FINAL SCOPE OF WORK FOR THE LOWER CONCOURSE REZONING AND RELATED ACTIONS

ENVIRONMENTAL IMPACT STATEMENT

CEQR No.: 08DCP071X
ULURP Nos.: 090303 ZMX, N 090302 ZRX

Lead Agency: NYC Department of City Planning

Prepared by: STV Incorporated, HDR Incorporated, and PB Americas

January 2009

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JANUARY 2009

A. INTRODUCTION

This final scope of work outlines the issues to be analyzed in the preparation of an Environmental Impact Statement (EIS) for the proposed Lower Concourse Rezoning and Related Actions ("the proposed action"). The proposed action includes zoning map and zoning text amendments proposed by the New York City Department of City Planning (DCP). The rezoning area is located in the Mott Haven neighborhood of the Bronx, and is fully contained with Bronx Community District 1 (see Figure 1). The proposed rezoning area is currently zoned R6, C4-4 and M1-2 and M2-1. Zoning Map amendments would be required such that approximately 30 blocks of land currently zoned M1-2 and M2-1 (see Figure 2) would be rezoned to C4-4, C6-2A, MX (M1-4/ R8A), MX (M1-4/ R7X), MX (M1-4/ R7A), MX (M1-4/ R6A), and M1-4. A new C2-4 commercial overlay would be mapped on waterfront lots within the new R7-2 district. The rezoning proposal would include a zoning text amendment to establish a Special Mixed-Use District (MX); to modify food store regulations within the rezoning area; and to establish the Inclusionary Housing program within the rezoning area. Text amendments are proposed to establish the Harlem River Waterfront Access Plan (WAP) and the Special Harlem River Waterfront District (SHRWD) in the area located along the Harlem River waterfront between Exterior Street and the Harlem River, north of the Metro North Bridge over the Harlem River and south of East 149th Street. The proposal includes an amendment to the city map to establish a park on an approximately two-acre area of land generally located between the Harlem River and Exterior Street, south of the extension East 146th Street, and north of the extension of East 144th Street would also be required. Although the site of the proposed park is located within the proposed SHRWD, the special district regulations would not apply. The site would remain zoned M2-1 under the proposed actions.

This document provides a description of the proposed action and includes task categories for all technical areas to be analyzed in the EIS.

The EIS will be prepared in conformity with all applicable laws and regulations, including Executive Order No. 91, New York City Environmental Quality Review (CEQR) regulations, dated August 24, 1977, and will follow the guidelines of the *CEQR Technical Manual*. The EIS will contain:

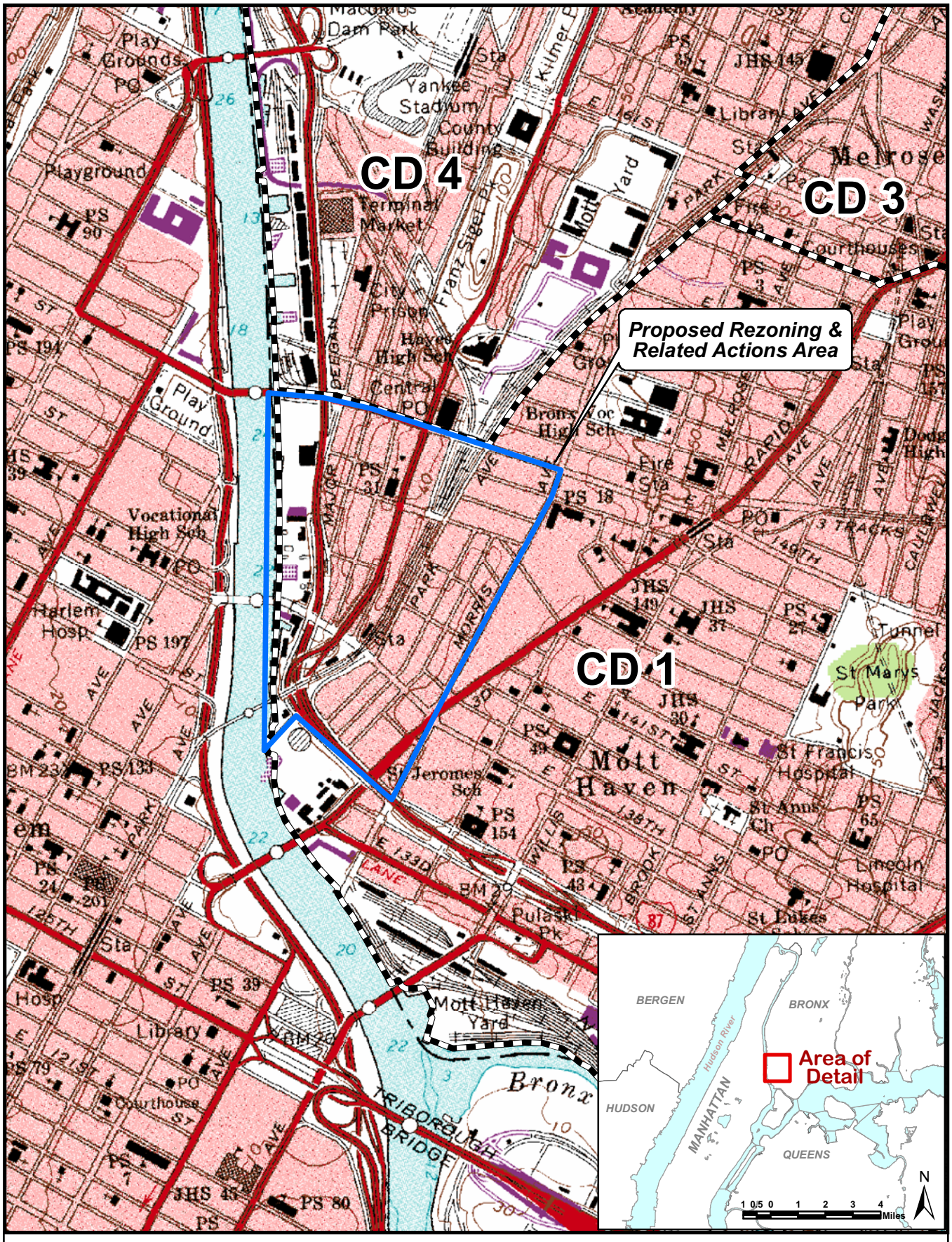
- A description of the proposed action and its environmental setting.
- A statement of the environmental impacts of the proposed action, including its short-and long-term effects, and typical associated environmental effects.
- An identification of any adverse environmental effects that cannot be avoided if the proposed action is implemented.
- A discussion of alternatives to the proposed action.
- A discussion of any irreversible and irretrievable commitments of resources that would be involved in the proposed action should it be implemented.
- A description of mitigation measures proposed to minimize adverse environmental impacts.

The environmental analyses in the EIS will assume a development period of ten years for the reasonable worst-case development scenario (RWCDS) for the project (build year 2018), and identify the cumulative impacts of other projects in areas affected by the proposed action. The New York City Department of City Planning (DCP), as lead agency, will coordinate the review of the proposed action among the involved and interested agencies and the public.

B. REQUIRED APPROVALS AND REVIEW PROCEDURES

The proposed action requires City Planning Commission (CPC) and City Council approvals through the Uniform Land Use Review Procedure (ULURP), and includes the following actions:

- **Zoning map amendment** to change approximately 30 blocks currently zoned R6, C4-4, M1-2 and M2-1 to C4-4, C6-2A, R7-2/C2-4, MX (M1-4/ R8A), MX (M1-4/ R7X), MX (M1-4/ R7A), MX (M1-4/ R6A), and M1-4. Under the proposed action, new C2-4 commercial overlays would be mapped across the waterfront blocks, within the R7-2 district.
- **Zoning text amendment** to establish a Special Mixed Use District (MX), extending over all or portions of 25 blocks between Exterior Street and Walton Avenue, south of East 149th Street and north of East 138th Street, and between Park Avenue and Morris Avenue, south of East 146th Street and north of the Major Deegan Expressway. This area is currently zoned M1-2 and M2-1.
- **Zoning text amendments** in the form of the Harlem River Waterfront Access Plan (WAP) and the Special Harlem River Waterfront District (SHRWD), located along two blocks on the Harlem River waterfront, between Exterior Street and the Harlem River,



Legend

Proposed Rezoning & Related Actions Area

Bronx Community District Boundaries

500 250 0 500 1,000 Feet

N

Source: USGS Topographic Map, quad o40073g8; STV Incorporated

Figure 1: Project Location

Lower Concourse Rezoning and Related Actions EIS

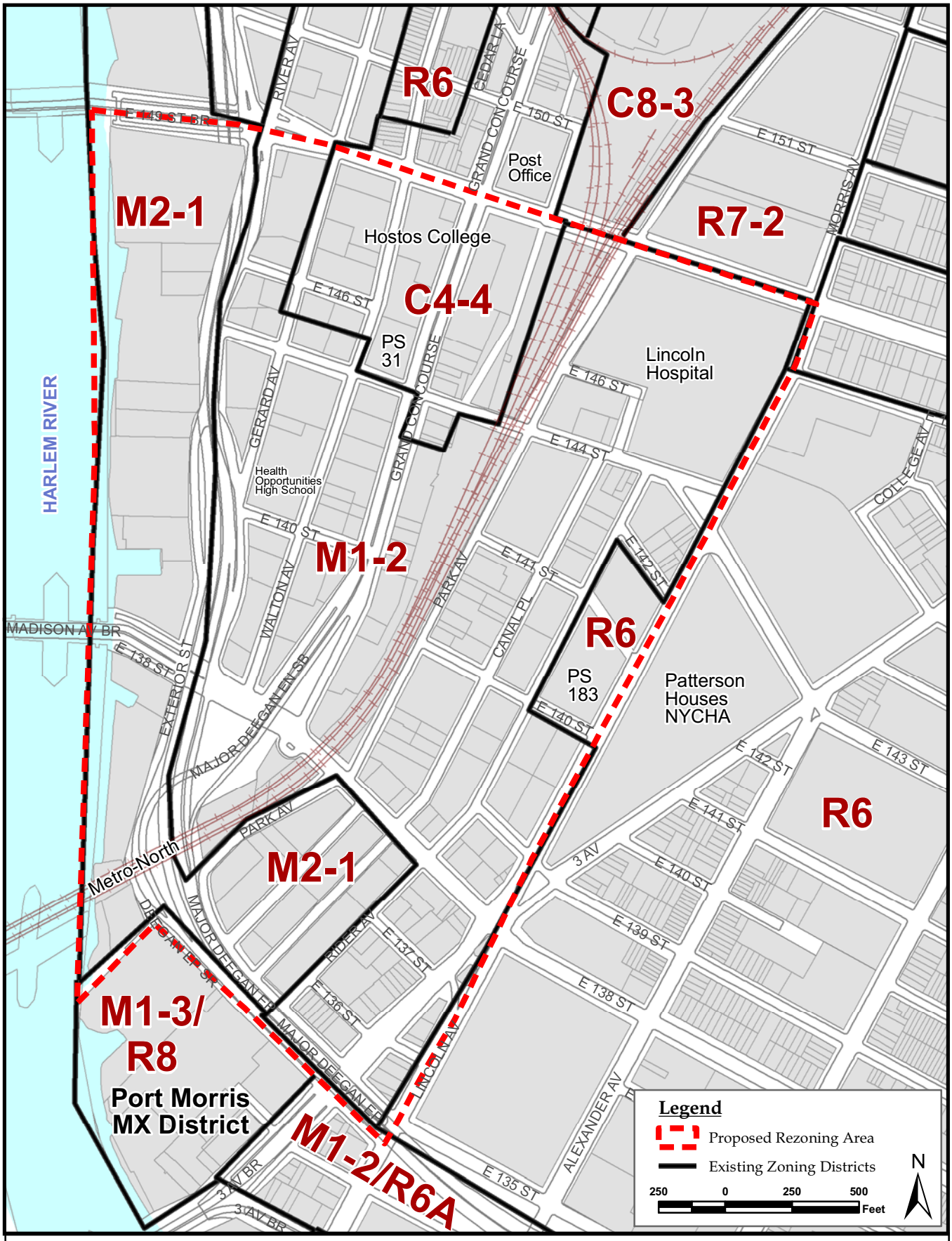
NYC Department of City Planning

north of the prolongation of Park Avenue and south of East 149th Street. Within the SHRWD, the zoning would change from M2-1 to R7-2/C2-4 and C4-4, and would facilitate new residential and commercial development. The waterfront zoning text amendments would be implemented in order to provide for a coordinated network of waterfront open spaces. For a more detailed description of the WAP and SHRWD, see "Special Harlem River Waterfront District" under Section 2.5 "Existing and Proposed Zoning."

- **Zoning text amendment** to modify food store regulations within the rezoning area. The proposed amendment would allow food stores of any size as-of-right within M1-4 districts in Bronx Community District 1 in order to encourage the location of new grocery stores in the South Bronx.
- **Zoning text amendment** to establish the Inclusionary Housing program within the proposed rezoning area within Bronx Community District 1.
- **Amendments to the City Map** to establish a park on a parcel that is approximately 2.26 acres in size, located between the Harlem River and Exterior Street, south of a visual extension of East 146th Street, and north of a visual extension of East 144th Street. Although the site of the proposed park is located within the proposed Special Harlem River Waterfront District (SHRWD), the special district regulations would not apply. The site would remain zoned M2-1 under the proposed actions. It is anticipated that the New York City Department of Parks and Recreation (DPR) would acquire the site following the park mapping action and develop it for park use. The proposed site is currently occupied by bus parking and warehouse uses. Absent the proposed action, current uses are expected to continue.

These actions are subject to the City Environmental Quality Review (CEQR) procedures. An Environmental Assessment Statement (EAS) was submitted on May 14, 2008. DCP, acting as lead agency on behalf of the City Planning Commission, has determined that the proposed action would have the potential for significant adverse impacts. Therefore, a detailed assessment of likely effects in those areas of concern must be prepared and disclosed in an EIS.

This final scoping document sets forth the analyses and methodologies proposed for the EIS. The draft scope of work was submitted to the public on June 19, 2008. The public, interested agencies, Bronx Community Board 1 (wherein the proposed rezoning and related actions would be located); adjacent Bronx Community Board 4; and elected officials were invited to comment on the draft scope, either in writing or orally, at a public scoping hearing held on June 19, 2008, at 4:00 PM at Hostos Community College, 450 Grand Concourse, Bronx, NY. Comments received during the draft scope's public hearing, and written comments received up to 10 days after the hearing have been considered and incorporated, as appropriate, into the Draft Environmental Impact



Major Zoning Classifications

R - Residential District
C - Commercial District
M - Manufacturing District

Figure 2: Existing Zoning

Lower Concourse Rezoning and Related Actions EIS

NYC Department of City Planning

Source: NYC Department of City Planning, 2008

Statement (DEIS). The final scope of work will be used as a framework for preparing the DEIS for the proposed action.

Once the lead agency (DCP) is satisfied that the DEIS is complete, the document will be made available for public review and comment. The DEIS will accompany the ULURP application through the public hearings at the Community Board and City Planning Commission (CPC). A public hearing will be held on the DEIS in conjunction with the CPC hearing on the ULURP applications to afford all interested parties the opportunity to submit oral and written comments. The record will remain open for 10 days after the public hearing to allow additional written comments on the DEIS. At the close of the public review period, a Final EIS (FEIS) will be prepared that will incorporate all substantive comments made on the DEIS, along with any revisions to the technical analysis necessary to respond to those comments. The FEIS will then be used by the decision makers to evaluate CEQR findings, which address project impacts and proposed mitigation measures, before deciding whether to approve the requested discretionary actions.

C. DESCRIPTION OF THE PROPOSED ACTION

The New York City Department of City Planning (DCP) is proposing zoning map and zoning text amendments, and, in association with the NYC Department of Parks and Recreation, changes to the city map establishing a park, (collectively, "the proposed action"), affecting the Lower Concourse area of the South Bronx, Community District 1. The areas affected by the proposed action include all or portions of 30 blocks, generally bound by the Harlem River on the west, East 149th Street and East 144th Street to the north, Morris and Lincoln Avenues on the east, and the Major Deegan Expressway and Park Avenue to the south (see Figure 1). Table 1 below provides a list of the blocks and lots affected by the proposed action.

The Lower Concourse has a diverse mix of manufacturing, converted manufacturing commercial, institutional and limited retail uses. Buildings within the Lower Concourse have a wide range of heights; many exhibit full lot coverage and are used as manufacturing uses or converted from manufacturing use to other uses.

Table 1: List of Blocks and Lots Affected by Proposed Lower Concourse Rezoning and Related Actions

Affected Blocks	Affected Lots
2349	15, 100, 112
2323	28
2351	1, 3, 12, 20, 22, 25, 35
2350	1, 5, 11, 16, 34, 63
2349	46, 47, 90
2344	1, 11, 17, 27,52, 60, 75, 83, 110, 112
2345	1, 5, 10, 12, 14, 18, 22, 26, 49
2341	6, 10,23, 28, 31, 34, 37, 40, 42
2340	1, 3, 8, 56, 58, 208, 209
2322	28, 81, 101
2333	1, 6, 10
2320	5, 6, 7, 8, 9 10, 11, 32, 33, 37, 41, 42, 43, 45, 46, 47, 50, 51, 53, 59, 66, 72, 7 73, 74, 77, 79, 88, 164, 185
2318	5, 7, 9, 18, 19, 22
2335	57, 58
2340	11, 72, 186, 195, 204, 213, 215, 218, 221
2334	38, 39, 40, 41, 43, 45, 59, 61, 62, 63, 66
2333	12, 17, 31, 33, 50, 54
2355	6
2349	3, 38
2323	13, 43

The Lower Concourse area, generally bounded by East 149th Street and East 144th Street to the north, Morris and Lincoln Avenues on the east, the Major Deegan Expressway and Park Avenue on the south, and the Harlem River on the west, is bordered by the residential neighborhood of Mott Haven to the north and east and by the mixed-use area of Port Morris to the south. Currently, the area is zoned M1-2 and M2-1, which are manufacturing zones which do not allow residential use.

The proposed action would effectuate the following land use goals:

- Provide new opportunities for redevelopment and economic growth within the South Bronx;
- Direct new housing and commercial development at higher densities to an area with excellent transit and highway access;
- Create a new public park on the Harlem River waterfront;

- Encourage the redevelopment of the waterfront, including continuous public waterfront access along the Harlem River waterfront;
- Encourage new housing production, including new affordable housing, in the Bronx;
- Provide new opportunities for the development of grocery stores in the South Bronx;
- Encourage the creation of a new gateway to the South Bronx through redevelopment of the lower Grand Concourse; and
- Retain viable light industrial businesses and allow for growth.

Purpose and Need

The proposed action is intended to provide opportunities for new residential and commercial development and the enhancement and upgrade of the waterfront areas in the South Bronx. Over the past two decades, the South Bronx has experienced a substantial amount of new housing construction, beginning to rebound from substantial disinvestment and population loss experienced during the 1970's and 1980's. Most vacant and City-owned sites have been developed or are programmed for development, leaving a shortage of available sites for new residential development to continue to recoup earlier population losses. With the population of New York City expected to increase by a million people by the year 2030, new areas are needed to accommodate this growth. At the same time, industrial uses in the Lower Concourse have declined, leaving vacant and underutilized land and buildings.

Transit access is excellent in the Lower Concourse, with stops on New York City Transit's 2, 4, and 5 express subway trains, and the No. 6 local train located within walking distance of the entire proposed rezoning area. The southernmost terminal of the Grand Concourse runs through the center of the project area and is a high-profile gateway to the South Bronx for motorists exiting from the Major Deegan Expressway and to pedestrians using subway stops at 138th Street and 149th Street. Pedestrian access to Manhattan is available across the 145th Street, Madison Avenue, and Third Avenue bridges.

In the nineteenth century, an active port and numerous rail connections brought a number of industrial businesses including garment and piano factories to this area. The construction of the subway in the early twentieth century brought a number of multi-story industrial loft buildings. While an industrial presence remains, industrial firms and jobs have declined in this area in the last several years. The Oak Point Rail Link was built along the Harlem River in the 1990's, cutting off access to the waterfront and precluding waterfront-dependent uses.

A number of substantial investments have recently been made in the area surrounding the Lower Concourse. The Port Morris/ Bruckner Avenue Mixed-Use district rezoning area is located directly to the south and east. This district, established in 1997 and expanded in 2005, allowed residential uses along with the existing manufacturing uses. This rezoning resulted in the conversion of several buildings into more than 300 new residential units, along with the rehabilitation of several existing row-houses and apartment buildings. The Gateway Center, currently under construction, will bring approximately one million square feet of new retail space north of 149th Street. New waterfront parks are under construction along the Harlem River waterfront directly north of the site.

Despite these investments, few new buildings have been constructed within the Lower Concourse since the current manufacturing zoning went into effect in 1961. New development has consisted primarily of automotive service and personal self-storage facilities. Current zoning in the area is outmoded and unduly limits reasonable expansion of this strategically located area. Current zoning densities and allowed uses are relatively limited for an area with so much transportation infrastructure. Current zoning encourages uses and densities incompatible with surrounding residential neighborhoods and limits opportunities for new investment in the South Bronx. As a consequence, vacant and under-built sites create a blighting influence along major thoroughfares located at high-profile entryways into the borough, creating a negative effect upon the South Bronx as a whole.

The proposed action would create opportunities for new housing development on underutilized and vacant land in this highly-transit accessible location. This would allow for additional investments to continue the revitalization of the South Bronx. In addition, the proposed mixed-use districts would permit the continuation of light industrial uses as well as the development of new light industrial uses. Lifting restrictions on the size of food stores within the rezoning area would provide additional opportunities for new grocery stores in the South Bronx, which is currently underserved by such stores. Finally, the action would encourage the development of the under-utilized Harlem River waterfront, extending waterfront access from the Gateway Center area south to the Port Morris community.

Existing Zoning

The Lower Concourse is primarily zoned for general manufacturing uses along its waterfront, for commercial use in an area comprising major institutional uses, and medium-density residential (see Figure 2). Table 2A provides a summary of the existing allowed density in the rezoning area.

Table 2A: Summary of Existing Allowable Densities in the Lower Concourse Rezoning Area

Zoning District	Maximum Residential FAR	Maximum Residential FAR*	Non-Residential FAR	Community Facility Maximum FAR**
R6	2.43	3.0	-	4.8
C4-4	3.44	4.0	3.4	6.5
M1-2	-	-	2.0	4.8
M2-1	-		2.0	-

*For the R6, the maximum residential FAR applies within 100 feet of a wide street, in accordance with Quality Housing requirements.

** Industrial use would not be permitted in the proposed C4-4 district. Non-residential use could include community facility use, which would have a separate FAR.

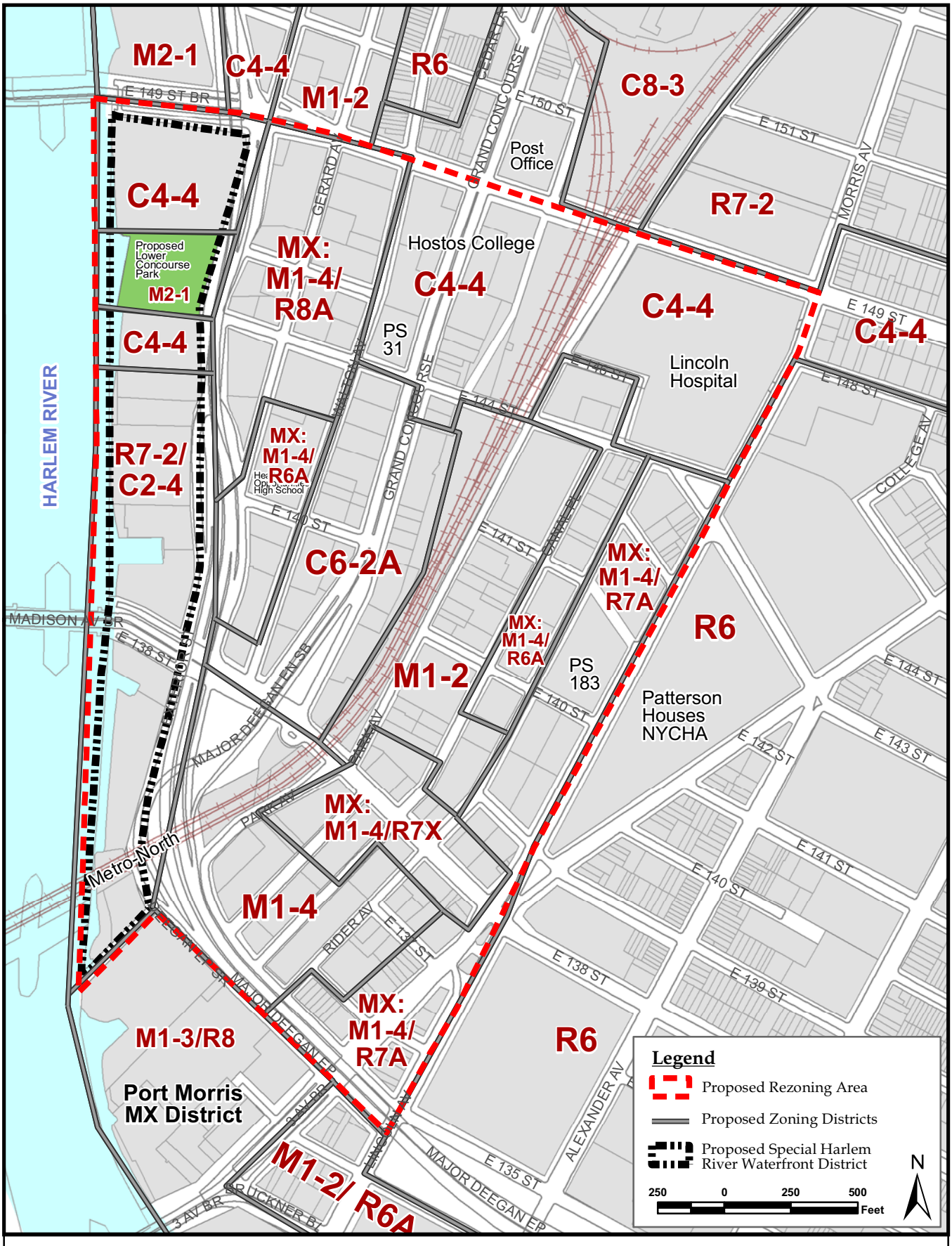
Proposed Zoning

In the proposed action area, existing manufacturing zoning designations would be changed to permit residential and commercial uses on the waterfront and the Grand Concourse, residential and mixed uses in other areas, and to restrict certain areas currently zoned M2-1 to light manufacturing uses. A zoning text amendment would establish the Lower Concourse Special Mixed-Use District (MX). Approximately 30 blocks of land currently zoned M1-2 and M2-1 would be rezoned to C4-4, C6-2A, R7-2, MX (M1-4/ R8A), MX (M1-4/ R7X), MX (M1-4/ R7A), MX (M1-4/ R6A), and M1-4. A new C2-4 commercial overlay would be mapped on waterfront lots zoned R7-2. All of two and portions of four blocks at the center of the rezoning area would remain zoned M1-2. Table 2B describes the proposed zoning. Figure 3 presents the proposed zoning map.

Table 2B:
Summary of Proposed Allowed Density and Building Form

PROPOSED ZONING									
Use	**Residential**			**Commercial**	**Comm. Facility**	**Manu.**	**Building Form / Bulk Controls**		
Zoning District	**Base FAR**	**Incl. Housing Bonus**	**Max. FAR**	**Max. FAR**	**Max. FAR**	**Max. FAR**	**Building base (streetwall): min.**	**max.**	**Building height: max.**
R7-2	3.0	1.0	4.0	-	6.5	-	60′	85′	400′ *
C2-4 overlay	-	-	-	2.0	-	-	-		-
C4-4	3.0	1.0	4.0	3.4	6.5	-	60′	85′	400′ *
C6-2A	5.4	1.8	7.2	6.0	6.5	-	60′	85′	120′
(M1-4/R6A)	2.7	0.9	3.6	2.0	3.0	2.0	40′	60′	70′
(M1-4/R7A)	3.45	1.15	4.6	2.0	4.0	2.0	40′	65′	80′
(M1-4/R7X)	3.75	1.25	5.0	2.0	5.0	2.0	60′	85′	125′
(M1-4/R8A)	5.4	1.8	7.2	2.0	6.5	2.0	60′	85′	120′
M1-2	-			2.0	4.8	2.0	not required		none
M1-4	-			2.0	6.5	2.0	not required		none

* only on lots larger than 100,000 sq. ft. in the SHRWD; lots less than 100,000 sq. ft have maximum building height of 300 sq ft; *Source: DCP, STV Incorporated*



Major Zoning Classifications

R - Residential District
C - Commercial District
M - Manufacturing District

Source: NYC Department of City Planning, 2008

Figure 3: Proposed Zoning

Lower Concourse Rezoning and Related Actions EIS

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The proposed zoning changes are listed below.

- Change from **M1-2 to C6-2A** all or portions of four blocks generally located along the Grand Concourse south of East 144th Street, north of East 138th Street, between Walton Avenue and the Metro North Railroad right-of-way.

This zoning change would result in a change in uses allowed in this important gateway to the South Bronx along the Grand Concourse, and would facilitate new residential and commercial development at a scale more appropriate to the more historic portions of the Grand Concourse to the north. This area is characterized by single story automotive uses, surface parking, and self storage and moving facilities. The proposed C6-2A zoning district would allow taller buildings within a contextual envelope and is proposed here to reflect the width and prominence of the Grand Concourse.

The M1-2 district allows light industrial and some commercial uses with an FAR of 2.0. The proposed C6-2A would allow new residential development with a maximum FAR of 7.2 and new commercial development with a maximum FAR of 6.0. All new development would be required to build along the street-wall within a contextual envelope with a maximum height of 120 feet.

- Change from **M2-1** to **R7-2/ C2-4** and **C4-4** all or portions of two blocks along the Harlem River waterfront south of East 149th Street and north of the Metro North Railroad bridge.

These zoning changes would result in a change in uses allowed along the Harlem River waterfront, and would facilitate new residential and commercial development. This area is characterized by open air industrial uses such as bus parking and concrete recycling, single-story warehouses, and personal self-storage facilities. New development would be required to provide public access areas shaped by the WAP (see below). New development on the waterfront would also be subject to the special bulk and use requirements of the SHRWD.

The M2-1 district allows medium-intensity industrial uses with an FAR of 2.0. The proposed R7-2 and C4-4 zoning districts would allow new residential development with a maximum FAR of 4.0 with bulk regulations controlled by the proposed SHRWD. The C2-4 commercial overlay would allow new commercial retail and office development with a maximum FAR of 2.0. The new C4-4 zoning district would allow new regional commercial retail and office development with a maximum FAR of 3.4.

Although the site of the proposed park is located within the proposed SHRWD, the SHRWD regulations would not apply. The site would remain zoned M2-1 under the proposed actions. It is anticipated that DPR would acquire the site following the park mapping action and develop it for park use.

- Change from **M1-2** and **C4-4** to **MX (M1-4/ R8A)** all or portions of six blocks generally located south of East 149th Street, north of East 140th Street, between Exterior Street and Walton Avenue.

These zoning changes would result in a change in allowed uses for those areas currently zoned M1-2, and would facilitate new residential and commercial development and conversions while continuing to permit existing and new light industrial uses. The area proposed to change from C4-4 to MX (M1-4/ R8A) would be allowed additional FAR for residential uses, increasing from 3.44 to 7.2 FAR. This area is characterized by single-story industrial buildings, multi-story loft buildings, and open-air industrial uses.

The C4-4 district, currently mapped on portions of two blocks, allows for medium density commercial development at an FAR of 3.4 and residential development at an FAR of 3.44. The existing M1-2 district allows light industrial uses with an FAR of 2.0. The proposed MX (M1-4/ R8A) zoning district would allow new residential development with a maximum FAR of 7.2. New development would be required to build along the street-wall within a contextual envelope with a maximum building height of 120 feet. The M1-4 zoning district would allow new commercial retail and office and light industrial development with a maximum FAR of 2.0.

- Change from **M1-2** to **MX (M1-4/ R6A)** all or portions of six blocks in two areas generally located south of East 144th Street, north of East 138th Street, between Gerard and Walton Avenues in one area and located south of East 146th Street, north of East 139th Street, between Canal Place and Rider Avenue in another.

This zoning change would result in a change in allowed uses and would facilitate new residential development and conversions while continuing to permit existing and new light industrial uses. This area is characterized by single-story industrial buildings and multi-story loft buildings. The proposed R6A zoning district is intended to reflect the current built context of four-to-six-story loft buildings.

The existing M1-2 district allows light industrial uses with an FAR of 2.0. The proposed MX (M1-4/ R6A) zoning district would allow new residential development with a maximum FAR of 3.6. New development would be required to build along the street-wall within a contextual envelope with a maximum building height of 70 feet. The M1-4 zoning district would allow new commercial retail and office and light industrial development with a maximum FAR of 2.0.

- Change from **M1-2** and **M2-1** to **MX (M1-4/ R7X)** all or portions of seven blocks generally located along East 138th Street between Park and Third Avenues.

These zoning changes would result in a change in allowed uses and would facilitate new residential development and conversions while continuing to permit existing and new light industrial uses. This area is characterized by vacant lots, single-story automotive uses, and open-air automotive uses. The proposed R7X zoning district allows taller buildings within a

contextual envelope and is proposed here to reflect the width of East 138th Street and the street's mixed-use character to the east.

The existing M1-2 district allows light industrial uses with an FAR of 2.0. The proposed MX (M1-4/ R7X) zoning district would allow new residential development with a maximum FAR of 5.0. New development would be required to build within a contextual envelope with a maximum height of 125 feet. The M1-4 zoning district would allow new commercial retail and office and light industrial development with a maximum FAR of 2.0.

- Change from **M1-2** to **MX (M1-4/ R7A)** all or portions of 10 blocks generally located along Third, Morris, and Lincoln Avenues between East 144th Street and the Major Deegan Expressway.

This zoning change would result in a change in allowed uses and would facilitate new residential development and conversions while continuing to permit existing and new light industrial uses. This area is characterized by single-story automotive uses, vacant multi-story buildings, and dilapidated residential buildings. The proposed R7A zoning district allows mid-size contextual buildings and is proposed here to reflect the height of buildings within the residential areas to the east.

The existing M1-2 district allows light industrial uses with an FAR of 2.0. The proposed MX (M1-4/ R7A) zoning district would allow new residential development with a maximum FAR of 4.6. New development would be required to build within a contextual envelope with a maximum height of 80 feet. The M1-4 zoning district would allow new commercial retail and office and light industrial development with a maximum FAR of 2.0.

- Change from **M1-2** and **M2-1 to M1-4** for portions of five blocks generally located south of East 138th Street and north of the Major Deegan Expressway, between Park and Third Avenues.

The zoning change from M2-1 to M1-4 would result in a change in intensity of industrial uses allowed for portions of three blocks located generally north of the Major Deegan Expressway, west of Park Avenue, south of East 138th Street, and east of Rider Avenue. This area is characterized by single-story and open air industrial uses such as storage and warehouses/distribution. Several large employers are located in this area. The expressway and elevated rail tracks detract from sidewalk conditions. For these reasons, allowance of residential use is not proposed here. This rezoning is proposed to ensure that only light industrial uses and retail uses are allowed adjacent to proposed new residential areas.

The zoning change from M1-2 to M1-4 would result in different requirements for public parking for portions of two blocks located south of East 138th Street and north of East 136th Street between Rider Avenue and Third Avenue. The change from M1-2 to M1-4 would require a special permit for new public parking garages.

The M2-1 district allows medium-intensity industrial uses with an FAR of 2.0. The M1-2 district allows low-intensity uses with an FAR of 2.0. The proposed M1-4 zoning district would allow light industrial uses and some retail uses with a maximum FAR of 2.0.

- Change from **M1-2** to **C4-4** one block located south of East 149th Street and north of East 144th Street, between Morris Avenue and the Metro North Railroad right-of-way.

This zoning change would result in a change in allowed uses, bringing the existing Lincoln Hospital into use conformity.

The proposed action includes the following zoning text:

HARLEM RIVER WATERFRONT ACCESS PLAN (WAP) and SPECIAL HARLEM RIVER WATERFRONT DISTRICT (SHRWD)

The proposed zoning text amendment would create the Harlem River Waterfront Access Plan (WAP) and Special Harlem River Waterfront District (SHRWD), as shown on Figure 4. It would consist of the Harlem River waterfront blocks extending between the Harlem River and Exterior Street, south of East 149th Street and north of the Metro North Railroad Bridge over the Harlem River, and would encompass areas proposed to be rezoned to R7-2/ C2-4 and C4-4 from M2-1. Within the SHRWD, the zoning would change from M2-1 to R7-2/C2-4 and C4-4, which would facilitate new residential and commercial development. The proposed WAP would specify the location of public access areas and visual corridors. The proposed SHRWD would apply special bulk regulations to waterfront lots. Although the site of the proposed park is located within the proposed SHRWD, the SHRWD regulations would not apply. The site would remain zoned M2-1 under the proposed actions.

The WAP and SHRWD would be guided by the following goals:

- Provide a framework that could create a continuous network of open spaces connecting along the Harlem River waterfront;
- Enhance the pedestrian environment along the waterfront public access areas; and,
- Provide a varied and pleasing skyline along the Harlem River waterfront.

A summary of the proposed special bulk provisions of the WAP and SHRWD follows:

- The maximum base and tower height limits would be modified in the R7-2 and C4-4 districts to require a minimum base height of 60 feet, and allow a maximum base height of 85 feet. Current waterfront regulations for these districts allow a maximum base height of 60 feet, and there is no minimum base height. The maximum tower height is 400 feet on lots larger than 100,000 sf, and 300 feet on lots smaller than 100,000 sf. Current waterfront regulations allow a maximum tower height of 135 feet;

- The maximum tower footprint and location of towers would be modified in the R7-2 and C4-4 districts. Current regulations allow a maximum tower footprint of 8,100 sf for lots larger than 1.5 acres and 7,000 sf for lots smaller than 1.5 acres. Under the proposed regulations, new tower construction would have a maximum footprint of 8,100 sf;
- Screening requirements would mandate usable floor area facing all waterfront public access areas, and usable floor area would be required for the ground floor facing streets;
- To ensure a mix of uses on the waterfront, for every square foot of retail space, a square foot of other commercial, residential or community facility must be provided. A City Planning Commission authorization would be created to allow retail-predominant development on the waterfront if certain criteria are met; and,
- Restrictions in C2-4 commercial overlays on the location of commercial space in mixed-use buildings would be modified to allow flexibility in locating commercial uses.

MODIFY FOOD STORE REGULATIONS

The proposed zoning text amendment would permit food stores of any size (up to the maximum permitted FAR) as-of-right within the proposed rezoning area. Currently, food stores over 10,000 sf are only allowed within M1 districts by special permit from the City Planning Commission. The South Bronx is currently underserved by grocery stores and by stores providing fresh produce. In order to provide additional opportunities for new grocery store development, food stores of any size would be allowed as-of-right (up to the maximum permitted FAR) within M1-4 zoning districts in Bronx Community District 1. For the proposed rezoning area, three parcels have been identified as potential food store sites, subject to height and bulk regulations and the proposed mixed-use zoning of the district where food stores would be allowed. The projected size of the food stores could range from approximately 18,000 gross square feet (gsf) to 50,000 gsf, including circulation and mechanical space.

ESTABLISH INCLUSIONARY ZONING in REZONING AREA

The proposed zoning text amendment would apply the Inclusionary Housing program within the rezoning area in Bronx Community District 1. New base and bonused FARs would apply to new residential development; bonused FAR would be allowed to facilitate affordable housing within the same building receiving the bonus FAR. Base FARs apply to developments that do not use the Inclusionary Zoning bonus. The full bonused FAR is applied to buildings that take full advantage of the program by providing one fifth of the total new housing floor area as affordable residential floor area in accordance with the Inclusionary Housing program. Base and bonused FARs are presented in Table 3.

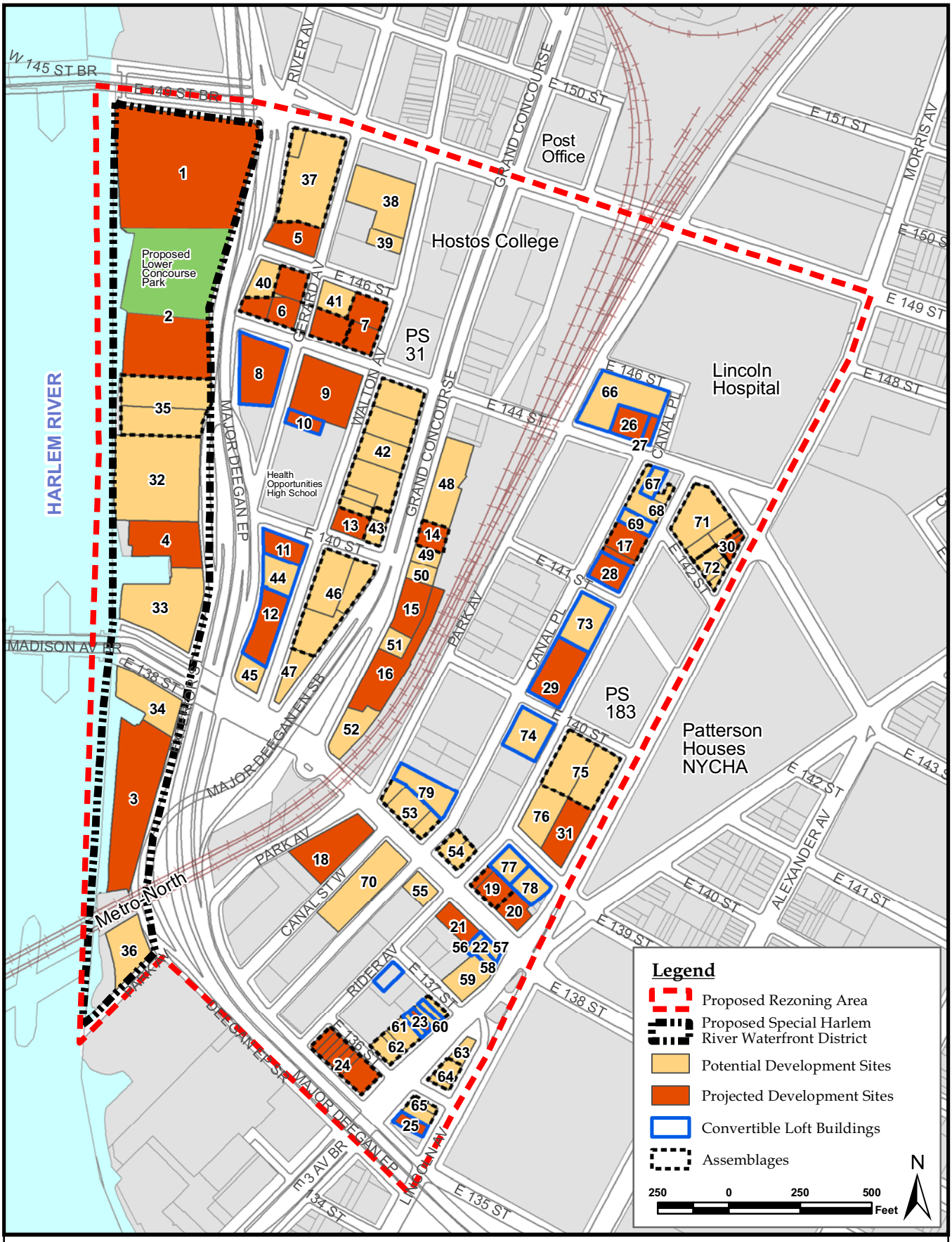


Figure 4: Projected and Potential Development Sites

Lower Concourse Rezoning and Related Actions EIS

NYC Department of City Planning

Source: NYC Department of City Planning, 2008

Table 3: Proposed Inclusionary Housing Zoning in the Lower Concourse Rezoning Area

Zoning District	Base FAR	Bonused FAR
C6-2A	5.4	7.2
R6A	2.7	3.6
R7A	3.45	4.6
R7X	3.75	5.0
R8A	5.4	7.2
C4-4	3.0	4.0
R7-2	3.0	4.0

Source: New York City Department of City Planning, 2008

Other changes to be assessed in the EIS and in the ULURP application include changes to the City Map creating a new park. DCP, in conjunction with DPR, is proposing changes to the City Map for the mapping of a new 2.26-acre park located along the Harlem River waterfront within the rezoning area. The park would be located between the Harlem River and Exterior Street, generally south of the prolongation of East 146th Street and north of the prolongation of East 144th Street (refer to Figures 3 and 4). The proposed Harlem River waterfront park would serve the following purposes.

- Provide new recreational green space for the substantial new residential population expected as a result of the proposed actions.
- Provide waterfront access and open space to existing South Bronx residents, employees, and students.
- Provide a catalyst for redevelopment along the waterfront, thereby extending waterfront access to adjacent waterfront parcels.

Projected Development Scenario

CEQR considers the long term and short term effects of proposed actions. For area-wide rezonings not associated with a specific development, the foreseeable future is generally considered to be a ten-year build out period. This is assumed to be the length of time over which developers would act on the change in zoning and the effects of the proposed action would be experienced.

The future With-Action (or Build) scenario therefore identifies the amount, type, and location of development that is expected to occur by 2018 as a result of the proposed action. The future without the Action (or No-Build) scenario identifies similar development projections for 2018 absent the proposed action. The incremental difference between the build and no-build scenarios serves as the basis for the impact analyses.

To determine the development scenarios, standard methodologies have been used following *CEQR Technical Manual* guidelines and employing reasonable, worst-case assumptions. These methodologies have been used to identify the amount and location of future residential, commercial, and community facility growth. In projecting the amount and location of new development, several factors have been considered, including known development proposals, current market demands, past development trends, and DCP's "soft site" criteria, described below, for identifying likely development sites. Generally, for area-wide rezonings, which create a broad range of development opportunities, new development can be expected to occur on selected, rather than all, sites within a rezoning area. The first step in establishing the development scenarios was to identify those sites where new development could reasonably be expected to occur.

In identifying the RWCDS, a general set of criteria was established and all sites that met the criteria were identified. Area specific criteria were also developed to further identify projected and potential development sites.

General Criteria for Development Sites

The following criteria were used to categorize soft sites as "Projected" development sites.

- Lots with a total size of 5,000 sf or larger (may include potential assemblages totaling 5,000 sf if assemblage seems probable) occupied by buildings with floor area ratios equal to or less than half the proposed maximum permitted FAR.
- Lots occupied by loft buildings or other buildings that are suitable for residential conversion.

The following criteria were used to further categorize soft sites as "Potential" development sites, which are seen as less-likely to develop in the foreseeable future.

- Lots containing active businesses operating within fully-enclosed structures that occupy most of their lot/ building.
- Active businesses that have undergone extensive investment and that provide unique services, or which are prominent and successful neighborhood businesses or organizations unlikely to move.
- Lots with warehouse buildings that are more than 20 percent vacant or occupied by marginal uses and which are suitable for conversion.
- Highly irregular lots or otherwise encumbered parcels that would make development difficult, or lots situated in a less-attractive location for new development.

The following uses and types of buildings that meet these criteria were **not included** in the development scenario because they are very unlikely to be redeveloped as a result of the proposed rezoning.

- The sites of schools and colleges (public and private). Many schools that meet the development site criteria are built to less than half of the permitted floor area of those sites under the current zoning. It is unlikely that the increment of additional FAR permitted under the proposed zoning would induce redevelopment or expansion of these sites.

Additional assumptions made in developing the RWCDS include the following.

- The average dwelling unit size is assumed to be 1,000 sf, reflecting that type of units that are currently being constructed in this area.
- Ground floor commercial totals assume that 15 percent of the floor's floor area is circulation and mechanical space.

The Future Without The Proposed Action Conditions (No-Build Scenario)

In the future without the proposed action, given the current zoning and commercial and residential housing trends in the area, it is anticipated that the proposed project area would experience nominal growth in commercial and light manufacturing uses. Most of the projected growth is expected to include further development of self-storage facilities, drive-through restaurants, gasoline station / convenient stores, office uses, and warehouses.

The Future With the Proposed Action Conditions (Build Scenario)

In the future with the proposed action, higher density commercial and residential development is expected to occur throughout the rezoning area. In total, the proposed action is projected to result in new development, including 3,416 dwelling units, 841,805 sf of commercial space, 95,500 sf of industrial space, and 154,289 sf of community facility space. This estimate is based on the above soft-site criteria and the available sites within the rezoning area. In addition, some uses on the projected development sites that are expected in the future without the proposed action would be redeveloped, although in most cases such no-build uses would remain.

DCP identified 31 projected development sites likely to be developed by 2018 (see Table 4A and Figure 4). In addition, there are 48 potential development sites which are considered less likely than the projected sites to be developed over the 10-year analysis period.

The 31 projected development sites currently have 2 dwelling units, 105,163 sf of commercial uses (including retail and office space), 532,626 sf of industrial/manufacturing uses, and 36,599 sf of community facility space. In the future without the proposed action (No-Build), some of the as-of-right development is expected to occur on these sites. The no-build program is expected to consist of 2 dwelling units, 704,709 sf of commercial space (office and retail), 404,372 sf of industrial space, and 90,589 sf of community facility space.

The total development expected to occur on the projected development sites under the Build conditions would consist of 3,416 dwelling units, 841,805 sf of commercial space (589,520 sf local retail, 88,000 sf of grocery stores, 164,285 sf hotel), 95,500 sf of industrial space, and 154,289 sf of community facility space (educational facilities). The projected incremental (net) change between the No-Build and the Build scenarios that would result from the proposed action on the 31 projected development sites is 3,414 dwelling units, 571,162 sf of new retail space, 164,285 sf of new hotel space (combined for a total of 735,447 sf), an increase of 63,700 sf of community facility space, and a net reduction of 598,351 sf of office space and a net reduction of 308,872 sf of industrial space.

New residential construction is projected throughout the proposed rezoning area. Hotel and office growth is projected to occur primarily along the Grand Concourse in the proposed C6-2A zoning district. A mix of regional and local retail with residential development is anticipated on large lots along the Grand Concourse and on large lots along the waterfront where proposed zoning districts would allow grocery stores as of right without regard to size up to the maximum permitted FAR. In addition, the proposed text amendment would allow grocery stores of any size as-of-right within the proposed M1-4 zoning district. Therefore, development on large and accessible lots within the proposed M1-4 zoning district is projected to include grocery stores. New local retail is projected at the base of all new residential construction.

Key factors in anticipating a significant increase in new residential development include the introduction of residential uses and relatively high density the proposed zoning would allow. The largest increases in residential growth are expected to occur along the waterfront and along the Grand Concourse.

As part of the proposed actions, a park would be mapped on a site located between the Harlem River and Exterior Street, south of the extension East 146th Street, and north of the extension of East 144th Street. It is expected that under the proposed actions, DPR would develop two acres of park on the site, which is currently occupied by bus parking and warehouse uses. Absent the proposed actions, current uses are expected to continue.

Community facilities are expected near Hostos College, reflecting recent growth patterns.

The projected and potential development sites are listed on Tables 4A and 4B and shown on Figure 4.

Table 4A: Summary of No-Build and Build Development on Projected Development Sites

Site Information			Existing Conditions								Future No Action					Future With Action (Inclusionary Housing)							Increment				
Development Sites	*Tax Block*	*Tax Lot*	*Existing Zoning*	*Lot Area(sf)*	*Maximum Floor Area Ratio (FAR)*	*Commercial Floor Area*	*Office*	*Community Facility*	*Industrial Floor Area*	*Dwelling Units*	*Commercial Floor Area*	*Office*	*Community Facility*	*Industrial Floor Area (sf)*	*Dwelling Units*	*Proposed Zoning*	*Affordable Units*	*Total Dwelling Units*	*Commercial Floor Area*	*Office*	*Community Facility Floor Area (sf)*	*Industrial Floor Area(sf)*	*Total Dwelling Units*	*Commercial Floor Area(sf)*	*Office*	*Community Facility Floor Area (sf)*	*Industrial Floor Area (sf)*
1	2349	112	M2-1	191,000	2.00	0	0	0	14,759	0	0	0	0	14,759	0	C4-4	124	621	143,250	0	0	0	621	143,250	0	0	-14,759
2	2349	100	M2-1	147,900	2.00	0	0	0	0	0	0	0	0	0	0	C4-4	52	260	60,000	0	0	0	260	60,000	0	0	0
3	2323	28	M2-1	144,890	2.00	0	0	0	21,700	0	0	0	0	21,700	0	R7-2/ C2-4	94	471	108,668	0	0	0	471	108,668	0	0	-21,700
4	2349	15	M2-1	54,543	2.00	0	0	0	0	0	0	0	0	109,086	0	R7-2/ C2-4	35	177	40,907	0	0	0	177	40,907	0	0	-109,086
5	2351	22	M1-2	16,182	2.00	0	0	0	0	0	0	0	0	16,182	0	M1-4/ R8A	21	103	13,755	0	0	0	103	13,755	0	0	-16,182
6	2351	20	M1-2	9,200	2.00	0	0	0	8,993	0	0	0	0	45,273	0	M1-4/ R8A	49	243	32,568	0	0	0	243	32,568	0	0	-45,273
	2351	12	M1-2	10,000	2.00				10,000																		
	2351	1	M1-2	6,480	2.00				6,480																		
	2350	1	M1-2	12,635	2.00				19,800																		
7	2350	11	C4-4	12,010	6.5 (for CF)	0	0	9,975	0	0	0	29,640	78,065	0	0	M1-4/ R8A	0	0	0	0	141,765	0	0	0	-29,640	63,700	0
	2350	16	M1-2	9,800	2.00			0																			
8	2349	90	M1-2	33,600	2.00	0	0	0	237,000	0	0	395,000	0	0	0	M1-4/ R8A	0	302	32,917	0	0	0	302	32,917	-395,000	0	0
9	2344	112	M1-2	44,541	2.00	82,956	0	0	0	0	82,956	0	0	0		M1-4/ R8A	57	283	37,860	0	0	0	283	-45,096	0	0	0
10	2344	110	M1-2	6,550	2.00	0	0	0	0	0	0	0	0	14,400	0	M1-4/ R6A	0	11	2,600	0	0	0	11	2,600	0	0	-14,400
11	2344	75	M1-2	13,280	2.00	1,000	0	0	12,000	0	0	19,000	0	0	0	M1-4/ R6A	7	35	1,000	0	0	11,500	35	1,000	-19,000	0	11,500
12	2344	60	M1-2	27,454	2.00	0	0	0	43,820	0	0	0	0	43,820	0	M1-4/ R6A	18	92	7,303	0	0	0	92	7,303	0	0	-43,820
13	2345	5	M1-2	10,053	2.00	0	0	0	0	0	0	0	0	20,106	0	C6-2A	13	64	8,545	0	0	0	64	8,545	0	0	-20,106
14	2341	40	M1-2	4,000	2.00	2,450	0	0	0	0	3,600	0	0	0	0	C6-2A	11	57	7,693	0	0	0	57	4,093	0	0	0
	2341	37	M1-2	5,050	2.00	1,150																					
15	2341	28	M1-2	17,860	2.00	1,404	0	0	0	0	1,404	0	0	0	0	C6-2A	23	113	15,181	0	0	0	113	13,777	0	0	0
16	2341	10	M1-2	31,900	2.00	8,900	0	0	0	0	8,900	0	0	0	0	C6-2A	0	0	191,400*	0	0	0	0	182,500*	0	0	0

Site Information			Existing Conditions								Future No Action					Future With Action (Inclusionary Housing)							Increment				
Development Sites	*Tax Block*	*Tax Lot*	*Existing Zoning*	*Lot Area(sf)*	*Maximum Floor Area Ratio (FAR)*	*Commercial Floor Area*	*Office*	*Community Facility*	*Industrial Floor Area*	*Dwelling Units*	*Commercial Floor Area*	*Office*	*Community Facility*	*Industrial Floor Area (sf)*	*Dwelling Units*	*Proposed Zoning*	*Affordable Units*	*Total Dwelling Units*	*Commercial Floor Area*	*Office*	*Community Facility Floor Area (sf)*	*Industrial Floor Area(sf)*	*Total Dwelling Units*	*Commercial Floor Area(sf)*	*Office*	*Community Facility Floor Area (sf)*	*Industrial Floor Area (sf)*
17	2340	208	M1-2	3,125	2.00	0	0	0	6,250	0	0	0	0	18,750	0	M1-4/ R6A	9	43	13,281	0	0	0	43	13,281	0	0	-18,750
	2340	209	M1-2	12,500	2.00				12,500																		
18	2322	28	M2-1	33,640	2.00	0	0	14,100	0	0	0	0	0	33,640	0	M1-4/ R7X	28	140	28,594	0	0	0	140	28,594	0	0	-33,640
19	2333	6	M1-2	10,000	2.00	0	0	0	1,430	0	2,440	0	0	1,430	0	M1-4/ R7X	10	52	10,625	0	0	0	52	8,185	0	0	-1,430
	2333	10	M1-2	2,500	2.00	2,440			0																		
20	2333	1	M1-2	10,974	2.00	0	0	0	0	0	2,195	0	0	0	0	M1-4/ R7X	9	46	9,328	0	0	0	46	7,133	0	0	0
21	2320	66	M1-2	11,500	2.00	0	0	0	0	0	0	23,000	0	0	0	M1-4/ R7X	10	48	9,775	0	0	0	48	9,775	-23,000	0	0
22	2320	73	M1-2	1,051	2.00	0	0	0	837	0	0	0	0	837	0	M1-4/ R7X	0	3	837	0	0	0	3	837	0	0	-837
23	2320	45	M1-2	2,400	2.00	2,700	0	0	0	0	2,700	0	0	0	0	M1-4/ R7A	0	8	2,700	0	0	0	8	0	0	0	0
24	2320	5	M1-2	2,309	2.00	0	0	0	0	0	0	0	0	23,239	0	M1-4/ R7A	0	0	18,000	0	0	0	0	18,000	0	0	-23,239
	2320	6	M1-2	2,309	2.00																						
	2320	7	M1-2	2,316	2.00																						
	2320	8	M1-2	2,318	2.00																						
	2320	9	M1-2	2,321	2.00																						
	2320	10	M1-2	2,324	2.00																						
	2320	11	M1-2	9,342	2.00																						
25	2318	5	M1-2	5,969	2.00	0	0	0	11,907	0	0	17,907	0	0	0	M1-4/ R7A	0	12	5,969	0	0	0	12	5,969	-17,907	0	0
26	2335	58	M1-2	11,500	2.00	0	0	12,524	5,000	0	0	0	12,524	5,000	0	M1-4/ R6A	0	62	0	0	12,524	0	62	0	0	0	-5,000
27	2335	57	M1-2	3,500	2.00	0	0	0	0	0	0	9,804	0	0	0	M1-4/ R6A	0	7	2,451	0	0	0	7	2,451	-9,804	0	0
28	2340	204	M1-2	12,500	2.00	0	0	0	36,150	0	0	0	0	36,150	0	M1-4/ R6A	0	36	12,050	0	0	0	36	12,050	0	0	-36,150
29	2340	186	M1-2	28,125	2.00	0	0	0	84,000	0	0	104,000	0	0	0	M1-4/ R6A	0	20	0	0	0	84,000	20	0	-104,000	0	84,000
30	2334	61	M1-2	2,040	2.00	2,163	0	0	0	0	2,163	0	0	0	2	M1-4/ R7A	5	25	5,721	0	0	0	23	3,558	0	0	0
	2334	62	M1-2	1,955	2.00	0				1																	
	2334	63	M1-2	2,736	2.00	0				1																	
31	2333	31	M1-2	22,150	2.00	0	0	0	0	0	0	0	0	0	0	M1-4/ R7A	17	83	18,828	0	0	0	83	18,828	0	0	0
TOTALS				**1,010,332**		**105,163**	**0**	**36,599**	**532,626**	**2**	**106,358**	**598,351**	**90,589**	**404,372**	**2**		**591**	**3,416**	**677,520**	**0**	**154,289**	**95,500**	**3,414**	**735,447**	**-598,351**	**63,700**	**-308,872**

* The Future With Action conditions for Projected Developemnt Site #16 includes 164,285 sf of hotel space in the amount of commercial floor area shown in the table above.

Table 4B: Summary of No-Build and Build Development on Potential Development Sites

Site Information			Existing Conditions								Future No Action					Future With Action (Inclusionary Housing)							Increment				
Development Sites	*Tax Block*	*Tax Lot*	*Existing Zoning*	*Lot Area(sf)*	*Maximum Floor Area Ratio (FAR)*	*Commercial Floor Area*	*Office*	*Community Facility*	*Industrial Floor Area*	*Dwelling Units*	*Commercial Floor Area*	*Office*	*Community Facility*	*Industrial Floor Area (sf)*	*Dwelling Units*	*Proposed Zoning*	*Affordable Units*	*Total Dwelling Units*	*Commercial Floor Area*	*Office*	*Community Facility Floor Area (sf)*	*Industrial Floor Area(sf)*	*Total Dwelling Units*	*Commercial Floor Area(sf)*	*Office*	*Community Facility Floor Area (sf)*	*Industrial Floor Area (sf)*
32	2,349	38	M2-1	105,168	2	0	0	0	25,962	0	0	0	0	25,962	0	R7-2/ C2-4	68	342	78,876	0	0	0	342	78,876	0	0	-25,962
33	2,349	3	M2-1	50,000	2	0	0	0	122,000	0	0	0	0	122,000	0	R7-2/ C2-4	33	163	37,500	0	0	0	163	37,500	0	0	-122,000
34	2,323	43	M2-1	38,344	2	0	0	0	30,284	0	0	0	0	30,284	0	R7-2/ C2-4	25	125	28,758	0	0	0	125	28,758	0	0	-30,284
35	2,349	47	M2-1	33,306	2	0	0	0	0	0	0	0	0	31,850	0	R7-2/ C2-4	41	203	46,880	0	0	0	203	46,880	0	0	-31,850
	2,349	46	M2-1	29,200	2	0	0	0	31,850	0																	
36	2,323	13	M2-1	25,000	2	0	0	0	3,000	0	0	0	0	3,000	0	R7-2/ C2-4	16	81	18,750	0	0	0	81	18,750	0	0	-3,000
37	2,351	25	M1-2	50,488	2	0	0	0	35,698	0	208	0	0	35,698	0	M1-4/ R8A	69	347	46,404	0	0	0	347	46,196	0	0	-35,698
	2,351	35	M1-2	4,105	2	208	0	0	0	0																	
38	2,350	34	C4-4	37,260	3	0	0	0	72,100	0	0	0	0	72,100	0	M1-4/ R8A	47	237	31,671	0	0	0	237	31,671	0	0	-72,100
39	2,350	63	C4-4	6,534	3	0	0	0	8,825	0	0	0	0	8,825	0	M1-4/ R8A	8	41	5,554	0	0	0	41	5,554	0	0	-8,825
40	2,351	3	M1-2	12,344	2	0	0	0	9,750	0	0	0	0	9,750	0	M1-4/ R8A	16	78	10,492	0	0	0	78	10,492	0	0	-9,750
41	2,350	5	C4-4	11,600	3	0	0	0	3,456	0	0	0	0	3,456	0	M1-4/ R8A	15	74	9,860	0	0	0	74	9,860	0	0	-3,456
42	2,345	10	M1-2	4,575	2	0	0	0	93,757	0	0	0	0	93,757	0	C6-2A	98	492	65,909	0	0	0	492	65,909	0	0	-93,757
	2,345	12	M1-2	5,347	2					0																	
	2,345	14	M1-2	19,214	2					0																	
	2,345	18	M1-2	16,300	2					0																	
	2,345	22	M1-2	16,261	2					0																	
	2,345	26	M1-2	15,843	2					0																	
43	2,345	1	M1-2	4,937	2	0	0	0	1,500	0	2,202	0	0	1,500	0	C6-2A	9	47	6,267	0	0	0	47	4,065	0	0	-1,500
	2,345	49	M1-2	2,436	2	2,202	0	0	0	0																	
44	2,344	83	M1-2	15,001	2	0	0	0	6,400	0	0	0	0	6,400	0	M1-4/ R6A	10	52	2,133	0	0	0	52	2,133	0	0	-6,400
45	2,344	52	M1-2	10,500	2	400	0	0	0	0	400	0	0	0	0	C6-2A	13	67	8,925	0	0	0	67	8,525	0	0	0
46	2,344	11	M1-2	17,930	2	0	0	0	105,800	0	10,183	0	0	138,300	0	C6-2A	75	373	49,871	0	0	0	373	39,688	0	0	-138,300
	2,344	17	M1-2	24,680	2	0	0	0	32,500	0																	
	2,344	27	M1-2	16,062	2	10,183	0	0	0	0																	
47	2,344	1	M1-2	10,453	2	0	0	0	7,200	0	0	0	0	7,200	0	C6-2A	13	66	8,885	0	0	0	66	8,885	0	0	-7,200
48	2,341	42	M1-2	31,100	2	2,900	0	0	0	0	2,900	0	0	0	0	C6-2A	39	197	26,435	0	0	0	197	23,535	0	0	0
49	2,341	34	M1-2	5,842	2	5,300	0	0	0	0	5,300	0	0	0	0	C6-2A	7	37	4,966	0	0	0	37	-334	0	0	0
50	2,341	31	M1-2	6,167	2	0	0	3,950	0	0	0	0	3,950	0	0	C6-2A	8	39	5,242	0	0	0	39	5,242	0	-3,950	0
51	2,341	23	M1-2	3,660	2	1,600	1,600	0	0	0	1,600	1,600	0	0	0	C6-2A	5	23	3,111	0	0	0	23	1,511	-1,600	0	0
52	2,341	6	M1-2	14,300	2	0	0	13,206	0	0	0	0	13,206	0	0	C6-2A	0	0	0	85,800	0	0	0	85,800	85,800	-13,206	0
53	2,340	1	M1-2	4,800	2	1,226	0	0	0	0	1,226	0	0	21,167	0	M1-4/ R7X	18	88	18,038	0	0	0	88	16,812	0	0	-21,167
	2,340	3	M1-2	12,500	2	4,320	0	0	17,280	0																	
	2,340	8	M1-2	3,921	2	0	0	0	3,887	0																	
54	2,340	56	M1-2	5,000	2	0	0	0	5,000	0	0	0	0	10,840	0	M1-4/ R7X	8	42	8,500	0	0	0	42	8,500	0	0	-10,840
	2,340	58	M1-2	5,000	2	0	0	0	5,840	0																	
55	2,322	101	M2-1	7,500	2	2,525	0	0	0	0	2,525	0	0	0	0	M1-4/ R7X	6	31	6,375	0	0	0	31	3,850	0	0	0

Site Information			Existing Conditions								Future No Action					Future With Action (Inclusionary Housing)							Increment				
Development Sites	*Tax Block*	*Tax Lot*	*Existing Zoning*	*Lot Area(sf)*	*Maximum Floor Area Ratio (FAR)*	*Commercial Floor Area*	*Office*	*Community Facility*	*Industrial Floor Area*	*Dwelling Units*	*Commercial Floor Area*	*Office*	*Community Facility*	*Industrial Floor Area (sf)*	*Dwelling Units*	*Proposed Zoning*	*Affordable Units*	*Total Dwelling Units*	*Commercial Floor Area*	*Office*	*Community Facility Floor Area (sf)*	*Industrial Floor Area(sf)*	*Total Dwelling Units*	*Commercial Floor Area(sf)*	*Office*	*Community Facility Floor Area (sf)*	*Industrial Floor Area (sf)*
56	2,320	72	M1-2	2,391	2	0	0	0	4,781	0	0	0	0	4,781	0	M1-4/ R7X	0	5	2,391	0	0	0	5	2,391	0	0	-4,781
57	2,320	74	M1-2	2,451	2	3,050	6,100	0	0	0	3,050	6,100	0	0	0	M1-4/ R7X	0	10	2,440	0	0	0	10	-610	-6,100	0	0
58	2,320	77	M1-2	2,857	2	1,421	5,684	0	0	0	1,421	5,684	0	0	0	M1-4/ R7X	0	6	2,842	0	0	0	6	1,421	-5,684	0	0
59	2,320	79	M1-2	14,800	2	3,536	0	0	0	0	3,536	0	0	0	0	M1-4/ R7A	11	56	12,580	0	0	0	56	9,044	0	0	0
60	2,320	41	M1-2	2,300	2	0	0	0	2,300	0	1,184	0	0	4,807	0	M1-4/ R7A	5	27	6,042	0	0	0	27	4,858	0	0	-4,807
	2,320	42	M1-2	2,258	2	1,184	0	0	0	0																	
	2,320	43	M1-2	2,550	2	0	0	0	2,507	0																	
61	2,320	46	M1-2	2,500	2	0	0	0	7,500	0	0	0	0	7,500	0	M1-4/ R7A	0	5	2,500	0	0	0	5	2,500	0	0	-7,500
62	2,320	47	M1-2	7,326	2	7,326	0	0	0	0	12,301	0	0	0	0	M1-4/ R7A	11	56	12,687	0	0	0	56	386	0	0	0
	2,320	50	M1-2	2,475	2	2,475	0	0	0	0																	
	2,320	51	M1-2	5,125	2	2,500	0	0	0	0																	
63	2,318	22	M1-2	5,139	2	0	11,700	0	0	0	0	11,700	0	0	0	M1-4/ R7A	0	8	3,900	0	0	0	8	3,900	-11,700	0	0
64	2,318	18	M1-2	2,077	2	2,077	0	0	0	0	3,877	0	0	0	0	M1-4/ R7A	6	28	6,355	0	0	0	28	2,478	0	0	0
	2,318	19	M1-2	5,400	2	1,800	0	0	0	0																	
65	2,318	7	M1-2	5,600	2	0	0	0	11,182	0	0	0	0	12,516	0	M1-4/ R7A	6	31	7,036	0	0	0	31	7,036	0	0	-12,516
	2,318	9	M1-2	2,678	2	0	0	0	1,334	0																	
66	2,335	6	M1-2	24,995	2	0	0	0	56,690	0	0	0	0	56,690	0	M1-4/ R6A	0	56	945	0	0	0	56	945	0	0	-56,690
67	2,340	221	M1-2	5,300	2	0	0	24,800	0	0	0	0	24,800	0	0	M1-4/ R6A	0	20	4,960	0	0	0	20	4,960	0	-24,800	0
68	2,340	215	M1-2	11,925	2	0	0	0	11,875	0	0	0	0	13,562	0	M1-4/ R6A	8	40	12,219	0	0	0	40	12,219	0	0	-13,562
	2,340	218	M1-2	2,450	2	0	0	0	1,687	0																	
69	2,340	213	M1-2	6,250	2	0	0	0	31,250	0	0	0	0	31,250	0	M1-4/ R6A	0	25	6,250	0	0	0	25	6,250	0	0	-31,250
70	2,322	81	M2-1	37,900	2	0	0	0	37,354	0	0	0	0	37,354	0	M1-4/ R7X	31	157	32,215	0	0	0	157	32,215	0	0	-37,354
71	2,334	43	M1-2	5,000	2	0	0	0	0	0	34,720	0	0	0	0	M1-4/ R7A	28	140	31,717	0	0	0	140	-3,003	0	0	0
	2,334	45	M1-2	27,214	2	30,970	0	0	0	0																	
	2,334	59	M1-2	5,100	2	3,750	0	0	0	0																	
72	2,334	38	M1-2	1,428	2	0	0	0	0	0	5,300	0	0	0	5	M1-4/ R7A	8	40	9,160	0	0	0	35	3,860	0	0	0
	2,334	39	M1-2	1,863	2	0	0	0	0	1																	
	2,334	40	M1-2	1,534	2	0	0	0	0	3																	
	2,334	41	M1-2	4,933	2	475	0	0	0	0																	
	2,334	66	M1-2	1,019	2	0	0	0	0	1																	
73	2,340	195	M1-2	21,875	2	0	0	0	35,333	0	0	0	0	35,333	0	M1-4/ R6A	0	44	8,833	0	0	0	44	8,833	0	0	-35,333
74	2,340	72	M1-2	18,750	2	0	74,044	0	0	0	0	74,044	0	0	0	M1-4/ R6A	0	56	18,511	0	0	0	56	18,511	-74,044	0	0
75	2,333	50	M1-2	24,022	2	10,362	0	0	0	0	18,132	0	0	0	0	M1-4/ R7A	34	172	38,901	0	0	0	172	20,769	0	0	0
	2,333	54	M1-2	21,744	2	7,770	0	0	0	0																	
76	2,333	33	M1-2	21,078	2	0	0	0	20,555	0	0	0	0	20,555	0	M1-4/ R7A	16	79	17,916	0	0	0	79	17,916	0	0	-20,555
77	2,333	12	M1-2	10,000	2	0	0	0	31,281	0	0	0	0	31,281	0	M1-4/ R7A	0	23	7,820	0	0	0	23	7,820	0	0	-31,281
78	2,333	17	M1-2	10,722	2	0	0	0	15,000	0	0	0	0	15,000	0	M1-4/ R7A	9	44	5,000	0	0	0	44	5,000	0	0	-15,000
79	2,340	11	M1-2	18,091	2	0	0	0	56,190	0	0	0	0	56,190	0	M1-4/ R7X	0	45	11,238	0	0	0	45	11,238	0	0	-56,190

Environmental Impact Statement

As the RWCDS associated with the proposed action would affect various areas of environmental concern and was found to have the potential for significant adverse impacts, pursuant to the EAS and Positive Declaration, an Environmental Impact Statement pursuant to CEQR will be prepared for the proposed action. The EIS will analyze the projected developments for all technical areas of concern and also evaluate the effects of the potential developments for site-specific effects such as archaeology, shadows, hazardous materials, air quality, and noise.

D. SCOPE OF WORK FOR THE EIS

TASK 1. PROJECT DESCRIPTION (INCLUDING REASONABLE WORST CASE DEVELOPMENT SCENARIO)

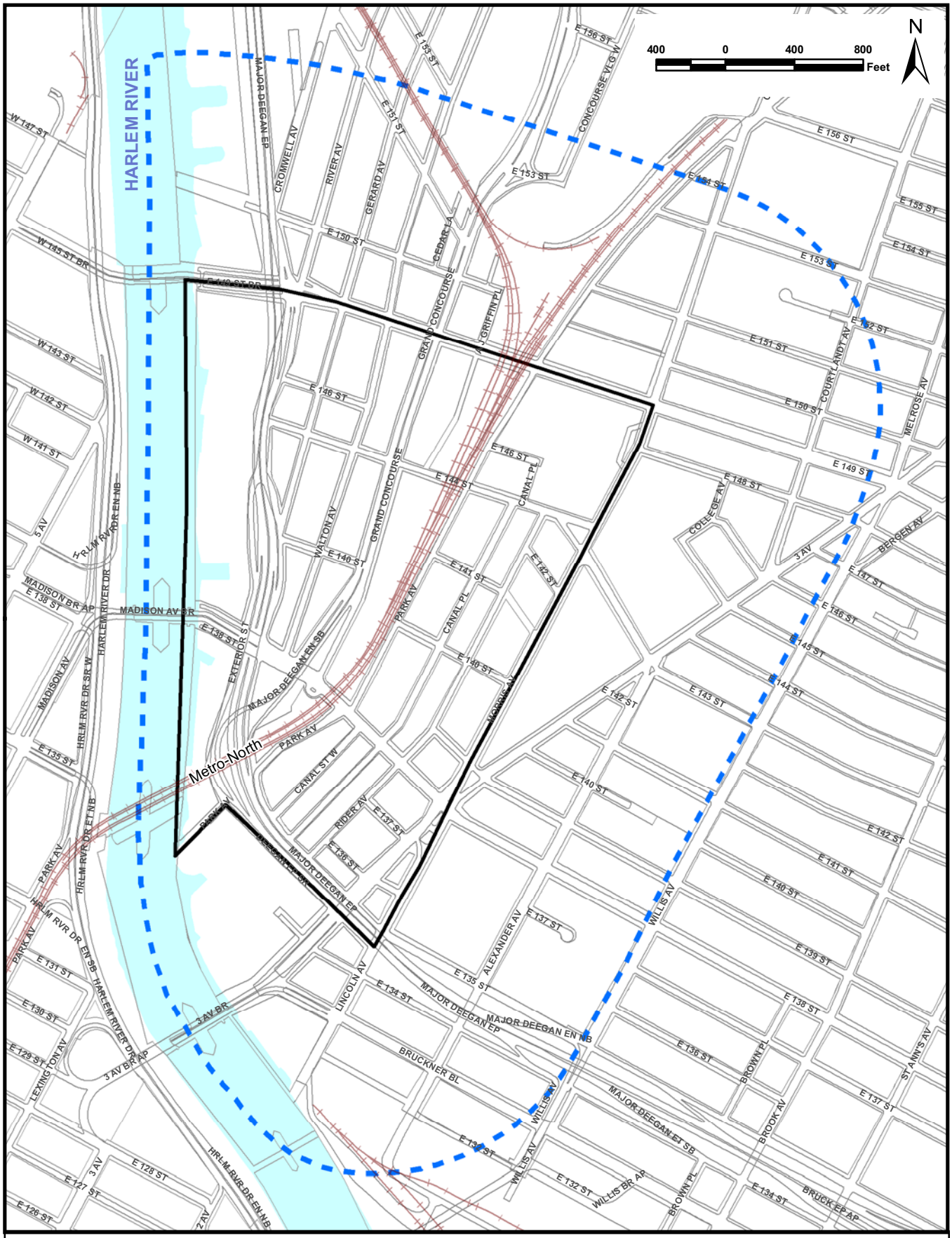
The first chapter of the EIS introduces the reader to the project and sets the context in which to assess impacts. The chapter contains a project identification (brief description and location of the project); the background and/or history of the project; a statement of the public purpose and need for the project; key planning considerations that have shaped the current proposal; a detailed description of the project; and discussion of the approvals required, procedures to be followed, and the role of the EIS in the process. This chapter is the key to understanding the proposed action and gives the public and decision-makers a base from which to evaluate the project against both Build and No Build scenarios. In addition, the description of No-build conditions will discuss other expected actions and developments that could affect technical categories considered under CEQR.

The project description will present the planning background and rationale for the proposed rezoning. In addition, the project description will summarize the reasonable worst-case development scenario for analysis in the EIS and present its rationale (refer to "Projected Development Scenario" in Section C of this document).

The section on approval procedures will explain the Uniform Land Use Review Procedure (ULURP) process, its timing, and hearings before the Community Board, the Borough President's office, the City Planning Commission (CPC), and the New York City Council. The role of the EIS as a full-disclosure document to aid in decision-making will be identified and its relationship to ULURP and the public hearings described.

TASK 2. LAND USE, ZONING, AND PUBLIC POLICY

This chapter will provide a detailed analysis of the potential impacts of the proposed action on land use, zoning, and public policy. The land use study area will consist of the project area,



Legend

Proposed Rezoning Area

Primary Study Area (1/4-Mile Radius around Proposed Rezoning Area)

Source: STV Incorporated

Figure 5: Land Use Study Area

Lower Concourse Rezoning and Related Actions EIS

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where the potential effects of the proposed action will be directly experienced, and adjacent areas within a quarter-mile radius (the "primary study area") where indirect impacts may be felt (refer to Figure 5). For the purpose of environmental analysis, the primary study area will extend approximately a quarter-mile from the borders of the rezoning area. The study area will be adjusted to include whole City blocks. Subtasks will:

- Provide a description of land use, zoning, and public policy in the study areas discussed above. (A more detailed analysis will be conducted for the project area.). This task will be closely coordinated with Task 3, "Socioeconomic Conditions," which will provide a qualitative analysis of the project's effect on businesses and employment in the rezoning area. Recent trends in the rezoning area will be noted.
- Based on field surveys and prior studies, identify, describe, and graphically portray predominant land use patterns for the balance of the study areas. Describe recent land use trends in the study areas and identify major factors influencing land use trends.
- Describe and map existing zoning and recent zoning actions or BSA variances in the study area.
- Describe relevant public policies affecting the project area or the proposed action generally.

Prepare a list of future development projects in the study area that would be expected to influence future land use trends. Also, identify pending zoning actions or other public policy actions that could affect land use patterns and trends in the study area. Based on these changes, assess future conditions in land use and zoning without the proposed action.

- Describe and assess the potential land use changes in the project area based on the reasonable worst-case development scenario.
- Assess effects of the proposed action on land use, zoning, and public policy. Project effects related to issues of compatibility with surrounding land use, the consistency with zoning and other public policy, and the effect of the project on ongoing development trends and conditions in the area will be discussed.

TASK 3. SOCIOECONOMIC CONDITIONS

This chapter will examine the effects of the action on socioeconomic conditions in the study area, including population characteristics, increase in economic activity, and the potential displacement of residents, businesses and employment from the rezoning area.
The socioeconomic conditions study area will consist of the project area, where the potential effects of the proposed action will be directly experienced, and adjacent areas within a quarter-mile radius (the "primary study area") where indirect impacts may be felt. For the purpose of

environmental analysis, the primary study area will extend approximately a quarter-mile from the borders of the rezoning area to conform to U.S. Census 2000 tract boundaries.

The analysis will provide an assessment of potential socioeconomic changes associated with the proposed action, including: direct and indirect displacement of residential population, businesses, or employees, including manufacturing businesses and employees; a new development that is markedly different from existing uses and activities within the neighborhood; an adverse effect on conditions in the real estate market in the area; or an adverse effect on socioeconomic conditions in a specific industry. Screening analyses will be conducted pursuant to the *CEQR Technical Manual* methodology. The analysis will present sufficient information regarding the effects of the proposed action to make a preliminary assessment 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.

The preliminary assessment will examine five areas of concern including (1) direct residential displacement; (2) direct business and institutional displacement; (3) indirect residential displacement; (4) indirect business and institutional displacement; (5) and adverse effects on specific industries. For each area of concern, if it has been determined that a socioeconomic impact is likely or cannot be ruled out based on the preliminary screening assessment, then a detailed analysis will be conducted. The study area for socioeconomic conditions will be delineated to reflect boundaries of census tracts that are wholly or partially within one-quarter mile radius of the rezoning area. Subtasks for detailed analysis, if determined to be necessary, include:

Population Characteristics

- Based on the U.S. Census of Population and Housing, describe the 2000 population characteristics of the rezoning area and the study area.
- Discuss population trends in the future without the proposed action.
- Estimate population associated with the proposed rezoning and assess impacts on population, if any.

Housing Characteristics

- Using Census data and other information, such as reports on housing value and median rents, describe the 2000 housing characteristics of the rezoning and the study area.
- Assemble and discuss information on housing market conditions, including identification of presence of any unique or predominant population groups or presence of populations particularly vulnerable to economic changes, using Census data and other sources.
- Discuss housing trends in the future without the proposed action.
- Estimate housing changes associated with the proposed rezoning and assess impacts on housing, if any.

Economic Characteristics

- Describe existing economic activity in the rezoning area (using most recently available data), including the number and types of businesses, type of tenure (ownership or rental), and employment by key sectors.
- Describe the physical characteristics of the existing residential, commercial and manufacturing buildings in the rezoning and surrounding areas, including the general size of the structures, configurations, and condition. Determine the approximate vacancy rate and rent levels for buildings in the study areas. This will be based on visual inspections, discussions with the Bronx Office of DCP, and discussions with real estate brokers.
- Describe trends in residential, commercial and manufacturing use in the future without the action, including changes in market supply from other off-site rezoning initiatives, such as 149th Street/Third Avenue Hub.
- Estimate net new employment and other economic activity in the study area under the RWCDS. The types of new jobs that would be anticipated as a result of the proposed action will be generally described.
- Estimate potential for direct and indirect displacement of commercial and manufacturing businesses and employment based on sites identified for likely development.
- Assess the impact of displacement, if any. Identify likely relocation areas nearby and mitigation, if necessary.

TASK 4. COMMUNITY FACILITIES AND SERVICES

The demand for community facilities and services is directly related to the type and size of the new population generated by development resulting from the proposed rezoning. New workers tend to create limited demands for community facilities and services, while new residents create more substantial and permanent demands. Community facilities other than open space (see Task 5) will be examined in this section.

The CEQR threshold for detailed analysis of schools is if an action is anticipated to generate 50 or more elementary/middle school students or 150 or more high school students. A screening analysis determined that the proposed action would exceed the screening threshold for both elementary/middle schools and high schools. Therefore detailed analysis is warranted. The high school analysis will be borough-based although public high schools within the study area will be identified and their locations shown on the Public School map in the EIS. In addition, as discussed in the EAS, based on the screening criteria established in the *CEQR Technical Manual*, the proposed action would represent a five percent or greater increase over the average dwelling units per library branch in the borough of the Bronx, the screening threshold for

detailed analysis. Accordingly, an analysis of the proposed action's effects on library services will be provided.

The proposed action is projected to generate a net increase of 3,414 dwelling units on the 31 projected development sites; this total includes 591 units of affordable housing, which would be developed on 19 of the projected development sites. As the proposed action would generate fewer than 600 units of low-moderate-income housing in the RWCDS, a detailed analysis of health care facilities is not required (*CEQR Technical Manual*, Table 3C-1).

The proposed action would generate more than 50 children eligible for publicly funded daycare. A detailed analysis of day care facilities is required for the proposed action, in accordance with *CEQR Technical Manual*, Table 3C-1 and Table 3C-4.

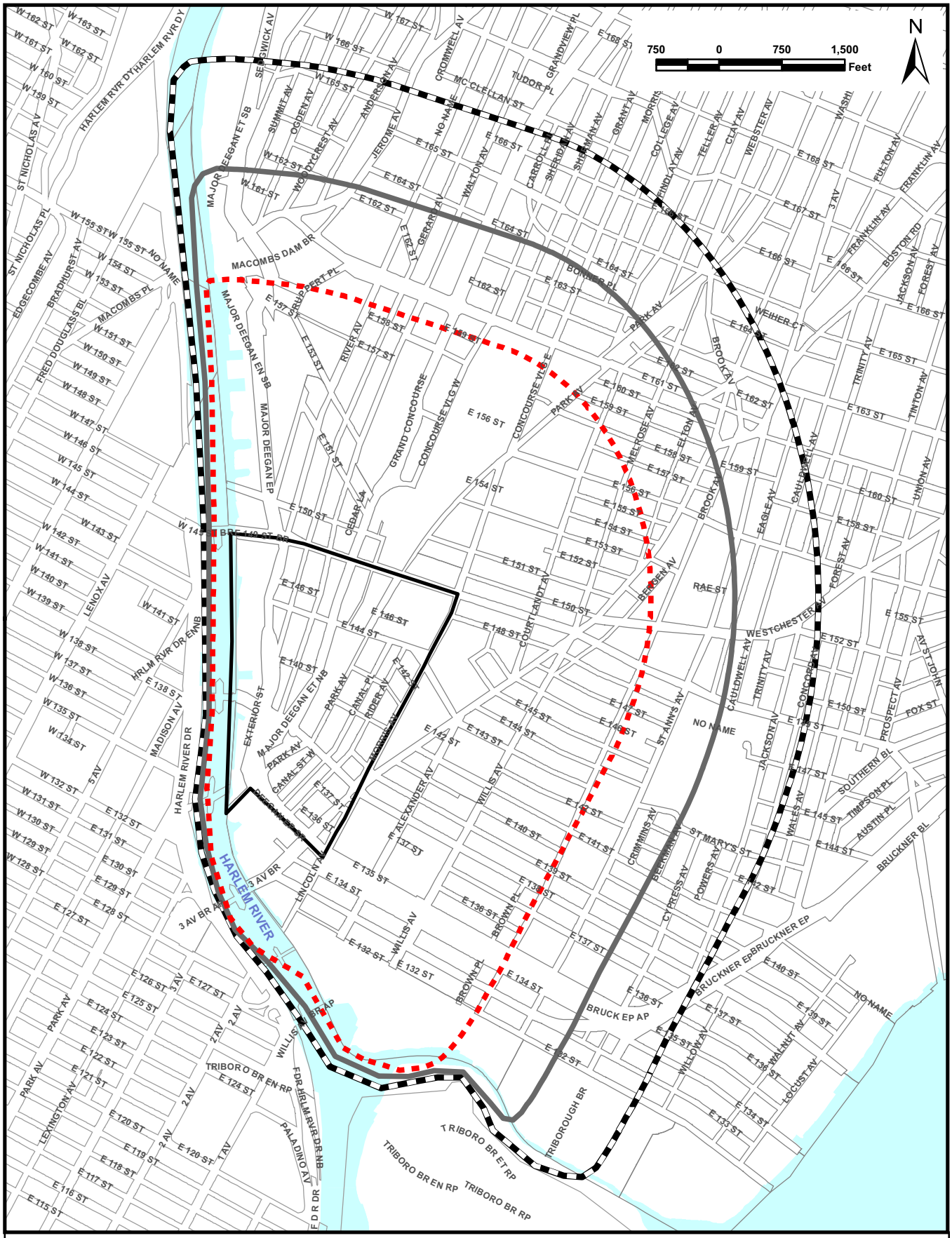
The Police and Fire Departments routinely evaluate the need for changes in personnel, equipment, or facilities based on population, response times, crime levels, or other local factors. Therefore an assessment of service delivery is usually conducted only if a proposed action would directly affect the physical operations of a station house or precinct house. Since the proposed action would not directly affect existing police and fire facilities, an assessment is not warranted.

The proposed study area for community facilities would be located at or close to a half-mile, ¾ mile or 1-mile radius of the rezoning area depending on the type of community facility, as per CEQR guidelines (refer to Figure 6). Subtasks will include:

- Identify and locate/map all community facilities within the defined study area for general informational purposes, including schools, libraries, health care facilities, police precincts, fire houses, etc. Separate Maps for each kind of facility will be provided.
  Identify and locate public schools within the project study area. Assess conditions in the project study area, and for each affected school district as a whole, in terms of enrollment and utilization during the current school year, noting any specific shortages of school capacity. Identify conditions that will exist in the future without the action, taking into consideration projected increases in future enrollment, including those associated with other developments in the vicinity of the project area and plans to increase school capacity either through administrative actions on the part of the NYC Department of Education (DOE) or as a result of the construction of new school space. Analyze future conditions with the proposed action, adding students likely to be generated by the action to the projections for the future without the action. Project

impacts will be assessed based on the difference between the Future With Action projections and the Future No Action projections (at the study area and school district levels) for enrollment, capacity, and utilization in 2018. Planned new capacity projects from DOE's Five Year Capital Plan will not be included in the quantitative analysis unless the projects have commenced site preparation and/or construction. The new projects may, however, be included in a qualitative discussion after impacts, if any, have been identified. Sources for the information will be noted in the EIS text or footnotes.

- Identify the local public library branch(es) serving the area. Describe existing population served by the branch(es), using information gathered for socioeconomic conditions assessment and information services provided by branch(es). Circulation, level of utilization, and other relevant existing conditions will be based on publicly available information and/or consultation with the NYPL administration. Sources for the information will be noted in the EIS text or footnotes. For No-build conditions, projections of population change in the area and information on any planned changes in library services of facilities will be described and the effects of these changes on conditions will be assessed qualitatively. The effects of the addition of the population resulting from the projected developments will be qualitatively assessed in terms of special programs, facilities, and collections, with input from library branch management staff.
- Identify hospital emergency room services and outpatient ambulatory care facilities (regulated by the NYS Department of Health and Office of Mental Health) within approximately one mile of the Action Area. Describe each facility in terms of its address, the type of service provided, an indicator of its size, capacity or utilization, and any other relevant existing conditions based on publicly available information and/or consultation with health care officials. For No-Build conditions, the projected change in the area's low-moderate-income population and any planned changes in health care facilities or services will be described, and the effects of these changes on the operating capacity of the facilities will be assessed. The potential effects on health care facilities from the additional population resulting from the proposed project will be assessed in comparison with the effects of changes expected to occur in the future without the proposed project. Sources for the information will be noted in the EIS text or footnotes.
  Identify existing public day care and head start facilities within approximately one mile of the Action Area. Describe each facility in terms of its location, ages served, number of slots (capacity), existing enrollment and length of waiting list. 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). Sources for the information will be noted in the EIS text or footnotes. For No-Build conditions, information will be obtained on any changes planned for day care programs or facilities in the area, including closing or expansion of existing facilities and establishment of new



Legend

- Proposed Rezoning Area
- Public School Analysis (Approximate 1/2-mile Radius)
- Library Analysis (Approximate 3/4-mile Radius)
- Health Care, Day Care and Police & Fire Services Analyses (Approximate 1-mile Radius)

Source: STV Incorporated

Figure 6: Community Facilities Study Area

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facilities. Any expected increases in the population of children under 12 within the eligibility income limitations, based on *CEQR* methodology (Table 3C-4), will be discussed as potential additional demand; and the potential effect of any population increases on demand for day care services in the study area will be assessed. The potential effects of the additional eligible children resulting from projected developments induced by the RWCDS will be assessed by comparing the estimated net demand over capacity to the net demand over capacity estimated in the Future No-Build analysis.

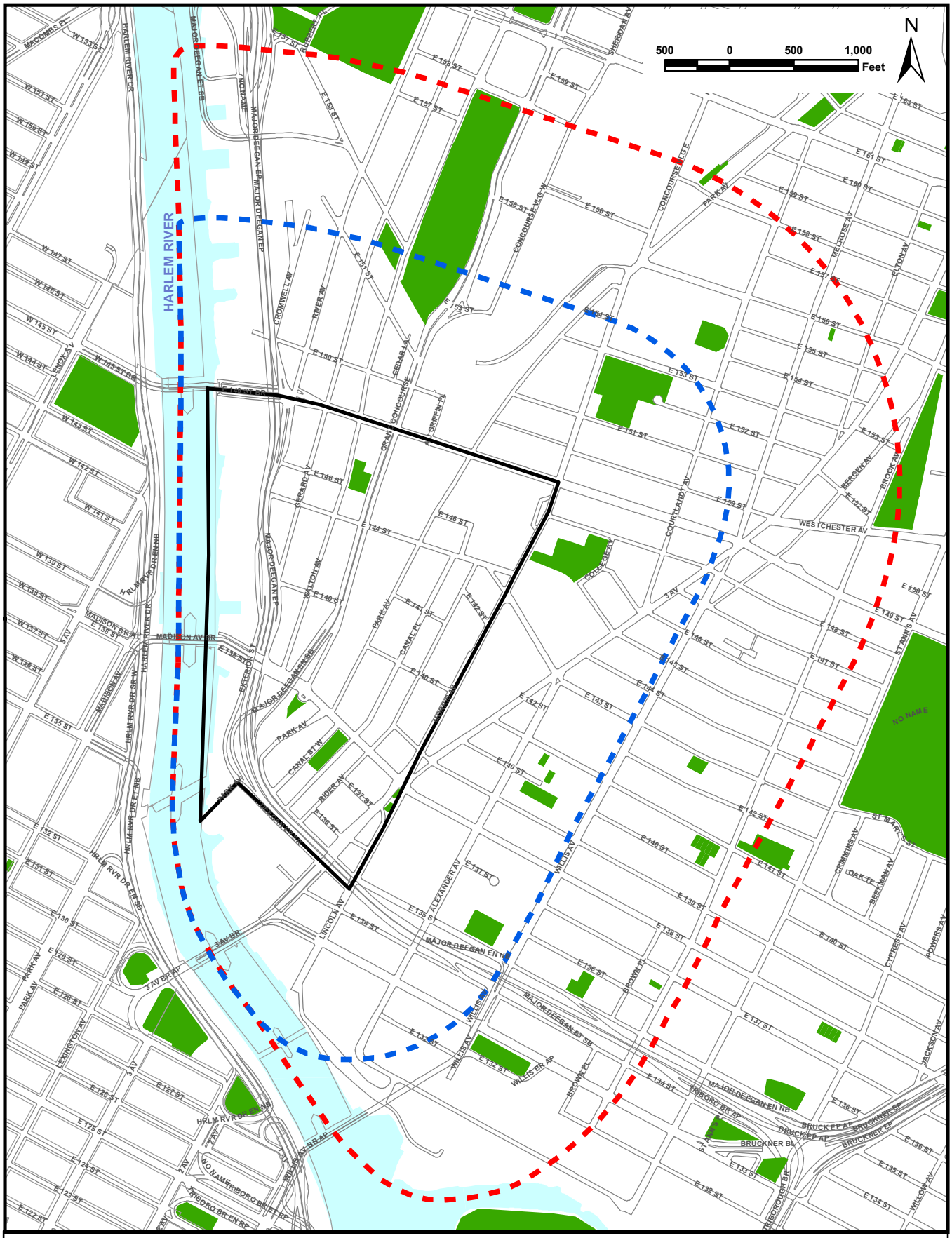
- A brief discussion of existing police and fire services in or near the project study area will be provided for informational purposes.

TASK 5. OPEN SPACE

New residents and workers generated from new development and conversions in the rezoning areas would place added demands on existing open space and recreational facilities. The proposed action would generate more than 200 residents and has potential to generate up to 500 new employees, thereby requiring an assessment of open space resources. As part of the proposed actions, a park would be mapped on a site located between the Harlem River and Exterior Street, south of the extension East 146th Street, and north of the extension of East 144th Street. The site, which is currently occupied by bus parking and warehouse uses, would be developed with approximately two acres of parkland under the proposed actions. Absent the proposed actions, current uses are expected to continue.

A detailed open space analysis will be conducted according to the following tasks:

- Using 2000 Census data, calculate the total residential population of the open space study area, which as per CEQR guidelines, would be defined as the area within a half-mile radius from the rezoning area with the study area boundary adjusted to include all census tracts with at least 50 percent of their area within the half-mile radius. The population will be identified pursuant to Table 3D-10 of the CEQR Technical Manual. Refer to Figure 7.
- Inventory existing active and passive open spaces within the open space study area. The condition and usage of existing facilities will be described based on the inventory and field visits. Jurisdiction, features, user groups, factors affecting usage, hours of operation, and access will be included in the description of facilities. Also, the potential for facilities to be affected by direct impacts, such as from shadows cast by the action induced development, will also be assessed. Acreage of these facilities will be determined and the total study area acreage calculated. The percentage of active and


N
500 0 500 1,000
Feet
HARLEM RIVER
MAJOR DEEGAN EP
MAJOR DEEGAN EN NB
MAJOR DEEGAN ET SB
MAJOR DEEGAN ET NB
MAJOR DEEGAN EN SB
MAJOR DEEGAN EP
MAJOR DEEGAN ET
MAJOR DEEGAN EN
MAJOR DEEGAN ET SB
MAJOR DEEGAN EN

passive open space also will be calculated. A map showing the locations of open spaces keyed to the inventory will be provided.

- Based on the inventory of facilities and study area population, the open space ratios for the residential population will be calculated and compared to City guidelines to assess adequacy. This is expressed as the amount of open space acreage per 1,000 user population. Open space ratio will be calculated for active and passive open space, as well as the ratio for the aggregate open space.
- Assess expected changes in future levels of open space supply and demand in the Build year, based on other planned development projects within the open space study area. This analysis will also take account of any new open space and recreational facilities expected in the open space study area; the means of creating the new waterfront park will be described. Open space ratios will be developed for future conditions without the action and compared with open space ratios for future conditions with the action to determine changes in future levels of adequacy.
- If the results of the impact analysis identify a potential for a significant adverse impact, discuss potential mitigation measures.
- A preliminary assessment of the potential for open space demand generated by workers will also be prepared. However, if it is determined that the action would generate 500 or more new non-residents, such as employees or a similar number of other users, there will need to be an additional analysis for the non-residential population, based on a quarter-mile radius (adjusted to include census tracts that are 50 percent or more within the quarter-mile study area radius) from the project area following the methodology in the *CEQR Technical Manual*.

TASK 6. SHADOWS

This chapter will examine the proposed action's potential shadows effects pursuant to *CEQR Technical Manual* criteria. Generally, shadow impacts could occur if an action would result in new structures or additions to buildings resulting in structures over 50 feet in height that could cast shadows on natural features, publicly accessible open space, or on historic features that are dependent on sunlight. The proposed action would permit development of buildings of greater than 50 feet in height, and therefore has the potential to result in shadow impacts in the areas to be rezoned. The EIS will assess the RWCDS, on a site-specific basis for potential shadowing effects of new developments or enlargements at both the projected and potential development sites on light-sensitive uses, and disclose the range of shadow impacts, if any, which are likely to result from the action, further identifying:

- Projected and potential development sites adjacent to natural resources, historic resources, and/or publicly accessible spaces. This may include former PS 31 (a landmark at 425 Grand Concourse), the Harlem River, and Harlem River Parks, among other resources.

- Projected and potential development sites located in areas which are not susceptible to shadow impacts.
- If warranted, describe in shadow diagrams and text the potential effect of shadows from buildings resulting from the identified development scenario on light-sensitive natural resources, publicly accessible open spaces or sunlight-dependent features of historic resources.

The shadow assessment would be coordinated with Task 5, "Open Space" and Task 7, "Historic Resources," where appropriate.

TASK 7. HISTORIC RESOURCES

The *CEQR Technical Manual* identifies historic resources as districts, buildings, structures, sites, and objects of historical, aesthetic, cultural, and archaeological importance. This includes designated NYC Landmarks; properties calendared for consideration as landmarks by the New York City Landmarks Preservation Commission (LPC); properties listed on the State/National Register of Historic Places (S/NR) or contained within a district listed on or formally determined eligible for S/NR listing; properties recommended by the NY State Board for listing on the S/NR; National Historic Landmarks; and properties not identified by one of the programs listed above, but that meet their eligibility requirements. Because the proposed action would induce development that could result in new in-ground disturbance and construction of a building type not currently permitted in the affected area, the action has the potential to result in impacts to archaeological and architectural resources. Historic Resources of note in the study area include Public School 31, located at 425 Grand Concourse, and the Bronx Post Office, at 560 Grand Course at East 149th Street, immediately north of the rezoning area boundary. No historic resource is known to be located on a projected development site.

Impacts on historic resources are considered on the affected sites and in the area surrounding identified development sites. The historic resources study area is therefore defined as the area to be rezoned plus a 400-foot radius, as per the guidance provided in the *CEQR Technical Manual* (see Figure 8). In addition, potential for significant adverse shadowing impact upon historic resources outside the rezoning area and study area will be considered, based upon the maximum shadowing envelope developed under Task 6.

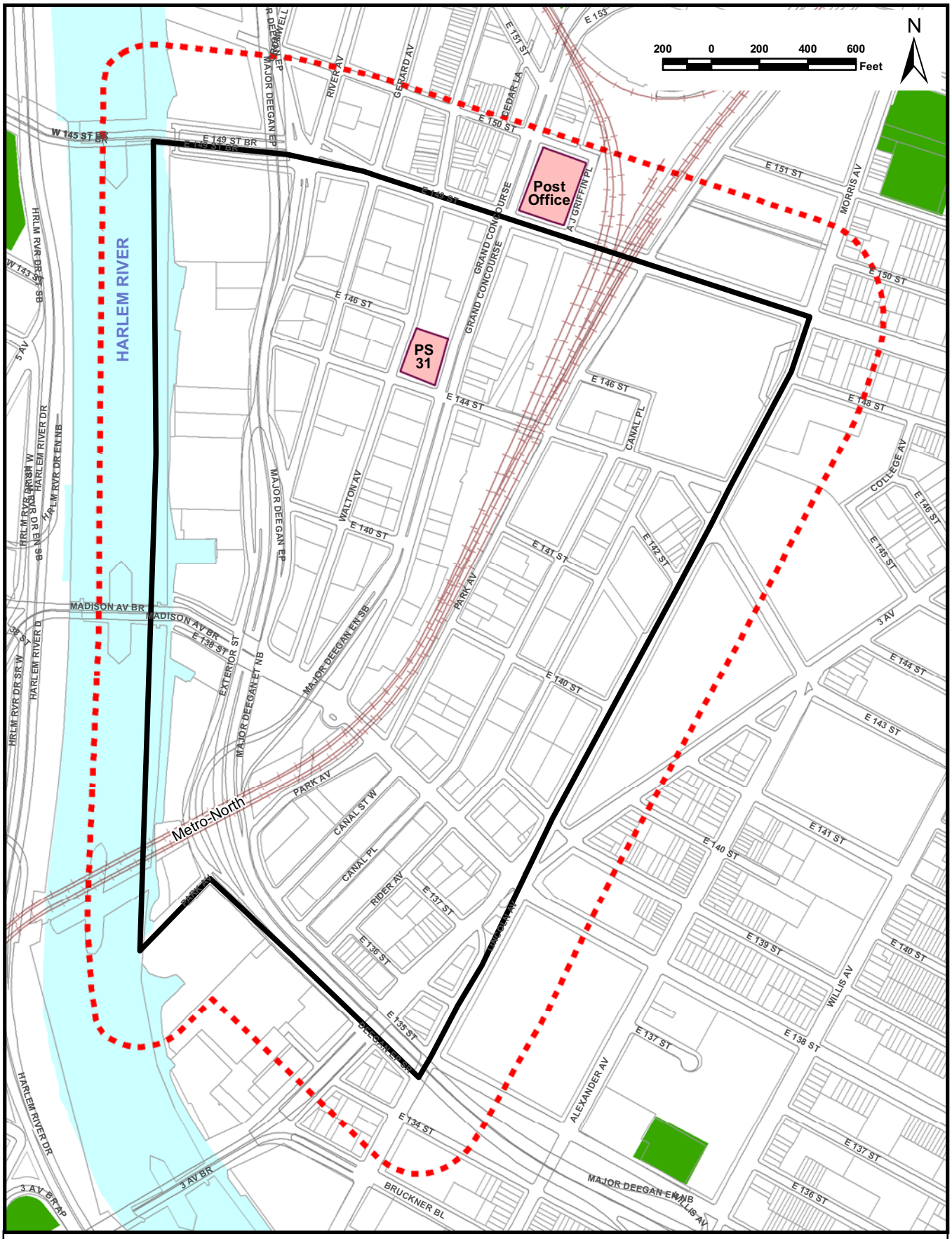
Archaeological resources are considered only in those areas where new in-ground disturbance is likely to occur; these are limited to sites that may be developed in the rezoning areas, and include projected as well as potential development sites. In coordination with the research conducted for the land use and hazardous materials tasks, this section will include an overview of the study area's history and land development. This history will be detailed enough to determine whether any potential archaeological resources may be on the site, requiring further study. Subtasks will:

- Research and describe history of land use, architecturally and archaeologically sensitive locations.
- Identify, map and describe designated historic/architectural resources (New York City Landmarks or pending Landmark designation and properties listed on the State and National Registers of Historic Places) in the project area and immediate vicinity.
- Submit the proposed action to the New York City Landmarks Preservation Commission (LPC) for its review and determination.
- Based on City and State files, identify and map inventoried archaeological resources and/or sensitive locations.
- Identify those areas thought to be archaeologically sensitive within the areas to be rezoned.
- In coordination with the land use task, assess probable impacts of development resulting from the rezoning action on architectural resources in the study area.
- Identify projected and potential development sites where new in-ground disturbance is expected to occur as a result of the proposed action.

If there are projected or potential development sites identified by LPC or other record searches as archaeologically sensitive, prepare Phase IA Archaeological Documentary Reports. The Phase 1A will document the site history, its development and uses, and the potential for the site to host significant archaeological features. The EIS will summarize the results of the Phase IA analyses. The full Phase IA report will be submitted to LPC for review.

TASK 8. URBAN DESIGN AND VISUAL RESOURCES

This chapter will assess urban design patterns and visual resources of the study area as defined in Chapter 3G, Section 310 of the *CEQR Technical Manual* and the effects on these of the proposed action. The proposed action would affect regulations on building bulk and height and therefore has the potential to result in impacts related to urban design and visual resources. A detailed preliminary screening analysis will be undertaken to identify whether the proposed action would exceed any of the thresholds identified in the *CEQR Technical Manual*. The urban design/visual resources study area will include the area within a quarter-mile radius of the



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Proposed Rezoning Area

Primary Study Area (Approximate 400-Foot Radius)

Source: STV Incorporated

Figure 8: Historic Resources Study Area

Lower Concourse Rezoning and Related Actions EIS

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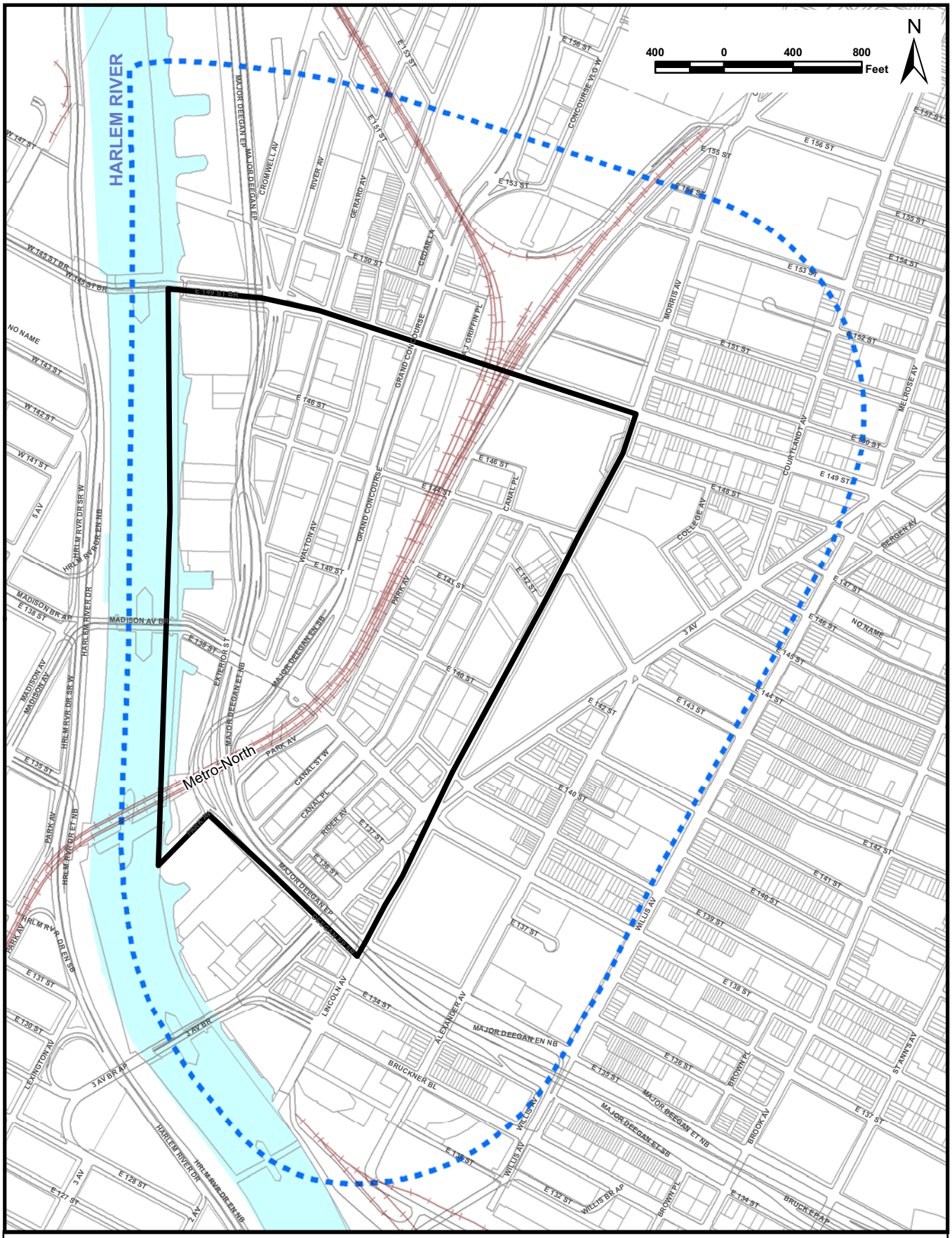
proposed rezoning area, adjusted to include whole City blocks and natural features (see Figure 9). Subtasks will:

- Describe the urban design and visual resources of each rezoning area and adjacent areas, using photographs and other graphic material as necessary to identify critical features, use, bulk, form, scale, and streetscape features.
- Discuss specific relationships between the proposed rezoning area and adjacent areas regarding light, air, and views.
- Describe the changes expected in the urban design and visual character of the project areas resulting from the various projects proposed for development in the study areas in the future without the action.
- Describe the potential changes that could occur in the urban design character of the rezoning area. For the projected and potential development sites, the analysis will focus on general building types for sites that are assumed for development as well as elements such as street wall height, setback, and building envelope. Photographs and/or other graphic material will be utilized, where applicable, to assess the potential effects on urban design and visual resources for each study area, including views to resources of visual or historic significance.

TASK 9. NEIGHBORHOOD CHARACTER

The character of a neighborhood is established by numerous factors, including land use patterns, the scale of its development, the design of its buildings, the presence of notable landmarks, and a variety of other physical features that include traffic and pedestrian patterns, noise, etc. The proposed action would permit new development that has the potential to alter certain constituent elements of the affected area's neighborhood character, including land use patterns, socioeconomic conditions, traffic and noise levels, and urban design features, and could affect historic resources. An amalgam of impact categories, a neighborhood character analysis considers the combined impacts of land use, urban design, visual resources, historic resources, socioeconomics, traffic and noise issues.

- Drawing on other EIS sections, describe the predominant factors that contribute to defining the character of the neighborhood.
- Based on planned development projects, public policy initiatives, and planned public improvements, summarize changes that can be expected in the character of the neighborhood in the future without the action.
- The analysis of project impacts presented in various EIS sections will serve as the basis for assessing and summarizing the project's impacts on neighborhood character.



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Proposed Rezoning Area

Urban Design Study Area (Approximate 1/4-Mile Radius)

Source: STV Incorporated

Figure 9: Urban Design Study Area

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TASK 10. HAZARDOUS MATERIALS

A preliminary screening assessment prepared pursuant to the *CEQR Technical Manual* will be conducted for the 79 projected and potential development sites in the rezoning area to determine which sites require further assessment. The preliminary screening assessment will consist of visual or historical documentation of any of the past or current uses (identified in Chapter 24 of Title 15 of the Rules of the City of New York) at a development site and/or tax lot(s) that might have affected or be affecting a development site.

Thirty of the 31 projected development sites are under private ownership. Based on the preliminary screening assessment, if sites are identified as having the potential for hazardous materials contamination, they will be mapped with (E) designations. The (E) designation would require that the fee owner of an (E) designation site conduct a testing and sampling protocol, and remediation, where appropriate, to the satisfaction of the New York City Department of Environmental Protection (DEP) before the issuance of a building permit by the Department of Buildings (pursuant to Section 11-15 Zoning Resolution - Environmental Requirements). The (E) designation also includes mandatory construction-related health and safety plans which must be approved by the NYCDEP.

One of the 31 projected development sites (Site 3 – Block 2323, Lot 28) is publicly owned and cannot be mapped with an (E) designation. Therefore, a Phase I Environmental Site Assessment (ESA) will be conducted for this site pursuant to Title 15, Chapter 24, Section 24-05.

For purposes of the Scope of Work and EIS, it is assumed that the Department of Parks and Recreation (DPR) would acquire Projected Development Site 2 (Block 2349, Lot 100) for parkland. The site, which is located between the Harlem River and Exterior Street, south of the extension East 146th Street, and north of the extension of East 144th Street, would not be subject to an (E) designation. Rather, a Phase I ESA will be prepared to determine previous uses on the site and in adjacent areas with the potential to have resulted in site contamination. If the Phase I assessment is insufficient to define the potential impacts from contamination materials on the site, then Phase II testing will likely be necessary. If Phase II testing is necessary, DPR will enter into a Memorandum of Understanding with DEP ensuring that, prior to the acquisition of the property, all appropriate testing at the proposed park site will be completed. All necessary remediation measures would be undertaken, as necessary, following acquisition and prior to construction.

Subtasks will include:

Review of Information Regarding Topographical and Subsurface Conditions
Appropriate United States Geological Society (USGS) topographical maps will be reviewed to ascertain the topography and drainage patterns for each Site. Available USGS and New York State Geological Survey documents will be reviewed for surface

and subsurface geological conditions in addition to the groundwater conditions in the area of the subject properties.

Acquisition and Review of Historical Land Use Data
Sanborn Fire Insurance Maps will be reviewed to develop a profile on the historical usage of the properties. If further historical investigation is required at individual lots, the review may include City Directories, historical maps and atlases, renovation information on the buildings, and tax assessor records.

Site Reconnaissance
It is understood that the majority of the buildings within the rezoning area are owned privately and an on-Site reconnaissance is not always feasible. Therefore, the Site reconnaissance will consist of observing the sites from public access ways (i.e., sidewalks and streets) only and noting the general uses of the buildings (i.e., industrial, manufacturing, residential, commercial, etc.). An interior Site inspection will be recommended if necessary. The site reconnaissance will include the following activities:

- Characterization of the range of industrial uses and activities performed in the rezoning area;
- Description of constituents most commonly associated with the industrial activity;
- Visual inspection of the vegetation and surrounding property to look for stressed vegetation, disturbed topography, soil staining, surface water sheens, noticeable odors, and/or areas that have been excavated and refilled;
- Notation of surrounding properties to assess potential impacts on the subject property;
- Notation of illegal dumping of domestic refuse, hazardous waste, and/or construction debris;
- Evidence of electrical transformers or large capacitors on the subject property; and
- Evidence of underground storage tanks or aboveground storage tanks (USTs and/or ASTs) on the subject property.
- Evaluation and Report of Findings (including draft and final reports)
- The data collected will be evaluated to assess the potential for environmental concerns at the subject sites and potential environmental impacts from surrounding properties. Upon completion of the preliminary screening assessments for each development site, a summary of findings and conclusions will be prepared for inclusion in the EIS. Since the majority of the buildings within the rezoning area are owned privately and an on-Site reconnaissance is not feasible, current and historical uses of the sites will be used to determine where (E) designations may be appropriate where further investigations are necessary.

TASK 11. NATURAL RESOURCES

The proposed rezoning is adjacent to the Harlem River, and the proposed action would induce development within the designated boundaries of the NYC Coastal Zone, and is a largely developed urban area. The projected and potential development sites have largely been paved and developed and are not expected to hold significant potential for natural resources. The assessment of potential impacts to natural resources will be conducted following the guidelines of the *CEQR Technical Manual*. In addition to analysis of potential impacts, the natural resources chapter will include a description of the federal, state, and local laws and associated regulations and regulatory programs that may apply to the Proposed Action with respect to water quality, aquatic and terrestrial biota, and aquatic and terrestrial habitats. A detailed screening analysis will be presented in the EIS identifying whether the proposed action would result in significant impacts to natural resources, and if warranted, detailed analysis will be provided that would include an analysis of the combined sewage outflow (CSO) generated by the proposed rezoning.

TASK 12. WATERFRONT REVITALIZATION PROGRAM

New York City's Local Waterfront Revitalization Program (LWRP) was adopted pursuant to several local, State and federal regulatory programs relating to the coastal area. The LWRP policies are used as the basis for evaluation of discretionary actions within the coastal zone that require only City permitting/approvals or Uniform Land Use Review Procedure (ULURP) review. The proposed action would induce new development within the designated NYC coastal zone boundary and must therefore be considered for its consistency with the City's Waterfront Revitalization Program (WRP).

Two major components of the proposed Lower Concourse Rezoning and Related Actions are the Harlem River Waterfront Access Plan (WAP) and Special Harlem River Waterfront District (SHRWD). Shoreline conditions, including the relationship to the flood plain, will be assessed to determine if they may affect the design of the waterfront esplanade.

The EIS will include an analysis of socioeconomic conditions in the study area. The WRP assessment of consistency with Policy 1: Support and facilitate commercial and residential redevelopment in areas well-suited to such development, will be supported by the EIS assessment of exiting and anticipated socioeconomic conditions.

TASK 13. INFRASTRUCTURE

This chapter will describe the existing infrastructure in the project area. For CEQR, the City's "infrastructure" comprises the physical systems supporting its population, including water supply, wastewater treatment and stormwater management. The proposed action would induce

new development which could place additional demands on infrastructure. An analysis will be conducted to determine the potential for the proposed action to affect the City's infrastructure, and, if warranted, will include an analysis of combined sewage outflows (CSO) generated by the proposed action, if warranted. Tasks will include:

Water Supply

- The existing water distribution system serving the proposed action area will be described based on information obtained from the New York City Department of Environmental Protection's (NYCDEP) Bureau of Water Supply and Wastewater Collection.
- The current water usage in the area will be examined.
- The likely demand will be assessed for future conditions without the action, and the effects on the system will be described.
- Water demand for the proposed action will be projected.
- The effects of the incremental demand on the system will be assessed to determine if there is sufficient capacity to maintain adequate supply and pressure.

Sewage and Stormwater

- The existing sewer systems serving the project area will be described from information obtained from NYCDEP. Existing and future flows to the Ward's Island Water Pollution Control Plant (WIWPCP) serving the area will be calculated and estimated. Information on existing sewer infrastructure in the area, including sanitary, storm, and combined sewer mains, sewer connections, catch basins, regulators, interceptor sewers, outfalls, and other components of the local system will also be provided.
- Discuss existing combined sewer overflow during storm events.
- Discuss any expected changes in sewer conditions to occur in the future without the Proposed Action.
- Information on sanitary sewage and stormwater generation will be compiled for the proposed action based on water usage estimates. The adequacy of sewer systems to meet demand generated by the proposed action will be assessed.
- The effects of the incremental demand on the system will be assessed to determine if there will be any impact on the WIWPCP, or on its State Pollution Discharge Elimination System (SPDES) permit conditions.
- Describe the potential effects of the Proposed Action on the local sewerage system, including its operation during major storm events.

TASK 14. SOLID WASTE AND SANITATION SERVICES

The proposed action would induce new development that would require sanitation services. This chapter will provide an estimate of the additional solid waste expected to be generated by

the projected developments and assess its effects on the City's solid waste and sanitation services.

- Existing and future New York City solid waste disposal practices will be described.
- Existing and future no-action solid waste generation will be estimated.
- Solid waste generation by the proposed action will be projected based on CEQR guidelines.
- The impacts of the proposed action's solid waste generation on the City's collection needs and disposal capacity will be assessed.

TASK 15. 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 adverse energy impacts, and as such would not require a detailed energy assessment. A qualitative assessment will be provided in the EIS, as appropriate.

TASK 16. TRAFFIC AND PARKING

The traffic and transportation studies will be a critical focus of the EIS, including four significant issues: (1) the size of the traffic study area and the number of intersections to be analyzed both within the project area and along major routes leading to them; (2) the likelihood that the proposed action and the amount of development envisioned will generate significant impacts requiring substantial levels of mitigation; (3) potential increase in the parking demand; and (4) an increased level of subway, bus, and pedestrian use, and possibly mitigation needed to accommodate transit passengers.

Task 16A: Traffic

The proposed action is expected to generate more than 50 additional (net) vehicular trips in project study area. Therefore, the EIS will provide a detailed traffic analysis for the weekday AM, midday, PM and Saturday midday peak hours, focusing on those intersections handling the highest concentrations of action-generated demand. Due to the proximity of Yankee Stadium, located approximately one-half mile north of the study area, vehicle trips generated by the ballpark on game days can potentially increase traffic levels on certain study area roadways. Games are scheduled at the stadium on 81 days or evenings a year. Therefore, typical conditions in the study area are representative of non-game days and the network-wide traffic data collection and analysis will be conducted for non-game days. However, in order to assess the potential effects of traffic generated by Yankee Stadium baseball games on analysis locations where measurable traffic generated by the stadium would be expected to be present, a focused

data collection and traffic analysis program will be included in the traffic studies to be performed for this EIS.

Based on the preliminary travel demand forecast made for the proposed action, 38 intersections would be analyzed in detail for potential traffic impacts (see Figure 10). A technical memorandum of preliminary transportation planning assumptions and demand analysis is included in Appendix 2. The preliminary trip generation Subtasks of the Traffic analysis will:

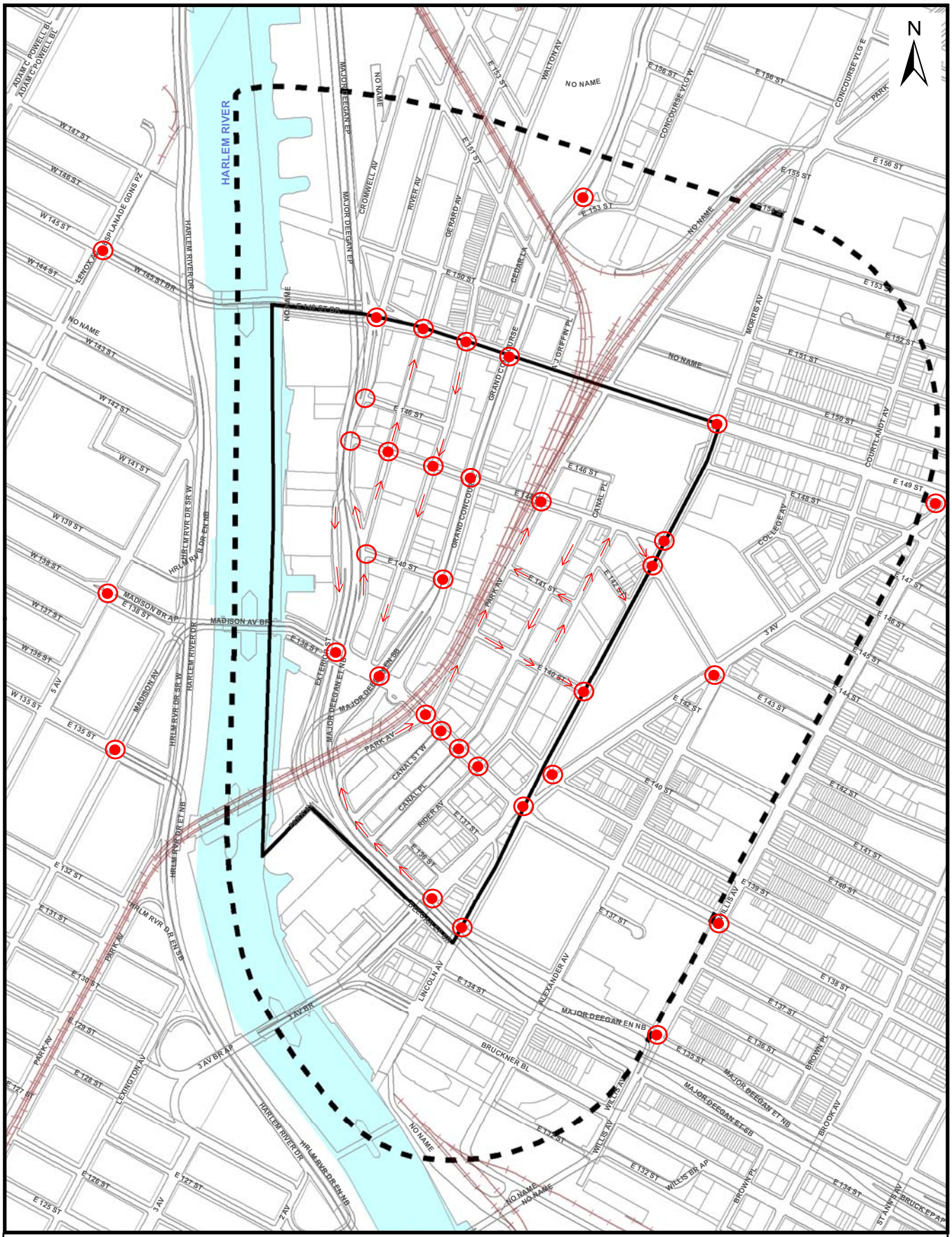
- Define a traffic study area consisting of intersections to be analyzed within the area to be rezoned (i.e., the primary traffic study area) and along major routes leading to and from the area, i.e., the secondary traffic study area.
- Compile existing traffic conditions data for the study area. Traffic counts at traffic analysis locations will be conducted via a mix of automatic traffic recorder (ATR) machine counts and manual intersection turning movement counts. ATRs will provide 24-hour traffic volumes for a full week minimum at selected arterial locations. Traffic counts will be conducted during the AM, midday, PM and Saturday midday peak periods at all study locations on non-game days. Traffic counts will be conducted during the PM peak period on a weekday when a night game is scheduled and on a Saturday midday when a day game is scheduled within a focused study area including all study locations along East 149th Street.
- Conduct travel speed and delay runs along four (4) routes as support data for air quality and noise analyses. It is anticipated that these speed-and-delay runs will be conducted in conjunction with the traffic volume counts.
- Inventory physical data at each of the analysis intersections needed for capacity analyses, including street widths, number of traffic lanes and lane widths, pavement markings, turn prohibitions, typical parking regulations, and NYCDOT signal phasing and timing data.
- Determine traffic operating characteristics at each analysis intersection for non-game day conditions plus game day conditions within the focused study area including capacities, volume-to-capacity (v/c) ratios, average vehicle delays, and levels of service (LOS) per traffic movement, per intersection approach, and per overall intersection. 2000 Highway Capacity Manual procedures will be used.
- Based on available sources, 2000 US Census data, and standard references, estimate the travel demand characteristics of the existing/No Action uses on the projected development sites as well as the planned developments at other sites in the study area. This will include daily and hourly person trips, and a modal distribution to estimate trips by auto, taxi, and other modes (refer to discussion of transit and pedestrians for more discussion of other modes). A truck trip generation will also be conducted.
- Using the same transportation planning assumptions as for No Action conditions, estimate the travel demand characteristics of the projected developments associated with the proposed action and for the net change in uses as defined in the project development scenario.

- Compute future No Action traffic volumes based on an approved background traffic growth rate for the study area and the volume of traffic expected to be generated for significant development projects anticipated to be in place by the proposed analysis year for the rezoning action. Intersection volume-to-capacity (v/c) ratios, delays, and LOS will also be determined for game and non-game day conditions as described above; funded traffic improvements and mitigation measures from other projects that would be implemented in the No Action condition will be incorporated into this No Action analysis.
- Determine the volume of vehicle traffic expected to be generated by the rezoning action, assign that volume of traffic in each analysis period to the approach and departure routes likely to be used, and prepare traffic volume networks for the future With Action condition for each analysis period. It is assumed that this traffic assignment process will be completed for the projected development sites in the study area.
- Determine the resulting v/c ratios, delays, and LOS for the future With Action condition, and identify significant traffic impacts in accordance with CEQR Technical Manual criteria. Traffic impact analysis will be performed for non-game day conditions at all study locations and for game day conditions within the focused study area.
- Identify and evaluate traffic improvements needed to mitigate significant traffic impacts. The mitigation analysis will frame the full set of measures required in the EIS development scenario built by 2018.
- Construction period traffic impacts will be assessed qualitatively by considering any losses in lanes, walkways, and other above and below grade transportation services, and increases in vehicles from construction workers, and analyze potential temporary impacts to these transportation systems.

Task 16B: Parking

The parking studies will focus on the amount of parking to be provided as part of the projected developments envisioned in the RWCDS (assumed to be maximum permitted as-of-right pursuant to zoning and reflecting site conditions, i.e., new developments are expected to provide accessory parking while conversion and conversion/expansion developments are not) and their ability to accommodate projected parking demand induced by the proposed action. Area-wide parking inventories will also be conducted to determine the general area's capacity to accommodate additional parking. In addition, any changes to parking supply and demand in future without the proposed action will also be considered.

- Conduct an inventory of the public parking lots and garages in the study area, noting their locations, capacities, and peak weekday and overnight utilization levels. Conduct an inventory of the number of legal on-street parking spaces within the project area and their general utilization levels on a typical weekday. This information will be used as the basis for determining the ability of existing parking resources to accommodate increased demands in the future.



Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

Figure 10: Traffic Analysis Locations

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- Project future parking availability based on an annual background growth rate. Any existing parking facilities expected to be removed or relocated or other changes to parking conditions in the future as a result of the rezoning action will be factored into this assessment.
- Develop parking accumulation profiles for each of the projected development sites expected to occur as a result of the proposed action by the analysis year of 2018. It will be assumed that each identified new development would provide parking in accordance with applicable zoning requirements. Based on these assumptions, an assessment will be provided to determine whether there would be excess parking demand, and whether there are a sufficient number of other parking spaces available in each area to accommodate that excess demand.

TASK 17: TRANSIT AND PEDESTRIANS

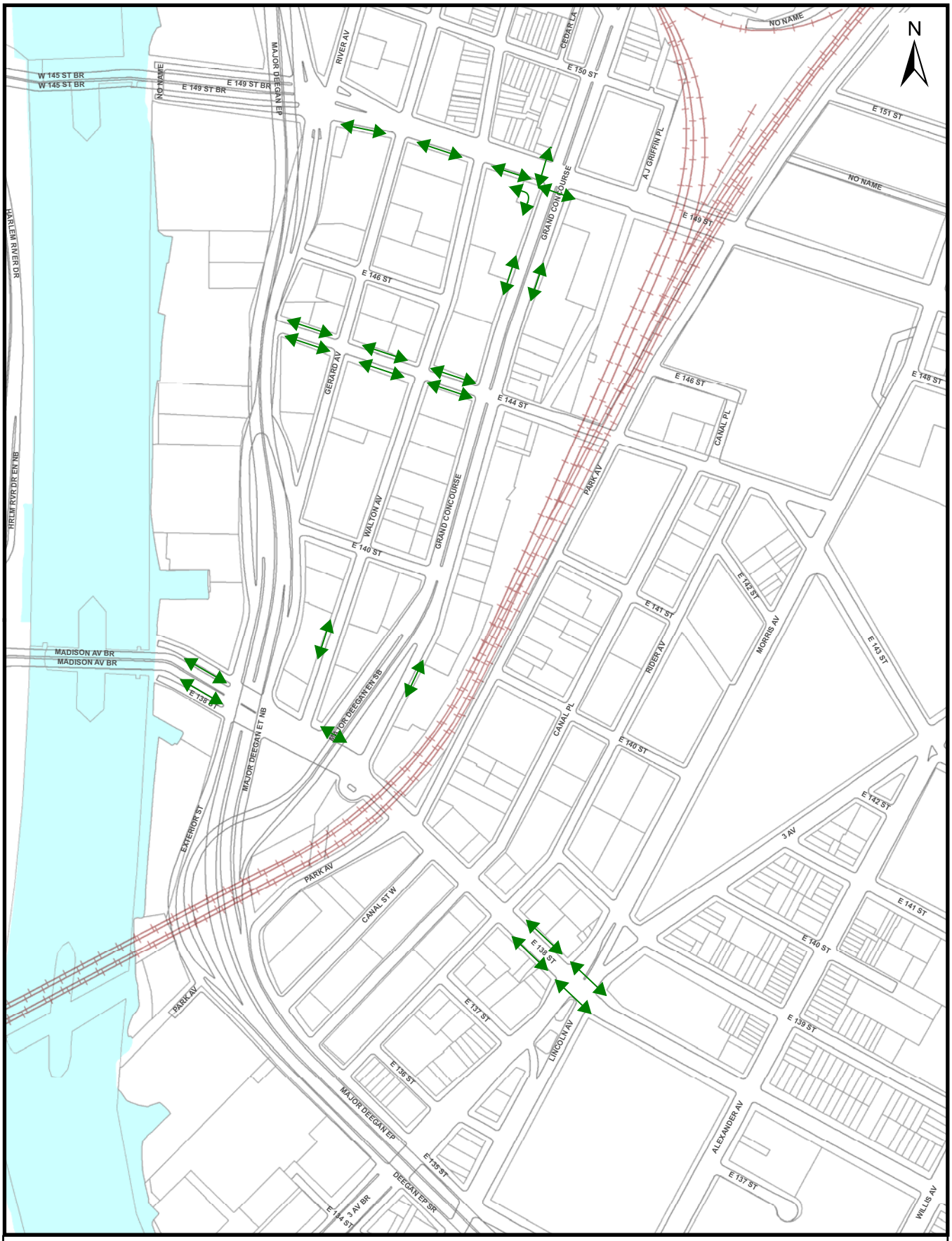
Task 17A: Transit

The proposed action is expected to generate a net increase of more than 200 subway and bus trips, the threshold for detailed transit analysis, in the AM and PM peak hours. Subway and bus modes will be examined to determine existing, future No-Action, and future Build conditions. The subway analyses will focus on nearby existing stations; the bus studies will evaluate local bus service with routings that use one or more streets in the project area.

- Conduct pedestrian counts at critical elements of some or all of the following stations in the study area: East 138th Street and East 149th Street IRT Local and Express 2 (Seventh Avenue), 4, 5, and 6 (Lexington Avenue); these counts will be conducted in the weekday AM and PM peak periods.
- Determine the existing capacities and LOS along or through critical elements of analyzed stations according to CEQR Technical Manual and/or NYC Transit design criteria.
- Determine future No-Action and With Action volumes at these analysis locations using background ridership growth rates for the stations and project-generated subway riders. Significant impacts will be identified and mitigation measures identified where necessary in coordination with NYC Transit.
- Identify the bus routes serving the area, detailing existing, future No-Action, and future With Action conditions, i.e., bus load levels. Mitigation needs will be identified and improvement or increases in service will be suggested, as appropriate.

Task 17B: Pedestrians

A substantial amount of new pedestrian trips are expected to be generated by the proposed action, particularly related to the retail growth, and pedestrian analyses will be provided in the EIS. Pedestrian studies will focus on up to 7 key intersections in the study area. Pedestrian



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Pedestrian Movement

200 0 200 400 600 800 Feet

Source: NYC Department of City Planning BYTES of the BIG APPLE 2006

Figure 11: Sidewalk and Crosswalk Analysis Locations

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analysis locations are shown on Figure 11. The pedestrian locations will include all intersections with a subway entrance along the Grand Concourse. The pedestrian analysis will:

- Conduct and analyze pedestrian counts at critical locations in the study area. Corners, crosswalks, and adjoining sidewalks will be evaluated adjacent to major sites in each development scenario and at intersections throughout the study area based upon pedestrian patterns to/from area subway stations.

TASK 18. AIR QUALITY

An assessment of mobile sources will be conducted to estimate the potential air quality impacts of the changes in traffic conditions that will result from the Lower Concourse rezoning for both the Yankee game-day and non-game day scenarios. Also, the EIS will address the potential for future residential and commercial land uses to be affected by air pollutants emitted from existing nearby sources. A stationary source air quality analysis will therefore be conducted, following the procedures outlined in the *CEQR Technical Manual*, to determine whether these emissions have the potential to cause violations of national ambient air quality standards or health-related guideline values within these residential areas.

Mobile Source Analyses
The specific work program for the mobile source (traffic-related) air quality studies is as follows:

- Update existing air quality data. Collect and summarize existing ambient air quality data for the study area.
- Based on findings from traffic and parking analysis, determine receptor locations for microscale analysis. Critical receptor locations to be analyzed will include high volume and/or heavily congested intersections and highly utilized parking facilities found in the traffic and parking analysis where the maximum total pollutant concentrations with the proposed action or incremental pollution concentrations resulting from the proposed action are likely to occur and where people are likely to have continuous access. Locations may include sidewalks, parks, schools, or other sensitive uses next to or above roadways, pedestrian paths in or near parking facilities, etc.
- Select dispersion model for microscale carbon monoxide analysis. At the receptor sites, it is anticipated that the USEPA mobile source CAL3QHR dispersion model will be used for the carbon monoxide microscale analysis.
- Emissions from up to two worse case on-site parking facilities will be modeled using the procedures as described in the *CEQR Technical Manual*. Site selection will be based on the size of a proposed parking facility, the projected peak hour ins / outs and its proximity to the studied air quality intersections. Cumulative impacts from on-street sources and parking emissions will be calculated.

- Select "worst-case" meteorological conditions. Worst-case conditions to be assumed are 1.0 meter/second wind speed, Class D stability, 50°F temperature, and 0.70 persistence factor.
- Select appropriate background levels. For the microscale carbon monoxide analysis, appropriate background levels for the study area will be obtained from NYSDEC and NYCDEP.
- Select emission calculation methodology. Vehicular emissions will be computed using the EPA-developed MOBILE6 model. NYSDEC and DEP-supplied information will be used regarding credits to account for the state vehicle emission inspection and maintenance program, and the state anti-tampering program.
- Determine pollutant levels. At each microscale analysis site calculate, maximum 1- and 8-hour carbon monoxide concentrations for existing conditions, the future without the proposed action, and the future with the proposed action. Contributions from any on-site parking facilities will be included where appropriate.
- Compare with standards and impact evaluation. Existing and future carbon monoxide pollutant levels will be compared with standards and the City's de minimis criteria, and with one another to determine trends and action impacts.
- Assess the consistency of the proposed action with the strategies contained in the State Implementation Plan (SIP) for the area. Consistency with the applicable SIP for the area will be determined. At any receptor sites where violations of standards occur, determine what mitigation measures will be required to attain standards.
- Examine mitigation measures, as necessary. Analyses will be performed to examine and quantify ameliorative measures to minimize any significant adverse impacts of the proposed action.
- An analysis of PM10 and PM2.5 will be conducted, if applicable, following procedures that are currently being developed and updated by NYCDEP.
- Due to the proximity of Yankee Stadium, approximately one-half mile north of the study area, vehicle trips generated by the ballpark on game-days can potentially increase traffic levels on certain study area roadways. As a result, a separate study of Yankee game-day CO emissions will be conducted at air quality intersections selected for the non-game day peak hours.
- The Yankee game-day analysis will only analyze potential CO impacts at two of the air quality intersections selected for the non-game day analysis. These intersections are located at East 149th Street and Exterior Street, and at East 149th Street and the Grand Concourse. The peak time periods studied for game-day CO emissions will be the weekday PM and weekend midday traffic hours.
- The game-day intersection analysis procedure will follow the same approach as was described for the non-game day intersection analysis.

Stationary Source Analyses

There will be an analysis of the potential for the emissions from the HVAC systems of the projected and potential sites to significantly impact existing land uses or to significantly impact any of the other projected or potential development sites (i.e., project-on-project impacts) following *CEQR Technical Manual* guidance.

- Three criteria pollutants will be considered; NO2, PM10, and SO2.
- Screening analysis will be performed using CEQR Manual nomographs for each pollutant of concern.
- If necessary, detailed analyses will be conducted using the AERMOD dispersion model and the latest 5-years of meterological data from La Guardia airport.
- The estimated short-term and annual pollutant concentrations of the criteria pollutants will be added to appropriate background levels, and total pollutant concentrations will be compared with NAAQS standards to determine whether there will be the potential for a violation of these standards at any of the areas that will be rezoned to permit residential uses.
- Consideration of large emission sources located within 1,000 feet of the new residential areas will be undertaken, if field surveys indicate that such sources exist.

Analysis of Air Toxics

The analysis will be conducted as follows:

- In accordance with the CEQR Technical Manual, emissions from industrial/manufacturing or commercial facilities located within 400 feet of the projected or potential residential development sites (i.e., the air quality study area) will be considered. Based on field surveys, it appears that a number of the industrial/manufacturing, including auto body repair shops, graphic art facilities, dry cleaners, are located in or near the area to be rezoned. Although the *CEQR Technical Manual* guidelines also require the consideration of large emission sources located within 1,000 feet of the new residential areas, if field surveys indicate that such sources exist then they will be considered in the analysis.
- A list of potential emission sources within the air quality study area will be compiled based on USEPA, NYSDEC, and NYCDEP's databases and field observations. If facility types are commonly associated (based on SIC code and USEPA AP-42 emission descriptions) with potentially harmful pollutants, emission information for these facilities will be requested from NYCDEP's Bureau of Environmental Compliance (BEC). Emission and stack parameter data contained in BAR operating permits will then be used to estimate any potential for these sources to result in air quality levels at the new residential sites that exceed applicable air quality standards and guidelines.
- Guidelines values, developed by EPA and NYSDEC (as described in the 2001 CEQR Technical Manual) will be used for determining potential project impacts of the toxic air

pollutants. These are short-term (1-hr) SGC and long-term (annual) AGC guideline values (NYDEC Air Guide-1, Guidelines for the Control of Toxic Air Contaminants), and EPA's unit risks factors for inhalation (USEPA Integrated Risk Information System (IRIS) and EPA Health Effect Assessment Summary Tables).

EPA's "Hazard Index Approach" will be utilized to assess exposure levels associated with non-carcinogenic toxic air pollutants, and EPA's unit risk approach will be used to assess potential long-term impacts of the carcinogenic pollutants. The "Hazard Index Approach" is based on estimating the ratio of pollutant concentrations divided by their respective health-related Guideline Values (GVs).
Results of the stationary source air quality analysis for air toxics will be compared to the appropriate measures of environmental impact, as follows:

- Non-carcinogenic air pollutant results will be compared with applicable guideline values. If the total ratio of pollutant concentrations obtained by dividing by their respective GV value is found to be less than 1 for all pollutants combined, no significant air quality impacts will be predicted to occur due to non-carcinogenic toxic pollutant releases.
- Carcinogenic air pollutant results will be compared with EPA cancer risk threshold level of one-in-one million. Potential impacts will be reported if the total incremental cancer risk estimated from the emissions of all of the carcinogenic toxic pollutants combined is greater than one-in-one million.
- Estimates will be made using the USEPA's AERMOD dispersion model. In the event that potential violations of standards are estimated, measures to reduce pollutant levels to within standards will be examined for both stationary sources and air toxics analyses.

Cumulative Boiler Assessment

A cumulative boiler impact analysis will be performed for development sites that would be located in close proximity to one another and will be evaluated as "clusters" to estimate the potential cumulative impacts from the combined heating system emissions on existing land uses. A detailed dispersion analysis will be conducted.

Analysis of Large Scale Emission Sources on Projected and Potential Residential Development

A screening analysis will be performed in order to determine if detailed analyses of large scale sources of boiler emissions (i.e. existing commercial, institutional, manufacturing or large-scale residential developments) onto projected and potential residential development is necessary. If the proposed action does not pass initial screening analysis, a more detailed analysis using AERMOD will be performed. Refer to Appendix 3 for air quality analysis assumptions.

TASK 19. NOISE

This chapter will examine potential noise impacts due to vehicular noise from project generated traffic (mobile sources) on sensitive receptors in the community and noise impacts from stationary sources on proposed residential uses or other sensitive receptors in the project study area. The noise analysis will evaluate the following:

- Changes in traffic noise levels as a result of the proposed action for both the New York Yankee game-day and non-game day scenarios.
- Stationary source noise impacts at or near new sensitive receptors.
- Achievement of acceptable interior noise levels at projected and potential development sites.
- Short-term construction phase noise and vibration impacts.

Analysis Methodology:

Existing noise levels will be determined by monitoring future residential and other sensitive locations. Future noise levels will be estimated based on the proportionate change in traffic volume between existing and future conditions (Future Noise Level (dBA) = Existing Noise Level (dBA) + $10L_{og}$ (Future PCE/Existing PCE)) for both no-build and build conditions.

The *CEQR Technical Manual* recommended L_{10} (1-hour) descriptor will be used to characterize noise in the analysis.

The tasks below will be performed following the guidelines contained in the *CEQR Technical Manual*.

- Site Selection: Potentially affected sites will be selected for the Yankee non-game day analysis during a site visit and in consultation with DCP. Selected sites will be representative of the future sensitive sites subject to the rezoning. For the Yankee game-day analysis, sites along the East 149th Street corridor and its immediate vicinity will be selected for assessment from the list of sites selected for the non-game day analysis.
- Data Collection: At the identified locations existing noise readings will be determined by performing one-hour equivalent continuous noise levels (Leq) and statistical percentile noise levels. The noise levels will be measured in units of "A" weighted decibels (dBA). The monitoring periods will coincide with the peak traffic noise periods. Two types of receptor sites will be selected: sites where the proposed rezoning would have the potential for significant impacts due to project-generated traffic and sites that are used to determine the building attenuation to comply with noise regulations.
- Build Year Noise Level Estimates: Following procedures outlined in the CEQR Technical Manual for assessing stationary and mobile source noise impact, future no-action and

project noise will be estimated at the proposed sensitive land uses. Existing noise levels and mathematical models based on acoustic fundamentals will be used to determine the future no-action and action noise levels.

- Noise Criteria: CEQR air-borne noise criteria will be followed while determining project impacts at the future sensitive sites in the project area. The criteria will take into consideration the indoor and outdoor areas at the monitored sites, which are representative of future sensitive land uses in the area.
- Build Year Noise Impacts: Noise impacts will be determined by comparing future project noise levels with no-action noise levels following the CEQR methodology. Also, since the proposed action would introduce new sensitive receptors future noise levels will be compared with CEQR noise exposure guidelines. Both methodologies will be used in Impact determination.
- Noise from nearby stationary sources will also be assessed.
- Noise Abatement Analysis: At locations where abatement may be required, appropriate mitigation measures will be considered following the CEQR guidelines and recommendations for their implementation will be made (*CEQR Technical Manual*, Table 3R-4). Future residential buildings, where mitigation may be required as a result of rezoning, may receive (E) designation to ensure that noise attenuation is provided to comply with acceptable interior noise requirements.
  Construction Impacts: Construction phase noise impacts will be qualitatively assessed and recommendations will be made to comply with NYC DEP guidelines contained in DNA Report #CON-79-001 and New York City Noise Code. Noise and ground-borne vibration impacts during construction will be addressed at vulnerable sites and if necessary, appropriate recommendations will be made for their control.

Refer to Appendix 4 for noise analysis assumptions.

TASK 20. CONSTRUCTION IMPACTS

Construction impacts are usually important when construction activity could affect traffic conditions, archaeological resources, the integrity of historic resources, community noise patterns, air quality conditions and mitigation of hazardous materials. Because there are no specific plans for individual buildings, the construction assessment for the rezoning action will be qualitative, focusing on areas where construction activities may pose specific environmental problems. The chapter will address all projected sites for technical areas of concern related to construction. Suggestions on incorporating measures to avoid potential impacts will also be included.

TASK 21. PUBLIC HEALTH

Public health involves the activities that society undertakes to create and maintain conditions in which people can be healthy. Many public health concerns are closely related to air quality, hazardous materials, construction and natural resources. A public health assessment may be warranted if a proposed action results in a) increased vehicular traffic or emissions from stationary sources resulting in significant adverse air quality impacts; b) increased exposure to heavy metals and other contaminants in soil/dust resulting in significant adverse impacts, or the presence of contamination from historic spills or releases of substances that might have affected or might affect ground water to be used as a source of drinking water; c) solid waste management practices that could attract vermin and result in an increase in pest populations; d) potentially significant adverse impacts to sensitive receptors from noise and odors; or e) vapor infiltration from contaminants within a building or underlying soil that may result in significant adverse hazardous materials or air quality impacts. Based on the findings of the tasks discussed above, the EIS will provide an assessment of potential public health impacts, following the guidelines presented in the *CEQR Technical Manual*.

TASK 22. MITIGATION

Where significant adverse project impacts have been identified in Tasks 2 through 20, measures to mitigate those impacts will be described. These measures will be developed and coordinated with the responsible City/State agency. Where impacts cannot be mitigated, they will be described as unavoidable adverse impacts.

TASK 23. ALTERNATIVES

The purpose of an alternatives section in an EIS is to examine development options that would tend to reduce project-related impacts. The alternatives are usually defined when the full extent of project impacts is identified, but at this time it is anticipated that they will include the following:

As-of-Right (Future No Action Scenario) Alternative – An As-of-Right Alternative, which assumes no area-wide rezoning but includes as-of-right development from individual projects proposed by others in the rezoning area.

Lower Density Alternative – The EIS will analyze an additional alternative developed in response to comments received during scoping which requested analysis of additional commercial rezoning options along the Grand Concourse. This alternative, to be known as "Lower Density Alternative", will examine a similar planning scenario to the proposed action except for three changes: 1) a lower-density commercial district on the Grand Concourse; 2) a

change of allowable uses on one site on the waterfront; and, 3) a smaller universe of the proposed MX:M1-4/R6A zoning district. The alternative will analyze a C4-4D rather than a C6-2A on the Grand Concourse. The C4-4D has the same height and setback regulations as the C6-2A and equivalent floor area ratio (FAR) for community facility (6.5 FAR) and residential uses (6.02 FAR; under inclusionary housing, base of 5.4 FAR and a maximum with bonus of 7.2 FAR); however, C4-4D has a lower FAR for commercial uses (3.4 FAR rather than 6.0 under C6-2A). The only change to the RWCDS as a result of the proposed C4-4D is a reduction in hotel and retail square footage on Projected Development Site 16. The second change would allow Use Group 16 C (commercial or public utility vehicle storage) on one site on the waterfront. The third change would reduce the area proposed to be rezoned from M1-2 to MX: M1-4/R6A between Canal Place and Rider Avenue to include the southern 144th Street frontage to a depth of 200 feet from the center line of 144th Street between Canal Place and Rider Avenue, and the entire block between 144th and 146th Street between Park Avenue and the prolongation of Canal Place. This change reduces the universe of projected sites in this subarea from five to two which subsequently reduces the number of residential units, retail space and industrial square footage. Overall, the alternative would result in the reduction of commercial retail space by 93,354 square feet, the reduction of hotel space by 55,825 square feet, the reduction of residential use by 288,433 square feet (or 232 market rate and 44 affordable dwelling units), a reduction of retail space by 494,351 feet and a reduction of industrial space by 228,886 square feet. There would be no change in the amount of community facility space.

No Impact Alternative – In addition, the EIS may analyze a No-impact alternative.
The alternatives analysis for the No Impact Alternative will be primarily qualitative, except where specific impacts of the alternative have been identified. For technical areas where impacts have been identified, the alternatives analysis will determine whether these impacts would still occur and will compare them to those of the proposed action.

TASK 24. SUMMARY EIS CHAPTERS

In accordance with CEQR guidelines, the EIS will include the following three summary chapters, where appropriate to the proposed action:

- Unavoidable Adverse Impacts - which summarizes any significant adverse impacts that are unavoidable if the rezoning is implemented regardless of the mitigation employed (or if mitigation is impossible).
- Growth-Inducing Aspects of the proposed action - which generally refer to "secondary" impacts of a proposed action that trigger further development.
- Irreversible and Irretrievable Commitments of Resources - which summarizes the proposed action and its impacts in terms of the loss of environmental resources (loss of vegetation, use of fossil fuels and materials for construction, etc.), both in the immediate future and in the long term.

TASK 25. EXECUTIVE SUMMARY

The executive summary will utilize relevant material from the body of the EIS to describe the proposed project, its environmental impacts, measures to mitigate those impacts, and alternatives to the proposed action. The executive summary will be written in enough detail to facilitate the drafting of a notice of completion by the lead agency.

Appendix 1
Summary of Build and No-Build Development on Projected Development Sites

RWCDS PROJECTED SITES
LOWER CONCOURSE REZONING

Site Information			Existing Conditions								Future No Action					Future With Action (Inclusionary Housing)							Increment					
Development Sites	Tax Block	Tax Lot	Existing Zoning	Lot Area(sf)	Maximum Floor Area Ratio (FAR)	Commercial Floor Area	Office	Community Facility	Industrial Floor Area	Dwelling Units	Commercial Floor Area	Office	Community Facility	Industrial Floor Area (sf)	Dwelling Units	Proposed Zoning	Affordable Units	Commercial Floor Area	Office	Community Facility Floor Area (sf)	Industrial Floor Area(sf)	Total Dwelling Units	Commercial Floor Area(sf)	Office	Community Facility Floor Area (sf)	Industrial Floor Area (sf)	
1	2349	112	M2-1	191,000	2.00	0	0	0	14,579	0	0	0	0	14,579	0	C4-4	124	143,250	0	0	0	621	143,250	0	0	-14,759	
2	2349	100	M2-1	147,900	2.00	0	0	0	0	0	0	0	0	0	0	C4-4	52	60,000	0	0	0	260	60,000	0	0	0	
3	2323	28	M2-1	144,890	2.00	0	0	0	21,700	0	0	0	0	21,700	0	R7-2/ C2-4	94	108,668	0	0	0	471	108,668	0	0	-21,700	
4	2349	15	M2-1	54,543	2.00	0	0	0	0	0	0	0	0	109,086	0	R7-2/ C2-4	35	40,907	0	0	0	177	40,907	0	0	-109,086	
5	2351	22	M1-2	16,182	2.00	0	0	0	0	0	0	0	0	16,182	0	M1-4/ R8A	21	13,755	0	0	0	103	13,755	0	0	-16,182	
6	2351	20	M1-2	9,200	2.00	0	0	0	8,993	0	0	0	0	45,273	0	M1-4/ R8A											
	2351	12	M1-2	10,000	2.00	0	0	0	10,000	0																	
	2351	1	M1-2	6,480	2.00	0	0	0	6,480	0																	
	2350	1	M1-2	12,635	2.00	0	0	0	19,800	0							49	32,568	0	0	0	243	32,568	0	0	-45,273	
7	2350	11	C4-4	12,010	6.5 (for CF)	0	0	9,975	0	0	0	29,640	78,065	0	0	M1-4/ R8A											
	2350	16	M1-2	9,800	2.00				0	0							0	0	0	141,765	0	0	0	-29,640	63,700	0	
8	2349	90	M1-2	33,600	2.00	0	0	0	237,000	0	0	395,000	0	0	0	M1-4/ R8A	0	32,917	0	0	0	302	32,917	-395,000	0	0	
9	2344	112	M1-2	44,541	2.00	82,956	0	0	0	0	82,956	0	0	0	0	M1-4/ R8A	57	37,860	0	0	0	283	-45,096	0	0	0	
10	2344	110	M1-2	6,550	2.00	0	0	0	0	0	0	0	0	14,400	0	M1-4/ R6A	0	2,600	0	0	0	11	2,600	0	0	0	
11	2344	75	M1-2	13,280	2.00	1,000	0	0	12,000	0	0	19,000	0	0	0	M1-4/ R6A	7	1,000	0	0	0	35	1,000	-19,000	0	11,500	
12	2344	60	M1-2	27,454	2.00	0	0	0	43,820	0	0	0	0	43,820	0	M1-4/ R6A	18	7,303	0	0	0	92	7,303	0	0	-43,820	
13	2345	5	M1-2	10,053	2.00	0	0	0	0	0	0	0	0	20,106	0	C6-2A	13	8,545	0	0	0	64	8,545	0	0	0	
14	2341	40	M1-2	4,000	2.00	2,450	0	0	0	0	3,600	0	0	0	0	C6-2A											
	2341	37	M1-2	5,050	2.00	1,150	0	0	0	0							11	7,693	0	0	0	57	4,093	0	0	0	
15	2341	28	M1-2	17,860	2.00	1,404	0	0	0	0	1,404	0	0	0	0	C6-2A	23	15,181	0	0	0	113	13,777	0	0	0	
16	2341	10	M1-2	31,900	2.00	8,900	0	0	0	0	8,900	0	0	0	0	C6-2A	0	27,115	0	0	0	0	18,215	0	0	0	
17	2340	208	M1-2	3,125	2.00	0	0	0	6,250	0	0	0	0	18,750	0	M1-4/ R6A											
	2340	209	M1-2	12,500	2.00	0	0	0	12,500	0							9	13,281	0	0	0	43	13,281	0	0	-18,750	
18	2322	28	M2-1	33,640	2.00	0	0	14,100	0	0	0	0	0	33,640	0	M1-4/ R7X	28	28,594	0	0	0	140	28,594	0	0	-33,640	
19	2333	6	M1-2	10,000	2.00	0	0	0	1,430	0	2,440	0	0	1,430	0	M1-4/ R7X											
	2333	10	M1-2	2,500	2.00	2,440	0	0	0	0							10	10,625	0	0	0	52	8,185	0	0	-1,430	
20	2333	1	M1-2	10,974	2.00	0	0	0	0	0	2,195	0	0	0	0	M1-4/ R7X	9	9,328	0	0	0	46	7,133	0	0	0	
21	2320	66	M1-2	11,500	2.00	0	0	0	0	0	0	23,000	0	0	0	M1-4/ R7X	10	9,775	0	0	0	48	9,755	-23,000	0	0	
22	2320	73	M1-2	1,051	2.00	0	0	0	837	0	0	0	0	837	0	M1-4/ R7X	0	837	0	0	0	3	837	0	0	-837	
23	2320	45	M1-2	2,400	2.00	2,700	0	0	0	0	2,700	0	0	0	0	M1-4/ R7A	0	2,700	0	0	0	8	0	0	0	0	
24	2320	5	M1-2	2,309	2.00	0	0	0	0	0	0	0	0	23,239	0	M1-4/ R7A											
	2320	6	M1-2	2,309	2.00	0	0	0	0	0																	
	2320	7	M1-2	2,316	2.00	0	0	0	0	0																	
	2320	8	M1-2	2,318	2.00	0	0	0	0	0																	
	2320	9	M1-2	2,321	2.00	0	0	0	0	0																	
	2320	10	M1-2	2,324	2.00	0	0	0	0	0																	
	2320	11	M1-2	9,342	2.00	0	0	0	0	0							0	18,000	0	0	0	0	18,000	0	0	-23,239	
25	2318	5	M1-2	5,969	2.00	0	0	0	11,907	0	0	17,907	0	0	0	M1-4/ R7A	0	5,969	0	0	0	12	5,969	-17,907	0	0	
26	2335	58	M1-2	11,500	2.00	0	0	12,524	5,000	0	0	0	12,524	5,000	0	M1-4/ R6A	0	0	0	0	0	62	0	0	0	-5,000	
27	2335	57	M1-2	3,500	2.00	0	0	0	0	0	0	9,804	0	0	0	M1-4/ R6A	0	2,451	0	0	0	7	2,451	-9,804	0	0	
28	2340	204	M1-2	12,500	2.00	0	0	0	36,150	0	0	0	0	36,150	0	M1-4/ R6A	0	12,050	0	0	0	36	12,050	0	0	-36,150	
29	2340	186	M1-2	28,125	2.00	0	0	0	84,000	0	0	104,000	0	0	0	M1-4/ R6A	0	0	0	0	0	20	0	-104,000	0	84,000	
30	2334	61	M1-2	2,040	2.00	2,163	0	0	0	0	2,163	0	0	0	2	M1-4/ R7A											
	2334	62	M1-2	1,955	2.00	0	0	0	0	1																	
	2334	63	M1-2	2,736	2.00	0	0	0	0	1							5	5,721	0	0	0	23	3,558	0	0	0	
31	2333	31	M1-2	22,150	2.00	0	0	0	0	0	0	0	0	0	0	M1-4/ R7A	17	18,828	0	0	0	83	18,828	0	0	0	

RWCDS POTENTIAL SITES
LOWER CONCOURSE REZONING

Site Information			Existing Conditions								Future No Action					Future With Action (Inclusionary Housing)						Increment				
Development Sites	Tax Block	Tax Lot	Existing Zoning	Lot Area(sf)	Maximum Floor Area Ratio (FAR)	Commercial Floor Area	Office	Community Facility	Industrial Floor Area	Dwelling Units	Commercial Floor Area	Office	Community Facility	Industrial Floor Area (sf)	Dwelling Units	Proposed Zoning	Affordable Units	Commercial Floor Area	Office	Community Facility Floor Area (sf)	Industrial Floor Area(sf)	Total Dwelling Units	Commercial Floor Area(sf)	Office	Community Facility Floor Area (sf)	Industrial Floor Area (s/)
32	2349	38	M2-1	105,168	2.00	0	0	0	25,962	0	0	0	0	38	0	R7-2/ C2-4	68	78,876	0	0	0	342	78,876	0	0	-25,962
33	2349	3	M2-1	50,000	2.00	0	0	0	122,000	0	0	0	0	3	0	R7-2/ C2-4	33	37,500	0	0	0	163	37,500	0	0	-122,000
34	2323	43	M2-1	38,344	2.00	0	0	0	30,284	0	0	0	0	30,284	0	R7-2/ C2-4	25	28,758	0	0	0	125	28,758	0	0	-30,284
35	2349	47	M2-1	33,306	2.00	0	0	0	0	0	0	0	0	93	0	R7-2/ C2-4		46,880			0					
	2349	46	M2-1	29,200	2.00	0	0	0	31,850	0							41		0	0		203	46,880	0	0	-31,850
36	2323	13	M2-1	25,000	2.00	0	0	0	3,000	0	0	0	0	3,000	0	R7-2/ C2-4	16	18,750	0	0	0	81	18,750	0	0	-3,000
37	2351	25	M1-2	50,488	2.00	0	0	0	35,698	0	208	0	0	35,698	0	M1-4/ R8A		46,404			0					
	2351	35	M1-2	4,105	2.00	208	0	0	0	0							69		0	0		347	46,196	0	0	-35,698
38	2350	34	C4-4	37,280	3.44	0	0	0	72,100	0	0	0	0	72,100	0	M1-4/ R8A	47	31,671	0	0	0	237	31,671	0	0	-72,100
39	2350	63	C4-4	6,534	3.44	0	0	0	8,825	0	0	0	0	8,825	0	M1-4/ R8A	8	5,554	0	0	0	41	5,554	0	0	-8,825
40	2351	3	M1-2	12,344	2.00	0	0	0	9,750	0	0	0	0	9,750	0	M1-4/ R8A	16	10,492	0	0	0	78	10,492	0	0	-9,750
41	2350	5	C4-4	11,600	3.44	0	0	0	3,456	0	0	0	0	3,456	0	M1-4/ R8A	15	9,860	0	0	0	74	9,860	0	0	-3,456
42	2345	10	M1-2	4,575	2.00	0	0	0	12	0	0	0	0	10	0	C6-2A		65,909			0					
	2345	12	M1-2	5,347	2.00					0																
	2345	14	M1-2	19,214	2.00					0																
	2345	18	M1-2	16,300	2.00					0																
	2345	22	M1-2	16,261	2.00					0																
	2345	26	M1-2	19,843	2.00					0							98		0	0		492	65,909	0	0	-93,757
43	2345	1	M1-2	4,937	2.00	0	0	0	2	0	2,202	0	0	1,500	0	C6-2A		6,267			0					
	2345	49	M1-2	2,436	2.00	2,202	0	0	0	0							9		0	0		47	4,065	0	0	-1,500
44	2344	83	M1-2	15,001	2.00	0	0	0	6,400	0	0	0	0	6,400	0	M1-4/ R6A	10	2,133	0	0	0	52	2,133	0	0	-6,400
45	2344	52	M1-2	10,500	2.00	2	0	0	0	0	400	0	0	0	0	C6-2A	13	8,925	0	0	0	67	8,525	0	0	0
46	2344	11	M1-2	17,930	2.00	0	0	0	105,800	0	10,183	0	0	28	0	C6-2A		49,871			0					
	2344	17	M1-2	24,680	2.00	0	0	0	2	0																
	2344	27	M1-2	16,062	2.00	10,183	0	0	0	0							75		0	0		373	39,688	0	0	-138,300
47	2344	1	M1-2	10,453	2.00	0	0	0	2	0	0	0	0	7,200	0	C6-2A	13	8,885	0	0	0	66	8,885	0	0	-7,200
48	2341	42	M1-2	31,100	2.00	2	0	0	0	0	2,900	0	0	0	0	C6-2A	39	26,435	0	0	0	197	23,535	0	0	0
49	2341	34	M1-2	5,842	2.00	2	0	0	0	0	5,300	0	0	0	0	C6-2A	7	4,966	0	0	0	37	-334	0	0	0
50	2341	31	M1-2	6,167	2.00	0	0	M1-2	0	0	0	0	2,341	0	0	C6-2A	8	5,242	0	0	0	39	5,242	0	-3950	0
51	2341	23	M1-2	3,660	2.00	1	1	0	0	0	1,600	1,600	0	0	0	C6-2A	5	3,111	0	0	0	23	1,511	-1600	0	0
52	2341	6	M1-2	14,300	2.00	0	0	M1-2	0	0	0	0	13,206	0	0	C6-2A	0	0	85,800	0	0	0	85,800	85800	-13206	0
53	2340	1	M1-2	4,800	2.00	2	0	0	0	0	1,226	0	0	11	0	M1-4/ R7X		18,038			0					
	2340	3	M1-2	12,500	2.00	-17,278	0	0	17,280	0																
	2340	8	M1-2	3,021	2.00	0	0	0	2	0							18		0	0		88	16,812	0	0	-21,167
54	2340	56	M1-2	5,000	2.00	0	0	0	2	0	0	0	0	114	0	M1-4/ R7X		8,500			0					
	2340	58	M1-2	5,000	2.00	0	0	0	2	0							8		0	0		42	8,500	0	0	-10,840
55	2322	101	M2-1	7,500	2.00	2,525	0	0	0	0	2,525	0	0	0	0	M1-4/ R7X	6	6,375	0	0	0	31	3,850	0	0	0
56	2320	72	M1-2	2,391	2.00	0	0	1	0	0	0	0	0	4,781	0	M1-4/ R7X	0	2,391	0	0	0	5	2,391	0	0	-4,781
57	2320	74	M1-2	2,451	2.00	3,050	6,100	0	0	0	3,050	6,100	0	0	0	M1-4/ R7X	0	2,440	0	0	0	10	-610	-6100	0	0
58	2320	77	M1-2	2,857	2.00	1,421	5,684	0	0	0	1,421	5,684	0	0	0	M1-4/ R7X	0	2,842	0	0	0	6	1,421	-5684	0	0
59	2320	79	M1-2	14,800	2.00	2	0	0	0	0	3,336	0	0	0	0	M1-4/ R7A	11	12,580	0	0	0	56	9,044	0	0	0
60	2320	41	M1-2	2,300	2.00	0	0	0	2	0	1,184	0	0	84	0	M1-4/ R7A		6,042			0					
	2320	42	M1-2	2,258	2.00	1	0	0	0	0																
	2320	43	M1-2	2,550	2.00	0	0	0	2	0							5		0	0		27	4,858	0	0	-4,807
61	2320	46	M1-2	2,500	2.00	0	0	0	2	0	0	0	0	7,500	0	M1-4/ R7A	0	2,500	0	0	0	5	2,500	0	0	-7,500
62	2320	47	M1-2	7,328	2.00	2	0	0	0	0	12,301	0	0	0	0	M1-4/ R7A		12,687			0					
	2320	50	M1-2	2,475	2.00	2	0	0	0	0																
	2320	51	M1-2	5,125	2.00	2	0	0	0	0							11		0	0		56	386	0	0	0
63	2318	22	M1-2	5,139	2.00	0	11,700	0	0	0	0	11,700	0	0	0	M1-4/ R7A	0	3,900	0	0	0	8	3,900	-11700	0	0
64	2318	18	M1-2	2,077	2.00	2	0	0	0	0	3,877	0	0	0	0	M1-4/ R7A		6,355			0					
	2318	19	M1-2	5,400	2.00	2	0	0	0	0							6		0	0		28	2,478	0	0	0
65	2318	7	M1-2	5,600	2.00	0	0	0	2	0	0	0	0	16	0	M1-4/ R7A		7,036			0					
	2318	9	M1-2	2,878	2.00	0	0	0	2	0							6		0	0		31	7,036	0	0	-12,516
66	2335	6	M1-2	24,995	2.00	0	0	0	2	0	0	0	0	56,690	0	M1-4/ R6A	0	945	0	0	0	56	945	0	0	-56,690
67	2340	221	M1-2	5,300	2.00	0	0	M1-2	0	0	0	0	24,800	0	0	M1-4/ R6A	0	4,960	0	0	0	20	4,960	0	-24800	0
68	2340	215	M1-2	11,925	2.00	0	0	0	2	0	0	0	0	433	0	M1-4/ R6A		12,219			0					
	2340	218	M1-2	2,450	2.00	0	0	0	2	0							8		0	0		40	12,219	0	0	-13,562
69	2340	213	M1-2	6,250	2.00	0	0	0	2	0	0	0	0	31,250	0	M1-4/ R6A	0	6,250	0	0	0	25	6,250	0	0	-31,250
70	2322	81	M2-1	37,900	2.00	0	0	0	2	0	0	0	0	37,354	0	M1-4/ R7X	31	32,215	0	0	0	157	32,215	0	0	-37,354
71	2334	43	M1-2	5,000	2.00	0	0	0	0	0	34,720	0	0	104	0	M1-4/ R7A		31,717			0					
	2334	45	M1-2	27,214	2.00	2	0	0	0	0																
	2334	59	M1-2	5,100	2.00	2	0	0	0	0							28		0	0		140	-3,003	0	0	0
72	2334	38	M1-2	1,428	2.00	0	0	0	0	0	5,300	0	0	0	5	M1-4/ R7A		9,160			0					
	2334	39	M1-2	1,863	2.00	0	0	0	0	1																
	2334	40	M1-2	1,534	2.00	0	0	0	0	3																
	2334	41	M1-2	4,933	2.00	475	0	0	0	0																
	2334	66	M1-2	1,018	2.00	0	0	0	0	1							8		0	0		35	3,860	0	0	0
73	2340	195	M1-2	21,875	2.00	0	0	0	2	0	0	0	0	35,333	0	M1-4/ R6A	0	8,833	0	0	0	44	8,833	0	0	-35,333
74	2340	72	M1-2	18,750	2.00	0	2	0	0	0	0	74,044	0	0	0	M1-4/ R6A	0	18,511	0	0	0	56	18,511	-74044	0	0
75	2333	50	M1-2	24,022	2.00	2	0	0	0	0	18,132	0	0	0	0	M1-4/ R7A		38,901			0					
	2333	54	M1-2	21,744	2.00	2	0	0	0	0							34		0	0		172	20,769	0	0	0
76	2333	33	M1-2	21,078	2.00	0	0	0	2	0	0	0	0	20,555	0	M1-4/ R7A	16	17,916	0	0	0	79	17,916	0	0	-20,555
77	2333	12	M1-2	10,000	2.00	0	0	0	31,281	0	0	0	0	31,281	0	M1-4/ R7A	0	7,820	0	0	0	23	7,820	0	0	-31,281
78	2333	17	M1-2	10,722	2.00	0	0	0	15,000	0	0	0	0	15,000	0	M1-4/ R7A	9	5,000	0	0	0	44	5,000	0	0	-15,000
79	2340	11	M1-2	18,091	2.00	0	0	0	56,190	0	0	0	0	56,190	0	M1-4/ R7X	0	11,238	0	0	0	45	11,238	0	0	-56,190

Appendix 2
Transportation Planning Assumptions Memorandum

WORKING DRAFT

TECHNICAL MEMORANDUM

To: Files

From: Joseph Setteducato, P.E.

Date: November 8, 2007

Subject: Lower Concourse Rezoning
Transportation Planning Assumptions

This memorandum summarizes the transportation planning assumptions to be used for the analyses of traffic, parking, transit and pedestrian conditions for the proposed Lower Concourse Rezoning Environmental Impact Statement, including trip generation rates, temporal distributions and modal splits.

PROJECTED DEVELOPMENT

The New York City Department of City Planning (DCP) is proposing zoning map and zoning text amendments, and, in association with the NYC Department of Parks and Recreation, changes to the city map establishing a park, (collectively, "the proposed action"), affecting the Lower Concourse area of the South Bronx, Community District 1. The areas affected by the proposed action include all or portions of 30 blocks, generally bound by the Harlem River on the west, East 149th Street and East 144th Street to the north, Morris and Lincoln Avenues on the east, and the Major Deegan Expressway and Park Avenue to the south. The proposed action is intended to provide opportunities for new residential and commercial development and the enhancement and upgrade of the waterfront areas in the South Bronx. In the proposed action area, existing manufacturing zoning designations would be changed to permit residential and commercial uses on the waterfront and the Grand Concourse, residential and mixed uses in other areas, and to restrict certain areas currently zoned M2-1 to light manufacturing uses.

A zoning text amendment would establish the Lower Concourse Special Mixed-Use District (MX-10). The proposed zoning text amendment would create the Lower Concourse Waterfront Access Plan (WAP) consisting of two Harlem River waterfront blocks extending between the Harlem River and Exterior Street, south of East 149th Street and north of the Metro North Railroad bridge over the Harlem River. The proposed WAP would specify the location of public access areas and visual corridors and apply special bulk regulations to waterfront lots. The proposed zoning text amendment would also permit food stores of any size as-of-right within the proposed rezoning area and apply the Inclusionary Housing Program within the rezoning area in the Bronx, Community District 1. In addition DCP, in conjunction with the Department of Parks and Recreation, is proposing changes to the city map for the

mapping of a new two-acre park located along the Harlem River Waterfront within the rezoning area. The park will be located between the Harlem River and Exterior Street, generally south of the prolongation of East 146th Street and north of the prolongation of East 144th Street.

A reasonable worst case development scenario (RWCDS) for both future "No-Action" and future "With-Action" conditions will be analyzed for the analysis year. The future With-Action scenario identifies the intensity, type and location of development that is expected to occur by the analysis year with the proposed action. The future without the proposed action (or No-Action) scenario identifies similar development projections for the analysis year absent the proposed action or rezoning. The analysis of potential transportation impacts is based on the incremental difference in travel demand between the With-Action and No-Action scenarios.

A total of 31 "projected" development sites within the rezoning area have been identified as most likely to be developed by the analysis year as a result of the proposed action. In addition, 48 "potential" development sites considered less likely to be developed in the foreseeable future were also identified.

TRANSPORTATION PLANNING ASSUMPTIONS

The transportation planning assumptions proposed for use in forecasting travel demand for the No-Action and With-Action Scenarios are summarized in Table 1 and discussed below. The trip generation rates, temporal distributions and mode choice assumptions for the uses shown in Table 1 were based on accepted CEQR Technical Manual criteria, standard professional references, and studies that have been done for similar uses in the Bronx and other outer New York City boroughs with similar levels of transit access supplemented by data from the 2000 Census for home based trips out and employee trips into the study area, as described below. In addition, the operations of two existing facilities in the study area were determined to be atypical and trip generation characteristics will be quantified by field survey.

Residential

The forecast of travel demand from projected residential development will be based on the trip rate, temporal distribution and modal split presented in *Urban Space for Pedestrians* (Pushakrev & Zupan), and that cited in the *2001 CEQR Technical Manual*. The residential modal split reflects journey-to-work data from the 2000 Census from existing residences in the rezoning area. Although residential-based trips in the midday would likely be more local in nature than in the peak commuter hours (and therefore have a higher walk share, for example), the modal split based on census journey-to-work data is conservatively assumed for all weekday peak periods.

Local Retail

It is anticipated that the retail uses developed under both the No-Action and With-Action scenarios would be local (or "neighborhood") retail, attracting trips primarily from the residential and worker populations in surrounding neighborhoods. It is therefore anticipated that the majority of these trips would be via the walk mode and that many would be "linked" trips (e.g., a trip with multiple purposes, such as stopping at a retail store while commuting to or from work) and would therefore not represent

the addition of new discrete trips on the study area transportation network. For the travel demand forecast, the trip rate and the proportion (25 percent) of retail trips assumed to be such "linked" trips will be based upon the guidelines provided in the *CEQR Technical Manual*. The temporal distribution of retail trips was derived from *Urban Space for Pedestrians.* Modal split and vehicle occupancy values were derived from the *Melrose Commons Urban Renewal Amendments DEIS* and the *Downtown Brooklyn Development FEIS*, respectively.

Supermarket
All transportation planning assumptions for a supermarket were derived from the *Plaza at the Hub EAS*.

Public Open Space
All transportation planning assumptions for public open space (proposed park) were derived from the *Gateway Center at the Bronx Terminal Market FEIS*.

Hotel
The trip generation rate, temporal distribution, in/out splits vehicle occupancy and truck trip generation values for hotel were derived a hotel use cited in the *Jamaica Plan FEIS*. The mode share was derived from a hotel use cited in the *Gateway Center at Bronx Terminal Market FEIS*.

Academic
All transportation planning assumptions for academic land uses (expansion of Hostos Community College) were derived from the *Melrose Commons Urban Renewal Amendments DEIS*.

Manufacturing
The trip generation rate, temporal distribution, in/out splits and truck trip generation values for manufacturing were derived from the *No. 7 Subway Extension – Hudson Yards Rezoning and Development Program FGEIS* while the modal splits were derived from reverse journey-to-work data from the 2000 Census for the rezoning area.

Warehousing
The trip generation rate, temporal distribution, in/out splits and truck trip generation values for manufacturing were derived from the *Greenpoint – Williamsburg Rezoning FEIS* while the modal splits were derived from reverse journey-to-work data from the 2000 Census for the rezoning area.

Mini-Storage
All transportation planning assumptions for a mini-storage facility were derived from the *West 57th Street Rezoning FEIS*. The Manhattan mode share values were judged to be valid in the Bronx due to the common use characteristics of such facilities.

Auto-Care Center
All transportation planning assumptions for an auto-care center were derived from the *Greenpoint – Williamsburg Rezoning FEIS*.

Concrete Recycling Facility
This existing facility was judged to be a special use. In and out traffic volumes and vehicle types will be quantified for the analysis hours by field survey.

Bus Parking Facility
This existing facility was judged to be a special use. In and out traffic volumes and vehicle types will be quantified for the analysis hours by field survey.

TABLE 1: TRANSPORTATION PLANNING ASSUMPTIONS

Land Use:	Residential	Local Retail	Supermarket	Public Open Space	Hotel	Academic	Manufacturing	Warehousing	Mini-Storage	Auto Care Center
Trip Generation:	(1)	(1, 10)	(6)	(8)	(13)	(5)	(3)	(7)	(12)	(7)
Daily Person Trips	8.075 per dwelling unit	154 per 1,000 gsf	113.97 per 1,000 gsf	139 per acre	5.82 per room	26.6 per 1,000 gsf	5.0 per 1,000 gsf	10.4 per 1,000 gsf	4.97 per 1,000 gsf	19.42 per 1,000 gsf
Temporal Distribution:	(1)	(1)	(6)	(8)	(13)	(5)	(3)	(7)	(12)	(7)
AM (8-9)	9.1%	3.1%	3.2%	n/a	6.6%	16.1%	19.0%	13.2%	10.7%	13.2%
MD (12-1)	4.7%	19.0%	9.8%	12.0%	8.3%	8.4%	13.0%	11.0%	11.0%	11.0%
PM (5-6)	10.7%	9.6%	10.2%	10.0%	7.7%	26.0%	19.0%	14.2%	11.2%	14.2%
In/Out Splits:	(1)	(1)	(6)	(8)	(13)	(5)	(3)	(7)	(12)	(7)
	In / Out	In / Out	In / Out	In / Out	In / Out	In / Out	In / Out	In / Out	In / Out	In / Out
AM (8-9)	15% / 85%	50% / 50%	61% / 39%	n/a / n/a	41% / 59%	100% / 0%	77% / 23%	88% / 12%	48% / 52%	65% / 35%
MD (12-1)	50% / 50%	50% / 50%	49% / 51%	45% / 55%	68% / 32%	52% / 48%	50% / 50%	50% / 50%	50% / 50%	50% / 50%
PM (5-6)	70% / 30%	50% / 50%	51% / 49%	55% / 42%	59% / 41%	66% / 34%	36% / 64%	12% / 88%	53% / 47%	50% / 50%
Modal Splits:	(2)	(5)	(6)	(8)	(8)	(5)	(2)	(2)	(12)	(7)
Auto	22%	3%	36%	12%	70%	20%	46%	46%	95%	85%
Taxi	0%	2%	3%	0%	15%	1%	2%	2%	0%	5%
Bus	15%	10%	18%	5%	5%	47%	16%	16%	0%	1%
Subway	51%	5%	13%	5%	5%	24%	29%	29%	0%	1%
Walk	12%	80%	30%	78%	5%	8%	7%	7%	5%	8%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Vehicle Occupancy:	(2, 4)	(4)	(6)	(8)	(13)	(5)	(2, 3)	(2, 7)	(12)	(7)
Auto	1.50	2.00	2.00	2.80	1.60	1.10	1.50	1.50	2.00	1.30
Taxi	1.40	2.00	2.00	n/a	1.40	1.10	1.40	1.30	2.00	1.30
Truck Trip Generation:	(4)	(4)	(6)		(13)	(5)	(3)	(7)		(7)
	0.07 per dwelling unit	0.35 per 1,000 gsf	0.52 per 1,000 gsf	n/a	0.10 per room	0.03 per 1,000 gsf	0.52 per 1,000 gsf	0.67 per 1,000 gsf	n/a	0.89 per 1,000 gsf
	(11)	(11)	(6)		(13)	(5)	(3)	(7)	(12)	(7)
AM (8-9)	12.2%	7.7%	14.0%	n/a	14.0%	9.7%	14.0%	14.0%	9.6%	14.0%
MD (12-1)	8.7%	11.0%	8.6%	n/a	8.6%	7.8%	8.6%	9.0%	11.0%	9.0%
PM (5-6)	1.0%	1.0%	1.0%	n/a	1.0%	7.8%	1.0%	1.0%	1.0%	1.0%
	In / Out	In / Out	In / Out	In / Out	In / Out	In / Out	In / Out	In / Out	In / Out	In / Out
	50% / 50%	50% / 50%	50.0% / 50.0%	n/a / n/a	50.0% / 50.0%	50.0% / 50.0%	50.0% / 50.0%	50.0% / 50.0%	50.0% / 50.0%	50% / 50%

Sources:

(1) Pushkarev & Zupan, "Urban Space for Pedestrians," 1975.

(2) 2000 US Census journey-to-work data for Tracts 47, 49, 53.01, and 57.

(3) No. 7 Subway Extension - Hudson Yards Rezoning and Development Program FGEIS, 2004.

(4) Downtown Brooklyn Development FEIS, 2004.

(5) Melrose Commons Urban Renewal Amendments DEIS, 2007.

(6) Plaza at the Hub EAS, 2005.

(7) Greenpoint-Williamsburg Rezoning FEIS, 2005.

(8) Gateway Center at Bronx Terminal Market FEIS, 2005.

(9) Dutch Kills Rezoning Technical Memorandum, 2007.

(10) Assumes 25% linked trips as per CEQR Technical Manual 30-23.

(11) FHWA, "Curbside Pickup and Delivery and Arterial Traffic Impacts," 1981.

(12) West 57th St Rezoning FEIS, 2001.

(13) The Jamaica Plan FEIS, 2007.

Appendix 3
Air Quality Analysis Assumptions

STV Memorandum

Date: November 6, 2007

To: Mauricio Garcia, NYC DCP

From: Douglas Swann, STV / Tammy Petsios, PB

Subject: Lower Concourse Rezoning EIS – Preliminary Air Quality Analysis Assumptions

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An air quality analysis will be conducted for the Lower Concourse Rezoning EIS. The project will involve both mobile and stationary source analyses. The following outline of procedures and assumptions was based on guidelines contained in the *2001 NYC CEQR Technical Manual*.

The Proposed Rezoning would alter traffic and land uses in the study area. Air quality, which is a general term used to describe pollutant levels in the atmosphere, would be affected by these changes.

The key issues that would be addressed in the air quality study regarding the potential impacts of the Proposed Rezoning are:

- The potential for significant air quality impacts from increases in the number of project-generated vehicle trips on the already congested local traffic network, and the accompanying reduction in vehicular speeds;
- The potential for emissions from the heating, ventilation and air conditioning (HVAC) systems of the proposed development buildings to significantly impact existing land uses;
- The potential for emissions from the HVAC systems of the proposed development buildings to significantly impact other proposed development buildings (project-on-project impacts);
- The potential combined impacts from HVAC emissions of proposed developments that are located in close enough proximity to one another (clusters) to significantly impact existing land uses and other proposed development sites;
- The potential for significant air quality impacts from the emissions of existing large emission sources (e.g., HVAC systems with 2.8 or more Btu/hr heat input) on the proposed residential developments located in areas that are being rezoned to allow new residential uses; and
- The potential for significant air quality impacts on the proposed residential developments located in areas that are being rezoned to allow new residential

uses from air toxic emissions generated by nearby existing industrial sources, and

- Potential impacts associated with proposed parking facilities on nearby sensitive uses.

The project area is located in the Bronx, New York and is bounded by Harlem River to the west, Major Deegan Expressway to the south, E 149th Street to the north and Morris Avenue to the east. The site is located in a maintenance area for CO and a non-attainment zone for PM2.5.

Mobile Source Microscale Analysis

Pollutants of Concern

The microscale analysis will evaluate the potential that the proposed rezoning will have on localized CO, PM10 and PM2.5 levels in the study area as a result of adding project-generated vehicles at currently congested intersections. Selected sites will be analyzed under the "Reasonable Worst-Case Scenario" (RWCS). The RWCS is defined as the full build out of the proposed action that includes both projected and potential development sites. However, the study of mobile sources will utilize induced traffic from projected development sites only.

Dispersion and Emissions Models for Microscale Analyses

The microscale analysis will be using the EPA's CAL3QHC model for CO intersection analysis and the MOBILE 6.2 model for prediction of vehicular emissions. CAL3QHC and MOBILE are the recommended models for use by the NYCDEP, NYSDEC and the USEPA. For the PM2.5 and PM10 microscale analyses, the MOBILE 6.2 model and EPA's refined CAL3QHCR model will be used with the latest five years (2000-2004) of meteorology from LaGuardia airport.

Analysis Sites

Carbon Monoxide

It is anticipated that the CAL3QHC model will be used to predict CO concentrations at up to 4 intersections. Preliminary locations that have been selected based on other studies and historic observations (which identify high levels of congestion at these locations) include:

- E 149th Street & Exterior Street
- E 149th Street & Grand Concourse
- E 138th Street & Grand Concourse
- E 138th Street & 3rd Ave/Morris Ave

The final selection of analysis sites will be completed when trip generation and assignment information is made available from the traffic consultant. The site selection will be based on the CEQR intersection screening analysis and it is assumed that all selected intersections would surpass the CEQR 100 trip screening limit. The site selection will also take in account existing level of service (LOS), overall vehicular volumes and vehicle classification (% heavy vehicles) during the project's peak hours. The CO analysis will predict one-hour and eight-hour concentrations and compare them to the NAAQS and CEQR CO *De Minimis* criteria.

PM10 and PM2.5

Traffic within the Lower Concourse community consists of a high number of heavy duty diesel vehicles which contribute to recorded exceendances of the PM2.5 24-hour and annual standard at nearby NYSDEC monitors. In addition there exist many industrial process facilities which also contribute to the PM emissions burden. Project generated heavy duty diesel vehicles (HDDV) and to a lesser degree light-duty gasoline vehicles (LDGV) could impact localized PM emissions. As a result, it is anticipated that a PM10 analysis will be conducted at a one worse case intersection. Site selection will be based on the anticipated number of project-induced HDDV trips, % baseline HDDV and overall Build volumes. The PM10 analysis will predict twenty-four hour concentrations and compare them to the NAAQS.

One "worse-case" location will be selected to conduct a detailed PM2.5 microscale analysis. The selection will be based on project-generated trip data using the NYCDEP PM2.5 Interim Guidelines screening procedure. It is anticipated that at least one location will fail the NYCDEP screening procedure and the selected "worst-case" location will result in the highest number of project-generated HDDVs or combination of HDDVs and passenger cars. The CAL3QHCR model will be used to predict PM2.5 concentrations and an analysis will be conducted to assess whether incremental 24-hour and annual levels are below NYCDEP Significant Threshold Values (STVs).

For the CO, PM2.5 and PM10 analyses,

- Detailed Geometries will be incorporated
- Receptor Placement for both maximum sidewalk locations and average neighborhood locations
- Each roadway will be modeled within 1000' of an intersection. Traffic data for intersections within 1000' for which no traffic information is available will be conservatively extrapolated from the nearest intersection.
- All modeling will follow USEPA guidelines for intersection modeling.

Model Inputs

EPA's Mobile 6.2 will be used to predict CO, PM2.5 and PM10 emissions rates. Inputs such as *average temperature* and *vehicle thermal states* will be supplied by NYSDEC. The latest 2006 NYSDEC inputs for vehicle registration data & diesel fractions will be used. Monitoring Data and background levels will be supplied by the NYCDEP and the NYSDEC. When using CAL3QHC, worst case meteorological conditions will be assumed. The CAL3QHCR model will be used with the latest five years of meteorology from LaGuardia airport.

Analysis Periods

The intersection analyses of mobile sources will predict concentrations for the existing, No Build, & Build alternatives. One build year will be studied. The peak hours will be Weekday AM, Midday & PM. It is assumed that vehicle speed and classification data for the relevant air quality intersections will be supplied by the traffic consultants for these periods.

Parking Analysis

Two worst case parking lots in terms of size location and ins/outs will be selected for the analysis of CO. Once each garage is selected for analysis, the peak period with the greatest number of vehicular ins/outs will be studied. If any of the analyzed intersections are in close proximity to a studied parking facility, the cumulative effect of both sources will be reported. Both ground level and elevated receptors will be considered.

Stationary Source Analyses

HVAC Analyses

The analysis process would be conducted, in accordance with CEQR Technical Manual procedures, as follows:

- Potential impacts of emissions from the HVAC systems of the proposed development buildings to significantly impact existing land uses and other proposed development buildings (project-on-project impacts) would be conducted. Impacts would be initially analyzed using the CEQR Technical Manual nomographic procedures. The initial screening would assume the use of No. 4 fuel oil.

  If the analysis results exceed established threshold values, detailed analyses would be conducted using the EPA's AERMOD dispersion model. Using New York City building code, set-back distances that would not cause exceedances of the National Ambient Air Quality Standards (NAAQS) at nearby taller buildings would be estimated, if necessary.

- Potential impacts of emissions from large emission sources within 1,000 feet of the Project Site on the proposed developments would be estimated – both individually and combined. A detailed analysis would be conducted, if necessary, using EPA's AERMOD dispersion model. The latest five years of meteorology (2000-2004) will be utilized.
- A cumulative boiler impact analysis will be performed for development sites that would be located in close proximity to one another and will be evaluated as "clusters" to estimate the potential cumulative impacts from the combined heating system emissions on existing land uses. Descriptions of the selected clusters will be sent to the NYC DCP for approval. A detailed dispersion analysis will be conducted.

The analyses would be conducted as follows:

- The pollutants that would be considered for all detailed stationary source analyses are NO_2, SO_2, and PM_{10}.
- Emission factors for the pollutants of concern for HVAC emissions would be obtained from EPA's "Compilation of Air Pollutant Emission Factors" (AP-42) based on building fuel types and fuel consumption rate. Fuel consumption rates would be estimated using factors presented in NYCDEP's Report T.S. #12.
- Stack parameters for the analysis of HVAC system emissions (i.e., temperature, stack diameter, exit velocity, etc.) would be obtained using conservative CEQR Technical Manual default values. Analyses would be conducted with and without building downwash using latest five consecutive years of meteorological data from LaGuardia Airport (2000-2004).
- Estimated short-term and annual pollutant concentrations would be added to appropriate background levels, and total pollutant concentrations would be compared with NAAQS to determine whether there would be the potential for a violation of these standards. Mitigation measures would be identified, where necessary, to ensure compliancy with the NAAQS.

Air Toxics Analysis

The analysis process would be conducted as follows:

- An analysis area with a radius of approximately 400 feet around the areas to be rezoned to allow new residential uses would be identified;
- Air permits for all facilities within this analysis area on NYSDEC, NYCDEP, and EPA Environfacts databases would be acquired and reviewed;
- Dispersion analyses would be conducted to determine the potential of the toxic emissions released from the permitted emission sources to adversely affect the new residential areas, as follows:

- The dispersion modeling analysis would initially be conducted using NYSDEC's DAR-1 (former Air Guide-1 (AG-1) model to determine whether the existing currently operating permitted facilities within the air toxics study area would have the potential to adversely affect the sensitive analysis sites. (In addition to containing a database, DAR-1 includes software –SCREEN and more refined ISCLT2 subroutine model - and that would be used to determine whether facilities have the potential to exceed short-term or annual health-related guideline values (i.e., SGCs or AGCs)). AG-1 also includes unit risk factors for inhalation (IRIS and EPA Health Assessment summary tables) and health-related guideline values (GVs) for EPA's Hazard Index Approach. Impacts of carcinogenic and non-carcinogenic toxic air pollutants would be estimated using unit risk factors and hazard indexes.
- A more refined analysis the AERMOD model, would be conducted to estimate potential impacts for facilities, if any, which fail the screening level analysis with DAR-1 software.

Appendix 4
Noise Analysis Assumptions

STV Memorandum

Date: October 24, 2007

To: Mauricio Garcia, NYC DCP

From: Douglas Swann, STV Incorporated

Subject: Lower Concourse Rezoning EIS - Noise Analysis Assumptions

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A noise analysis will be conducted for the Lower Concourse Rezoning EIS. The project will primarily involve the assessment of project-related mobile sources. The following outline of procedures and assumptions was based on guidelines contained in the *2001 NYC CEQR Technical Manual*.

The project area is located in the Bronx, New York and is generally bounded by Harlem River to the west, Major Deegan Expressway to the south, E 149th Street to the north and Morris Avenue to the east.

It is assumed that noise impacts would result primarily from one of two sources:

1. Vehicular noise from project generated traffic on sensitive receptors in the community
2. Ambient noise impacts (from existing local and highway traffic, ventilation equipment, trains, stationary sources etc.) on proposed uses (potential and projected sites).

Given the high ambient noise levels from existing sources including the Major Deegan Expressway, the Metro-North Railroad and the Oak Point Rail Freight link, as well as high vehicular volumes on many of the major streets (e.g., East 138th Street, East 149th Street, and the Grand Concourse),the trip added generation from the incremental development of the proposed project will likely result in a low level of additional noise. The exceptions to this may occur on other less travelled streets in the project area. While these sites will be examined, it is assumed that the greatest concern for project-related impacts will be related to the impact of existing and future noise generators on future residents.

Noise Monitoring

Mobile Sources

To determine baseline noise levels within the project study area, noise monitoring is proposed at 21 locations. These locations were selected based on their proximity to projected and potential project sites as well as their potential to experience a doubling in traffic volume from project-induced traffic. In addition, care was taken to select sites that would result in the most representative assessment of the existing noise environment. Elevated receptors will be examined near the elevated Major Deegan Expressway and Metro North train lines, as required

by the CEQR Technical Manual. **This assumes that a secure and accessible location is available**. Monitoring will be conducted during the peak Weekday AM, Midday & PM and Weekend Midday time periods. The instrument used for the monitoring will be a Type I noise level meter. The proposed noise monitoring sites are listed below;

1 **E 135th Street (between Third & Rider Avenues) ***
2 **Third Avenue (between E 136th & E 137th Streets)**
3 **E 138th Street (between Canal Place & Rider Avenue)**
4 **Morris Avenue (between E 139th & E 140th Streets)**
5 **Park Avenue (between E 140th & E 141st Streets)**
6 **Rider Avenue (between E 140th & E 141st Streets)**
7 **Canal Place (between E 140th & E 141st Streets)**
8 **E 144th Street (between Canal Place & Rider Avenue)**
9 **Grand Concourse NB(between E 138th & E 140th Streets)**
10 **Grand Concourse (between E 140th & E 144th Streets)**
11 **Grand Concourse SB(between E 138th & E 140th Streets)**
12 **Walton Avenue (between E 140th & E 144th Streets)**
13 **Ignore**
14 **Exterior Street NB or SB(between E 144th and E 149th Streets)***
15 **Exterior Street SB(between E 138th and E 140th Streets)**
16 **Exterior Street SB(south of E 138th Street)***
17 **Ignore**
18 **E 144th Street (between Gerard & Walton Avenues)**
19 **Any accessible location along the "Oak Point" rail line**
20 **Ignore**
21 **Park Avenue (between E 135th & E 138th Streets)***
22 **Park Avenue (between E 146th & E 149th Streets)**
23 **Gerard Avenue (between E 144th and E 149th Streets)**
24 **E 149th Street (between Walton Avenue & Grand Concourse)**

Rail Sources

Two existing rail sources (Metro North & the Oak Point Rail Line) are within close proximity to proposed sites. Where possible, noise monitoring will be conducted to determine the noise level which potential and projected sites will be exposed to. Noise exposure for specific sites will be determined based on distance-related sound propagation principles. The FTA noise guidance may be used, based on consultation with the DCP & DEP.

Stationary Sources

It is not anticipated that a significant singular source of stationary noise will be identified and therefore no monitoring of stationary sources will be conducted.

Detailed Analysis Procedures

Vehicular Noise

The selected noise monitoring locations will be used to assess the noise impacts of project-induced vehicles. For traffic-induced noise impacts, projected increases in noise would be based on the *CEQR Technical Manual*, depending on the traffic levels projected for No Build Conditions. A screening analysis (as per the 2001 *CEQR Technical Manual* guidelines) will be conducted to demonstrate that the proposed project will not result in any exceedences of noise guidelines (a doubling of PCEs).

Ambient Noise Analysis

Based on predicted build L_{10} noise levels, the noise analysis will result in a determination of the required attenuation values for each of the proposed properties.

- Initially, the selected noise monitoring locations will be assessed to determine what their future L_{10} noise levels will be.
- Future noise from traffic would be calculated by converting traffic into PCEs for No Build and Build Conditions, then using logarithmic calculations to compare the PCEs.
- Predicted L_{eq} noise levels will be converted to L_{10} noise levels.
- Each projected and potential property will then be assigned a future noise level based on their proximity to one of the worst case monitored noise sites.
- Based on this selected future build noise level, the degree to which window/wall attenuation would provide acceptable interior noise levels will be assessed.

Models for Analysis

As per CEQR guidelines, the logarithmic proportional modeling procedure will be used to predict future L_{eq} noise levels. No modeling with the FHWA's TNM model is anticipated.

Analysis Periods

The analyses of mobile sources will predict future noise levels for the existing, No Build, & Build alternatives. One build year will be studied, which has been identified by the Department of City Planning as 2018. The peak hours will be Weekday AM, Midday & PM and Weekend Midday. Speed and classification data will be supplied by the traffic consultant for these periods.