A. INTRODUCTORY NOTE

Since the issuance of the Draft Supplemental Environmental Impact Statement (DSEIS), the project sponsor has filed an amended application (dated August 20, 2010) with the New York Department of City Planning (DCP) that would apply the City's Inclusionary Housing Program to the project site. The description of the Proposed Project under the Inclusionary Housing Program is presented in Chapter 28, "Modifications to the Proposed Project." The project sponsor also expects to file a revised application that would incorporate various design changes, proposed in response to information, recommendations and comments received during the City Environmental Quality Review (CEQR)/Uniform Land Use Review Procedure (ULURP) process. The potential for significant adverse environmental impacts to result from these design changes is also addressed in "Modifications to the Proposed Project." It is possible that during the course of its review of the application for the Proposed Project additional modifications will be considered by the New York City Planning Commission (CPC). Prior to implementation, any such further modification will be examined in a technical memorandum to assess whether it would result in any new significant adverse environmental impacts not identified and addressed in the FSEIS.

This chapter, except where otherwise noted, maintains the description of the Proposed Project without the modifications described above.

B. PROJECT IDENTIFICATION

CRP/Extell Parcel L, LP and CRP/Extell Parcel N, LP (the project sponsor) proposes modifications to the southernmost portion of the previously approved Riverside South project to develop Riverside Center (the Proposed Project), a complex of five mixed-use buildings that would include residential (including market-rate and affordable housing), commercial (including hotel, retail, office, cinema, and automotive showroom and service uses), a public elementary and intermediate school, public parking, and approximately 2.75 acres of privately owned, publicly accessible open space. The Proposed Project site is bounded by West End Avenue, the alignment of Riverside Boulevard, and West 59th and West 61st Streets (see **Figure S-1**). The discretionary actions needed for the proposed modifications include: a modification to the previously approved "general large-scale development" (GLSD) special permit and restrictive declaration to reflect the current proposal; amendments to the text of the Zoning Resolution; a new special permit relating to court, distance between buildings, and height and setback regulations, a new special permit to allow automobile sales and service uses (Use Group 16B) on the project site; a new special permit to allow development within a railroad or transit right-of-way; six new special permits associated with a public parking garage(s); an authorization to allow a curb cut; and certifications to permit curb cuts and to modify certain Streetscape regulations of the Zoning Resolution.

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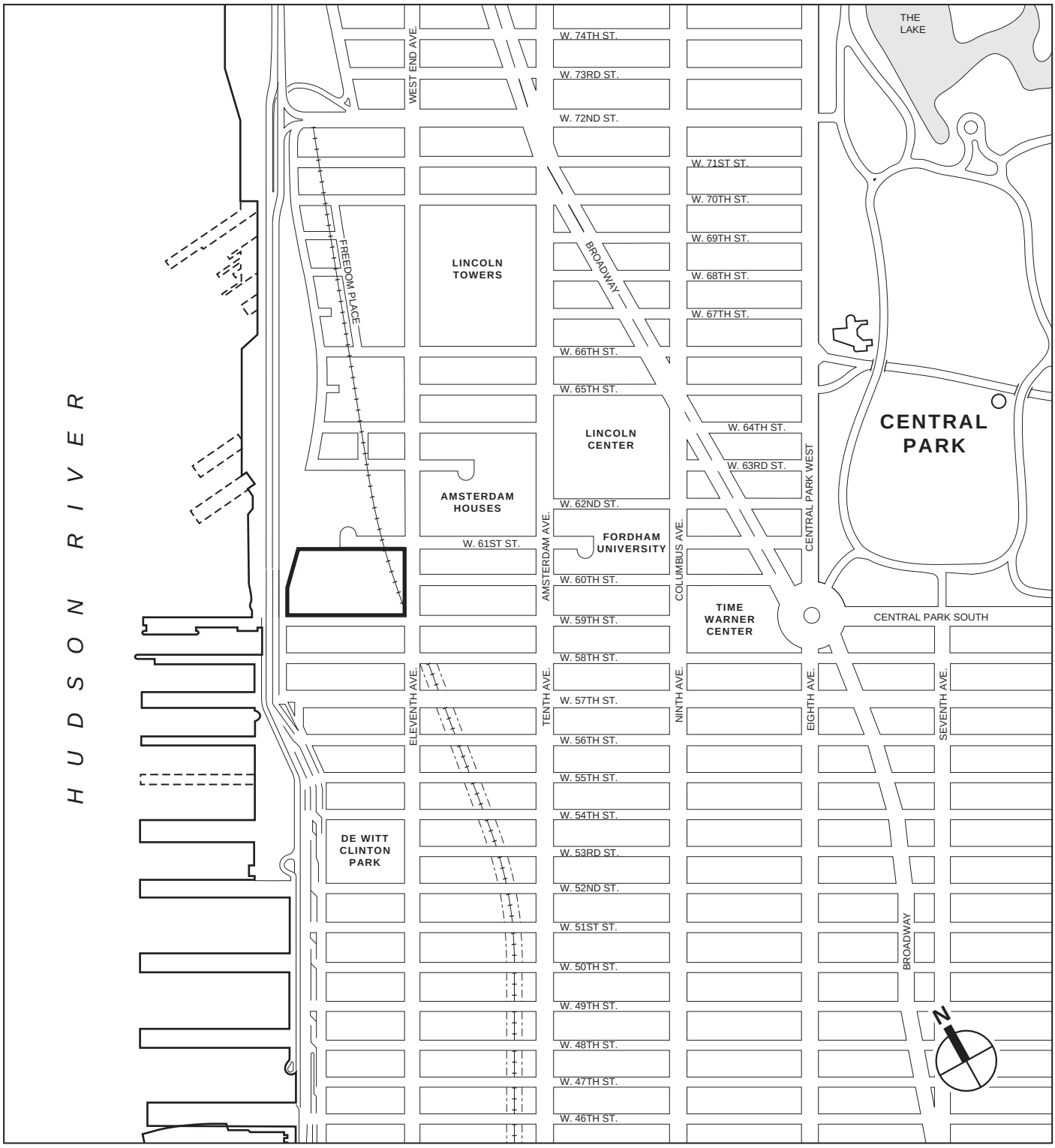

Project Site Boundary

Project Site
Figure S-1

The Riverside South development was planned as a major mixed-use and open space project, to be bounded by West 72nd Street and Riverside Park on the north, West 59th Street to the south; the Hudson River to the west; and buildings at the west ends of West 70th, 71st, 72nd, 66th through 62nd Streets, Freedom Place, and West End Avenue to the east. A Final Environmental Impact Statement (FEIS) for this project was issued on October 11, 1992 by the New York City Planning Commission (CPC) as lead agency under the State Environmental Quality Review Act (SEQRA), its implementing regulations (6 NYCRR Part 617), and the City Environmental Quality Review (CEQR) Rules of Procedure. Since the issuance of the 1992 FEIS, a large portion of the project has been completed; however, the southernmost portion—consisting of the sites identified in the 1992 FEIS as Parcels L, M, and N—has not yet been redeveloped. Those parcels are the subject of the proposed modifications.

The project sponsor is applying to the CPC for discretionary actions that would allow implementation of the Proposed Project for the project site; these actions are different from what was analyzed in the 1992 FEIS. Because the development resulting from the proposed modifications may result in significant adverse environmental impacts not identified in the 1992 FEIS, this final Supplemental EIS (SEIS) has been prepared. The draft SEIS analyzes the extent to which the development and zoning actions as currently proposed could potentially result in any significant adverse impacts not previously identified in the 1992 FEIS.

Specifically, this final SEIS considers differences between the program and site plan for Parcels L, M, and N as described in the 1992 FEIS and the currently proposed program, site plan, and zoning actions. This final SEIS also considers changes in conditions on the project site and in the surrounding areas since 1992, to reflect the current status of planned and proposed projects and the new anticipated year of completion for development of the Proposed Project site.

The proposed modifications require discretionary actions (as noted above) from the CPC, and as discretionary actions, all are subject to environmental review. This final SEIS has been prepared in accordance with Executive Order 91 of 1977, as amended, and CEQR Rules and Procedures adopted in 1991 (62 Rules of the City of New York, Chapter 5). The 2001 *New York City Environmental Quality Review (CEQR) Technical Manual*[1] will generally be used as a guide with respect to environmental analysis methodologies and impact criteria for evaluating the Proposed Project, unless otherwise stated.

[1] In May 2010, shortly prior to the completion of the DSEIS, a substantive update to the 2001 *CEQR Technical Manual* was released. Prior to the public hearing for the Proposed Project, a Technical Memorandum was prepared (and published on DCP's website in September 2010) that considered whether one or more analyses contained in the DSEIS should be revised in the FSEIS in light of the updated guidance set forth in the 2010 *CEQR Technical Manual.* The evaluation of the Proposed Project under the 2010 *CEQR Technical Manual* focused on technical areas where changes in methodology would have the potential to affect the analyses and/or conclusions of the Draft SEIS for the Proposed Project. The technical memorandum determined that the analysis areas that would have the potential to be affected by the CEQR updates are limited to Shadows, Neighborhood Character, Traffic and Parking, Transit and Pedestrians, Air Quality and Noise, and this FSEIS reflects the analysis revisions in those areas. For all other analysis areas, either the DSEIS anticipated the possible issuance of the 2010 *CEQR Technical Manual* and already employed the methodologies in that document, or the 2010 *CEQR Technical Manual* updates would not materially change the analyses or conclusions presented in the DSEIS.

C. PROJECT PURPOSE AND NEED

GOALS AND OBJECTIVES OF THE PROPOSED PROJECT

The Proposed Project is intended to transform the project site—which is currently underutilized—into a thriving new development. Overall, the goals and objectives of the Proposed Project are to create architecturally distinctive buildings that respect the Manhattan street grid and provide an attractive connection to Riverside Park South and the Hudson River waterfront while creating an inviting and functional center for the surrounding residential neighborhood. The Proposed Project intends to integrate commercial and retail development throughout the proposed development for residents, neighbors, and visitors, and provide commercial uses that are complementary to the proposed residential development. Retail is currently lacking in the neighborhood and the proposed retail space would accommodate restaurants and local retail to serve both the tenants of the new buildings and community residents.

The commercial components of the Proposed Project would provide jobs and create new hotel, office, auto and cinema uses on the Upper West Side; the substantial residential component (which includes affordable housing units) would contribute to the achievement of the city's overall housing goals; and the retail, office, public parking, and open space components would be available for use by the area's existing and future residents and workers, as well as others from all areas of the city, visitors, and those who are headed to the waterfront. The Proposed Project's substantial amount of new publicly accessible open space is intended to mediate between the Manhattan street grid and the expansive public open spaces west of the site. The new buildings and open spaces are intended to create an active streetscape that includes retail uses as part of a diverse mixed-use program, enhancing the pedestrian experience. The proposed site plan seeks to integrate Riverside Center into the surrounding neighborhood.

PROJECT BACKGROUND AND PRIOR ENVIRONMENTAL REVIEW

In 1992, the City Council approved a plan to develop a GLSD known as Riverside South. The Riverside South project site was a 74.62-acre former rail yard located on the Upper West Side of Manhattan that included waterfront area along the Hudson River west of Route 9A (also known as Henry Hudson Parkway north of 72nd Street, and Joe DiMaggio Highway, Miller Highway and West Side Highway south of 72nd Street). The upland portion of the site was 56.1 acres; the portion under water 18.46.

The Riverside South development included 15 development parcels (Parcels A through O) on eight zoning lots, and, as approved, would have produced a maximum of 7,899,951 zoning square feet of floor area[1] consisting of a mix of residential, community facility, office, cinema, public parking, retail, and studio uses. The development also included a plan to create a total of 25 acres of publicly accessible open space, the majority of which would be developed as a large-scale waterfront park. The waterfront park would include approximately 21.5 acres and would be mapped as public parkland. The development plans included two alternatives for the waterfront park that depended on whether the elevated portion of the Miller Highway between 59th Street and 72nd Street was relocated to an inboard, below-grade location. To accommodate the

[1] The zoning floor area of a building is the gross floor area above grade less space devoted to mechanical uses, loading and parking below a height of 23 feet above curb level, and additional areas noted in the New York City Zoning Resolution.

possibility of the Miller Highway relocation, approximately four acres would be set aside and mapped as a "public place." Under the alternative where the highway was relocated underground, these four acres would be utilized for waterfront park uses. The potential demolition of the elevated highway structure and the relocation of the highway to a tunnel under Riverside Boulevard was a separate and independent action from the Riverside South project and had its own FEIS.

Parcels L and M were planned for primarily residential development with approximately 301,980 gross square feet (gsf) on Parcel L and approximately 316,680 gsf on Parcel M. Parcel L also was to include a public parking garage of 149 spaces, and Parcel M was to include a public parking garage of 152 spaces. Parcel N was to include approximately 1.96 million gsf of entertainment studio production uses, 367,065 gsf of retail and office space, as well as an 1,800-seat, 37,000 sf cinema and a 442-space public parking garage below grade. The 1992 approvals allowed for a total of approximately 2,372,192 zoning square feet of development on Parcels L, M, and N.

The numerous actions required for this development—which included rezoning, City Map changes to create the street system and to map parkland, and special permits—required review under SEQRA and CEQR. As noted above, an FEIS was prepared for the Riverside South project, which was accepted by the CPC, and SEQRA findings were issued on October 11, 1992. Subsequent to the completion of the FEIS, the City Council modified the project approvals to provide that future development on Parcel N would require the submission of revised plans and supplementary environmental analysis, and that such a revision would be deemed a major modification requiring new review under the city's Uniform Land Use Review Procedure (ULURP).

Since 1992, the majority of the Riverside South project has been constructed. **Table S-1** provides detailed information on how each parcel has been or will be developed in comparison to the program anticipated in the FEIS. (See also **Figures S-2 and S-3** for the location of each parcel.) In summary, 4,492 residential units have either been developed or will be under construction shortly, compared with the 5,700 units assumed in the FEIS; 2,611 parking spaces have or will soon be developed, whereas the FEIS assumed 3,500. The current Riverside South complex also includes 101,291 gsf less office space and 25,189 gsf less retail space than analyzed in the FEIS. As mentioned above, Parcels L, M, and N have not yet been redeveloped. In addition, the elevated Miller Highway has not been relocated.

A total of 22.51 acres of open space is currently planned as Riverside Park South, of which approximately 12.93 acres have been developed to date. The open space is planned to be built in seven phases, of which four phases located between West 59th and 72nd Streets to the west of the West Side Highway and along the waterfront, and between West 68th and 71st Streets east of the West Side Highway are complete. The remainder of the parkland east of the highway, between West 68th and West 59th Streets remains to be constructed.

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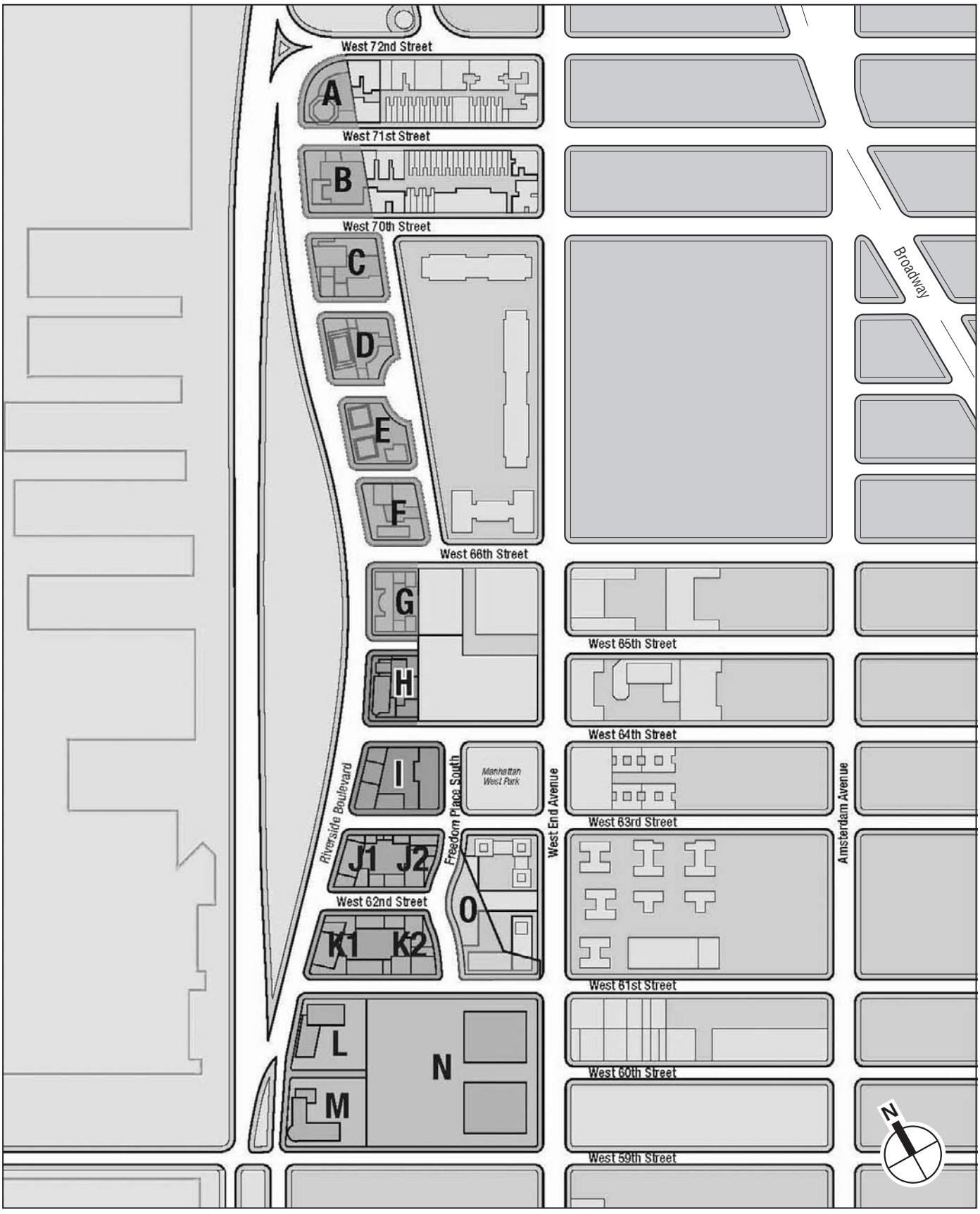


1992 Riverside South Project
Parcel Locations

Figure S-2

RIVERSIDE CENTER

For Illustrative Purposes Only

* Parcel J is under construction. Parcel K is in the design phase.

Illustrative Aerial Rendering: Riverside Center (Proposed Project Buildings) and Riverside South Buildings to the North

Figure S-3

Table S-1
Riverside South Parcels As Built Compared with FEIS Program

Parcel	Address	FEIS Proposed Program (GSF)	Built Program (GSF)	Status	Increment
A	240 Riverside Blvd.	288 residential units 13,440 office 327 parking spaces	174 condo units 2,761 office 237 parking spaces	Built	-114 residential units -10,679 office -90 parking spaces
B	220 Riverside Blvd.	586 residential units 23,310 office 290 parking spaces	441 condo units 1,275 office 380 parking spaces	Built	-145 residential units -22,035 office 90 parking spaces
C	200 Riverside Blvd.	491 residential units 10,920 office 15,120 retail 280 parking spaces	377 condo units 5,334 office 13,696 retail 280 parking spaces	Built	-114 residential units -5,586 office -1,424 retail 0 parking spaces
D	180 Riverside Blvd.	421 residential units 13,650 office 20,370 retail 210 parking spaces	516 rental units *(104 affordable)* 6,378 office 18,491 retail 210 parking spaces	Built	95 residential units *104 affordable* -7,272 office -1,879 retail 0 parking spaces
E	160 Riverside Blvd.	410 residential units 10,710 office 15,540 retail 107 parking spaces	455 rental units 3,957 office 13,085 retail 107 parking spaces	Built	45 residential units -6,753 office -2,455 retail 0 parking spaces
F	140 Riverside Blvd.	311 residential units 8,085 office 9,450 retail 107 parking spaces	354 rental units *(71 affordable)* 6,271 office 11,587 retail 107 parking spaces	Built	43 residential units *71 affordable* -1,814 office 2,137 retail 0 parking spaces
G	120 Riverside Blvd.	286 residential units 6,405 office 100 parking spaces	279 condo units 5,730 office 100 parking spaces	Built	-7 residential units -675 office 0 parking spaces
H	100 Riverside Blvd.	346 residential units 8,610 office 79 parking spaces	266 residential units 4,476 office 79 parking spaces	Built	-80 residential units -4,134 office 0 parking spaces
I	80 Riverside Blvd.	498 residential units 26,460 office 326 parking spaces	284 residential units 4,577 office 253 parking spaces	Complete 2009	-214 residential units -21,883 office -73 parking spaces
J1	60 Riverside Blvd.	675 residential units 15,435 office 14,280 retail 473 parking spaces	286 residential units 4,569 office — 232 parking spaces	Est. completion 2010	-180 residential units -10,866 office -6,327 retail -241 parking spaces
J2	400 West 63rd St.	(See J1)	209 residential units 7,953 retail	Est. completion 2010	(See J1)
K1 and K2	40 Riverside Blvd. 401 West 61st St.	603 residential units 14,175 office 14,070 retail 458 parking spaces	520 residential units *(188 affordable)* 4,581 office 7,168 retail 699 parking spaces	Not yet under construction	-83 residential units *188 affordable* -9,594 office -6,902 retail 241 parking spaces
L	N/A	281 residential units 9,345 office 149 parking spaces	N/A	Site not developed	-281 residential units -9,345 office -149 parking spaces
M	N/A	296 residential units 11,025 office 152 parking spaces	N/A	Site not developed	-296 residential units -11,025 office -152 parking spaces
N	N/A	1,962,554 studio 330,000 office 37,065 retail 37,000 cinema 442 parking spaces	N/A	Site not developed	-1,962,554 studio -330,000 office -37,065 retail -37,000 cinema -442 parking spaces
O	33 West End Ave.	208 residential units 18,795 retail	331 rental units *(220 affordable)* 10,456 retail	Built	123 residential units *220 affordable* -8,339 retail

Notes:
Unless otherwise noted, residential units are market rate.
The FEIS anticipated that at least 10 percent (570) of total residential units (5,700) would be affordable.
The FEIS anticipated that 3,500 parking spaces would be built.
The FEIS included approximately 45,000 gsf of below-grade retail uses for parcels L,M and N.

D. PROJECT DESCRIPTION

DESCRIPTION OF THE PROJECT SITE

The majority of the Riverside Center project site is currently being utilized as an automobile and truck surface parking lot with a capacity of approximately 1,850 spaces, and a public parking garage with a capacity of 537 spaces. An Amtrak rail line within a sub-grade culvert passes through the northeast portion of the project site.

DESCRIPTION OF THE PROPOSED PROJECT

The project sponsor now proposes to develop Parcels L, M, and N as one integrated site and would be divided by a new extension of Freedom Place (Freedom Place South)—a new public access easement—which would cut through the site from West 61st Street to West 59th Street. Buildings 1, 3, and 4 would be located on a new western block created by the roadway extension. West 60th Street would be extended as a new public access easement through the site to the new Freedom Place South roadway, creating two smaller blocks on the eastern portion of the site. Building 2 would be located on the northern block, and Building 5 would be located on the southern block. All of the buildings would be developed above a combined, below-grade platform **Figure S-4** shows the proposed site plan for the project site.

PROPOSED PROGRAM

Table S-2 provides detailed information on the program for the Proposed Project.

Overall, the Proposed Project would comprise a total of approximately 2,471,590 gsf of residential use (approximately 2,500 units, of which 12 percent would be affordable housing) within five buildings; approximately 151,598 gsf for a public elementary and intermediate school; 140,168 gsf of above-grade retail use (which includes approximately 36,701 gsf of cinema use and 20,183 gsf of automotive showroom space associated with the below grade automotive service uses); 104,432 gsf of office space, and 249,240 gsf of hotel use. The five buildings would be constructed on a platform at about the elevation of the West End Avenue grade, which would provide the foundation for all structures. Uses within the below-grade area would include approximately 181,677 gsf of below-grade automotive service uses and approximately 1,800 parking spaces. Appropriate provisions in the GLSD special permit approval would ensure that no “big-box” retail establishments (e.g., warehouse clubs or discount department stores) would be permitted as part of the Proposed Project.

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

Proposed Project Site Plan
Figure S-4

Table S-2
Summary of Proposed Program[1]

	Retail[2] (gsf)	Office (gsf)	Residential[3] (gsf)	Public School (gsf)	Hotel[4] (gsf)	Automotive Service (gsf)	Parking (spaces)	Total gsf/ Building
Above Grade								
Building 1	42,233	104,432	797,231					**943,896**
Building 2	15,635		493,614	151,598				**660,847**
Building 3	6,950		373,549					**380,499**
Building 4	13,770		358,971					**372,741**
Building 5[5]	61,580		448,225		249,240			**759,045**
Above Grade Building Program	**140,168**	**104,432**	**2,471,590**	**151,598**	**249,240**			**3,117,028**
Ramps, loading docks, mechanical, Amtrak vents, etc.								**123,517**
Total Above Grade								**3,240,545**
Below Grade								
Below Grade Program						**181,677**	**1,800**	**181,677**

Note:
[1] All proposed gsf is approximate.
[2] Retail may include a cinema, which if developed, would consist of approximately 36,701 gsf with approximately 252 seats in Building 5. No "big-box" retail establishments (i.e., warehouse clubs or discount department stores) would be included as part of the Proposed Project. In addition, second-floor retail uses proposed for some or all of the buildings could be used instead for office uses.
[3] Twelve percent of the total residential units in the Proposed Project would be set aside for affordable housing.
[4] The two alternate scenarios being considered for Building 5 would permit either replacing all 448,225 gsf of the residential component of the building with hotel, use, or replacing all 249,240 gsf of hotel with residential use in that building.
[5] Approximately 20,183 gsf of the retail space in Building 5 would be utilized for automotive showroom space associated with the below grade automotive service uses (the automotive retail space accounts for approximately14% of the total retail space proposed on the project-site).

Above-Grade Program

Based upon the proposed design, the above-grade program for the Proposed Project is expected to be as follows (see also **Table S-2**, above):

Building 1. Building 1 would be located at the northwest corner of the site on West 61st Street near Riverside Boulevard. Building 1 is expected to be approximately 487 feet[1] (approximately 38 stories plus mechanical levels) at its highest point. The building is expected to include approximately 42,233 gsf of retail on the ground floor, approximately 104,432 gsf of office on the second and third floors, and approximately 797,231 gsf of residential use on its upper levels.

Building 2. Building 2 would also be located on West 61st Street, east of Building 1. This structure is expected to be approximately 526 feet tall (approximately 43 stories plus mechanical levels) and is expected to include approximately 15,635 gsf of retail on the ground floor, up to approximately 151,598 gsf for a public school, and approximately 493,614 gsf of residential use on its upper levels.

It is anticipated that the community facility space in Building 2 would be used for a public elementary and intermediate school, subject to the approvals and requirements of the New York City School Construction Authority (SCA). While the full 151,598 square feet would be made available to the New York City Department of Education (DOE) and SCA for future use as an approximately 1,332-seat public school, it is assumed that at a minimum, the school would contain approximately 360 elementary and 120 intermediate seats on the project-site to

[1] All heights are referenced above sea level.

accommodate the projected number of students generated by the Proposed Project. At some agreed-upon time prior to the start of construction of Building 2, the SCA would determine whether or not to exercise the option of developing the remaining space for use as a public school. If SCA decides not to exercise this option, the remaining zoning floor area allocated to the public school would either include other community facility space or would not be built. Therefore, the SEIS will consider both the smaller 480-seat school and the 1,332-seat school in the evaluation of environmental impacts, depending on which size of school would result in a more conservative analysis. The appropriate sizing and location of playground facilities for the school would be determined in consultation with SCA.

Building 3. Building 3 would be located at the southwest corner of the site, on West 59th Street near Riverside Boulevard. The building is expected to be approximately 457 feet tall (approximately 34 stories plus mechanical levels) at its highest point. It is expected to include approximately 6,950 gsf of retail on the ground floor, and approximately 373,549 gsf of residential use above.

Building 4. Building 4 would be located east of Building 3 along West 59th Street. This building is expected to be approximately 393 feet in height (approximately 31 stories plus mechanical levels), and is expected to include approximately 13,770 gsf of retail on the lowest two levels and approximately 358,971 gsf of residential use above. A vehicular /passenger drop-off area serving Buildings 3 & 4 would be located between the two buildings. This vehicular drive would be accessed from Freedom Place and would provide access to the lobbies of Building 3, Building 4 and the below grade parking garage. It would begin at Freedom Place South and continue through Building 4, passing south of the lobby entrance, and terminate in a car court just east of the Building 3 lobby.

Building 5. Building 5 would be located at the southeast corner of the site, with frontage on West End Avenue, Freedom Place South, and West 59th and 60th Streets. This multi-use building is expected to be approximately 535 feet tall (approximately 44 stories plus mechanical levels) at its highest point. The building is expected to include approximately 61,580 gsf of retail on the ground, second, third and fourth levels (including up to 36,701 gsf of cinema use with 252 seats and 20,183 gsf of automotive showroom space associated with the below grade automotive services uses), an approximately 249,240 gsf hotel (with approximately 230-250 rooms), and approximately 448,225 gsf of residential use on the upper levels.

For the purpose of presenting a reasonable worst-case analysis, two alternate scenarios for Building 5 are being considered. Both would include the same gsf of retail use as described above. For the first alternate scenario, instead of a mix of both hotel and residential uses, the remaining portion of the building would be utilized for hotel use only. In the second alternate scenario, no hotel would be developed, and the remaining portion of the building would be utilized for residential use only.

Below-Grade Program

The below-grade program would include approximately 181,677 gsf of automotive service uses, and approximately 1,800 parking spaces. The automotive service use would be located in the first cellar level below grade. This level would be one large, interconnected space beneath all five project buildings. A dedicated entrance for the automotive service use would be located at West 59th Street, accessed through Building 3. The parking uses would primarily be located within two sub-cellar levels. Each of these two levels may operate as either one interconnected garage beneath all five project buildings, or as five separate garages operated individually. Under both garage plans, a separate parking garage entrance would service each project building

(depending on the location of the building, these entrances would be accessed from either Freedom Place South or West 59th Street) (see **Figures S-5 and S-6**).

Comparison of SEIS and FEIS

The principal differences between the Proposed Project for Parcels L, M, and N and the development for this site analyzed in the 1992 FEIS are as follows: the 1992 FEIS program did not include any school, hotel, or auto service uses, and the proposed program does not include studio uses. In addition, the amount of residential space proposed to be developed on the site has increased considerably. **Table S-3** provides a breakdown of the incremental differences in the two programs.

Table S-3
Comparison of FEIS Program with Proposed Program for Parcels L, M, and N

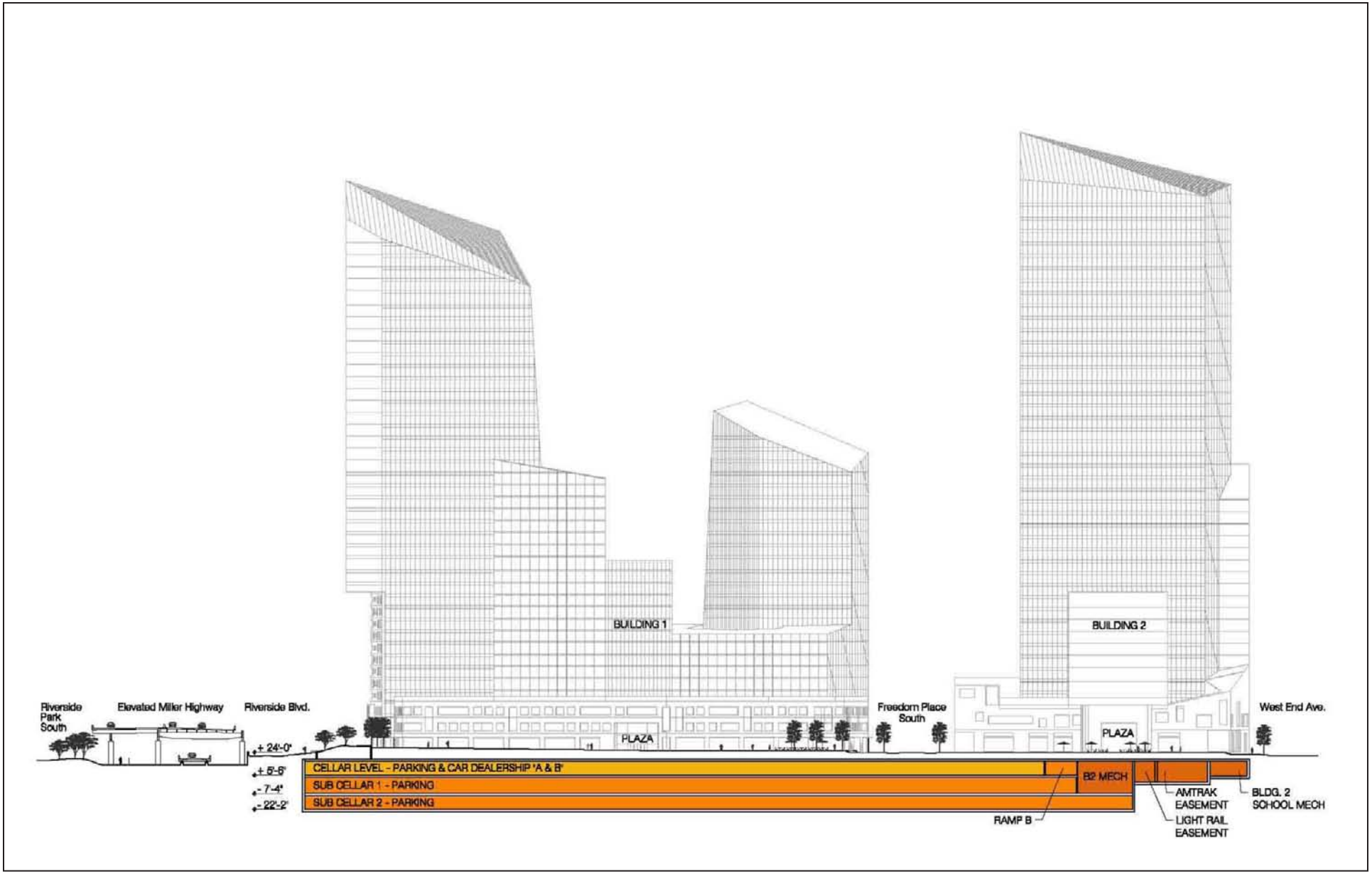
	FEIS Program (gsf)	Proposed Program (gsf)	Increment (gsf)
Professional Office	20,370	—	-20,370
General Purpose Office	330,000	104,432	-225,568
Residential	598,290	2,471,590	1,873,300
Units	577	2,500	1,923
Retail**	82,065 (this includes 45,000 sf below-grade)	103,467	21,402
Cinema***	37,000	36,701	-299
Seats	1,800	252	-1,548
Studio	1,962,554	—	-1,962,554
School	—	151,598	151,598
Hotel*	—	249,240	249,240
Rooms	—	250	250
Auto Service	—	181,677	181,677
Parking Spaces	743 spaces	1,800 spaces	1,057 spaces
Total gsf	**3,030,279**	**3,298,705**	**268,426**

Notes:
* The two alternate scenarios being considered for Building 5 would permit either: (1) replacing all of the residential component of the building with hotel use; or (2) replacing all of the hotel use with residential use.
** Second-floor retail uses proposed for some or all of the buildings could instead be used for office uses.
***The cinema use has been separated from the retail use in this table for comparison purposes only. The total retail development for the Proposed Program, which includes the cinema use, would be 140,168 gsf.

Figures S-7 through S-10 provide illustrative aerial renderings of the Proposed Project. These views depict the features of the proposed buildings' site placement, height, and massing. The buildings would be governed by the requested approvals described below. Figures **S-7 through S-10** also show the proposed development program in relation to surrounding existing buildings. The façade treatments of the buildings as shown in the renderings are illustrative.

PROPOSED OPEN SPACE

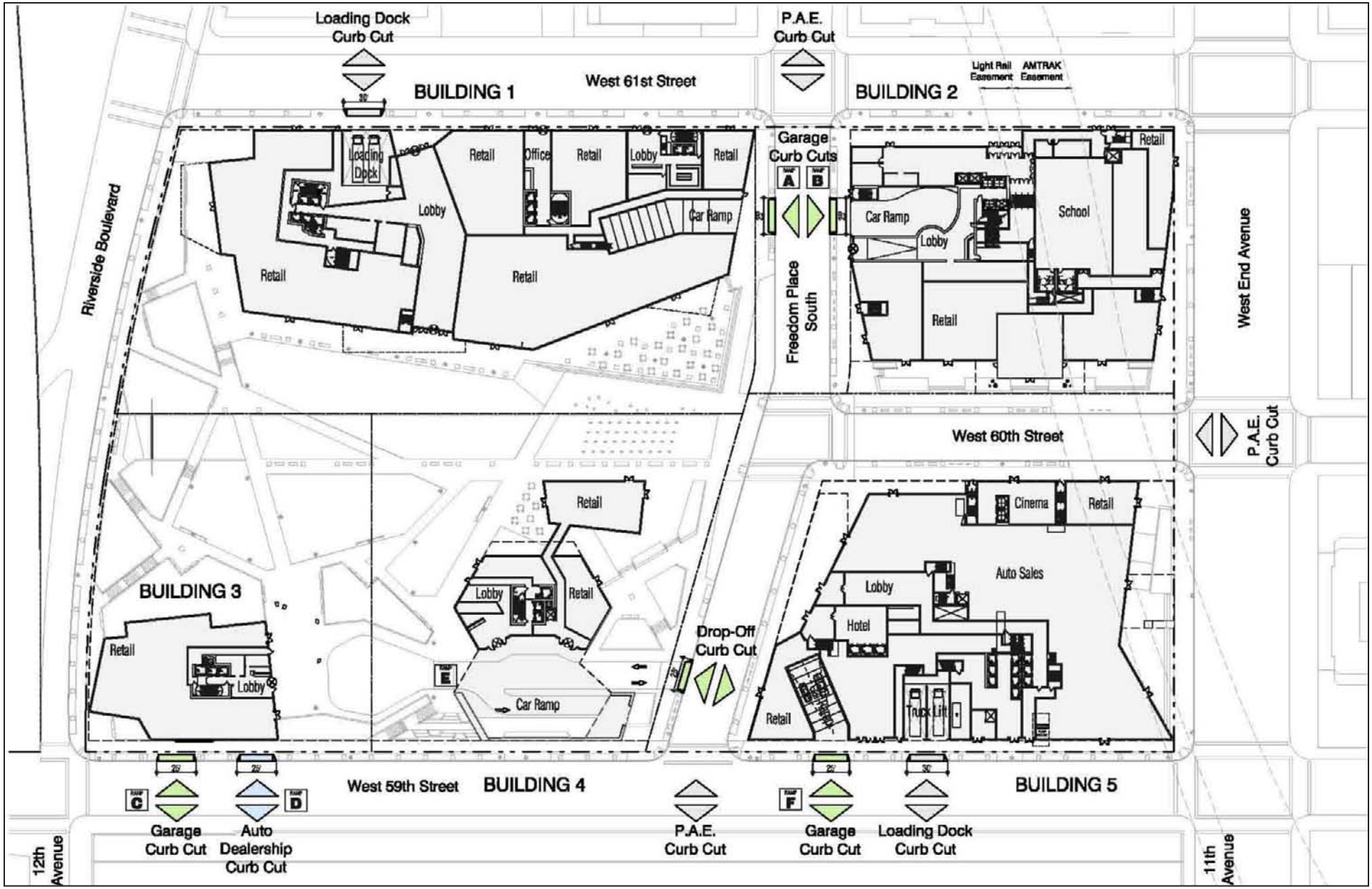
The approximately 2.75 acres of privately owned, publicly accessible open space created by the Proposed Project would function as an integral part of the overall project and would provide a varied environment that would complement and serve the surrounding neighborhoods (see **Figure S-11**). In total, approximately 34 percent of the 8.18-acre site would be developed as open space. The proposed open space has been designed to be accessible from all four streets surrounding the project site, including West 59th Street and Riverside Boulevard. The open



NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

Below Grade Program

Figure S-5



NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

Loading Dock, Garage Entrance and Auto Service Curb Cuts

Figure S-6

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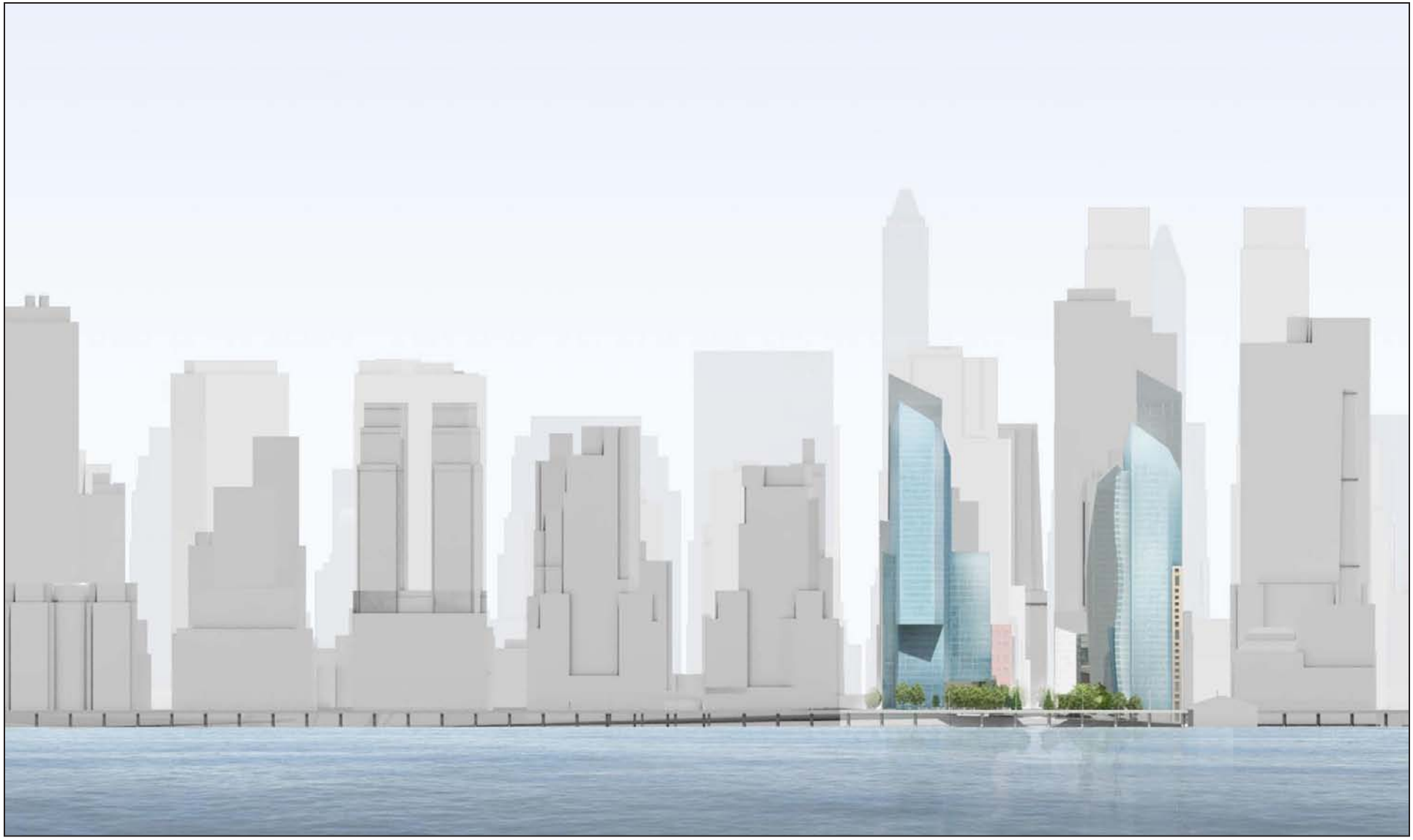
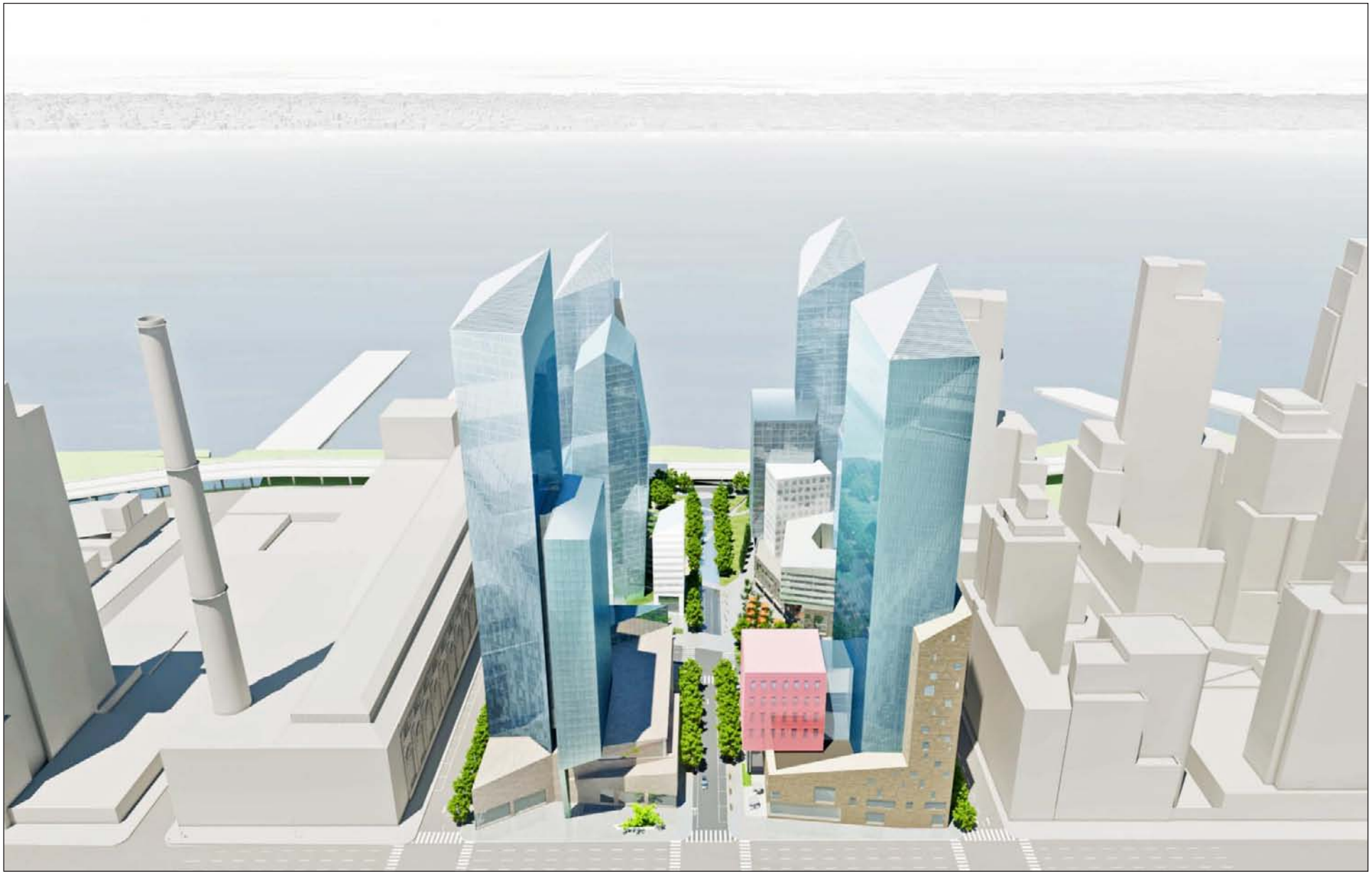


NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

Illustrative View of Proposed Project
and Surrounding Buildings

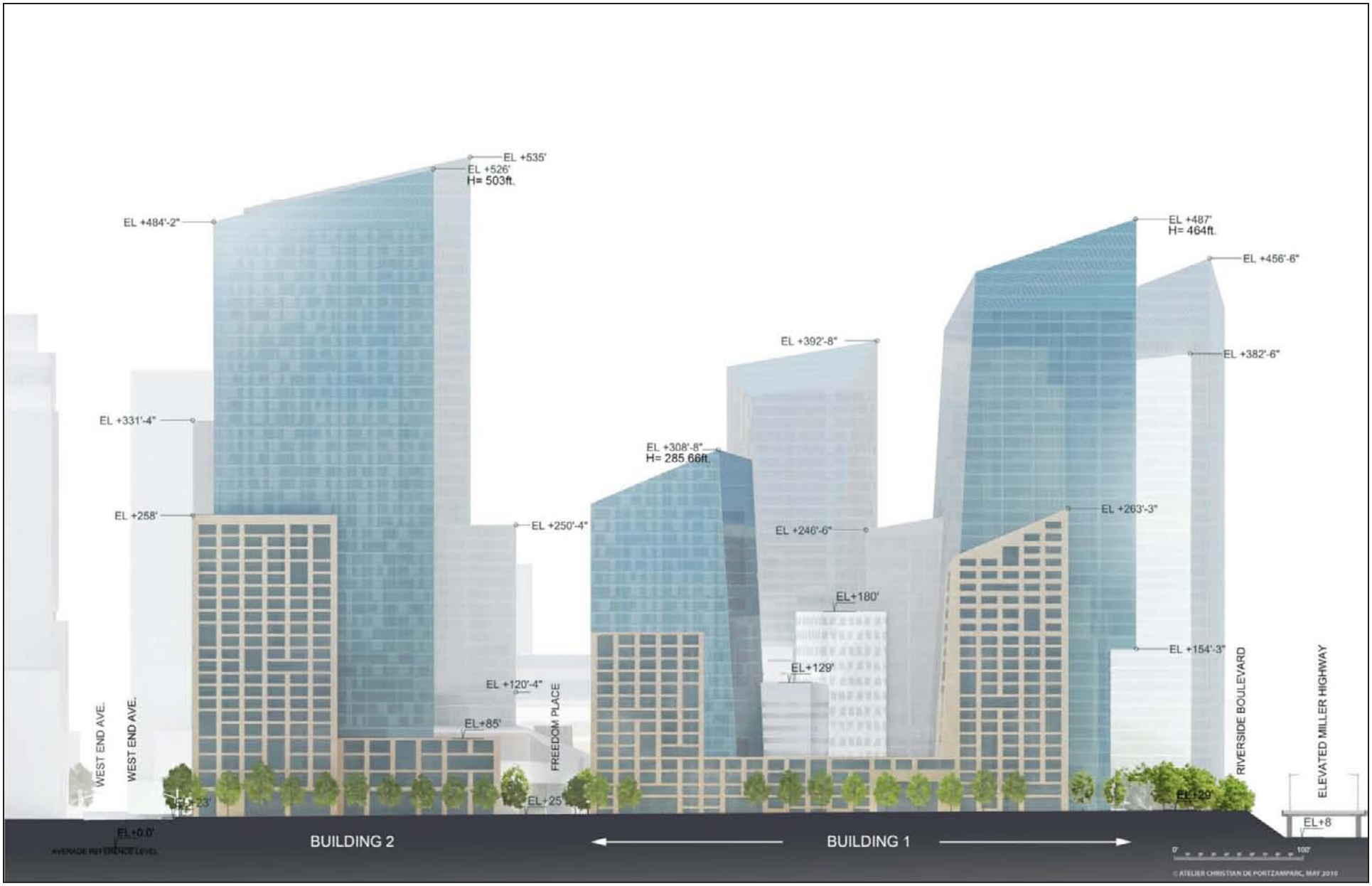
Figure S-7



NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

Aerial View Looking West

Figure S-8



NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

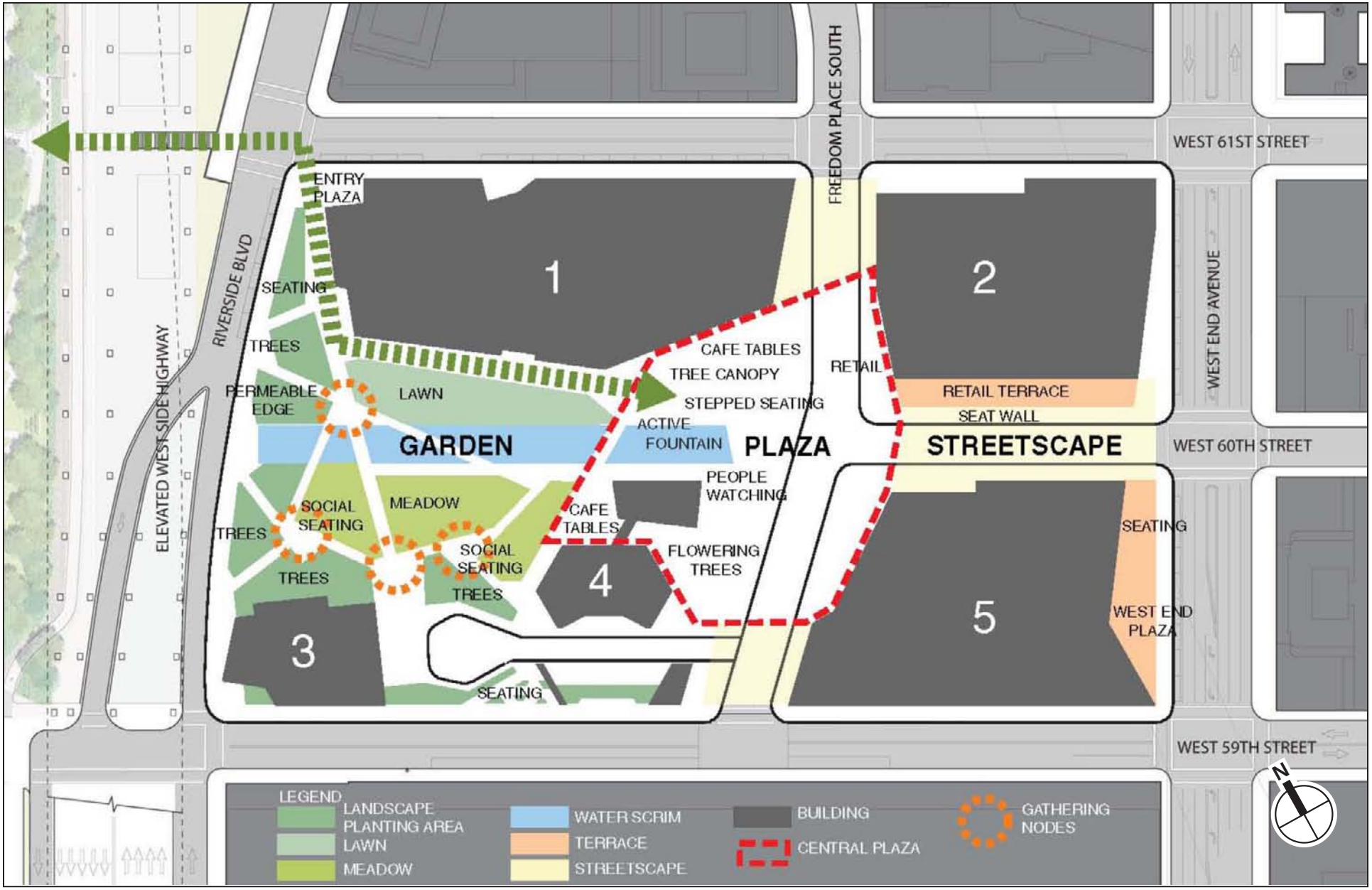
Proposed Project Building Heights

Figure S-9

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

Illustrative Elevation View from Riverside Boulevard

Figure S-10



NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

Proposed Open Space Program

Figure S-11

space plans include a detailed signage plan which has been developed in consultation with DCP. It will clearly indicate that the open space is publicly accessible.

The publicly accessible open space would be organized around the axis of West 60th Street as it traverses the site from West End Avenue to Riverside Boulevard. On West End Avenue, Building 5 is required to step back from the street to avoid the Amtrak tunnel below. The resulting area would be raised from the sidewalk and defined by an architectural column stepping into the space and a large planter with seatwalls along its eastern edge. Along West 60th Street, street trees and backed benches would be located within a 5-foot-wide cobble planting strip, extending from West End Avenue to Freedom Place South. On the north side of the street where the sidewalk is wider, a terrace raised one and a half feet would define a space for outdoor dining. Large planters along this terrace are intended to soften the space and provide seating opportunities at the sidewalk (see **Figure S-12**).

At the intersection of West 60th Street and Freedom Place South, a 1.2-acre plaza would be provided as the centerpiece of this open space. Within this plaza, dynamic fountains with interactive water jets would create a focal point that would provide a play area for children. Adjacent to the fountain, a terrace would contain a grove of trees providing shade for moveable tables and chairs for general public use. On the north side of Building 4, backed benches located under the canopy of tall shade trees would provide views in all directions (see **Figure S-13**).

Extending west from the plaza, the West 60th Street axis would become a "scrim" of water (a thin, approximately quarter inch covering of water) intended as an interpretation of the street. This would serve as a visual extension of West 60th Street, reinforcing an axial relationship to the New York City grid. Trees would line both sides of the scrim, and benches would line the southern path to allow users to face the water scrim and lawn to the north. To the south, a rolling meadow landscape would be traversed by multiple pathways leading to benches located within small landscape "rooms." To the west, a dense planting of conifer trees would embrace the site, providing filtered views and a visual buffer to the elevated West Side Highway (see **Figure S-14**).

The water scrim would terminate in a waterfall dropping from the higher plaza elevation to the sidewalk elevation along Riverside Boulevard. A seatwall would be provided along the sidewalk to allow pedestrians the opportunity to enjoy this water feature. Criss-crossing paths through the open space would provide seating opportunities and would connect to the streets at the perimeter of the site enabling pedestrians to move easily among destinations. All paths and nodes would be illuminated with dark-sky compliant poles.

An additional landscaped space would be along West 59th Street between Buildings 3 and 4. Here a grade transition would be accommodated with stepped seating that would face south with small planters softening the space.

A significant objective of the open space plan is to connect the West 60th Street corridor to Riverside Park South. A path would be created along the south and west sides of Building 1 to link the central plaza to a stair and ramp to Riverside Park South at the intersection of Riverside Boulevard and West 61st Street. This would become the most direct connection from Central Park and Columbus Circle to the Hudson River waterfront **(see Figure S-15)**. Three other pedestrian connections would be made available from the open space to Riverside Boulevard, and a fourth connection would create an access point from the open space to West 59th Street via a staircase.

Within the project site, all sidewalks and streets will be accessible 24 hours a day. The publicly accessible open space areas are proposed to be accessible between 6AM and 1 AM daily. The open space would comply with the American with Disabilities Act (ADA) requirements.

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

View Looking West on 60th Street
from West End Avenue

Figure S-12

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

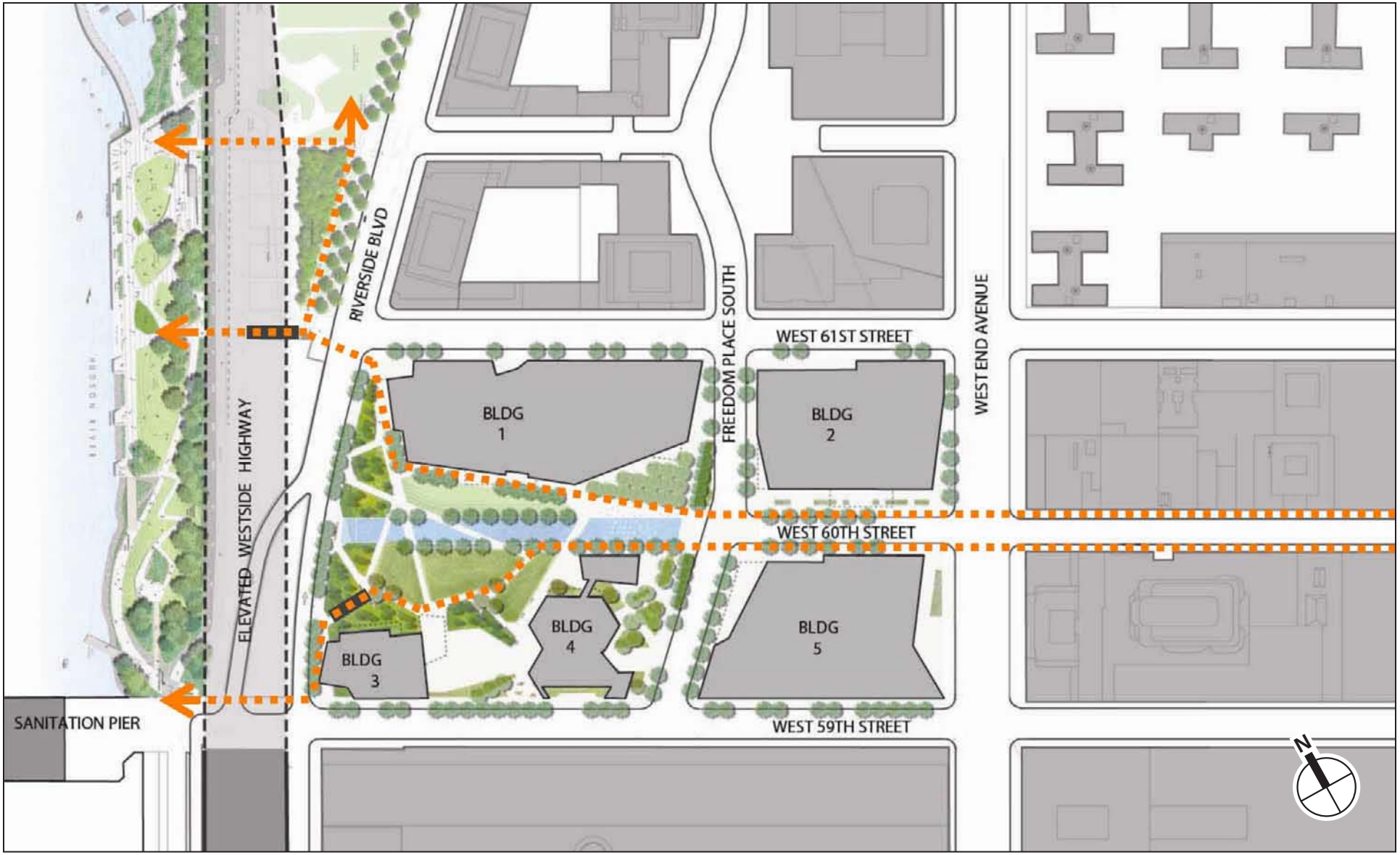
View Looking Southwest From Plaza

Figure S-13

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

View Looking West Along Water Scrim

Figure S-14



NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

Pedestrian Connections to Riverside Park South

Figure S-15

ENERGY EFFICIENCY MEASURES

The existing special permit for the project site requires that the project sponsor establish a cooperative program to "identify feasible methods of energy conservation, with a payback period of five years, to be incorporated into the design and construction of the project." Such measures will be incorporated into the project design, and are expected to result in substantial energy efficiency. In addition, the project will be utilizing steam provided by Con Edison. The Con Edison steam system, as a whole, combines steam production, delivered to consumers for heat and hot water, with electricity production. Although the nearby 59th Street steam generation plant, which would provide much of the steam for the Proposed Project, is not a combined cycle (i.e., producing both steam and electricity) facility, the Con Edison steam system as a whole does operate as a unified combined cycle system. The use of steam results in significant energy savings, and is consistent with the goals of PlaNYC. Additional measures under consideration by the project sponsor include water efficiency measures, preferred alternative vehicle parking, etc.).

E. REQUIRED PUBLIC APPROVALS

The Proposed Project would require the following discretionary public actions:

1. Zoning Text Changes:

   A. **N 100294 ZRM**—An application for a Zoning Text Amendment to Section 74-743 of the Zoning Resolution to allow the CPC to permit, within a general large-scale development, modification of Section 12-10 (Court, outer) to allow any open area surrounded on three sides by building walls to be treated as an "outer court"; and

   B. **N 100295 ZRM**—An application for a Zoning Text Amendment to Section 74-744(a) of the Zoning Resolution to allow the CPC to permit automotive sales and service establishments (UG 16) within a "general large-scale development" in a C4 District in Manhattan Community District 7 provided certain findings are met.

2. Special Permits[1]:

   A. **C 100296 ZSM**—An application for a Special Permit from the CPC, within a "general large-scale development," pursuant to Sections:

      i) 74-743(a)(2) to permit location of buildings without regard for applicable:

         a) "court" regulations found in ZR Section 23-84, and 23-851, to modify the minimum dimensions and areas of outer courts and inner courts and allow up to 5% of an inner court to be covered;

         b) distance between "buildings" regulations found in ZR Sections 23-711 to permit less than the required distance; and

[1] Special Permits D through I reflect two parking garage options described above. Under the first option, one special permit (item D) would be utilized for a single garage with a total of 1,800 parking spaces. Under the second option, five special permits (items E through I) would be utilized for five individual garages with a total of 1,800 parking spaces. Thus, the six special permits would not be utilized simultaneously.

c) height and setback (including tower) regulations found in ZR Sections 23-634, 33-433, and 33-451 to allow the location of buildings without regard to street wall location requirements, maximum street wall height, initial setback distance and tower regulations; and

ii) 74-743(a)(7), as amended, to modify Section 12-10 (Court, outer) to allow the open areas surrounded on three sides by building walls as designated on Drawing Z-113 to be treated as "outer courts."

B. **C 100297 ZSM**—An application for a Special Permit from the CPC, within a "general large-scale development," pursuant to Section 74-744 (a) (2), as amended, to allow automobile sales and service uses (Use Group 16B) without regard for the Use provision found in 32-00.

C. **C 100287 ZSM**—An application for a Special Permit from the CPC, within a "general large-scale development," pursuant to Section:

i) 74-681(a)(1) to allow that portion of a railroad or transit right-of-way to be completely covered over by a permanent platform to be included in the "lot area" for the "development";

ii) 74-681(a)(2) to allow the portion of the yard where railroad use has been permanently discontinued to be included in the "lot area" for the development;

iii) 74-681(c)(4), to establish appropriate level (elevation + 24 above Manhattan Datum) instead of "curb level" as the reference plane for the development plus additional curb levels for streetscape purposes (26-00 and 37-30); and

iv) 11-42(c), to provide that the special permit will not lapse if, within 10 years from the effective date of the special permit, substantial construction of at least one building has been completed.

D. **C100288 ZSM**—An application for a Special Permit, pursuant to Sections 13-562 and 74-52, from the CPC to permit a "public parking garage" with a maximum of 1,800 public parking spaces;

E. **C 100289 ZSM**—An application for a Special Permit, pursuant to Sections 13-562 and 74-52, from the CPC to permit a "public parking garage" to be located beneath Parcel 1 with a maximum of 460 public parking spaces;

F. **C 100290 ZSM**—An application for a Special Permit, pursuant to Sections 13-562 and 74-52, from the City Planning Commission to permit a "public parking garage" to be located beneath Parcel 2 with a maximum of 230 public parking spaces;

G. **C 100291 ZSM**—An application for a Special Permit, pursuant to Sections 13-562 and 74-52, from the CPC to permit a "public parking garage" to be located beneath Parcel 3 with a maximum of 290 public parking spaces;

H. **C 100292 ZSM**—An application for a Special Permit, pursuant to Sections 13-562 and 74-52, from the CPC to permit a "public parking garage" to be located beneath Parcel 4 with a maximum of 370 public parking spaces; and

I. **C 100293 ZSM**—An application for a Special Permit, pursuant to Sections 13-562 and 74-52, from the CPC to permit a "public parking garage" to be located below beneath Parcel 5 with a maximum of 450 public parking spaces.

3. **Authorization: N 100298 ZAM**—An application for an Authorization, pursuant to Section 13-553, from the CPC, to permit a curb cut on West End Avenue (a wide street) to facilitate the extension of West 60 Street westward through a portion of the project site as a public access easement.

In addition, pursuant to Section 11-42(c), to provide that the special permit will not lapse if, within 10 years from the effective date of the special permit, substantial construction of at least one building has been completed.

4. **Certifications:**

   A. **N 100299 ZCM**—An application for a Certification, pursuant to Section 26-15, from the CPC to allow additional curb cuts, in excess of one for each "narrow street" frontage, for "zoning lots" in excess of 30,000 square feet of "lot area", to allow more than one curb cut on West 59th Street (a narrow street).

   B. **N 100286 ZCM**—An application for a Certification, pursuant to Section 26-15, from the CPC to allow additional curb cuts, in excess of one for each "narrow street" frontage, for "zoning lots" in excess of 30,000 square feet of "lot area", to allow more than one curb cut on West 61st Street (a narrow street).

   C. **N 100300 ZCM**—An application for a Certification, pursuant to Section 26-17, from the CPC to modify the provisions of:

      i) 37-35 to modify the requirement that 50 percent of a front building wall fronting on a wide street shall be occupied by commercial uses; and

      ii) 37-36 to permit signs to be located in a horizontal band not higher than three feet, the base of which is located not higher than 17 feet above curb level (established level); and

      iii) 37-37 to permit less than 50 percent of the total surface area of any building wall of a "development" between curb level (established level) and 12 feet above curb level or ground floor ceiling height shall be transparent.

5. **Modification: M 920358 D ZSM**—An application for the Fourth Modification of previously approved "general large-scale development" special permit and restrictive declaration to reflect the current proposal.

In addition to the above city actions, the project sponsor is discussing with Con Edison modifications to the Con Edison 59th Street Station, located south of the project site, to address air quality issues. Such modifications would be subject to approval by the New York State Department of Environmental Conservation (NYSDEC).

RESTRICTIVE DECLARATION

In connection with the Proposed Project, a Restrictive Declaration will be recorded at the time all land use related actions required to authorize the Proposed Project's development are approved. The Restrictive Declaration would, among other things:

- Require development in substantial accordance with the approved plans, which establish an envelope within which the buildings must be constructed, including limitations on floor area.
- Require that the Proposed Project's development program be within the scope of the reasonable worst case development scenarios analyzed in the SEIS.

- Provide for the implementation of "Project Components Related to the Environment" (i.e., certain Project components which were material to the analysis of environmental impacts in the SEIS) and mitigation measures, substantially consistent with the SEIS.
- Include provisions with respect to emissions from Con Edison's 59th Street facility in relation to development of the Project buildings to avoid any significant adverse impact on the Project buildings.
- Include provisions relating to the public school space proposed by the project sponsor to be located in Building 2.
- Include provisions relating to the phasing of the open space.
- Include provisions requiring New York City Department of Housing, Preservation and Development's review and approval of the design and location of the affordable housing units for each building.
- Establish requirements with respect to the construction of the streets and the Public Access Easements (PAEs). This designation would allow for the PAEs to be privately owned and maintained, but look, function, and be regulated like mapped city streets.

F. ENVIRONMENTAL REVIEW

Because the Proposed Project requires discretionary approvals from the CPC, it is subject to CEQR. CPC is the CEQR lead agency for the Proposed Project, and several additional city and state agencies are involved or interested agencies in the environmental review, including the New York City Council, the New York City Department of Environmental Protection (DEP), the New York City Department of Transportation (NYCDOT), SCA, the New York City Department of Parks and Recreation (DPR) the New York City Landmarks Preservation Commission (LPC), and NYSDEC.

G. FRAMEWORK FOR ANALYSIS

REASONABLE WORST-CASE DEVELOPMENT SCENARIO

The proposed zoning approvals would specify maximum floor areas and number of dwelling units and a minimum amount of floor area in the case of retail, by land use category, for Parcels L, M, and N. **Table S-4** provides information on these maximum floor areas. The maximum zoning floor area[1] permitted at the project site would be 3,014,829 sf (approximately 3,240,545 gsf).

Although the building program for the Proposed Project reflects what is currently contemplated by the project sponsor, it is possible that the building programs could change as the site is developed over time. Since the proposed zoning approvals would specify a range of floor areas by land use for the Proposed Project, for analysis purposes, potential building program development scenarios that could result from the proposed zoning approvals have been identified. The analyses for certain technical areas are based on "reasonable worst-case development scenarios" (RWCDSs) drawn from this range of potential building program development scenarios. Each of these reasonable worst-case development scenarios have been

[1] The zoning floor area of a building is the gross floor area above grade, less space devoted to mechanical uses.

Table S-4
Maximum Floor Area Permitted by Proposed Zoning Approvals
(Above Grade)

Use	Maximum ZSF[1]	Maximum GSF
Commercial		
Office	200,000	211,293
Retail	310,000	325,022 (Minimum floor area: 33,300)
Hotel	712,068	759,814
Residential	2,849,529	3,051,278 (approximately 3,000 units, of which 360 would be affordable)
Public School	132,000	151,598
TOTAL ABOVE GRADE DEVELOPMENT	3,014,829	3,240,545

Notes:
zsf=zoning square feet
1. In no case will the total zoning floor area exceed 3,014,829 sf, equivalent to approximately 3,240,545 gsf.
2. In no case will the total commercial zoning floor area exceed 980,000 sf, equivalent to approximately 1,056,059 gsf.

formulated to represent the scenario that could result in the maximum potential impacts from the Proposed Project in the affected technical area. Several categories of technical analysis in the SEIS are analyzed using this approach, where such a RWCDS would result in potential impacts greater than those by the proposed program currently contemplated by the project sponsor. The total development for each RWCDS would be limited to the total permitted by the proposed zoning approvals. Therefore, the total above-grade development would not exceed 3,240,545 gsf. The RWCDSs are presented in **Table S-5**. The proposed program for the Proposed Project is also presented. For those technical areas where potential project impacts are not dependent on the floor area for each use, the proposed program will be assumed.

Table S-5
Reasonable Worst Case Development Scenarios

Use	Proposed Program	RWCDS 1 (Maximize Residentail)	RWCDS 2 (Maximize Hotel)	RWCDS 3a (Maximize Retail/Office)	RWCDS 3b (Maximize Retail/Office)	RWCDS 3c (Maximize Retail/Office)	RWCDS 3d (Maximize Retail/Office)
Residential	2,471,590 (2,500 units)	2,957,325 (3,000 units)	2,032,888 (2,100 units)	2,711,716 (2,700 units)	2,032,888 (2,100 units)	2,711,716 (2,700 units)	2,032,888 (2,100 units)
Hotel	249,240 (250 rooms)	0	759,814 (1,159 rooms)	0	678,828 (1,012 rooms)	0	678,828 (1,012 rooms)
Community Facility	151,598	151,598	151,598	151,598	151,598	151,598	151,598
Retail	140,168	131,622	244,036	325,022	325,022	165,938	165,938
Office	104,432	0	52,209	52,209	52,209	211,293	211,293
Auto Service*	181,677	276,011	276,011	276,011	276,011	276,011	276,011

Notes:
* The RWCDS account for the possibility of a larger below-grade auto service use that would be located on the cellar level and a portion of sub-cellar 1.
The Proposed Program and all RWCDSs include approximately 1,800 below grade parking spaces and 2.75 acres of publicly accessible open space.

STUDY AREAS

Each technical study must address impacts within an appropriate geographical area. These "study areas" vary depending on the technical issue being addressed. The study areas for the SEIS for impacts arising from the Proposed Project may be different than those presented in the 1992 FEIS because the geographic extent of the study areas for the SEIS will be focused on Parcels L, M, and N.

FUTURE ANALYSIS YEAR AND BASELINE CONDITIONS

The analysis of the Proposed Project will be performed for the expected year of completion of the project, which is 2018. However, since the proposed development would be built out over an approximately nine-year period, some buildings would be completed before 2018 and they could result in significant adverse impacts prior to completion of the full development program. The discussion of mitigation measures in the SEIS will specify a reporting mechanism, where applicable, that will identify when a threshold level of development which generates significant impacts has occurred, and will describe the appropriate phasing of mitigation implementation for these impacts.

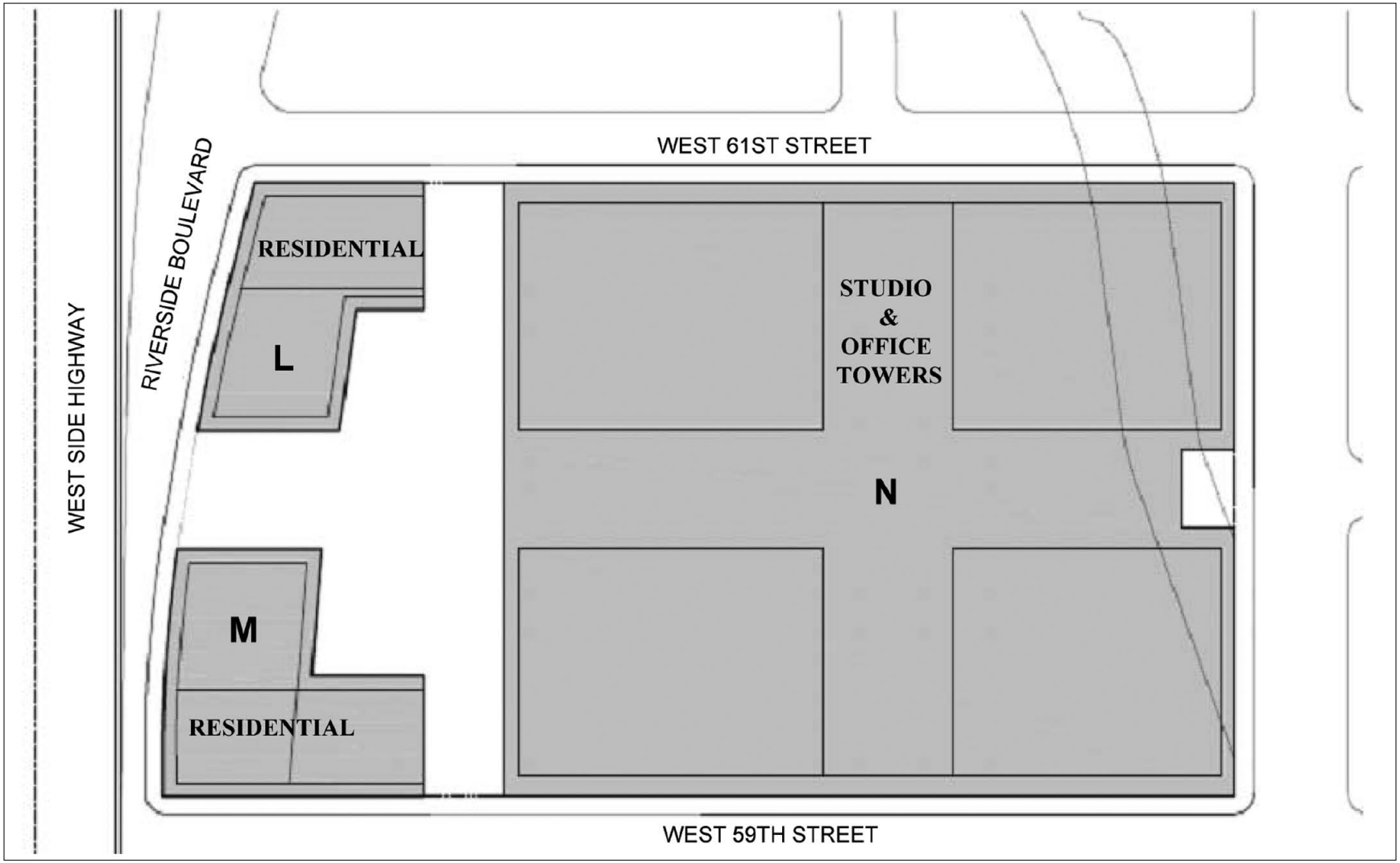
Two future baseline conditions will be examined under "The Future Without the Proposed Project" in all technical areas. For certain technical impact areas, the full quantitative analyses will assume the scenario that could result in the greatest potential environmental effect for the Proposed Project. The following describes the two No Build scenarios.

1. No Build Scenario 1—Assumes that in the 2018 Future without the Proposed Project, the original program for Parcels L, M, and N that was approved in the FEIS would be completed (See **Figure S-16**). Parcels L and M would be developed with two residential buildings (with office space and public parking garages) ranging in height from 18 to 23 stories. Parcel N would be developed with a mix of retail, office, entertainment studio production, cinema, and parking uses. The building on Parcel N would contain two 25-story tower elements along West End Avenue built above a base that would occupy the rest of the parcel. The Amtrak rail line that passes through the site would continue to operate.
2. No Build Scenario 2—Assumes that in the 2018 Future without the Proposed Project, the original FEIS approved program for Parcels L and M would be completed, but Parcel N would remain in its current parking use. The Amtrak rail line would continue its operations.

It should be noted that the existing conditions for the SEIS include transportation improvements (such as improvements to West End Avenue) that have been implemented as mitigation for the entire FEIS project (which included development on Parcels L, M, and N).

FUTURE CONDITIONS WITH THE MILLER HIGHWAY RELOCATION

For certain environmental issues, the 1992 FEIS analyzed an additional scenario in which the elevated portion of the Miller Highway (also known as Route 9A) between 59th Street and 72nd Street would be relocated to an inboard, below-grade location by 2002, the anticipated completion year for the Riverside South project. Specifically, for Land Use and Zoning; Urban Design and Visual Character; Waterfront Revitalization Plan; Open Space and Recreation (which included shadowing effects); Traffic and Transportation; Air Quality; Noise; and Construction, the FEIS analyzed future conditions without and with the relocation of the Miller Highway in order to determine the project's potential for environmental impacts under both



No Build Scenario 1 Site Plan (1992 FEIS Program)

possible future scenarios. The effects of the relocated highway were determined to be inconsequential for other subject areas and were therefore not discussed in the 1992 FEIS.

At this time the Miller Highway has not been relocated, and currently there is no funding allocated to the project. Therefore, the future without the Proposed Project section in this document does not include the relocation of the Miller Highway as a No Build condition. For the purposes of a more complete analysis, the SEIS will consider an additional scenario in which the Miller Highway is relocated by 2018. This additional scenario—which for each relevant analysis area will be presented separately in a section after the Future with the Proposed Project—assumes a relocation of the Miller Highway similar to that described in the 1992 Riverside South FEIS, and as analyzed in greater detail as part of the Preferred Alternative scenario in the October 2000 *Miller Highway Project FEIS.*

H. PROBABLE IMPACTS OF THE PROPOSED PROJECT

LAND USE, ZONING, AND PUBLIC POLICY

This analysis finds that the Proposed Project would be compatible with, and supportive of, land use, zoning, and public policy initiatives in the area. Consistent with the findings in the 1992 FEIS, the Proposed Project would not result in significant adverse impacts related to land use, zoning, and public policy.

LAND USE

The change to the 1992 FEIS program for Parcels L, M, and N envisioned by the Proposed Project would not alter the 1992 FEIS findings that development of these parcels would not result in significant adverse impacts to land use on the project site or in the study area. The Proposed Project would result in a substantial land use change on the project site, transforming the site from an underutilized area containing mainly parking uses to a higher-density mixed-use development. Development with the Proposed Project would be consistent with the existing and anticipated land use patterns in the surrounding study area, including the residential development on the other Riverside South parcels and throughout the Lincoln Square area, and the commercial and mixed-use Clinton neighborhood south of the project site. The Proposed Project would also be consistent with the ongoing trend of new high-density residential development throughout the study area, particularly along West End Avenue/Eleventh Avenue.

ZONING AND PUBLIC POLICY

As with the 1992 FEIS program for Parcels L, M, and N, the Proposed Project's development program would not result in significant adverse impacts to zoning. The Proposed Project would also not result in a significant adverse impact on public policy. The Proposed Project would not change the zoning on the project site, but it would require two zoning text amendments, modification of the GLSD Special Permit, and the granting of several new special permits, authorizations, and certifications. Overall, these discretionary actions would affect the site design, bulk, and allowable uses, but would not be incompatible with surrounding zoning. Furthermore, the Proposed Project would be consistent with the affordable housing, waterfront revitalization, and open space goals of other public policy initiatives governing land use in the study area, including the Clinton Urban Renewal Area, the Local Waterfront Revitalization Program, and Hudson River Park and Riverside Park South.

SOCIOECONOMIC CONDITIONS

The Proposed Project would not result in significant adverse impacts due to changes in socioeconomic conditions. Findings with respect to the *CEQR Technical Manual*'s five areas of potential socioeconomic impact are summarized below.

DIRECT RESIDENTIAL DISPLACEMENT

The project site does not currently contain any residential uses. Therefore, the Proposed Project would not result in significant adverse impacts due to direct residential displacement.

INDIRECT RESIDENTIAL DISPLACEMENT

The Proposed Project would not result in significant adverse impacts due to indirect residential displacement. Although the Proposed Project would add a substantial population to the study areas, this population would not have different socioeconomic characteristics compared to the existing population; the study area has a very limited population who would be at risk of displacement. The Proposed Project would not directly displace uses or properties that have had a blighting effect on property values in the area; there would be no displacement of uses leading to an increase in property values and rents in the surrounding area. The Proposed Project would not directly displace enough of one or more components of the population to alter the socioeconomic composition of the study area. The Proposed Project would also not introduce a substantial amount of a more costly type of housing compared to existing housing, and it would not introduce a "critical mass" of non-residential uses such that the surrounding area becomes more attractive as a residential neighborhood. Finally, the Proposed Project would not introduce a land use that could offset positive trends in the study area, impede efforts to attract investment to the area, or create a climate for disinvestment. Therefore, the Proposed Project would not result in significant adverse impacts resulting from indirect residential displacement.

DIRECT BUSINESS DISPLACEMENT

Overall, the Proposed Project could result in the direct displacement of one business—the Central Parking lot. However, the displacement of this business would not result in significant adverse socioeconomic impacts. The potentially displaced business is not of substantial economic value to the city or region; nor is it the subject of regulations or publicly adopted plans to preserve, enhance, or otherwise protect them; and it does not substantially contribute to a defining element of the neighborhood character. Therefore, the Proposed Project would not result in significant adverse impacts resulting from direct business displacement.

INDIRECT BUSINESS DISPLACEMENT

The Proposed Project would not result in significant adverse impacts due to indirect business and institutional displacement. There is an existing trend in the study area toward the development of a mix of residential, retail, cultural, and utility uses, as evidenced by the several projects that are expected to be completed by 2018. The Proposed Project is not expected to alter or accelerate these trends. Nor would the Proposed Project offset positive trends in the study area, impede efforts to attract investment, or create a climate for disinvestment. To the contrary, the Proposed Project would introduce new populations and generate new employment opportunities, create affordable housing units and enhance public open space in order to meet the growing demands of the neighborhood.

ADVERSE EFFECTS ON SPECIFIC INDUSTRIES

The Proposed Project would not result in significant adverse impacts on a specific industry in the study areas, the region, or within the broader New York City economy. The two businesses that would be displaced from the project site and their 15 employees account for only a small fraction of the total employment in the study area. Furthermore, while the Proposed Project is not expected to cause indirect displacement, any indirect displacement that may occur would not be concentrated in a particular industry.

COMMUNITY FACILITIES AND SERVICES

Based on a preliminary screening of the Proposed Project, analyses of outpatient health care facilities and police and fire services were not warranted. As described below, analyses of public schools, libraries, and publicly funded child care facilities were conducted.

PUBLIC SCHOOLS

The project site is located within Community School District 3 (CSD 3), Subdistrict 1. The analysis of potential impacts considers elementary and intermediate schools within ½ mile of the project site in CSD 3 and in Subdistrict 1 of CSD 3, and high schools within Manhattan as a whole.

As described in Chapter 1, "Project Description," it is anticipated that the community facility space of approximately 151,598 square feet in proposed Building 2 would be used for a public elementary and intermediate school, subject to the approvals and requirements of the New York City School Construction Authority (SCA). While the full 151,598 square feet would be made available to SCA for future use as an approximately 1,332 seat public school, for the purposes of the community facilities analysis, it is assumed that the school will contain a minimum of approximately 360 elementary and 120 intermediate seats on the project-site, which would accommodate all of the project-generated demand for elementary and intermediate school seats. At some agreed-upon time prior to the start of construction of Building 2, the SCA would determine whether or not to exercise the option of developing the remaining space for use as a public school. If SCA decides not to exercise this option, the remaining zoning floor area allocated to the public school would either include other community facility space or would not be built. The analysis shows that with the provision of 360 elementary seats and 120 intermediate seats on the project site, there would be no significant adverse elementary and intermediate school impacts within the ½-mile study area and the subdistrict.

The assessment also finds that Manhattan high schools would operate with excess capacity in the Future With the Proposed Project. Therefore, the Proposed Project would not result in significant adverse impacts on Manhattan high schools.

LIBRARIES

This assessment considers the Proposed Project's potential effects on the Columbus and Riverside Libraries, which are located within ¾ of a mile from the project site. By 2018, the Proposed Project would increase the catchment area populations of the Columbus and Riverside Libraries by 6.0 percent and 4.6 percent, respectively.[1] The combined catchment area population

[1] According to the *CEQR Technical Manual*, library branch catchment areas are the distance that one might be expected to travel for library services, typically not more than ¾ of a mile.

would increase by 3.6 percent. For the Riverside Library and the combined catchment area, the incremental increase in population resulting from the development of the Proposed Project would be less than 5 percent, and therefore would not cause a noticeable change in the delivery of library services. For the Columbus Library, the catchment area population would increase by 6.0 percent, an increase which, according to the *CEQR Technical Manual*, may represent a significant adverse impact on library services. However, many residents of the Columbus Library catchment area are also within ¾ mile of the Riverside Library and could be served by that branch. Residents would also have access to the entire New York Public Library (NYPL) system through the inter-library loan system and to the New York Library for the Performing Arts, a central library located within the study area. Therefore, the Proposed Project would not alter the 1992 FEIS findings that development would not result in significant adverse impacts with respect to library services.

CHILD CARE CENTERS

This analysis considers the Proposed Project's potential impact on publicly funded child care facilities within approximately 1½ miles of the project site. The analysis estimates that the low- to moderate-income units of the Proposed Project would generate 41 children under the age of 6 who would be eligible for publicly funded child care programs.

For the 41 children under age six, publicly funded child care facilities within 1½ miles of the project site will already be operating above capacity by 2018 because of the many other development projects planned in the Future Without the Proposed Project. If no new child care facilities are added in the study area to respond to this new demand, the new children from the Proposed Project would exacerbate the predicted shortage in child care slots and the project-generated demand would represent 9 percent of the collective capacity of child care centers serving the area. This increase would result in a significant adverse impact on child care facilities in the area.

Several factors may limit the number of children in need of publicly funded child care slots in New York City Administration for Children's Services (ACS)-contracted child care facilities, as families may make use of alternatives such as family-based child care in private homes, and public child care centers outside of the study area. Potential measures to mitigate child care impacts are described in Chapter 22, "Mitigation."

POLICE AND FIRE SERVICES

The Proposed Project would not result in direct effects on the physical operations of, or access to and from, a New York City Police Department (NYPD) precinct house. The Proposed Project may necessitate the assignment of additional personnel, resources, and equipment to the study area. It is NYPD policy not to make adjustments in advance of planned or potential development. A commitment of resources would be based on demonstrated need and would not be made until a detailed development plan and operational statistics for the Proposed Project became available. NYPD response times are not expected to be significantly affected by the projected increases in traffic generated by the Proposed Project. Therefore, the Proposed Project would not alter the 1992 FEIS findings that development would not result in significant adverse impacts to police protection services.

The Proposed Project also would not result in any direct effects to Fire Department (FDNY) or Emergency Medical Services (EMS) facilities. Like the NYPD, FDNY does not allocate personnel based on proposed or potential development; in the Future With the Proposed Project,

FDNY would evaluate the need for personnel and equipment and make necessary adjustments to adequately serve the area. FDNY response times are not expected to be significantly affected by the projected increases in traffic generated by the Proposed Project. Therefore, the Proposed Project would not alter the 1992 FEIS findings that development would not result in significant adverse impacts to fire protection or emergency medical services.

OPEN SPACE

The Proposed Project would not have a direct effect on any nearby study area open spaces. The Proposed Project would create a total of 2.75 acres of new privately owned, publicly accessible open spaces on the project site. For analysis purposes, it is assumed that 2.66 acres would be for passive recreation and 0.09 acres would be for active recreation.[1] It is anticipated that its features would include landscaped and plaza areas. Connections would be made throughout the open space to adjacent streets and to Riverside Park South. The Proposed Project's publicly accessible open space would function as an integral part of the overall project and would provide respite for people who would live and work within the project site and in the surrounding neighborhood. In total, approximately one-third of the 8.18-acre site would be developed as open space.

Table S-6 provides a summary of the changes to study area open space ratios in the Future Without and With the Proposed Project. As shown in the table, the Proposed Project would decrease open space ratios in the commercial (¼-mile) study area: it would decrease the passive open space ratio for workers by approximately 1.7 percent, and decrease the passive open space ratio for the total population (workers and residents) by 1.3 percent. The open space ratios for the commercial study area would continue to exceed the recommended city guidelines.

Within the residential (½-mile) study area, the Proposed Project would result in a slight increase (0.1 percent) in the passive open space ratio for residents, and the ratio would remain at 0.60, which is well above the DCP open space guideline (see **Table S-6**). The Proposed Project would improve the passive ratio for the total population by 2.5 percent, nearly achieving the DCP open space guideline for the study area.

The Proposed Project would decrease active open space ratios in the residential (½-mile) study area. The total open space ratio for the residential population—which factors both passive and active open space—would decrease by 1.8 percent, and the active open space ratio for the residential population would decrease by 6.1 percent. The qualitative assessment indicates that the availability of open spaces outside the study area would to a large extent alleviate the burden on the study area's open spaces. Nonetheless, given the size of the decrease in the active open space ratio and the already high utilization of many of the active open space resources that would be available to the users in the Future With the Proposed Project, both within and outside the study area, the Proposed Project would result in a significant adverse active open space impact.

[1] For purposes of CEQR open space analyses, open space that is used for relaxation, such as sitting or strolling, is classified as "passive open space." Open space that is used for sports, exercise, or active play is classified as "active open space."

Table S-6
2018 Future With the Proposed Project: Open Space Ratios Summary

Ratio	DCP Open Space Guideline	Open Space Ratios			Percent Change
		Existing Conditions	Future Without the Proposed Project	Future With the Proposed Project	Future Without to Future With the Proposed Project
Commercial (1/4-Mile) Study Area					
Passive/Workers	0.15	1.20	1.51	1.48	-1.7%
Passive/Total Population	Weighted 0.34 / 0.35 / 0.35* Existing/No Build/Build	0.54	0.63	0.62	-1.3%
Residential (1/2-Mile) Study Area					
Total/Residents	2.5	0.87	0.88	0.86	-1.8%
Passive/Residents	0.5	0.61	0.60	0.60	0.1%
Passive/Total Population	Weighted: 0.33 / 0.34 / 0.35* Existing/No Build/Build	0.32	0.33	0.34	2.5%
Active/Residents	2.0	0.27	0.27	0.26	-6.1%

Notes: Ratios in acres per 1,000 people.
* Weighted average combining 0.15 acres per 1,000 non-residents and 0.50 acres per 1,000 residents. Because this guideline depends on the proportion of non-residents and residents in the study area's population, it is different for existing, No Build, and Build conditions. Each of these ratios is listed in this table.

SHADOWS

The Proposed Project would cast new shadows on some surrounding publicly accessible open spaces, including Riverside Park South, the Parcel "O" open space at Riverside South, and the Amsterdam Houses playground, West End Towers open space, as well as certain areas of the Hudson River. Incremental shadow from the Proposed Project would also remove all remaining sunlight for longer than 10 minutes on an analysis day at the Parcel O Plaza and the West End Towers open spaces. The Proposed Project would also, in comparison with the wider and shorter buildings that could be constructed under the No Build Scenario, result in less shadow being cast on some areas of Riverside Park South and the Hudson River. The analysis concluded that in no case was the extent and duration of incremental shadow substantial enough to cause a significant adverse impact, taking into account, among other things, utilization and accessibility of the affected resources, time of year that the effect would occur, and availability of similar sunlit resources.

HISTORIC RESOURCES

ARCHAEOLOGICAL RESOURCES

Archaeological documentary studies conducted with respect to Parcel N identified two areas of potential precontact sensitivity (as disclosed in the 1992 FEIS) and those conclusions have not changed as a result of the Proposed Project. To determine if archaeological resources are present, Phase 1B archaeological testing will be carried out in these archaeologically sensitive areas. Prior to the initiation of Phase 1B investigations, a testing protocol will be submitted to LPC for review and approval. Testing will be undertaken in consultation with LPC. If no

resources of significance are encountered, no further archaeological study would be warranted. Should any resources of potential significance be found, further testing would be undertaken in consultation with LPC to identify the boundaries and significance of the find. If required, data recovery would be undertaken in consultation with LPC. With implementation of all of the above measures which will be incorporated into the Restrictive Declaration, there would be no significant adverse impacts on archaeological resources.

ARCHITECTURAL RESOURCES

The Proposed Project would result in new construction within 90 feet of the Consolidated Edison Power House (heard, New York City Landmark [NYCL], State/National Register [S/NR]-eligible). Therefore, the Proposed Project would comply with LPC's *Guidelines for Construction Adjacent to a Historic Landmarks* as well as the guidelines set forth in section 523 of the *CEQR Technical Manual* and the procedures set forth in New York City Department of Buildings (NYCDOB) *Technical Policy and Procedure Notice* (TPPN) #10/88. This includes preparation of a Construction Protection Plan (CPP), to be prepared prior to demolition and construction activities, which would be submitted to LPC for review and approval. The other architectural resources—the Amsterdam Houses and the Hudson River Bulkhead—are located more than 90 feet away from the project site and would not be expected to be adversely affected by the Proposed Project's construction-related activities.

The Proposed Project would not result in any significant contextual impacts to architectural resources. The Consolidated Edison Power House (heard, NYCL, S/NR-eligible) and the Amsterdam Houses (an S/NR-eligible complex, with two buildings on West End Avenue that are located within the study area) exist in a mixed context that includes structures small and old, tall and of contemporary design, including completed portions of Riverside South. The Proposed Project would be in keeping with this evolving context. In addition, the Proposed Project would not block any significant views to either resource. Both the Consolidated Edison Power House and the Amsterdam Houses would remain visible from the public streets that surround them. In addition, since the power house's stack is located along the West 58th Street portion of the building, and West 59th Street separates the power house from the project site, there would be a visual break between the proposed buildings and the stack, allowing this industrial element to continue to be viewed as part of the power house. There would be no contextual effects to the Hudson River bulkhead, since the Proposed Project would not affect its physical appearance or visibility.

URBAN DESIGN AND VISUAL RESOURCES

PROJECT SITE

Urban Design

The proposed buildings would be taller than those envisioned in No Build Scenarios 1 and 2 and would have faceted—rather than rectilinear—massings. The buildings to be developed in No Build Scenarios 1 and 2 would also be built to the property line, compared with the Proposed Project, which would be set back behind landscaped areas on Riverside Boulevard, the west side of Freedom Place South, and portions of West 59th Street and West End Avenue. The design of the proposed buildings would be governed by new General Large-Scale Development (GLSD) Special Permit approvals; in comparison, the two No Build Scenarios would be governed by the site's existing GLSD Special Permit provisions. The mix of uses on the site would be different

with the Proposed Project than with No Build Scenarios 1 or 2, and the density of development on the site would be greater than No Build Scenario 1 by approximately 268,426 gsf. Since Parcel N would remain in its current state under No Build Scenario 2, rather than be developed along with the remainder of the site, the density of development with the Proposed Project would be greater than No Build Scenario 2 by approximately 2,774,379 gsf.

The Proposed Project would create new block forms, splitting the project site into three smaller blocks. This is different from the block forms in No Build Scenarios 1 and 2, in which the current superblock would remain. The Proposed Project would also extend the street pattern of the surrounding area through the project site. Neither of the No Build Scenarios would create any new open space on the project site. In comparison, with the Proposed Project approximately 2.75 acres of the 8.18-acre site would be developed as publicly accessible open space, organized around West 60th Street.

The streetscape elements of the project site would improve in the Future Without or With the Proposed Project, as currently there are just a few scattered, small- and medium-size trees near the edges of the site and along the rail culvert, and numerous electrical wires loop overhead. The Proposed Project would include benches, seat walls, street lighting, and street trees, and a variety of other landscaping and open space features. There are no significant natural features on the project site in existing conditions, and this would not change in the Future Without or With the Proposed Project; however, the Proposed Project would provide a pedestrian connection from West 60th Street to Riverside Park South and the Hudson River via a path linking to the park's access staircase at West 61st Street.

In summary, like No Build Scenario 1 and, to a much lesser extent, No Build Scenario 2, the Proposed Project would transform the project site from an underutilized site containing parking facilities to a high-density, mixed-use development. The Proposed Project would enliven the site with new residents and retail shoppers and workers and the new publicly accessible open space, and would provide new connections to surrounding open spaces and natural features. The differences in building uses, bulk, and arrangements compared with the No Build Scenarios would not have a significant adverse effect on the project site's urban design.

With the incorporation of extensive landscaping features into the Proposed Project's open space plan, pedestrian wind conditions that would exceed the safety criteria used for the Proposed Project would be experienced at only one on-site and one off-site location during the winter season. These conditions would be similar to those at comparable locations in the City. The number of locations and the frequency of these wind conditions would also be reduced from those on and around the project site in Existing Conditions and in the Future Without the Proposed Project. The proposed open space plan balances the goal of minimizing elevated pedestrian wind conditions with urban design considerations, including the goals of maintaining view corridors, maximizing views to the Hudson waterfront, maintaining pedestrian circulation and access, and not impeding or blocking circulation and access for emergency service vehicles. Therefore, no significant adverse urban design impacts would result from potential pedestrian wind conditions.

Visual Resources

As with No Build Scenarios 1 and 2, the development of new structures on the project site would eliminate some existing views to the Hudson River and the New Jersey Palisades from within the project site itself; however, these views would still be maintained from adjacent sidewalks. Furthermore, by preserving the westward view corridor along West 60th Street, the Proposed

Project would maintain existing views along this corridor to the waterfront. By extending Freedom Place South through the project site, the Proposed Project would also maintain existing views south along that corridor through the project site to the Consolidated Edison Power House. These views would be maintained in No Build Scenario 2—since Parcel N would remain in its current undeveloped state—but would not be maintained in No Build Scenario 1. Therefore, in comparison to No Build Scenarios 1 and 2 the Proposed Project would not have a significant adverse effect on visual resources from the project site.

STUDY AREAS

Urban Design

Although the Proposed Project would introduce a higher-density development and a different mix of uses compared with No Build Scenarios 1 and 2, these uses and densities would be compatible with the existing and anticipated uses of buildings in the study areas. In addition, the proposed residential uses would complement the ongoing development of the Riverside South parcels to the north, and the proposed retail and publicly accessible open space uses would serve the growing Riverside South neighborhood as well as the emerging neighborhoods to the south and immediately to the east. At 31 to 44 stories (393 to 535 feet tall), the proposed buildings would be taller than most of the buildings in the primary study area; however, this area already contains a number of tall, modern towers ranging in height up to 39 stories (and up to 400 feet tall), including: the 16- and 39-story (up to 361-foot-tall) West End Towers development, along West End Avenue north of West 61st Street; the Helena, a 37-story (350-foot-tall) residential building at the northwest corner of Eleventh Avenue and West 57th Street (601 West 57th Street); and the 31-story (400-foot-tall) residential building at 10 West End Avenue. Since the 1992 FEIS, a large number of tall buildings have been built in the surrounding area. Within the secondary study area, these include towers of a comparable height to the Proposed Project, including buildings of over 40 and 50 stories (up to 750 feet tall).

Like No Build Scenarios 1 and 2, the Proposed Project would not change any block forms, street patterns, or street hierarchies in the primary or secondary study areas, except on the project site itself. Most of the buildings in the study areas, including new developments, are rectilinear in their massing, rather than faceted like the proposed buildings. However, there are several structures in the study areas with curved façades, and the Hearst Tower—at the southwest corner of Eighth Avenue and West 57th Street—has a diamond-patterned faceted glass façade. Therefore, this difference would not be considered a significant adverse effect of the Proposed Project. The proposed buildings would create new streetwalls along portions of West 61st Street, the east side of Freedom Place South, and portions of West End Avenue, West 59th Street, and West 60th Street, although in some cases these new streetwalls would not meet the street line. The modern buildings in the study areas are of contemporary design and are mainly faced in glass, stone, and metal; therefore, the expected contemporary design and materials of both the No Build Scenarios and the Proposed Project would be consistent with a large portion of buildings in the surrounding area. Neither the No Build Scenarios nor the Proposed Project would change any streetscape elements in the study areas.

Compared with the No Build Scenarios, the Proposed Project would create a new open space that would complement the waterfront parks and De Witt Clinton Park in the study areas, and would enhance access to Riverside Park South and the area's predominant natural feature, the Hudson River. Therefore, compared with the No Build Scenarios, the Proposed Project would not have a significant adverse effect on the urban design characteristics of the study areas.

Visual Resources

Views of the Consolidated Edison Power House from the north along West End Avenue and from Riverside Park South, though still available, would be more limited with the development of the Proposed Project; however, these views would also be limited with the development of No Build Scenario 1 and, to a lesser extent, No Build Scenario 2. Views of the power house's smokestack from locations farther north are already obstructed by changes in topography and existing structures, including already built portions of the Riverside South development. Compared with No Build Scenario 1, the Proposed Project—by extending Freedom Place South through the project site to West 59th Street—would provide views along this street south to the power house.

Riverside Park South would continue to provide expansive views of the Hudson River and the New Jersey Palisades in the Future With the Proposed Project; these views would also be available from the newly created Riverside Boulevard between West 59th and West 61st Streets with the Proposed Project as well as the No Build Scenarios. Unlike No Build Scenario 1, which would completely obstruct the westward view corridor along West 60th Street, the Proposed Project would maintain existing views along this street to the waterfront. Both the Proposed Project and the No Build Scenarios would contribute to the modern visual character of the view corridors along West End Avenue and Riverside Boulevard, and in views from areas farther east, where the proposed buildings would be visible amidst other tall structures. The proposed buildings would generally extend existing and frame newly created view corridors.

In summary, the Proposed Project—compared with No Build Scenarios 1 and 2—would not have a significant adverse impact on visual resources in or visible from the study areas.

NEIGHBORHOOD CHARACTER

On the whole, the Proposed Project would introduce new populations, create affordable housing units, and enhance publicly accessible open space in order to meet the growing demands of the surrounding neighborhoods. The Proposed Project would not significantly adversely affect the combined elements contributing to the neighborhood character of the study area. With the exception of the traffic impacts at Twelfth Avenue at West 52nd, 54th, and possibly 56th Street, mitigation measures which, if implemented, would fully mitigate significant adverse pedestrian and traffic impacts. (Mitigation for the Twelfth Avenue and West 56th Street intersection has been proposed and is currently being reviewed by the New York State Department of Transportation (NYSDOT). However, if NYSDOT decides to not implement the mitigation measure proposed for this intersection, then the significant impacts at this intersection would remain unmitigated.) Although the Proposed Project would result in a significant adverse active open space impact, this impact would not substantially affect the character of the neighborhood.

Taking into consideration the effects of the Proposed Project on the contributing elements that contribute to neighborhood character above, the Proposed Project would not have a significant adverse impact on neighborhood character.

NATURAL RESOURCES

The Proposed Project would not involve construction activities in or immediately adjacent to the Hudson River and would not result in any significant adverse impacts on terrestrial plant communities or wildlife, or on floodplains, wetlands, water quality or aquatic biota in the Hudson River. The Proposed Project would involve the construction of five buildings, while No

Build Scenario 1 would consist of three buildings and No Build Scenario 2 would consist of two buildings. The buildings in the Proposed Project would also be taller than the buildings for either of the No Build Scenarios, resulting in a greater potential for bird collisions. However, the buildings of the Proposed Project are comparable to buildings elsewhere in Manhattan and would not be expected to result in significant adverse impacts on migratory bird populations due to nighttime bird strikes. The building usage also differs between the Proposed Project and No Build Scenarios, with more residential space indicated for the Proposed Project. As a result, the Proposed Project would produce more sanitary sewage and a higher water demand than either No Build Scenario. However, these increases would not be expected to significantly affect natural resources. Potential benefits to natural resources that would result from the Proposed Project include modestly improved habitat for birds and other wildlife within the waterfront park and other open space areas. Therefore, the Proposed Project would not result in significant adverse environmental impacts on natural resources.

GROUNDWATER

Construction and operation of the Proposed Project would not result in any significant adverse impacts on groundwater. Groundwater is not used as a source of drinking water in Manhattan.

WETLANDS

No construction would occur in or immediately adjacent to the Hudson River as a result of the Proposed Project. Implementation of the stormwater pollution prevention plan (SWPPP), prepared in accordance with NYSDEC State Pollutant Discharge Elimination System (SPDES) "General Permit for Stormwater Discharges from Construction Activity," Permit No. GP-0-10-001, would minimize the potential for discharge of stormwater generated within the project site to result in any significant adverse environmental impacts on NYSDEC littoral zone tidal wetlands designated within the Hudson River.

FLOODPLAINS

Unlike fluvial flooding, which is affected by activities within the floodplain of a river, coastal flooding is influenced by astronomic tide and meteorological forces, and is not affected by activities within the floodplain. Therefore, the Proposed Project would not adversely affect flooding of areas adjacent to the project site.

A portion of the western area of the project site is located within the 100-year floodplain, which is affected by coastal flooding. However, all five of the proposed buildings within the project site would be constructed on a platform at about the elevation of the West End Avenue grade, which is well above the existing 100-year floodplain, as well as the New York City Panel on Climate Change (NPCC) projected flood elevation associated with the current 100-year storm due to sea level rise in the 2020s. Any development that would be consistent with Appendix G: "Flood Resistant Construction," of the *New York City Building Code* which specifies that the elevation of the lowest floor be at least one foot above the 100-year floodplain. The below-grade area below the platform for all-on-site structures would be waterproofed and designed to withstand the hydrostatic pressure exerted by groundwater during a 100-year flood event, consistent with the *New York City Building Code*. Therefore, the design for these structures would minimize the potential for public and private losses due to flood damage under current and projected flood conditions, and no significant adverse impacts are expected.

TERRESTRIAL RESOURCES

The Proposed Project would not result in significant adverse impacts on terrestrial resources at the project site. The majority of the project site is either covered with impervious surface or undergoing disturbance due to construction activities. As a result, little vegetation is present on the project site and is limited to street plantings (ornamental species such as ginko), invasive tree species (e.g., tree-of-heaven, royal pawlonia), and common non-native herbaceous vegetation growing on excavated material, and wildlife are limited to common species tolerant of these urban habitats (native species such as Eastern gray squirrel, American kestrel, and non-native wildlife species such as European starling). The Proposed Project would adversely affect these limited plant and wildlife resources due to removal of existing vegetation and displacement of wildlife using the project site during excavation, grading, land clearing, and platform construction. The loss of these plants and adverse impacts on some wildlife individuals would not result in a significant adverse impact on terrestrial resources of the New York City metropolitan region.

The Proposed Project would create 2.75 acres of new publicly accessible open space that was not part of the development program evaluated in the 1992 FEIS, and would provide a street-level connection to open space areas of Riverside Park South along the Hudson River to the west of the project site. Landscaping of these open space areas with a variety of native and ornamental trees, shrubs, grasses, and herbaceous perennials would benefit wildlife resources by providing improved habitat for urban wildlife, including migratory songbirds, small mammals, and butterflies.

AQUATIC RESOURCES

The Proposed Project would not result in significant adverse impacts on water quality and aquatic biota of the Hudson River. No construction activities would occur in or immediately adjacent to the Hudson River during the construction of the Proposed Project. Implementation of the SWPPP prepared in accordance with the NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity Permit No. GP-0-10-001 during construction would minimize the potential for adverse impacts on aquatic resources of the Hudson River during construction of the Proposed Project.

Although additional discharge of sanitary sewage would occur with the additional residential and commercial development when compared with the No Build Scenarios, the incremental increase (0.81 million gallons per day [mgd]) is small and would not be expected to cause the North River Water Pollution Control Plant (WPCP) to be above its permitted daily flow limit of 170 mgd or adversely affect compliance of the North River WPCP effluent with the SPDES permit limits. Consistent with the project as evaluated in the 1992 FEIS, new sanitary sewers would be extended to the project site. The discharge of the incremental increase in sanitary sewage from the Proposed Project to existing trunk and interceptor sewers would not change the conclusion of the 1992 FEIS that no significant adverse impacts on the sanitary sewer system would result from the development of the Riverside South project.

Under the existing condition, stormwater generated within the project site is discharged to the combined sewer system. As part of the 1992 FEIS, an Amended Drainage Plan was reviewed and approved by DEP. The Amended Drainage Plan established a separate stormwater system serving Parcels L, M, and N, except for 100 feet of street frontage along West End Avenue and West 59th Street. Under the existing condition, stormwater runoff from the project site is discharged to the combined sewer system. With the Proposed Project, stormwater runoff from

the project site would be discharged to the new 61st Street storm sewer being constructed as part of the Amended Drainage Plan. In accordance with the Amended Drainage Plan, the new 61st Street storm sewer will discharge to the existing DEP outfall on 66th Street, downstream of the regulator.

Volumes to the combined sewer system are expected to increase due to the projected sanitary volumes, which during certain storm events, may exacerbate combined sewer overflow (CSO) volumes into the Hudson River. However, with new separate storm sewers, additional water conservation and stormwater management measures, and the considerable assimilative capacity of the Hudson River to quickly disperse pollutants, no significant adverse impacts on the aquatic resources of the Hudson River are expected to occur from the Proposed Project.

SIGNIFICANT COASTAL FISH AND WILDLIFE HABITAT

The Proposed Project would not involve any construction activities in or immediately adjacent to the Hudson River, and would not result in significant adverse impacts on water quality. Therefore, the Proposed Project would not result in significant adverse impacts on Significant Coastal Fish and Wildlife Habitats within the lower Hudson River.

RARE, SPECIAL CONCERN, THREATENED AND ENDANGERED SPECIES

Rare, special concern, threatened, endangered, and candidate species with the potential to occur within the vicinity of the project site are limited to aquatic species that are likely transient. No construction activities would be conducted in or immediately adjacent to the Hudson River as part of the Proposed Project, and increases in sanitary sewage and stormwater discharge would not result in a significant adverse impact on water quality. Therefore, the Proposed Project would not result in significant adverse impacts on state- and federally listed sturgeon species (as identified by regulatory agencies as occurring in the vicinity of the project site).

HAZARDOUS MATERIALS

Environmental investigations of the site conducted between 1987 and 2009 indicated that urban fill, which exists throughout the site in varying thicknesses (approximately 10 to 35 feet), contains elevated concentrations of some volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs) and metals. Soil VOC concentrations were generally well below NYSDEC Part 375 standards, and the detected concentrations did not appear to indicate petroleum contamination on-site, but rather were likely associated with the urban fill materials and creosote-treated wood. PCBs were only detected in a few samples (and at low levels) and are attributable to the urban fill as are the detected levels of SVOCs and metals.

Groundwater samples contained concentrations of metals and occasionally SVOCs above NYSDEC Class GA Ambient Water Quality Standards (drinking water standards), likely due to suspended sediment in the samples. Detected VOC concentrations were generally below Class GA standards, except two VOCs (acetone and p-isopropyltoluene) detected above Class GA standards in one groundwater sample each during the 2009 Phase II study. The detected concentrations of VOCs in groundwater appeared to be due to off-site sources and/or urban fill beneath the site, and did not appear to indicate on-site petroleum contamination.

As discussed in more detail in Sections E and F, soil would be disturbed in both No Build Scenarios and with the Proposed Project. The incremental soil disturbance due to the Proposed Project would be primarily focused on Parcel N.

Because of the known and potential subsurface contamination, remedial measures would be undertaken to avoid adverse impacts during excavation for the Proposed Project. These would include conducting soil disturbance under a new New York City Mayor's Office of Environmental Remediation (OER)-approved Remedial Action Plan (RAP) and an updated Construction Health and Safety Plan (CHASP), proper handling and disposal of excavated soil, and implementing other practices to protect workers and the surrounding neighborhood. In addition, the buildings would be constructed with waterproofing which would also serve as a vapor barrier to any remaining VOCs or methane. With these measures, as set forth in the Restrictive Declaration that will be recorded as part of the Proposed Project, no significant adverse impacts would result during or after construction as a result of the potential disturbance of any hazardous materials.

WATERFRONT REVITALIZATION PROGRAM

As described below, the Proposed Project would be consistent with the city's 10 WRP policies and the WRP's goals for enlivening the waterfront and attracting the public to the city's coastal areas. The Proposed Project would transform the project site from an underutilized site within the city's coastal area to a high-density, mixed-use development with approximately 2.75 acres of new publicly accessible open space. It would enliven the site with users of the additional ground-floor retail and publicly accessible open space, and would provide new pedestrian connections to surrounding open spaces and natural features within the coastal area. Existing westward views to the Hudson River would be maintained along West 60th Street, and would still be available from most adjacent sidewalks. By extending Freedom Place South through the project site to create a north-south street, existing views south through the project site to the Consolidated Edison Power House (pending as a New York City Landmark [NYCL], State and National Registers of Historic Places [S/NR-eligible]) would be maintained.

While the Proposed Project would provide approximately 2.75 acres of publicly accessible open space, it would nevertheless result in a significant decrease in the active open space ratios due to the introduction of residents in the larger residential study area surrounding the project site. The decrease in active open space ratio would result in a significant adverse indirect impact on active open space. However, passive open space available in the study area would increase with the Proposed Project.

The Proposed Project would not involve construction activities in or immediately adjacent to the Hudson River. The discharge of stormwater generated within the project site to the Hudson River through an existing DEP outfall would not result in significant adverse impacts on aquatic resources. The discharge of sanitary sewage generated by the Proposed Project would not result in significant adverse impacts on city infrastructure. The Proposed Project would not result in significant adverse impacts on terrestrial plants or animals. Landscaping within the proposed open space areas would benefit wildlife resources by providing higher quality habitat for wildlife than currently found within the project site.

Although the Proposed Project would create new demand for the disposal of solid waste, municipal and private solid waste services would have adequate capacity to meet these increases in demand. Therefore, the Proposed Project would not result in any significant adverse impacts on solid waste and sanitation services.

Any hazardous materials encountered during construction activities would be handled and removed in accordance with a new OER-approved Remedial Action Plan (RAP) and an updated Construction Health and Safety Plan (CHASP) prepared for the Proposed Project.

The Proposed Project would result in new construction within 90 feet of the Consolidated Edison Power House (heard, NYCL, S/NR-eligible). Therefore, the Proposed Project would comply with LPC's *Guidelines for Construction Adjacent to a Historic Landmarks* as well as the guidelines set forth in section 523 of the *CEQR Technical Manual* and the procedures set forth in NYCDOB *Technical Policy and Procedure Notice* (TPPN) #10/88. The Proposed Project would disturb potential subsurface prehistoric remains on Parcel N. To determine if archaeological resources are present, Phase 1B archaeological testing would be carried out in the archaeologically sensitive areas as required by the Restrictive Declaration that will be recorded in connection with the proposed zoning actions. Prior to the initiation of Phase 1B investigations, a testing protocol would be submitted to LPC for review and approval. If no resources of significance are encountered, no further archaeological study would be warranted. Should any resources of potential significance be found, further testing would be undertaken in consultation with LPC to identify the boundaries and significance of the find. If required, data recovery would be undertaken in consultation with LPC. With implementation of all of the above measures which will be incorporated into the Restrictive Declaration, there would be no significant adverse impacts on archaeological resources.

INFRASTRUCTURE

The Proposed Project would not result in any significant adverse impacts related to infrastructure in terms of water supply, sanitary sewage, or stormwater runoff.

WATER SUPPLY

Water demands of the Proposed Project would not overburden the city's water supply system. Based on the *CEQR Technical Manual*, the 1,341,172 gallons per day (gpd) of total water demand from the Proposed Project (which represents about 0.13 percent of the city's water demand) would not adversely affect the capacity of the city's water supply system in providing water to the Proposed Project site; nor would it impact water pressure for local users.

SANITARY SEWAGE AND STORMWATER

The North River WPCP is designed to treat a dry weather flow of 170 million gallons per day (mgd). Conservatively assuming an average flow of approximately 136 mgd to the North River WPCP in the year 2018 without the Proposed Project, the additional contribution of 810,811 gpd (0.81 mgd) with the Proposed Project (which is equivalent to approximately 0.5 percent of the current sewage flow handled by the North River WPCP) would be negligible and the average flow to the North River WPCP would remain well within its New York State Pollution Discharge Elimination System (SPDES) permit limit of 170 mgd. In addition, the North River WPCP would continue to be able to meet the pollutant removal parameters of its SPDES permit.

Currently, runoff from the project site is discharged into the combined sewer. With the Proposed Project, all of the stormwater runoff would be discharged into the new separate stormwater system, which would discharge into the existing DEP outfall at the street end of West 66th street.

Due to the increase of sanitary sewage generated on the project site, the volume of sanitary sewage discharged into the combined sewer system from the project site would increase. This would not adversely impact the North River WPCP, as there is sufficient capacity at regulator NR-N29A to accommodate the increase in sanitary flows from the Proposed Project. In addition, with new separate storm sewers, additional water conservation and stormwater management measures, and the considerable assimilative capacity of the Hudson River to quickly disperse pollutants, no significant adverse water quality impacts would be expected from the Proposed Project.

SOLID WASTE AND SANITARY SERVICES

The Proposed Project would result in a net increase of approximately 85,773 pounds per week or 6 tons per day (tpd) over No Build Scenario 1 conditions, or 225,580 pounds per week (16 tpd) over No Build Scenario 2 conditions. These increases are insignificant compared with the approximately 30,000 tpd currently generated in New York City. Although the Proposed Project would create new demand for the disposal of solid waste, municipal and private solid waste services would have adequate capacity to meet these increases in demand. Therefore, the Proposed Project would not result in any significant adverse impacts on solid waste and sanitation services.

ENERGY

The Proposed Project would not have a significant adverse impact on energy supply and distribution systems. The Proposed Actions would result in increased energy demands of approximately 475,932 million British Thermal Units (BTUs) per year. Compared with No Build Scenario 1, the Proposed Project would create an incremental energy demand of approximately 101,129 million BTUs per year. Compared with No Build Scenario 2, the Proposed Project would create an incremental energy demand of approximately 383,995 million BTUs. This additional demand is not expected to overburden the energy generation, transmission, and distribution system and would not result in a significant adverse energy impact.

TRAFFIC AND PARKING

The effects of the Proposed Project on area traffic and parking conditions were analyzed during the weekday AM, weekday midday, weekday PM, and Saturday midday peak periods. Overnight conditions for parking were also considered for this predominantly residential project. The traffic analysis found that the Proposed Project would generate 657, 727, 811, and 899 vehicles per hour (vph), in the weekday AM, weekday midday, weekday PM, and Saturday midday peak hours respectively. This increased travel demand would result in significant adverse traffic impacts during one or more time periods at 24 intersections. Specifically, significant traffic impacts would occur at 17, 13, 12, and 13 intersections during the weekday AM, weekday midday, weekday PM, and Saturday midday peak hours, respectively. Mitigation measures to address these traffic impacts are described below in "Mitigation."

The parking analysis found that the Proposed Project would generate peak parking demand of 1,374 spaces. That demand, along with the parking demand for some of the displaced parkers currently using the project site, would be accommodated within the Proposed Project's 1,800-space garage. The remainder of the displaced parkers would be accommodated in nearby parking facilities. This would increase the 2018 parking utilization rate within the ¼-mile study area to approximately 102.3 percent during the weekday midday, 90.9 percent during the overnight, and

80.4 percent during the Saturday midday peak periods. Since there would not be sufficient capacity available at public parking facilities within ¼ mile of the project site to accommodate project-generated parking demand as well as displaced parkers during the weekday midday, a secondary study area analysis of parking facilities within ½ mile was conducted. Within ½ mile of the project site there would be sufficient parking to accommodate project-generated parking demand as well as displaced parkers and the 2018 parking utilization would be approximately 93.4 percent during the weekday midday. Therefore, no parking shortfall would be anticipated.

TRANSIT AND PEDESTRIANS

SUBWAY SERVICE

The Proposed Project would generate a total of approximately 937 and 1,299 new subway trips (in and out, combined) during the weekday AM and PM peak hours, respectively. All of these trips are expected to utilize A, B, C, D, and No. 1 train services at the 59th Street-Columbus Circle subway station located approximately ½ mile to the east of the project site. Approximately 20 percent of these subway trips are expected to utilize M57 local buses to travel between the subway station and the project site. However, the majority of project-generated subway trips are expected to walk to and from the station via the West 60th Street corridor. These trips would utilize entrance stairs at the northwest corner of West 60th Street and Broadway, on the Broadway median at West 60th Street, and on the east side of Broadway adjacent to the Trump International Hotel and Tower. The analysis of 2018 conditions with the Proposed Project at the 59th Street-Columbus Circle subway station indicates that all of these stairs would continue to operate at acceptable levels of service during both the weekday AM and PM peak hours, and adjacent fare arrays (turnstiles and exit gates) would continue to operate with available capacity in these peak hours. The Proposed Project would therefore not result in significant adverse subway station impacts in 2018 based on *CEQR Technical Manual* criteria.

In 2018 with the Proposed Project, all subway routes serving the 59th Street-Columbus Circle subway station would continue to operate within available peak direction capacity at their maximum load points during both the weekday AM and PM peak hours, and the Proposed Project would be expected to add no more than one additional peak direction passenger per car to any of these routes in either period. No significant adverse impacts to peak direction subway line haul service would be expected to result from the Proposed Project based on *CEQR Technical Manual* criteria.

BUS SERVICE

The Proposed Project would generate a total of approximately 254 new inbound trips and 286 new outbound trips on the M11, M31 and M57 local bus routes during the weekday AM peak hour and 500 inbound and 416 outbound during the weekday PM peak hour. These trips include the approximately 20 percent of project-generated subway trips that are expected to travel by bus to and from the 59th Street-Columbus Circle subway station. With this added demand, eastbound M31 and M57 buses would experience capacity shortfalls equivalent to 11 passengers and 143 passengers, respectively, during the weekday AM peak hour. During the weekday PM peak hour, northbound M11 and westbound M31 and M57 buses would experience capacity shortfalls equivalent to 36, 95, and 207 passengers, respectively. Based on current New York City Transit (NYCT) guidelines, the Proposed Project would therefore result in significant adverse impacts to eastbound M31 and M57 service during the weekday AM peak hour, and northbound M11 and westbound M31 and M57 service during the weekday PM peak hour. As

standard practice, NYCT routinely conducts ridership counts and adjusts bus service frequency to meet its service criteria, within fiscal and operational constraints. Mitigation measures to alleviate these significant impacts are discussed in "Mitigation."

PEDESTRIANS

New pedestrian demand generated by the Proposed Project would include trips made solely by walking, as well as pedestrian trips en route to and from subway station entrances and bus stops. In total, the Proposed Project would add approximately 3,268 pedestrian trips (in and out combined) to study area sidewalks, corner areas and crosswalks during the weekday AM peak hour, 3,137 during the midday, 3,682 during the PM, and 3,817 during the Saturday midday peak hour. This new pedestrian demand is expected to be most concentrated on sidewalks and crosswalks immediately adjacent to the Proposed Project's entrances on West End Avenue and West 59th Street, and along West 60th Street, which would serve as the most direct route between the project site and the 59th Street-Columbus Circle subway station.

In 2018 with the Proposed Project, no analyzed sidewalks or corner areas would be significantly adversely impacted by project-generated pedestrian traffic based upon *CEQR Technical Manual* criteria. However, five crosswalks would be significantly adversely impacted in one or more peak hours. At the intersection of West 60th Street and Amsterdam Avenue, the north crosswalk would be significantly impacted during the AM and PM peak hours and the south crosswalk would be impacted during the AM, PM, and Saturday midday peak hours. The north and south crosswalks on Columbus Avenue at West 60th Street would be significantly impacted during the AM, PM, and Saturday midday peak hours, with the south crosswalk also being impacted during the weekday midday. At the intersection of West 59th Street and West End Avenue, the north crosswalk would be significantly impacted during the AM, PM, and Saturday midday peak hours. Mitigation measures to alleviate these significant impacts are discussed below in "Mitigation."

AIR QUALITY AND GREENHOUSE GAS EMISSIONS

The analyses conclude that the Proposed Project would not result in any significant adverse air quality impacts on sensitive uses in the surrounding community, and the new or existing sources of air emissions in the project area would not cause significant adverse air quality impacts on the Proposed Project. A summary of the general findings is presented below.

Concentrations of carbon monoxide (CO) and fine particulate matter less than 10 microns in diameter (PM_{10}) due to project-generated traffic at intersections near the Proposed Project site (the primary study area) and along main corridors outside the primary study area (the secondary study area) would not result in any violations of National Ambient Air Quality Standards (NAAQS). It was also determined that CO impacts from mobile sources associated with the Proposed Project would not exceed CEQR *de minimis* criteria, while incremental increases in fine particulate matter less than 2.5 microns in diameter ($PM_{2.5}$) would not exceed the city's current interim guidance criteria. Impacts due to the Proposed Project's parking facilities were found to result in no significant adverse air quality impacts.

Con Edison steam would be supplied to the Proposed Project's buildings to provide heating and domestic hot water, except that it was assumed that for Building 5, a natural gas fired boiler would be used to provide domestic hot water. Analysis of the emissions and dispersion of nitrogen dioxide (NO_2) and PM_{10} from this source indicates that such emissions would not result in violations of NAAQS. Emissions of $PM_{2.5}$ were analyzed in accordance with the city's current

$PM_{2.5}$ interim guidance criteria, which determined that the maximum incremental increases in $PM_{2.5}$ concentrations from stationary sources would be below the significant impact thresholds.

Nearby existing sources from manufacturing or processing facilities were analyzed for their potential impacts on the Proposed Project. The results of the industrial source analysis demonstrated that there would be no significant adverse air quality impacts on the Proposed Project.

The Proposed Project would result in the development of new residential and commercial uses in close proximity to Con Edison's existing West 59th Street Generating Station ("the 59th Street Station"), a steam plant which operates pursuant to and in compliance with federal and state air permitting requirements. Concentrations of pollutants from the Con Edison 59th Street Station were therefore estimated for their potential impacts on the Proposed Project.

Air quality dispersion modeling performed in connection with the preparation of this Final Supplemental Environmental Impact Statement (SEIS) demonstrate that concentrations of NO_2, sulfur dioxide (SO_2) and PM_{10} from the Con Edison 59th Street Station's approximately 500 foot boiler stack on the Proposed Project would not result in any violations of the NAAQS for these pollutants, and it was determined that incremental increases in $PM_{2.5}$ concentrations from the Con Edison boiler stack would not exceed the city's current interim guidance criteria that are applicable to the Proposed Project. As noted in the DSEIS, air quality screening studies conducted during project planning indicated that emissions from the Con Edison combustion turbine through the existing approximately 130-foot stack (GT001) at the 59th Street Station would exceed the City's current interim guidance criteria for $PM_{2.5}$ at elevated receptors along portions of building facades and would have the potential to affect air quality on the Proposed Project. However, air quality dispersion modeling performed in connection with the preparation of the DSEIS demonstrates that this potential problem can be eliminated if emissions from the combustion turbine are rerouted from the 130-foot high stack to the taller boiler stack. At the request of the project sponsor, Parsons Brinckerhoff has conducted an evaluation (Appendix F) which concludes that ducting the exhaust gases from the combustion turbine to the existing boiler stack (Stack 00001) is feasible, subject to the outcome of further engineering studies. Con Edison has advised the New York City Department of City Planning (DCP) that it concurs in this evaluation.

Implementation would be subject to the project sponsor performing the modifications at the 59th Street Station pursuant to an agreement with Con Edison that will address access, responsibility for costs and liabilities incurred as a result of this initiative, construction risks, and other issues. Con Edison entered into a non-binding Letter of Intent with the project sponsor indicating its willingness to enter into negotiations for that purpose. Implementation would also be subject to obtaining the necessary permits. Permitting actions would occur after the Uniform Land Use Review Procedure (ULURP) process.

The project sponsor and Con Edison are also considering another option that would address $PM_{2.5}$ emissions from the combustion turbine in a manner that is protective of the environment. That option is a fuel-switching option, which would involve the modification of the combustion turbine so that it would fire natural gas instead of kerosene for normal operation and testing. Under this option, natural gas would be delivered to the 59th Street Station via a dedicated pipeline that would be directly connected to a nearby gas transmission main. This change from kerosene to natural gas would have benefits that would not occur with the rerouting option, in that it would reduce $PM_{2.5}$ emissions by more than 80 percent, and would also have the benefit of reducing the emissions of other pollutants substantially. This option will be considered and analyzed further to determine its effectiveness in addressing the $PM_{2.5}$ impacts of the combustion

turbine, as an alternative to rerouting emissions from the combustion turbine to the existing boiler stack. In order for this option to be implemented as an alternative, the results of such analysis would need to be considered in a Technical Memorandum.

The Proposed Project's Restrictive Declaration would include provisions requiring completion of modifications related to the combustion turbine at the 59th Street Station to address elevated $PM_{2.5}$ levels at the Project buildings.

Concentrations of pollutants from commercial, institutional and large-scale residential developments within 400 feet of the Proposed Project Site were estimated for their potential impacts on the Proposed Project. It was determined that concentrations of NO_2, SO_2 and PM_{10} from these sources would not result in any violations of the NAAQS for these pollutants, and it was determined that incremental increases in $PM_{2.5}$ would not exceed the city's current interim guidance criteria.

In addition, potential cumulative impacts from the Con Edison 59th Street Station and commercial, institutional and large-scale residential developments within 400 feet of the Proposed Project Site were estimated for their potential impacts on the Proposed Project. It was determined that maximum concentrations of NO_2, SO_2 and PM_{10} would not result in any violations of the NAAQS for these pollutants, and it was determined that incremental increases in $PM_{2.5}$ would not exceed the city's current interim guidance criteria.

Existing and proposed developments near the Proposed Project site were evaluated to assess whether the Proposed Project's effect on plume dispersion from the Con Edison 59th Street Station would result in any significant adverse air quality impact. The results of the analysis determined that the Proposed Project would not result in any significant adverse air quality impacts with respect to emissions from the Con Edison 59th Street Station on existing and proposed buildings within 400 feet of the Proposed Project Site. Concentrations of NO_2, SO_2, and PM_{10} from the Con Edison 59th Street Station, when added to background concentrations, would not exceed NAAQS, and incremental increases in $PM_{2.5}$ concentrations would not exceed the city's interim guidance criteria.

As previously mentioned, NO_2 concentrations due to emissions from large stationary sources in the area would not be expected to have any significant adverse air quality impacts at the project site. At the present time there are not sufficient data and established technical analysis techniques to determine reliably whether concentrations due to emissions from mobile sources in the project study area would be above or below the 1-hour standard in the Build condition. However, the traffic associated with the Proposed Project is not expected to change NO_2 concentrations appreciably, since the vehicular traffic associated with the Proposed Project would be a very small percentage of the total number of vehicles in the area. The NO_2 emissions associated with equipment that would be used in project construction are typical of emissions at other projects involving large-scale, long-term and intensive construction activities. Exceedances of the 1-hour NO_2 standard resulting from such activities cannot be ruled out and, as discussed in Chapter 20, "Construction," certain measures would be implemented by the Proposed Project in order to minimize emissions from construction activities.

GREENHOUSE GAS EMISSIONS

Overall, the site selection, the dense and mixed-use design, the commitment to achieve a significant reduction in energy use, and other measures incorporated in the Proposed Project would result in lower GHG emissions than would otherwise be achieved by similar residential

and commercial uses, and, thus, would advance New York City's GHG reduction goals as stated in PlaNYC.

The annual GHG emissions from the Proposed Project are predicted to be approximately 49,679 metric tons of carbon dioxide equivalent. This does not represent a net increment in GHG emissions, since similar GHG emissions would occur if residential units and associated uses were to be constructed elsewhere, and could be higher if constructed with less energy efficiency, as lower density residential, further from employment and commercial uses, and/or with less immediate access to transit service.

NOISE

The analysis concludes that traffic generated by the Proposed Project would not be expected to result in any significant increases in noise levels. Furthermore, to meet CEQR interior noise level requirements, the analysis prescribes between 28 and 39 A-weighted decibels (dBA) of building attenuation for project buildings. Noise levels in the newly created open spaces would be greater than the 55 dBA $L_{10(1)}$ prescribed by CEQR criteria, but would be comparable to other parks around New York City.

CONSTRUCTION

LAND USE AND NEIGHBORHOOD CHARACTER

The inconvenience and disruption arising from the construction would include temporary diversions of pedestrians, vehicles, and construction truck traffic to other streets. No one location on-site would be under construction for the full eight years. Throughout the construction period, access to surrounding residences, businesses, institutions, and waterfront uses in the area would be maintained. In addition, throughout the construction period, measures would be implemented to control noise, vibration, and dust on the construction sites and minimize impacts on the surrounding areas. These measures would include the erection of construction fencing and, in some areas, fencing incorporating sound-reducing measures. Even with these measures in place, impacts, and in some cases significant impacts are predicted to occur. However, because none of these impacts would be continuous in any one location or permanent, they would not create significant impacts on land use patterns or neighborhood character in the area.

HISTORIC RESOURCES

The Proposed Project would result in new construction within 90 feet of the Consolidated Edison Power House, which is pending a New York City Landmarks designation (NYCL) and is considered eligible for listing on the State and National Register of Historic Structures (S/NR-eligible). Therefore, the Proposed Project would comply with LPC's *Guidelines for Construction Adjacent to a Historic Landmarks* as well as the guidelines set forth in section 523 of the *CEQR Technical Manual* and the procedures set forth in NYCDOB's *Technical Policy and Procedure Notice* (TPPN) #10/88. This includes preparation of a Construction Protection Plan (CPP), prepared prior to demolition and construction activities that would be submitted to LPC for review and approval. The other architectural resources—the Amsterdam Houses and the Hudson River Bulkhead—are located more than 90 feet away from the project site and would not be expected to be adversely affected by the Proposed Project's construction-related activities.

Archaeological documentary studies conducted with respect to Parcel N identified two areas of potential precontact sensitivity (as disclosed in the 1992 Final Environmental Impact Statement [FEIS]) and those conclusions have not changed as a result of the Proposed Project. To determine if archaeological resources are present, Phase 1B archaeological testing will be carried out in these archaeologically sensitive areas. Prior to the initiation of Phase 1B investigations, a testing protocol will be submitted to LPC for review and approval. Testing will be undertaken in consultation with LPC. If no resources of significance are encountered, no further archaeological study would be warranted. Should any resources of potential significance be found, further testing would be undertaken in consultation with LPC to identify the boundaries and significance of the find. If required, data recovery would be undertaken in consultation with LPC. With implementation of all of the above measures which will be incorporated into the Restrictive Declaration, there would be no significant adverse impacts on archaeological resources.

SOCIOECONOMIC CONDITIONS

Construction activities associated with the Proposed Project would not result in any significant adverse impacts to socioeconomic conditions. Construction would, in some instances, temporarily affect pedestrian and vehicular access on street frontages immediately adjacent to the project site. However, lane and/or sidewalk closures are not expected to occur in front of entrances to any existing or planned retail businesses, and construction activities would not obstruct major thoroughfares used by customers or businesses. Utility service would be maintained to all businesses, although very short term interruptions (i.e., hours) may occur when new equipment (e.g., a transformer, or a sewer or water line) is put into operation. Overall, construction of the Proposed Project is not expected to result in any significant adverse impacts on surrounding businesses.

Construction would create direct benefits resulting from expenditures on labor, materials, and services, and indirect benefits created by expenditures by material suppliers, construction workers, and other employees involved in the direct activity. Construction also would contribute to increased tax revenues for the City and State, including those from personal income taxes. Based on the applicant's estimates of project-generated economic and fiscal benefits using the IMPLAN (IMpact analysis for PLANning) input-output modeling system[1], the proposed project would generate approximately 8,159 person-years[2] of construction employment on-site, and an additional 3,139 person-years of indirect construction-related employment in the City. Tax revenues during the construction period for the City, State and MTA are estimated to total $204 million, with an additional $110 million in mortgage recording fees and taxes. The total effect of construction on the local economy, measured as economic output or demand, is estimated at $3.1 billion in New York City and $3.6 billion in New York State.

[1] The IMPLAN (IMpact analysis for PLANning) input-output modeling system uses the most recent economic data from sources such as the U.S. Bureau of Economic Analysis, the U.S. Bureau of Labor Statistics, and the U.S. Census Bureau to predict effects on the local economy from direct changes in spending. The model contains data for New York County on more than 500 economic sectors, showing how each sector affects every other sector as a result of a change in the quantity of its product or service. A similar IMPLAN model for the State of New York is used to trace the effects on the State economy.

[2] A person-year is the equivalent of one person working full time for one year.

HAZARDOUS MATERIALS

Because of the known and potential subsurface contamination, remedial measures would be undertaken to avoid adverse impacts during excavation for the Proposed Project. These would include conducting soil disturbance under a new New York City Mayor's Office of Environmental Remediation (OER)-approved Remedial Action Plan (RAP) and an updated Construction Health and Safety Plan (CHASP), proper handling and disposal of excavated soil, and implementing other practices to protect workers and the surrounding neighborhood. In addition, the buildings would be constructed with waterproofing which would also serve as a vapor barrier to any remaining VOCs or methane. With these measures, as set forth in the Restrictive Declaration that will be recorded as part of the Proposed Project, no significant adverse impacts would result during or after construction as a result of the potential disturbance of any hazardous materials.

TRAFFIC

Nearly 50 percent of the construction workers are projected to travel via auto, with most if not all of the remaining construction workers traveling to and from the project site via transit. The construction of various components of the Proposed Project would be expected to result in increased traffic levels in the study area due to construction worker vehicular and truck traffic over an eight year period from 2011 and 2018. The peak period for construction related activities was determined to be during the second quarter of 2012. Construction generated traffic during both the construction 6:00–7:00 AM arrival peak hour and 3:00–4:00 PM afternoon departure peak hour would be lower than the operational traffic generated by the Proposed Project in the operational AM (8:00–9:00 AM) and PM (5:00–6:00 PM) peak hours, respectively. The detailed traffic analysis of construction generated traffic concluded that during the peak period for construction related activities, significant adverse impacts would occur at one intersection during the 6:00-7:00 AM peak hour (West End Avenue and West 59th Street) and three intersections during the 3:00 – 4:00 PM peak hour (Ninth Avenue and West 57th Street, Columbus Avenue and West 60th Street, and West End Avenue and West 59th Street). Mitigation measures to address these impacts are discussed in Chapter 22, "Mitigation."

PARKING

The construction traffic impact analysis conservatively assumes that all construction traffic, both construction worker vehicles and deliveries, would use the project site as the destination and origin for arrivals and departures, respectively. However, with very few exceptions, construction workers would have to use off-site parking for the duration of the construction of the Proposed Project. In addition, it should be noted that vehicles currently parking on the project site would be displaced during the construction period. (A portion of these vehicles may again be accommodated on-site upon completion of the Proposed Project's parking garage.) Overall, there would be insufficient capacity within a quarter-mile radius of the project site to accommodate peak parking demand during the AM and midday peak period, and sufficient capacity in the pre-theater and overnight periods. However, sufficient capacity would be available within a half-mile radius of the project site to accommodate all construction worker and displaced on-site parker demand. Therefore, significant adverse parking impacts during the peak construction period are not anticipated.

TRANSIT

Nearly 50 percent of the construction workers are projected to travel via auto, with most if not all of the remaining construction workers traveling to and from the project site via transit. During the peak 2012 construction period, this modal distribution would represent approximately 600 workers traveling by subway or bus. With 80 percent of these workers arriving or departing during the peak construction hours (6:00-7:00 AM arrival and 3:00-4:00 PM departure), the total estimated number of transit trips in any one peak hour would total approximately 480.

Approximately 140 of each peak hour's transit trips would be expected to be via bus. During the construction peak hours, the project-generated demand on local bus routes serving the project site would therefore not be expected to exceed 200 riders, the *CEQR Technical Manual* threshold below which significant adverse transit impacts are considered unlikely to occur. Significant adverse bus impacts are therefore not anticipated as a result of construction worker bus trips.

The remaining approximately 340 peak hour transit trips would be construction worker subway trips. While the demand would be higher than the 200-trip *CEQR Technical Manual* threshold, it would be substantially lower that the subway transit demand created by the Proposed Project (937 and 1,299 trips in the AM and PM peak hours, respectively). As discussed in Chapter 17, "Transit and Pedestrians," project-generated subway demand is not expected to result in significant adverse impacts at the 59th Street-Columbus Circle subway station in the 2018 Build scenario. Since the construction subway demand would be substantially less than that of the Proposed Project, the construction demand would not be expected to result in significant adverse subway impacts with regard to any station elements analyzed.

PEDESTRIANS

The construction worker pedestrian trips would occur primarily outside of the peak hours for the study area street system and would be distributed among numerous sidewalks and crosswalks in the area. Therefore, significant adverse pedestrian impacts attributable to the projected construction worker trips are not anticipated.

During construction, where sidewalk closures are required, adequate protection or temporary sidewalks would be provided in accordance with NYCDOT requirements.

AIR QUALITY

The results of both stationary and mobile source modeling analyses found that the total concentrations of, particulate matter with an aerodynamic diameter of less than or equal to 10 micrometers (PM_{10}), and carbon monoxide (CO) would not exceed the National Ambient Air Quality Standards (NAAQS). Therefore, no significant adverse impacts from construction sources with respect to these pollutants are expected at the closest sensitive receptors during the peak emission periods. Since the predicted concentrations were modeled for periods that represent the highest site-wide air emissions at the closest sensitive receptors, the increments and total predicted concentrations during other periods of construction and at other locations are also not expected to have any significant adverse impacts.

Dispersion modeling determined that the maximum predicted incremental concentrations of particulate matter with an aerodynamic diameter of less than or equal to 2.5 micrometers ($PM_{2.5}$) (using a worst-case emissions scenario) would exceed the city's applicable interim guidance

criteria at a few non-residential discrete receptor locations immediately adjacent to the construction site fence, where the likelihood of exposure is very low. Concentrations of $PM_{2.5}$ would not exceed the city's interim guidance criteria at any residential receptor locations. The occurrences of elevated 24-hour average concentrations for $PM_{2.5}$ at non-residential receptors are very limited in duration and are only slightly above the interim guidance thresholds. Therefore, after taking into the account the temporary nature of construction, the variability of $PM_{2.5}$ emissions over time (which are often considerably less than those used in the modeling analysis), the limited frequency of 24 hour exceedances, and the limited area-wide extent of the 24-hour and annual discrete location impacts (the $PM_{2.5}$ neighborhood scale analysis concentrations were well below the city's interim guidance criteria), it was concluded that no significant adverse air quality impacts for $PM_{2.5}$ are expected from the on-site construction sources.

NOISE

For the podium approach, construction activities would be expected to result in significant adverse noise impacts at the following locations which have a direct line of site to the project site:

- Receptor A1—residential, the east façade of 33 West End Avenue
- Receptor A2—residential, the west façade of 33 West End Avenue
- Receptor B2—Amsterdam Houses, the west and south façades of 249 West 61st Street
- Receptor C—Heschel School and residential, the west façade of 20 West End Avenue
- Receptor D—residential and commercial, the west façade of 10 West End Avenue
- Receptor E—John Jay College, the west and north façades of 521 West 58th Street
- Receptor F—residential and commercial, the north façade of 847 West End Avenue
- Receptor H1—residential, the west and south façades of 75 West 63rd Street
- Receptor N1—residential, the west and north façades of 555 West 59th Street
- Receptor N2—residential, the west and south façades of 555 West 59th Street
- Receptor O—residential, the west and north façades of 234 West 61st Street
- Receptor Q—residential and Lander College, the west and south façades of 225 West 60th Street
- Receptor R—residential, the west and north façades of 517 West 59th Street
- Receptor U—commercial, the north façade of 614 West 58th Street
- Receptor V—commercial, the north façade of 631 West 57th Street

The exceedance of the 3-5 dBA CEQR impact criteria (occuring for two or more consecutive years) would be due principally to noise generated by the large amount of construction equipment operating on-site. However, with the exception of receptors B2, and L2, all receptor locations have double-glazed windows and have some form of alternative ventilation (i.e., central air conditioning or PTAC units), which would provide a significant amount of sound attenuation, and would result in interior noise levels that are below 45 dBA L_{10} (the CEQR acceptable interior noise level criteria), during much of the time when project-related construction activities are taking place.

Receptor site B2 (i.e., the corner building at Amsterdam Houses), has double-glazed windows and some tenants have installed air conditioning units on some windows. Based on the criteria described above, this location would experience significant adverse construction-related noise impacts. Mitigation measures to address these impacts are discussed in Chapter 22, "Mitigation."

With regard to the residential terrace locations (i.e., receptors A1, A2, D, F, H1, N1, and N2), the highest $L_{10(1)}$ noise levels would range from approximately 73 to 79 dBA during some peak periods of construction activity. Without construction activities, noise levels at these terraces would exceed the CEQR acceptable range (55 dBA $L_{10(1)}$) for an outdoor area requiring serenity and quiet. During the weekday daytime time periods identified above when construction activities are predicted to significantly increase noise levels, construction activities would exacerbate these exceedances and result in significant adverse noise impacts at the terraces at these identified buildings. As discussed further in Chapter 22, "Mitigation," there are no feasible mitigation measures that could be implemented to eliminate the significant noise impacts at these locations.

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

For the individual basement approach, construction activities would be expected to result in significant adverse noise impacts at the following locations which have a direct line of sight to the project site:

- Receptor A2—residential, the west façade of 33 West End Avenue
- Receptor C—Heschel School and residential, the west façade of 20 West End Avenue
- Receptor D—residential and commercial, the west façade of 10 West End Avenue
- Receptor E—John Jay College, the west and north façades of 521 West 58th Street
- Receptor N1—residential, the west and north façades of 555 West 59th Street
- Receptor N2—residential, the west and south façades of 555 West 59th Street
- Receptor U—commercial, the north façade of 614 West 58th Street
- Receptor V—commercial, the north façade of 631 West 57th Street

Similar to the results with the podium approach, the exceedances of the CEQR impact criteria would be due principally to noise generated by the large amount of construction equipment operating on-site. However, all receptor locations have double-glazed windows and have some form of alternative ventilation which would provide a significant amount of sound attenuation, and would result in interior noise levels that are below 45 dBA L_{10} (the CEQR acceptable interior noise level criteria), during much of the time when project-related construction activities are taking place.

With regard to the residential terrace locations (i.e., receptors A2, D, N1, and N2), the highest $L_{10(1)}$ noise levels would range from approximately 73 to 79 dBA during some peak periods of construction activity. Without construction activities, noise levels at these terraces would exceed the CEQR acceptable range (55 dBA $L_{10(1)}$) for an outdoor area requiring serenity and quiet. During the weekday daytime time periods identified above when construction activities are predicted to significantly increase noise levels, construction activities would exacerbate these exceedances and result in significant adverse noise impacts at the terraces at these identified buildings. As discussed further below in "Mitigation," there are no feasible mitigation measures that could be implemented to eliminate the significant noise impacts at these locations.

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

PUBLIC HEALTH

See Chapter 21, "Public Health" for conclusions related to construction activities.

RODENT CONTROL

Construction contracts would include provisions for a rodent (mouse and rat) control program. Before the start of construction, the contractor would survey and bait the appropriate areas and provide for proper site sanitation. During the construction phase, as necessary, the contractor would carry out a maintenance program. Coordination would be maintained with appropriate public agencies. Only U.S. Environmental Protection Agency (EPA) and NYSDEC-registered rodenticides would be utilized, and the contractor would be required to perform rodent control programs in a manner that avoids hazards to persons, domestic animals, and non-target wildlife.

PUBLIC HEALTH

AIR QUALITY

This analysis finds that the Proposed Project would not result in any significant adverse public health impacts with respect to $PM_{2.5}$ emissions from the construction or operation of the Proposed Project. Nitrogen dioxide (NO_2), sulfur dioxide (SO_2) and PM_{10} concentrations due to emissions from large stationary sources in the area would not be expected to have any significant adverse public health impacts at the project site. At the present time there are not sufficient data and established technical analysis techniques to determine reliably whether concentrations due to emissions from mobile sources in the project study area would be above or below the 1-hour standard in the Build condition. However, the traffic associated with the Proposed Project is not expected to change NO_2 concentrations appreciably, since the vehicular traffic associated with the Proposed Project would be a very small percentage of the total number of vehicles in the area. The NO_2 emissions associated with equipment that would be used in project construction are typical of emissions at other projects involving large-scale, long-term and intensive construction activities. Exceedances of the 1-hour NO_2 health-based standard resulting from such activities cannot be ruled out and, as discussed in Chapter 20, "Construction," certain measures would be implemented by the Proposed Project in order to minimize emissions from construction activities.

NOISE

With regard to some residential terrace locations the highest $L_{10(1)}$ noise levels would range from approximately 73 to 79 dBA during some peak periods of construction activity. Without construction activities, noise levels at these terraces exceed the City Environmental Quality Review (CEQR) acceptable range (55 dBA $L_{10(1)}$) for an outdoor area requiring serenity and quiet. During the weekday daytime time periods when construction activities are predicted to significantly increase noise levels, construction activities would exacerbate these exceedances and result in significant adverse noise impacts at the terraces at these identified buildings. These predicted noise levels would be of limited duration, and the predicted overall changes in noise levels would not be large enough to significantly affect public health. While construction activities

would produce noise levels of a magnitude that at times are annoying and intrusive, and would be considered undesirable, construction activities would only occur for a limited number of hours per day, and for a limited time period at any location. Based upon the limited durations of these noise levels at any location, the noise produced by construction activities would not result in a significant adverse public health impact.

HAZARDOUS MATERIALS

Because of the known and potential subsurface contamination, remedial measures would be undertaken to avoid adverse impacts during excavation for the Proposed Project. These would include conducting soil disturbance under a new New York City Mayor's Office of Environmental Remediation (OER)-approved Remedial Action Plan (RAP) and an updated Construction Health and Safety Plan (CHASP), proper handling and disposal of excavated soil, and implementing other practices to protect workers and the surrounding neighborhood. In addition, the buildings would be constructed with waterproofing which would also serve as a vapor barrier to any remaining volatile organic compounds (VOCs) or methane. With these measures, as set forth in the Restrictive Declaration that will be recorded as part of the Proposed Project, no significant adverse impacts would result during or after construction as a result of the potential disturbance of any hazardous materials.

Therefore, the Proposed Project would not result in a significant adverse impact on public health with respect to hazardous materials during or after construction.

RODENT CONTROL

Construction contracts would include provisions for a rodent (mouse and rat) control program. Before the start of construction, the contractor would survey and bait the appropriate areas and provide for proper site sanitation. During the construction the contractor would carry out a maintenance program, as necessary. Signage would be posted, and coordination would be maintained with appropriate public agencies. Only EPA- and NYSDEC-registered rodenticides would be permitted, and the contractor would be required to perform rodent control programs in a manner that avoids hazards to persons, domestic animals, and non-target wildlife. Therefore, construction of the Proposed Project would not result in any significant adverse impacts on rodent control.

MITIGATION

COMMUNITY FACILITIES

Child Care Facilities

The analysis estimates that the Proposed Project would generate 41 children under the age of 6 who would be eligible for publicly funded child care programs. For the 41 children under age six, publicly funded child care facilities within 1½ miles of the project site will already be operating above capacity by 2018 because of the many other development projects planned in the future without the Proposed Project. If no new child care facilities are added in the study area to respond to this new demand, the new children from the Proposed Project would exacerbate the predicted shortage in child care slots and the project-generated demand would represent 9 percent of the collective capacity of child care centers serving the area. This increase would result in a significant adverse impact on child care facilities in the area.

Proposed Mitigation Measures

At this point, 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 child care depends not only on the amount of residential development in the area but on the proportion of new residents who are children of low-income families. Furthermore, several factors may limit the number of children in need of publicly funded child care slots. Families in the 1 ½-mile study area could make use of alternatives to publicly funded group child care facilities. or parents of eligible children could make use of public and private child care providers beyond the 1 ½-mile study area.

Possible mitigation measures for this significant adverse impact include adding capacity to existing facilities if determined feasible through consultation with the New York City Administration for Children's Services (ACS) or providing a new child care facility within or near the project site. As a city agency, ACS does not directly provide new child care facilities, instead it contracts with providers in areas of need. ACS is also working to create public/private partnerships to facilitate the development of new child care facilities where there is an area of need. As part of that initiative, ACS may be able to contribute capital funding, if it is available, towards such projects to facilitate the provision of new facilities.

The Restrictive Declaration for the Proposed Project will require the project sponsor to work with ACS to consider the need for and the implementation of measures to provide any needed additional capacity as required to mitigate a significant adverse impact in day care facilities within the 1-1/2 mile study area or within Community Board 7. Based on the results of the analysis presented in Chapter 4, "Community Facilities and Services," the Proposed Project would need to provide 15 child care slots to reduce the increase in the utilization rate to less than 5 percent. Absent the implementation of such needed mitigation measures, the Proposed Project could have an unmitigated significant adverse impact on child care facilities.

OPEN SPACE

The *CEQR Technical Manual* lists potential on- and off-site mitigation measures. These measures include creating new public open spaces on-site or elsewhere in the study area of the type needed to serve the proposed population and offset their impact on existing open spaces in the study area, and improving existing open spaces in the study area to increase their utility, safety, and capacity to meet identified needs in the study area. Mitigation measures for this potential significant adverse impact were explored by the lead agency in consultation with the New York City Department of Parks and Recreation (DPR) between the Draft and Final Supplemental Environmental Impact Statement (SEIS).

Potential on-site mitigation measures considered for the active open space ratio deficit included: ball fields, handball courts, basketball courts, playgrounds, volleyball courts, and skate parks. Additionally, existing open spaces in the study area were examined with respect to their condition and utility. No practicable opportunities for off-site mitigation have been identified as of the date of this FSEIS.

To fully mitigate this significant adverse impact, a substantial amount of the on-site open space would need to be programmed for active uses. Given site constraints and the overall design objectives, providing this amount of open space on the Project site would not be compatible with the goals and objectives of the proposed site plan.

Therefore, in order address the active open space impact with on-site active uses, measures to partially mitigate the impact were explored. The inclusion of a children's play area as part of the Proposed Project's publicly accessible open space was identified as the most appropriate mitigation for the identified significant adverse active open space impact. This use was deemed compatible with the adjacent passive open space and the overall objectives of the site plan. As described below in "Modifications to the Proposed Project," the project sponsor expects to file a revised application with various design changes. Among the modifications is the addition of a play area between Buildings 3 and 4 in the southern portion of the site.

Absent the implementation of the mitigation measure through the proposed design change described above, the Proposed Project would have an unmitigated significant adverse impact on active open space. With the implementation of the mitigation measure through the proposed design change described above, the Proposed Project's impacts on active open space would be partially mitigated.

TRAFFIC

Overview

The Proposed Project would result in significant adverse impacts at 24 study area intersections during one or more analyzed peak hours. Specifically, 17, 13, 12, and 13 intersections would be impacted in the weekday AM, weekday midday, weekday PM, and Saturday midday peak hours, respectively. To alleviate these impacts, the feasibility of implementing mitigation measures was explored. The mitigation analysis results and recommendations are discussed below.

According to the *CEQR Technical Manual*, a significant traffic impact can be considered fully mitigated if the degradation in the level of service under the Action-with-Mitigation condition compared with the No-Action condition is no longer deemed significant based on the impact criteria previously described above in "Traffic and Parking." For future No-Action LOS A, B or C, mitigation to mid-LOS D (45 seconds of delay) is required.

With the proposed traffic mitigation measures, outlined below, all significant adverse traffic impacts due to the Proposed Project would be fully mitigated with the exception of impacts at three intersections along Route 9A—Twelfth Avenue at West 56th Street (in the AM and PM peak hours), Twelfth Avenue at West 54th Street (in the PM peak hour) and Twelfth Avenue at West 52nd Street (in the AM and PM peak hours). These three intersections already have significant east/west movements and are congested under No Build conditions. As discussed below, at two of these intersections (Twelfth Avenue at West 54th Street, and Twelfth Avenue and West 52nd Street) no feasible mitigation measures have been identified which would fully mitigate north/south project-generated traffic impacts during the AM and PM peak periods. At one of these intersections (Twelfth Avenue and West 56th Street) mitigation has been proposed and that mitigation is currently being reviewed by NYSDOT. However, if NYSDOT decides to not implement the mitigation measure proposed for this intersection, then the significant impacts would remain.

Table S-7 presents a summary of the intersections and movements that would be significantly impacted with the Proposed Project, and the intersections and movements that would either be mitigated with the proposed mitigation measures, or remain unmitigated.

Table S-7
2018 Future with the Proposed Project:
Summary of Movements/Intersections with Significant Adverse Impacts

	Movements/ Intersections Analyzed	Movements/ Intersections With No Significant Impacts	Movements/ Intersections With Significant Impacts	Mitigated Movements/ Intersections	Unmitigated Movements/ Intersections
Weekday AM	228/55	207/38	21/17	17/15	4/2
Weekday Midday	226/55	212/42	14/13	14/13	0/0
Weekday PM	224/55	209/43	15/12	11/9	4/3
Saturday Midday	226/55	212/42	14/13	14/13	0/0
Note: This table has been revised for the FSEIS.					

Proposed Mitigation Measures

Measures to mitigate project-generated significant adverse traffic impacts would consist of minor adjustments to signal timing in order to increase green time for impacted movements, daylighting intersections (i.e., changing parking regulations to prohibit parking near some intersections during certain peak time periods), installing a new traffic signal and converting West 59th Street between West End Avenue and Amsterdam Avenue to one-way westbound from two-way operation. The operational changes proposed for each intersection are presented in **Table S-8.**

PROPOSED IMPLEMENTATION SCHEDULE FOR TRAFFIC MITIGATION MEASURES

An analysis was performed to determine when the proposed traffic mitigation measures discussed above would need to be implemented. The analysis was based upon proportioning build-by-building trip generation to the total number of trips and determining trigger points when completion of a building would result in significant traffic impacts. Buildings 2 and 5 are considered to be the first part of the project completed and contain approximately 73 percent of the total vehicle trip demand projected in the future with the proposed development. Therefore, all mitigation measures would need to be implemented upon completion of these two buildings. Riverside Boulevard between West 59th and West 61st Streets is not expected to become an operational street until 2018, when construction of the Proposed Project is completed. Consequently, mitigation measures proposed for intersections at these locations would not be implemented until such time as the street becomes operational and functions as a through street.

As part of the traffic mitigation, the applicant has committed to conduct a traffic monitoring program (TMP). Such monitoring will be conducted in two phases: at an interim milestone and upon completion (full buildout) of the Proposed Project. The applicant will submit for NYCDOT's review and approval a TMP for a proposed scope for the monitoring of the interim and full buildout conditions. The Restrictive Declaration will include provisions necessary to implement this measure.

Table S-8
Traffic Mitigation Measures

Intersection	Approach	Impacted Period	No-Build Signal Timing (Seconds) (1)	Proposed Mitigation Plan: Build Signal Timing (Seconds) (1)	Proposed Mitigation Measures
12th Avenue					
12th Avenue (NB) @	EW	AM		35/35/35/35	Implement new 90s traffic signal.
W. 59th Street (EW)	NB Only	MD	NA	55/55/55/55	
		PM			
		Sat MD			
12th Avenue (NS) @	NB Only	AM	85/82/110/82	86/82/110/82	Transfer 1s from WB only to NB only during the weekday AM period.
W. 57th Street (EB)	WB Only		65/38/43/38	64/38/43/38	
12th Avenue (NS) @	NB Only	AM	75/89/107/89	75/86/107/86	Transfer 3s from NB only to SB only during the weekday MD and Sat MD periods.
W. 56th Street (EB)	SB Only	MD	75/31/43/31	75/34/43/34	
		PM			**Not fully mitigated during weekday AM and PM periods.**
		Sat MD			
12th Avenue (NS) @	NS	PM	114/85/115/85	114/85/116/85	Transfer 1s from SB LT+WB RT to NS during the weekday PM period.
W. 54th Street (EB)	SB LT+WB RT		36/35/35/35	36/35/34/35	**Not Fully Mitigated**
12th Avenue (NS) @	EB Only	AM	36/35/33/34	36/33/33/33	Transfer 2s from EB only to NS during the weekday MD period.
W. 52nd Street (EB)	NS	MD	92/70/97/70	92/72/97/71	Transfer 1s from EB only to NS during the Sat MD period.
	SB Only	PM	22/15/20/16	22/15/20/16	**Not fully mitigated during weekday AM and PM periods.**
		Sat MD			
12th Avenue (NS) @	EW	AM	39/39/39/39	38/37/39/37	Transfer 1s from EW to NS during the weekday AM period.
W. 42nd Street (EW)	NS	MD	74/50/91/50	75/52/91/52	Transfer 2s from EW to NS during the weekday MD and Sat MD periods.
	SB Only	Sat MD	37/31/20/31	37/31/20/31	
12th Avenue (NS) @	EW	AM	34/32/23/32	31/31/23/30	Transfer 3s from EW to NS during the weekday AM period.
W. 41st Street (EW)	EB Only	MD	16/18/16/18	16/18/16/18	Transfer 1s from EW to NS during the weekday MD period.
	NS	Sat MD	74/53/99/53	77/54/99/55	Transfer 2s from EW to NS during the Sat MD period.
	SB Only		26/17/12/17	26/17/12/17	
12th Avenue (NS) @	EB Only	AM	33/27/27/27	30/26/27/24	Transfer 3s from EB only to NS during the weekday AM and Sat MD periods.
W. 37th Street (EW)	NB Only	MD	20/20/17/20	20/20/17/20	Transfer 1s from EB only to NS during the weekday MD period.
	NS	Sat MD	70/55/96/55	73/56/96/58	
	SB Only		27/18/10/18	27/18/10/18	
Riverside Drive					
Riverside Drive (NS) @	NS	AM	38/38/38/38	39/38/38/38	Transfer 1s from EW to NS during the weekday AM period.
W. 79th Street (EW)	EW		52/52/52/52	51/52/52/52	
Riverside Drive (NS) @	EW	Sat MD	30/37/37/37	30/37/37/35	Transfer 2s from EW to SB and WB right turn during the Sat MD period.
W. 72nd Street (EW)	SB+WB RT		49/42/42/42	49/42/42/44	
	Peds Only		11/11/11/11	11/11/11/11	
Riverside Boulevard.					
Riverside Blvd. (NS) @	NB	PM	UNSIGNALIZED	UNSIGNALIZED	Implement No Standing Anytime for 100 feet along the east curb of the NB approach and restripe with one 11' through lane and one 11' right turn lane.
W. 70th Street (EW)	WB Only				
11th Avenue/West End Avenue					
West End Avenue (NS) @	NC	PM	NC	NC	Restripe the northbound approach to include one 11' shared left-through lane, and one 19' shared through-right turn lane with parking.
W. 79th Street (EW)					
West End Avenue (NS) @	EW	AM	30/25/25/25	31/26/25/25	Transfer 1s from NS to EW during the weekday AM and MD periods.
W. 72nd Street (EW)	Peds Only (EW)	MD	6/9/7/9	6/9/7/9	
	NS		37/34/28/34	36/33/28/34	
	NB Only		11/14/24/14	11/14/24/14	
	Peds Only (NS)		6/8/6/8	6/8/6/8	
West End Avenue (NS) @	EB Only	PM	36/36/36/36	36/36/34/34	Transfer 2s from EB only to NS during the weekday PM and Sat MD periods.
W. 70thStreet (EB)	NS	Sat MD	48/48/48/48	48/48/50/50	
	Peds Only		6/6/6/6	6/6/6/6	
West End Avenue (NS) @	EW	AM	36/36/36/36	35/36/36/36	Transfer 1s from EW to NS during the weekday AM period.
W. 66thStreet (EW)	Peds Only		9/9/6/9	9/9/6/9	
	NS		45/45/48/45	46/45/48/45	
West End Avenue (NS) @	EW	AM	30/30/30/30	33/30/30/30	W. 59th Street between West End Avenue and Amsterdam Avenue to be converted to one-way westbound from two-way operation.
W. 59thStreet (EW)	NS	MD	60/60/60/60	57/60/60/60	Transfer 3s from NS to EW during the weekday AM periods.
		PM			Parking would be permitted on the south curb between West End Avenue and Amsterdam Avenue
		Sat MD			W. 59th Street would be restriped to include one 13' shared through-right turn lane and one 22' left lane with parking.
11th Avenue (NS) @		AM			Implement No Standing 7-10AM Mon-Fri to allow for an additional shared through-right turn lane at the northbound approach.
W. 57thStreet (EW)	NC		NC	NC	
10th Avenue/Amsterdam Avenue					
Amsterdam Avenue (NB) @	NS	AM	NC	NC	W. 59th Street between West End Avenue and Amsterdam Avenue to be converted to one-way westbound from two-way operation.
W. 59th Street (EW)					W. 59th Street would be restriped to include one 13' shared through-right turn lane and one 22' left lane with parking.
10th Avenue (NB) @	EW	AM	43/40/40/40	44/40/40/40	Transfer 1s from NB only to EW during weekday AM period.
W. 57th Street (EW)	NB Only		47/50/50/50	46/50/50/50	
9th Avenue/Columbus Avenue					
Columbus Avenue (SB) @	WB Only	MD	58/58/58/58	58/57/57/57	Transfer 1s from WB only to SB only during the weekday MD, PM and Sat MD periods.
W. 66th Street (EW)	SB Only	PM	32/32/32/32	32/33/33/33	
		Sat MD			
Columbus Avenue (SB) @	EW	AM	35/35/35/35	37/38/38/38	Transfer 2s from SB only to EW during the weekday AM period.
W. 60th Street (EW)	SB Only	MD	45/45/45/45	43/42/42/42	Transfer 3s from SB only to EW during the MD, PM and Sat MD periods.
	Peds Only	PM	10/10/10/10	10/10/10/10	
		Sat MD			
9th Avenue (SB) @	WB Only	AM	21/21/21/21	21/21/21/21	Transfer 1s from SB only to EW during the weekday AM period.
W. 57th Street (EW)	EW	MD	26/26/26/26	27/28/28/28	Transfer 2s from SB only to EW during the weekday MD, PM and Sat MD periods.
	SB Only	PM	36/36/36/36	35/34/34/34	
	Peds Only	Sat MD	7/7/7/7	7/7/7/7	
Central Park West					
Central Park West (NS) @	EB Only	MD	38/38/38/35	38/37/38/35	Transfer 1s from EB only to NS during weekday MD period.
W. 72nd Street (WB)	Peds Only		6/6/6/6	6/6/6/6	
	NS		46/46/46/49	46/47/46/49	
Central Park West (NS) @	WB Only	AM	32/32/32/32	33/33/33/34	Implement No Standing Anytime 125 feet along the west curb of SB approach to allow for a new right turn only lane
W. 66th Street (WB)	NB Only	MD	13/13/13/13	13/13/13/13	Implement No Standing Anytime 40 feet west of Central Park West along the south curb of W. 66th Street to assist southbound right turning trucks
	NS	PM	45/45/45/45	44/44/44/43	Transfer 1s from NS to WB only during the weekday AM, MD and PM periods.
		Sat MD			Transfer 2s from NS to WB only during the Sat MD period.

Notes:

(1) Signal timings shown indicate Green plus Yellow (including All Red) for each phase and as AM/MD/PM/Sat MD.

(2) NC-No Change to signal timing.

This table has been revised for the FSEIS

EFFECTS OF PROPOSED PEDESTRIAN MITIGATION

As discussed in further detail below, as part of the proposed pedestrian mitigation at the intersection of West 60th Street and Amsterdam Avenue, it is proposed to adjust the signal timing by taking one second from the northbound signal and reassigning the one second to the eastbound signal during the PM peak period. **Table S-9** shows that the proposed signal timing changes would not significantly affect vehicular traffic during the affected peak periods.

Table S-9
Traffic Analysis for Pedestrian Improvements

Intersection	Period	Lane Group	Build V/C Ratio	Build Delay (sec.)	Build LOS	Mitigation V/C Ratio	Mitigation Delay (sec.)	Mitigation LOS
Amsterdam Avenue (NB) & West 60th Street (E/W)	AM	EB-LT	0.52	27.6	C	0.50	26.4	C
		WB-R	0.41	26.4	C	0.40	25.3	C
		NB-TR	0.45	9.0	A	0.46	9.8	A
Amsterdam Avenue (NB) & West 60th Street (E/W)	PM	EB-LT	0.39	24.5	C	0.34	21.0	C
		WB-R	0.29	23.2	C	0.25	19.9	B
		NB-TR	0.56	10.0	A	0.61	13.3	B
Amsterdam Avenue (NB) & West 60th Street (E/W)	Sat MD	EB-LT	0.44	25.5	C	0.41	23.5	C
		WB-R	0.25	22.6	C	0.23	20.9	C
		NB-TR	0.49	9.4	A	0.51	10.9	B
Columbus Avenue (SB) & West 60th Street (E/W)	AM	EB-R	1.23	164.0	F	1.05	93.3	C
		WB-L	0.55	28.5	C	0.47	23.7	C
		WB-LT	0.23	22.8	C	0.20	19.7	C
		SB-TR	0.67	18.2	B	0.74	23.1	B
Columbus Avenue (SB) & West 60th Street (E/W)	PM	EB-R	1.42	239.2	F	1.21	149.8	C
		WB-L	0.63	31.3	C	0.54	25.3	C
		WB-LT	0.21	22.6	C	0.19	19.6	C
		SB-TR	0.69	18.7	B	0.77	23.8	B

Note: This table has been revised for the FSEIS.

TRANSIT AND PEDESTRIANS

Overview

The Proposed Project would result in impacts to two of the analyzed bus routes during the AM peak hour and three of the analyzed bus routes during the PM peak hour. The Proposed Project would also result in significant adverse impacts at five crosswalk locations during one or more analyzed peak hours. To alleviate these impacts, the feasibility of implementing mitigation measures was explored. The mitigation analysis results and recommendations are discussed below.

Bus Service

Under current New York City Transit (NYCT) guidelines, eastbound M31 and M57 local bus service would be significantly adversely impacted by project-generated demand in the AM peak hour, and northbound M11 and westbound M31 and M57 service would be significantly impacted in the PM peak hour. In the AM peak hour, in the future with the Proposed Project, eastbound M31 and M57 buses would be operating with capacity shortfalls of 11 spaces and 143 spaces, respectively. This compares to capacity surpluses of 43 spaces and 7 spaces, respectively, in the eastbound direction in the AM peak hour in the future without the Proposed

Project. In the PM peak hour, in the future with the Proposed Project, northbound M11 service would operate with a capacity shortfall of 36 spaces, while westbound M31 and M57 buses would operate with capacity shortfalls of 95 spaces and 207 spaces, respectively. This compares to capacity surpluses of 7 spaces on the northbound M11 and 9 spaces and 34 spaces on westbound M31 and M57 buses, respectively, in the PM peak hour in the future without the Proposed Project.

According to current NYCT guidelines, increases in bus load levels to above their maximum capacity at any load point is considered a significant impact as it would necessitate the addition of more bus service along that route. The general policy of NYCT is to provide additional bus service where demand warrants, taking into account financial and operational constraints. Based on NYCT's ongoing passenger monitoring program, comprehensive service plans are generated to respond to specific known needs with capital and/or operational improvements where fiscally feasible and operationally practicable. NYCT's capital program is developed on a five-year cycle; through this program, expansion of bus services would be provided as needs are determined, subject to operational and financial feasibility.

If the M31 route were modified to better serve the project site (at West 59th Street between Twelfth Avenue and West End Avenue), it is expected that passengers using the M57 to travel to the Columbus Circle subway station would use either the M31 or the M57. As a result, subway riders utilizing the buses were assigned to both bus routes as opposed to solely the M57, which would be the case before the M31 route modification. With the modification to the route, the same number of total additional buses would need to be added to the M31 and M57 routes in the Build (when compared with the No Build) to provide for the expected demand: four total buses would be assigned to the M31 and M57 routes in the AM peak hour and six total buses would be assigned to the two routes in the PM peak hour. The route modification would mean the addition of two buses to both the eastbound M31 and M57 routes in the AM peak hour and the addition of three buses to both the westbound M31 and M57 routes in the PM peak hour. This is in comparison to the addition of one bus to the eastbound M31 route and three buses to the eastbound M57 route in the AM peak hour without the route modifications and the addition of two buses to the westbound M31 route and four buses to the westbound M57 route in the PM peak hour without the route modifications.

The implementation of the M31 route modification would result in the passengers who currently access the bus near the western terminal of the route having to walk three additional blocks to access the M31 bus route.

NYCT would extend the M31 bus to the project site contingent upon installation of a bus stop and necessary pedestrian control measures to safely access the bus stop along West 59th Street.

Pedestrians

The Proposed Project would create new pedestrian demand along the West 60th Street corridor between the project site and the 59th Street-Columbus Circle subway station and that these new demands would result in significant adverse impacts at a total of five crosswalks in the project area. Through a combination of crosswalk widening and adjusting signal timing, all the Proposed Project's significant adverse impacts at crosswalks would be mitigated.

Proposed Mitigation Measures

A significant adverse pedestrian impact is considered mitigated if measures implemented return projected future conditions to what they would be if a Proposed Project were not in place, or to

acceptable levels. For a No Build LOS D, E or F, mitigation back to the No Build condition is required; for No Build Los A, B or C, mitigation to mid-LOS D is required (greater than 19.5 square feet per pedestrian for corners and crosswalks). Proposed mitigation measures for the five significant crosswalk impacts resulting from the Proposed Project are discussed below. The crosswalk conditions for the No Build, Build and Build with Mitigation conditions are summarized in **Table S-10**.

North Crosswalk on Amsterdam Avenue at West 60th Street

Pedestrian demand from the Proposed Project would significantly adversely impact the north crosswalk on Amsterdam Avenue at West 60th Street in the AM and PM peak hours. The level of service on this crosswalk would deteriorate from LOS C during both periods in the No Build condition, to LOS E in both periods in the Build condition. To address these impacts, it is proposed to widen this crosswalk to 16.9 feet in width from 12.8 feet in width in the future with the Proposed Project. Additionally, a signal timing change is also proposed; it is also proposed to transfer one second of green time from the northbound phase to the east/west phase at this location during the AM peak period and four seconds of green time from the northbound phase to the east/west phase at this location during the PM peak period. With the proposed widening and signal timing changes, this crosswalk would operate at LOS D during both peak periods, with an average of 19.8 and 19.6 square feet per pedestrian in the AM and PM peak hours, respectively and the Proposed Project's significant adverse impacts would be fully mitigated in the AM and PM peak hours.

South Crosswalk on Amsterdam Avenue at West 60th Street

Pedestrian demand from the Proposed Project would significantly adversely impact the south crosswalk on Amsterdam Avenue at West 60th Street in the weekday AM and PM peak hours and Saturday midday peak hour. The level of service on this crosswalk would deteriorate from LOS C in the AM and PM peak hours and LOS B in the Saturday midday peak hour in the No Build condition, to LOS D in the Build condition during the AM and Saturday midday peak hours and LOS E during the PM peak hour. To address these impacts, it is proposed to widen this crosswalk to 15.3 feet in width from 12 feet in width in the future with the Proposed Project. Additionally, a signal timing change is also proposed; it is also proposed to transfer one second of green time from the northbound phase to the east/west phase at this location during the AM peak period, four seconds of green time from the northbound phase to the east/west phase at this location during the PM peak period, and two seconds of green time from the northbound phase to the east/west phase at this location during the Saturday midday peak period. With this widening and signal timing changes, this crosswalk would operate at LOS D with an average of 22.1, 19.6 and 22.5 square feet per pedestrian in the AM, PM, and Saturday midday peak hours, respectively, and the Proposed Project's significant adverse impacts would be fully mitigated during the AM, PM, and Saturday midday peak periods.

North Crosswalk on Columbus Avenue at West 60th Street

Pedestrian demand from the Proposed Project would significantly adversely impact the north crosswalk on Columbus Avenue at West 60th Street in the weekday AM and PM peak hours and the Saturday midday peak hour. To address these impacts, it is proposed to widen this crosswalk

Table S-10
2018 Build Crosswalk Conditions with Mitigation

Location		NO BUILD								BUILD								BUILD W/ MITIGATION							
		Average Pedestrian Space (sq-ft/ped)				Level of Service				Average Pedestrian Space (sq-ft/ped)				Level of Service				Average Pedestrian Space (sq-ft/ped)				Level of Service			
		AM	MD	PM	Sat MD	AM	MD	PM	Sat MD	AM	MD	PM	Sat MD	AM	MD	PM	Sat MD	AM	MD	PM	Sat MD	AM	MD	PM	Sat MD
West 60th Street and Amsterdam Ave.	North	28.8	50.5	27.6	87.1	C	B	C	A	13.7	19.7	11.9	19.6	E *	D	E *	D	19.8	27.0	19.6	29.2	D	C	D	C
	West	43.1	45.3	48.4	58.5	B	B	B	B	39.4	41.1	41.8	49.8	B	B	B	B	38.5	41.1	31.5	47.4	C	B	C	B
	South	38.2	59.5	34.4	53.7	C	B	C	B	15.9	20.4	12.5	15.6	D *	D	E *	D *	22.1	26.9	19.6	22.5	D	C	D	D
	East	47.3	65.2	49.1	149.6	B	B	B	A	38.1	51.0	38.2	64.9	C	B	C	A	37.0	51.0	34.1	61.6	C	B	C	A
West 60th Street and Columbus Ave.	North	16.5	20.9	12.0	36.7	D	D	E	C	11.4	19.7	8.6	19.5	E *	D	E *	D *	16.0	26.5	12.2	26.1	D	C	E	C
	West	38.5	30.9	23.9	40.1	C	C	D	B	31.9	34.0	20.4	32.2	C	C	D	C	31.0	34.1	19.8	32.2	C	C	D	C
	South	12.7	20.8	13.4	47.5	E	D	E	B	9.2	18.1	8.1	17.1	E *	D *	E *	D *	15.2	28.4	13.5	26.4	D	C	E	C
	East	111.6	96.2	67.3	91.0	A	A	A	A	80.6	91.5	49.4	63.5	C	C	B	A	72.5	84.8	44.3	58.7	C	C	B	B
West 59th Street and West End Avenue	North	101.5	152.9	102.2	93.5	A	A	A	A	19.4	33.5	17.2	17.4	D *	C	D *	D *	26.7	38.8	19.7	20.1	C	C	D	D
	West	184.8	267.7	63.7	52.2	A	A	A	B	73.4	162.5	45.1	37.0	A	A	B	C	68.5	162.5	45.1	37.0	A	A	B	C

Note:
* Denotes a significant adverse impact based on *CEQR Technical Manual* criteria.

This table has been revised for the FSEIS.

to 17.6 feet in width from 15 feet in width in the future with the Proposed Project. Additionally, a signal timing change is also proposed; it is also proposed to transfer four seconds of green time from the southbound phase to the east/west phase at this location during the AM and PM peak periods and three seconds of green time from the southbound phase to the east/west phase at this location during the Saturday midday peak period. With the proposed widening and signal timing changes, this crosswalk would operate at LOS D with an average of 16.0 square feet per pedestrian during the AM peak period, LOS E with an average of 12.2 square feet per pedestrian during the PM peak period and LOS C with an average 26.1 square feet per pedestrian during the Saturday midday peak period and the Proposed Project's significant adverse impact would be fully mitigated in the AM, PM and Saturday midday peak hours.

South Crosswalk on Columbus Avenue at West 60th Street

Pedestrian demand from the Proposed Project would significantly adversely impact the south crosswalk on Columbus Avenue at West 60th Street in the weekday AM, midday and PM peak hours and the Saturday midday peak hour. To address these impacts, it is proposed to widen this crosswalk to 15.8 feet in width from 12 feet in width in the future with the Proposed Project. Additionally, a signal timing change is also proposed; it is proposed to transfer four seconds of green time from the southbound phase to the east/west phase at this location during the AM and PM peak periods and three seconds of green time from the southbound phase to the east/west phase at this location during the weekday midday and Saturday midday peak periods. With the proposed widening and signal timing changes, this crosswalk would operate at LOS D with an average of 15.2 square feet per pedestrian during the AM peak period, LOS C with an average of 28.4 square feet per pedestrian during the midday peak period, LOS E with an average of 13.5 square feet per pedestrian during the PM peak period and LOS C with an average of 26.4 square feet per pedestrian during the Saturday midday peak period and the proposed Project's significant adverse impacts would be fully mitigated in the AM, midday, PM and Saturday midday peak hours.

West Crosswalk on Columbus Avenue at West 60th Street

The proposed mitigation at the intersection of Columbus Avenue and West 60th Street includes the widening of the west crosswalk to 14 feet in width from 13 feet in width. This widening would increase the average square feet per pedestrian, which would be reduced by the proposed signal timing changes for both traffic and pedestrian mitigation during all periods, and would avoid this crosswalk from becoming impacted due to the signal timing adjustments of four seconds of green time from the southbound phase to the east/west phase at this location during the AM and PM peak periods and three seconds of green time from the southbound phase to the east/west phase at this location during the weekday midday and Saturday midday peak periods.

North Crosswalk on West End Avenue at West 59th Street

Pedestrian demand from the Proposed Project would significantly adversely impact the north crosswalk on West End Avenue at West 59th Street in the AM, PM and Saturday midday peak hours. The proposed traffic mitigation measures for this intersection include a signal timing change that would transfer 3 seconds from the north/south phase to the east/west phase during the AM peak period, and the conversion of West 59th Street between Amsterdam Avenue and West End Avenue to a one-way westbound from a two-way operation. Additionally, it is proposed to widen this crosswalk to 12.5 feet in width from 10.8 feet in width. With the proposed mitigation, this crosswalk would operate at LOS C during the AM peak period and LOS D during the PM and Saturday midday peak periods, with an average of 26.7, 19.7 and 20.1

square feet per pedestrian in the AM, PM and Saturday midday peak hours, respectively, and the Proposed Project's significant adverse impact would be fully mitigated in the AM, PM and Saturday midday peak hours.

Effects of Proposed Traffic Mitigation Measures on Proposed Crosswalk Mitigation Measures

As discussed above, measures developed to mitigate the Proposed Project's significant adverse traffic impacts would primarily consist of minor signal timing adjustments and changes to curbside parking regulations. These proposed traffic mitigation measures are incorporated in the pedestrian mitigation analysis and are not expected to adversely affect pedestrian conditions on sidewalks, corner areas or crosswalks in the study area.

AIR QUALITY

Effects of Proposed Traffic Mitigation Measures

Maximum predicted carbon monoxide (CO) and particulate matter (PM_{10} and $PM_{2.5}$) concentrations related to traffic generated by the Proposed Project, and concludes that the Proposed Project would not result in significant adverse air quality impacts. Therefore, no air quality mitigation is required.

Since the proposed traffic mitigation measures described above would alter traffic conditions when compared with the Proposed Project, the localized air quality impacts with mitigation were modeled for each of the intersections analyzed. The results of this modeling analysis (performed in accordance with methodologies described in Chapter 18, "Air Quality") indicate that CO and particulate matter concentrations would not exceed National Ambient Air Quality Standards (NAAQS) or the city's interim guidance criteria for $PM_{2.5}$, and therefore would not affect the conclusions reached in "Air Quality." Therefore, no significant adverse air quality impacts would occur as a result of the proposed traffic mitigation measures.

NOISE

Future noise levels with the Proposed Project and the proposed traffic mitigation measures were calculated for the 2018 analysis year. No Build values presented in Chapter 19 were used to assess impacts. Build values for 2018 with the proposed traffic mitigation measures in place are shown in **Table S-11**.

At all locations and during all time periods, the increase in $L_{eq(1)}$ noise levels in 2018 Build with Mitigation scenario as compared with the No Build scenario would be less than 1.1 dBA, which would be barely perceptible, and insignificant based upon CEQR criteria. At site 5 during the AM and midday (MD) time periods, noise levels would decrease slightly because of a decrease in traffic speed along West End Avenue.

In terms of CEQR noise exposure guidelines, future 2018 noise levels with the Proposed Project and proposed traffic mitigation measures would remain in the "marginally acceptable" category for receptor sites 4 and 8, and in the "marginally unacceptable" category for receptor sites 1, 2, 3, 5, 6, and 7. These values are based on the calculated $L_{10(1)}$ values.

Consequently, noise levels with the proposed traffic mitigation would be nearly the same as those without traffic mitigation. In both cases the Proposed Project would not result in any significant adverse noise impacts. In addition, the noise attenuation levels shown in Table S-11 would apply for Build conditions with the proposed traffic mitigation.

Table S-11
2018 Build Noise Levels With Traffic Mitigation Measures (in dBA)

Site	Day	Time	2018 No Build $L_{eq(1)}$	2018 No Build $L_{10(1)}$	2018 Build $L_{eq(1)}$	2018 Build with Traffic Mitigation $L_{eq(1)}$	2018 Build with Traffic Mitigation Increment	2018 Build with Traffic Mitigation $L_{10(1)}$
1	Weekday	AM	72.2	75.1	72.9	72.9	0.7	75.8
	Weekday	MD	70.6	73.6	71.1	71.1	0.5	74.1
	Weekday	PM	69.2	71.5	69.7	69.7	0.5	72.0
	Saturday	MD	69.9	72.3	70.6	70.6	0.7	73.0
2	Weekday	AM	72.7	75.5	73.2	73.2	0.5	76.0
	Weekday	MD	74.0	77.9	74.3	74.3	0.3	78.2
	Weekday	PM	71.5	74.8	71.9	71.9	0.4	75.2
	Saturday	MD	67.1	68.9	67.5	67.5	0.4	69.3
3	Weekday	AM	70.9	73.8	71.3	71.5	0.6	74.4
	Weekday	MD	68.7	72.3	69.1	69.3	0.6	72.9
	Weekday	PM	63.5	64.8	63.7	63.8	0.3	65.1
	Saturday	MD	64.2	66.0	64.6	64.7	0.5	66.5
4	Weekday	AM	66.7	68.4	67.0	67.2	0.5	68.9
	Weekday	MD	62.9	65.4	63.4	63.5	0.6	66.0
	Weekday	PM	61.5	63.6	62.4	62.6	1.1	64.7
	Saturday	MD	59.8	61.6	60.5	60.6	0.8	62.4
5	Weekday	AM	72.0	75.0	71.8	71.8	-0.2	74.4
	Weekday	MD	72.7	74.1	72.6	72.6	-0.1	74.0
	Weekday	PM	68.3	71.1	68.5	68.5	0.2	71.3
	Saturday	MD	68.0	70.3	68.2	68.2	0.2	70.5
6	Weekday	AM	69.6	71.1	70.1	69.6	0.0	71.1
	Weekday	MD	65.9	68.0	66.4	66.0	0.1	68.1
	Weekday	PM	67.4	70.3	67.8	67.7	0.3	70.6
	Saturday	MD	64.4	67.9	65.0	65.0	0.6	8.5
7	Weekday	AM	73.3	75.4	74.0	4.0	0.7	76.1
	Weekday	MD	74.1	75.7	74.3	74.5	0.4	76.1
	Weekday	PM	74.2	74.7	74.8	74.8	0.6	75.3
	Saturday	MD	69.3	71.6	69.6	69.6	0.3	71.9
8	Weekday	AM	67.7	69.2	67.9	67.9	0.2	69.4
	Weekday	MD	67.3	69.1	67.5	67.5	0.2	69.3
	Weekday	PM	66.1	67.6	66.5	66.5	0.4	68.0
	Saturday	MD	65.8	67.7	66.3	66.3	0.5	68.2

CONSTRUCTION

Traffic

Significant adverse traffic impacts due to construction are predicted to occur at one intersection during the 6:00-7:00 AM peak hour and three intersections during the 3:00 – 4:00 PM peak hour. A combination of early implementation (i.e., during the construction period) of the project traffic mitigation strategies described above along with temporary mitigation strategies for construction proposed for the area adjacent to the project site, the construction-related significant traffic impacts at the three intersections cited above would be fully mitigated. The measures used to mitigate the impacts at these four intersections are discussed below and summarized in **Table S-12**.

Table S-12
Construction Traffic Mitigation Measures

Intersection	Approach	Impacted Period	Build Signal Timing (Seconds) (1)	Proposed Improvement Plan	
				Mitigated Signal Timing (Seconds) (1)	Proposed Improvement Measures
West End Avenue					
West End Avenue (NS) @ **W. 59th Street (EW)**	EW NS	AM PM	30/30 60/60	33/33 57/57	Transfer 3s from NS to EW phase in weekday AM and PM periods. W. 59th Street between West End Avenue and Amsterdam Avenue to be converted to one-way westbound. Parking would be permitted on the south curb between West End Avenue and Amsterdam Avenue W. 59th Street WB approach would be restriped to include one 13' shared through-right turn lane and one 22' left lane with parking. W. 59th Street EB approach would be restriped to include one 12' left-turn only lane and one 11' right-turn lane.
9th Avenue/Columbus Avenue					
Columbus Avenue (SB) @ **W. 60th Street (EW)**	EW SB Only Peds Only	PM	35/35 45/45 10/10	35/38 45/42 10/10	Transfer 3s from SB Only to EW phase in PM period.
9th Avenue (NS) @ **W. 57th Street (WB)**	WB Only EW SB Only Peds Only	PM	21/21 26/26 36/36 7/7	21/21 26/28 36/34 7/7	Transfer 2s from SB only to EW in PM period.

Notes:
(1) Signal timings shown indicate Green plus Yellow (including All Red) for each phase

This table has been revised for the FSEIS.

- At the intersection of Ninth Avenue and West 57th Street, early implementation of proposed 2018 mitigation would fully mitigate the PM peak hour construction traffic impact at this location. Proposed mitigation measures would include transferring three seconds of green time from the southbound-only phase to the east-west phase during the weekday PM peak period. With this signal timing change, the eastbound movement delay would be 72.0 seconds (LOS E) as compared with 80.7 seconds (LOS F) in the No Build.
- At the intersection of Columbus Avenue and West 60th Street, early implementation of proposed 2018 mitigation would also fully mitigate the expected PM peak hour construction traffic impact at this location. Mitigation at this intersection would consist of transferring three seconds of green time from the southbound phase to the east-west phase during the weekday PM period. With this signal timing adjustment, the eastbound delay would be 111.3 seconds (LOS F) as compared with 135.0 seconds (LOS F) in the No Build.
- At the intersection of West End Avenue and West 59th Street, early implementation of a portion of the proposed 2018 mitigation along with the implementation of temporary construction mitigation would fully mitigate the expected AM and PM peak hour traffic impacts at this location. Mitigation at this intersection would include the conversion of West 59th Street between Amsterdam Avenue and West End Avenue into a one way westbound street. A temporary construction mitigation measure at this intersection would consist of implementing a No Standing Anytime regulation for 100 feet along the south curb of the eastbound approach to allow for two travel lanes: one 12-foot-wide eastbound left-turn only lane and one 11-foot-wide right turn lane. The westbound approach would allow for two travel lanes: one 14-foot-wide westbound left-turn only lane and one 13 foot wide thru/right turn lane. Mitigation at this intersection would include also the early implementation of the transfer of three seconds of green time from the north-south phase to the east-west phase in the AM peak period. Another temporary construction mitigation measure at this intersection would include the transfer of two seconds of green time from the north-south phase to the east-west phase in the PM peak period. With this proposed mitigation, the eastbound delay would total 32.2 seconds (LOS C) in the AM peak hour and 173.1 seconds (LOS F) in the PM peak hour compared with 37.5 seconds (LOS D) and 174.3 seconds (LOS F) in the AM and PM peak periods, respectively, in the No Build. PM peak hour delay on the westbound approach would total 33.6 seconds (LOS D) under mitigated construction conditions compared with 108.2 seconds (LOS F) in the No Build.

Noise

Construction activities would result in a significant adverse noise impact at receptor locations A1, A2, B2, C, D, E, F, H1, N1, N2, O, Q, R, U, and V with the podium approach and at receptor locations A2, C, D, E, N1, N2, U, and V with the individual basement approach. The exceedance of the 3-5 dBA CEQR impact criteria would be due principally to noise generated by the large amount of construction equipment operating on-site. However, with the exception of receptors B2, all receptor locations have double-glazed windows and have some form of alternative ventilation (i.e., central air conditioning or PTAC units), which would provide a significant amount of sound attenuation, and would result in interior noise levels during much of the time when project-related construction activities are occurring that are below 45 dBA L_{10} (the CEQR acceptable interior noise level criteria).

Receptor site B2 (i.e., the corner building at Amsterdam Houses), has double-glazed windows and some tenants have installed air conditioning units on some windows. To maintain an interior $L_{10(1)}$ noise level of 45 dBA (the CEQR acceptable interior noise level criteria), a minimum of 25-30 dBA window/wall attenuation would be required. At locations on this building where significant noise impacts are predicted to occur, if the podium approach is utilized, the project sponsor would provide window air conditioning units to mitigate these impacts. (Provision for these mitigation measures will be included in the Restrictive Declaration.) With the existing double-glazed windows and the alternative ventilation (provided by the project sponsor), interior noise levels during much, if not all, of the time when project construction activities are taking place, would be expected to be below 45 dBA $L_{10(1)}$ (the CEQR acceptable interior noise level criteria).

With regard to the residential terrace locations (i.e., receptors A1, A2, D, F, H1, N1, and N2 for the podium approach and receptors A2, D, N1, and N2 for the individual basement approach), the highest $L_{10(1)}$ noise levels would range from approximately 73 to 79 dBA during some peak periods of construction activity. While even without construction, noise levels at these terraces would exceed the CEQR acceptable range (55 dBA $L_{10(1)}$) for an outdoor area requiring serenity and quiet, during the weekday daytime time periods when construction activities are predicted to significantly increase noise levels, construction activities would exacerbate these exceedances and result in significant adverse noise impacts at the terraces at these identified buildings.[1] There are no feasible mitigation measures that could be implemented to eliminate the significant noise impacts at these locations.

Absent the implementation of mitigation measures, the proposed action would have unmitigated significant noise impacts at the locations specified above for limited periods of time.

ALTERNATIVES

NO ACTION ALTERNATIVE

Consideration of the No Action Alternative is mandated by both SEQRA and CEQR and is intended to provide the lead and involved agencies with an assessment of the expected environmental impacts of no action on their part. The No Action Alternative assumes that the Proposed Project would not be implemented (i.e., none of the discretionary approvals proposed as part of the Proposed Project would be adopted), and that Parcels L and M would be developed as already approved as part of the 1992 Riverside South project. The technical chapters of this Final Supplemental EIS (FSEIS) have described the No Action Alternative as "the Future Without the Proposed Project," and specifically as "No Build Scenario 2." Parcels L and M were planned for primarily residential development with approximately 301,980 gross square feet (gsf) on Parcel L and approximately 316,680 gsf on Parcel M. Parcel L also was to include a public parking garage of 149 spaces, and Parcel M was to include a public parking garage of 152 spaces. Parcel N would remain in its current parking use (subsequent to the completion of the 1992 FEIS, the City Council modified the project approvals to provide that future development on Parcel N would require the submission of revised plans and supplementary environmental analysis). Unlike the Proposed Project, the No Action Alternative would not include a public school, retail and hotel uses, automotive showroom and service uses, or publicly accessible open

[1] It should be noted that all or most of the buildings where these residential terraces are located did not exist at the time that the 1992 *Riverside South FEIS* was prepared, and consequently the significant impacts at these locations were not identified in that document.

space. Since the affordable housing requirements under the 1992 approvals are expected to be satisfied with the construction of buildings on other parcels within the Riverside South General Large Scale Development (GLSD), no affordable housing units would be required on parcels L, M, and N under the No Action Alternative.

The significant adverse impacts anticipated for the Proposed Project would not occur with the No Action Alternative with one exception (construction noise). Specifically, the child care, open space, traffic, transit and pedestrian, and construction traffic impacts identified for the Proposed Project would not occur under the No Action Alternative. The unmitigated impact identified with the Proposed Project is likely to occur with respect to construction noise at some or all of the same off-site terrace locations with the No Action Alternative. Because of the more limited construction program for the No Action Alternative, impacts due to this alternative would be expected to be of shorter duration than those predicted to occur with the Proposed Project.

Construction of this alternative would not include the use of equipment with the extensive emission controls, noise abatement measures, and traffic mitigation measures that would be provided with the Proposed Project.

The No Action Alternative would not meet the design goals and objectives of the Proposed Project. Specifically, the No Action Alternative would not result in the architecturally distinctive master planning and building designs that are fundamental to the Proposed Project. Also, the No Action Alternative would not allow for continuation of the Manhattan street grid across the project site. The view corridors along West 60th Street and Freedom Place South would not be created under the No Action Alternative. Under the No Action Alternative the extension of Freedom Place South to West 59th Street would not occur, and therefore the project site would not be as accessible to the public as it would be with the Proposed Project. The No Action Alternative would not meet the Proposed Project's goal to provide an attractive connection to Riverside Park South and the Hudson River waterfront while creating an inviting and functional center for the surrounding residential neighborhood. The No Action Alternative would not result in any additional open space and would not provide an attractive streetscape between the surrounding neighborhood and the expansive open space west of the project site.

The No Action Alternative would not meet other goals and objectives of the Proposed Project. It would not integrate commercial and retail development serving project residents and the general population in the nearby neighborhoods. The No Action Alternative would include less market rate residential units (577 units, compared with the approximately 2,500 residential units of the Proposed Project) and would not include any affordable housing units. Therefore, the No Action Alternative would be less effective in meeting the Proposed Project's housing goal, and in contributing to the achievement of the city's overall housing goals, including contributing to the supply of affordable housing.

LESSER DENSITY ALTERNATIVE

The Lesser Density Alternative would allow all of the same uses as the Proposed Project, but with a lesser amount of total development—2.4 million zoning square feet (zsf), as compared with approximately 3.0 million zsf with the Proposed Project (a difference of approximately 600,000 zsf). The reduction in density would be achieved by a combination of reduction in the number of floors in buildings, and a reduction in the size of some building elements. On the project site, the Lesser Density Alternative would include the same overall site plan layout, including numbers and locations of buildings, open space (including type and size), and internal roadways as those currently contemplated for the Proposed Project. The below-grade uses

(including parking and auto service uses) and the school would be the same type and size as the Proposed Project.

The Lesser Density Alternative would generally result in the same significant adverse impacts as the Proposed Project, including the same unmitigated impacts. Like the Proposed Project, the Lesser Density Alternative would not result in significant adverse impacts with respect to: land use, zoning, and public policy; socioeconomic conditions; public schools; police and fire services; library services; shadows; historic resources; urban design and visual resources; neighborhood character; natural resources; hazardous materials; consistency with the city's Waterfront Revitalization Program; infrastructure; solid waste and sanitation services; energy; parking; subway service; pedestrians; air quality; noise; and public health.

In areas where the Proposed Project is anticipated to result in significant adverse impacts, the Lesser Density Alternative would lessen, but not eliminate those impacts. Like the Proposed Project, the Lesser Density Alternative would result in significant adverse impacts related to: publicly funded child care space, open space, traffic, transit, pedestrian crosswalks, construction traffic, and construction noise. Overall, the total number of intersections with significant adverse traffic impacts under the Lesser Density Alternative would be nearly the same as the Proposed Project.

The Lesser Density Alternative, like the Proposed Project, could result in unmitigated significant adverse impacts in the areas of open space, traffic, and construction noise. In these areas, the impacts would be of lesser intensity but would nevertheless remain unmitigated. Unmitigated significant adverse traffic impacts would occur at the same three intersections: Twelfth Avenue at West 56th Street; Twelfth Avenue at West 54th Street; and Twelfth Avenue at West 52nd Street. (As noted above in "Mitigation," the mitigation proposed for Twelfth Avenue and West 56th Street intersection is currently being reviewed by NYSDOT. However, if NYSDOT decides to not implement the mitigation measure proposed for this intersection, then the significant impacts at this intersection would remain unmitigated). In addition, as with the Proposed Project, unmitigated construction-related noise impacts would occur at terrace locations at several nearby residential buildings.

The Lesser Density Alternative would meet all of the goals and objectives of the Proposed Project; however, it would not meet the Proposed Project's housing goals to the same extent. The Lesser Density Alternative would provide between 300 and 500 fewer total dwelling units than the Proposed Project, and between 36 and 108 fewer affordable units. Therefore, the Lesser Density Alternative would be less effective in meeting the Proposed Project's housing goals and in contributing to the achievement of the city's overall housing goals.

NO UNMITIGATED SIGNIFICANT ADVERSE IMPACT ALTERNATIVE

This alternative considers development that would not result in any identified significant, unmitigated adverse impacts. The impact analyses provided in the previous chapters of this FSEIS identified a number of significant adverse impacts for which no practicable mitigation has been identified. Unmitigated impacts were identified in the areas of open space, traffic, and construction noise. Modifications to the Proposed Project that would eliminate these unmitigated significant impacts are as follows:

- The Proposed Project would have the potential to result in unmitigated significant adverse impacts on active open space. The overall density of the project would have to be reduced to approximately 1,225 residential units in order to result in no change in the active open space

ratio as an increment over the Future Without the Proposed Project (or the No Action Alternative). Limiting development to this level would substantially reduce the opportunity to provide housing (including affordable housing), and would substantially compromise the project's stated goals and overall economic viability. Conversely, the Proposed Project would have to include an additional 0.88 acres of active open space on the project site or in the ½-mile residential study area in 2018 so that the active open space ratio would remain unchanged. As discussed below in "Modifications to the Proposed Project," a publicly accessible children's play area has been proposed to partially mitigate the Project's significant open space impact. No other practicable opportunities for on-site or off-site mitigation have been identified as of the date of this FSEIS.

- With the Proposed Project, unmitigated significant adverse traffic impacts would occur at three intersections. In order to avoid the unmitigated significant adverse impacts at these three intersections, the Proposed Project's overall density would need to be reduced from approximately 3.1 million gsf to no more than approximately one million gsf. Limiting development to this level would substantially reduce the opportunity to provide housing (including affordable housing). Consequently, no reasonable alternative could be developed to completely avoid such impacts without substantially compromising the project's stated goals.

- Construction of the Proposed Project would result in unmitigated significant adverse construction-related noise impacts at terrace locations at several nearby residential buildings. These impacts reflect increased ambient noise levels at the affected buildings as a result of noise emanating primarily from on-site construction activities. The analysis of construction-related noise impacts for the Proposed Project assumed that all practicable noise reduction measures would be implemented throughout the course of construction. Despite the inclusion of these measures, construction of the Proposed Project would nonetheless result in unmitigated significant impacts at the affected outdoor terrace locations. Measures taken to mitigate indoor locations, i.e., window treatments and alternative ventilation, would not be effective for outdoor locations. Any multiple building development on the project site would require more than two years of continuous construction activities and would have the potential to result in unmitigated significant adverse construction noise impacts at the terrace locations mentioned above. Consequently there is no reasonable development alternative that would avoid the unmitigated adverse construction noise impacts resulting from the Proposed Project.

Based on the above, to eliminate all unmitigated significant adverse impacts, the Proposed Project would have to be reduced in size or modified to a point where it would not realize the principal goals of the Proposed Project.

COGENERATION ENERGY SUPPLY ALTERNATIVE

This alternative considers how energy efficiency and reliability may be improved while reducing greenhouse gas emissions from the project site. Consistent with the greenhouse gas (GHG) reduction goals of PlaNYC, a detailed study was performed for the Proposed Project which examined the technical and economic feasibility of providing combined heat and power, or cogeneration, for all or part of energy needs for the Proposed Project. The study concluded that large-scale cogeneration options including cogeneration facilities to serve individual project buildings, a combined system to serve the entire Proposed Project, or a combined system to serve the entire Proposed Project and the nearby Durst development, would not be economically feasible. A supplemental study was conducted to examine the technical and economic feasibility of implementing cogeneration under circumstances where most of the project is served by Con

Edison steam, which focused on on-site small-scale cogeneration options to provide domestic hot water and a portion of the electrical needs of the individual buildings. Two cogeneration options were considered in the supplemental study. The first option considered the use of steam microturbines (turbines powered by the Con Edison steam that the buildings would use for heat and domestic hot water) to generate a portion of the building's electricity load through steam pressure reduction. The second option considered the use of gas-fired microturbines to generate electricity while utilizing the waste heat to heat domestic hot water for an individual building. The feasibility study concluded that using gas-fired microturbines would be a technically feasible option, while the use of steam microturbines would only be technically feasible during the winter months for Buildings 1, 2, 3, and 4. Neither option was found to be economically feasible.

UNAVOIDABLE SIGNIFICANT ADVERSE IMPACTS

OPEN SPACE

Given the size of the decrease (6.1 percent) in the active open space ratio and the already high utilization of many of the active open space resources that would be available to the users in the Future With the Proposed Project, both within and outside the study area, the Proposed Project has the potential to result in a significant adverse active open space impact.

The *CEQR Technical Manual* lists potential on- and off-site mitigation measures. These measures include creating new public open spaces on-site or elsewhere in the study area of the type needed to serve the proposed population and offset their impact on existing open spaces in the study area, and improving existing open spaces in the study area to increase their utility, safety, and capacity to meet identified needs in the study area. Mitigation measures for this potential significant adverse impact were explored by the lead agency in consultation with DPR between the Draft and Final SEIS. Absent the implementation of such measures, the Proposed Project could have an unmitigated significant adverse impact on active open space.

Potential on-site mitigation measures considered for the active open space ratio deficit included: ball fields, handball courts, basketball courts, playgrounds, volleyball courts, and skate parks. Additionally, existing open spaces in the study area were examined with respect to their condition and utility. No practicable opportunities for off-site mitigation have been identified as of the date of this FSEIS.

To fully mitigate this significant adverse impact, a substantial amount of the on-site open space would need to be programmed for active uses. Given site constraints and the overall design objectives, providing this amount of open space on the Project site would not be compatible with the goals and objectives of the proposed site plan.

Therefore, in order to address the active open space impact with on-site active uses, measures to partially mitigate the impact were explored. The inclusion of a children's play area as part of the Proposed Project's publicly accessible open space was identified as the most appropriate mitigation for the identified significant adverse active open space impact. This use was deemed compatible with the adjacent passive open space and the overall objectives of the site plan. As described below in "Modifications to the Proposed Project," the project sponsor expects to file a revised application with various design changes. Among the modifications is the addition of a play area between Buildings 3 and 4 in the southern portion of the site. This measure is further analyzed and quantified in that chapter.

Absent the implementation of the mitigation measure through the proposed design change described above, the Proposed Project would have an unmitigated significant adverse impact on active open space. With the implementation of the mitigation measure through the proposed design change described above, the Proposed Project's impacts on active open space would be partially mitigated.

TRAFFIC

The Proposed Project would result in significant adverse impacts at 24 study area intersections during one or more analyzed peak hours. Specifically, 17, 13, 12, and 13 intersections would be impacted in the weekday AM, weekday midday, weekday PM, and Saturday midday peak hours, respectively. Most of the impacts could be mitigated through the implementation of traffic mitigation measures, including minor adjustments to signal timing in order to increase green time for impacted movements, daylighting intersections (i.e., changing parking regulations to prohibit parking near some intersections during certain peak time periods) and installing a new traffic signal.

At three intersections along Route 9A (Twelfth Avenue at West 56th Street, Twelfth Avenue at West 54th Street and Twelfth Avenue at West 52nd Street), which already have significant east/west movements and are congested under No Build conditions, no feasible mitigation measured have been identified which would mitigate north/south project-generated traffic impacts. However, as described above in "Mitigation," NYSDOT is currently reviewing additional proposed mitigation measures for Twelfth Avenue at West 56th Street that consist of removing prohibitive striping along the eastside of the northbound approach. The removal of this striping would allow for a fifth northbound lane, eliminating the significant impact at this location. However, if NYSDOT decides to not implement this mitigation measure, then the significant impacts would remain, resulting in unavoidable significant adverse impacts on traffic at the three above-mentioned intersections as a result of the Proposed Project.

CONSTRUCTION

Noise

Construction activities would result in a significant adverse noise impact at sensitive noise receptors locations receptor locations A1, A2, B2, C, D, E, F, H1, N1, N2, O, Q, R, U, and V with the podium approach and at receptor locations A2, C, D, E, N1, N2, U, and V with the individual basement approach. The exceedance of the 3-5 dBA CEQR impact criteria would be due principally to noise generated by the large amount of construction equipment operating on site. However, with the exception of receptors B2 all receptor locations have double-glazed windows and have some form of alternative ventilation (i.e., central air conditioning or PTAC units), which would provide a significant amount of sound attenuation, and would result in interior noise levels during much of the time when project-related construction activities are occurring that are below 45 dBA L_{10} (the CEQR acceptable interior noise level criteria).

Receptor site B2 (i.e., the corner building at Amsterdam Houses), has double-glazed windows and some tenants have installed air conditioning units on some windows. To maintain an interior $L_{10(1)}$ noise level of 45 dBA (the CEQR acceptable interior noise level criteria), a minimum of 25-30 dBA window/wall attenuation would be required. At locations on this building where significant noise impacts are predicted to occur, if the podium approach is utilized, the project sponsors would provide window air conditioning units to mitigate these impacts.

With regard to the residential terrace locations (i.e., receptors A1, A2, D, F, H1, N1, and N2 for the podium approach and receptors A2, D, N1, and N2 for the individual basement approach), the highest $L_{10(1)}$ noise levels would range from approximately 73 to 79 dBA during some peak periods of construction activity. While even without construction, noise levels at these terraces would exceed the CEQR acceptable range (55 dBA $L_{10(1)}$) for an outdoor area requiring serenity and quiet, during the weekday daytime time periods when construction activities are predicted to significantly increase noise levels, construction activities would exacerbate these exceedances and result in significant adverse noise impacts at the terraces at these identified buildings. There are no feasible mitigation measures that could be implemented to eliminate the significant noise impacts at these locations.

IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

There are a number of resources—including 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)—that would be 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. The development of the project site with open space and a mix of residential, commercial, public school, public parking, and open space constitutes a long-term commitment of land resources, thereby rendering land use for other purposes highly unlikely in the foreseeable future. These commitments of resources and materials are weighed against the Proposed Project's goals of accommodating a portion of the city's current and future housing needs (including the provision of affordable housing); providing retail, office, and public parking to existing and future residents in the neighborhood; and through building design and new open spaces, creating an attractive connection to Riverside Park South and the Hudson River waterfront.

GROWTH-INDUCING ASPECTS OF THE PROPOSED PROJECT

The Proposed Project is not expected to induce additional notable growth outside of the project site. While the project would improve existing infrastructure on and around the project site, including roadways, sidewalks, and open space, the infrastructure in the study area is sufficiently well-developed such that improvements associated with the Proposed Project would not induce additional growth.

MODIFICATIONS TO THE PROPOSED PROJECT

Since the issuance of the DSEIS and in advance of the public hearing for the DSEIS on September 15, 2010, the project sponsor filed an amended application for a text amendment and amendment to a special permit (dated August 20, 2010, ULURP Nos. N 100294 (A) ZRM and C 100296 (A) ZSM) with DCP that would apply the City's Inclusionary Housing Program to the project site. The project sponsor also expects to file a revised application that would incorporate various design changes, proposed in response to information, recommendations and comments received during the CEQR/ULURP process. This would require a change to the general large-scale special permit.

Overall, the Proposed Project with the design modifications would not change the conclusions of the impact assessment in the FSEIS.

The Proposed Project with the design modifications like the Proposed Project, would not result in significant adverse impacts in the following areas: land use, zoning, and public policy;

socioeconomic conditions; shadows, historic resources, urban design and visual resources; neighborhood character; natural resources; hazardous materials; waterfront revitalization, infrastructure; solid waste and sanitation services; energy; air quality; noise, and public health.

The Proposed Project with the design modifications would result in the same or similar significant adverse impacts as the Proposed Project in the following areas: community facilities (specifically, child care); traffic; transit; pedestrian crosswalks, and construction traffic and noise; and the same mitigation measures would be required.

With respect to open space, the Proposed Project with the design modifications would only partially mitigate the active open space impact identified above in "Open Space." Therefore, this significant adverse active open space impact would remain unmitigated. ✷