DEPT OF CITY PLANNING
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ENVIRONMENTAL REVIEW DIV.

Draft Scope of Work for Preparation of an Environmental Impact Statement 606 West 57th Street

A. INTRODUCTION

606 W. 57 LLC ("the Applicant") proposes a rezoning of a portion of the block bounded by West 56th and West 57th Streets, between Eleventh and Twelfth Avenues in Manhattan (see **Figure 1**). The area proposed for rezoning (the "Rezoning Area") includes Block 1104 Lots 31, 40, 44 and 55 ("the Proposed Project Site," or "Development Site 1"), as well as three additional parcels—Lots 25, 29 and 36. The project block is located in the Special Clinton District "Other Area" and is currently zoned for manufacturing, with underlying M1-5 and M2-3 districts (see **Figure 2**). Under the proposed rezoning, the M2-3 portion of the block would be rezoned to C4-7 and a small portion of the M1-5 district would also become C4-7 (see **Figure 3**). The M1-5 zoning on the west and southwest part of the block would not change.

In addition to the proposed zoning map amendment, the Proposed Actions include:

- A zoning text amendment to ZR §§ 23-933, 96-34 and Appendix F to designate the Rezoning Area an Inclusionary Housing* designated area and to provide in the Rezoning Area (i) a maximum of 12.0 FAR only through the provision of lower-income housing (with a limited amount of commercial uses above the ground floor being added to the base FAR of 9), and (ii) automobile showrooms and repairs as a permitted use.
- An authorization pursuant to ZR §13-553 to permit a curb cut on a wide street; and
- A special permit pursuant to ZR §§13-562 and 74-52 to permit a public parking garage.

Together with the zoning map amendment, these actions are the "Proposed Actions."

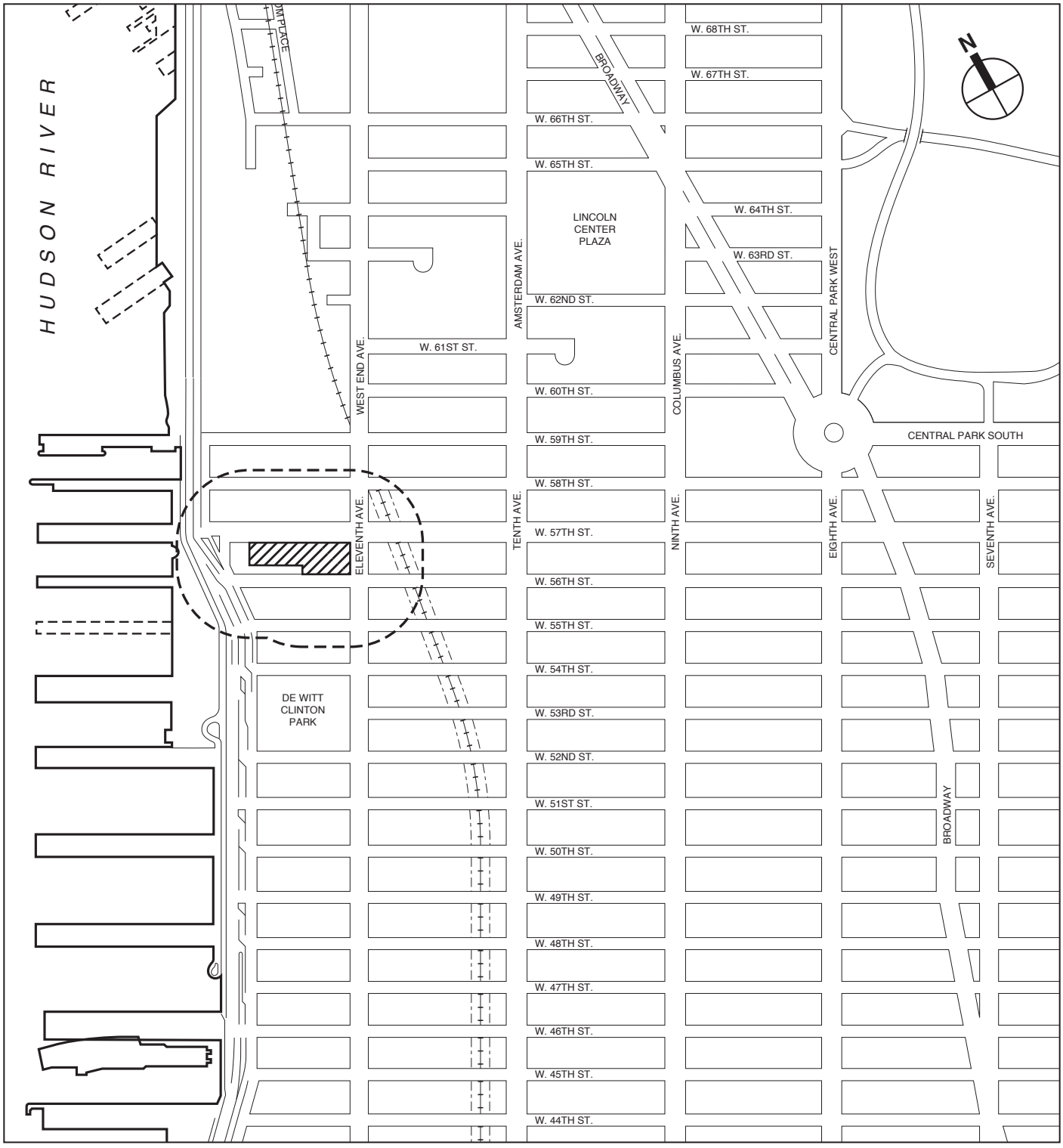
The Proposed Actions would facilitate the development of approximately 1.2 million gross square feet (gsf) of residential and other uses on Development Site 1. The potential scenarios for development on Development Site 1and the consideration of the three other parcels within the Rezoning Area are described in greater detail below.

Since the proposed project includes discretionary actions from the New York City Planning Commission (CPC), the proposed project is subject to environmental review under City Environmental Quality Review (CEQR) regulations and guidelines. In addition, the proposed project is subject to review under the Uniform Land Use Review Procedure (ULURP). The Department of City Planning (DCP), acting on behalf of the City Planning Commission, is the lead agency for the environmental review.

DCP has determined that the Proposed Actions may potentially result in significant adverse environmental impacts, and that an Environmental Impact Statement (EIS) will be prepared.

* The applicant may consider alternative mechanisms for providing inclusionary housing.

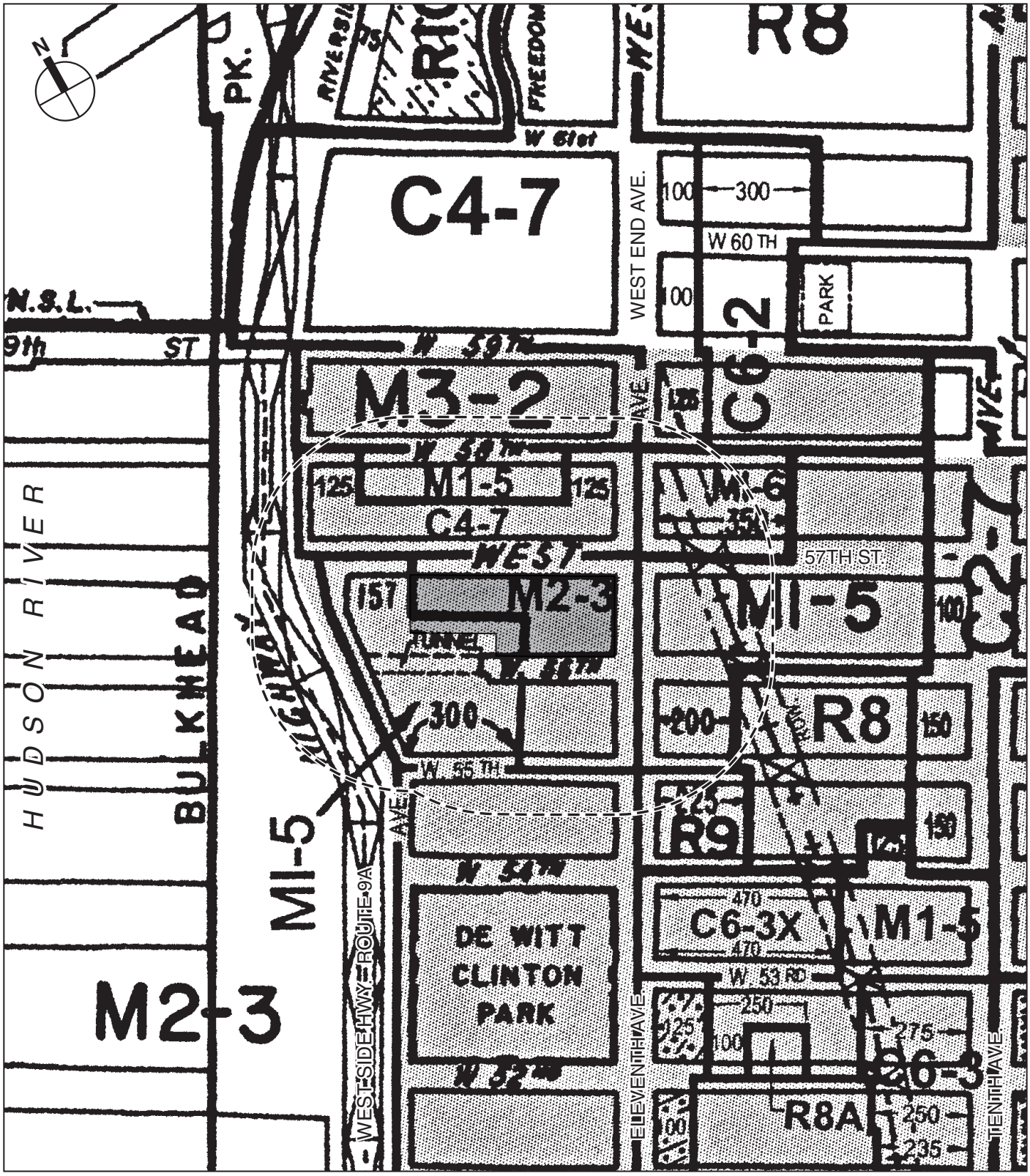
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Rezoning Area Location

Figure 1

1.14.13



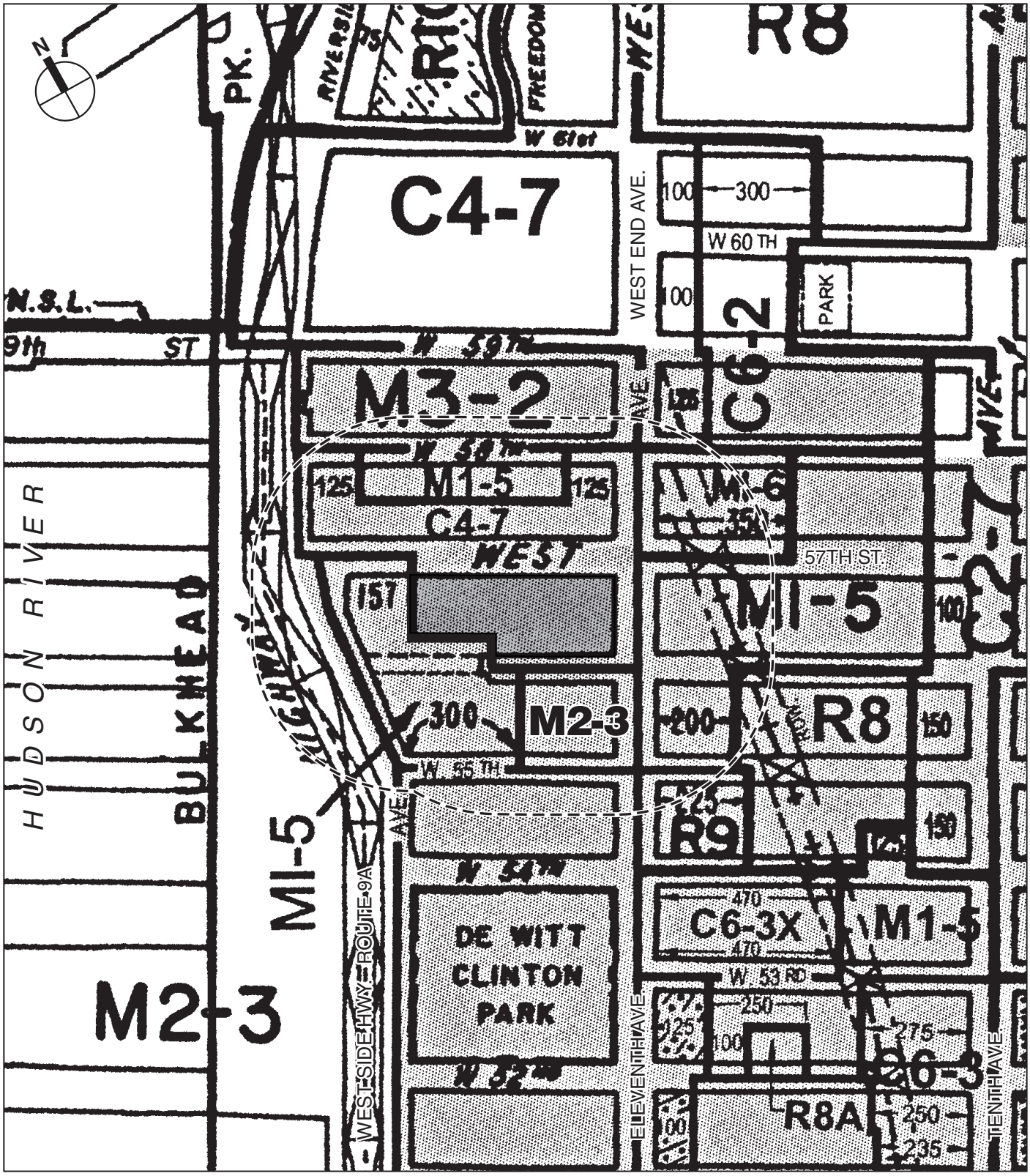
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SCALE

Rezoning Area
400-Foot Perimeter
Zoning District Boundary
C1-5 Overlay
C2-5 Overlay
Special Purpose District

TF CORNERSTONE 57TH STREET

Existing Zoning
Figure 2

1.14.13



Proposed Zoning

Figure 3

Scoping is the first step in the preparation of an EIS, and provides an early opportunity for the public and other agencies to be involved in the EIS process. It is intended to determine the range of issues and considerations to be evaluated in the EIS. This Draft Scope of Work for the EIS has been prepared to describe the proposed project, present the proposed framework for the EIS analyses, and discuss the procedures to be followed in the preparation of the Draft EIS (DEIS).

B. PROPOSED PROJECT—RWCDS 1

As shown in Table 1, the Proposed Project would include approximately 1,189 residential apartments, ground-floor local retail uses totaling 42,000 gsf, and up to 550 below-grade public parking spaces. Twenty percent of residential units (approximately 238 units) would be affordable housing under the inclusionary housing program. Residential uses within the building would total approximately 987,250 gsf of space, with approximately 42,000 gsf for retail and the remainder for parking. It is assumed that all of the floor area available under the proposed zoning would be fully used.

Table 1
Proposed Project—RWCDS 1

Use	Description	GSF
Residential	1,189 Units	987,250
Parking	550 Spaces	170,750
Local Retail	—	42,000
	Total GSF	**1,200,000**

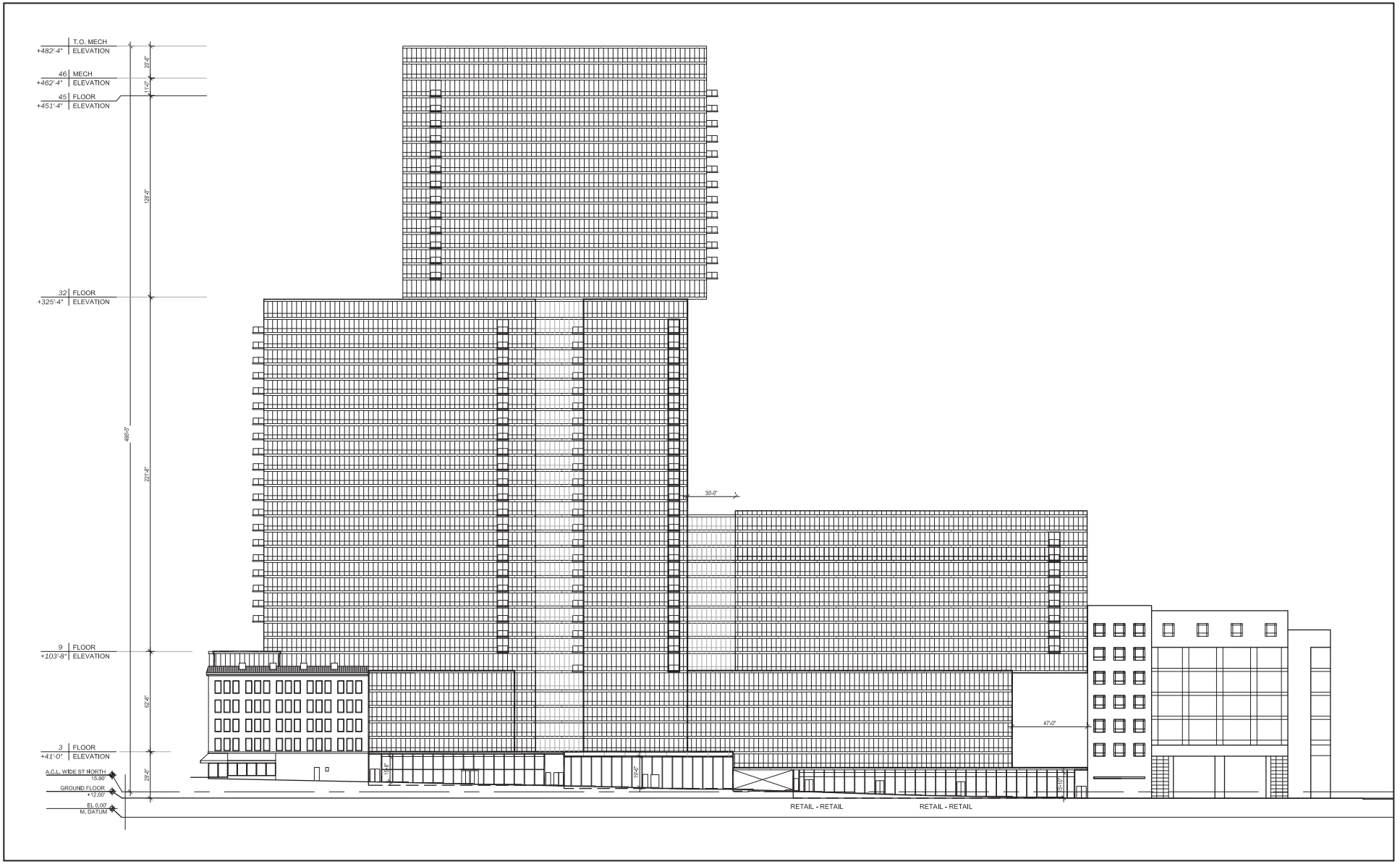
The Proposed Project would include a new building on Development Site 1with 45 stories (plus mechanical bulkhead) and a height of approximately 470 feet (see **Figures 4** through **8**). The residential lobby would be near the center of the project site and accessed along West 57th Street (see **Figure 9**). Subject to the final design of the proposed project, apartments are expected to be located on floors 2 through 45 of the proposed building.

As currently contemplated the base of the building would include approximately 42,000 gsf of retail/commercial space, which would be accessed from the 11th Avenue and West 57th Street frontages. The proposed parking garage would include up to 550 attended public parking spaces on three below-grade levels. Parking access and egress would be provided from both West 56th Street and West 57th Street. West 56th Street would also house a service area and loading dock.

As described below under "Analysis Framework for Environmental Review," the Proposed Project will be considered in the EIS as Reasonable Worst-Case Development Scenario (RWCDS) 1.

C. PURPOSE AND NEED

The Rezoning Area is currently underdeveloped, and its designation for manufacturing uses reflects the former character of this part of Manhattan. The proposed rezoning, along with the other proposed actions, would allow for a mixed-use building in a neighborhood that is already experiencing change that reflects the citywide trend towards redevelopment of former manufacturing areas into vibrant mixed-use communities. The Proposed Actions would facilitate the development of new residential uses that work toward the goals of creating both affordable and market-rate housing in Manhattan and throughout the City.

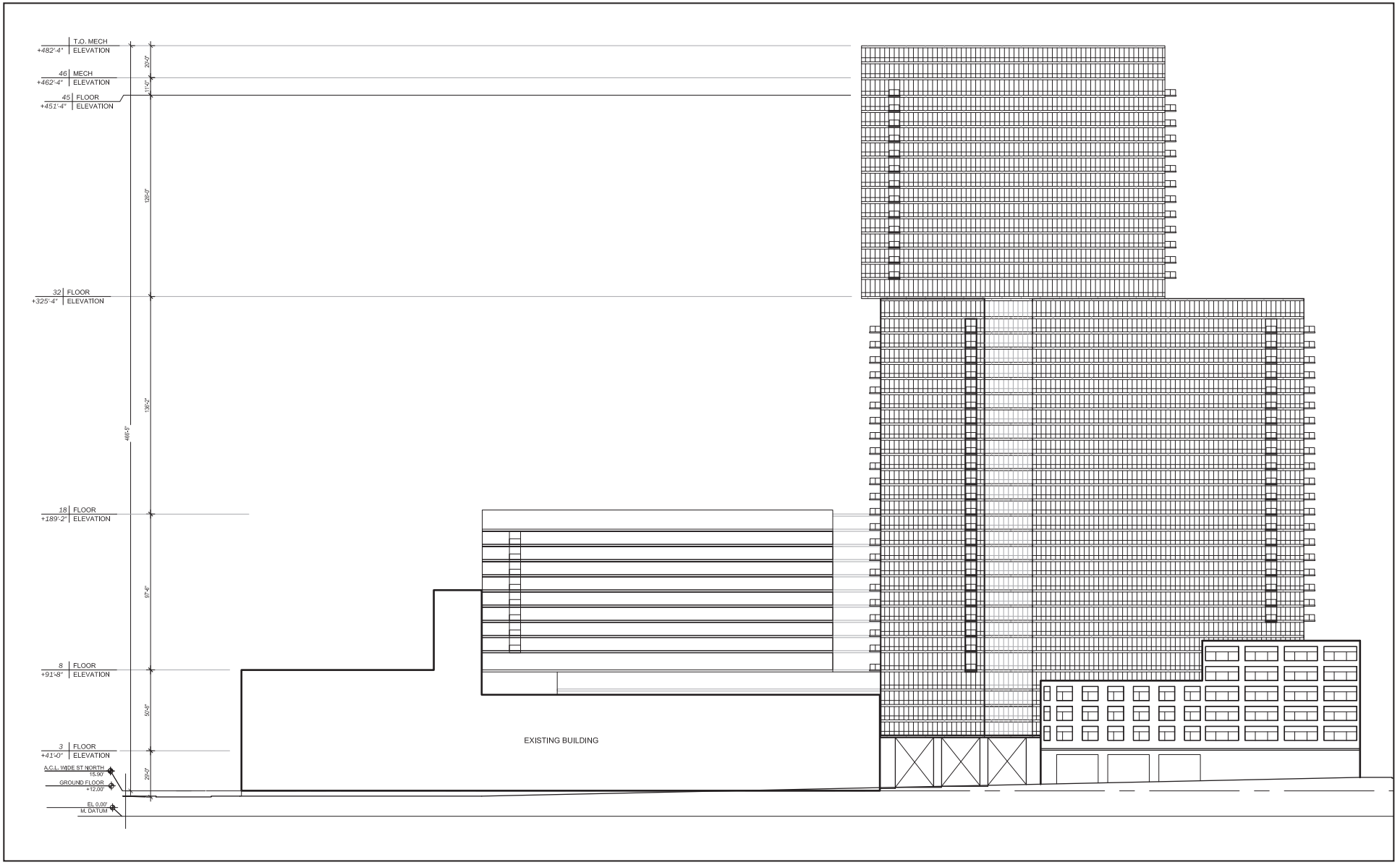


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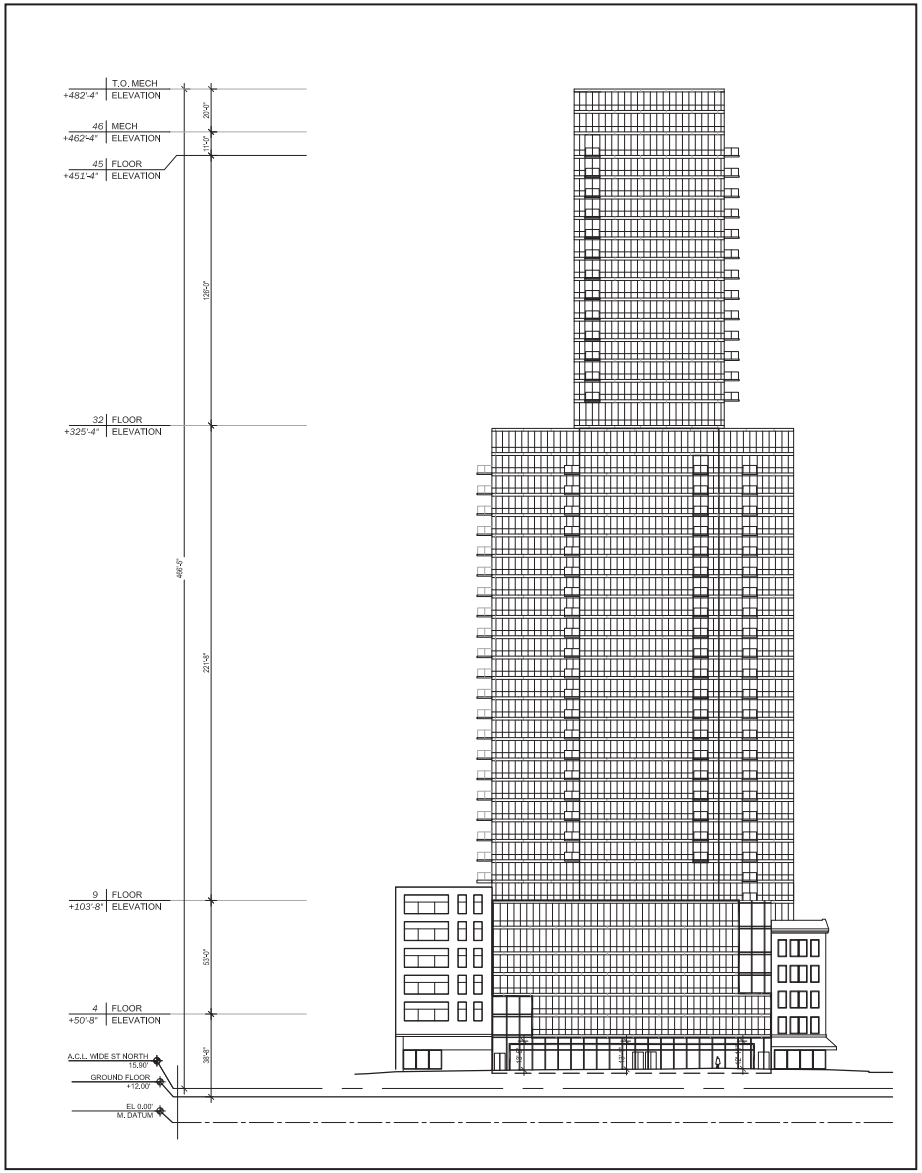
Illustrative North Elevation

Figure 4

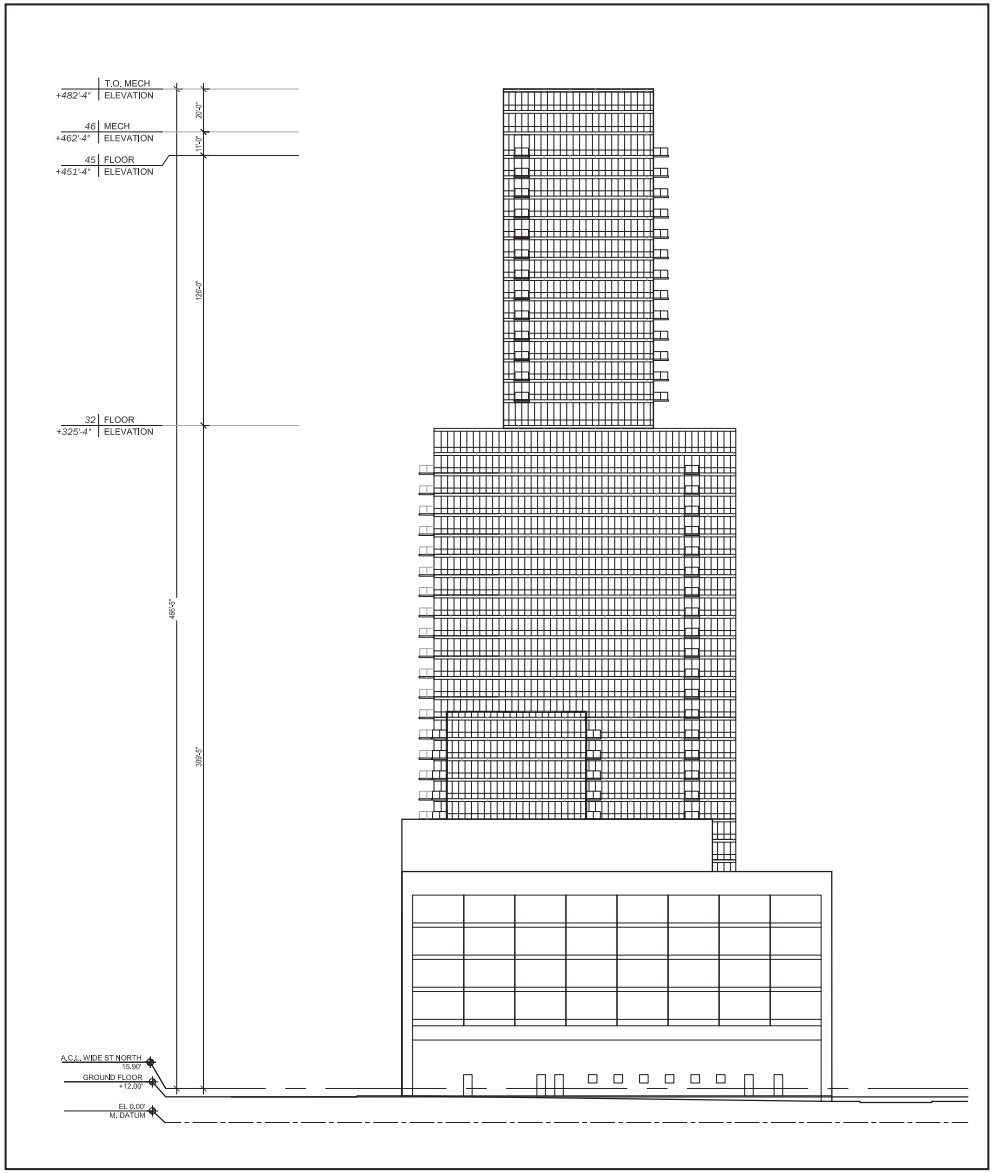


Illustrative South Elevation

Figure 5



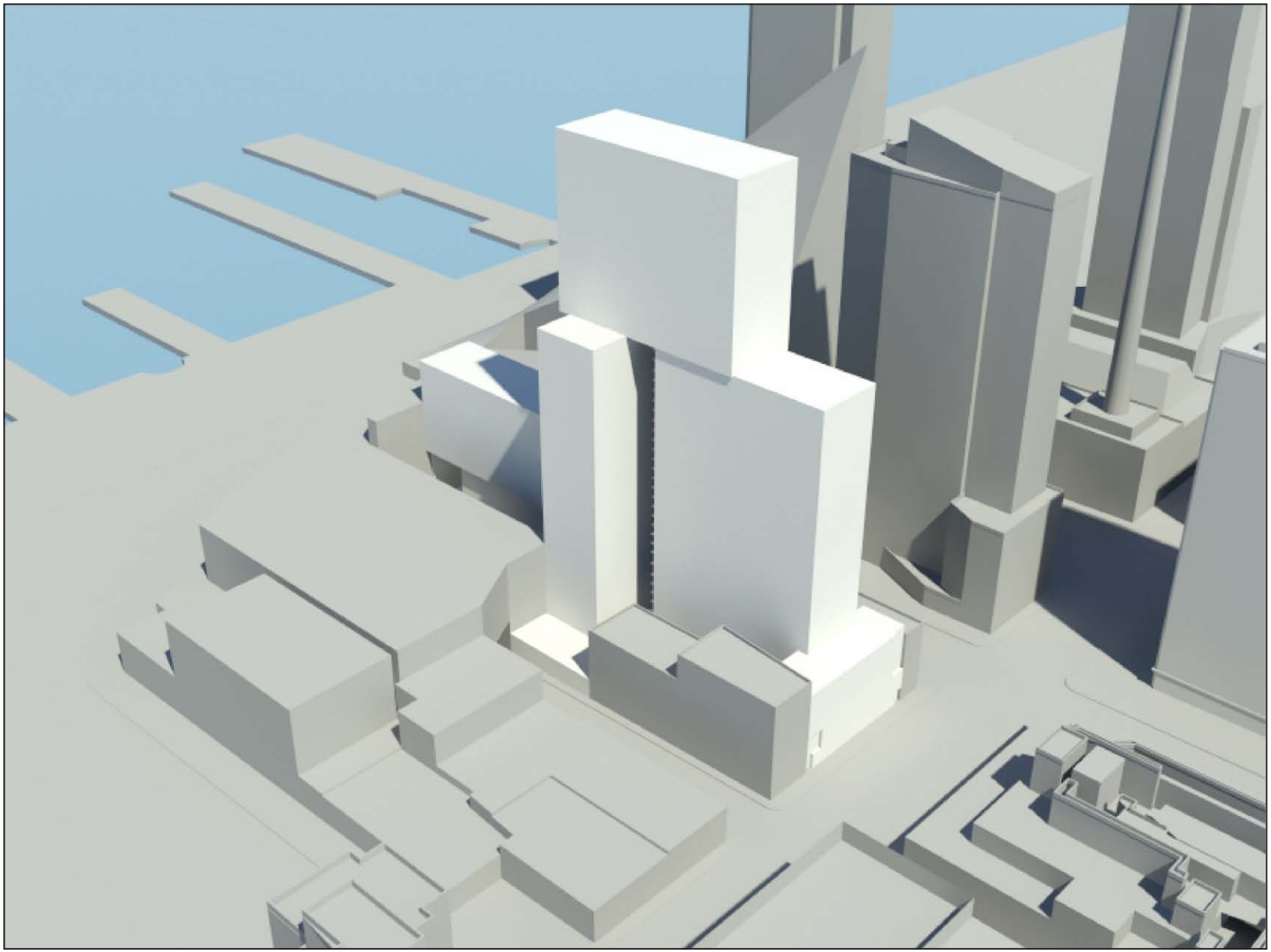
East Elevation



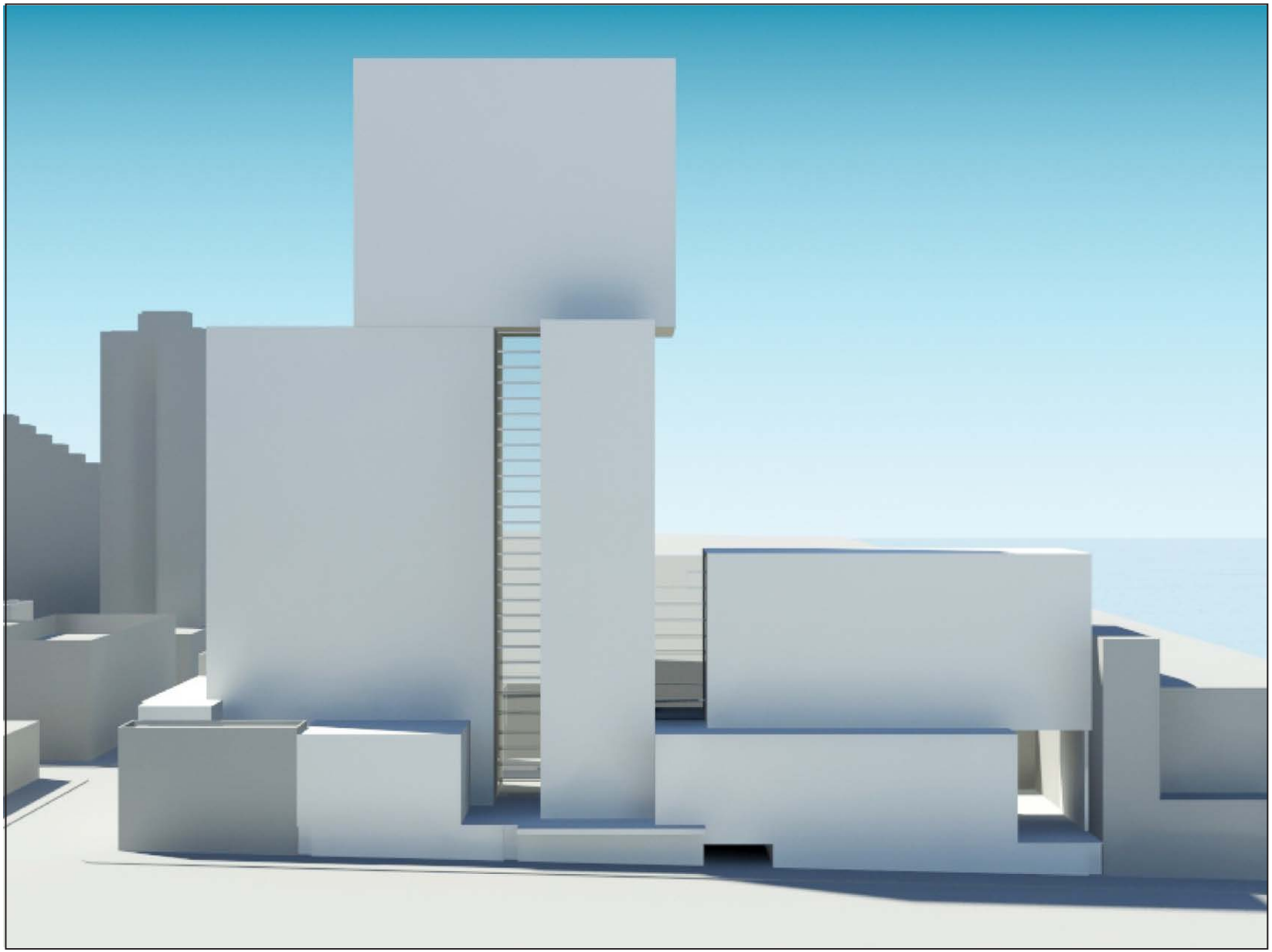
West Elevation

Illustrative East and West Elevations

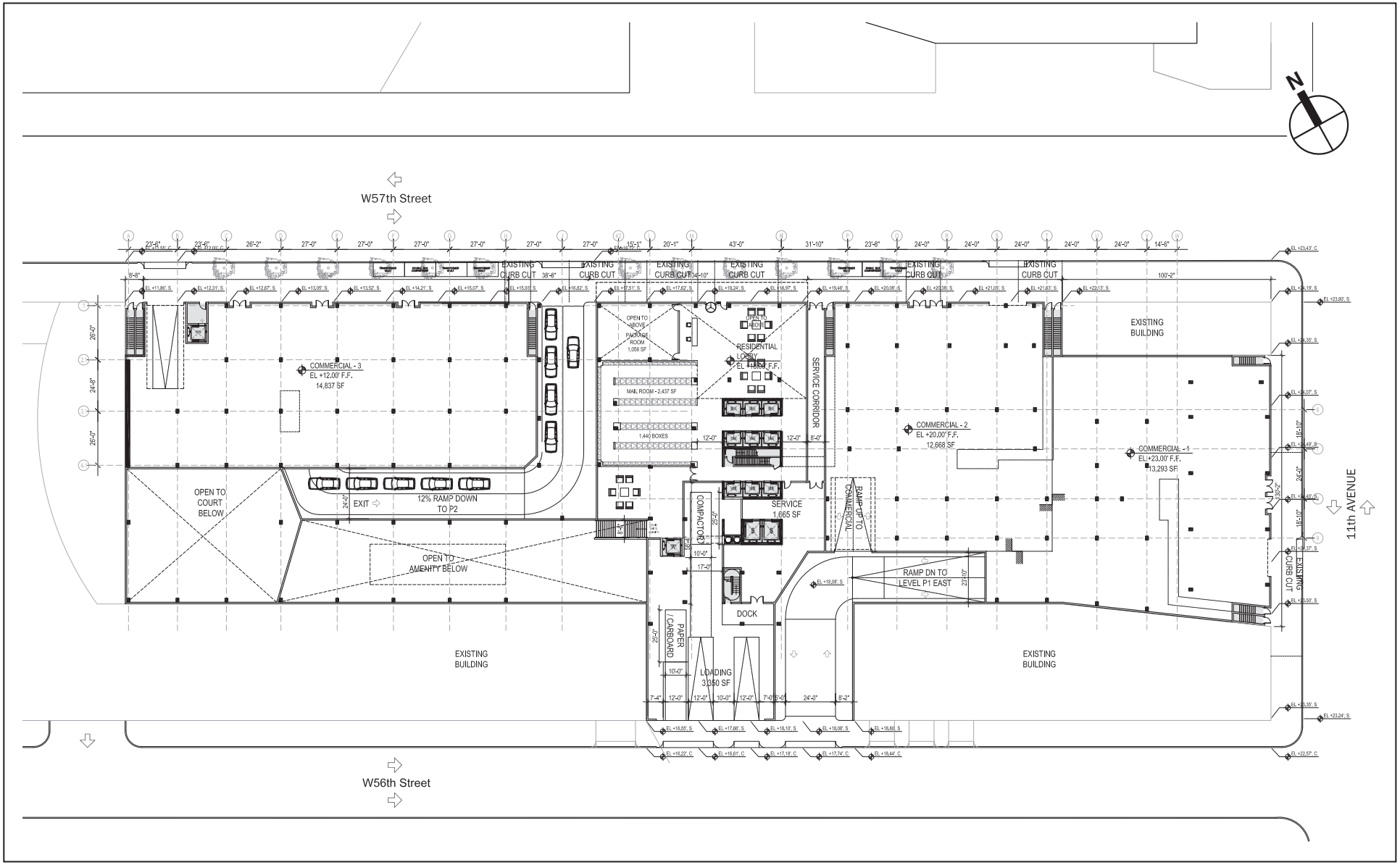
Figure 6



Illustrative Building Bulk Diagram
View Looking Northwest
Figure 7



Illustrative Building Bulk Diagram
View Looking South
Figure 8



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SCALE

Illustrative Site Plan

Figure 9

Redevelopment would complement the existing and ongoing revitalization of the area, contribute to the vitality of the streetscape and retail environment, and reinforce the character of 57th Street as a major mixed-use corridor running through the heart of Manhattan.

D. PROPOSED ACTIONS

Development of the Proposed Project requires approvals from the City Planning Commission (CPC) for the following actions:

- Zoning map amendment for the Rezoning Area, rezoning it from M2-3 and M1-5 to C4-7.
- Zoning text amendment to §§ 23-933, 96-34 and Appendix F to designate the Rezoning Area (located in the "Other Area" [Northern Subarea C1] in the Special Clinton District) an Inclusionary Housing[*] designated area and to provide a maximum of 12.0 FAR in the Rezoning Area only through the provision of lower-income housing (with a limited amount of commercial uses above the ground floor being added to the base FAR of 9).
- Zoning text amendment to § 96-34 to allow automotive showrooms with repairs in the Rezoning Area.
- Special Permit pursuant to §§ 13-562 and 74-52 for public parking for up to approximately 550 cars.
- Authorization pursuant to § 13-553 to permit a curb cut on a wide street in Manhattan Community District 4.

In addition, the Proposed Project may apply for the New York State Housing Finance Agency's "80/20" program to finance the affordable housing component.

E. ANALYSIS FRAMEWORK FOR ENVIRONMENTAL REVIEW

The *CEQR Technical Review Manual* will serve as a general guide on the methodologies and impact criteria for evaluating the project's potential effects on the various environmental areas of analysis. In disclosing impacts, the EIS considers the proposed project's potential adverse impacts on the environmental setting. It is anticipated that the Proposed Actions would be in place and the Proposed Project would be operational in 2017. Consequently, the environmental setting is not the current environment, but the future environment. Therefore, the technical analyses and consideration of alternatives first assess Existing Conditions and then forecast these conditions to 2017 ("Future Without the Proposed Actions") for the purposes of determining potential impacts in the future with the Proposed Actions ("Probable Impacts of the Proposed Actions").

THE FUTURE WITHOUT THE PROPOSED ACTIONS

For the purposes of the EIS, it is assumed that in the future without the Proposed Actions (the "No Action" condition), the proposed Rezoning Area will continue in active use as in the existing condition. For each technical analysis in the EIS, the No Action condition will also incorporate approved or planned development projects within the appropriate study area that are likely to be completed by the respective analysis years.

[*] The applicant may consider alternative mechanisms for providing inclusionary housing.

THE FUTURE WITH THE PROPOSED ACTIONS

For each of the technical areas of analysis identified in the *CEQR Technical Manual*, conditions with the Proposed Actions will be compared to the No Action condition. As described below, the EIS will consider the potential impacts of the entire Rezoning Area and not just the site-specific redevelopment of the property under the Applicant's control.

Two RWCDSs will be considered in the EIS. Although the building program for the Proposed Project (RWCDS 1, described above and summarized in Table 1) reflects what is currently contemplated by the project sponsor, it is possible that the building program could change. Since the Proposed Actions would not preclude other uses from being developed under the proposed zoning, for analysis purposes a program for other potential development on Development Site 1 (a mixed-use option, described below as RWCDS 2) has been developed and will also be considered in the EIS. In addition, since not all of the Rezoning Area is under the control of the Applicant, consideration will be given in the EIS to the redevelopment potential of those parcels that are not under the control of the Applicant, assuming that the Proposed Actions are in place.

The section below identifies and discusses the analysis framework to be analyzed in the EIS in considering potential impacts of the Proposed Actions.

THE PROPOSED PROJECT SITE—DEVELOPMENT SITE 1

The Proposed Project—RWCDS 1

With the Proposed Project, the redevelopment of Development Site 1 would include the program identified above—namely that there would be approximately 1,189 residential apartments, ground-floor local retail uses totaling 42,000 gsf, and up to 550 below-grade public parking spaces.

Mixed-Use Reasonable Worst Case Development Scenario—RWCDS 2

As noted above, Development Site 1 could be developed with uses other than those of the Proposed Project. Therefore, an additional RWCDS (RWCDS 2) has been developed that considers alternate uses on the site. Since a Restrictive Declaration is expected to control building massing and design on Development Site 1, RWCDS 2 focuses on differences in potential land uses rather than design-related issues.

As shown in Table 2, RWCDS 2 could include approximately 848 residential units (of which 170 would be affordable) and could include up to 550 public parking spaces, along with approximately 185,000 gsf of hotel (285 rooms), 35,000 gsf of local retail, 75,000 gsf of destination retail, and 30,000 gsf of medical office space. As with RWCDS 1, it is assumed that the floor area available under the proposed zoning would be fully used. RWCDS 2 will be analyzed in the EIS for technical areas including transportation and mobile source air quality.

Table 2
Mixed Use RWCDS—RWCDS 2

Use	Description	GSF
Residential	848 Units	704,250
Parking	550 Spaces	170,750
Hotel	285 rooms	185,000
Local Retail	—	35,000
Destination Retail	—	75,000
Medical Office	—	30,000
	Total GSF	**1,200,000**

The Proposed Project and RWCDS in the EIS

For Development Site 1, each technical area in the EIS will consider either RWCDS 1 or RWCDS 2. In certain cases it may be appropriate to consider both scenarios, but generally the option that has the greatest potential to result in significant adverse impacts will be used to determine project impacts for each analysis area. For example, the traffic analysis will assume RWCDS 2 since that program has a greater potential to result in significant adverse transportation impacts compared to RWCDS 1 (described in greater detail below "Transportation." As another example, the community facilities analysis of the EIS will assume RWCDS 1 for analysis purposes, since it would generate more new residents who would use schools and other community facilities compared to RWCDS 2. For each technical area, it will be necessary as part of the EIS analyses to determine which option has the greater potential to result in significant adverse impacts.

The bulk and overall design of the building on Development Site 1 would be substantially the same with either RWCDS 1 or 2; therefore, for areas such as shadows that depend on building bulk or design, no distinction needs to be made between the two program options. Similarly, for site-specific analyses, such as hazardous materials, conditions would be the same for either scenario.

REMAINDER OF REZONING AREA

As noted above, there are three "outparcels" within the Rezoning Area (Lots 25, 29 and 36) that are not controlled by the Applicant.

Lots 25 and 29—Projected Development Site 2

Lots 25 and 29 are in single ownership and collectively include 10,692 square feet. The site runs 200 feet back along West 56th Street and ranges from approximately 45 to 55 feet wide. With a commercial Floor-Area Ratio of 10.0 under the proposed zoning, up to 106,920 square feet of floor area could be built on the site. While residential development is not considered to be feasible for this site, a hotel development would be possible and will therefore be considered for all technical areas in the EIS for both RWCDS 1 and 2. With an allowable FAR of 10.0 and accounting for mechanical and other zoning allowances, a new hotel building would have approximately 117,612 gsf. As shown in **Table 3**, assuming approximately 650 gsf per room, there would be approximately 181 hotel rooms.

Table 3
Projected Development Site 2

Use	Description	GSF
Hotel	181 Rooms	117,612
	Total GSF	**117,612**

Lot 36

This site is small (at approximately 2,500 square feet) and narrow (measuring approximately 25 feet from north to south) and includes an existing building approximately 60 feet high. Because of setback requirements (10 feet at the 60 to 85 feet height, on a wide street), redevelopment of this site is not anticipated. In addition, it is not part of a larger potential assemblage of property (as there are no other adjoining potential development sites), and the building is in active use and is fully tenanted. Enlargement of the existing building is also not considered likely due to structural reasons. Therefore, this site is considered unlikely to be developed within the foreseeable future and its redevelopment or enlargement with the Proposed Actions will not be considered in the EIS.

SUMMARY OF CONDITIONS TO BE ANALYZED IN THE EIS

Table 4 presents a summary of conditions to be examined in the EIS. As noted above, in the No Action condition, it is assumed that Development Site 1 and the remainder of the rezoning area would remain in active use with existing development. With either RWCDS 1 or 2, it is assumed that Projected Development Site 2 would be developed with a hotel.

F. CITY ENVIRONMENTAL QUALITY REVIEW

CEQR OVERVIEW

New York City has formulated an environmental review process, CEQR, pursuant to the State Environmental Quality Review Act (SEQRA) and its implementing regulations (Part 617 of Title 6, New York Codes, Rules and Regulations). The City's CEQR rules are found in Executive Order 91 of 1977 and subsequent rules and procedures adopted in 1991 (62 Rules of the City of New York, Chapter 5). CEQR's mandate is to assure that governmental agencies undertaking actions within their discretion take a "hard look" at the environmental consequences of each of those actions so that all potential significant environmental impacts of each action are fully disclosed, alternatives that reduce or eliminate such impacts are considered, and appropriate, practicable measures to reduce or eliminate such impacts are adopted.

The CEQR process begins with selection of a "lead agency" for the review. The lead agency is generally the governmental agency which is most responsible for the decisions to be made on a proposed action and which is also capable of conducting the environmental review. For the proposed project, DCP is the CEQR lead agency.

The lead agency, after reviewing an Environmental Assessment Statement (EAS) provided by the Applicant, has determined that the Proposed Actions have the potential for significant adverse environmental impacts and, therefore, pursuant to CEQR procedures, has issued a positive declaration requiring that an EIS be prepared in conformance with all applicable laws and regulations.

Table 4
Summary of Existing, No Action, and With Action Development on the Project Block

	Existing			No Action[1]			With Action—RWCDS 1			With Action—RWCDS 2		
	Development Site (Lots 31, 40, 44, and 55)	Projected Development Site (Lots 25 and 29)	Remainder of Rezoning Area (Lot 36)	Development Site (Lots 31, 40, 44, and 55)	Projected Development Site (Lots 25 and 29)	Remainder of Rezoning Area (Lot 36)	Development Site (Lots 31, 40, 44, and 55)	Projected Development Site (Lots 25 and 29)	Remainder of Rezoning Area (Lot 36)	Development Site (Lots 31, 40, 44, and 55)	Projected Development Site (Lots 25 and 29)	Remainder of Rezoning Area (Lot 36)
Residential												
No. of dwelling units	0	0	0	0	0	0	±1,189	0	0	±848	0	0
No. of low- to moderate-income units	0	0	0	0	0	0	20 Percent (238)	0	0	20 Percent (170)	0	0
No. of stories	N/A	N/A	N/A	N/A	N/A	N/A	Floors 2 through 47	N/A	N/A	Floors 2 through 47	N/A	N/A
Gross Floor Area (sq. ft.)	N/A	N/A	N/A	N/A	N/A	N/A	±987,250	N/A	N/A	±704,250	N/A	N/A
Describe Type of Residential Structures	N/A	N/A	N/A	N/A	N/A	N/A	High-rise apartment building	N/A	N/A	High-rise apartment building	N/A	N/A
Commercial												
Describe type (retail, office, other)	Auto Sales and Service	Office, Auto Sales and Service	Office, Food + Drink	Auto Sales and Service	Office, Auto Sales and Service	Office, Food + Drink	General Retail	Hotel (±181 rooms[3])	Office, Food + Drink	Retail, Hotel (± 285 rooms[3])	Hotel (±181 rooms[3])	Office, Food + Drink
No. of bldgs	3	2	1	3	2	1	1 (partial)	1 (partial)	1	1 (partial)	1 (partial)	1
GFA of each bldg (sq. ft.)	±21,800 (Lot 31); ±39,000 (Lot 40); ±3,525 (Lot 55)	±16,200 (Lot 25); ±30,670 (Lot 29)	±10,801 Office; ±1,907 Food + Drink[2]	±21,800 (Lot 31); ±39,000 (Lot 40); ±3,525 (Lot 55)	±16,200 (Lot 25); ±30,670 (Lot 29)	±10,801 Office; ±1,907 Food + Drink	±42,000 retail	±117,612	±10,801 Office; ±1,907 Food + Drink	±185,000 Hotel, 110,000 Retail	±117,612	±10,801 Office; ±1,907 Food + Drink
Community Facility												
Type	None	None	None	None	None	None	None	None	None	Medical office	None	None
No. of bldgs	0	0	0	0	0	0	0	0	0	1 (partial)	0	0
GFA of each bldg (sq. ft.)	0	0	0	0	0	0	0	0	0	±30,000	0	0
No. of stories of each bldg	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Height of each bldg	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Parking Garages												
No. of public spaces	1,000 (Lot 44)	0	0	1,000 (Lot 44)	0	0	±550	0	0	±550	0	0
No. of accessory spaces	0	0	0	0	0	0	0	0	0	0	0	0
Operating hours	24/7	N/A	N/A	24/7	N/A	N/A	24 hours/day	N/A	N/A	24 hours/day	N/A	N/A
Attended or non-attended	Attended	N/A	N/A	Attended	N/A	N/A	Attended	N/A	N/A	Attended	N/A	N/A
Parking Lots												
No. of public spaces	0	0	0	0	0	0	0	0	0	0	0	0
No. of accessory spaces	0	0	0	0	0	0	0	0	0	0	0	0
Operating hours	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes: [1] Absent the Proposed Actions, Development Site 1 and remainder of the rezoning area are assumed to remain in active use with existing development.
[2] Approximately 75 percent of the ground floor of Lot 36 is devoted to food and drink; the remaining space is used to access the offices on the upper floors.
[3] Assuming 1 hotel room per 650 gsf.

Sources: Dept. of City Planning, PLUTO/ZoLa; NYC Department of Finance; Arquitectonica Architects; AKRF, Inc, field surveys.

A public scoping of the content and technical analyses of the EIS is the first step in its preparation. The CEQR scoping process is intended to focus the EIS on those issues that are most pertinent to the proposed actions. The process at the same time allows other agencies and the public a voice in framing the scope of the EIS. During the period for scoping those interested in reviewing the Draft Scope of Work may do so and give their comments in writing to the lead agency or at the public scoping meeting. The period for comments on the Draft Scope of Work will remain open for 10 days following the meeting, at which point the scope review process will be closed. The lead agency will then oversee preparation of a Final Scope of Work, which incorporates all relevant comments made on the scope and revises the extent or methodologies of the studies, as appropriate, in response to comments made during scoping.

Following completion of scoping, the lead agency oversees the preparation of a draft EIS (DEIS), in accordance with the Final Scope of Work, for public review. This review is coordinated with the public review required as part of ULURP. The ULURP application for the proposed project must contain a completed DEIS, so that public review of the DEIS begins with public review under ULURP.

The lead agency holds a joint ULURP/CEQR hearing during the CPC's period for consideration of the application. That hearing record is held open for 10 days following the open public session, at which time the public review of the DEIS ends. The lead agency then oversees preparation of a final EIS (FEIS), which incorporates all relevant comments made during public review of the DEIS. The FEIS is the document that forms the basis of CEQR Findings, which the lead agency and each involved agency (if applicable) must make before taking any action within its discretion on the proposed actions.

G. ENVIRONMENTAL IMPACT STATEMENT (EIS) SCOPE OF WORK

The scope of the EIS will conform to all applicable laws and regulations and will follow the guidance of the *CEQR Technical Manual*.

The EIS will contain:

- A description of the Proposed Actions and the environmental setting;
- A statement of potential significant adverse environmental impacts of the Proposed Actions, including short- and long-term effects, and typical associated environmental effects;
- An identification of any adverse environmental effects that cannot be avoided if the Proposed Actions are implemented;
- A discussion of reasonable alternatives to the proposed project;
- An identification of any irreversible and irretrievable commitments of resources that would be involved in the Proposed Actions should they be implemented; and
- A description of mitigation measures proposed to minimize significant adverse environmental impacts.

The analyses for the Proposed Actions will be performed for the expected year of completion of construction of the project (2017). As noted above, the "No Action" future baseline condition to be analyzed under "The Future Without the Proposed Project" in all technical chapters will assume that absent the Proposed Actions, the proposed Rezoning Area will continue in active use as in the existing condition

Based on the preliminary screening assessments outlined in the *CEQR Technical Manual*, as described in the EAS and the sections that follow, the environmental areas of archaeology, natural resources, and water supply do not require further analysis for the proposed project in the EIS. For the areas of solid waste and sanitation services and energy, the proposed project would not result in significant adverse impacts but, following the guidance of the *CEQR Technical Manual*, information related to these technical areas will be disclosed in the EIS. The specific areas to be included in the EIS, as well as their respective tasks, are described below.

PROJECT DESCRIPTION

The first chapter of the EIS introduces the reader to the Proposed Actions and provides the project data from which impacts are assessed. The chapter will contain a brief history of the uses on Development Site 1; the anticipated development program; a description of the design of the proposed building; figures depicting the proposed development; and a discussion of the approvals required, procedures to be followed, and a description of the No Action condition.

The project description will include appropriate data from the ULURP application. The role of the lead agency for CEQR will also be described as well as the environmental review process to aid in decision-making. Any environmental requirements necessary as part of the Proposed Actions (such as a restrictive declaration) will also be identified.

LAND USE, ZONING, AND PUBLIC POLICY

The proposed project would involve a rezoning of the block to allow new uses that are currently not permitted under existing zoning, and other land use actions are also proposed. Therefore, the EIS will include an assessment of the Proposed Actions' consistency with land use, zoning, and public policy, which will also provide a baseline for other analyses. The land use chapter will do the following:

- Provide a brief development history of the Rezoning Area and study area. The study area will include the Rezoning Area and the area within approximately ¼-mile.
- Describe conditions in the study area, including existing uses and the current zoning.
- Describe predominant land use patterns in the study area, including recent development trends.
- Provide a zoning map and discuss existing zoning and recent zoning actions in the study area.
- Summarize other public policies that may apply to the Proposed Project Site and study area, including any formal neighborhood or community plans.
- Prepare a list of other projects expected to be built in the study area that would be completed by 2017. Describe the effects of these projects on land use patterns and development trends. Also, describe any pending zoning actions or other public policy actions that could affect land use patterns and trends in the study area.
- Describe the Proposed Actions and provide an assessment of the impacts of the Proposed Actions and projected development on land use and land use trends, zoning, and public policy. Consider the effects of the Proposed Actions related to issues of compatibility with surrounding land use (such as the adjacent DOS garage), consistency with zoning and other public policy initiatives, and the effect on development trends and conditions in the area.

Since the Rezoning Area is not located in the Coastal Zone, an assessment of consistency with the Waterfront Revitalization Program (WRP) is not required.

SOCIOECONOMIC CONDITIONS

Socioeconomic impacts can occur when a proposed project directly or indirectly changes economic activities in an area. The purpose of the socioeconomic assessment is to disclose changes that would be created by a proposed action and identify whether they rise to a significant level. The socioeconomic chapter will examine the effects of the Proposed Actions on socioeconomic conditions on the Proposed Project Site and in the surrounding neighborhood. A study area for socioeconomic conditions will be defined based on US Census tracts that generally reflect and encompass the land use study area as described above.

The analysis will follow the guidelines of the *CEQR Technical Manual* in assessing the Proposed Action's effect on socioeconomic conditions. According to the *CEQR Technical Manual*, the five principal issues of concern with respect to socioeconomic conditions are whether a proposed project would result in significant impacts due to: (1) direct residential displacement; (2) direct business displacement; (3) indirect residential displacement; (4) indirect business displacement; and (5) adverse effects on a specific industry.

None of the sites within the proposed Rezoning Area contains residential uses, and therefore, a direct residential displacement assessment is not warranted. However, the projected development sites contain businesses that would be directly displaced with either RWCDS. Following *CEQR Technical Manual* guidelines, since the direct displacement of more than 100 employees could occur, a preliminary assessment of direct business displacement will be performed for the EIS.

Indirect displacement (also known as secondary displacement) is the involuntary displacement of residents, businesses, or employees that results from a change in socioeconomic conditions created by a proposed project. Either RWCDS would result in development exceeding the 200-unit CEQR threshold requiring preliminary assessment of potential indirect residential displacement, and RWCDS 2 would exceed the 200,000-square-foot CEQR threshold requiring preliminary assessment of potential indirect business displacement.[*] Therefore an assessment will be conducted that describes conditions and trends in the study area's residential demographics and market conditions and employment and business conditions using the most recent available data from public and private sources such as U.S. Census Bureau, New York State Department of Labor, and ESRI, as well as discussions with local real estate brokers as necessary. The assessment will consider whether economic trends would be introduced that could increase residential or commercial rents, making it difficult for existing residents or businesses to remain in the area. The preliminary assessment also will include consideration of potential adverse effects on a specific industry.

The preliminary assessment will present sufficient information regarding the effects of the Proposed Actions to either to rule out the possibility of significant impacts or to determine that more detailed analysis is required to make a determination as to impacts. Detailed analysis, if required, will be framed in the context of existing conditions and evaluations of the No Action

[*] The Proposed Actions are not expected to introduce new retail such that it may create a new retail concentration that could draw a substantial amount of sales from existing businesses within the study area and thereby result in a potential for disinvestment on local retail streets. As a result, and based on *CEQR Technical Manual* guidance, an assessment of indirect business displacement due to retail market saturation will not be presented in the EIS.

condition and conditions with the Proposed Actions in 2017, including any population and employment changes anticipated to take place.

COMMUNITY FACILITIES AND SERVICES

As defined for CEQR analysis, community facilities are public or publicly funded schools, libraries, child care centers, health care facilities and fire and police protection. A project can affect facility services directly, when it physically displaces or alters a community facility; or indirectly, when it causes a change in population that may affect the services delivered by a community facility.

The Proposed Actions would not have a direct effect on community facilities, as there would not be a physical displacement or alteration of any community facilities. Either RWCDS 1 or 2 would introduce new residential units, which would increase demand for various community facilities. This section of the EIS will assess RWCDS 1 for the purposes of impact analysis, since it would generate more residents than RWCDS 2. As described below, for certain community facilities RWCDS 1 would not introduce enough new residential units to exceed the CEQR thresholds for a detailed analysis of indirect effects.

In accordance with the thresholds of the *CEQR Technical Manual*, the Proposed Project is not expected to trigger detailed analyses of outpatient health care facilities or police and fire protection serving the project site. However, the Proposed Project would introduce a residential population that would have the potential to affect elementary/middle schools, child care, and public libraries. The assessments of potential impacts on each are described below.

A schools analysis is required under CEQR for proposed actions that would result in more than 50 elementary/middle school or 150 high school students. The number of residential units with the Proposed Project would exceed the CEQR threshold of 310 residential units in Manhattan, requiring a detailed analysis for elementary/middle schools. This analysis will include the following:

- Identify schools serving the project area and discuss the most current information on enrollment, capacity, and utilization from the New York City Department of Education.
- Based on the data provided from the Department of Education and DCP, future conditions in the area without the proposed project will be determined.
- Based on methodology presented in the *CEQR Technical Manual*, the potential impact of students generated by the Proposed Project on schools will be assessed.

Since the Proposed Project would not result in more than 2,492 residential units (the CEQR threshold for performing an analysis of high school conditions), an analysis of high schools is not warranted.

Because the number of affordable residential units would exceed the minimum number of residential units (170) requiring detailed analyses of publicly funded child care, the EIS will also include an analysis of child care as described below:

- Identify existing publicly funded group child care and Head Start facilities within approximately 1.5 miles of the Proposed Project Site.
- Describe each facility in terms of its location, number of slots (capacity), and existing enrollment. Care will be taken to avoid double-counting slots that receive both ACS and Head Start funding. Information will be based on publicly available information and/or

consultation with the Administration for Children's Services' Division of Child Care and Headstart (CCHS).

- Any expected increases in the population of children under 12 within the eligibility income limitations, based on CEQR methodology, will be discussed as potential additional demand, and the potential effect of any population increases on demand for publicly funded group child care and Head Start services in the study area will be assessed. The potential effects of the additional eligible children resulting from the Proposed Project will be assessed by comparing the estimated net demand over capacity to the net demand over capacity estimated in the No Action condition.

The Proposed Project may also exceed the CEQR threshold requiring analysis of public libraries (901 residential units). Therefore, using the guidance of the *CEQR Technical Manual,* the EIS will:

- Describe and map the local libraries and catchment areas in the vicinity of the Rezoning Area.
- Identify the existing user population, branch holdings and circulation. Based on this information, estimate the holdings per resident.
- Determine conditions in the future without the Proposed Actions based on planned developments and known changes to the library system.
- Based on the population to be added by the proposed project, estimate the holdings per resident and compare conditions with the Proposed Actions to conditions in the future without the Proposed Actions.

OPEN SPACE

According to the *CEQR Technical Manual*, an open space assessment may be necessary if a project potentially has a direct or indirect effect on open space. The Proposed Actions would not have a direct effect on any open space, and neither RWCDS 1 or 2 is expected to exceed the CEQR threshold of 500 new workers. However, the additional number of residents would exceed the 200-resident CEQR threshold requiring an open space analysis. This analysis will assess the potential impacts of RWCDS 1, since it would generate more residents than RWCDS 2. The methodology set forth in the *CEQR Technical Manual* consists of establishing a study area for analysis, calculating the total population in the study area, and creating an inventory of publicly accessible open spaces within a ½-mile of the Proposed Project Site; this inventory will include examining these spaces for their facilities (active vs. passive use), condition, and use (crowded or not). The analysis will include a projection of conditions in the No Action condition, and assess impacts of the Proposed Actions based on quantified ratios and qualitative factors.

SHADOWS

The *CEQR Technical Manual* requires a shadows assessment for Proposed Actions that would result in new structures greater than 50 feet in height and/or adjacent to a sunlight-sensitive resource. A shadows assessment examines whether proposed structures could cast shadows on sunlight-sensitive resources, which include publicly accessible open spaces, important sunlight-sensitive natural features, or historic resources with sun-sensitive features, and assesses the potential effects of any new shadows.

The Proposed Actions would result in a new structure approximately 470 feet high. In addition. the proposed Rezoning Area is located a block east of Hudson River Park, the Route 9A Bikeway, and the waters of the Hudson River. Therefore, a preliminary assessment of shadows is warranted and will be provided in the EIS. The shadow assessment will be coordinated with the tasks for open space and historic resources. The preliminary assessment will include the following tasks:

- Develop a base map illustrating the proposed Rezoning Area in relation to publicly accessible open spaces, historic resources with sunlight-dependent features, and natural features in the area.
- Perform a screening assessment to ascertain which seasons and times of day shadows from the proposed project could reach any sunlight-sensitive resources

If the possibility of new shadows reaching sunlight-sensitive resources cannot be eliminated in the preliminary assessment, the EIS will include a detailed analysis. This will include the following tasks:

- Develop a three-dimensional computer model of the elements of the base map developed in the preliminary assessment.
- Develop a "worst-case" three-dimensional representation of conditions with the Proposed Actions.
- Develop three-dimensional representations of the No Action condition.
- Determine the extent and duration of new shadows that would be cast on sunlight-sensitive resources as a result of the Proposed Actions on four representative days of the year.
- Document the analysis with graphics comparing shadows resulting from the No Action condition with shadows resulting from the Proposed Actions, with incremental shadow highlighted in a contrasting color.
- Include a summary table listing the entry and exit times and total duration of incremental shadow on each applicable representative day for each affected resource.
- Assess the significance of any shadow impacts on sunlight-sensitive resources.
- If any significant adverse shadow impacts are identified, identify and assess potential mitigation strategies.

HISTORIC AND CULTURAL RESOURCES

According to the *CEQR Technical Manual*, a historic and cultural resources assessment is required if there is the potential to affect either archaeological or architectural resources. Although there would be subsurface disturbance on the Proposed Project Site and, potentially, on one or more of the outparcels, the New York City Landmarks Preservation Commission (LPC) has determined that the Rezoning Area is not sensitive for archaeological resources. Therefore, the Proposed Actions do not have the potential for significant adverse archaeology impacts. While there are no designated architectural resources on the Proposed Project Site or in the Rezoning Area, the Con Edison plant—which is listed on the State and National Registers of Historic Places—is located nearby, and it is possible that there may be potential architectural resources within the project area. Consistent with the *CEQR Technical Manual*, the historic and cultural resources analysis will include the following tasks.

- Select the study area for architectural resources. This scope of work assumes that the study area for architectural resources will be approximately 400 feet beyond the borders of the proposed Rezoning Area.
- Map and briefly describe designated architectural resources in the study area. Consistent with the guidance of the *CEQR Technical Manual*, designated architectural resources include: New York City Landmarks, Interior Landmarks, Scenic Landmarks, New York City Historic Districts; resources calendared for consideration as one of the above by LPC; resources listed on or formally determined eligible for inclusion on the State and/or National Registers of Historic Places, or contained with in a district listed on or formally determined eligible for listing on the Registers; resources recommended by the New York State Board for listing on the Registers; and National Historic Landmarks.
- Conduct a field survey of the study area by an architectural historian to identify any potential architectural resources that could be affected by the Proposed Actions. The field survey will be supplemented with research at relevant repositories, online sources, and current sources prepared by LPC and OPRHP.
- Assess the potential significant adverse impacts of the Proposed Actions on archaeological and architectural resources, including visual and contextual changes as well as any direct physical impacts. Potential effects will be evaluated through a comparison of the No Action condition and the future with the Proposed Actions.
- If applicable, develop measures to avoid, minimize, or mitigate any significant adverse impacts on historic and cultural resources, in consultation with LPC. If it is determined that there are historic structures within 90 feet of the Proposed Project Site, a Construction Protection Plan will be prepared.

URBAN DESIGN AND VISUAL RESOURCES

According to the methodologies of the *CEQR Technical Manual*, if a project requires actions that would result in physical changes to a project site beyond those allowable by existing zoning and which could be observed by a pedestrian from street level, a preliminary assessment of urban design and visual resources should be prepared.

Since the Proposed Actions would result in an increase in floor area compared to what is allowed by existing zoning, and since a new building is proposed, a preliminary assessment of urban design and visual resources will be prepared as part of the EIS. The preliminary assessment will determine whether the Proposed Actions, in comparison to the future without the Proposed Actions, would create a change to the pedestrian experience that is significant enough to require greater explanation and further study. The study area for the preliminary assessment of urban design and visual resources will be consistent with that of the study area for the analysis of land use, zoning and public policy. The preliminary assessment will include a concise narrative of the existing area, the No Action condition, and the future with the Proposed Actions. The analysis will draw on information from field visits to the study area and will present photographs, zoning and floor area calculations, building heights, project drawings and site plans, and view corridor assessments.

A detailed analysis will be prepared if warranted based on the preliminary assessment. As described in the *CEQR Technical Manual*, examples of projects that may require a detailed analysis are those that would make substantial alterations to the streetscape of a neighborhood by noticeably changing the scale of buildings, potentially obstruct view corridors, or compete with icons in the skyline. The detailed analysis would describe the urban design and visual resources

of the Proposed Project Site and the surrounding area. The analysis would describe the potential changes that could occur to urban design and visual resources in the future with the Proposed Actions, in comparison to the No Action condition, focusing on the changes that could negatively affect a pedestrian's experience of the area. If necessary, mitigation measures to avoid or reduce potential significant adverse impacts will be identified.

NATURAL RESOURCES

As stated in the *CEQR Technical Manual*, a natural resource is defined as a plant or animal species and any area capable of providing habitat for plant and animal species or capable of functioning to support environmental systems and maintain the City's environmental balance. Such resources include surface and groundwater, wetlands, dunes and beaches, grasslands, woodlands, landscaped areas, gardens, and build structures used by wildlife. An assessment of natural resources is appropriate if a natural resources exists on or near the site of the proposed action, or if an action involves disturbance of that resource. The proposed Rezoning Area is located in a fully developed area of Manhattan. Therefore, no further analysis is required, and the Proposed Actions are not expected to result in any significant adverse impacts to natural resources.

HAZARDOUS MATERIALS

The EIS will include an update of the Phase I Environmental Site Assessment (ESA) prepared in 2007. The update will include a review of an updated regulatory database report and an inspection of and interviews with the occupants of the buildings to document any changes in use or environmental concerns since 2007. The EIS will summarize the findings of the updated Phase I ESA and include a summary of the Subsurface (Phase II) Investigation conducted in 2007, as well as the subsequent spill investigation and remediation activities conducted related to the former fuel oil tank on the Proposed Project Site. The EIS will also include a review of historic Sanborn maps and current uses for the three out-parcels not controlled by the Applicant, but included in the rezoning boundaries, to identify potential significant adverse impacts for these parcels.

WATER AND SEWER INFRASTRUCTURE

The *CEQR Technical Manual* outlines thresholds for analysis of a project's water demand and its generation of wastewater and stormwater.

WATER SUPPLY

According to the *CEQR Technical Manual*, an analysis of an action's impact on the water supply system should be conducted only for actions that would have exceptionally large demand for water, such as power plants, very large cooling systems, or large developments (e.g., those that use more than 1 million gallons per day). In addition, actions located at the extremities of the water distribution system should be analyzed. The Proposed Actions do not meet any of these criteria, and therefore an analysis of water supply is not warranted.

WASTEWATER AND STORMWATER CONVEYANCE AND TREATMENT

According to the guidelines of the *CEQR Technical Manual*, a preliminary analysis of wastewater and stormwater conveyance and treatment is warranted if a project is located in a combined sewer area and would have an incremental increase above the No Action condition of

1,000 residential units or 250,000 square feet of commercial, public facility and institution and/or community facility space in Manhattan. Since the Proposed Actions may include more than 1,000 residential units or 250,000 square feet of commercial space, an analysis of wastewater and stormwater conveyance and treatment will be performed and will include the following:

Existing Conditions

- The existing stormwater drainage system and surfaces (pervious or impervious) on the project site will be described, and the amount of stormwater generated on the site will be estimated using NYCDEP's volume calculation worksheet. Drainage areas with direct discharges and overland flow will be presented.
- The existing sewer system serving the project site will be described based on records obtained from NYCDEP. Records obtained will include sewer network maps, drainage plans, capacity information for sewer infrastructure components, and other information as warranted (such as sewer backup complaint and repair history data). The existing flows to the water pollution control plant (WPCP) that serves the project site will be obtained for the latest 12-month period, and the average dry weather monthly flow will be presented. Existing capacity information for pump stations, regulators, etc. within the affected drainage area will be presented.

Future No Action Condition

- Any changes to the site's stormwater drainage system and surface area expected in the future without the proposed project will be described.
- Any changes to the sewer system expected to occur in the future without the Proposed Actions will be described based on information provided by NYCDEP.

Potential Impacts

The analysis of impacts will identify and assess the effects of the incremental sanitary and stormwater flows on the capacity of the sewer infrastructure, as follows:

- Assess future stormwater generation from the Proposed Actions and assess the potential for impacts. A stormwater management plan for the Proposed Project Site will be described and assessed in the preliminary infrastructure assessment. The assessment will also discuss any planned sustainability elements that are intended to reduce storm water runoff. Any changes to the site's proposed surface area (pervious or impervious) will be described, and runoff coefficients and runoff for each surface type/area will be presented. Volume and peak discharge rates of stormwater will be determined based on the NYCDEP volume calculation worksheet.
- Sanitary sewage generation will be estimated. The effects of the incremental demand on the system will be assessed to determine the impact on operations of the WPCP.
- Based on the analyses of future stormwater and wastewater generation, the change in flows and volumes to the sewer system and/or waterbodies due to the Proposed Actions will be determined.

If warranted, a detailed infrastructure analysis will be prepared following the guidelines of the *CEQR Technical Manual.*

SOLID WASTE AND SANITATION SERVICES

According to the *CEQR Technical Manual*, a solid waste and sanitation services assessment determines whether a project has the potential to cause a substantial increase in solid waste production that may overburden available waste management capacity or otherwise be inconsistent with the City's Solid Waste Management Plan (SWMP) or with state policy related to the City's integrated solid waste management system. Few projects have the potential to generate substantial amounts of solid waste (50 tons per week or more) that could result in a significant adverse impact. However, it is recommended in the *CEQR Technical Manual* that the solid waste and service demand generated by a project be disclosed, based on standard waste generation rates. Based on Citywide solid waste generation rates identified in Table 14-1 of the *CEQR Technical Manual*, the Proposed Actions could generate approximately 35.5 tons per week of solid waste, conservatively excluding any credit for uses that would exist in the future without the proposed project. This would not be considered a substantial amount of solid waste that would overburden available waste management capacity, and the Proposed Actions would not be inconsistent with the City's Solid Waste Management Plan (SWMP) Therefore, the Proposed Actions would not result in any significant adverse impacts to solid waste and sanitation services and no further analysis is required.

ENERGY

According to the *CEQR Technical Manual*, because all new structures requiring heating and cooling are subject to the New York State Energy Conservation Code, which reflects State and City energy policy, actions resulting in new construction would not create significant energy impacts, and as such would not require a detailed energy assessment. For CEQR purposes, energy impact analysis focuses on an action's consumption of energy. As noted in the EAS prepared for the Proposed Actions, based on the rates presented in the *CEQR Technical Manual*, the Proposed Actions would result in an annual energy consumption of approximately 185,000 million BTUs, conservatively excluding any credit for uses that would exist in the future without the proposed project. Compared with the approximately 327 trillion BTUs of energy consumed annually within Con Edison's New York City and Westchester County service area, this incremental increase would be considered a negligible increment. Therefore, the proposed project would not result in any significant adverse impacts to energy and no further analysis is required.

TRANSPORTATION

The *CEQR Technical Manual* states that quantified transportation analyses may be warranted if a proposed action results in more than 50 vehicle-trips and/or 200 transit/pedestrian trips during a given peak hour. Given that the proposed project would contain more than one million square feet of residential, commercial, and potentially hotel space, the proposed project's trip generation is expected to exceed these thresholds for several critical time periods (i.e., weekday AM, midday, and PM and Saturday midday). Therefore, quantified analyses will be required to assess the potential impacts that project-generated trips may have on key traffic intersections, pedestrian locations, nearby transit services, and the area's parking resources. As part of the operational analyses, an assessment of vehicular and pedestrian safety based on recent accident data will also be prepared. The transportation analysis will include the tasks outlined below.

TRAVEL DEMAND AND SCREENING ASSESSMENT

Prepare travel demand estimates and transportation analysis screening. The transportation analysis for the EIS will use RWCDS 2 in order to assess potential impacts that could occur as a result of the proposed rezoning. According to the total trip generation for RWCDS 1 (Proposed Project), the total number of Pedestrian trips (including walk only and transit) would number approximately 1,029, 1,588, 1,542, and 1,524 during the AM, MD, PM, and Saturday MD peak hours, respectively. For RWCDS 2 the total number of Pedestrian trips would number approximately 1,224, 2,227, 2064, and 2,052 during the AM, MD, PM, and Saturday MD peak hours, respectively. Therefore, although RWCDS 1 contains 341 more dwelling units than RWCDS 2, the destination retail and hotel components generate enough pedestrian trips to exceed the pedestrian trips that would be generated by RWCDS 1. Similarly, the total number of vehicles generated by RWCDS 2 would be larger than those generated by RWCDS 1 (by about a factor of 2, again contributed by the destination retail and hotel components).

Detailed trip estimates will be prepared using standard sources, including the *CEQR Technical Manual*, U.S. census data, approved studies, and other references. The trip estimates (Level-1 screening assessment) will be summarized by peak hour, mode of travel, and person vs. vehicle trips. The trip estimates will also identify the number of peak hour person trips made by transit and the numbers of pedestrian trips traversing the area's sidewalks, corner reservoirs, and crosswalks. The results of these estimates will be summarized in a Travel Demand Factors memorandum for review and concurrence by the lead agency. In addition to trip estimates, detailed vehicle, pedestrian and transit trip assignments (Level-2 screening assessment) will be prepared to validate the intersections and pedestrian/transit elements selected for undertaking quantified analysis. As appropriate, travel demand surveys may be conducted to establish the peak hour trip generation characteristics for the potential uses identified for the Proposed Project Site and projected development site.

TRAFFIC

- Define traffic study area. The traffic study area will include the intersections surrounding the Proposed Project Site that are most likely to be affected by the project-generated traffic. The following 15 intersections are proposed for detailed analysis:
  - Route 9A/12th Avenue and West 57th Street;
  - Route 9A/12th Avenue and West 56th Street;
  - Route 9A/12th Avenue and West 55th Street;
  - Eleventh Avenue and West 59th Street;
  - Eleventh Avenue and West 58th Street;
  - Eleventh Avenue and West 57th Street;
  - Eleventh Avenue and West 56th Street;
  - Eleventh Avenue and West 55th Street;
  - Tenth Avenue and West 58th Street;
  - Tenth Avenue and West 57th Street;
  - Tenth Avenue and West 56th Street;
  - Tenth Avenue and West 55th Street;
  - Ninth Avenue and West 57th Street;

- Ninth Avenue and West 56th Street; and
- Eighth Avenue and West 57th Street.

Additional intersections may also be accounted for in the traffic analysis.

- Perform traffic data collection. Traffic volumes and relevant data at the study area intersections will be collected following CEQR guidelines via a combination of manual and machine counts. Manual turning movement and vehicle classification counts will be conducted for weekday (AM, midday, and PM) and weekend (Saturday midday) analysis peak hours. These manual counts will be supplemented with continuous (9-day) automatic traffic recorder (ATR) counts at key locations to identify temporal and daily traffic variations. Information pertaining to street widths, traffic flow directions, lane markings, parking regulations, and bus stop locations at study area intersections will be inventoried. Traffic control devices (including signal timings) in the study area will be recorded and verified with official signal timing data from NYCDOT. In addition, travel time (speed run) data will be collected during the relevant peak hours to provide operational inputs for mobile source Air Quality analysis.
- Gather existing site data. Information on existing site operations and original survey data gathered at site driveways and curbsides will be used to characterize existing trip activities at the project site.
- Conduct existing conditions analysis. Balanced peak hour traffic volumes will be prepared for the capacity analysis of study area intersections. This analysis will be conducted using the *2000 Highway Capacity Manual* (*HCM*) methodology with the latest approved *Highway Capacity Software* (*HCS*). The existing volume-to-capacity (v/c) ratios, delays, and levels of service (LOS) for the weekday AM, midday, and PM and Saturday midday peak hours will be determined, as appropriate.
- Develop the future No Action condition. Future No Action traffic volumes will be estimated by adding background growth, in accordance with CEQR guidelines, to existing traffic volumes, and incorporating incremental changes in traffic resulting from other projects in the area. Trip estimates generated for future projects and the modes of transportation for these trips will be determined for the peak analysis hours using the approved set of travel demand factors and other appropriate references. Physical and operational changes that are expected to be implemented independent of the proposed project, if any, would also be incorporated into the future traffic analysis network. The No Action v/c ratios, delays, and LOS at the study area intersections will be determined.
- Perform traffic impact assessment for the proposed project. Project-generated vehicle trips will be overlaid onto the future No Action traffic network. Physical and operational changes, including those related to site access, will be incorporated into the analyses. The potential impact on v/c ratios, delays, and LOS will then be evaluated in accordance with *CEQR Technical Manual* criteria. Where significant adverse impacts are identified, feasible mitigation measures, such as signal retiming, phasing modifications, roadway restriping, addition of turn lanes, revision of curbside regulations, turn prohibitions, and street direction changes, etc. will be explored to mitigate the traffic impacts.

PARKING

- Analyze current and future parking conditions. A parking survey will be performed to gather curbside regulations and record off-street parking supply and utilization within ¼-mile of the project site. Also, activities associated with the existing on-site public parking garage will be

documented to determine the potential impacts of displacing this existing parking resource. Future parking demand projections will be compared to the available supply to determine whether project-generated demand could be accommodated in the proposed on-site garage and if there is a potential for a parking shortfall. Where proposed improvements and/or traffic mitigation measures are expected to displace on-street parking spaces, they will also be addressed.

TRANSIT

- Conduct transit analyses. The project site is located near two New York City Transit (NYCT) subway stations: 57th Street/Seventh Avenue Station (N, Q, and R trains), and 59th Street/Columbus Circle Station (No. 1, A, B, C, and D trains). Based on CEQR guidelines, a more detailed subway analysis is required if more than 200 additional trips per subway line are expected as a result of a proposed action. Since the project site is accessible via eight available subway lines, it is unlikely that a single subway line would experience more than 200 additional trips as a result of the proposed action. Therefore, a detailed analysis of subway line-haul conditions is not warranted. However, a detailed analysis of the nearest stairways and control elements at the 59th Street/Columbus Circle and 57th Street/Seventh Avenue subway stations will be undertaken. To establish the baseline conditions, existing data at the nearest stairways and control elements at the two subway stations will be collected following the CEQR guidelines for the weekday AM and PM peak hours.

  There are also three local bus routes (M11, M31, and M57) that are accessible at bus stops near the project site. Bus peak load point data will be obtained from NYCT, supplemented by additional window loading surveys, if necessary, to evaluate bus line-haul capacities. The analysis of the existing, Future without the Proposed Action, and Future With the Proposed Action conditions will be conducted per the CEQR guidelines for the weekday AM and PM peak hours.

  Where appropriate, feasible mitigation measures will be explored to alleviate any potential significant adverse transit impacts.

PEDESTRIANS

- Conduct pedestrian analyses. Project-generated pedestrian trips would concentrate at the project site and along primary routes to the area's transit facilities. A quantified pedestrian analysis is expected to be required at up to 8 crosswalk locations, 16 sidewalks, and 24 corner reservoir spaces for the weekday AM, midday, and PM peak periods, as well as the Saturday midday peak period. This analysis will include quantitative studies of the existing and No Action conditions, and conditions with the proposed project per CEQR guidelines. Where appropriate, feasible mitigation measures will be explored to alleviate any potential significant adverse pedestrian impacts. If required, additional pedestrian elements will be incorporated in the pedestrian analysis.

VEHICULAR AND PEDESTRIAN SAFETY

- Examine vehicular and pedestrian safety issues. Accident data for the study area intersections and other nearby sensitive locations from the most recent three-year period will be obtained from the New York State Department of Transportation (NYSDOT). These data will be analyzed to determine if any of the studied locations may be classified (using CEQR criteria) as high vehicle crash or high pedestrian/bike accident locations and whether trips

and changes resulting from the proposed project would adversely affect vehicular and pedestrian safety in the area. If any high accident locations are identified, feasible improvement measures will be explored to alleviate potential safety issues.

AIR QUALITY

The air quality analysis will include both mobile and stationary sources. The requirement for the mobile source air quality analysis will depend on the results of the traffic study to be conducted—a screening analysis will be performed to determine whether the net increase in traffic would exceed the *CEQR Technical Manual* thresholds. In the event that the number of trips exceeds the carbon monoxide (CO) and/or $PM_{2.5}$ thresholds, a microscale analysis at critical intersection(s) will be performed.

The stationary source air quality impact analysis will determine the effects of emissions from any proposed fossil fuel-fired HVAC systems on pollutant levels. The size and location of the proposed development is such that refined modeling will likely be necessary to demonstrate the project's compliance with national ambient air quality standards and other relevant impact criteria. Therefore, a detailed stationary source analysis using EPA's AERMOD dispersion model will be performed.

An important air quality issue will be to determine whether potential impacts on the proposed building from the Con Edison 59th Street Steam Station are significant. Since computer dispersion modeling will not likely be sufficient to demonstrate compliance with applicable standards, a wind tunnel analysis is proposed to evaluate the potential impacts of particulate matter ($PM_{2.5}$) and potentially other pollutants on the proposed project. The information from the wind tunnel analysis will be processed to estimate maximum potential concentrations on the proposed project from the Con Edison combustion turbine and boiler stacks. This analysis will account for the historical energy usage of the Con Edison emission sources, following procedures used on other recent projects. The wind tunnel analysis will be performed in accordance with a modeling protocol which is approved by DCP and NYCDEP.

The EIS will also examine whether emissions from the Con Edison 59th Street Station could be affected by the proposed building's massing in a manner that could potentially result in significant adverse air quality impacts on nearby sensitive receptors. The analysis will consider wake effects (i.e., when the wind blows from buildings toward the stacks).

MOBILE SOURCE ANALYSIS

The mobile source air quality impact analysis will address two distinct issues:

- The potential effects of traffic-generated emissions on pollutant levels (i.e., carbon monoxide [CO] and particulate matter [PM_{10} and $PM_{2.5}$] concentrations) at representative locations within the study area; and
- The proposed development's consistency and compliance with the applicable National Ambient Air Quality Standard (NAAQS) and State Implementation Plan (SIP) for the area as well as the *de minimis* criteria for CO and interim guidance criteria for $PM_{2.5}$.

Using computerized dispersion modeling techniques, the effects of project-generated traffic on CO and PM (PM_{10} and $PM_{2.5}$) levels at critical intersection locations will be determined. In addition, the impact of the proposed parking garages on air quality will be analyzed, and the results from that analysis will be combined with the intersection analyses, where applicable.

The work program will consist of predicting (using computerized dispersion modeling techniques) the effects of traffic under both the Action and No Action conditions on PM and CO levels at intersection locations within the study area, and, if significant impacts are predicted to occur due to the action, developing feasible traffic measures to alleviate those impacts. The analysis methodology is as follows: selection of appropriate sites for intersection analysis, calculation of vehicular emissions, calculation of pollutant concentration levels using dispersion models that have been approved by the applicable air quality review agencies (i.e., U.S. Environmental Protection Agency [EPA], NYSDEC, and DEP), and the determination of impacts. Specifically:

- Collect and summarize existing ambient air quality data for the study area. Ambient air quality monitoring data published by the NYSDEC will be compiled for the analysis of existing conditions.
- Calculate emission factors. Select emission calculation methodology and "worst-case" meteorological conditions. Compute vehicular emission factors for the intersection modeling using the EPA-developed MOVES model and applicable assumptions based on guidance by EPA, NYSDEC and DEP. Compute re-suspended road dust emission factors based on the EPA procedure defined in AP–42.
- Select appropriate background levels. Select appropriate background levels for the study area.
- Select appropriate analysis sites. Based on the background and project-increment traffic volumes and levels of service, select intersections for analysis, representing locations with the worst potential total and incremental pollution impacts.
- Use EPA's first-level CAL3QHC intersection model to predict the maximum change in CO concentrations, and the refined CAL3QHCR intersection model to predict the maximum change in respirable PM (PM_{10}) and in fine respirable PM ($PM_{2.5}$). At each analysis site calculate for each peak period the maximum 1- and 8-hour average CO concentrations for: (i) existing conditions; (ii) No Action conditions; and (iii) the future with the Proposed Actions. For selected intersections, the maximum 24-hour and annual average PM_{10} and $PM_{2.5}$ concentrations will be determined for: (i) No Action conditions; and (ii) the future with the Proposed Actions.
- Perform an analysis of CO for the proposed project's parking facility. The analyses will use the procedures outlined in the *CEQR Technical Manual* for assessing potential impacts from proposed parking facilities. Cumulative impacts from on-street sources and emissions from parking garage will be calculated, where appropriate.
- Compare with benchmarks and evaluate impacts. Evaluate potential impacts by comparing predicted future CO and PM_{10} pollutant levels with standards, comparing the predicted CO increment with *de minimis* criteria, and comparing the $PM_{2.5}$ increments with the City's interim guidance criteria. If significant adverse impacts due to CO concentrations are predicted, refine results by performing detailed dispersion analysis at affected locations using EPA's refined CAL3QHCR intersection model and compare refined results to benchmarks.
- For locations where significant adverse impacts are predicted, identify and analyze appropriate mitigation measures Practicable mitigation will also be identified for any significant adverse impacts.

If requested, additional CO and/or $PM_{2.5}$ mobile source receptor locations will be analyzed employing the CAL3QHC and CAL3QHCR models, respectively.

STATIONARY SOURCE ANALYSIS

The stationary source air quality impact analysis will determine the potential impacts of emissions from the proposed project's heating, ventilation and air conditioning (HVAC) systems on criteria pollutant levels (i.e., sulfur dioxide, PM and/or nitrogen dioxide concentrations). In addition, emissions from nearby large-scale residential, commercial, and institutional sources, including the Con Edison 59th Street Steam Station, will be assessed to determine their potential effects on the proposed project. Specifically:

- Analyze stationary sources from the proposed project. Perform an analysis of the effect of nitrogen dioxide (NO_2), sulfur dioxide (SO_2)—if using fuel oil—and particulate matter (PM_{10} and $PM_{2.5}$) emissions from the proposed project's HVAC sources on existing or planned sensitive uses within the surrounding area. For the proposed project's HVAC sources, the EIS will assess the use of specific fuel types based on design information from the project sponsor. The analysis will be performed using the EPA-developed AERMOD model and will consider plume impingement conditions (i.e., when the wind blows from the stacks toward buildings) and wake effects (i.e., when the wind blows from buildings toward the stacks). Recent available five years of meteorological data (LaGuardia Airport surface data and Brookhaven upper air data) will be used for these simulation analyses. Predicted values will be compared with NAAQS for NO_2, SO_2 and PM_{10}, and applicable criteria for $PM_{2.5}$.
- Analyze nearby existing or proposed commercial, institutional or large-scale residential developments in the surrounding area to determine their potential effects on the proposed project. Sources within 400 feet of the project site will be considered. The analysis will be performed using the AERMOD model or the wind tunnel model, as necessary. Predicted pollutant concentrations will be compared with NAAQS for NO_2, SO_2 and PM_{10}, and applicable criteria for $PM_{2.5}$.
- Perform a detailed simulation analysis of the Con Edison 59th Street Station to determine its potential effects on the proposed project. The analysis will be initially performed using the AERMOD model and, as necessary for certain pollutants, using physical dispersion modeling in a wind tunnel of the project site and its surroundings. Concentrations of NO_2, SO_2, and PM_{10} on elevated receptors on buildings at the site of the proposed project will be determined based on five years of recent meteorological data. Predicted values will be compared with NAAQS and applicable criteria for $PM_{2.5}$.
- Perform a detailed simulation analysis of the proposed project to determine its potential effects on the plume dispersion from the Con Edison 59th Street Station on sensitive uses. Existing and planned sites within 400 feet of the proposed project will be evaluated. The analysis will be initially performed using the AERMOD model and, as necessary for certain pollutants, using physical dispersion modeling in a wind tunnel of the project site and its surroundings. Concentrations of NO_2, SO_2, and PM_{10} on elevated receptors on buildings at the site of the proposed project will be determined based on five years of recent meteorological data. Predicted values will be compared with NAAQS and applicable criteria for $PM_{2.5}$.
- An analysis of uses surrounding the project site will be conducted to determine the potential for impacts from industrial emissions. A field survey will be performed to determine if there

are any manufacturing or processing facilities within 400 feet of the project site. In addition, a search of federal and state air permits, and the DEP's Bureau of Environmental Compliance (BEC) files will be performed to determine if there are permits for any sources of toxic air compounds from industrial processes. Based on this information, a determination will be made as to whether a detailed analysis of industrial stationary source air quality issues is necessary.

- Determine whether the proposed project, in comparison to the No Action scenario, would result in any significant adverse impacts. Mitigation will also be identified for any significant adverse impacts generated by the proposed project.
- If manufacturing or processing facilities are identified within 400 feet of the development parcels, or if any emissions from processing or manufacturing facilities within 400 feet of the project site are on file with DEP or NYSDEC, an industrial stationary source air quality analysis as detailed in the *CEQR Technical Manual* will be performed. The *CEQR Technical Manual's* industrial source screening procedures will be used to estimate the short-term and annual concentrations of critical pollutants at sensitive receptor sites. Predicted worst-case impacts on the project will be compared with the short-term guideline concentrations (SGC) and annual guideline concentrations (AGC) reported in NYSDEC's DAR-1 AGC/SGC Tables guidance document to determine the potential for significant impacts. In the event that exceedances of guidance concentrations are predicted, more refined dispersion modeling (using EPA's AERMOD dispersion model) may be employed, or measures to reduce pollutants to within guidance levels will be examined.

GREENHOUSE GASES

According to the *CEQR Technical Manual*, a greenhouse gas (GHG) consistency assessment is appropriate for projects in New York City being reviewed in an EIS that would result in development of 350,000 square feet or greater. Therefore, GHG emissions will be quantified and an assessment of consistency with the City's GHG reduction goal will be performed. Project GHG emissions will be estimated for one analysis year and reported as carbon dioxide equivalent (CO_2e) metric tons per year. The quantified assessment will include operational emissions (emissions from the operation of the buildings, including direct and indirect emissions), and mobile source emissions. The construction phase or the extraction or production of materials or fuels needed to construct the project is not likely to be a significant part of total project emissions. Therefore, emissions resulting from construction activity and construction materials will be assessed qualitatively. The Proposed Actions would not fundamentally change the city's solid waste management system, and therefore a quantified assessment of emissions due to solid waste management is not warranted. Features that demonstrate consistency with the City's GHG reduction goal will be described. The GHG analysis will consist of the following subtasks:

- Direct and Indirect Operational Emissions—emissions from on-site boilers used for heat and hot water would be quantified, as well as emissions from purchased electricity generated off-site and consumed on-site. Emissions would be based on the carbon intensity factors specified in the *CEQR Technical Manual* or project specific information on energy use.
- Indirect Mobile Source Emissions—emissions from vehicle trips to or from the Proposed Project Site will be quantified using trip distances and emission factors provided in the *CEQR Technical Manual*.

- Emissions from construction and emissions associated with the extraction or production of construction materials will be qualitatively discussed. Opportunities for reducing GHG emissions associated with construction will be considered.
- Features of the proposed project that reduce energy use and GHG emissions will be discussed and quantified to the extent that information is available.
- Consistency with the City's GHG reduction goal will be assessed. While the City's overall goal is to reduce GHG emissions by 30 percent below 2005 level by 2030, individual project consistency is evaluated based on proximity to transit, building energy efficiency, efforts to reduce carbon fuel intensity or improve vehicle efficiency for project-generated vehicle trips, and other efforts to reduce the project's carbon footprint.

NOISE

The *CEQR Technical Manual* requires that the noise study address whether the Proposed Actions would result in a significant increase in noise levels (particularly at sensitive land uses such as residences) and what level of building attenuation is necessary to provide acceptable interior noise levels.

The Proposed Actions will generate vehicular trips, but given the background conditions and the anticipated project-generated traffic, it is not expected that project-generated traffic would be likely to result in significant noise impacts. It is assumed that outdoor mechanical equipment would be designed to meet applicable regulations and that no detailed analysis of potential noise impacts due to outdoor mechanical equipment will be performed. Consequently, the noise analysis in the EIS will examine the level of building attenuation necessary to meet CEQR interior noise level requirements. The building attenuation study will be an assessment of noise levels in the surrounding area associated primarily with traffic and nearby uses and their potential effect on interior noise levels.

Specifically, the EIS will include the following tasks:

- Select appropriate noise descriptors. Appropriate noise descriptors to describe the existing noise environment will be selected. The L_{eq} and L_{10} levels will be the primary noise descriptors used for the EIS analysis. Other noise descriptors including the L_1, L_{10}, L_{50}, L_{90}, L_{min}, and L_{max} and 1/3 octave band frequency levels will be examined when appropriate.
- Based on the traffic studies, perform a screening analysis to determine whether there are any locations where there is the potential for the Proposed Actions to result in significant noise impacts (i.e., doubling of Noise PCEs) due to project generated traffic. If the results of the screening analysis indicate that a doubling of Noise PCEs would occur, a mobile source noise analysis would be performed using either proportional modeling or the Traffic Noise Model (TNM), where appropriate.
- Select receptor locations for building attenuation analysis purposes. A maximum of four (4) receptor locations will be selected. Receptor locations will include locations adjacent to the Rezoning Area.
- Perform 20-minute measurements at each receptor location during typical weekday AM, midday, and PM peak periods. L_1, L_{10}, L_{50}, L_{90}, L_{min}, and L_{max} values will be recorded. Where site access and security permits, a 24-hour continuous measurement may be performed in lieu of a 20-minute measurement.
- Data analysis and reduction. The results of the noise measurement program will be analyzed and tabulated.

- Determine the level of attenuation necessary to satisfy CEQR criteria. The level of building attenuation necessary to satisfy CEQR requirements is a function of exterior noise levels and will be determined. Measured values will be compared to appropriate standards and guideline levels. As necessary, recommendations regarding general noise attenuation measures needed for project buildings to achieve compliance with standards and guideline levels will be made. Due to the relatively high ambient noise levels in the area, any new development would be expected to require acoustically rated windows together with the provision for some kind of alternate ventilation (which does not degrade the acoustical performance of the façade) to achieve acceptable interior noise levels.

PUBLIC HEALTH

According to the *CEQR Technical Manual*, a public health analysis is not warranted if a project does not result in a significant unmitigated adverse impact in other CEQR analysis areas, such as air quality, water quality, hazardous materials, or noise. If an unmitigated significant adverse impact is identified in the relevant technical areas of the EIS, a public health analysis will be performed.

NEIGHBORHOOD CHARACTER

Neighborhood character is determined by a number of factors, such as land use, urban design, visual resources, historic resources, socioeconomic conditions, traffic, and noise. Methodologies outlined in the *CEQR Technical Manual* will be used to provide an assessment of neighborhood character. This chapter will include the following:

- Based on other technical analyses, describe the predominant factors that contribute to defining the character of the neighborhood surrounding the project site.
- Based on planned development projects, public policy initiatives, and planned public improvements, summarize changes that can be expected in the character of the area in the future without the Proposed Actions.
- Assess and summarize the Proposed Actions' effect on neighborhood character using the analysis of impacts as presented in other pertinent analyses (such as urban design and visual resources, historic resources, socioeconomic conditions, traffic, and noise).

CONSTRUCTION IMPACTS

Construction impacts, though temporary, can have a disruptive and noticeable effect on the adjacent community, as well as people passing through the area. Construction impacts are usually important when construction activity could affect traffic conditions, community noise patterns, air quality conditions, and mitigation of hazardous materials. This chapter will describe the construction schedule for the Proposed Project Site and provide an estimate of activity on site. Since construction is expected to be completed within 24 months, the assessment will include a qualitative assessment of the potential impacts of construction activities. Technical areas to be analyzed include:

- Transportation Systems. This assessment will consider losses in lanes, sidewalks, off-street parking on the project site, and effects on other transportation services, if any, during the construction period, and identify the increase in vehicle trips from construction workers and equipment.

- Air Quality. The construction air quality impact section will contain a qualitative discussion of both mobile source emissions from construction equipment and worker and delivery vehicles, and fugitive dust emissions. It will discuss measures to reduce impacts.
- Noise. The construction noise impact section will contain a qualitative discussion of noise from each phase of construction activity.
- Hazardous Materials. In coordination with the hazardous materials summary, determine whether the construction of the project has the potential to expose construction workers to contaminants.
- Other Technical Areas. As appropriate, discuss other areas of environmental assessment for potential construction-related impacts.
- If necessary, mitigation measures to avoid or reduce potential significant adverse impacts will be identified.

ALTERNATIVES

The purpose of an alternatives section in an EIS is to provide a comparison of conditions under alternative scenarios that are then compared with conditions under the Proposed Actions. Part of this analysis is to examine alternatives that may reduce project-related significant adverse impacts while substantively meeting the goals and objectives of the Proposed Actions. For this reason, the full range of alternatives is not typically defined until the extent of impacts has been identified during the preparation of the EIS. In any case, CEQR requires an analysis of a No Action Alternative (without the Proposed Actions), which in this case assumes that the existing uses would continue.

MITIGATION

Where significant adverse impacts have been identified in the analyses discussed above, measures will be described to mitigate those impacts. If significant adverse environmental impacts cannot be mitigated, they will be described as unavoidable adverse impacts.

SUMMARY CHAPTERS

Several summary chapters will be prepared, focusing on various aspects of the EIS, as set forth in the regulations and the *CEQR Technical Manual*. They are as follows:

1. *Executive Summary*. Once the EIS technical sections have been prepared, a concise executive summary will be drafted. The executive summary will use relevant material from the body of the EIS to describe the Proposed Actions, environmental impacts, measures to mitigate those impacts, and alternatives to the Proposed Actions.
2. *Unavoidable Adverse Impacts*. Those impacts, if any, that could not be avoided and could not be practicably mitigated will be described in this chapter.
3. *Growth-Inducing Aspects of the Proposed Actions.* This chapter will focus on whether the Proposed Actions would have the potential to induce new development within the surrounding area.
4. *Irreversible and Irretrievable Commitments of Resources.* This chapter focuses on those resources, such as energy and construction materials, that would be irretrievably committed should the proposed project be built. ✷