSC approved Con Edison's petition to dispose of the four parcels for redevelopment (the "PSC Order," see Appendix A) by order dated May 20, 2004. As required by SEQRA, the PSC made a written statement of findings as laid out in the PSC Order. Specifically, the PSC required that ERRC "shall undertake and implement the mitigation measures specified in, and satisfy the obligations imposed on it by" the FGEIS and PSC Order. In addition, the PSC Order included the finding that subject to conditions specified in the PSC Order, the sale of the parcels would be in the public interest and its benefits would outweigh its adverse impacts.

The PSC Order identified and analyzed the effects of categories of mitigation measures because a specific development program had not been formulated for the parcels. The PSC Order recognized that when a specific project plan for the parcels was proposed, a lead agency would examine the potential environmental impacts of that plan. Therefore, the PSC Order stated "[t]o the extent we have provided ranges of mitigation measures, the future Lead Agency shall select from among the options specified in the FGEIS and summarized [in the PSC Order], and/or other mitigation measures it deems appropriate, to mitigate the significant impacts that have been identified." The PSC permitted the future lead agency and any other relevant agencies to refine and apply mitigation measures in light of the impacts associated with ERRC's future specified development plan. However, as a condition of its approval the PSC required "ERRC to seek relevant approvals from and implementation by agencies with requisite jurisdiction for the mitigation measures in the areas of community facilities, traffic, transit, and pedestrians specified in the FGEIS" and the PSC Order.

Consistent with recommendations in the PSC Order, the project sponsor considered incorporating elements of the Waterside buildings into the design of the proposed development and determined that the reuse of architectural elements was not consistent with the modern steel and glass design of the buildings proposed for the development parcels.

The PSC Order did not condition the approval of the sale on ERRC's undertaking of any of the development programs described in the scenarios included in the FGEIS. Rather, the PSC provided that future governmental agencies would have the discretion to review the specific development plan for the parcels and determine the mix of uses, density, and specific mitigation measures.

PROJECT GOALS AND OBJECTIVES

ERRC, now the owner of the four parcels, is applying to CPC for discretionary actions that would allow new development at a maximum FAR of 12.0. The Proposed Actions would permit predominantly residential and commercial mixed-use development of the underutilized parcels.

The proposed rezoning would permit a development program that would transform the underutilized utility parcels into a thriving mixed-use development. Overall, ERRC's goals and objectives for the Proposed Actions are to provide zoning to permit the development of a mix of

high-density uses and a substantial amount of new open space. The commercial component of the development program is intended to provide jobs and accommodate growth in office-based economic sectors, the substantial residential component is intended to accommodate a portion of the city's current and future housing needs, and the retail, community facility, and open space components are intended to provide community benefits to the area's existing and future residents and workers.

ERRC's development program includes open space and public amenities in a site plan intended to integrate the development into the neighborhood and open access through the 700 and 708 First Avenue parcels. The proposed buildings would be designed as tall and relatively slender towers that would allow for the provision of large, publicly accessible open spaces and the distribution of bulk across the parcels. The proposed open spaces and ground-level retail uses are intended to improve the streetscape and pedestrian experience adjacent to the development parcels and create neighborhood amenities. The open space envisioned for the 700 and 708 First Avenue parcels under the proposed development program would provide increased access to waterfront views and allow for the possibility of new access points to the East River Esplanade in the future, to facilitate the city's long-standing objective of increasing public access to the waterfront.

C. PROJECT DESCRIPTION

DESCRIPTION OF THE DEVELOPMENT PARCELS

The four development parcels, which are the same as those analyzed in the FGEIS, have an aggregate area of 378,280 square feet, or approximately 8.7 acres. Each parcel is described below and shown in Figure S-2. Figure S-3 shows the existing zoning designations on the development parcels.

- **616 First Avenue**. The 616 First Avenue site encompasses an entire city block bounded by First Avenue, East 35th and East 36th Streets, and the Franklin Delano Roosevelt (FDR) Drive. It has an area of approximately 68,770 square feet. The site is located partially in an M1-5 zoning district (39,500 square feet) and partially in an M3-2 zoning district (29,270 square feet), which permit development of limited commercial and manufacturing uses at 5.0 and 2.0 FAR, respectively. Now vacant, this site formerly contained the Kips Bay Steam Generating Station and a fuel oil storage facility, which have been demolished.
- **685 First Avenue**. The 685 First Avenue site is a 32,365-square-foot parcel located between East 39th and East 40th Streets west of First Avenue. It is part of a larger, 80,677-square-foot zoning lot that includes a Con Edison substation and an open area used by Con Edison in servicing the substation. The site itself is currently used as a support area for work associated with the demolition and remediation efforts on the development parcels. It is located in a C1-9 zoning district, which permits high-density residential development with some neighborhood retail and service uses. The site is subject to a special permit granted by BSA under calendar number BSA No. 257-81 BZ authorizing development of the substation ("Special Permit"). The BSA would have to approve a modification of the special permit to allow new development on the site.
- **700 First Avenue (Waterside)**. The 700 First Avenue (Waterside) site is bounded by First Avenue, the southern boundary of the 708 First Avenue site, the FDR Drive and East 38th Street. It has an area of approximately 194,721 square feet. Located in an M3-2 zoning district, it was formerly developed with power generating and related facilities. Con Edison retired the Waterside plant and it has recently been demolished. The Waterside output has been replaced by an

expansion of the East River Generating Station as part of the East River Repowering Project (ERRP). The demolition of the Waterside plant occurred irrespective of the Proposed Actions, and the site is currently being remediated.

- **708 First Avenue**. The 708 First Avenue site is located within the area bounded by First Avenue, East 41st Street, the FDR Drive, and the extension of the northern street line of East 40th Street. It has an area of 82,424 square feet and is located in an M3-2 zoning district. The site, now vacant, formerly contained a 10-story office building (now demolished) used by Con Edison.

Table S-1 shows the proposed development program.

Table S-1
Summary of Proposed Development Program

Site	Residential (gsf)	Community Facility (gsf)	Commercial Office (gsf)	Retail (gsf)	Below-Grade Space[1] (gsf)	Total (gsf)	Parking Spaces	Publicly Accessible Open Space (gsf)[2]
616 First Avenue	748,574	119,936	-	2,071	137,540	1,008,121	294 public	34,507
685 First Avenue	967,376	-	-	6,352	32,365	1,006,093	110 accessory	7,605
700 First Avenue (Waterside)	2,037,657	-	-	58,074[3]	470,125	4,102,963	651 public, 499 accessory (combined 700/708 First Avenue)	168,659
708 First Avenue	-	-	1,532,437	4,670				
TOTAL	**3,753,607**	**119,936**	**1,532,437**	**71,167**	**640,030**	**6,117,177**	**945 public, 609 accessory**	**210,771**

Notes:
1 Below-grade space calculation includes area devoted to parking and other service requirements, but does not include the 36,279 gsf of below-grade retail space associated with 700 First Avenue.
2 In addition to publicly accessible open space, the proposed development program includes 33,910 square feet (0.78 acres) of private open space on the 700/708 First Avenue parcels.
3 Retail at 700 First Avenue (Waterside) includes 36,279 gsf of below-grade space.
Source: East River Realty Company, LLC

Overall, the proposed 6,117,177-gsf development program would introduce a total of 3,753,607 gsf of residential use (4,166 dwelling units[1]), 119,936 gsf of community facility use, 1,532,437 gsf of commercial office use, 71,167 gsf of retail use, and 640,030 gsf of below-grade space (which includes 315,105 gsf of parking, or 945 public spaces and 609 accessory spaces). The proposed development program would also include 210,771 square feet (4.84 acres) of publicly accessible open space, as well as 33,910 square feet (0.78 acres) of private open space. The 4.84 acres of publicly accessible open space would include 2.82 acres of bonusable public open spaces in the form of public plazas, and 2.02 acres of non-bonusable, publicly accessible passive open space.[2] Figures S-4 through S-7 show the proposed site plan for the development program.

[1] For purposes of analysis, it is assumed that 1 dwelling unit = 850 zoning square feet (zsf). The proposed development program includes 3,541,399 zsf of residential use.

[2] There has been no change in the total amount or the character of the proposed publicly accessible open space as a result of the text amendments proposed since issuance of the Draft SEIS. However, the amount of the proposed open space used as the source of a bonus for FAR has been reduced from 3.35 acres to 1.49 acres because pursuant to modifications to the Proposed Actions proposed since the issuance of the Draft SEIS, a portion of the bonus FAR would now be achieved through the Inclusionary Housing program.

An Affordable Housing Scenario has also been presented that includes the provision of dwelling units for low- to moderate-income households. This development scenario includes a total of 833 low- to moderate-income dwelling units. These affordable units represent 20 percent of the total 4,166 dwelling units in the applicant's proposal.

By parcel, both the proposed development program and the Affordable Housing Scenario would be as follows:

616 First Avenue. The 616 First Avenue parcel would be developed with two residential buildings and a community facility space. On First Avenue, there would be a 47-story (506-foot-tall)[1] residential building (493 dwelling units) with ground-floor retail (the 616-1 building on Figures 1-5 and 1-6). The second residential building (the 616-2 building) would be located on the eastern portion of the site, and would be a 37-story (433-foot-tall) building (340 units). The site would also include a 5-story (123-foot-tall) community facility component. The site would include 34,507 square feet (0.79 acres) of publicly accessible open space between the western and eastern buildings. The total 1,008,121-gsf development would include 748,574 gsf of residential use (833 units), 119,936 gsf of community facility use, 2,071 gsf of retail use along First Avenue, and 294 public parking spaces in a 137,540-gsf below-grade space. There would be a curb cut for the parking garage entrance on East 35th Street toward the intersection with the FDR Drive service road, and a curb cut for truck loading on East 36th Street toward the eastern end of the site.

As mitigation for the significant adverse impact on public schools identified in the Draft SEIS, the applicant and the School Construction Authority (SCA) will enter into an agreement for the construction of an approximately 630-seat, K-8 public school. The school is planned to be operational by September 2012. The school would occupy approximately 92,500 square feet of the 119,936-square-foot community facility space on the eastern portion of the 616 First Avenue parcel. The remaining 27,436 square feet of space would continue to be some other community facility use. The proposed development program analyzed in the Final SEIS maintains the assumption that the entire 119,936 square feet of community facility would be medical office use, with the exception of Chapter 23, "Mitigation," which analyzes the potential for significant adverse impacts resulting from construction and operation of the school on the 616 First Avenue parcel by September 2012.

685 First Avenue. The 685 First Avenue parcel would be developed with a 69-story (721-foot-tall), 973,728-gsf tower (above grade) (see Figure S-6). The total 1,006,093 gsf of development would include 967,376 gsf of residential use (1,066 units), 6,352 gsf of retail use, and 110 accessory parking spaces in a 32,365-gsf below-grade space. A 7,605-square-foot (0.17-acre) publicly accessible landscaped area would be located on the site adjacent to First Avenue and East 40th Street. Curb cuts for the parking garage would be located to the west of the building on both East 39th and 40th Streets. As mentioned above, the 685 First Avenue parcel is located on a zoning lot that contains a Con Edison substation. Under the proposed development program, the unused floor area from the substation would be used on the 685 First Avenue parcel.

700 **First Avenue (Waterside)**. The 700 First Avenue (Waterside) parcel would be developed with 2,053,825 gsf (above grade) in three residential towers. The tower on the southwestern

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[1] As presented in this SEIS, the building heights for the proposed development program are measured above lowest average curb level. These heights are consistent with ERRC's Uniform Land Use Review Procedure application. As measured from above the buildings' ground-floor lobbies, the building heights would be shorter by approximately 1 to 22 feet.

portion of the site (WS1-1 on Figure S-7) would be 66 stories tall (rising to a height of 705 feet) and would contain 841 units; the tower on the eastern portion of the site (WS1-2) would be 60 stories (rising to a height of 650 feet) and would contain 713 units; and the northernmost tower on the parcel (WS2-1, located along First Avenue between the eastern prolongations of East 39th and 40th Streets) would be 57 stories (rising to a height of 606 feet) and would contain 713 units. The total residential area on the development parcel would be 2,037,657 gsf (2,267 units). There would be 16,168 gsf of ground-floor retail along First Avenue, East 38th Street, and the eastern prolongation of East 39th Street, along with 36,279 gsf of below-grade retail space. The 700 and 708 First Avenue parcels would contain a combined 470,125-gsf below-grade area with 499 accessory parking spaces and 651 public parking spaces. Curb cuts for below-grade loading and access to the parking garage would be located mid-block on East 38th Street and on the FDR Drive service road. The 700 First Avenue (Waterside) and 708 First Avenue parcels would also include 168,659 square feet (3.87 acres) of publicly accessible open space, as well as 33,910 square feet (0.78 acres) of private open space. As described in detail in Chapter 5, "Open Space," this open space is expected to include a lawn for active and passive recreation, a 5,627-square-foot concession pavilion with a viewing platform, and a three-block promenade with views of the East River.

708 First Avenue. The 708 First Avenue parcel would be developed with a 1,537,107-gsf (above grade) commercial office tower (see Figure S-7). The tower would be 47 stories tall (rising to a height of 688 feet), and it would include 1,532,437 gsf of commercial office space and 4,670 gsf of ground-floor retail along First Avenue. Two curb cuts for below-grade truck loading and unloading and for access to the parking garage would be located on East 41st Street toward the intersection with the FDR Drive service road.

Figures S-8 and S-9 show illustrative renderings of the proposed development program. Figures S-10 and S-11 show illustrative renderings of the proposed open spaces.

Since the issuance of the Draft SEIS, ERRC has proposed several additions and modifications to the Proposed Actions. With the revised application, the development of the four parcels would be the same as under the proposed development program, except as detailed below.

The applicant has proposed additional text amendments, which affect various provisions of the Inclusionary Housing program, and which currently would be applicable only to the applicant's property. The text amendment pursuant to ZR Section 23-942 (ULURP No. N070530(A)ZRM) would designate the parcels east of First Avenue as part of an "Inclusionary Housing Designated Area." The text amendment would provide that the applicant, in order to achieve an FAR bonus to reach a maximum of 12.0 FAR on these sites for residential or combined residential, commercial, and community facility uses, may participate in the Inclusionary Housing program. This would result in up to 620 preserved and/or new affordable units, either on or off-site within a ½ mile of the project site or anywhere within Community Board 6. Amendments to the provisions of ZR 74-743 (ULURP No. N070530(A)ZRM), with respect to General Large Scale Developments (GLSDs), would allow by special permit the community facility building at 616 First Avenue and the commercial building at 708 First Avenue to be excluded from the calculation of the amount of affordable housing required in order to qualify for the 3 FAR bonus pursuant to ZR 23-942.

ERRC has also proposed to revise the Proposed Actions with regard to the public plaza special permits and certifications in order to reflect the recently adopted regulations for "Privately Owned Public Spaces" (ULURP Nos. C070532(A)ZSM and N070535(A)ZCM), and to eliminate the requested special permit and certification for the plaza at 616 First Avenue (former ULURP Nos. C070524ZSM and N070526ZCM). Additionally, ERRC has requested to amend

the Proposed Actions to allow, by special permit pursuant to ZR 74-743 (ULURP No. C070531(A)ZSM), the distribution of floor area in a GLSD without regard to zoning lot lines, which will allow the distribution of floor area from the 700-708 First Avenue zoning lot to the 685 First Avenue zoning lot.

D. REQUIRED PUBLIC APPROVALS

Development of the proposed development program would require a number of discretionary actions (collectively, "the Proposed Actions"), as follows:

ZONING MAP AMENDMENTS

- Rezoning of the 616 First Avenue parcel from M1-5 and M3-2 to C4-6.
- Rezoning of the 685 First Avenue parcel from C1-9 to C5-2.
- Rezoning of the 700 First Avenue (Waterside) and 708 First Avenue parcels from M3-2 to C5-2.

The proposed zoning is shown in Figure S-12.

ZONING TEXT AMENDMENTS

- Expansion of the definition of General Large Scale Development (GLSD) under Zoning ZR Section 12-10 to allow by special permit the inclusion within a general large-scale development of a zoning lot that contains an existing building not integrally related to the other parts of the general large-scale development, provided that the building covers less than 15 percent of the general large-scale development lot area and provided that there is no bulk distribution from the zoning lot containing such existing building. The expansion of the definition would apply only in C5 and C6 zoning districts and only for a development with a lot area of at least 5 acres.
- Amend ZR Section 74-743, with respect to bulk modifications in general large-scale developments, to allow by special permit a public plaza to be located anywhere within a general large-scale development without regard for zoning lot lines, provided the general large-scale development has a minimum lot area of 5 acres and is located in a C5 or a C6 zoning district.

The applicant proposes to designate the development on the 685, 700, and 708 First Avenue parcels as a GLSD to allow greater flexibility for the purpose of securing better site planning.[1] These parcels largely satisfy the requirements for a GLSD in that they are contiguous, except for being separated by First Avenue, they have a total area that exceeds 1.5 acres, and they will be developed as a unit. (The proposed GLSD boundary is shown on Figure S-13.) However, as the 685 First Avenue parcel contains an existing building—the Con Edison substation—that would not be an integral part of the proposed development, that parcel would not satisfy the current requirements for designation as a GLSD. The proposed change to the definition of a GLSD would make the proposed development eligible as a GLSD. The Con Edison substation would be included within the GLSD as a non-integral building, enabling 517,836 zoning square feet of unused floor area from the substation to be used on the 685 First Avenue parcel.

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[1] The applicant is also proposing to designate the development on the 616 First Avenue parcel as a separate GLSD.

The second text amendment described above would allow a public plaza that generates a floor area bonus on one zoning lot within a GLSD to be located on another zoning lot within the same GLSD. As the amendment would apply to the proposed development program, it would allow, by special permit, a portion of the excess bonus floor area (161,354 square feet) generated by the large open space on the 700 and 708 First Avenue parcels to be used on the 685 First Avenue parcel. The existing Con Edison substation, which occupies most of the 685 First Avenue zoning lot, constrains the ability to provide a public plaza on the 685 First Avenue parcel, which is needed to achieve the maximum FAR of 12.0 on the parcel. The text amendment would allow bonusable open space located elsewhere within the GLSD to address this constraint on the 685 First Avenue parcel.

Since the issuance of the Draft SEIS, the Proposed Actions have been modified to include text amendments that would designate the 616, 700, and 708 First Avenue development parcels as an "Inclusionary Housing Designated Area" pursuant to several provisions of the ZR governing the Inclusionary Housing program. This designation permits floor area bonuses for developments that provide "lower income housing"—defined as housing that is affordable to families earning no more than 80 percent of area median income—either through on-site new construction, or through off-site new construction or the substantial rehabilitation or preservation of existing lower income housing. Any off-site, preserved, or substantially rehabilitated affordable housing provided under the Inclusionary Housing program with the Proposed Actions would be within ½ mile of the 616, 700, and 708 First Avenue parcels and/or elsewhere within Manhattan Community District 6. The potential environmental effects of the provision of affordable housing under the proposed text amendments are encompassed by the impacts analyzed under the Affordable Housing Scenario.[1]

The Proposed Actions also include text amendments to the provisions of the ZR governing GLSDs, which would allow certain modifications of the Inclusionary Housing program for developments on these parcels by special permit. The full text of the provisions of ZR Sections 23-144, 23-15, 23-922, 24-161, 35-31, and 74-743 with the proposed amendments is included in Chapter 22, "Conceptual Analysis of the Proposed Text Amendments" of this SEIS. The amendments are summarized below.

- Amend ZR Section 23-144 to add Community District 6 in Manhattan as an area containing an "Inclusionary Housing Designated Area."

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[1] The Affordable Housing Scenario's 833 affordable units is a more conservative assumption for analyzing and disclosing the potential for significant adverse impacts generated by the introduction of a low- to moderate-income population. The Affordable Housing Scenario introduces 833 on-site affordable housing units which would house an estimated 2,082 low- to moderate-income residents; this is a greater low- to moderate-income population than anticipated through use of the proposed Inclusionary Housing text amendments. With the Proposed Actions the Inclusionary Housing program could result in the development of off-site affordable housing units that would be in addition to the 4,166 on-site dwelling units analyzed under the proposed development program. Depending on how many of the approximately 620 affordable units are provided off-site, use of the Inclusionary Housing text amendments could result in a dwelling unit count and residential population slightly greater than analyzed under the proposed development program, but would not generate any significant adverse impacts not previously identified in the Draft SEIS. The total population generated by the Proposed Actions is expected to fall within the bounds of the population analyzed for the Affordable Housing Scenario.

- Amend ZR Section 23-15 to clarify that the maximum floor area ratio (FAR) of 10 for residential use, which is otherwise permitted in R10 zoning districts, does not apply in "Inclusionary Housing Designated Areas."
- Amend ZR Section 23-922 to add a map of the 616, 700, and 708 First Avenue parcels to be designated as an "Inclusionary Housing Designated Area."
- Amend ZR Section 24-161 and ZR Section 35-31 to provide that the floor area ratios of the Inclusionary Housing Program will apply on zoning lots containing both community facility and residential floor area and will apply to mixed-use buildings, where such zoning lots or mixed-use buildings are located in GLSDs. ZR Section 24-161 and ZR Section 35-31 currently provide that the Inclusionary Housing Program floor area ratios shall apply only where the residential portion of a building on zoning lots containing both community facility and residential floor area or the residential portion of a mixed-use building is developed or enlarged pursuant to the Quality Housing Program.
- Amend ZR Section 74-743 to allow, by special permit in C4-6 or C5 zoning districts, certain modifications to the method of calculating the amount of lower income housing required in order to qualify for the maximum available floor area bonus, specifically, the exclusion of the community facility floor area above the level of the ground floor and the exclusion of the lot area of a zoning lot occupied by a "wholly commercial building" from the calculation of the floor area of any other building on the zoning lot.

By designating the parcels at 616, 700, and 708 First Avenue as an "Inclusionary Housing Designated Area" through the text amendments described above, residential developments or mixed-use developments containing residential floor area on these parcels would be subject to a maximum residential base FAR of 9. According to ZR Section 23-942, a floor area bonus of up to 3 FAR above this base FAR would be available on these parcels for the provision of lower income housing, at a ratio of 1.25 square feet of floor area for every one square foot of lower income housing floor area provided, except that the amount of lower income housing provided in order to qualify for this maximum available bonus need not exceed more than 20 percent of the total floor area in a building, exclusive of ground floor non-residential floor area.

The proposed amendments to ZR Section 74-743 would be applicable only to GLSDs in C4-6 or C5 zoning districts. These amendments would alter the calculation, pursuant to ZR Section 23-942, of the maximum amount of lower income housing required to achieve the full 3 FAR bonus, in two ways: (i) to allow the exclusion of the community facility floor area above the level of the ground floor, and (ii) to allow the exclusion of the lot area of a zoning lot occupied by a "wholly commercial building" from the calculation of the floor area of any other building on the zoning lot. These amendments respond to the unique site planning challenges and programmatic goals of the proposed development program, which includes a large, five-story community facility building on the 616 First Avenue parcel and a commercial office building on the 708 First Avenue parcel. Pursuant to the proposed amendments and special permits to be granted pursuant thereto, the required amount of lower income housing would be based on the total amount of residential floor area in the Inclusionary Housing Designated Area, excluding these non-residential elements. The proposed amendments would also introduce an additional finding to ZR Section 74-743, to require that the City Planning Commission grant the exclusion of floor area or lot area only where such exclusion would facilitate a desirable mix of uses in the GLSD and would be consistent with the goals of the City's Inclusionary Housing Program.

SPECIAL PERMITS

The Proposed Actions include the following special permits:

- Special permit to modify the bulk requirements in a GLSD pursuant to Section 74-743 as follows:

- To allow the distribution of floor area within a GLSD without regard to zoning lot lines, specifically from the zoning lot of the 700 and 708 First Avenue parcels to the zoning lot of the 685 First Avenue parcel. This modification would be necessary in the event that the building at 685 First Avenue is constructed first, before the buildings at 700 and 708 First Avenue. Since the building at 685 First Avenue requires a public plaza bonus (as described below), without the proposed modification the building could not be constructed until the public plaza, and the deck on which it would be built, are completed. Building the plaza before the surrounding buildings would be impractical, given that the plaza would be impacted by construction activities for the adjacent buildings for several years, and would not benefit from the activity of adjacent buildings.

- To allow a public plaza to be located anywhere in a GLSD applicable to the 700, 708, and 685 First Avenue parcels so that some of the excess bonus floor area generated by the open space on the 700 and 708 First Avenue parcels can be used on the 685 First Avenue parcel, which would not contain an open space and would, therefore, not generate any bonus floor area. In addition, this special permit would allow development of the large publicly accessible open space on the 700 and 708 First Avenue parcels. As proposed, the open space would result in the distribution of bulk across the parcels in slender towers situated around the open space. As noted above, the large open space would generate bonusable floor area for development on both the 685 First Avenue parcel and the 700 and 708 First Avenue development parcels.

- To modify height and setback regulations within a GLSD, applicable to all four development parcels. On the 616 First Avenue parcel, the two proposed buildings do not conform to the applicable height and setback restrictions of ZR Sections 23-632 or 23-64, or alternatively to the tower regulations of ZR Section 23-65. If the requested height and setback waivers are granted, the floor area contained on the 616 First Avenue parcel would include two tall, slender towers, and a relatively low-rise component that would contain the community facility use. In addition, the special permit would enable the development of a publicly accessible open space on the site. As for the other parcels, the special permit would allow development of tall, slender towers that rise for their full heights without setbacks, penetrating certain sky exposure planes, and do not observe the applicable height and setback restrictions of ZR Sections 23-632 or 23-64, or alternatively the tower regulations of ZR Section 23-65. On the 700 and 708 First Avenue parcels, this waiver of the height and setback regulations would enable the proposed development to include a larger publicly accessible open space. The project approvals would establish maximum zoning envelopes for the proposed buildings. These zoning envelopes would regulate the heights, size, and shape of footprints, and location of the proposed buildings, which would be required to fall within the envelopes.

- To allow, for the 700 and 708 First Avenue development parcels, the exclusion of the lot area occupied by a "wholly commercial building" from the calculation of the floor area of any other building on the zoning lot. This special permit would allow the commercial office building at 708 First Avenue to be excluded from the Inclusionary Housing bonus calculations for the residential buildings at 700 First Avenue. As noted above, this

special permit responds to the unique site planning challenges of this large site, and to the programmatic goal of providing a mixed-use development. This special permit would enable the commercial office building at 708 First Avenue to be treated as though it were on a separate zoning lot from the residential buildings at 700 First Avenue, such that the residential buildings would utilize the Inclusionary Housing bonus and the commercial building would utilize the public plaza bonus.

- To allow, for the 616 First Avenue development parcel, the exclusion of the community facility floor area above the level of the ground floor from the Inclusionary Housing bonus calculations for the residential buildings on the zoning lot. This special permit would facilitate the inclusion of a large community facility building as part of a desirable mix of uses within the proposed development, while fulfilling the goal of the City's Inclusionary Housing Program that lower income housing be provided in an amount equal to 20 percent of the total housing on the zoning lot.

- Special permit applicable to the 685, 700, and 708 First Avenue development parcels to modify the public plaza design standards pursuant to ZR 74-91. As proposed, the open space on the 700 and 708 First Avenue parcels would meet several of the public plaza standards of ZR Section 37-70, but it would not comply with the following requirements: treatment of nonbonused areas adjacent to buildings, proximity of the plaza to other open spaces, relative sizes of major and minor portions of the plaza, visibility of the minor portion of the plaza, obstructions to public access from adjacent sidewalks, elevation, 24-hour access, lighting, seating, tree planting and height of planting beds, location of bicycle parking, litter receptacles, width of circulation paths, minimum tread of steps, visibility of passenger drop-off areas from the plaza, entry plaques, and location of building entrances pursuant to ZR Sections 37-712, 37-713, 37-715 and 37-716, 37-716, 37-721, 37-722, 37-727, 37-743, 37-741, 37-742, 37-745, 37-744, 37-723, 37-725, 37-726, 37-751, and 37-76 respectively. These modifications would accommodate the development of a large open space that would rise in elevation to provide views over the FDR Drive and to allow for potential future connections to the East River Esplanade. Because of the size of this proposed plaza and the design goal of establishing visual connections to the East River, certain standard public plaza requirements are unworkable, and a modification of these requirements is intended to allow for a better site plan and plaza design. Special permit to allow a public parking garage at 616 First Avenue pursuant to ZR Sections 13-562 and 74-52. This special permit would allow a proposed 294-space public parking garage on 616 First Avenue. The special permit is requested to address the demand for parking that would be generated by the occupants, visitors, customers, and employees of the proposed development program.
- Special permits pursuant to ZR Sections 13-561, 13-562 and 74-52 to allow a public parking garage and an accessory parking garage at 700 and 708 First Avenue containing more than the number of spaces otherwise permitted. The special permit for a public parking garage would allow the proposed below-grade parking garage with 651 public spaces on the 700 and 708 First Avenue parcels. The special permit for the accessory parking garage would allow the proposed below-grade parking garage with 499 accessory spaces to have more than the maximum number of 200 spaces that would be allowed as-of-right pursuant to ZR Section 13-10. The special permit is requested to address the demand for parking that would be generated by the occupants, visitors, customers, and employees of the proposed development program.

MISCELLANEOUS APPROVALS

- At 685 First Avenue, modification of previously-approved BSA Special Permit to permit development on the site. The existing special permit limits development on the zoning lot to the Con Ed substation and parking area.
- Certification from the City Planning Commission pursuant to Section 26-15 (curb cuts) for streetscape modifications to allow more than one curb cut on a narrow street for 685 First Avenue (East 39th Street) and for 708 First Avenue (East 41st Street), and certification pursuant to ZR Section 26-17 modifying the requirements of Section 26-15 to allow curb cuts for public parking and loading berths on the FDR Drive service road (a wide street).
- Certification from the City Planning Commission pursuant to ZR Section 37-015 modifying the retail continuity requirements along the FDR Drive service road frontage of the 616 First Avenue and 700 and 708 First Avenue parcels and the retail continuity requirements along the First Avenue frontage of the 685 First Avenue parcel.
- Certification from the City Planning Commission pursuant to ZR Section 26-17 modifying the streetwall transparency requirements of ZR Section 37-017 with the respect to the FDR Drive service road frontage of the 616 First Avenue parcel and to the East 38th Street, East 41st Street, FDR Drive service road, and certain public plaza frontages of the 700 and 708 First Avenue parcels.
- Certification from the City Planning Commission pursuant to ZR Section 37-78 that the public plazas on the 700 and 708 First Avenue parcels comply with ZR Section 37-70, except as modified by the proposed special permit pursuant to ZR Section 74-91 (which is described above).

RESTRICTIVE DECLARATION

The project sponsor shall record a restrictive declaration that will govern development of the parcels, whether or not the General Large Scale Development special permits are exercised. The restrictive declaration will require that any construction on the development parcels conform to the plans and drawings approved pursuant to the city's Uniform Land Use Review Procedure (ULURP), which plans and drawings will regulate the uses and envelope of all buildings, including their height, dimensions, and location on the site, the floor area of each building in the development, the location and dimensions of curb cuts, and the dimensions and design elements of the public plazas, including the location and size of view corridors. The restrictive declaration will also provide for the implementation of any required mitigation measures and measures described herein that are required to avoid significant impacts. If the project sponsor wishes to build on the premises other than in accordance with these approved plans, it will be necessary to seek a modification of the restrictive declaration.

THE UNDC PROJECT

In the FGEIS, the potential United Nations Development Corporation (UNDC) project at East 41st Street and First Avenue was considered as part of the baseline condition in the Future Without the Proposed Actions analysis. However, because the UNDC project is complex and requires approvals from the New York State Legislature, the New York City Economic Development Corporation, and possibly other public agencies, including its own environmental review, it is uncertain whether the project will be completed by 2014 or, in fact, ever built. For this reason the UNDC project is not included in the SEIS future baseline condition. The various analysis areas do, however, consider an additional future baseline condition in which the UNDC project is constructed.

E. PROBABLE IMPACTS OF THE PROPOSED ACTIONS

LAND USE, ZONING, AND PUBLIC POLICY

FGEIS FINDINGS

The FGEIS concluded that no significant adverse impacts on land use, zoning, and public policy would occur from either an As-of-Right Development Scenario or the three illustrative development programs associated with a 12.0 FAR Rezoning Scenario. The FGEIS found that each of these four development programs would have different effects on land use, zoning, and public policy in the analyzed ¼- and ½-mile study areas. Under the As-Of-Right Scenario, the existing manufacturing zoning districts would have remained, and would have continued to be incompatible with surrounding development. Some commercial uses could have been constructed under this scenario, but these uses would not have been consistent with prevailing development trends towards high-density residential uses immediately north of East 34th Street and high-density mixed-use development near the United Nations. Each of the illustrative development programs associated with the Rezoning Scenario was found to be consistent with trends in both study areas. These programs would have replaced the obsolete manufacturing zoning currently mapped on the development parcels with zoning designations and land uses that would have been more compatible with existing land uses and city policy for the area.

PROPOSED ACTIONS

The proposed development program would be most similar to the FGEIS Mixed-Use Development Program with Office on 708 First Avenue, and would result in a mixed-use development in far east Midtown Manhattan, with high-rise residential, retail, commercial office, community facility, and open space land uses. Office uses would be located on the northernmost development parcel, community facility uses would be located on the southernmost development parcel, and high-rise residential, retail, and publicly accessible open space uses would be spread throughout the development sites. This development program would be compatible with current land use patterns in the study areas, which include high-density residential uses north of 34th Street in far east Manhattan and high-density mixed-use development near the United Nations.

With the exception of 685 First Avenue, the development parcels are currently zoned as manufacturing districts. The proposed development program would rezone the parcels to C5-2, which is currently mapped to the immediate north of the sites, and C4-6, which is not currently mapped in the study areas but would promote development similar to the existing conditions along First Avenue. The proposed zoning districts would therefore be more consistent with the prevalent zoning in the study areas than the existing manufacturing districts.

The proposed development program would not conflict with any public policies in the study areas. The conclusions reached by the FGEIS in regard to land use, zoning, and public policy would remain valid for the proposed development program considered in this SEIS. The Proposed Actions would not result in significant adverse impacts to land use, zoning, and public policy.

Affordable Housing Scenario

The zoning actions required for the Affordable Housing Scenario would generally be similar to those required for the proposed development program. Application of the Inclusionary Housing Designated Area to the development parcels would utilize an existing zoning designation

appropriate for C4-6 and C5-2 districts. In addition, the Affordable Housing Scenario would further the City's stated goal of creating more affordable housing to address the City's affordable housing shortage. Therefore, the Affordable Housing Scenario would not result in significant adverse impacts in the areas of land use, zoning, or public policy.

WITH THE UNDC PROJECT

The UNDC project would create a 35-story, 950,000-square-foot office building for United Nations office workers to the immediate south of the existing UN campus. The site, bounded by East 42nd Street, the FDR Drive, East 41st Street, and First Avenue, is currently occupied by Robert Moses Playground, a public park owned by the city. The project would require the demapping of this playground. The UNDC project would add to the existing commercial office uses surrounding the United Nations complex and reinforce the mixed-use character of the area. Its presence on the block immediately north of 708 First Avenue would compliment the office use proposed for that parcel in the proposed development program. Overall, the UNDC building as a background project would not alter the conclusion that the Proposed Actions would not result in significant adverse impacts to land use, zoning, and public policy.

SOCIOECONOMIC CONDITIONS

FGEIS FINDINGS

The FGEIS found that the sale by Con Edison to ERRC of the four development parcels would benefit consumers of utility services because it would provide Con Edison with revenue which can be applied against the other costs of utility service, and would relieve Con Edison of the expenses of carrying and maintaining aged and antiquated facilities, infrastructure, and taxable property. In terms of redevelopment, the FGEIS analysis found that no significant adverse impacts would result with respect to any areas of socioeconomic concern outlined in the CEQR Technical Manual, in terms of Direct Residential Displacement, Direct Business and Institutional Displacement, Indirect Residential Displacement, Indirect Business and Institutional Displacement Analysis, or Effects on a Specific Industry.

PROPOSED ACTIONS

The analysis finds that the Proposed Actions would not result in significant adverse socioeconomic impacts due to direct or indirect residential and business displacement, nor would the Proposed Actions adversely affect a specific industry. The Proposed Actions would introduce new residents and workers to the study area who would support existing businesses and generate substantial new employment during construction and operation. The amounts and types of uses now proposed are within the envelope of development considered in the FGEIS; the amounts of residential, commercial office, and community facility uses now proposed are less than the maximum amounts analyzed in the FGEIS. The amount of retail provided as part of the proposed development program would be similar to the amounts previously analyzed, and would enhance the limited retail presence along First Avenue. The background conditions in the study area continue to reinforce development trends from the past 20 to 30 years that have extended commercial development eastward and have created many large residential towers on both the avenues and streets in the Murray Hill, Kips Bay, and Midtown East neighborhoods. The development under the Proposed Actions would reflect, rather than alter, the existing residential and commercial trends in the study area.

Affordable Housing Scenario

Under the Affordable Housing Scenario, there would be approximately 833 low- to moderate-income dwelling units, representing 20 percent of the total dwelling units. Assuming that the low- to moderate-income units would have an average household size of 2.5 persons, the population generated by this scenario would be 7,282 residents, which is still within the bounds of the programs analyzed in the FGEIS. Based on rent criteria for the city's 80/20 Program, the 833 units in the proposed project would be occupied by households earning at or below $70,900. In 1999, 50 percent of households in the study area (or 7,149 households) had incomes below $74,999. Thus, this scenario would increase the number of households earning less than $74,999 by 12 percent, and in doing so would introduce a more economically diverse residential population compared to the proposed development program, assuming all market-rate units. However, neither program would introduce a population that is substantially different from the socioeconomic character of the study area's existing population since the study area has a considerably higher median income compared to Manhattan and New York City as a whole. Therefore, similar to the proposed development program, the Affordable Housing Scenario would not result in significant adverse socioeconomic impacts.

WITH THE UNDC PROJECT

If the UNDC project were to be completed by the 2014 build year, its development would not alter the conclusion that the Proposed Actions would not result in significant adverse socioeconomic impacts. Both the UNDC building and the proposed development program would contribute to the mixed-use character of the portion of the study area close to the United Nations.

COMMUNITY FACILITIES

FGEIS FINDINGS

The FGEIS found that none of the illustrative development programs would have significant adverse impacts on police and fire protection services, libraries, or outpatient care facilities. However, under the Rezoning Scenario's illustrative development programs, the number of additional students generated would have exceeded the projected capacity within the public elementary schools in the vicinity of the development parcels and in Community School District (CSD) 2 as a whole, resulting in significant adverse impacts. The FGEIS also concluded that development under the Affordable Housing Scenario would have a significant adverse impact on elementary schools in the vicinity of the development parcels and in CSD 2 as a whole, and that there would likely be a significant adverse impact on public day care centers. Using eligible child rates provided in the *CEQR Technical Manual*, the FGEIS analysis found that the Affordable Housing Scenario could generate demand greater than 5 percent of the collective capacity of study area day care centers.

PROPOSED ACTIONS

Fire Protection and Emergency Services

The Proposed Actions are not expected to result in significant adverse impacts to fire protection and emergency services. According to a letter from the Fire Department of New York (FDNY) dated June 20, 2007, FDNY would have no problem in supporting the proposed development. In the future with the Proposed Actions, FDNY would evaluate the need for personnel and equipment and make necessary adjustments to adequately serve the area. All development would be constructed in accordance with applicable fire and safety codes.

FDNY response times are not expected to be significantly affected by the projected increases in traffic generated by the Proposed Actions. Access to and from the study area's fire stations will not be directly affected by the proposed development program. Access to the development parcels would remain as it is today (no street closings), and on-site emergency vehicle access would be created on the prolongations of East 39th and East 40th Streets.

The proposed development program would contribute to congested traffic conditions at many locations within the study area (see the "Traffic" section, below). However, FDNY and emergency service vehicles can maneuver around and through congested areas because they are not bound by standard traffic controls. Response times have decreased citywide, and are expected to decrease further despite the increasing density and congested traffic conditions in many areas of the city, as the result of improvements in dispatching technology. Service to surrounding areas would continue to be provided by FDNY facilities that have a broad geographic distribution. Therefore, incremental traffic volumes projected to occur with the Proposed Actions are not expected to significantly affect FDNY response times.

Conditions with a Special United Nations Event

The United Nations hosts special events during the year that result in restricted access in the vicinity of the United Nations headquarters. The largest of these events is the annual meeting of the General Assembly, which occurs in September. The General Assembly meeting results in intermittent street closures and traffic diversions in the vicinity of the United Nations headquarters, resulting in vehicular congestion on surrounding roadways.

Traffic officers direct vehicular movement at affected intersections during United Nations special events. FDNY is aware of street closures and resulting vehicular diversions and therefore can make necessary adjustments in determining the most effective route for responding to incidents. Furthermore, FDNY has the ability to travel within restricted areas if necessary.

Police Protection

The Proposed Actions are not expected to result in significant adverse impacts to police protection services. The proposed development program would not affect the physical operations of, or access to and from, a precinct house. Access to the development parcels would remain as it is today (no street closings), and on-site emergency vehicle access would be created on the prolongations of East 39th and East 40th Streets. In the future with the Proposed Actions, NYPD vehicles would be able to access the development parcels and surrounding area as they do other areas throughout New York City, including the most congested areas of Midtown and Downtown Manhattan.

The proposed development program would contribute to congested conditions at many study area locations (see the "Traffic" section, below). However, NYPD vehicles, when responding to emergencies, are not bound by standard traffic controls; they are capable of adjusting to congestion encountered en route to their destinations and are therefore less affected by traffic congestion. Since 2002, the 17th Precinct's average response time to critical incidents has fluctuated annually by as much as 21 percent, but decreased as a whole by 73 seconds between 2002 and 2007, despite consistently congested traffic conditions over time at many locations in the study area. Therefore, incremental traffic volumes projected to occur with the Proposed Actions are not expected to significantly affect police response times.

The proposed development program may necessitate the assignment of additional personnel, resources, and equipment to the study area. Typically, a commitment of resources would be based on demonstrated need and would not be made until operational statistics for the proposed

project become available. Overall, the role of the Police Department in providing effective, efficient service is not expected to be significantly affected by the development resulting from the Proposed Actions.

Conditions with a Special United Nations Event

Traffic officers direct vehicular movement at affected intersections during United Nations special events. As a coordinating agency for special event conditions, NYPD is aware of street closures and resulting vehicular diversions and therefore can make necessary adjustments in determining the most effective route for responding to incidents. Furthermore, NYPD has the ability to travel within restricted areas if necessary.

Public Schools

The analysis concluded that both the proposed development program and the Affordable Housing Scenario would have a significant adverse impact on public elementary and intermediate schools as early as 2010 in Planning Zone 4 of Community School District (CSD) 2. It is estimated that the proposed development program would generate approximately 417 public elementary school students and 83 intermediate school students. The Affordable Housing Scenario is expected to generate a slightly larger number of public school students (433 elementary and 92 intermediate school students) than the proposed development program. In both of these scenarios, the shortfall of seats in elementary and intermediate schools within Planning Zone 4 would increase by 5 percent or more. The significant impact to public intermediate schools, which was not identified in the FGEIS analysis, is the result of updated New York City Department of Education (DOE) enrollment and projection data and changes in background conditions in the study area.

Mitigation for Public School Impacts

The Draft SEIS analysis stated that in order to mitigate the projected shortfall in school seats, either one or a combination of the following measures would need to be undertaken:

- Shifting the boundaries of school catchment areas within CSD 2 to move students to schools with available capacity;
- Creating new satellite facilities in less crowded schools;
- Leasing school space to be constructed on the development parcels; and/or
- Building new school facilities off-site.

The applicant and the SCA will enter into an agreement for the construction of an approximately 630-seat, K-8 elementary/intermediate school to be located at 616 First Avenue. The school would occupy approximately 92,500 square feet of the community facility space on the 616 First Avenue parcel (i.e., part of the 119,936 square feet of community facilities [medical office] space analyzed in this SEIS). The remaining 27,436 square feet of community facility space would continue to be another community facility use. The inclusion of a school would not result in any changes to the proposed development program's overall floor area, height, or massing.

The school is planned to be operational by September 2012. Given that 2010 is the first year in which a significant adverse school impact could occur under the Proposed Actions, with the construction of the school completed by September 2012 there would be a temporary significant adverse school impact for a period of up to approximately two school years (from the time the 685 First Avenue residential building is occupied until the school is available.). Other potential mitigation measures identified in the Draft SEIS—shifting the boundaries of school catchment areas within the CSD, creating new satellite facilities in less crowded schools, and building new

school facilities off-site—if feasible, could fully or partially mitigate the temporary significant adverse impact. Absent the successful implementation of any of these measures, there would be the potential for a temporary unmitigated significant adverse public school impact.

Because a school use instead of another community facility use could result in impacts different from those analyzed in the Draft SEIS, the environmental consequences of the inclusion of this school in the proposed development program are analyzed in the Final SEIS.

Land Use, Zoning, and Public Policy

The school would be considered compatible with those land uses already established in the study area and those that would be included under the Proposed Actions, and with the residential, park, retail, and institutional uses that are found on the surrounding blocks. Thus, the construction and operation of a school on the project site would not result in any significant adverse impacts on land use, zoning, and public policy.

Socioeconomic Conditions

The addition of a public elementary/intermediate school would not result in potential direct or indirect residential or business displacement, nor would it adversely affect any specific industry. Therefore, the construction and operation of a school on the project site would not result in any significant adverse impacts with respect to socioeconomic conditions.

Community Facilities

A new 630-seat, K-8 elementary/intermediate school on the project site would provide capacity in excess of the projected demand generated by either the proposed development program or the Affordable Housing Scenario. The 630 new school seats would fully accommodate the estimated 417 elementary and 83 intermediate school students introduced to Planning Zone 4 by the proposed development program, or the estimated 433 elementary and 92 intermediate school students generated under the Affordable Housing Scenario. The new school would therefore provide additional seating to satisfy a portion of the shortfall of capacity projected to occur in the future without the Proposed Actions. Absent the Proposed Actions, there would be an estimated total shortfall of 734 elementary and intermediate school seats in Planning Zone 4 by 2014; with the Proposed Actions and the new school, there would be an estimated shortfall of 604 elementary and intermediate school seats with the proposed development program, and a 629-seat shortfall with the Affordable Housing Scenario.

Open Space

While the specific design of the new school would be completed at a later date, it is assumed that the school would include outdoor play areas including playground space or active play yards. The provision of such space may reduce the publicly accessible open space on the 616 First Avenue parcel by an insignificant amount. However, the addition of a public elementary/intermediate school would not alter the findings that the Proposed Actions would improve study area open space ratios, and would not result in significant adverse open space impacts.

Shadows

The new public school on the 616 First Avenue development parcel would not alter the total amount of floor area or massing of the proposed development program, either on the 616 First Avenue parcel or elsewhere on the project site. There would be no changes in building height or redistribution of bulk. The construction of the school building at 616 First Avenue by 2012 would result in some project-generated shadows on Manhattan Place Plaza earlier than would

occur under the phasing schedules described in Chapter 20, "Construction Impacts." However, the shadows cast by the 5-story school facility would be minor and would not advance the estimated timing of the significant adverse shadows impact on Manhattan Place Plaza. By 2014 the extent and duration of shadows from the project's buildings would be the same, and the significant adverse shadow impacts identified on Manhattan Place Plaza and the Tudor City open spaces during the winter analysis period would remain.

Historic Resources

The construction and operation of a school at the 616 First Avenue development parcel would not alter the conclusions of the historic resources analysis. Under the Proposed Actions, the proposed development program resulted in no significant adverse impacts on historic resources, and given that the building location and overall floor area, height, and bulk would be the same with the addition of the school, there would be no potential for significant adverse impacts on historic resources.

Urban Design And Visual Resources

As stated above, the provision of an approximately 630-seat, K-8 elementary/intermediate school on the project site would not result in any changes in the height or bulk of any of the proposed buildings. Therefore, as with the programs analyzed under the Proposed Actions, the inclusion of a school in the community facility space would not result in any significant adverse impacts with respect to urban design and visual resources.

Neighborhood Character

The construction and operation of a school would not alter the conclusions with respect to neighborhood character. The school would not result in any new impacts to the component environmental areas of neighborhood character and would generally be consistent with the residential and mixed-use character of the surrounding area.

Natural Resource

The inclusion of a school in the development program would not result in changes to the conclusions with respect to natural resources. There would be no significant adverse impacts on natural resources.

Hazardous Materials

The inclusion of a public school in the proposed development program would not alter the SEIS's conclusions with respect to hazardous materials. Activities associated with construction of the school, like the rest of the development program, would be subject to measures including Site Management Plans, the conditions of a restrictive declaration, and a DEP-approved remedial action plan and construction health and safety plan. With these measures, there would be no potential for significant adverse hazardous materials impacts on students or staff at the school.

Infrastructure

The proposed school on the project site would not result in any significant adverse impacts on the City's infrastructure. The school's water usage would be less than the total amount of water usage projected for the community facility use as medical office space and would not be expected to noticeably affect municipal water supply conditions or reduce water pressure in the surrounding area. The school's sewage flow would represent a minimal percentage of the Newtown Creek Water Pollution Control Plant's capacity of 310 million gallons per day. With the school included in the project, the Proposed Actions would have an even greater beneficial

effect in terms of lessening the number of CSO events or CSO discharge volume as compared to conditions with medical office use.

Solid Waste And Sanitation Services

The school would be expected to generate approximately 650 pounds of solid waste per week during the school year, considerably less than the estimated 3,598 pounds of solid waste per week that would be generated by medical office uses in the community facility space. To comply with the City's recycling plan, the school would be required to accommodate the source separation of recyclable materials. Disposable wastes and recyclable materials would be collected by the New York City Department of Sanitation (DSNY). The school-generated waste would be negligible compared with the 13,000 tons per day handled by DSNY, and would not have a significant effect on New York City's solid waste disposal system.

Energy

Based on energy use rates in the *CEQR Technical Manual*, educational uses have lesser energy demand as compared to health care uses and commercial office uses. Therefore, the energy demand expected from a school would be less than projected for the medical office/community facility space assumed in the Draft SEIS.

Traffic And Parking

A 630-seat, K-8 elementary/intermediate school would serve new demand from the proposed project and existing demand from surrounding residential development. The school would be a substantially smaller vehicle traffic generator compared to the medical office/community facility space. The school would generate approximately 239 fewer vehicle trips in the weekday AM peak hour, 41 fewer vehicle trips in the weekday midday peak hour, 138 fewer vehicle trips in the weekday PM peak hour, and 102 fewer vehicle trips in the Saturday midday peak hour. Thus, inclusion of the school in place of the medical office/community facility space analyzed in the SEIS would not result in any significant adverse impacts not identified in the traffic analysis for the Proposed Actions. There would be adequate parking capacity on-site to accommodate school staff.

Transit And Pedestrians

In the AM, midday, PM, and Saturday peak hours, the proposed program with a school would generate fewer subway and bus trips than the proposed program medical office community facility use analyzed as part of the proposed development program in the Draft SEIS. Therefore, new significant adverse impacts would not occur with respect to subway or bus service.

During the weekday PM peak hour, the proposed program with a school would generate approximately 50 percent fewer pedestrian trips than the proposed program's medical office community facility use, accounting for all modes that may contain a walk component. In the Saturday midday peak, the proposed program with a school would generate 4 percent fewer trips. In the AM and midday peak hours, the school would generate more walk trips than the proposed project's medical office community facility use. No new significant adverse pedestrian impacts would be predicted if a school use is provided at this location. Consistent with standard operating practices and procedures of the SCA, pedestrian improvements, such as high-visibility crosswalks and signage would be incorporated as part of the school's design.

Air Quality

The inclusion of the proposed school would not alter the conclusions with respect to air quality from mobile sources. The proposed action with the proposed school would generate fewer

vehicle trips and, therefore, less emissions due to mobile sources. The proposed school's proximity to the FDR Drive would not result in any new impacts.

There would be no significant adverse impacts from stationary sources. The only stationary source of air pollutants expected to be associated with the school would be the emissions from the combustion of fossil fuels by heating, ventilation, and air conditioning (HVAC) equipment. HVAC systems for the school and community uses would be vented at the top of the community facility building, instead of the top of the adjacent residential building. A screening analysis was performed using the procedures outlined in the *CEQR Technical Manual* to examine the potential effects, either temporary or permanent, of venting the HVAC exhaust to the roof of the proposed building that would house the school. The analysis showed that at distances equal to or greater than approximately 52 feet using natural gas, no significant air quality impacts from the projected development's HVAC systems are anticipated.

Potential impacts on the school's contemplated rooftop playground were assessed. Utilizing the proposed building height and development size, the restrictive measures on stack height and set back would be used to avoid the potential for significant adverse impacts to a rooftop playground from the HVAC stack exhaust(s).

To preclude the potential for significant adverse air quality impacts from the proposed school, the restrictive declaration would specify the HVAC operating and location requirements for each of the proposed developments. With these restrictions, no significant adverse air quality impacts are expected with the addition of the school to the development program.

Noise

The proposed school would be located in an area with high ambient noise levels, and would require 40 dBA of window/wall attenuation on the east façade, 35 dBA of window/wall attenuation on the south façade, and 35 dBA of attenuation on the west façade to satisfy CEQR interior noise requirements. (The wall to the north does not contain any windows.) The school would include central air conditioning and a minimum of double-glazed windows to achieve these attenuation values. The provision of a school would not result in significant adverse impacts related to traffic noise.

School playground areas are noise generators. Based upon noise measurements made at a series of New York City school playgrounds for SCA, noise from the proposed rooftop school playground would be expected to produce approximately an $L_{eq(1)}$ value of 75 at the playground boundary and would be expected to decrease by the following values at the specified distances from the playground boundary: 4.8 dBA at 20 feet, a 6.8 dBA at 30 feet, and 9.1 dBA at 40 feet. For all distances between 40 and 300 feet, a 4.5-dBA drop-off per doubling of distances from the playground boundary was assumed.

At the proposed project's open spaces in the vicinity of the school, noise levels would be comparable to those found in parks containing playgrounds in the City's urban environment. Therefore, no significant adverse noise impacts are anticipated as a result of inclusion of the school in the development program. The analysis also concludes that the school playground would not have any significant impacts on nearby residential buildings.

Construction Impacts

The analyses presented in Chapter 20, "Construction Impacts," assume that the community facility space would be completed by 2014. Those analyses concluded that there would be no significant adverse impacts from the proposed actions' construction activities. It is now planned

that the community facility space that would include the proposed school would be operational approximately two years earlier, by September 2012.

Traffic. While an advancement in the construction schedule for the proposed school would result in additional construction worker and truck traffic approximately two years earlier, the overall projected peak construction period analyzed in Chapter 20 would not change; the latter part of 2009 would continue to be the highest peak in terms of construction vehicle activities. Therefore, the same transportation-related conclusions made in Chapter 20 would be applicable for this school mitigation.

Air Quality. The construction of the school earlier in the schedule, would not change the peak emissions identified, or the conclusions in Chapter 20, "Construction Impacts."

Due to the close proximity to the school, in addition to the emissions controls used for the construction of the entire project, all nonroad diesel engines used for the construction at the adjacent residential building after the school construction is completed would be certified as EPA Tier 2 or better. This commitment would be included in the restrictive declaration.

The construction of the Proposed Actions would not result in predicted significant adverse impacts on air quality at the school. Although a single event where 24-hour average $PM_{2.5}$ concentration increments could potentially exceed the threshold level of 2 $\mu g/m^3$ was predicted at a single location, this may not occur at all if the worst-case meteorological condition (a single day per year) and the peak construction activity do not coincide. Since this exceedance is unlikely to occur, and if it did, would be limited in frequency (once), duration (a single day), severity (15 percent above the threshold), and extent (a single window), this would not be a significant adverse impact on air quality. Annual average $PM_{2.5}$ concentrations were predicted to be lower than the annual threshold, and PM_{10}, CO, and NO_2 are not expected to exceed the NAAQS. Therefore, no significant adverse air quality impact would occur at the school due to construction of the Proposed Project.

Noise. Construction of the school would not result in any additional significant adverse noise impacts. The off-site location most affected by this construction would be the Rivergate apartments across 35th Street and south of proposed school. This building has already been identified to experience significant adverse noise impacts from project-related construction. However the Rivergate building has double glazed windows and an alternate means of ventilation (i.e. air conditioning). These measures provide approximately 35 dBA of window/wall attenuation, and would result in interior noise levels during much of the time that are below 45 dBA L_{10}. Replacing existing windows at the impacted buildings with windows which would provide a higher level of attenuation would not be a practicable and feasible mitigation measure. The cost and dislocations associated with such mitigation would be disproportionate to the marginal benefit to be realized.

The school would be located in an area with high ambient noise levels, and would require 40 dBA of window/wall attenuation on the eastern façade, 35 dBA of window/wall attenuation on the southern façade, and 35 dBA of attenuation on the western façade. (The wall to the north would not contain any windows.) The school would include central air conditioning and a minimum of double-glazed windows to achieve these attenuation values. With these measures, construction of adjacent project buildings would not cause a significant adverse impact inside the school building. While noise from nearby construction activities would be noisy and intrusive at the school's rooftop playground, this is an active recreation area, whose use is not dependant on a condition of quiet. Noise levels at the playground would be comparable to other

outdoor playgrounds that are close to construction sites, would be temporary, and would not be considered a significant adverse impact.

Public Health

As described above, the construction and operation of a school on the project site would not result in any new hazardous materials, air quality, or noise impacts. Therefore, no significant adverse impacts on public health would occur.

Libraries

The proposed development program would result in a population increase of less than 5 percent in the ¾-mile library service study area and therefore would not exceed the threshold identified by the *CEQR Technical Manual* as a potentially significant impact on library services. In the future with the Proposed Actions, the population of the study area would continue to be well served by the large number of volumes in the study area libraries, which include the largest libraries in the New York Public Library (NYPL) system. Therefore, this analysis, like that of the FGEIS, concludes that neither the Proposed Actions nor the Affordable Housing Scenario would result in a significant adverse impact on local library services.

Hospitals and Health Care Facilities

According to the *CEQR Technical Manual*, an analysis of outpatient health care facilities is required if a project would result in more than 600 low- to moderate-income housing units. The Affordable Housing Scenario would introduce approximately 833 low- to moderate-income units by 2014, and therefore, an analysis of this scenario is warranted.

Under the Affordable Housing Scenario, the Proposed Actions would introduce new low- to moderate-income residents to the 1-mile health care study area. While this population would add an estimated 812 annual visits to study area emergency rooms, this increase is less than the 5 percent increase in the demand for services identified in the *CEQR Technical Manual* requiring additional analysis, and no significant adverse impacts to hospitals and emergency rooms are expected. This is consistent with the conclusion of the FGEIS that no significant impacts on health care facilities would result from the Affordable Housing Scenario included in that analysis.

Day Care Centers

According to the *CEQR Technical Manual*, a publicly funded day care center analysis is required if a project would result in more than 50 eligible children, based on the number of low- to moderate-income housing units provided. The Affordable Housing Scenario would generate an estimated 100 children under the age of 12 potentially eligible for publicly funded day care. This could exacerbate the shortage of publicly funded day care slots expected within a one-mile radius of the development parcels in the future without the Proposed Actions. The Affordable Housing Scenario could therefore result in an increase in demand for publicly funded day care greater than 5 percent of the study area capacity. Therefore, this analysis concludes that a significant adverse impact on publicly funded day care services could occur as a result of the Affordable Housing Scenario. This is the same conclusion drawn for the Affordable Housing Scenario analyzed in the FGEIS.

Mitigation for Day Care Center Impacts

Possible mitigation measures for this significant adverse impact include adding capacity to existing facilities if determined feasible through consultation with the Administration for

Children's Services (ACS) or providing a new daycare facility within or near the development parcels. At this point, however, it is not possible to know exactly which type of mitigation would be most appropriate or when its implementation would be necessary, because the demand for publicly funded day care depends not only on the amount of residential development in the area but on the proportion of new residents who are children eligible for publicly funded day care (not all children meet the social and income eligibility criteria). Furthermore, several factors may limit the number of children in need of publicly funded day care slots. For example, families in the one-mile study area could make use of alternatives to publicly funded day care facilities. There are slots at homes licensed to provide family day care that families of eligible children could elect to use instead of public day care centers. Parents of eligible children may use ACS vouchers to finance care at private day care centers in the study area. Additionally, parents of eligible children are not restricted to enrolling their children in day care facilities in a specific geographical area, and could use the ACS voucher system to make use of public and private day care providers beyond the one-mile study area (some parent/guardians choose a day care center close to their employment rather than their residence).

Following occupancy of a substantial number of affordable housing units constructed either on-site or off-site in conjunction with the Proposed Actions, the project sponsor will work with ACS to implement measures to provide any needed additional capacity in day care facilities within one mile of the development parcels as reasonably determined necessary by ACS. Absent the implementation of any needed mitigation measures, the Proposed Actions could have an unmitigated significant adverse impact on day care facilities. These provisions will be included in the restrictive declaration.

WITH THE UNDC PROJECT

The UNDC project would not contain a residential component, and therefore, its inclusion in the future without the Proposed Actions would not affect the findings of this analysis with respect to public schools, libraries, hospitals and health care facilities, or day care centers. The UNDC project would not result in any direct effects to FDNY, EMS, or NYPD facilities, and therefore its inclusion as a background project would not affect the findings of this analysis with respect to fire protection, emergency services, or police protection.

OPEN SPACE

FGEIS FINDINGS

The FGEIS analyzed the potential for open space impacts under the illustrative development programs and an As-of-Right Program for the ¼-mile and ½-mile study areas. The year for Existing Conditions in the FGEIS was 2002 and the future analysis years were 2007 and 2011. The FGEIS addressed two future years because at the time it appeared that the Waterside parcel (700 First Avenue) would not be available for development until after the other three parcels were developed; with the passage of time and the demolition of the Waterside generating facility, however, that distinction no longer exists.

The FGEIS found that there was a potential for a temporary significant adverse quantitative open space impact in the 2007 interim analysis year within the ¼-mile study area. In addition, the As-of-Right Program and the illustrative programs reduced some open space ratios that were already below DCP guidelines, and could therefore have adverse impacts on open space resources in the ¼- and ½-mile study areas. By 2011, the FGEIS analysis found that almost all worker and residential open space ratios would improve over No Action conditions, with the exception of a

slight reduction in the combined worker/residential passive open space ratio in the ¼-mile area under two illustrative programs, and a reduction in the residential passive and total open space ratios in the ½-mile study area under one illustrative program. These reductions were found to have potential adverse impacts on open space given that the ratios would continue to be below DCP guidelines. Furthermore, the FGEIS could not rule out the potential for significant adverse impacts in the ¼- and ½-mile study areas because there were no specific program elements available to qualitatively assess the open space resources provided under the illustrative programs.

PROPOSED ACTIONS

The Proposed Actions would include the development of substantial new areas of publicly accessible open space in an area of the city that is currently underserved by open space according to the city's planning guidelines. Only in the case of passive open space within a ¼-mile radius of the parcels is open space of a sufficient quantity to satisfy the needs of local workers according to established DCP open space ratios. In all other open space categories, under the existing, No Action, and the Proposed Actions conditions there is a shortage of public open space. Due to the wide gulf between the presence of open space in the area and the city's guidelines for the area, this is a situation that would persist with or without the Proposed Actions.

The Proposed Actions' publicly accessible open spaces would total 210,771 square feet (4.84 acres) and would provide areas for passive and active recreation and open up views to the East River. Given that the proposed development program would provide open space of a quantity and quality that would improve overall conditions in the study areas, the Proposed Actions would not result in significant adverse open space impacts. To the contrary, the Proposed Actions would provide much-needed open space, with unique features and amenities that are currently lacking in the study areas.

The proposed development program includes several buildings and open spaces, all of which would not be developed at the same time. Under the construction phasing plan described in Chapter 20, "Construction Impacts," the Proposed Actions would improve open space conditions over No Build conditions in each of the interim years of operation prior to 2014. Therefore, the Proposed Actions would not result in any temporary significant adverse open space impacts.

WITH THE UNDC PROJECT

The UNDC project would displace one of the largest publicly accessible open spaces in the study areas. This loss would result in lower open space ratios, particularly with respect to active open space. The Proposed Actions would improve the open space ratios by creating substantial new publicly accessible passive and active open spaces. Overall, the inclusion of the UNDC building as a background project would not alter the conclusion that the Proposed Actions would not result in significant adverse open space impacts; under either scenario, both active and passive open space ratios would improve with the Proposed Actions.

SHADOWS

FGEIS FINDINGS

The FGEIS concluded that all of the Rezoning Scenario's illustrative development programs would result in significant adverse shadow impacts to the Tudor City open spaces on the December 21 analysis day. The illustrative development programs also would have cast new

shadows on Rivergate (Joseph Slifka Park), St. Vartan Park, the Manhattan Place Plaza, Robert Moses Playground, Trygve Lie Plaza, Corinthian Plaza, Glick Esplanade, and Ralph J. Bunche Park. However, the effects of incremental shadows on all resources except the Tudor City open spaces from those illustrative programs were not found to be significant because of the limited extent of those shadows, the lack of sun-sensitive uses, the lack of use in general, or the availability of alternative space within the open spaces that would not be in shadow during the analysis periods.

PROPOSED ACTIONS

Similar to the illustrative development programs of the FGEIS, the proposed development program analyzed in this SEIS would cast new shadows on the parks identified above, and would result in a significant adverse shadow impact to the Tudor City open spaces on the December 21 analysis day. Additionally, unlike the illustrative development programs, the proposed development program would cause a significant adverse shadow impact to Manhattan Place Plaza on the December 21 analysis day.

The proposed development program would result in incremental shadows on the open spaces in Tudor City on the March/September, May/August and December analysis days. On December 21 the Tudor City open spaces are already partially shadowed by existing buildings for much of the analysis period. Under the proposed development program, the 708 First Avenue building would remove much of the available sunlight on the Tudor City open spaces during the morning hours, while the 685 First Avenue building would remove much of the sunlight on these open spaces around noon. This loss of sunlight would be considered a significant adverse impact. Under either of the construction schedules analyzed in the SEIS, the significant adverse shadows impact on Tudor City open spaces would first occur in the winter of 2010, when the construction of the 685 First Avenue residential building and the 708 First Avenue commercial office building are completed. The loss of sunlight would be less severe on the March/September analysis days and would not be a significant adverse impact. On the May/August analysis day an exceedingly small section would be affected for approximately 15 minutes and this would not cause a significant impact.

Unlike the illustrative development programs, the proposed development program would result in a significant adverse impact on Manhattan Place Plaza in December. The new impact is due to a building proposed for the western portion of the 616 First Avenue site immediately south of the Manhattan Place Plaza, in addition to the proposed tower on the eastern portion of the 616 First Avenue site. In all three illustrative development programs in the FGEIS, the development on this site would have provided a large plaza on the western end of the block. Under the proposed development program, Manhattan Place Plaza would experience incremental shadows on December 21 from 8:51 AM to 12:15 PM and 1:00 PM to 2:53 PM (during the intervening period between 12:15 PM and 1:00 PM the plaza is fully shaded by an existing building to the south). Under either of the construction schedules analyzed in the SEIS, the significant adverse shadows impact on Manhattan Place Plaza would first occur in the winter of 2014, when the construction of both 616 First Avenue residential buildings is completed. The plaza would also experience incremental shadow from the proposed 616 First Avenue site on the other three analysis days, but due to shorter durations and smaller extents the shadows would not result in significant adverse impacts on those days.

This Final SEIS also describes the extent and duration of project-generated shadows on the 4.84 acres of proposed publicly accessible open spaces. That analysis finds that while there would be

periods of sustained shadows on the proposed open spaces, there also would be periods of time featuring substantial amounts of sunlit open space throughout the year.[1]

Mitigation for Shadow Impacts

Potential mitigation measures investigated included: relocating or replacing vegetation; relocating facilities within an open space to avoid sunlight loss; providing replacement facilities on another nearby site; and reducing or eliminating shadow impacts through the reorientation of building bulk or reorientation of the site plan. As described below, there is no practicable mitigation to fully eliminate the significant adverse shadow impacts while meeting the goals and objectives of the Proposed Actions.

Manhattan Place Plaza. Mitigation options considered, but rejected, for the significant adverse shadow impact on Manhattan Place Plaza included moving the proposed building on the western portion of the 616 First Avenue parcel toward the center of the site, and reducing the height of either of the towers at 616 First Avenue. Moving the building away from First Avenue would result in only marginal improvements to shadows and would not meet the project's urban design and land use goals of enlivening the street by providing ground-floor retail along the avenue. Similarly, maintaining the new retail presence along First Avenue but moving the residential portion of the building away from First Avenue also would result in only marginal improvements to shadows and, because it would require a larger amount of the site area for building, would dramatically reduce the amount of new publicly accessible open space on the site. Therefore, such a reconfiguration would undermine the project's goal of providing substantial new publicly accessible open spaces for the community.

In order to fully mitigate the significant adverse impact, a reduction in the height of either of the proposed 616 First Avenue buildings would have to be substantial enough to remove approximately half of the area of incremental shadow that would be cast on the resource by one of the buildings. That would require either the western building to be reduced to a height of approximately 50 feet, or the tower of the eastern building to be reduced to a height of approximately 75 feet. Reducing the height of one of the buildings in this manner would be inconsistent with the project's goals of developing a mix of high-density uses and a substantial amount of new open space.

A partial mitigation measure considered was providing new seating areas within Manhattan Place Plaza, in the remaining sunlit areas not shadowed by the 616 First Avenue Buildings. The project sponsor investigated the feasibility of implementing improvements to Manhattan Place Plaza between the Draft and Final SEIS, and did not identify any locations within Manhattan Place Plaza where new seating would provide substantial new opportunity for sunlit recreation during the impacted period. Such new seating possibilities are limited because remaining sunlit areas are small in extent and duration. The incremental shadow would remove much or all of the remaining sunlight for most of the December analysis day.

Tudor City Open Spaces. Potential mitigation measures considered, but rejected, included reorienting the bulk of the proposed building on the 685 First Avenue parcel and/or reducing the heights of the proposed buildings on the 708 and 685 First Avenue parcels in order to reduce the incremental shadows. Moving the proposed building on the 685 First Avenue parcel away from First Avenue would not substantially alter the incremental shadows cast on the Tudor City open

[1] The description of project-on-project shadows in this Final SEIS was provided for informational purposes; shadow effects on the proposed open spaces are not considered to be the subject of impact analysis under CEQR.

spaces. In addition, the reconfigured building would block views south from Tudor City Place, and would not provide the opportunity for retail frontage along First Avenue, which is a design and land use objective of the Proposed Actions.

The significant adverse shadow impact on Tudor City open spaces could only be fully mitigated by reducing the height of the proposed building at 708 First Avenue to approximately 360 feet, and the height of the proposed building at 685 First Avenue to approximately 320 feet. These substantial reductions in height of the proposed buildings at 685 and 708 First Avenue were considered, but rejected, because they would affect other important development objectives associated with the Proposed Actions. Under the Proposed Actions—which contemplate a 12 FAR development program—the reduction in building height and the corresponding loss in residential floor areas at 685 First Avenue and/or 708 First Avenue would require an increase in footprints and/or heights at one or several of the other proposed residential buildings. These program revisions would run counter to the Proposed Actions' design objectives of developing tall and relatively slender towers that would allow for the provision of large, publicly accessible open spaces. The proposed development program seeks to maximize the provision of open space while distributing the program's bulk relatively evenly among six residential towers; a reconfiguration of bulk within the planned footprints would require increases in other proposed buildings' heights that would be less in scale with the surrounding neighborhood, and could generate new shadows on other sun-sensitive resources. Alternatively, increasing building footprints or the number of residential buildings on the remaining development parcels would reduce the amount of new open space within the proposed development program, particularly the new passive recreational space planned for 700 First Avenue that would provide views from First Avenue to the East River.

The provision of benches or other seating areas at another nearby publicly accessible open spaces is not a feasible mitigation option because other publicly accessible open spaces are neither in close proximity to, nor visible from, the Tudor City open spaces.

Therefore, feasible mitigation measures considered by the project sponsor instead focused on potential improvements to the attractiveness and usability of the Tudor City open spaces through the reconfiguration and/or addition of seating to portions of the open spaces receiving more sunlight, as well as upgrading the recreational facilities within the Tudor City Tudor Grove and/or Mary O'Connor playgrounds. A meeting was held between representatives of the project sponsor and representatives of Tudor City Greens, Inc. to present the findings of the Draft SEIS shadows analysis and to discuss possible mitigation measures for the significant adverse shadows impact. At that time, representatives of Tudor City Greens Inc. declined to identify specific improvements to their open spaces which in their opinion would mitigate the significant adverse impact, pending the completion of the CPC review process.

Mitigation Program. The restrictive declaration for the project will include a statement that the project sponsor has agreed with DPR to provide funding annually at a level of $10,000 per year for a period of six years for the planting of shade-tolerant species, and monitoring of such plantings at Tudor Grove and Mary O'Connor playgrounds, St. Vartan Park, and Trygve Lie Plaza. While these funds would be used to enhance the quality of the affected resources, they would not reduce the incremental shadows cast by the project buildings. Therefore, the significant adverse shadows impacts to Tudor City and Manhattan Place Plaza open spaces would only be partially mitigated by these measures.

WITH THE UNDC PROJECT

The UNDC project would remove Robert Moses Playground west of the ventilation structure. With the UNDC project assumed in the no-build, no incremental shadows attributable to the Proposed Actions would fall on Ralphe J. Bunche Park and Trygve Lie Plaza during the March/September and December analysis days, and, as it would be located on the Robert Moses Playground, it would greatly reduce the size of the park and the shadows cast on the park by the proposed buildings on all four analysis days. Incremental shadows on all other open spaces would not be changed.

HISTORIC RESOURCES

FGEIS FINDINGS

The FGEIS concluded that no significant adverse impacts on architectural and archaeological resources would occur from either the As-of-Right Development Scenario or the three prototypical programs associated with the Rezoning Scenario. In a letter dated August 9, 2001, the New York City Landmarks Preservation Commission (LPC) determined that the development parcels do not possesses any archaeological significance. The New York State Office of Parks, Recreation, and Historic Preservation (OPRHP) determined in a letter dated June 18, 2001 that none of the buildings previously existing on the four development parcels were eligible for S/NR listing and there were no historic preservation issues associated with the development parcels.

The FGEIS concluded that the one known historic resource in the study area, the Tudor City Historic District (NYCL, S/NR), would not be significantly affected, although the prototypical programs would mark a change in context for Tudor City. Potential physical impacts to Windsor Tower of Tudor City would be avoided through the implementation of a construction protection plan prior to construction. Further, the FGEIS concluded that there would be no adverse impacts on potential historic resources in the study area—the United Nations complex and the former Kips Bay Brewery—resulting from the As-of-Right Development Scenario or the three prototypical programs associated with the Rezoning Scenario. Any potential physical impacts to the former Kips Bay Brewery would be avoided by its inclusion in the construction protection plan.

To account for the little remaining early-20th-century equipment at the Waterside Station which was of industrial interest, the FGEIS indicated that a HAER-level photographic documentation and historical narrative would be prepared and placed in a public repository. This documentation has been prepared and it will be submitted to a repository to be determined.

PROPOSED ACTIONS

Archaeological Resources

As described in the FGEIS, there would be no significant adverse impacts to archaeological resources since LPC determined that the development parcels are not sensitive for buried archaeological resources.

Architectural Resources

Proposed development at 685 First Avenue would occur within 90 feet of Windsor Tower, which is located within the Tudor City Historic District. Development of the Waterside Parcel would occur within 90 feet of the former Kips Bay Brewery, a potential architectural resource.

Therefore, as described in the FGEIS, a construction protection plan would be developed in consultation with OPRHP and/or LPC to avoid inadvertent construction-related damage to Windsor Tower and the former Kips Bay Brewery.

In addition, the proposed development program would have buildings sited and massed differently from those of the prototypical development programs analyzed in the FGEIS. These new building locations and massings would allow for somewhat greater views of the south façade of Windsor Tower from First Avenue and East 40th Street. By contrast, from farther south on First Avenue, the proposed building at 685 First Avenue, like the buildings assumed under the FGEIS prototypical development programs, would block views of Windsor Tower from the east side of First Avenue in views north. Since Windsor Tower is the only Tudor City building that would be blocked in this view, the proposed development program would not result in any significant adverse visual or contextual impacts to Tudor City.

As described in "Shadows," above, the proposed development program would have a significant adverse shadow impact on the December analysis day on the Tudor City open spaces. That impact, however, would not translate into a significant adverse historic resources impact. The shadow impact results from the project's combined increment on the Tudor City parks and playgrounds, and the playgrounds are not part of the Tudor City Historic District. In addition, much of the parks is covered in existing shadow during the December analysis day. Shadows on the parks, while they might lessen the usability of the parks as open space resources, do not obscure those features as defining elements of the Tudor City Historic District. Further, stained-glass windows in the Tudor City Historic District, the other sun-sensitive feature of the district, face away from the development parcels and would not be shadowed by development on the parcels.

The proposed development program would place two buildings on the southern portion of the Waterside Parcel, located across East 38th Street from the former Kips Bay Brewery. This development would result in tall buildings that would not differ significantly in height from those analyzed in the FGEIS and would be in keeping with prevailing development trends in the area. Therefore, the proposed development program would not result in significant adverse visual or contextual impacts to the Kips Bay Brewery.

The proposed development program at 708 First Avenue would consist of a building that occupies a large portion of the full former city block bounded by the FDR Drive, First Avenue, East 41st Street, and East 40th Street. The 47-story office building proposed for the parcel would have an approximately rectangular footprint placed parallel to East 41st Street that would be similar to that of the building analyzed in the FGEIS under the "Rezoning Scenario Mixed-Use Program with Office on 708 First Avenue." The potential for impacts from the Proposed Actions would be similar to those described in the FGEIS—namely, that the intervening block (between the FDR Drive, First Avenue, and East 42nd and 41st Streets), which is developed with an eight-story ventilating building and Robert Moses Park, would serve as a physical buffer between the United Nations buildings and development on the 708 First Avenue parcel. Similar to the rezoning scenarios analyzed in the FGEIS, the building on the 708 First Avenue parcel would block some views of the Secretariat of the United Nations in views north on First Avenue between East 38th and 41st Streets, but other views would remain.

Due to the distance of the 616 First Avenue parcel from the Tudor City Historic District, United Nations complex, and former Kips Bay Brewery, redevelopment of this site would not be expected to result in any significant adverse impacts.

WITH THE UNDC PROJECT

If the United Nations office building is constructed by 2014, it is expected that it will be visible from both Tudor City and the United Nations complex and that the new building will block some views of the Secretariat of the United Nations in views north on First Avenue. In the absence of the new UN building, those views would otherwise be blocked by the proposed development on the 708 First Avenue parcel.

URBAN DESIGN AND VISUAL RESOURCES

FGEIS FINDINGS

The FGEIS concluded that the three illustrative development programs under the Rezoning Scenario would not have significant adverse impacts on the urban design and visual resources of the study area. While impacts from the three development programs would differ slightly due to variations in building heights, uses, placement and footprints, and the location of open spaces, impacts would be similar, and are summarized generally below.

The FGEIS assumed that development under the Rezoning Scenario would result in the construction of a number of tall, freestanding buildings and public open spaces on the development parcels. Construction of the new buildings would alter the existing built form of the study area, but the proposed residential, office, community facility, and ground-floor retail uses would be consistent with the mix of uses in the study area. The anticipated building arrangements of towers set in plazas would be similar to nearby developments, especially along First and Second Avenues. The proposed bulk and height of the buildings would be compatible with those urban design features of the study area. While the FGEIS expected that development under the Rezoning Scenario would result in prominent new buildings in the study area, the analysis concluded that any buildings would be of a comparable height, massing and arrangement, and contemporary design to other recently built residential and office towers in the area. The new open spaces and ground-floor retail uses were concluded to benefit the urban design of the study area and enliven the streetscape. Therefore, the FGEIS concluded that the rezoning scenario would not have significant adverse impacts on the urban design of the study area.

The FGEIS concluded that the three Rezoning Scenario development programs would not block significant views of visual resources or obstruct significant view corridors. Some limited views on First Avenue of the United Nations Secretariat building and Windsor Tower within Tudor City were expected to be obstructed; however, better views of those resources from other locations would remain unchanged. As seen from Gantry Plaza State Park in Queens, the new buildings were expected to add to the Manhattan skyline, without blocking significant views of visual resources within that skyline, such as the United Nations Secretariat or the Empire State Building.

PROPOSED ACTIONS

The Proposed Actions would permit a mixed-use development of seven buildings and publicly accessible open space on the four development parcels. The restrictive declaration will require that any construction on the development parcels conform to the plans and drawings approved pursuant to the city's Uniform Land Use Review Procedure (ULURP). The proposed buildings described in this SEIS reflect those plans and drawings, which will dictate the uses and envelopes of all buildings constructed on the development parcels, including their height, dimensions, and location, the floor area of each building in the development, and the location and dimensions of curb cuts. The ULURP plans and drawings will also dictate the dimensions and design elements of the publicly accessible open spaces, including the location and size of

view corridors. Pursuant to special permits to modify height and setback regulations within general large-scale developments, the proposed buildings would be cohesively designed as slender, rectangular structures sited and massed to disperse their bulk across the development parcels. Some of the proposed buildings would be set perpendicular to First Avenue, while others would be placed parallel to the avenue. The slender tower forms would allow for the maximum amount of open space on site and views to the waterfront. While the proposed buildings would not observe applicable height and setback restrictions or tower regulations, they would be compatible with the typical tower form of the tall modern buildings in the study area.

The Proposed Actions would replace three vacant sites and a parking lot with a mixed-use development creating a pedestrian-friendly edge along the east side of First Avenue and two large publicly accessible open spaces. Development on the Waterside and 708 First Avenue development parcels would include four slender towers ranging in height from 606 feet to 688 feet set around a major open space leading from First Avenue to a north-south promenade at the eastern edge of the site. On these development parcels, the buildings placed along First Avenue would be set back five feet from the First Avenue property line to create wider landscaped sidewalks, with retail at the ground floor of the proposed buildings. View corridors to the East River would be created through the Waterside and 708 First Avenue development parcels along the alignments of East 39th and 40th Streets. On the 685 First Avenue development parcel, a 721-foot-tall residential tower with retail at its base would be constructed. On the 616 First Avenue development parcel, two residential buildings are proposed. On that site, the 433-foot-tall eastern building would include a community facility use within its 123-foot-tall base, the western building on First Avenue would be 506 feet tall, and publicly accessible open space would be located between the two buildings. Each of the proposed buildings is contemplated to have a sleek modern design with glass, metal, and stone cladding, but this architectural design is illustrative and would not be mandated by approval of the Proposed Actions.

As currently envisioned, the Proposed Actions would have no significant adverse impacts on the urban design and visual resources of the study area. The proposed development program would have beneficial effects on the study area by redeveloping vacant parcels and providing new publicly accessible open spaces. The proposed development program would not affect the street pattern and hierarchy, block forms, building arrangements, or natural features. Proposed streetscape elements would be compatible with the study area and new ground-floor retail uses and open space would enliven the area's streetscape and provide pedestrian amenities. While the tallest of the proposed buildings would be taller than most buildings in the immediately surrounding area, they would be similar in bulk, massing, and height to some tall buildings along First and Second Avenues within 400 feet and to numerous tall buildings in the ½-mile study area. In addition, the narrow tower forms of the proposed buildings would be compatible with the urban design of the study area as they would be similar in form to many of the surrounding tall buildings that are massed as towers. This building form, because of its relatively small footprint, allows the creation of large open space areas. The proposed residential, commercial, community facility, and retail uses would be in keeping with the study area's mix of uses. Therefore, there would be no significant adverse impacts on building bulk, use, and type. Further, the proposed development would create new views to the East River waterfront through the Waterside and 708 First Avenue development parcels and from the proposed open spaces, and it would not block significant views of any visual resources or obstruct significant views and view corridors.

WITH THE UNDC PROJECT

If the United Nations office building is constructed, it will remove a public open space and add a large building to the study area, increasing the number of tall, modern buildings lining First

Avenue in the vicinity of the four development parcels. In terms of building use, bulk, setbacks, and density, the proposed buildings would be similar to the United Nations office building. They would, however, be taller.

It is expected that the United Nations office building will block existing views of the Secretariat building in views north on First Avenue from between East 39th and 41st Streets. This project, if constructed, would stand between the office building constructed on the 708 First Avenue parcel and the United Nations complex, and it would block views of the Secretariat from First Avenue between East 39th and 41st Streets that would otherwise have been blocked by the proposed development. The United Nations office building would not block views of other visual resources in the area that include the East River waterfront and the Empire State Building.

NEIGHBORHOOD CHARACTER

FGEIS FINDINGS

The FGEIS neighborhood character analysis focused on potential changes to neighborhood character resulting from changes identified in the technical areas of land use, urban design and visual resources, socioeconomic conditions, traffic and pedestrians, historic resources, and noise. The FGEIS determined that the three illustrative development programs would result in changes to the character of the development parcels, but that those changes would be in keeping with the neighborhood character of the surrounding area and would replace existing uses that are out of character with the surrounding area. In addition, while the FGEIS found that no significant adverse impacts to neighborhood character would result from the Rezoning Scenario illustrative development programs, it noted that the final project plan could vary from the development programs considered, and thus might cause different impacts to neighborhood character. Consequently, the FGEIS was unable to completely rule out the potential for significant adverse impacts to neighborhood character, particularly in the area of urban design and visual resources.

PROPOSED ACTIONS

The Proposed Actions focused on potential changes to neighborhood character resulting from changes identified in the technical areas of land use, socioeconomic conditions, historic resources, urban design and visual resources, traffic and pedestrians, and noise. The Proposed Actions were found to affect the component environmental areas of neighborhood character in the following ways:

- *Land Use*. The proposed development program would result in substantial changes to land uses on the development parcels, but these changes would be compatible with current land use patterns in the surrounding area. The Proposed Actions would promote development similar to existing conditions in the surrounding area, and would be consistent with the prevailing public policy. No significant adverse impacts to land use, zoning, or public policy would occur as a result of the Proposed Actions. The proposed development program would have a positive effect on the neighborhood character of its immediate surroundings, as it would solidify the neighborhood's high-density residential character along First Avenue and augment its commercial character near 42nd Street. Beyond the project site's immediate surroundings, the changes to land use resulting from the proposed development would not be likely to have a pronounced effect on the character of adjacent neighborhoods.
- *Socioeconomic Conditions*. The proposed development program would not result in significant adverse impacts due to direct or indirect residential or business displacement, nor would it cause significant adverse impacts to a specific industry. The addition of

approximately 6,500 residents to the study area would not result in a socioeconomic impact to its neighborhood character, since the area is already a dense residential community, and the population would be demographically similar to the existing population in the study area. The new office development would substantially increase the number of employees in the vicinity of the 708 First Avenue parcel and would cause the area's character to become more like a mixed-use office center at its northern extreme (near East 42nd Street); however, the amount of commercial office space is less than the maximum amounts analyzed under the FGEIS Rezoning Scenario, and would not result in a significant adverse neighborhood character impact. The amount and types of new retail provided would be in keeping with the existing retail character of the study area and would enhance retail activity along First Avenue. Overall, the creation of jobs and housing and retail caused by the Proposed Actions would result in beneficial effects to the socioeconomic character of the study area, increasing the overall economic activity in the study area and generating jobs off site through the expenditures of the project site businesses and residents.

- *Historic Resources*. The Proposed Actions would not result in significant adverse impacts to any known architectural resources and would not have the potential to impact archaeological resources. As such, no significant adverse impacts to neighborhood character would occur in this impact category.
- *Urban Design and Visual Resources*. While the proposed development program would result in changes in urban design and visual resources on the development parcels, these changes would not result in significant adverse impacts to the study area. The proposed development would not affect the street pattern and hierarchy, block forms, building arrangements, or natural features in the study area. The buildings would be cohesively designed as tall and slender rectangular towers that would provide a substantial amount of publicly accessible open space on site and would create new views toward the East River waterfront. Further, the buildings would not block existing significant views of any visual resources or obstruct significant views and view corridors. The changes to the building forms and bulk and the creation of public open spaces that would result from the proposed development would have a positive effect on neighborhood character in the area immediately surrounding the development parcels. In addition, while the new towers would be visible from some adjacent neighborhoods, the proposed development is not likely to affect the character of neighborhoods beyond the immediate surroundings of the project site due to dense, intervening development.
- *Traffic and Pedestrians*. The proposed development program would result in significant traffic impacts at 55, 35, 57, and 22 out of the 88 intersections in three Manhattan study areas in the AM, midday, PM and Saturday peak hours, respectively. However, the mitigation analysis indicates that 38, 26, 38, and 17 significantly impacted intersections in the AM, midday, PM and Saturday peak hours, respectively, would be fully mitigated with a series of traffic improvements. Overall, traffic conditions resulting from the proposed development program would not result in significant adverse impacts to neighborhood character for the following reasons: 88 percent of neighborhood intersections analyzed would either not be significantly impacted or would be fully or partially mitigated. The remaining impacted locations already experience high levels of traffic in the existing and no build conditions; and there would be less than a five percent increase in the number of intersections operating at LOS C or worse. The proposed development program would increase pedestrian activity in the immediately surrounding area and in some parts of the larger study area, resulting in significant adverse impacts at a total of two crosswalk locations, three MTA bus routes, and one stairway at Grand Central Station. Each of these

impacts could be fully or partially mitigated, and no significant adverse impacts to neighborhood character would result.

- *Noise*. The Proposed Actions would raise noise levels in the study area by a barely perceptible margin that would fall below the CEQR threshold for a significant adverse impact. Therefore, there would be no predicted significant adverse impacts to noise from the proposed development program. As such, the Proposed Actions would not result in any noise-related significant adverse impacts to neighborhood character.

Collectively, the changes anticipated as a result of the proposed development program in the above analysis areas would not be expected to result in a significant adverse impact to neighborhood character in the study area. Furthermore, no significant adverse impacts would result to neighborhood character due to the cumulative effect of moderate changes in the above impact categories. Overall, no significant adverse impacts to neighborhood character would result from the Proposed Actions.

WITH THE UNDC PROJECT

Overall, the UNDC project would reinforce the mixed-use character of the area around the U.N. and would be similar in character to the building proposed for the adjacent 708 First Avenue parcel under the Proposed Actions. The inclusion of the UNDC building as a baseline project would not alter the conclusion of this chapter that the Proposed Actions would not result in significant adverse impacts to neighborhood character.

NATURAL RESOURCES

FGEIS FINDINGS

The FGEIS did not include an analysis of potential impacts on natural resources.

PROPOSED ACTIONS

Terrestrial Resources

Given the disturbed, urban environment within which the development parcels reside, no significant adverse impacts to vegetation and wildlife habitats would occur in the study area. Plants and animals found in this area are limited and would likely be tolerant of any increased disturbance created by the project. While some wildlife individuals located on the development parcels would have the potential to be adversely impacted during the construction phase of the proposed development program, the new open space areas would ultimately result in a net gain in terrestrial habitat for wildlife species commonly found in urban environments.

The increased habitat would also have the potential to provide resting or stop-over habitat for migratory songbirds during the spring and autumn migrations, and would present the potential to result in bird strikes on glass surfaces associated with the proposed development. However, while there would be losses of some birds due to building collisions, the losses would be small, and would not result in significant adverse impacts to populations of songbirds migrating through New York City. Measures to reduce potential bird strikes, under consideration by the project sponsor include: utilizing building glass with low reflectivity; exterior sun shading systems that would visually break up the building glass and make it more visible to birds; and minimizing external façade lighting on the residential buildings.

Floodplains and Wetlands

Although certain areas of the proposed development program would be located within the 100-year floodplain, the proposed development program would comply with all applicable statutes governing the construction of residential and non-residential buildings in flood hazard areas (e.g., NY City Building Code, Title 27, Subchapter 4, Article 10). Construction of some of the proposed structures and open space areas within the 100-year floodplain would not significantly or adversely affect the floodplain's ability to contain flood waters or exacerbate flooding conditions within the project area or its immediate vicinity. In addition, as the proposed development program does not call for in-water work and would not alter the existing hard-stabilized shoreline, the littoral zone tidal wetlands located within the study area are not expected to be adversely affected during construction or operation. Therefore, the proposed development program is not expected to result in significant adverse impacts to New York State Department of Environmental Conservation (NYSDEC) tidal wetlands.

Aquatic Resources

Implementation of erosion and sediment control measures and stormwater management measures as part of the Stormwater Pollution Prevention Plan (SWPPP) during construction of the proposed development program would minimize potential impacts to the combined sewer system as well as potential water quality impacts to the East River associated with stormwater runoff. As described under "Infrastructure" below, the stormwater discharges from the development parcels would not have a significant adverse impact on the sewer system or on the water quality of the East River. Because of the diversion and/or detention of stormwater, the number of combined sewer overflow (CSO) events is expected to be reduced.

Sewage from the proposed development program would be treated at the Newtown Creek WPCP. The wastewater resulting from the proposed development program, representing approximately 0.32 percent of the Newtown Creek WPCP's permitted capacity, is not expected to affect the WPCP's capacity or its treatment efficiency or water quality of the East River.

Aquatic Biota

The proposed development program's buildings would cast shadows on portions of the East River during certain periods of the day, the largest of which would appear over different portions of the East River in March. The largest shadow would be on March 21 at 4:29 pm, and would appear 800 feet wide. It would occur on a portion of the East River for only a short time in the afternoon; therefore, the shadows would not be expected to have significant adverse effects on the use of these areas by fish or other aquatic biota. In addition, neither the decrease in light intensity over portions of the East River in March nor the additional stormwater runoff would be expected to result in significant adverse impacts to phytoplankton or benthic macroalgae. Therefore, the proposed development program is not expected to have a significant adverse impact on aquatic biota in the East River.

Endangered, Threatened, and Special Concern Species

The East River is not considered a Significant Coastal Fish and Wildlife Habitat by the New York State Department of State (NYSDOS), nor are there any federally listed or proposed endangered or threatened species under the jurisdiction of the United States Fish and Wildlife Service (USFWS) in the project area. While New York Natural Heritage Program (NYNHP) records indicate the presence of a peregrine falcon nest approximately 0.43 miles from the closest development parcel, the Endangered Species Unit of NYNHP does not anticipate any adverse impacts to the nest site as it has been inactive in the last year and not productive for some time. The proposed development

program is therefore not expected to result in significant adverse impacts to any federally or state-listed endangered species.

WITH THE UNDC PROJECT

If this project were completed by the 2014 build year, its development would not alter the conclusion that the Proposed Actions would not result in significant adverse natural resource impacts.

HAZARDOUS MATERIALS

FGEIS FINDINGS

The FGEIS analyzed soil and groundwater and identified hazardous materials (including some combination of petroleum products, volatile and semi-volatile organic compounds, metals, and PCBs) on each of the parcels. Lead paint and asbestos containing materials were identified in various site structures. In 2000, in an effort to satisfy certain obligations under various clean-up orders, Con Edison engaged an environmental remediation firm to undertake investigation and remedial activities and associated demolition activities under the direction of NYSDEC.

PROPOSED ACTIONS

The hazardous materials remediation identified in the FGEIS has been and is currently being undertaken pursuant to an NYSDEC order on consent under the Voluntary Cleanup Program (VCO) and was not the subject of the FGEIS Proposed Actions (the disposition of the parcels). Remediation of the parcels pursuant to the VCO has been completed on the development parcels at 616, 685, and 708 First Avenue Remediation at 700 First Avenue will be completed prior to redevelopment of the development parcels. The VCO requires that each development parcel be remediated for unrestricted residential use without posing any risks to the environment or future occupants or visitors, and NYSDEC has determined that such has been achieved at 616, 685, and 708 First Avenue. Further activities at the site (e.g., health and safety during construction, handling and disposal of any additional soil/groundwater disturbed during construction and requirements for clean fill placed in landscaped areas) will be governed by Site Management Plans (SMPs) to be approved by NYSDEC. NYSDEC has approved SMPs for the parcels on which remediation has been completed. The applicant would also execute restrictive declarations for each parcel which would require that the applicant implement any additional testing, remediation, and other protective measures deemed necessary by the New York City Department of Environmental Protection (NYCDEP) to prevent any potential impacts related to hazardous materials. These measures, implemented pursuant to a NYCDEP-approved remedial action plan and construction health and safety plan, along with the completed remediation of the parcels and ongoing protective measures that will be subject to NYSDEC's approval, would ensure that no significant adverse impacts related to hazardous materials would result from construction activities on the development parcels and that following construction, there would be no further potential for significant adverse impacts. Therefore, there is no potential for significant adverse impacts associated with the Proposed Actions.

WITH THE UNDC PROJECT

If this project were completed by 2014, its development would not alter the conclusion that the Proposed Actions would not result in significant adverse impacts on hazardous materials. It is

also assumed that construction of this project, were it to occur, would follow all applicable city, state, and federal regulations as regards hazardous materials.

INFRASTRUCTURE

FGEIS FINDINGS

The FGEIS analysis concluded that no significant impacts would occur to infrastructure systems (water supply and sewage treatment) as a result of the sale and redevelopment of the First Avenue parcels under the Rezoning Scenario's illustrative development programs.

PROPOSED ACTIONS

The analysis finds that the proposed development program would not result in significant adverse impacts to the city's infrastructure systems. The water demand expected from the proposed development program is 1,474,711 gallons per day (gpd). As compared with the 2006 citywide demand of 1,069 million gallons per day (mgpd) and 420 mgpd in Manhattan, this increase would not significantly impact the water supply system, and no significant adverse impacts are expected on the city's water supply system. The sanitary sewage generation expected to result from the proposed development program is 913,619 gpd. This is about 0.3 percent of the design and permitted flows to the Newtown Creek Water Pollution Control Plant (WPCP) and is not expected to overburden the local interceptor conveyance systems.

Based on consultation with NYCDEP Bureau of Water and Sewer Operations, an 18-inch-diameter sewer pipe in First Avenue between East 38th and East 39th Streets would be upgraded to 30 inches in diameter to accommodate sanitary sewage flows. In addition, the weirs in local regulators would be raised several inches.

Stormwater from the 700/708 parcel would be either diverted from the combined sewer system into storm sewers that discharge directly into the East River or detained on-site. The diversion or detention would lessen the stormwater flow into the combined sewer system by 3.8 cfs compared to the site being vacant and without stormwater diversion. Stormwater from 685 and 616 First Avenue would be detained and then discharged into the combined sewer system. The stormwater discharges would not have a significant adverse impact on the sewer system or on the water quality of the East River. Because of the diversion and/or detention of stormwater, the number of combined sewer overflow events is expected to be reduced.

WITH THE UNDC PROJECT

The UNDC building would add a total of 198,000 gpd of water demand, which would not have a significant adverse impact on the water supply system's ability to adequately deliver water to New York City or Manhattan. The total sewage from the UNDC building and the proposed development program would be about 1.0 mgd, or 0.33 percent of the WPCP's rated capacity. This generation would not cause Newtown Creek WPCP to exceed its capacity or impair its ability to properly treat sanitary sewage, and therefore no significant adverse impacts would result. With the UNDC project, the stormwater flows from the UNDC site would remain about the same as current conditions, as the site is currently paved, with a flow of approximately 8.7 cfs. As there would be minimal, if any, incremental flow from the UNDC site with the UNDC building, the inclusion of the UNDC project in the future without the Proposed Actions would not alter the conclusion that the proposed development program would not result in significant adverse impacts to the combined sewer system or to the water quality in the East River.

SOLID WASTE AND SANITATION SERVICES

FGEIS FINDINGS

The FGEIS analyzed a 2007 Interim Build Year and the 2011 Final Build Year for all of the illustrative programs under the As-of-Right and Rezoning Scenarios. The analysis found that the solid waste generated by redevelopment at the First Avenue parcels would range from 33 to 120 tons per week in 2007, and from 49 to 144 tons per week in 2011. As compared with the 144,000 tons per week of solid waste that were handled by DSNY and private carters in the existing condition, the solid waste generation at the First Avenue parcels in the future with the development was determined not to constitute a significant adverse impact on the solid waste handling system.

PROPOSED ACTIONS

The analysis finds that the Proposed Actions would not result in significant impacts to sanitation services. The approximately 134 tons per week of solid waste expected to be generated by the proposed development program would be handled by the sanitation services assumed to be in place in the future analysis year, and no significant adverse impacts would result. The proposed development program would also generate less solid waste than the maximum amount analyzed in the FGEIS; the illustrative programs in the FGEIS were projected to generate between 49 and 144 tons per week.

WITH THE UNDC PROJECT

With or without the UNDC building as a background project, the Proposed Actions would not result in significant adverse impacts to solid waste and sanitation services. The city's Solid Waste Management Plan (SWMP) is based on projected rates of growth in the generation of solid waste, and measures implemented by the city pursuant to the Plan are therefore designed to meet the goals of the Plan notwithstanding further development. The solid waste handling system assumed to be in place in the future analysis year would accommodate future growth in the generation of solid waste, which would include the UNDC project, if developed.

ENERGY

FGEIS FINDINGS

The FGEIS analysis concluded that no significant impacts would occur to New York City's energy supply as a result of the sale and redevelopment of the First Avenue parcels. The FGEIS also determined that the illustrative development programs analyzed under the As-of-Right and 12 FAR Rezoning Scenarios would not result in any adverse impacts to telecommunications or any adverse impacts to the public from electromagnetic fields (EMF). Finally, the FGEIS also concluded that the decommissioning of the Waterside Station would not have an adverse impact on the steam and electric systems.

PROPOSED ACTIONS

The analysis finds that the Proposed Actions would not significantly affect the transmission or generation of energy, and there would be no potential for significant adverse impacts on energy systems and telecommunications. The energy demand expected to result from the proposed development program would constitute approximately 0.36 percent of the Con Edison 2002 actual service area energy requirement. As compared with the maximum energy demand that was expected to result from the development programs analyzed in the FGEIS (0.38 percent of the Con

Edison 2002 actual service area energy requirement) the development program under the Proposed Actions would result in a slightly lesser demand for energy.

Field measurements conducted for the FGEIS indicated that electro-magnetic field (EMF) levels would remain below the International Radiation Protection Association/International Commission on Non-Ionizing Radiation (IRPA/ICNIR) guidelines, and that there would not be any significant adverse impacts associated with EMF under the illustrative development programs analyzed by the FGEIS. Compared to the illustrative buildings analyzed in the FGEIS, the building footprint currently proposed for the 685 First Avenue parcel is located at a further distance from the Con Edison substation, and therefore no significant adverse impacts would result.

While the proposed development program would increase the demand for telecommunications services over current demand at the Development Parcels, the interstate system could accommodate the demand.

WITH THE UNDC PROJECT

The estimated energy use of the UNDC building combined with the proposed development program would represent approximately 0.41 percent of the Con Edison service area energy requirement, based on the 2002 actual service area energy requirement of 58.2 million megawatt hours (MWH). This cumulative consumption would not have a significant adverse impact on New York City's energy generation and transmission systems.

TRAFFIC AND PARKING

INTRODUCTION

The traffic and parking analyses cover a large study area, one that encompasses 88 intersection analysis locations within three Manhattan study areas—86 existing intersections plus two proposed site driveway access locations requested by DOT, as well as segments of the adjacent FDR Drive—and considers the capacity of the QMT and Queensboro Bridge. Four peak hours are analyzed: the weekday AM (8-9 AM); midday (11 AM to 12 PM); PM (5:30-6:30 PM); and Saturday midday (12-1 PM) peak hours. The weekday peak hours were analyzed in the FGEIS. Saturday midday peak hour analyses were conducted for this SEIS to determine whether the Proposed Actions have the potential to generate significant adverse traffic impacts under peak Saturday conditions. An additional study area on the Queens side of the Queensboro Bridge was added to assess potential significant impacts in the Queens Plaza Area.

The analysis begins with an assessment of existing traffic and parking conditions in the study area, and proceeds to an analysis of conditions in the future without the Proposed Actions (2014 No Build condition). The next step in the analysis estimates the amount of vehicular traffic expected to be generated by development in the future with the Proposed Actions (2014 Build condition) and assesses future traffic and parking conditions under 2014 Build conditions. The Build condition analyses identify the location of significant adverse impacts potentially generated by the Proposed Actions. "Mitigation of Significant Traffic Impacts," below, identifies and evaluates traffic improvement measures that would mitigate those impacts. The parking analysis addresses the ability of the development plan to accommodate expected parking demand under 2014 Build conditions.

COMPARISON TO THE FGEIS

As a result of higher existing traffic volumes and use of *2000 Highway Capacity Manual* (HCM) procedures, the number of intersections currently operating at overall LOS E or LOS F is higher in this SEIS than determined in the FGEIS. At the 86 existing intersections analyzed in the three Manhattan study areas in both studies, during the AM peak hour, the SEIS indicates five intersections at overall LOS E or F compared to the FGEIS' four; in the PM peak hour, the SEIS indicates 15 intersections at overall LOS E or F compared to eight in the FGEIS. In the midday peak hour, the SEIS indicates that there are four intersections operating at overall LOS E or F compared to two in the FGEIS' analyses.

As a result of higher background traffic volumes and use of 2000 HCM procedures, the number of intersections that would operate at overall unacceptable LOS E or LOS F conditions under future No Build conditions would be higher in the PM peak hour. At the 86 existing intersections analyzed in the three Manhattan study areas in both studies, during the PM peak hour, the SEIS projects 45 intersections at overall LOS E or F compared to the FGEIS's 44 intersections. However, in the AM peak hour, the SEIS projects 34 intersections at overall LOS E or F compared to 40 intersections identified in the FGEIS, and in the midday peak hour, 22 overall LOS E or F intersections are identified in the SEIS versus 26 identified in the FGEIS.

Under the Proposed Actions, there would be a 15 to 20 percent reduction in AM and PM peak hour project-generated trips and a 50 percent reduction in weekday midday peak hour project-generated trips in the SEIS compared to the FGEIS. Even with a reduced volume of vehicle trips generated by the Proposed Actions in the SEIS, the larger increase in No Build volumes and deterioration in levels of service under No Build conditions in the SEIS would lead to additional significant impacts compared to the FGEIS. At the 86 existing intersections analyzed in the three Manhattan study areas in both studies, significant impacts identified in this SEIS would occur at 55 intersections in the AM peak hour compared to 33 in the FGEIS; at 35 intersections in the midday peak hour compared to 24 in the FGEIS; and at 57 intersections in the PM peak hour as compared to 36 in the FGEIS.

Out of the 88 intersections analyzed in the SEIS including two proposed site driveway access locations in the three Manhattan traffic study areas in the weekday AM, midday, and PM peak hours, all significant adverse traffic impacts could be mitigated with these exceptions: in the weekday AM peak hour, none would be partially mitigated and 17 intersections could not be mitigated at all; in the weekday midday peak hour, none would be partially mitigated and nine intersections could not be mitigated at all; and in the weekday PM peak hour, five intersections could only be partially mitigated and 14 additional intersections could not be mitigated at all. By comparison, in the FGEIS, three intersections could not be mitigated at all in the weekday AM and midday peak hours, and six intersections could not be mitigated at all in the PM peak hour. There were no partially mitigated impacts identified in the FGEIS.

Parking accumulation on-site would reach 94 percent in the SEIS compared to 95 percent in the FGEIS. Approximately 220 project-generated autos during the mid-morning though mid-afternoon would not be accommodated on-site and would be accommodated at nearby off-site parking facilities.

EXISTING CONDITIONS

New traffic counts were conducted for this SEIS in June 2004 for weekday periods and in June 2006 and March 2007 for the Saturday midday period using manual intersection counts and 24-hour Automatic Traffic Recorder (ATR) machine counts. These volumes were used along with

observations of actual traffic conditions to determine levels of service for the weekday 8:00 to 9:00 AM, 11:00 to 12:00 midday, and 5:30 to 6:30 PM peak hours, and for the Saturday 12:00 to 1:00 PM midday peak traffic hour using HCM procedures, which is the analysis methodology approved for use by DOT and DCP. The observations of actual traffic conditions that noted where, and to what extent, queuing occurred along the approaches to intersections being analyzed, were part of the determination of actual levels of service.

This summary overview of Existing Conditions indicates that:

In the AM peak hour, five of the 81 signalized intersections analyzed are operating at overall LOS E or F. "Overall" LOS E or F means that serious congestion exists—either one specific traffic movement has severe delays, or two or more of the specific traffic movements at the intersection are at LOS E or F with very significant delays (the overall intersection LOS is a weighted average of all of the individual traffic movements). In the midday peak hour, four of the 82 signalized intersections are operating at overall LOS E or F. In the PM peak hour, 15 of the 82 signalized intersections are at overall LOS E or F. In the Saturday midday peak hour, one of the 82 signalized intersections is at overall LOS E or F. One unsignalized intersection of five analyzed during the AM peak hour operates at overall LOS D, and the remaining four intersections operate at overall LOS C or better. The four unsignalized intersections analyzed during the midday, PM, and Saturday peak hours are operating at overall LOS C or better conditions.

The off-street public parking facilities surveyed contain approximately 6,066 spaces, with an occupancy level of about 66 percent in the AM, 85 percent in the weekday midday, 71 percent in the PM, and 36 percent in the Saturday midday. On-street surveys showed that on-street spaces are 95 percent occupied during the AM period, 98 percent occupied during the midday, 89 percent occupied during the PM, and 88 percent occupied during the Saturday midday.

FUTURE WITHOUT THE PROPOSED ACTIONS

Future No Build analyses were based on background conditions in 2014 that include 0.5 percent per year background growth and over 38 million square feet of development projected in East and West Midtown including the Queensboro Bridge area. Trip assignments from 42 background projects including significant numbers of trips generated in the Build conditions of the Hudson Yards Rezoning FGEIS were assigned to the traffic network. Also, traffic mitigation measures from other certified EISs were included in the traffic analyses.

In the AM peak hour under No Build conditions, 32 of the 81 signalized intersections analyzed would operate at overall LOS E or F. In the midday peak hour, 22 of the 82 signalized intersections would operate at overall LOS E or F. In the PM peak hour, 45 of the 82 signalized intersections would operate at overall LOS E or F. In the Saturday midday peak hour, 8 of the 82 signalized intersections would operate at overall LOS E or F. Two unsignalized intersections of five analyzed during the AM peak hour would operate at overall LOS E, and the remaining three intersections would operate at overall LOS C or better. The four unsignalized intersections analyzed during the midday, PM, and Saturday peak hours would operate at overall LOS C or better conditions.

Off-street public parking capacity would increase by 900 spaces to 6,966 spaces, and would increase to an occupancy level of about 74 percent in the AM, 91 percent in the weekday midday, 78 percent in the PM, and 51 percent in the Saturday midday. On-street parking spaces during the AM and midday period would be 100 percent occupied, the PM would be 93 percent occupied, and the Saturday would be 92 percent occupied.

FUTURE WITH THE PROPOSED ACTIONS

Auto, taxi and delivery trips from the proposed office, residential, local and destination retail, and community facility uses were assigned to the roadway network. The AM peak hour Build volume increments would be 1,494 vehicles per hour (vph) under the Proposed Actions, the midday would be 772 vph, the PM peak hour would be 1,356 vph, and the Saturday midday peak hour would be 1,097 vph. In 2014, the Build program traffic volume increments would make up about 4.1 percent of overall traffic volumes in the AM peak hour, 2.5 percent in the midday peak hour, 3.7 percent in the PM peak hour, and 4.1 percent in the Saturday midday peak hour when comparing these volume increments to overall Build traffic volumes entering and exiting the primary traffic study area along its various streets and roadways.

In the AM peak hour under Build conditions, 43 of the 81 signalized intersections analyzed would operate at overall LOS E or F. In the midday peak hour, 28 of the 82 signalized intersections would operate at overall LOS E or F. In the PM peak hour, 53 of the 82 signalized intersections would operate at overall LOS E or F. In the Saturday midday peak hour, 12 of the 82 signalized intersections would operate at overall LOS E or F. Three unsignalized intersections of seven analyzed during the AM peak hour would operate at overall LOS E or F, and the remaining four intersections would operate at overall LOS C or better. One of the six unsignalized intersections analyzed during the weekday midday and Saturday midday peak hours would operate at overall LOS F conditions, and the remaining five would operate at overall LOS C or better. Two of the six unsignalized intersections analyzed in the PM peak hour would operate at overall LOS F conditions, and the remaining four would operate at LOS D or better.

The SEIS traffic analyses project that, under 2014 Build conditions, significant adverse impacts would occur at 55 intersections in the three Manhattan study areas in the AM peak hour, 35 intersections in the midday peak hour, 57 intersections in the PM peak hour, and 22 intersections in the Saturday midday peak hour out of 88 study intersections.

The Proposed Actions are expected to provide a total of 945 public parking spaces and 609 accessory parking spaces with the following site breakdowns: 294 public spaces at 616 First Avenue; 110 accessory spaces at 685 First Avenue; and 651 public spaces and 499 accessory spaces at 700/708 First Avenue. Under 2014 Build conditions, weekday parking accumulation on site can be expected to reach a maximum accumulation of about 94 percent overall by 10 AM, fluctuate within a general range of about 79 to 92 percent through the midday and early afternoon hours, decrease to 59 percent at about 5 PM, and be steady at about 67 percent overnight due to residential parking. The Proposed Actions would provide sufficient parking spaces on-site overall, although some motorists destined to residential space at 685 First Avenue may be accommodated across the street at the 700/708 First Avenue site and approximately 220 autos destined to the office space at 708 First Avenue would need to find parking at nearby off-street public parking, which is accounted for in the traffic assignments and parking accumulation table in Chapter 15, "Traffic and Parking." Public parking at 700/708 First Avenue would reach 100 percent of capacity from site-generated demand, and public parking at 616 First Avenue would reach approximately 100 percent of capacity from site-generated and off-site demand.

FDR DRIVE

The FDR Drive was analyzed using the CORSIM model with level of service findings matching observed field conditions. Levels of service were determined from the model for the northbound FDR Drive in the vicinity of the 34th Street entrance ramp area (north and south of it and at the merge) and in the vicinity of the 42nd Street exit ramp area (north and south of it and at the

diverge). On the southbound FDR Drive, levels of service were determined at the diverge, or "slip ramp," to the service road near 40th Street, the merge from 34th Street, and the mainline between these two ramp locations.

Existing conditions analyses of the AM peak hour indicate LOS F conditions prevail northbound near 34th Street (9 to 12 mph), LOS D to E conditions prevail northbound near 42nd Street (27 to 38 mph), and LOS D to F conditions prevail southbound near 34th Street (35 to 39 mph). Existing midday peak conditions are in the LOS C to marginally acceptable/unacceptable D range (37 to 39 mph) for all analysis locations. PM peak hour Existing Conditions indicate LOS F conditions prevail northbound near 34th Street (about 9 mph), LOS D to F conditions prevail northbound near 42nd Street (15 to 29 mph), and LOS D to E conditions prevail southbound near 34th Street (36 to 39 mph). Existing Saturday midday peak hour conditions range from LOS B on the northbound mainline north of the 34th Street merge (approximately 53 mph) to marginally acceptable/unacceptable LOS D on the northbound mainline south of the 34th Street merge (25 mph).

Under No Build conditions, AM peak hour conditions would operate at LOS E just south of the 42nd Street diverge on the northbound mainline. North of the 42nd Street diverge area, the northbound mainline would operate at LOS F, with speeds decreasing to about 22 mph. No Build midday peak conditions would be in the LOS C to marginally acceptable/unacceptable D range (37 to 39 mph) for all analysis locations, with southbound FDR Drive at the diverge to the service road "slip ramp" deteriorating from LOS C under existing conditions to LOS D under No Build Conditions. PM peak hour conditions would operate at LOS E at the northbound 42nd Street diverge. Saturday peak hour conditions would operate at LOS C under projected 2014 No Build conditions on the northbound mainline north of the 34th Street merge.

Weekday AM, midday and Saturday midday peak hour Build conditions would operate at the same levels of service and about the same speeds as the 2014 No Build conditions. PM peak hour Build conditions would operate at the same levels of service and about the same speeds as the 2014 No Build conditions, with the exception of the southbound mainline at the 34th Street merge, which would deteriorate from LOS E to F, with a loss in speed of less than one mph. This movement would be significantly impacted since the density would increase by 2.3 passenger cars per mile per lane (pc/mi/ln)—2.0 pc/mi/ln is the deterioration threshold for significant impacts.

PORTALS ANALYSIS FOR QMT AND QUEENSBORO BRIDGE

Utilization of traffic capacity within the Queens-Midtown Tunnel (QMT) and along the Queensboro Bridge was also analyzed for this SEIS—referred to as a "portals analysis"—as was conducted for the Hudson Yards Rezoning FGEIS. According to the methodologies used in that study, mainline vehicle capacities were estimated for each facility based on its lane and shoulder widths, peak hour lane directions, and mixture of heavy vehicles—all of which would affect peak hour capacity. The Hudson Yards FGEIS developed the criteria that a volume/capacity (v/c) ratio greater than 0.90, or 90 percent of the capacity, "might be approaching [its] estimated mainline capacity," and that any increase in the v/c ratio of 0.02 or more when No Build conditions are above 0.90 would constitute a significant adverse impact.

Project-generated increments under the Proposed Actions were added to No Build volumes for the QMT and Queensboro Bridge. The analyses projected that significant adverse impacts would occur at the QMT inbound and outbound in the AM peak hour, and outbound in the PM peak hour, according to the significant impact definition, above. There would be no significant impacts at the Queensboro Bridge.

FUTURE WITH THE PROPOSED ACTIONS AND THE UNDC PROJECT

An additional set of analyses was conducted in the Draft SEIS with one additional potential development included in background conditions—a potential one million square foot building proposed by the United Nations Development Corporation (UNDC) which may or may not proceed. The Draft SEIS concluded that projected conditions with the UNDC project were not appreciably different than projected conditions without the UNDC project. Therefore, detailed analyses were not re-conducted for this Final SEIS; highlights from the Draft SEIS are provided in the remainder of this section. The Draft SEIS traffic analyses under Build conditions with the UNDC project concluded that significant adverse impacts would occur at 65 intersections in the three Manhattan study areas in the AM peak hour (one more than conditions without UNDC), 30 intersections in the midday peak hour (two more than conditions without UNDC), 57 intersections in the PM peak hour, and 22 intersections in the Saturday midday peak hour out of 88 study intersections (both the same as without UNDC).

In the Draft SEIS, portals analyses conducted with the UNDC project concluded that there would be no significant impacts at the Queensboro Bridge, and, as reported for Build conditions without UNDC, significant impacts would occur on the QMT mainline inbound and outbound in the AM and PM peak hours.

In the Draft SEIS, when comparing the FDR Drive 2014 No Build conditions with UNDC to 2014 Build conditions with UNDC, the weekday AM, weekday midday, and Saturday midday peak hour conditions would remain at the same levels of service and speeds after adding Build increment trips. However, the weekday PM peak hour deterioration from LOS E under 2014 No Build with UNDC conditions to LOS F under 2014 Build with UNDC conditions on the southbound FDR Drive at the 34th Street on-ramp merge would result in a density increase of 2.0 passenger cars per mile per lane, which is defined as a significant impact.

QUEENS PLAZA APPROACH TO THE QUEENSBORO BRIDGE

New traffic counts were conducted for the Queens Plaza approach to the Queensboro Bridge in April 2007 for weekday and Saturday midday periods using manual intersection counts and 24-hour Automatic Traffic Recorder (ATR) machine counts. These volumes were used along with observations of actual traffic conditions to determine levels of service for the weekday 8:00 to 9:00 AM, 1:00 to 2:00 PM midday, and 5:00 to 6:00 PM peak hours, and for the Saturday 1:00 to 2:00 PM midday peak traffic hour using *2000 Highway Capacity Manual (HCM)* procedures.

The SEIS's traffic analyses of conditions at 12 locations in the Queens Plaza Area determined that significant adverse impacts would occur at 7 intersections in the AM peak hour, 4 intersections in the midday peak hour, 8 intersections in the PM peak hour, and 4 intersections in the Saturday midday peak hour.

MITIGATION OF SIGNIFICANT TRAFFIC IMPACTS

As noted above, the Proposed Actions would result in significant adverse impacts at 55 intersections in the three Manhattan study areas in the AM peak hour, 35 intersections in the midday peak hour, 57 intersections in the PM peak hour, and 22 intersections in the Saturday midday peak hour out of 88 study intersections. The major overall finding of the traffic mitigation analysis is that the vast majority of locations analyzed under the Proposed Actions would either not be significantly impacted or could be mitigated with a series of traffic improvements. The improvements include signal phasing and/or timing changes, parking regulation changes to gain a travel lane at key intersections, intersection or street channelization

improvements, lane markings and signage, strict enforcement of existing parking regulations, and installation of traffic signals at some currently unsignalized intersections. These measures represent the standard range of traffic capacity improvements that are available to improve operating conditions and mitigate impacts and are deployed by DOT and/or the New York Police Department (NYPD), and are the same types of measures identified in the FGEIS completed for this site previously.

Out of the 88 intersections analyzed in the three Manhattan traffic study areas in the weekday AM, midday, and PM, and Saturday midday peak hours, all significant adverse traffic impacts could be mitigated with these exceptions: in the weekday AM peak hour, no intersections would be partially mitigated and 17 intersections (the FDR Drive service road at 34th, 35th, and 37th Streets, First Avenue at 42nd, 49th, and 53rd Streets, Second Avenue at 34th, 36th, 42nd, and 59th Streets and at the exit from the Queensboro Bridge, at the QMT Exit Street and 37th Street, Third Avenue and 42nd Street, Park Avenue at 34th Street, and 42nd Street at Broadway and Sixth, Eighth, and Madison Avenues) could not be mitigated at all; in the weekday midday peak hour, no intersections would be partially mitigated and nine intersections could not be mitigated at all (the same two locations along Second Avenue near the Queensboro Bridge and at 42nd Street, 42nd Street at Broadway and at Sixth and Eighth Avenues, Third Avenue and 42nd Street, and the FDR Drive Service Road at 34th Street as cited above for the weekday AM peak hour, plus the intersection of Sixth Avenue, Broadway and 34th Street at Herald Square); in the weekday PM peak hour, five intersections could only be partially mitigated and 14 additional intersections could not be mitigated at all (First Avenue at 37th, 40th, and 52nd Streets, the QMT Exit Street and 34th Street, the same locations on Second Avenue at 36th Street, the FDR Drive Service Road at 34th and 35th Streets, Third Avenue at 42nd Street, Sixth and Eighth Avenues at 42nd Street, and on First Avenue at 42nd and 49th Streets as cited for the AM peak hour, as well as the two locations along Second Avenue near the Queensboro Bridge); and in the Saturday midday peak hour, one intersection could only be partially mitigated and four additional intersections could not be mitigated at all (First Avenue and 34th Street, Park Avenue and 42nd Street, and the same locations on the FDR Drive Service Road at 34th Street and Third Avenue at 42nd Street as cited for the AM peak hour).

It is also possible that close coordination of traffic enforcement agent activities along Second Avenue near the entrance/exit for the Queens-Midtown Tunnel could regain effective green time that is lost due to spillback in the weekday AM and PM peak hours. If successful, it would reduce the number of unmitigated traffic impacts by one intersection in the weekday AM and PM peak hours.

On the FDR Drive, there was one significant adverse traffic impact identified for Build conditions. That one significant adverse impact location was along the southbound FDR Drive mainline where the entrance ramp from 34th Street merges onto the mainline. This impact could be mitigated by installing an alternative route message sign at 34th Street and the FDR Drive service road, advising motorists—and diverting a portion of those motorists—to stay on the southbound service road south of 34th Street and enter the FDR Drive at its 30th Street entrance ramp.

The analyses of the QMT and Queensboro Bridge mainlines indicate that significant adverse impacts would occur at the QMT inbound and outbound in the AM peak hour, and at the QMT outbound in the PM peak hour. These impacts cannot be mitigated, since it would not be possible to increase the capacity of the tunnel itself. However, QMT conditions are most related to conditions at the intersections on the Manhattan side of the QMT, where existing capacity bottlenecks, at times, are the major influence over flow within the tunnel itself. Those capacity

conditions and impacts would be addressed by the intersection mitigation measures described in detail in Chapter 23, "Mitigation."

In the Draft SEIS, under the Proposed Actions with the UNDC project, the number and location of significant adverse traffic impacts projected are nearly identical to those identified without it. The analysis of mitigation needs indicates that for the vast majority of intersections analyzed, traffic capacity improvements needed to mitigate significant adverse traffic impacts would be nearly identical, according to the Draft SEIS.

In the Queens Plaza area approach to the Queensboro Bridge, seven of the 11 intersections analyzed during the AM peak hour would be significantly impacted. Of the 12 intersections analyzed during the midday, PM, and Saturday midday peak hours, four would be significantly impacted during the weekday midday peak hour, and eight would be significantly impacted during the PM peak hour, and for the Saturday midday peak hour, four would be significantly impacted. Of the impacted locations, one would be partially mitigated and three could not be mitigated in the AM peak hour, one could not be mitigated in the weekday midday hour, one would be partially mitigated and five could not be mitigated in the PM peak hour, and all Saturday midday peak hour impacts could be fully mitigated.

Each of the traffic improvements described above would require the approval of DOT or the NYPD. In general, these improvements fall within the range of measures employed by DOT in their ongoing efforts to maintain traffic flow and include: signal phasing and timing modifications; new parking prohibitions; lane markings and signage; intersection channelization improvements and installation of traffic signals at currently unsignalized intersections. Traffic and parking enforcement are under the purview of NYPD.

The applicant has committed to conducting traffic monitoring programs after the first two buildings scheduled for construction (685 First Avenue and 708 First Avenue) are built, and after the full development is built, in order to verify the need for the proposed mitigation measures identified in this Final SEIS. The applicant will submit detailed scopes of work for these monitoring plans for NYCDOT's review and approval before commencing the monitoring.

TRANSIT AND PEDESTRIANS

FGEIS FINDINGS

The assessment of transit and pedestrian conditions in the FGEIS examined commuter rail, subway line-haul and station operations, bus line-haul, and pedestrian conditions for four development alternatives on the development parcels. While the FGEIS identified a varying degree of significant impacts to subway station operations, bus line-haul, and pedestrian circulation based on the number of trips generated by each of the illustrative development programs, all impacts were able to be mitigated. The analysis concluded that none of the illustrative development programs would result in significant adverse impacts on commuter rail operations or subway line-haul.

PROPOSED ACTIONS

The Proposed Actions would generate new trips that would use commuter rail services, subways, and buses as well as the sidewalks, corners, and crosswalks in the vicinity of the development parcels. Specifically, the Proposed Actions would result in significant adverse impacts on subways, buses, and pedestrian circulation that would require mitigation. These impact areas are discussed in more detail below.

- Subways. Additional trips associated with the Proposed Actions would result in a significant adverse impact on the operation of the PL9 stairway at Grand Central Station in the AM and PM peak periods. The PL9 stairway provides access between the Flushing Line platform and a bank of escalators and central stairways that lead to street level.
- NYCT Buses. The Proposed Actions would result in significant adverse impacts for the following routes: the M16/M34 and M42 bus routes in the AM and PM peak hours.
- Pedestrian Circulation. Additional trips associated with the Proposed Actions would result in significant adverse impacts at the following pedestrian analysis locations: the north crosswalk at East 42nd Street and Lexington Avenue in the AM peak period and; the north crosswalk at East 42nd Street and Third Avenue in the AM peak period.

Three intersections in the pedestrian study area are considered high vehicle/pedestrian accident locations: Third Avenue at East 42nd Street, Third Avenue at East 34th Street, and Second Avenue at East 34th Street. The incidence of accidents is not atypical of Midtown Manhattan and is more a function of traffic and pedestrian volumes than of unsafe roadway conditions or pedestrian geometry. Nevertheless, measures could be implemented that may improve pedestrian safety such as high-visibility crosswalks, caution signs on vehicle approaches, and the repainting of faded stop bars.

Mitigation for Transit and Pedestrians

Subways

The PL9 stairway is 10 feet wide and can accommodate four pedestrian lanes, two lanes on either side of a center handrail. A 15-inch widening would technically mitigate stairway operations to the No Build condition. However, as 15 inches is not sufficient to provide an additional pedestrian lane, the stair must be widened by a minimum of 24 inches to actually achieve the needed capacity. The required widening appears to be feasible since the existing PL9 staircase is flanked on either side by approximately 24 inches of inaccessible platform area. This mitigation would be provided subject to authorization by NYCT following review of necessary design studies. Based on the incremental demand of the proposed project on the PL9 stairway, the applicant would be responsible for its fair and allocable share of the cost of the proposed widening.

NYCT Buses

The Proposed Actions would result in significant adverse impacts for the following routes:

- The M16/M34 westbound in the AM and PM peak hours;
- The M16/M34 eastbound in the AM and PM peak hours;
- The M42 eastbound in the AM and PM peak hours; and
- The M42 westbound in the AM and PM peak hours.

As shown in Table S-2, these impacts would be mitigated by converting from standard buses to articulated vehicles on these routes. For the M16/M34 route, the increased capacity of articulated buses would allow for a reduction in the number of bus runs as compared to Build conditions without mitigation. For the M42 route, the conversion to articulated vehicles would allow for a reduction in eastbound bus runs in the AM and PM peak hours; however, increased service would be needed for the westbound M42 route. In the event that New York City Transit would not convert these routes to articulated service, additional standard bus runs would be required.

Table S-2
2014 Build with Mitigation Conditions—AM and PM Peak Hour Bus Line-Haul

Route		Peak Hour	Hourly Peak Load Volume	2014 Build without Mitigation		2014 Build with Mitigation Standard Bus Service			2014 Build with Mitigation Articulated Bus Service		
				Total Buses per Hour	Riders per Bus	Additional Buses per Hour	Total Buses per Hour	Riders per Bus	Additional Buses per Hour	Total Buses per Hour	Riders per Bus
M16 / M34	EB	AM	1358	18	75	+3	21	65	-2	15	91
	WB	AM	1730	26	67	+1	27	64	-7	19	91
	EB	PM	1579	23	69	+2	25	63	-6	17	93
	WB	PM	1034	13	80	+3	16	65	-1	12	86
M42	EB	AM	2359	29	81	+8	37	64	-3	26	91
	WB	AM	1376	14	98	+8	22	63	+1	15	92
	EB	PM	1515	17	89	+7	24	63	0	17	89
	WB	PM	1833	14	131	+14	28	65	+6	20	92
Note:	NYCT's guideline capacity for a standard bus is 65 passengers per bus. NYCT's guideline capacity for an articulated bus is 93 passengers per bus.										

Pedestrian Circulation

Additional trips associated with the Proposed Actions would result in significant adverse impacts at three pedestrian analysis locations. Mitigation measures for each of these locations are as follows:

- The significant adverse impact at the north crosswalk at East 42nd Street and Lexington Avenue would be fully mitigated by implementation of the signal timing modification identified above as traffic mitigation.
- The significant adverse impact at the north crosswalk at East 42nd Street and Third Avenue would be partially mitigated with a four-foot widening from 16 to 20 feet.

Analysis was also prepared to determine if any proposed traffic mitigation measures would degrade pedestrian circulation. It was concluded that the traffic mitigation would not result in significant adverse impacts on the operation of the study area's corners and crosswalks.

WITH THE UNDC PROJECT

With the inclusion of the UNDC project in the future baseline condition, there would be impacts on the S2/S9 and the PL9 stairways at Grand Central Station.

The cumulative increase in bus trips associated with the Proposed Actions and the potential UNDC building would result in significant adverse impacts on the M16/M34 and the M42 bus routes.

With the inclusion of the UNDC project, additional trips associated with the Proposed Actions would result in significant adverse impacts at seven pedestrian analysis locations.

Mitigation with the UNDC Building

Subways. The cumulative increase in subway trips associated with the Proposed Actions and the potential UNDC building would result in an impact on the S2/S9 and the PL9 stairway at Grand Central Station. To fully mitigate these impacts, a widening of both stairways would be required. The widening of the PL9 stairway appears to be feasible, since there are approximately 2 feet of unused platform area flanking the existing stairway. This mitigation would be provided subject to authorization by NYCT following review of necessary design studies. Based on the incremental demand of the proposed project on the PL9 stairway, the applicant would be responsible for its fair and allocable share of the cost of the proposed widening. The S2/S9 stairway is located in a privately-owned building. Widening this stair would be subject to negotiations with the building's owner. In the event, that the proposed widening of the S2/S9 stairway could not be implemented, it would be considered a significant unmitigated adverse impact.

NYCT Buses. The cumulative increase in bus trips associated with the Proposed Actions and the potential UNDC building would result in significant adverse impacts on the M16/M34 and the

M42 bus routes. Table S-3 shows the mitigation analysis for NYCT buses with inclusion of the potential UNDC building.

Table S-3

2014 Build with Potential UNDC Building and Mitigation Conditions—AM and PM Peak Hour Bus Line-Haul

Route		Peak Hour	Hourly Peak Load Volume	2014 Build without Mitigation		2014 Build with Mitigation Standard Bus Service			2014 Build with Mitigation Articulated Bus Service		
				Total Buses per Hour	Riders per Bus	Additional Buses per Hour	Total Buses per Hour	Riders per Bus	Additional Buses per Hour	Total Buses per Hour	Riders per Bus
M16 / M34	EB	AM	1358	18	75	(+3)	21	65	(-2)	15	91
	WB	AM	1730	26	67	(+2)	28	62	(-7)	19	91
	EB	PM	1579	23	69	(+2)	25	63	(-6)	17	93
	WB	PM	1034	13	80	(+2)	16	65	(-1)	12	86
M42	EB	AM	2526	29	87	(+11)	40	63	(-1)	28	90
	WB	AM	1385	14	99	(+8)	22	63	(+1)	15	92
	EB	PM	1540	17	91	(+7)	24	64	0	17	91
	WB	PM	1973	14	141	(+17)	31	64	(+8)	22	90

Note: NYCT's guideline capacity for a standard bus is 65 passengers per bus. NYCT's guideline capacity for an articulated bus is 93 passengers per bus.

This analysis conservatively does not account for bus improvements that may be required in conjunction with the environmental review and approvals for the UNDC project.

As reported in the Draft SEIS, with the inclusion of the UNDC project, additional trips associated with the Proposed Actions would result in significant adverse impacts at seven pedestrian analysis locations:

- The north crosswalk at East 42nd Street and Lexington Avenue in the AM peak period;
- The north crosswalk at East 42nd Street and Third Avenue in the AM, midday, and PM peak periods;
- The southwest corner of East 42nd Street and Lexington Avenue in the AM peak period;
- The northeast corner of East 42nd Street and Lexington Avenue in the PM peak period;
- The northwest corner of East 42nd Street and Lexington Avenue in the AM peak period;
- The south crosswalk at East 42nd Street and Lexington Avenue in the PM peak period; and
- The north crosswalk at East 40th Street and First Avenue in the midday and PM peak periods.

As with conditions described above without the UNDC project, crosswalk impacts could be mitigated with signal timing adjustments and/or crosswalk widenings. Corner reservoir impacts would be mitigated with the removal or relocation of street furniture. This analysis conservatively does not account for pedestrian improvements that may be required in conjunction with the environmental review and approvals for the UNDC project.

Should the UNDC project move forward, a traffic and mitigation monitoring program would be implemented to determine the specific pedestrian mitigation measures needed. Before commencing the monitoring plan, the applicant will submit a scope of work for NYCDOT review and approval. The applicant will identify the mitigation measures to all appropriate City agencies. The applicant will submit all of the required drawings /design as per AASHTO and NYCDOT specifications for NYCDOT review and approval. NYCDOT will participate in the review process relating to all future modifications to geometric alignment, striping and signage during the preliminary and final design phases. The applicant will be responsible for the cost of the design and construction of these improvements, consistent with customary and standard NYCDOT practice.

AIR QUALITY

FGEIS FINDINGS

The FGEIS included an analysis of mobile sources, conducted to determine the effects of emissions from parking facilities and traffic generated by the proposed development program and other changes to traffic due to the rezoning on pollutant levels in the study area; analysis of stationary sources, assessing the effects of the development parcels' heating systems; and an analysis of the effects of the QMT ventilation building on the proposed towers of the adjacent 708 First Avenue development parcels.

Carbon monoxide (CO) impacts from mobile sources related to the illustrative development programs at up to three analysis sites for the FGEIS Residential and Mixed-Use Development Programs under the 12.0 FAR Rezoning Scenario were predicted to exceed the *de minimis* criterion defined in the CO New York SIP which was in effect at the time the FGEIS was completed, and would therefore require mitigation. The *de minimis* criterion from the SIP is not included in the current CO maintenance plan which replaced the State Implementation Plan (SIP). As stated in the FGEIS, the predicted CO concentration increments did not exceed the *de minimis* significant adverse impact criterion defined in the *CEQR Technical Manual*, which is less stringent than the SIP *de minimis* criterion. As stated in the FGEIS, the *de minimis* impacts would have been mitigated with the application of the range of network and intersection improvement measures outlined in the review of traffic mitigation in the FGEIS.

Because the site plans examined in the FGEIS were illustrative and there were not yet detailed plans for the parking garage locations and their mechanical systems, impacts from parking garage emissions could not be ruled out. Possible mitigation measures to avoid such impacts were identified, including ventilation rates and exhaust location.

Assuming that No. 2 distillate oil were to be used for heat and hot water boilers, the maximum potential increase in 24-hour average $PM_{2.5}$ concentrations on the upper floors of the development parcels was predicted, in the FGEIS, to be greater than the interim guidance criterion (5 $\mu g/m^3$). Measures to mitigate such potential impacts were identified, including optimal stack location or the use of electric power or steam.

The highest predicted total CO and PM_{10} concentrations within the development parcels from the emission of particulate matter from the QMT ventilation exhaust were less than the applicable National Ambient Air Quality Standards (NAAQS). The FGEIS concluded that potential significant adverse 24-hour average $PM_{2.5}$ impacts on the development parcels could result from the QMT ventilation emissions, and stated that when a specific project plan is formulated and proposed, additional analyses would be undertaken to determine if there would be potential for significant adverse impacts.

PROPOSED ACTIONS

Based on the new EPA emissions model, vehicular emissions applied in the SEIS (on roadways and within garages and tunnels) are significantly lower than those applied in the FGEIS.[1] Predicted PM_{10} and CO concentrations from mobile sources, in all scenarios, would be lower than the applicable NAAQS. All $PM_{2.5}$ increments from mobile sources were predicted to be lower than the threshold guidance values. CO increments were predicted to be lower than the

[1] The latest EPA mobile source emissions model predicts lower vehicular emission factors mainly because it has been updated to reflect the latest federal emissions regulations.

applicable *de minimis* levels. Therefore, the Proposed Actions would have no significant adverse impact on air quality due to changes in traffic patterns and volumes.

The SEIS analysis found that the maximum predicted pollutant concentrations and concentration increments from mobile sources with the Proposed Actions and from the development parcels' parking garages would be below the applicable criteria for determining the significance of potential impacts.

There would be no significant adverse air quality impacts from industrial facilities or the QMT ventilation system on the development parcels.

A restrictive declaration for the proposed rezoning would prohibit the use of fossil fuel-fired HVAC equipment for the WS2-1 building, limit the fuel type used for the other proposed buildings to either No. 2 oil or natural gas, and place limitations on minimum stack heights for the 701 First Avenue and WS1-2 buildings, and stack locations for the 708 First Avenue, WS1-2, and 616 First Avenue buildings. The operation of the proposed development program's boilers would not result in any new exceedances of the NAAQS. Although the maximum increment in $PM_{2.5}$ concentrations is predicted to slightly exceed the updated NYCDEP 24-hour average $PM_{2.5}$ interim guidance threshold level at two discrete locations on one building at the Waterside site, and at four discrete locations on one building at the 616 First Avenue site, this is not considered a significant adverse air quality impact considering the magnitude, frequency, and the extent of the area where these exceedances are predicted.

The SEIS considered the effects on air quality of the Proposed Actions with implementation of the traffic mitigation measures discussed above. The results show that with the proposed traffic mitigation measures, future concentrations of pollutants with the Proposed Actions would be below the National Ambient Air Quality Standards (NAAQS) and would not result in any significant adverse air quality impacts using the *de minimis* thresholds for CO impacts and the $PM_{2.5}$ interim guidance criteria. Appendix E presents the tables summarizing these results.

WITH THE UNDC PROJECT

The mobile source analysis presented in the Draft SEIS assumed that the UNDC project would be in place in the No Build condition—an assumption which results in higher background traffic and higher total concentrations in the No Build and Build conditions. The key finding of the traffic analyses in the Draft SEIS was that projected conditions with the UNDC project included were not appreciably different than projected conditions without the UNDC project. These Draft SEIS findings confirmed the findings of the FGEIS, namely that traffic conditions with and without the potential UNDC project were not appreciably different. Therefore, detailed traffic analyses with the potential UNDC project were not re-conducted for the Final SEIS.

The HVAC analysis with the proposed UNDC project determined that maximum predicted concentrations from the Proposed Actions are identical to the analysis presented for the Proposed Actions without the UNDC project. Therefore, no significant adverse air quality impacts are predicted due to HVAC emissions from the Proposed Actions with the UNDC project either on the proposed UNDC building or at any other location. Stationary source impacts from the proposed UNDC project on the Proposed Actions' buildings and open spaces were also analyzed. An analysis was performed using the AERMOD model, based on worst-case assumptions regarding fuel type and stack exhaust parameters for the proposed UNDC project, since no specific mechanical design information is available at this time. The analysis determined that emissions from HVAC systems associated with the proposed UNDC project could potentially affect the proposed 708 First Avenue office development at potential air intake

locations on the north façade of the building. Measures to avoid such impacts may include the use of cleaner burning fuels or utility steam heat and/or installing higher stacks or boosting the exhaust on these buildings so as to ensure that the plume would clear the height of the 708 First Avenue building. Potential significant adverse impacts could also be avoided by placement of air intakes at locations away from areas where maximum pollutant concentration from the UNDC project's HVAC emissions were predicted.

NOISE

FGEIS FINDINGS

The FGEIS concluded that the 12.0 FAR Rezoning Scenario would not result in significant adverse noise impacts from increased traffic or building mechanical equipment. However, the analysis identified the potential for significant adverse impacts within some of the new buildings due to possible exceedances of interior noise levels. These potential impacts could be mitigated through noise attenuation measures in order to meet interior noise standards. Specifically, in order to achieve 40 dBA of attenuation, specially designed window features (i.e., windows with air gaps, windows with thicker glazing, etc.), and additional building insulation would be necessary at portions of the buildings facing the FDR Drive service road and East 35th Street.

PROPOSED ACTIONS

Using CEQR methodology, noise levels at all 10 receptor sites with the Proposed Actions were predicted to be less than 2 dBA higher than future No Build noise levels (3 dBA is the CEQR impact criteria). Changes of these magnitudes would be imperceptible and considered insignificant, and they would be below the CEQR threshold for a significant adverse impact. To attenuate outdoor noise sufficiently to meet interior noise level requirements set forth in the *CEQR Technical Manual* (45 dBA $L_{10(1)}$) for buildings that are part of the proposed project, special design features which go beyond the normal double-glazed window and central air conditioning would be necessary. These would include using specially designed windows (i.e., windows with small sizes, windows with air gaps, windows with thicker glazing, etc.), and additional building insulation. To ensure that CEQR interior noise requirements are met, the restrictive declaration will contain provisions requiring specified attenuation values for each façade on each block that would be the future site of a proposed building. In addition, the proposed development program's mechanical systems (i.e., heating, ventilation, and air-conditioning systems) would be designed to avoid producing levels that would exceed the allowable noise levels in the City of New York Noise Codes.

WITH THE UNDC PROJECT

Future No Build noise levels with the UNDC building as a background project would be less than 2 dBA higher than existing noise levels. Changes of this magnitude would be imperceptible. Additionally, future Build noise levels with the UNDC building as a background project would be less than 2 dBA higher than No Build noise levels. Changes of this magnitude would be imperceptible. The changes at all 10 receptor sites would therefore not result in significant adverse impacts.

COASTAL ZONE MANAGEMENT

FGEIS FINDINGS

The FGEIS analysis concluded that the illustrative Rezoning Scenario was consistent with the applicable statewide and city-specific coastal zone management policies.

PROPOSED ACTIONS

The Coastal Zone Management analysis in the SEIS assesses the proposed development program's consistency with the city's New Local Waterfront Revitalization Program (LWRP) and the East River Bikeway and Esplanade Master Plan. To sum up, the development program does not present substantial differences in uses, density, or building configuration that would alter the findings presented in the FGEIS relating to consistency with the LWRP, or with the East River Bikeway and Esplanade Master Plan. This analysis finds that the Proposed Actions would be consistent with applicable coastal zone management policies. Compared to the site plans associated with the illustrative Rezoning Scenario, the configuration of public open space now envisioned under the proposed development program—combined with a program that facilitates the possible future development of a pedestrian bridge over the FDR Drive that would provide public access to the East River Esplanade—further enhances the proposed program's consistency with coastal zone management policies compared to the plans considered in the FGEIS.

WITH THE UNDC PROJECT

The analysis with the UNDC development would also be expected to be consistent with applicable coastal zone management policies, and would therefore result in no significant adverse impacts on coastal zone management.

CONSTRUCTION IMPACTS

FGEIS FINDINGS

The FGEIS analyzed the potential construction impacts that would generally be associated with large-scale construction of mid- to high-rise building complexes in Manhattan and found that redevelopment of the parcels would not result in significant adverse impacts caused by construction activities, with the exception of significant adverse traffic impacts during the AM peak hour at two locations and during the PM peak hour at four locations.

The FGEIS considered four preliminary construction phasing and schedule scenarios: one for the As-of-Right Development Scenario, and one for each of the three illustrative development programs associated with a 12.0 FAR Rezoning Scenario. Each of these phasing and schedule scenarios assumed two phases of work: an initial phase for the 616, 685, and 708 First Avenue parcels, and a second phase for the 700 First Avenue (Waterside) parcel. Depending on the parcel and development program, the total duration of construction was estimated to range from a minimum of 15-18 months to a maximum of 36-48 months.

Because development of the UNDC building could result in construction activities concurrent with those of the proposed development, the FGEIS considered the effects of the potential overlap in construction phasing between these two projects. The analyses determined that UNDC construction could affect traffic and transportation by altering the placement of on-street staging areas for the 708 First Avenue parcel, but that street capacity could provide staging areas

for both projects. Furthermore, although the overlap of the two projects would exacerbate the temporary disruptions associated with such large-scale construction projects, these disruptions could be managed to the extent practicable through permitting and other existing regulatory mandates for construction processes in New York City.

Now, since there is a specific development plan and a more refined construction program, this chapter reflects more detailed construction analyses than those provided in the FGEIS.

Since the issuance of the Draft SEIS, the Applicant has indicated that the phasing of building construction could vary from that which was analyzed in the Draft SEIS. Rather than beginning construction with the 708 First Avenue commercial office building, the Applicant currently anticipates that the residential building at 685 First Avenue would be the first building developed within the proposed development program, followed by the development of the commercial building at 708 First Avenue. The construction schedule analyzed in the Draft SEIS, and this alternative construction schedule, are both analyzed in this Final SEIS. The alternative construction schedule would result in comparable or fewer construction-related significant adverse impacts than identified for the construction schedule depicted in the Draft SEIS.

The provision of a 630-seat, K-8 public school on the 616 First Avenue parcel by 2012 as mitigation for the significant adverse public school impact would alter the timing of the construction of the community facility building (compared to what was analyzed in the two scenarios described above). As detailed under "Mitigation for public school impact" above, the analysis found that the advancement of construction of the community facility (school) space would not result in any new construction-related significant adverse impacts not identified for the construction schedules depicted in the Construction Impacts chapter of the SEIS.

PROPOSED ACTIONS

Land Use

Construction would cause some disruptions to activities in the surrounding area. Although construction would occur over several years, most disruptions would be temporary in nature and would not occur for the entire construction period. In addition, the location of the construction activity would move over the course of the construction period. Construction activities would be similar to construction activities at other large sites in the city, and the hours of the construction would be regulated by DOB and NYCDEP.

In general, construction would not alter surrounding land uses. During the construction, access to all adjacent businesses, residences, and other uses would be maintained according to the regulations established by DOB. When work would take place within building shells, effects on the surrounding uses would be substantially reduced as compared to excavation and foundation activities. Construction management practices would be developed and implemented to minimize the effects of construction-related changes in access to land uses in the vicinity of the development parcels. Other changes, such as sidewalk closures, would also affect people living and working in the surrounding area, but implementation of the construction management practices would minimize the effects of these closures. There would be no significant adverse impacts on land use due to construction activity.

Socioeconomic Conditions

Construction activities on the development parcels would include various land and/or sidewalk closures for different stages of construction. However, there are no businesses on or immediately

adjacent to the development parcels, and construction would not obstruct throughways used by customers.

Construction would create major direct benefits resulting from expenditures on labor, materials, and services, as well as substantial indirect benefits created by expenditures by material suppliers, construction workers, and other employees involved in the direct activity. Construction would also contribute to increased tax revenues for the city and state, including those from personal income taxes. There would be no significant adverse impacts on socioeconomic conditions due to construction.

Community Facilities and Services

Construction activities on the development parcels would result in some interruptions to activities in the surrounding area and would include limited curb lane and/or sidewalk closures for different stages of construction. However, no community facilities are located on blocks where these measures would be implemented. All of the streets affected would remain accessible to emergency vehicles. Coordination with both NYPD and FDNY would be undertaken throughout the construction period to ensure that unimpeded emergency access and adequate emergency response could be achieved. There would be no significant adverse impacts on community facilities and services due to construction

Open Space

Construction of the proposed development program would occur in close proximity to a number of open spaces surrounding the development parcels, most notably St. Vartan Park, Robert Moses Playground, Joseph Slifka Park, and Trygve Lie Plaza. All open spaces are expected to remain open during the entire construction period, and access to these open spaces would not be compromised at any time.

Construction activities would be conducted with the care mandated by the close proximity of several open spaces to the development parcels. Dust control measures—including watering of exposed areas and dust covers for trucks—would be implemented to ensure compliance with Section 1402.2-9.11 of the New York City Air Pollution Control Code, which regulates construction-related dust emissions. As discussed below, there would be no significant adverse air quality impacts on open spaces. While low-noise emission level equipment and operational procedures would be used, significant noise impacts are predicted to occur during construction at Manhattan Place Plaza, as discussed below. In addition, during limited time periods, construction activities would result in intrusive noise levels at other open space areas in the project study area, as described below.

Historic Resources

A CPP would be developed and implemented for construction activities at the 685 First Avenue parcel to avoid any adverse physical impacts to Windsor Tower (which sits immediately north and west of the parcel in Tudor City) and the Kips Bay Brewery (which is located across East 38th Street from and immediately south of the 700 First Avenue [Waterside] parcel) resulting from ground-borne, construction-period vibrations. This CPP would follow the guidelines set forth in LPC's Guidelines for Construction Adjacent to a Historic Landmark and Protection Programs for Landmark Buildings. Construction procedures to protect the foundations and structures of these resources would be developed and monitored by structural and foundation engineers. The resulting CPP would:

- Describe in detail the excavation and construction procedures that would occur on the development parcel;

- Provide for the inspecting and reporting of Existing Conditions;
- Establish protection procedures;
- Establish a monitoring program to measure vertical and lateral movement and vibration;
- Establish and monitor construction methods to limit vibrations; and
- Establish methods and materials to be used for any repairs.

The structural and foundation engineers would be empowered to issue "stop work" orders to prevent damage to Windsor Tower and the Kips Bay Brewery building; restarting work following a "stop work" order would require approval of LPC.

Hazardous Materials

The proposed development program is not expected to result in an increase of potential pathways to exposure by introducing new activities and/or processes using hazardous materials. While uncontrolled excavation activities could increase pathways by exposing sub-surface contaminated materials, it is anticipated that potential impacts would be avoided by performing construction activities in accordance with federal, state, and local regulations, and the requirements of NYSDEC. Further activities at the site (e.g., health and safety during construction, handling and disposal of any additional soil/groundwater disturbed during construction and requirements for clean fill placed in landscaped areas) will be governed by Site Management Plans (SMPs) to be approved by NYSDEC. The applicant will enter into a restrictive declaration which would require that the applicant implement any additional testing, remediation, and other protective measures deemed necessary by NYCDEP to prevent any potential impacts related to hazardous materials. These measures, implemented pursuant to a NYCDEP-approved remedial action plan and construction health and safety plan, would ensure that there would be no significant adverse impact on public health, workers' safety, or the environment as a result of potential hazardous materials exposed by or encountered during construction.

Infrastructure

Prior to the start of construction, all utilities that could potentially be affected by construction activities on the development parcels would be relocated in accordance with all applicable New York City regulations.

The proposed buildings would receive some combination of electric, gas, and steam service via extensions of the existing Con Edison underground distribution system. During the superstructure stage of construction, some sidewalk and on-street construction activities would be required to connect the proposed buildings to existing utility networks. For electrical connections, short-term sidewalk excavations ranging from approximately 50 to 150 feet in length would be required. In addition, electric lines would be extended from existing manholes to the new transformer vaults, requiring roadway excavation. For natural gas connections, the existing 8-inch gas line that served the former Waterside Station would be adequate to supply the proposed development. As part of the analysis conducted for the FGEIS, Con Edison estimated that no distribution system infrastructure reinforcement or additions would be necessary to provide steam connections to the proposed development.

The construction activities that would be required to connect the proposed development to existing energy systems are part of Con Edison's normal operations for providing services to new customers, and occur on a regular basis throughout the city. Therefore, these construction activities would not result in a significant adverse impact to infrastructure systems.

Traffic and Parking

Construction activity is expected to occur primarily between 7:00 AM and 3:30 PM, although some construction tasks, such as foundation and superstructure work, would extend to 6:00 PM. The busiest hours of construction-related traffic activity would be at 6:00-7:00 AM and 3:00-4:00 PM, reflecting construction worker arrivals and departures, respectively. At 6:00-7:00 AM on a typical construction workday, a total of 414 vehicle trips are expected (382 construction worker auto trips and 32 truck trips). At 3:00-4:00 PM on a typical construction workday, a total of 193 vehicle trips are expected (all departing worker trips with no truck trips).

Due to the magnitude of these vehicle trips, a quantitative level of service analysis was conducted. However, since background traffic conditions at 6:00-7:00 AM have only 53 percent of the traffic volume that occurs in the morning 8:00-9:00 AM peak hour, while the 7:00-8:00 AM peak hour carries 86 percent of the traffic that occurs in the morning peak, the 7:00-8:00 AM hour was analyzed using the projection of 110 vehicle trips related to construction activities (at 8:00-9:00 AM, only 14 construction-related vehicle trips would occur and this level of trip generation would not be critical). For PM peak conditions, traffic volumes at 3:00-4:00 PM are nearly identical to those at the 5:30-6:30 PM evening peak, so construction traffic generated at 3:00-4:00 PM was applied to 5:30-6:30 PM background conditions to be slightly conservative.

The level of service analyses were conducted at nine representative intersections near the development parcels, at which projected construction traffic would be significant. Lane closures due to construction vehicle use of curb lanes were accounted for in the analyses. For the 7:00-8:00 AM peak analysis hour, significant adverse traffic impacts would occur at one of the nine intersections analyzed—along Second Avenue at 41st Street. For the 3:00-4:00 PM peak analysis hour, significant adverse traffic impacts would occur at five of the nine intersections analyzed—at First Avenue and 39th and 42nd Streets, and Second Avenue at 39th, 40th, and 42nd Streets. The same types of mitigation measures need to mitigate Build conditions would also be able to mitigate construction period impacts, with the exception of First Avenue at 42nd Street and Second Avenue at 40th Street, which could not be mitigated in the 3:00-4:00 PM peak hour.

Transit and Pedestrians

The project construction activities are not expected to result in significant adverse transit and pedestrian impacts.

With approximately 40 percent of the construction workers predicted to commute via auto, the bulk of the remaining 60 percent would travel to and from the development parcels via transit. During the peak period, there would be approximately 1,100 construction-related transit trips during the 6-7 AM hour, and 550 construction-related transit trips during the 3-4 PM and 6-7 PM hours. The transit trip demand during the morning and afternoon construction shoulder peak hours would range from 50 to 275 trips. Distributed among the various subway and bus routes, station entrances, and bus stops near the development parcels, only nominal increases in transit demand would be experienced along each of those routes and at each of the transit access locations. Hence, there would not be a potential for significant adverse transit impacts attributable to the projected construction worker transit trips. The temporary relocation of bus stops along bus routes that operate adjacent to the development parcels would be coordinated with NYCDOT and NYCT to ensure proper access is maintained.

For the same reasons discussed above with respect to transit operations, a detailed pedestrian analysis to address the projected demand from the travel of construction workers to and from the development parcels would also not be warranted. Considering that these pedestrian trips would

primarily occur outside of peak hours and be distributed among numerous sidewalks and crosswalks in the area, there would not be a potential for significant adverse pedestrian impacts attributable to the projected construction worker pedestrian trips. During construction, where temporary sidewalk closures are required, adequate protection or temporary sidewalks and appropriate signage would be provided in accordance with NYCDOT requirements.

Air Quality

Under SEQRA and CEQR, determination of the significance of impacts is based on the assessment of the intensity, duration, geographic extent, reversibility, and the number of people that would be affected by the predicted impacts. In most cases, the predicted effect of construction of the Proposed Actions on air quality would be limited in extent, duration, and severity.

The construction of the Proposed Actions would not result in predicted significant adverse impacts on air quality. The Proposed Actions would implement an emissions reduction program that would substantially reduce particulate matter (PM) emissions so that there will not be a significant adverse impact from $PM_{2.5}$ due to construction. CO, PM_{10} and NO_2 concentrations would increase at sites near the areas of construction, but would not result in predicted significant adverse impacts.

Noise and Vibration

Noise

Construction activities would be expected to result in significant adverse noise impacts at the following locations:

- **Manhattan Place** (the residential building located at 630 First Avenue), from the first floor to the top residential floor during the years 2011 through 2014 at locations which have a direct line of sight to construction activities that are taking place at 616 First Avenue and at the public plaza adjacent to the building during the years 2011 through 2013;
- **Rivergate** (the residential building located at 606 First Avenue), from the third floor to the top residential floor during the years 2011 through 2014 at locations which have a direct line-of-sight to construction activities that are taking place at 616 First Avenue; and
- **Corinthian** (the residential building located at 345 East 37th Street), from the tenth floor to the top residential floor during the years 2009 through 2011 at locations which have a direct line-of-sight to construction activities that are taking place at 616, 685, and 708 First Avenue.

Construction activities at other sites in the study area would at times produce noise levels which would be noisy and intrusive, but due to their limited duration, they would not produce significant noise impacts.

With regard to the residential locations where significant noise impacts are predicted to occur, all of the residential buildings—located at Manhattan Place (630 First Avenue), Rivergate (606 First Avenue), Corinthian (345 East 37th Street), and Horizon (415 East 37th Street)—have double-glazed windows and have some form of alternative ventilation (i.e., central air conditioning or packaged terminal air conditioner [PTAC] units). Although these would be considered significant adverse noise impacts based on the CEQR construction noise impact criteria, the double-glazed windows and alternative ventilation at these residential structures would provide a significant amount of sound attenuation, and would result in interior noise levels during much of the time that are below 45 dBA L_{10} (the CEQR acceptable interior noise level criteria). Replacing existing windows at the impacted buildings with windows which would

provide a higher level of attenuation would not be a practicable and feasible mitigation measure. The cost and dislocations associated with such mitigation would be disproportionate to the marginal benefit to be realized.

With regard to Manhattan Place Plaza, the only open space area adjacent to the development parcels where significant noise impacts are predicted to occur (during the construction years 2011 through 2013),—there are no feasible or practicable measures that could be implemented to mitigate project construction impacts, such as erecting barriers around the parks, which would present access and security concerns. Consequently, these significant adverse impacts would remain unmitigated.

Vibration

The buildings and structures of most concern with regard to the potential for structural or architectural damage due to vibration are 5 Tudor City Place, 330 East 39th Street, 410 East 38th Street, 606 and 630 First Avenue, all of which are immediately adjacent to the project construction sites, and are considered fragile buildings. Vibration levels at these buildings and structures would be kept below the 0.50 inches/second peak particle velocity (PPV) limit. In addition, the project sponsors would implement a monitoring program to ensure that this limit is not exceeded, and that no architectural or structural damage would occur. At all other locations, the distance between construction equipment and receiving buildings or structures is large enough to avoid vibratory levels that would result in architectural or structural damage.

In terms of potential vibration levels that would be perceptible and annoying, the three pieces of equipment that would have the most potential for producing levels which exceed the 65 VdB limit are pile drivers, clam shovel drops, and vibratory rollers. Operation of this equipment would produce perceptible vibration levels (i.e., vibration levels exceeding 65 VdB) at receptor locations within a distance of approximately 214 feet. However, operation of this equipment would only occur for limited periods of time at a particular location and therefore would not result in any significant adverse impacts.

A limited amount of blasting may be necessary. All blasting would be performed in conformity with regulations of FDNY and any other applicable regulations, and would use timed, multiple charges of limited intensity and blastmats to limit potential impacts. With these measures, blasting would result in PPV levels that are below the impact criteria, and the limited amount of blasting would not result in any significant adverse vibration impacts.

ALTERNATIVE CONSTRUCTION SCENARIO

Under the Alternative Construction Scenario, rather than beginning construction with the 708 First Avenue commercial office building, the residential building at 685 First Avenue would be the first building developed within the proposed development program, followed by the development of the commercial office building at 708 First Avenue.

As with the proposed development program, the modifications proposed as part of the Alternative Construction Scenario would not result in any significant adverse impacts due to construction activities on Land Use, Socioeconomic Conditions, Community Facilities, Historic Resources, Hazardous Materials, and Infrastructure.

The significant adverse traffic-related construction impacts under this Alternative Construction Scenario would be similar to those identified for the proposed development scenario. As with the proposed development scenario, these significant adverse impacts could be mitigated using measures similar to those recommended under Build conditions.

With respect to air quality, the resulting concentration increments at sensitive receptors under the Alternative Construction Scenario would be lower than identified for the construction scenario analyzed in for the proposed development scenario. Since no significant adverse air quality impacts were predicted under that analysis, none would occur under the Alternative Construction Scenario.

Under the Alternative Construction Scenario, construction activities would be expected to result in significant noise impacts at the following locations:

- Receptor site B (Manhattan Place, the residential building located at 630 First Avenue), from the first floor to the top residential floor during the years 2011 through 2014 at locations which have a direct line of sight to construction activities that are taking place at 616 First Avenue and at the public plaza adjacent to the building during the years 2011 through 2013;
- Receptor site F (Rivergate, the residential building located at 606 First Avenue), from the third floor to the top residential floor during the years 2011 through 2014 at locations which have a direct line-of-sight to construction activities that are taking place at 616 First Avenue;
- Receptor site G (Corinthian, the residential building located at 345 East 37th Street), from the tenth floor to the top residential floor during the years 2009 through 2011 at locations which have a direct line-of-sight to construction activities that are taking place at 616, 685, and 708 First Avenue;
- Receptor site N (Horizon, the residential building located at 415 East 37th Street), from the fifth floor to the top residential floor during the years 2009 through 2010 at locations which have a direct line-of-sight to construction activities that are taking place at 685 and 708 First Avenue; and

Construction activities at other sites in the study area would at times produce noise levels which would be noisy and intrusive, but due to their limited duration, they would not produce significant noise impacts.

The Alternative Construction Scenario would not generate any significant adverse impacts or require any mitigation measures not identified in the Draft SEIS.

WITH THE UNDC PROJECT

Simultaneous construction of the UNDC project and the proposed development program could affect on-street staging areas for the 708 First Avenue parcel, which is located directly south of the proposed UNDC site across East 41st Street. Given that a specific project plan has not been developed for the UNDC project, the exact location of its staging areas, timing and duration of its construction stages, and its potential overlap with construction on 708 First Avenue cannot yet be fully determined. However, it is possible that some on-street staging for the UNDC project could be positioned on East 41st Street between First Avenue and the FDR Drive. It is anticipated that some on-street construction staging for the 708 First Avenue parcel may also occur on that portion of East 41st Street. Therefore, the two projects would be expected to stagger any lane closures associated with their respective staging areas on this cross-town street. In the event that this portion of East 41st Street did not provide enough space for off-site staging for both developments, it is possible that a section of the curbside lane along First Avenue immediately west of the 708 First Avenue parcel would be used. The potential closure along First Avenue would be set back from East 41st Street by at least 50 feet to allow vehicular traffic safe access to the First Avenue Access ramp to East 42nd Street.

Should the UNDC project be completed prior to the commencement of construction at 708 First Avenue, the staggering of off-site staging areas on East 41st Street would not be an issue. Construction of the proposed development program would not cause significant adverse impacts to users of the UNDC building, as construction activities at 708 First Avenue would neither close East 41st Street nor disrupt access to the UNDC building.

WITH THE FDR DRIVE

Rehabilitation of the FDR Drive viaduct between East 25th and East 42nd Streets is currently in the planning study phase by the New York State Department of Transportation (NYSDOT). At the present time, NYSDOT has no definite plans for adding, removing, or modifying the location of the FDR Drive ramps within the segment that serves the development parcels or for adding capacity (in the form of additional travel lanes) to the roadway.

Were a rehabilitation to proceed, NYSDOT would maintain all three travel lanes in each direction during the rehabilitation, and little if any diversion of traffic off of the FDR Drive onto local streets would be anticipated. Detailed plans have not yet been established, and it is not yet known how a specific project plan would change traffic at any given location or interact with the construction activities of the proposed development program.

PUBLIC HEALTH

FGEIS FINDINGS

The illustrative development programs analyzed in the FGEIS did not meet any of the 2001 *CEQR Technical Manual* thresholds requiring a public health analysis, and therefore a public health analysis was not included in the FGEIS.

PROPOSED ACTIONS

The analysis finds that the Proposed Actions would not result in any significant adverse public health impacts related to air, noise, or hazardous materials.

WITH THE UNDC PROJECT

The analysis with the UNDC development would also not result in any significant adverse public health impacts related to noise, or hazardous materials.

CONCEPTUAL ANALYSIS

FGEIS FINDINGS

The FGEIS did not include a conceptual analysis as the potential off-site applicability of the Proposed Actions was unknown.

PROPOSED ACTIONS

The proposed text amendments would amend the following provisions of the New York City Zoning Resolution (ZR):

- Expansion of the definition of General Large Scale Development (GLSD) under ZR Section 12-10 to allow by special permit the inclusion of a zoning lot that contains an existing building not integrally related to the other parts of the general large-scale development,

provided that the building covers less than 15 percent of the general large-scale development lot area and provided that there is no bulk distribution from the zoning lot containing such existing building. The expansion of the definition would apply only in C5 and C6 zoning districts and only for a development with a lot area of at least 5 acres.

- Modification of the General Large Scale Development Plan under ZR Section 74-743, to allow by special permit, a residential plaza to be located anywhere within a general large-scale development without regard for zoning lot lines, provided the general large-scale development has a minimum lot area of 5 acres and is located in a C5 or a C6 zoning district.
- Amendment of ZR Section 23-144 to add Community District 6 in Manhattan as an area containing an Inclusionary Housing designated area.
- Amendment of ZR Section 23-15 to provide that the maximum FAR of 10.0 in R10 zoning districts (bonusable to 12.0 FAR through the Inclusionary Housing provisions of ZR Sections 23-90 et. seq.) would not apply in Inclusionary Housing designated areas.
- Amendment of ZR Section 23-922 to designate the 616, 700, and 708 First Avenue development parcels as an Inclusionary Housing designated area.
- Amendments of ZR Sections 24-161 and 35-31 to provide that the floor area ratios of the Inclusionary Housing program would apply on zoning lots containing both community facility and residential floor area and would apply to mixed-use buildings, where such zoning lots or mixed-use buildings are located in GLSDs.
- Amendment of ZR Section 74-743 to allow, by special permit in C4-6 and C5 zoning districts, certain modifications to the method of calculating the amount of lower income housing required in order to qualify for the maximum available floor area bonus, specifically, that community facility floor area above the ground floor be excluded from the calculation of the amount of lower income housing required pursuant to ZR Section 23-942 and that a portion of the lot area that contains a wholly commercial building be excluded from the calculation of floor area for any other buildings on the remainder of the zoning lot.

The analysis in this chapter finds that the potential future use of the proposed text amendments to ZR Section 12-10 and Section 74-743 related to public plazas could result in increased opportunities for some additional development and for the distribution of floor area and open space within a GLSD, and that either of the proposed text amendments could present programming options that generate significant adverse impacts related to site design that may not otherwise have occurred. The proposed text amendment to allow the inclusion of existing, non-integral buildings within a GLSD would create the possibility that additional development opportunities would be created that would not otherwise exist without the text amendment. This text amendment would permit the distribution of floor area to a zoning lot containing a non-integral building from another zoning lot within the GLSD, and so may give rise to new opportunities to utilize floor area that might not otherwise be permitted or appropriate within a GLSD. However, impacts from this potential distribution cannot be generalized or quantified, because it depends on the specific physical and zoning characteristics of a particular site. The proposed text amendment to allow a residential plaza to be located anywhere within a GLSD may create some opportunities for additional development by allowing greater flexibility in floor area and open space distribution. This text amendment, however, would not facilitate a substantial amount of additional development or an amount that could not otherwise be achieved under existing zoning regulations, such as through an inclusionary housing bonus. Because the two proposed text amendments may only be utilized through the granting of a special permit by the CPC, any of the site-specific environmental effects that may result from development

projects that utilize the proposed text amendments—and practicable mitigation for any identified significant adverse impacts—would be assessed and disclosed at the time they are proposed and would be analyzed under separate environmental review.

Similarly, the text amendments to ZR Sections 23-15, 24-161, 35-31, and 74-743 (related to calculating the amount of required lower income housing) may only be utilized through designating an area as an Inclusionary Housing designated area, designation as a GLSD, and/or granting of a special permit by CPC. Where such future discretionary actions are applied, the text amendments to ZR Sections 23-15, 24-161, and 35-31 could result in a greater amount of affordable housing provided as a percentage of the total new housing provided in a development. The text amendment to ZR Section 74-743 could result in greater site design flexibility within a GLSD by facilitating the inclusion of nonresidential buildings within an overall development. Any of the site-specific environmental effects that may result from development projects that utilize the proposed text amendments to ZR Sections 23-15, 24-161, 35-31, and 74-743 (related to calculating the amount of required lower income housing)—and practicable mitigation for any identified significant adverse impacts—would also be assessed and disclosed at the time they are proposed and would be analyzed under separate environmental review.

WITH THE UNDC PROJECT

The UNDC project does not include text amendments to the Zoning Resolution and would therefore not affect the finding for the Proposed Actions.

ALTERNATIVES

INTRODUCTION

Four alternatives were assessed to determine whether they would substantively meet the goals and objectives of the Proposed Actions while reducing or eliminating their adverse impacts:

- The No Action Alternative, in which the Proposed Actions are not approved and the four development parcels are not developed;
- An As-of-Right Alternative[1], in which the development parcels are improved with commercial uses and public parking in accordance with the current provisions of the New York City Zoning Resolution;
- A 12 Floor Area Ratio (FAR) All-Residential Alternative, in which the four parcels are developed under the proposed rezoning with a high-density complex of residential, retail, and community facility buildings, and publicly accessible open space; and
- A Community Board 6 Alternative, based on a development scenario that reflects Manhattan Community Board 6's 197-c application. This alternative also serves as a lesser density alternative.

The Limited Disposition and Adaptive Reuse Alternatives analyzed in the FGEIS are no longer applicable to the SEIS analysis of the Proposed Actions, and are therefore not considered.

[1] The As-of-Right Alternative was assessed in the FGEIS as the As-of-Right Development Program.

NO ACTION ALTERNATIVE

In No Action Alternative, the Waterside and 708 First Avenue and 616 First Avenue parcels would be fully remediated, but they would remain vacant. The 685 First Avenue parcel would serve as surface parking for the substation on the same parcel.

Since the project-related development would not occur, this alternative would not result in the significant adverse impacts that would occur with the Proposed Actions. Specifically, these include impacts on public elementary and intermediate schools; public day care centers (in the Affordable Housing Scenario); shadow impacts in December on the Tudor City open spaces and the Manhattan Place Plaza; traffic impacts in the primary study area, the Queensboro Bridge, West Side, and Queens Plaza study areas, the FDR Drive, and at the Queens-Midtown Tunnel; transit impacts on a stairway at Grand Central and on the M16/M34 and M42 bus routes; pedestrian circulation impacts at three locations; and temporary traffic and noise impacts during construction. As with the Proposed Actions, the No Action Alternative would have no significant adverse impacts in all other technical areas.

However, compared with the Proposed Actions, the No Action Alternative would not provide compatible mixed-use development, and it would not be in keeping with existing trends toward eliminating obsolete manufacturing zoning districts, promoting high-density residential neighborhoods on Manhattan's far East Side north of East 34th Street, and supporting high-density mixed-use development near the United Nations. Likewise, there would be no significant benefits to the area's residential, business, and institutional communities through economic growth and job creation.

The No Action Alternative would also not provide the Proposed Actions' 4.84 acres of publicly accessible open space with new views to the East River waterfront. Similarly, this alternative would not have the beneficial effects on urban design or visual character resulting from the redevelopment of the vacant development parcels with tall and slender buildings with ground-floor retail. While avoiding some localized neighborhood character impacts (e.g., traffic and pedestrian impacts), the No Action alternative would not result in the benefits to neighborhood character that would be achieved with the Proposed Actions.

AS-OF-RIGHT ALTERNATIVE

In the As-of-Right Alternative, the development parcels would be improved in accordance with the New York City Zoning Resolution. The program analyzed for this alternative, which totals 1,124,540 gsf of new development, represents a reasonable worst-case development scenario of new uses and public parking spaces that can be achieved without any discretionary public actions. Development is assumed to consist of approximately 723,800 gsf of office use, 111,240 gsf of local retail and restaurant uses, 225,000 gsf of below-grade destination retail uses, and 16,500 gsf of medical office uses in three buildings, and four at-grade public parking lots with 450 spaces and two below-grade accessory parking garages with 160 total spaces (see Table S-4). The As-of-Right Alternative would not include any publicly accessible open space. In addition, the 685 First Avenue parcel would continue to serve as a paved surface parking lot, because new development on the parcel would require modification of the BSA special permit.

Table S-4
Summary of As-of-Right Alternative

Site	Residential (gsf)	Community Facility gsf)	Commercial Office (gsf)	Retail (gsf)	Below-Grade Space[3] (gsf)	Total (gsf)	Parking Spaces	Open Space (gsf)
616 First Avenue	0	16,500	239,800	23,690	18,000	297,990	150 public, 60 accessory	0

685 First Avenue	0	0	0	0	0	0	0	0
700 First Avenue (Waterside)	0	0	0	227,570[1]	30,000	826,550	300 public, 100 accessory	0
708 First Avenue	0	0	484,000	84,980[2]				
TOTAL	**0**	**16,500**	**723,800**	**336,240**	**48,000**	**1,124,540**	**450 public, 160 accessory**	**0**

Notes:
1 Retail at 700 First Avenue (Waterside) includes 181,220 gsf of below-grade space.
2 Retail at 708 First Avenue includes 43,780 gsf of below-grade space.
3 Below-grade space calculation includes area devoted to parking and other service requirements, but does not include the below-grade retail space associated with 700 and 708 First Avenue.
Source: East River Realty Company, LLC

Like the Proposed Actions, this alternative would result in significant adverse traffic impacts requiring mitigation, and some significant traffic impacts that could not be mitigated, as well as impacts on pedestrian circulation at one location; transit on the M42 bus route; interior noise levels on the development parcels requiring window/wall attenuation; and temporary traffic and noise impacts during construction. In addition, because this alternative would increase the worker population but not provide any publicly accessible open space, it would cause significant adverse open space impacts in the ¼-mile study area, which would not result with the Proposed Actions.

However, compared with the Proposed Actions, this alternative's shorter buildings would not result in the significant adverse shadow impact on the Tudor City open spaces or the Manhattan Place Plaza, and there would be no significant adverse impacts to public elementary or intermediate schools or day care (under the Affordable Housing Scenario) because the As-of-Right Alternative would not add a new residential population. Likewise, the Proposed Actions' Queens-Midtown tunnel traffic impacts, transit impacts and pedestrian impacts would not result with the alternative. As with the Proposed Actions, the As-of-Right Alternative would have no significant adverse impacts in all other technical areas.

Compared with the Proposed Actions, the As-of-Right Alternative would result in different land use patterns and lower densities. Its development program, which lacks residential use and includes destination retail and entertainment uses, would not be as compatible with the study area as that of the Proposed Actions, which features local retail, residential, and publicly accessible open space uses. Further, by maintaining the existing manufacturing districts and not fostering growth and enhancement of residential uses, this alternative would be inconsistent with zoning in the primary and secondary study areas.

Similarly, this alternative would not create any new publicly accessible open space that would improve the worker passive open space ratio and the combined ratio of passive open space per 1,000 total residents and workers. In addition, it would not have the beneficial effects on urban design as the Proposed Actions as it would have less retail frontage along First Avenue and there would be several surface parking lots, instead of publicly accessible landscaped open space on the four parcels.

12 FAR ALL-RESIDENTIAL ALTERNATIVE

The 12 FAR All-Residential Alternative assumes the proposed rezoning and a similar amount of overall development, but replaces the proposed 47-story commercial office building on the 708 First Avenue parcel with two residential towers connected by a one-story retail building. On the Waterside, 685 First Avenue, and 616 First Avenue parcels, the program is the same as the proposed development program (see Table S-5). In addition, the amount of publicly

accessible open space provided in this alternative would be the same as that provided by the proposed development program.

The All-Residential Alternative contains no commercial office space, and the difference in overall density between this alternative and the slightly larger proposed development program is 81,106 gsf. The All-Residential Alternative contains 5,198,401 million gsf of residential space (5,800 units), 77,704 gsf of local retail and restaurant uses (which would include an approximately 36,000-gsf below-grade supermarket), 119,936 gsf of community facility use at 616 First Avenue, and 1,554 below-grade parking spaces (945 public and 609 accessory). Like the Proposed Actions, this alternative includes approximately 4.84 acres of publicly accessible open space.

Table S-5
Summary of All-Residential Alternative

Site	Residential (gsf)	Community Facility gsf)	Commercial Office (gsf)	Retail (gsf)	Below-Grade Space[2] (gsf)	Total (gsf)	Parking Spaces	Open Space (gsf)
616 First Avenue	748,574	119,936	0	2,071	137,540	1,008,121	294 public	34,507
685 First Avenue	967,376	0	0	6,352	32,365	1,006,093	110 accessory	7,605
700 First Avenue (Waterside)	2,037,657	0	0	58,074[1]	470,125	4,021,857	651 public, 499 accessory	168,659
708 First Avenue	1,444,794	0	0	11,207				
TOTAL	**5,198,401**	**119,936**	**0**	**77,704**	**640,030**	**6,036,071**	**945 public, 609 accessory**	**210,771**

Notes:
1 Retail at 700 First Avenue (Waterside) includes 36,279 gsf of below-grade space.
2 Below-grade space calculation includes area devoted to parking and other service requirements, but does not include the below-grade retail space associated with 700 and 708 First Avenue.
Source: East River Realty Company, LLC

Like the Proposed Actions, this alternative would result in the significant adverse impacts on public elementary and intermediate schools; public day care centers (with an affordable housing scenario similar to the Affordable Housing Scenario of the Proposed Actions); shadow impacts in the December 21 analysis period on the Tudor City open spaces and Manhattan Place Plaza; traffic impacts requiring mitigation in the primary study area, the Queensboro Bridge, the West Side, and Queens Plaza study areas, and at the Queens-Midtown Tunnel, as well as some unmitigated traffic impacts; pedestrian circulation impacts at two locations; transit impacts on the M42 bus route; interior noise levels on the development parcels requiring window/wall attenuation; and temporary traffic and noise impacts during construction. However, compared with the Proposed Actions, the transit impacts on a stairway at Grand Central and on the M16/M34 bus routes would not result with the alternative.

Like the Proposed Actions, this alternative would be compatible with the land uses, densities, and existing zoning regulations in the surrounding area, and it would create the same amount of publicly accessible open space. Further, this alternative would largely have the same beneficial effects on urban design or visual character as the Proposed Actions. Overall, effects on neighborhood character would be largely the same with the All-Residential Alternative as with the Proposed Actions. As with the Proposed Actions, the All-Residential Alternative would have no significant adverse impacts in all other technical areas.

COMMUNITY BOARD 6 ALTERNATIVE

In this alternative, the 616 First Avenue, Waterside, and 708 First Avenue parcels would be rezoned to C1-9, and a Special East River Access District would be established in the area bounded by East 34th Street to the south, East 41st Street to the north, First Avenue to the west, and the East River pierhead line to the east. The special district would permit floor area bonuses for the provision of open space and affordable housing, and it would contain requirements related to use, building heights, treatment of the eastward prolongations of East 39th and East 40th Streets east of First Avenue, open space improvements, and accessory parking limits.

Development under this alternative would adhere to tower-on-a-base requirements, as well as a 400-foot height limitation for the special district set forth in the CB6 197-c application. In accordance with the CB6 197-c application, this alternative assumes development on the 616 First Avenue, Waterside, and 708 First Avenue parcels at a base FAR of 6.0 and elective floor area bonuses of 2.0 FAR for the provision of publicly accessible open space improvements and 2.0 FAR for the provision of low- to moderate-income housing, for a total possible FAR of 10.0.

The CB6 197-c application does not include the 685 First Avenue parcel; to compare the impacts of potential development under the CB6 197-c application to that of the Proposed Actions, the CB6 Alternative assumes a 9.34 FAR development (that includes the existing Con Edison substation) at 685 First Avenue in accordance with provisions of the Zoning Resolution currently applicable to that parcel. Following the applicable zoning regulations, that amount of development is the maximum that can be generated on the site, and the resulting building would have a tower-on-a-base form and would be 492 feet tall.

Both ERRC's goals and objectives of the Proposed Actions and those of CB6' 197-c application are to provide zoning to permit the mixed-use redevelopment of the 616 First Avenue, Waterside, and 708 First Avenues parcels. However, there are differences between each proposal's goals and objectives. The goals and objectives of the CB6 197-c application are: residential development with ground-floor retail (with no office); a 400-foot height limit for new buildings on the 616 First Avenue, Waterside, and 708 First Avenue parcels; the inclusion of affordable housing; new publicly accessible open space provided on a deck and extension of the East River Esplanade; new waterfront connections and view corridors; and the treatment of the alignments of 39th and 40th Streets through the Waterside parcels as streets allowing for general vehicular access.

As shown in Table S-6, the CB6 Alternative consists of approximately 3,583,802 zoning square feet of residential space (4,216 units, or 50 more units than the proposed development program), 105,803 gsf of local retail and restaurant uses (34,636 square feet more than the proposed development program), and 426 accessory parking spaces (183 fewer accessory parking spaces than the proposed development program). Unlike the proposed development program, the CB6 Alternative includes low- to moderate-income residential units, and does not include any commercial office space, community facility space, or public parking.

Table S-6
Summary of CB6 Alternative

Site	Residential (gsf)	Community Facility gsf)	Commercial Office (gsf)	Retail (gsf)	Below-Grade Space[3] (gsf)	Total (gsf)	Parking Spaces	Open Space (gsf)
616 First Avenue	695,398	0	0	19,750	27,000	742,148	78 accessory	3,831
685 First Avenue	691,613	0	0	26,803	31,350	749,766	85 accessory	0
700 First Avenue (Waterside)	1,497,588	0	0	39,500	91,900	2,484,678	263 accessory	33,683
708 First Avenue	835,940	0	0	19,750				
TOTAL	**3,720,439[1]**	**0**	**0**	**105,803**	**150,250**	**3,976,492**	**426 accessory**	**167,336[2]**

Note:
1 For purposes of analysis, it is assumed that 1 dwelling unit = 850 zoning square feet (zsf). The program of the CB6 Alternative includes 3,583,802 zsf of residential use.
2 Open space total includes 129,822 square feet of off-site open space.
Source: East River Realty Company, LLC

In total, the CB6 Alternative includes 3.84 acres of publicly accessible open space, 1.0 acre less than the proposed development program, with a majority of the open space provided off-site: approximately 0.86 acres of publicly accessible on-site open space as an overlook along the eastern edges of the Waterside and 708 First Avenue parcels and as a widened sidewalk on the south side of East 36th Street between First Avenue and the FDR Drive service road, 2.39 acres of publicly accessible off-site open space on a deck over the FDR Drive (contingent on additional approvals and actions by state and local agencies that are not part of the Proposed Actions and are beyond the control of the project applicant), 0.51 acres of publicly accessible off-site open space in a new continuation of the East River Esplanade between East 38th and

41st Streets, and 0.08 acres of publicly accessible off-site open space in the form of a pedestrian bridge over East 41st Street between the 708 First Avenue parcel and Robert Moses Playground.

Like the Proposed Actions, the CB6 Alternative would result in: significant adverse impacts on public elementary and intermediate schools; shadow impacts in December on the Manhattan Place Plaza; significant adverse traffic impacts requiring mitigation and some significant impacts that could not be mitigated in the primary study area, in the Queensboro Bridge, West Side, and Queens Plaza study areas, and at the Queens-Midtown Tunnel; transit impacts on the M42 bus route; interior noise levels on the development parcels requiring window/wall attenuation; and temporary traffic and noise impacts during construction. The CB6 Alternative would also result in significant adverse impacts on public day care centers that would not result with the proposed development program (but that would result with an Affordable Housing Scenario of the Proposed Actions). In addition, this alternative could cause significant adverse open space impacts if the deck over the FDR Drive and the new esplanade are not developed by 2014. (If they are developed, no open space impacts would result, as with result with the Proposed Actions.) Unlike under the Proposed Actions, potential stationary source air quality impacts from the HVAC systems in some of this alternative's buildings could result at certain receptor locations; various options exist that would mitigate these impacts.

Some significant adverse impacts that would occur under the Proposed Actions would not occur with this alternative: the December shadow impact on Tudor City open spaces would not result, transit impacts on a stairway at Grand Central and on the M16/M34 bus routes would also not result, and there would not be impacts on crosswalks.

Like the Proposed Actions, the CB6 Alternative would be compatible with surrounding land uses and densities, and its proposed zoning changes would not result in impacts. Similarly, this alternative would largely have the same beneficial effects on urban design and visual resources as the Proposed Actions. However, it would not provide any publicly accessible open space that fronts on First Avenue, and the new buildings, while shorter than those of the proposed development program, would appear bulkier to the pedestrian than the more slender, but taller buildings in the proposed development program. Overall, effects on neighborhood character would be largely the same with as with the Proposed Actions. As with the Proposed Actions, the CB6 Alternative would have no significant adverse impacts in all other technical areas.

UNAVOIDABLE SIGNIFICANT ADVERSE IMPACTS

FGEIS FINDINGS

The FGEIS identified unavoidable significant adverse impacts at three intersections which could not be mitigated due to prevailing congestion occurring along the QMT access/egress road system.

PROPOSED ACTIONS

The Proposed Actions would result in unavoidable significant adverse impacts in the areas of shadows, traffic, pedestrians, and noise during construction.

Shadows

The proposed development program would result in significant adverse shadow impacts on two sun-sensitive resources: the Manhattan Place Plaza and Tudor City open spaces. At Manhattan Place Plaza, the buildings on the 616 First Avenue development parcel would cast incremental shadows from 8:51 AM to 12:15 PM and 1:00 PM to 2:53 PM on the December analysis day. At

the Tudor City open spaces, there would be incremental shadows from 8:51 AM to 1:30 PM from the buildings on the 685 and 708 First Avenue parcels in the winter (December analysis day). Measures were analyzed that could potentially mitigate significant adverse shadow impacts on open spaces, none of which were determined to be practicable in fully mitigating the significant adverse impacts. For example, substantial reductions in the overall heights of the proposed buildings on the 685 and 708 First Avenue parcels, repositioning the proposed building at 685 First Avenue and on the western portion of the 616 First Avenue parcel toward the center of the site, and reducing the height of either of the buildings at 616 First Avenue were considered. They were rejected, however, because such measures would run counter to the purpose and need of the Proposed Actions, including enlivening the street by providing ground-floor retail along the avenue, and developing a mix of high-density uses and a substantial amount of new publicly accessible open space for the community. There are also no reasonable alternatives to the Proposed Actions that would meet the purpose and need of the actions, eliminate the impact, and not cause other or similar significant adverse impacts. Therefore, the significant adverse shadows impacts on Tudor City open spaces and Manhattan Place Plaza are unavoidable.

Traffic

The proposed development program would result in significant adverse traffic impacts at locations within the traffic study areas analyzed in the SEIS. Most of the locations that would be significantly affected could be mitigated through the introduction of traffic improvements such as signal phasing and/or timing changes, parking regulation changes, modifications to street pavement markings or via posted traffic regulations, strict enforcement of posted traffic and parking regulations, channelization improvements, installation of traffic signals at currently unsignalized intersections, or the implementation of stricter enforcement and traffic operations improvements.

Under the proposed development program, 27 intersections in Manhattan would experience unmitigatable impacts by the 2014 analysis year; of these, two intersections could be partially mitigated. The 25 intersections without mitigation (not in the same time period) include the FDR Drive Service Road at 34th, 35th, and 37th Streets; First Avenue at 34th, 37th, 40th, 42nd, 49th, 52nd, and 53rd Streets; Second Avenue at 34th, 36th, 42nd, and 59th Streets and at the approach to Second Avenue from the lower level of the Queensboro Bridge between 59th and 60th Streets; the QMT Exit Street at 34th and 37th Streets; 42nd Street at Third, Park, Madison, Sixth, and Eighth Avenues and Broadway; 34th Street at Park Avenue; and the intersection of Sixth Avenue, Broadway and 34th Street at Herald Square. The 2 intersections where the significant adverse impacts could be partially mitigated include Eighth Avenue at 34th Street and 42nd Street at Lexington Avenue.

In the Queens Plaza area approach to the Queensboro Bridge, an additional seven intersections could experience unmitigatable impacts by the 2014 build year (three intersections in the AM peak hour, one intersection in the weekday midday peak hour, and five intersections in the PM peak hour): Queens Plaza North at Crescent Street, approaching the Queensboro Bridge; Queens Plaza North at JFK Commuter Plaza; Queens Plaza North/41st Street at Northern Boulevard; Thomson Avenue at the Queensboro Bridge Upper Level Ramp; Queens Boulevard/Thompson Avenue and Van Dam Street; Queens Boulevard and Skillman Avenue; and the intersection of Thomson and Skillman Avenues. Significant traffic volumes across the Queensboro Bridge under the existing conditions consistently cause congestion along the corridors leading to the upper and lower levels of the bridge. The traffic conditions would persist and likely worsen for the 2014 future analysis year without the proposed project. Project-generated traffic would add

approximately 1 percent up to 5 percent additional traffic to the total traffic volumes through the three intersections along Queens Plaza North during the peak analysis periods, approximately 1 to 3 percent through the two intersections on Queens Boulevard, and generally 2 to 3 percent through the two intersections on Thomson Avenue. The traffic improvements cited above would not be able to mitigate significant adverse impacts at these locations.

One other significant adverse impact was for the mainline of the QMT, inbound and outbound in the weekday AM peak hour and outbound from Manhattan only in the weekday PM peak hour. These impacts were identified using criteria and data from the *Hudson Yards Rezoning FEIS*. However, QMT conditions are more related to conditions at the intersections on the Manhattan Side of the QMT, where existing capacities are constrained.

Transit and Pedestrians

At the intersection of Third Avenue and East 42nd Street, the project's significant adverse impact on the north crosswalk can only be partially mitigated. Thus, the impact is unavoidable.

Construction Noise

The Proposed Actions would have unmitigated significant noise impacts at some locations within the project area.

With regard to residential locations where significant noise impacts are predicted to occur—Manhattan Place, Rivergate, Corinthian, and Horizon—the design for these buildings incorporates sufficient sound attenuation measures (e.g., window treatment and alternative ventilation [air conditioning]), to mitigate the significant impacts due to construction activities for users of these facilities.

In addition, with regard to the open space area adjacent to the development parcels where significant noise impacts are predicted to occur during construction—Manhattan Place Plaza—there are no feasible or practicable measures that could be implemented to mitigate project construction impacts. Consequently, these significant adverse impacts would remain unmitigated.

WITH THE UNDC PROJECT

As described in "Mitigation with the UNDC Building," above, the S2/S9 stairway at Grand Central Station would need to be widened when the UNDC building is accounted for as a background project. The S2-S9 stairway is within a privately owned building. Widening the stairway would be subject to negotiation with the building's owner. In the event that the proposed widening could not be implemented, it would be considered a significant unmitigated adverse impact. This impact does not occur under the analysis scenario that does not include the UNDC project.

GROWTH-INDUCING ASPECTS OF THE PROJECT

It is anticipated that the consumer needs of the new residential and worker populations generated by the either the Proposed Actions, or the Proposed Actions with the UNDC project would largely be satisfied by a combination of the existing retail stores in the area, and the new stores and services that would be part of the proposed development program. It is possible that development resulting from the Proposed Actions and other development in the area could prompt some new retail development from those looking to capitalize upon the area's increased consumer base. In the future without the Proposed Actions, there are few identified plans for rezoning in the ½-mile area surrounding the development parcels, and the number of soft sites and vacancies available for

new retail development is limited. Therefore, any new retail development induced by the proposed development program is likely to be similar in nature (as prescribed by zoning) to existing shoppers' goods stores and services in the surrounding area, and would not substantially change the existing character of economic activity. Induced development, if it were to occur, would be limited and would likely include stores catering to the new residential and worker populations, such as food stores, restaurants, beauty salons, dry cleaners, and gift shops.

The proposed development program would improve existing infrastructure on and around the development parcels, including water and sewer lines, roadways, and sidewalks, but the infrastructure in the study area is already well-developed such that improvements associated with the Proposed Actions would not induce additional growth.

IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

There are a number of resources, both natural and built, that would be expended in the construction and operation of the proposed development program. These resources include the materials used in construction; energy in the form of gas and electricity consumed during construction and operation of the project; and the human effort (time and labor) required to develop, construct, and operate various components of the program. They are considered irretrievably committed because their reuse for some purpose other than the project would be highly unlikely. Although the Proposed Actions would result in a net overall increase in open spaces and new land uses, the land use changes associated with the development program may also be considered a resource loss. The Proposed Actions constitute an irreversible and irretrievable commitment of the development parcels as a land resource, thereby rendering land use for other purposes infeasible. These commitments of land resources and materials are weighed against the purpose of the Proposed Actions: to facilitate the development of the underutilized parcels, accommodate long-term economic growth, serve the area and the city as a whole through construction of substantial new residential and commercial facilities, and provide publicly accessible open space and views of the East River.

RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF THE ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

Disruptions caused by construction of the proposed development program on any one of the development parcels would be temporary. The long-term social, economic, and community benefits that would result from such construction would, on the other hand, be substantial. Accordingly, the local short-term impacts in use of resources resulting from construction of the proposed development program are consistent with the maintenance and enhancement of long-term productivity for the local area, state, and region.

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