City Environmental Quality Review
ENVIRONMENTAL ASSESSMENT STATEMENT (EAS) SHORT FORM

FOR UNLISTED ACTIONS ONLY • *Please fill out and submit to the appropriate agency* (see instructions)

Part I: GENERAL INFORMATION

1. *Does the Action Exceed Any Type I Threshold in 6 NYCRR Part 617.4 or 43 RCNY §6-15(A) (Executive Order 91 of 1977, as amended)?* ☐ YES ☒ NO

If "yes," **STOP** and **complete the FULL EAS FORM**.

2. *Project Name* Woodward Avenue Rezoning

3. *Reference Numbers*

CEQR REFERENCE NUMBER (to be assigned by lead agency) 14DCP088Q	BSA REFERENCE NUMBER (if applicable)
ULURP REFERENCE NUMBER (if applicable) 140111ZMQ	OTHER REFERENCE NUMBER(S) (if applicable) (*e.g.*, legislative intro, CAPA)

4a. *Lead Agency Information*			**4b. *Applicant Information***		
NAME OF LEAD AGENCY Department of City Planning			NAME OF APPLICANT 176 Woodward Owner, LLC		
NAME OF LEAD AGENCY CONTACT PERSON Robert Dobruskin, DCP/EARD			NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON Hiram A. Rothkrug, EPDSCO		
ADDRESS 22 Reade Street			ADDRESS 55 Water Mill Road		
CITY New York	STATE NY	ZIP 10007	CITY Great Neck	STATE NY	ZIP 11021
TELEPHONE 212-720-3423	EMAIL rdobrus@planning.nyc.gov		TELEPHONE 718-343-0026	EMAIL hrothkrug@epdsco.com	

5. *Project Description*

See attached project description.

Project Location

BOROUGH Queens	COMMUNITY DISTRICT(S) 5	STREET ADDRESS 176 Woodward Avenue
TAX BLOCK(S) AND LOT(S) Block 3395, Lots 12-16, 39-44; Block 3394, Lots 20-24, 28 (partial), 37-46, 48-57, 76-91; Block 3377, Lots 1, 84, 86, 90, 92		ZIP CODE 11385

DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS Irregular area bounded by Starr Street and Woodward, Onderdonk, and Flushing Avenues

EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY M1-1 | ZONING SECTIONAL MAP NUMBER 13b

6. *Required Actions or Approvals* (check all that apply)

***City Planning Commission*:** ☒ YES ☐ NO ☒ UNIFORM LAND USE REVIEW PROCEDURE (ULURP)

☐ CITY MAP AMENDMENT	☐ ZONING CERTIFICATION	☐ CONCESSION
☒ ZONING MAP AMENDMENT	☐ ZONING AUTHORIZATION	☐ UDAAP
☐ ZONING TEXT AMENDMENT	☐ ACQUISITION—REAL PROPERTY	☐ REVOCABLE CONSENT
☐ SITE SELECTION—PUBLIC FACILITY	☐ DISPOSITION—REAL PROPERTY	☐ FRANCHISE
☐ HOUSING PLAN & PROJECT	☐ OTHER, explain:	

☐ SPECIAL PERMIT (if appropriate, specify type: ☐ modification; ☐ renewal; ☐ other); EXPIRATION DATE:

SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION

***Board of Standards and Appeals*:** ☐ YES ☒ NO

☐ VARIANCE (use)

☐ VARIANCE (bulk)

☐ SPECIAL PERMIT (if appropriate, specify type: ☐ modification; ☐ renewal; ☐ other); EXPIRATION DATE:

SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION

***Department of Environmental Protection*:** ☐ YES ☒ NO If "yes," specify:

Other City Approvals Subject to CEQR (check all that apply)

☐ LEGISLATION ☐ FUNDING OF CONSTRUCTION, specify:

PROJECT DESCRIPTION

Introduction

This Environmental Assessment Statement (EAS) is filed under the City Environmental Quality Review (CEQR) procedures in connection with an application made to the City Planning Commission (CPC) pursuant to Sections 197-c and 201 of the New York City Charter for a Zoning Map Amendment pertaining to property located within an area roughly bounded by Starr Street and Woodward, Onderdonk, and Flushing Avenues in the Ridgewood neighborhood of Queens. The proposed rezoning area includes Block 3377, Lots 1, 84, 86, 90, 92; Block 3394, Lots 20-24, 28 (partial), 37-46, 48-57, 76-91; and Block 3395, Lots 12-16, 39-44. The Applicant's property is identified as Block 3395, Lot 16 (Projected Development Site 1) and Block 3377, Lot 84 (Projected Development Site 2).

The proposed action seeks a Zoning Map Amendment from the existing M1-1 zoning district mapped over the entire area to a proposed combination of R5B, R6B, and R6B/C1-3 zoning districts as follows. It is proposed to rezone Block 3395, Lot 16 (100-foot depth from Woodward Avenue) and Block 3377, Lots 1, 84, 86, 90, and 92 to R6B/C1-3. The portion of Block 3395, Lot 16 located outside of the C1-3 commercial overlay would be zoned R6B. It is proposed to rezone Block 3395, Lots 12-15 and 39-44 and Block 3394, Lots 42-57 to R6B. It is proposed to rezone Block 3394, Lots 20-24, 28 (partial), 37-41, and 76-91 to R5B.

The proposed action would facilitate a proposal by the Applicant to redevelop the currently underutilized Projected Development Sites 1 and 2 primarily for residential purposes with medical office space, local retail space, and accessory parking to serve project residents and other persons in the surrounding community.

Existing Conditions

The proposed rezoning area encompasses approximately 175,733 square feet of land area and is entirely zoned M1-1. The M1 district is often a buffer between M2 and M3 districts and adjacent residential or commercial districts. Light industries typically found in M1 districts include woodworking shops, auto storage and repair shops, and wholesale service and storage facilities. Offices and most retail uses are also permitted. The district allows Use Groups 4 through 14, 16, and 17. Strict performance standards are common to all M1 districts. The M1-1 district permits a maximum manufacturing and commercial FAR of 1.0 and an FAR of 2.4 for Use Group 4 community facility uses. The district requires a setback of 20 feet on narrow streets and 15 feet on wide streets and permits a maximum building height of 30 feet or two-stories, whichever is less. No front or side yards are generally required but a standard rear yard depth of 20 feet is required in the M1-1 district.

The approximately 45,010 square foot Projected Development Site 1 is currently vacant of buildings with the exception of a prefabricated shed and is used for the storage of motor vehicles and as a contractor's yard. The approximately 5,505 square foot Projected Development Site 2 is vacant and is used as a contractor's yard.

The remainder of the proposed rezoning area is developed with small two- to three-story, two- to six-family residential buildings. It also contains a small retail store (delicatessen), a restaurant, a contractor's yard with a small accessory office building, a warehouse and accessory office structure, a small storage use, and a truck storage lot.

The area within 400 feet to the north and west of the rezoning area is primarily developed with a mixture of commercial, manufacturing, and automobile related uses. The 400-foot radius study area to the south and east is primarily developed with residential and open space uses.

Project Purpose and Need

The Applicant seeks to redevelop the currently underutilized Projected Development Sites 1 and 2 primarily for residential purposes with medical office space, local retail space, and accessory parking to serve project residents and other persons in the surrounding community. The property's existing M1-1 zoning does not permit residential development. The proposed rezoning to a combination of R5B, R6B, and R6B/C1-3 zoning districts is required in order to develop residential, medical office, and retail uses on the Applicant's property.

Build Year

The proposed development is described below. The Build Year is assumed to be 2016 based on an estimated 1.5-year approval process and a 12-month construction period. The proposed buildings on Projected Development Sites 1 and 2 would be built concurrently.

Projected Development Site 1 – It is proposed to rezone this site from M1-1 to R6B with a C1-3 commercial overlay mapped to depth of 100 feet along Woodward Avenue between Starr and Troutman Streets. The site would be developed with a four-story, 90,020 gross square foot (gsf) building containing 80,198 gsf of residential floor area for 80 dwelling units, 3,115 gsf of ground floor medical office space, and 6,707 gsf of ground floor retail space. The development would contain 118 parking spaces including 11 open parking spaces and 107 spaces of cellar/sub-cellar parking in the building. Access to the parking would be provided from Troutman Street. Approximately 9,405 square feet of common recreational space would be provided on the roof of the proposed building.

The proposed new building would have a total FAR of 2.0 (1.78 FAR Residential, 0.07 Community Facility, and 0.15 FAR Commercial) and would, therefore, not exceed the maximum FAR of 2.0 allowed in the R6B zoning district. The proposed commercial retail space in the building would have an FAR of 0.15 and would, therefore, not exceed the maximum FAR of 1.0 allowed in the C1-3 commercial zoning overlay district. The proposed lot coverage of 27,472 square feet would be substantially less than the permitted 31,010.8 square feet. The building would be constructed to a height of 40 feet, and would contain 80 dwelling units.

Projected Development Site 2 - It is proposed to rezone this site from M1-1 to R6B with a C1-3 commercial overlay mapped to depth of 100 feet along Woodward Avenue between Starr and Troutman Streets. The Applicant intends to develop the site with a four-story, 11,000 gsf residential building. However, as described below, for environmental analysis purposes the EAS will analyze a four-story building containing eight dwelling units within 8,650 gsf of floor area (including a 400 gsf residential lobby) on floors two through four and a ground floor containing 2,350 gsf of retail floor area. The development would contain five open parking spaces accessed from Starr Street. The development would include approximately 421 square feet of landscaped open space on the lot.

The proposed new building would have an FAR of 2.0 and would, therefore, not exceed the maximum FAR of 2.0 allowed in the R6B zoning district. The proposed lot coverage of 2,750 square feet would be substantially less than the permitted 4,404 square feet. The building would

be constructed to a height of 40 feet and would contain eight dwelling units. Although the parking required for the proposed residential and retail uses would fall below the minimum required and could therefore be waived, five spaces would be provided. The development would meet or exceed the minimum front, side, and rear yards requirements.

Reasonable Worst-Case Development Scenario

In order to assess the possible effects of the Proposed Action, a reasonable worst-case development scenario was established for both the current zoning (Future No-Action) and proposed zoning (Future With-Action) conditions projected to the build year of 2016. The incremental difference between the Future No-Action and Future With-Action conditions are the basis of the impact category analyses of this Environmental Assessment Statement.

To determine the With-Action and No-Action conditions, standard methodologies have been used following the *CEQR Technical Manual* guidelines employing reasonable assumptions.

The Reasonable Worst Case Development Scenarios (RWCDS) includes five (5) Projected Development Sites as further discussed below.

Projected Development Sites 1 and 2 are owned by the Applicant and are underdeveloped. The Applicant proposes to rezone Projected Development Sites 1 and 2 to permit them to be developed primarily for residential use, as described above.

Projected Development Site 3 (Block 3395, Lots 12 & 13) and Projected Development Site 4 (Block 3395, Lots 14 & 15) each consist of one vacant, undeveloped lot and an adjoining lot developed with residential uses. The two lots on Projected Development Sites 3 and 4 are in common ownership and each Site exceeds 5,000 square feet in lot area. The 4,500 square foot Projected Development Site 5 (Block 3377, Lot 1) is underutilized as it is only developed with an approximately 200 square foot structure. These properties are considered to be projected development sites based on the soft site development criteria as under the proposed action these sites would be utilizing less than half the proposed permitted floor area ratio and would allow residential where it is currently prohibited.

No-Action Scenario

A RWCDS has been developed for the Future No-Action Condition under the existing M1-1 zoning mapped on the property. Absent the action, the Applicant intends to develop Projected Development Site 1 with a one-story, approximately 19,945 gsf commercial building. Approximately 66 at–grade parking spaces would be provided at a ratio of one space per three hundred square feet of floor area for a general retail or service use. Similarly, absent the action, the Applicant intends to develop Projected Development Site 2 with a one-story, approximately 3,135 gsf commercial building with approximately five at–grade parking spaces for a general retail or service use. The total RWCDS on Projected Development Sites 1 and 2 would therefore total approximately 23,080 gsf of commercial floor area and 71 parking spaces. The anticipated use on each development site would be Use Group 6 local retail stores and services.

Brian Leary, a Managing Partner and licensed Real Estate Broker at CPEX Real Estate Services, wrote a letter dated December 5, 2012 letter in which he addressed the market trends in and around the proposed rezoning area as well as the marketability of both Projected Development Sites 1 and 2. The letter states that although the properties are located within the boundaries of

Ridgewood, Queens, it has the same catchment area as the adjacent neighborhood of Bushwick, Brooklyn. In recent years, Bushwick has transformed with the establishment of numerous art galleries, restaurants, bars, and other commercial establishments. The immediate surrounding local development is a mixture of converted industrial warehouses with both residences and commercial uses (including art galleries, stores, bars), as well as manufacturing buildings, and low rise residential buildings. Bushwick has become a new destination for the artists/hipster demographic in their search for affordable housing locations near similar and like-minded artists. With the arrival of this demographic, Bushwick has attracted both young professionals and families. With an already booming local retail market, the increasing population is generating an even higher demand for goods and services. The subject property is only a few blocks from the L line subway at Jefferson Street, the central pulse of Bushwick. The most highly sought out commercial real estate radiates from the Jefferson Street L stop while potential residential renters are trying to find housing in the immediate vicinity. An additional 20,000 square feet of retail space would be easily absorbed by businesses looking to open and serve the growing area. Just as important is the physical location of the above properties. If developed into a 20,000 square foot retail building, it may offer goods and services that will be readily accessible to the growing population. The site is only a few minutes walk from the Jefferson Street L stop, and is situated directly next to the intersections of Flushing and Metropolitan Avenues, both heavily trafficked thoroughfares. Enjoying a "two corner" location served by 3 streets, access to the site may be provided on Troutman Street, Woodward Avenue, or Starr Street. In terms or access, both public and private, as well as visibility and site layout, the site is ideally suited for a retail building use. Block 3377, Lot 84 is similarly well placed and underutilized and would benefit similarly from the same physical access points. The combination of these factors are the reason that the sites are viable retail developments that will attract the interest of new retail enterprises, whether it be a chain or a local "mom and pop". The retail energy that already exists in the neighborhood will drive the leasing and consumer interest at the properties, and will allow the provided retail space as well as the offered goods and services to be easily absorbed into the fabric of the growing local community. Based on the existing zoning of the proposed rezoning area and due to the significant level of development on most of the lots within the area, it is not likely that additional development would occur in the remainder of the rezoning area. Therefore, the existing buildings and uses on Block 3377, Lots 1, 86, 90, 92; Block 3394, Lots 20-24, 28 (partial), 37-46, 48-57, 76-91; and Block 3395, Lots 12-15, 39-44 would remain as they are currently, which include the following development on Projected Development Sites 3-5:

Projected Development Site 3 – Approximately 2,200 square feet of residential floor area providing four (4) dwelling units.

Projected Development Site 4 – Approximately 1,910 square feet of residential floor area providing two (2) dwelling units.

Projected Development Site 5 – Approximately 200 square feet of commercial floor area.

Future With-Action Scenario

The Applicant, 176 Woodward Owner, LLC, seeks to amend Zoning Sectional Map 13b as it pertains to the proposed rezoning area, by rezoning the property from its current M1-1 district to a combination of R5B, R6B, and R6B/C1-3 zoning districts. The proposed R5B, R6B, and R6B/C1-3 zoning designations would allow the Applicant to redevelop its property with two

new residential buildings, one of which would also contain commercial and community facility space. The C1-3 commercial overlay is proposed to be mapped to a depth of 100 feet along both sides of Woodward Avenue between Starr and Troutman Streets.

A RWCDS has been developed for the Future With-Action Condition under the proposed zoning to be mapped on the property. The RWCDS Future With-Action Condition is largely the same as the proposed development as the project would be built to the maximum total permitted FAR of 2.0 under the proposed rezoning. However, the RWCDS Future With-Action Condition on Projected Development Site 2 would analyze a four-story building containing eight dwelling units within 8,650 gsf of floor area (including a 400 gsf residential lobby) on floors two through four and a ground floor containing 2,350 gsf of retail floor area rather than the proposed development of an 11,000 gsf residential building on this site.

Projected Development Site 1 would be developed with a four-story, 90,020 gsf building containing 80,198 gsf of residential floor area for 80 dwelling units, 3,115 gsf of ground floor medical office space, and 6,707 gsf of ground floor retail space. The development would contain 118 parking spaces including 11 open parking spaces and 107 spaces of cellar/sub-cellar parking in the building. Access to the parking would be provided from Troutman Street. In addition, approximately 9,405 square feet of common recreational space would be provided on the roof of the proposed building on Projected Development Site 1.

Projected Development Site 2 would be developed with a four-story, 11,000 gsf building containing eight dwelling units within 8,650 gsf of floor area (including a 400 gsf residential lobby) on floors two through four. The ground floor of the building would contain 2,350 gsf of retail floor area. The development on this site would contain five open parking spaces accessed from Starr Street. The proposed development on Projected Development Site 2 would also include approximately 421 square feet of landscaped open space on the lot.

The RWCDS on the Applicant's Projected Development Sites 1 and 2 would therefore total approximately 101,020 gsf of floor area comprised of 88,848 gsf of residential floor area for 88 dwelling units, 9,057 gsf of retail space, 3,115 gsf of medical office space, and 123 accessory parking spaces. A total of approximately 9,826 square feet of private open space for the residents of the project would also be provided. The existing uses on Projected Development Sites 1 and 2 would be removed in order to facilitate the proposed development.

No changes are proposed to be made to the existing development on the other lots in the proposed rezoning area. The proposed action would legalize the existing non-conforming residential uses on most of the lots occupying the remainder of the rezoning area, and the existing commercial businesses that would remain on these lots would become legal non-conforming uses under the proposed zoning.

Based on the City's soft site development criteria, it has been determined that the proposed rezoning would facilitate the development of up to 25,778 gsf of floor area including approximately 22 dwelling units and 2,369 gsf of retail space on Projected Development Site 3, Projected Development Site 4, and Projected Development Site 5. Projected Development Site 3 and Projected Development Site 4 each currently consist of one vacant, undeveloped lot and an adjoining lot developed with residential uses. In addition, the two lots comprising Projected Development Site 3 and Projected Development Site 4 are in common ownership and when combined would have a lot area of 5,023 square feet and 5,046 square feet, respectively. The

4,500 square foot Lot 1 on Block 3377 (Projected Development Site 5) is underutilized as it is only developed with an approximately 200 square foot structure. Under the proposed action, these sites would be utilizing less than half the proposed permitted floor area ratio and would allow residential where it is currently prohibited. Finally, these lots are all located on the same blocks as the proposed development project and are therefore considered to be more likely to be developed in the future.

The breakdown of development on each of the three non-Applicant owned Projected Development Sites follows below. The number of projected new dwelling units is based on an average unit size of approximately 1,000 gsf.

Projected Development Site 3 – Approximately 7,846 square feet of additional floor area providing eight (8) new dwelling units. Assuming building mechanical space at 3% of floor area would result in 8,081 gsf of additional floor area. Although parking is required for 50% of the dwelling units in the R6B zoning district, no parking would be required or provided as the requirement is waived if 5 or fewer spaces are required.

Projected Development Site 4 – Approximately 8,182 square feet of additional floor area providing eight (8) new dwelling units. Assuming building mechanical space at 3% of floor area would result in 8,427 gsf of additional floor area. Although parking is required for 50% of the dwelling units in the R6B zoning district, no parking would be required or provided as the requirement is waived if 5 or fewer spaces are required.

Projected Development Site 5 – Approximately 8,800 square feet of new floor area for a total of 9,000 square feet on the site. The existing 200 square foot storage structure would be demolished. Assuming building mechanical space at 3% of floor area would result in 9,270 gsf of floor area. The first floor would contain 2,369 gsf of commercial retail space plus a 412 gsf residential lobby for a total floor area of 2,781 gsf. The second through fourth floors would each contain 2,163 gsf of residential space totaling 6,489 gsf of residential floor area providing six (6) new dwelling units. Although the parking required for the proposed residential and retail uses would fall below the minimum required and could therefore be waived, five at-grade spaces would be provided.

Analysis Framework

The CEQR analysis prepared for the proposed action is based on the difference between the No-Action RWCDS and the Future With-Action RWCDS. The difference between the No-Action and With-Action Scenarios for all Projected Development Sites would be the development under the With-Action Scenario of an additional approximately 103,518 gsf of total floor area, 112,257 gsf of new residential floor area for 110 new dwelling units, 3,115 gsf of medical office space, and 57 additional accessory parking spaces. The With-Action Scenario would however contain 11,854 gsf less commercial floor area than the No-Action Scenario.

See Table 1 below for a summary of the Existing Condition, No-Action and With-Action scenarios and the incremental difference between the two scenarios.

Table 1
Summary of Existing Conditions, Future No-Action, and Future With-Action Scenarios on Projected Development Sites 1-5

Item	Existing	No-Action	With-Action	Increment
Gross SF	4,310	27,390	130,908	+ 103,518
No. of DUs	6	6	116	+ 110
Residential SF	4,110	4,110	116,367	+112,257
Commercial SF	200 (storage)[1]	23,280	11,426	-11,854
Comm Facil SF	0	0	3,115	+3,115
Access Pkg Spaces	0	71	128	+57

Approvals Required

City Planning Commission (CPC) approval is required for the granting of the proposed Zoning Amendment to Zoning Sectional Map 13b. The Zoning Map Amendment would change the zoning of the rezoning area from the existing M1-1 zoning district to the proposed combination of R5B, R6B, and R6B/C1-3 zoning districts discussed above.

[1] To be demolished/removed in with action scenario.

☐ RULEMAKING
☐ CONSTRUCTION OF PUBLIC FACILITIES
☐ 384(b)(4) APPROVAL
☐ OTHER, explain:
☐ POLICY OR PLAN, specify:
☐ FUNDING OF PROGRAMS, specify:
☐ PERMITS, specify:

Other City Approvals Not Subject to CEQR (check all that apply)

☐ PERMITS FROM DOT'S OFFICE OF CONSTRUCTION MITIGATION AND COORDINATION (OCMC)
☐ LANDMARKS PRESERVATION COMMISSION APPROVAL
☒ OTHER, explain: NYC Dept. of Buildings buildings permit

***State or Federal Actions/Approvals/Funding*:** ☐ YES ☒ NO If "yes," specify:

7. *Site Description:* *The directly affected area consists of the project site and the area subject to any change in regulatory controls. Except where otherwise indicated, provide the following information with regard to the directly affected area.*

***Graphics*:** *The following graphics must be attached and each box must be checked off before the EAS is complete. Each map must clearly depict the boundaries of the directly affected area or areas and indicate a 400-foot radius drawn from the outer boundaries of the project site. Maps may not exceed 11 x 17 inches in size and, for paper filings, must be folded to 8.5 x 11 inches.*

☒ SITE LOCATION MAP ☒ ZONING MAP ☒ SANBORN OR OTHER LAND USE MAP
☒ TAX MAP ☐ FOR LARGE AREAS OR MULTIPLE SITES, A GIS SHAPE FILE THAT DEFINES THE PROJECT SITE(S)
☒ PHOTOGRAPHS OF THE PROJECT SITE TAKEN WITHIN 6 MONTHS OF EAS SUBMISSION AND KEYED TO THE SITE LOCATION MAP

Physical Setting (both developed and undeveloped areas)

Total directly affected area (sq. ft.): 175,733 SF
Waterbody area (sq. ft) and type: None
Roads, buildings, and other paved surfaces (sq. ft.): Approximately 85,000 SF
Other, describe (sq. ft.): Approximately 90,733 SF of landscaped and unpaved area

8. *Physical Dimensions and Scale of Project* (if the project affects multiple sites, provide the total development facilitated by the action)

SIZE OF PROJECT TO BE DEVELOPED (gross square feet): 130,908
NUMBER OF BUILDINGS: 5
GROSS FLOOR AREA OF EACH BUILDING (sq. ft.): 90,020; 11,000; 10,281; 10,337; 9,270
HEIGHT OF EACH BUILDING (ft.): 40 feet (all buildings)
NUMBER OF STORIES OF EACH BUILDING: 4-stories (all buildings)

Does the proposed project involve changes in zoning on one or more sites? ☒ YES ☐ NO
If "yes," specify: The total square feet owned or controlled by the applicant: 50,515 SF
The total square feet non-applicant owned area: 125,218 SF

Does the proposed project involve in-ground excavation or subsurface disturbance, including, but not limited to foundation work, pilings, utility lines, or grading? ☒ YES ☐ NO
If "yes," indicate the estimated area and volume dimensions of subsurface permanent and temporary disturbance (if known):
AREA OF TEMPORARY DISTURBANCE: 50,515 sq. ft. (width x length)
VOLUME OF DISTURBANCE: 560,000 cubic ft. (width x length x depth)
AREA OF PERMANENT DISTURBANCE: 0 sq. ft. (width x length)

Description of Proposed Uses (please complete the following information as appropriate)

	Residential	***Commercial***	***Community Facility***	***Industrial/Manufacturing***
Size (in gross sq. ft.)	112,257 SF	-11,854 SF	3,115 SF	None
Type (*e.g.,* retail, office, school)	110 units	retail stores	medical offices	None

Does the proposed project increase the population of residents and/or on-side workers? ☒ YES ☐ NO
If "yes," please specify: NUMBER OF ADDITIONAL RESIDENTS: 308 NUMBER OF ADDITIONAL WORKERS: -24
Provide a brief explanation of how these numbers were determined: 308 residents (avg HH size of CTs within 1/4 mile [CTs 445, 447, 449, 453, 535, 539, 595]= 2.80 residents/DU); 44 workers (3/1,000 SF retail + 1/450 SF medical + .04/DU)

Does the proposed project create new open space? ☐ YES ☒ NO If "yes," specify size of project-created open space: sq. ft.

Has a No-Action scenario been defined for this project that differs from the existing condition? ☒ YES ☐ NO
If "yes," see Chapter 2, "Establishing the Analysis Framework" and describe briefly: Absent the action, the sponsor owned Block 3395, Lot 16 would be developed with a one-story, approximately 19,945 square foot commercial building. Approximately 66 at–grade parking spaces would be provided at a ratio of one space per three hundred square feet of floor area for a general retail or service use. Similarly, the sponsor owned Block 3377, Lot 84 would be developed with a one-story, approximately 3,135 square foot commercial building with approximately five at–grade parking spaces for a general retail or service use.

9. *Analysis Year* CEQR Technical Manual Chapter 2		
ANTICIPATED BUILD YEAR (date the project would be completed and operational): 2016		
ANTICIPATED PERIOD OF CONSTRUCTION IN MONTHS: 12 months		
WOULD THE PROJECT BE IMPLEMENTED IN A SINGLE PHASE? ☒ YES ☐ NO		IF MULTIPLE PHASES, HOW MANY?
BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE:		
10. *Predominant Land Use in the Vicinity of the Project* (check all that apply) ☒ RESIDENTIAL ☐ MANUFACTURING ☒ COMMERCIAL ☐ PARK/FOREST/OPEN SPACE ☐ OTHER, specify:		

Part II: TECHNICAL ANALYSIS

INSTRUCTIONS: For each of the analysis categories listed in this section, assess the proposed project's impacts based on the thresholds and criteria presented in the CEQR Technical Manual. Check each box that applies.

- If the proposed project can be demonstrated not to meet or exceed the threshold, check the "no" box.
- If the proposed project will meet or exceed the threshold, or if this cannot be determined, check the "yes" box.
- For each "yes" response, provide additional analyses (and attach supporting information, if needed) based on guidance in the CEQR Technical Manual to determine whether the potential for significant impacts exists. Please note that a "yes" answer does not mean that an EIS must be prepared—it means that more information may be required for the lead agency to make a determination of significance.
- The lead agency, upon reviewing Part II, may require an applicant to provide additional information to support the Short EAS Form. For example, if a question is answered "no," an agency may request a short explanation for this response.

	YES	NO
1. *LAND USE, ZONING, AND PUBLIC POLICY*: CEQR Technical Manual Chapter 4		
(a) Would the proposed project result in a change in land use different from surrounding land uses?	☐	☒
(b) Would the proposed project result in a change in zoning different from surrounding zoning?	☒	☐
(c) Is there the potential to affect an applicable public policy?	☐	☒
(d) If "yes," to (a), (b), and/or (c), complete a preliminary assessment and attach.		
(e) Is the project a large, publicly sponsored project?	☐	☒
○ If "yes," complete a PlaNYC assessment and attach.		
(f) Is any part of the directly affected area within the City's Waterfront Revitalization Program boundaries?	☐	☒
○ If "yes," complete the Consistency Assessment Form.		
2. *SOCIOECONOMIC CONDITIONS*: CEQR Technical Manual Chapter 5		
(a) Would the proposed project:		
○ Generate a net increase of 200 or more residential units?	☐	☒
○ Generate a net increase of 200,000 or more square feet of commercial space?	☐	☒
○ Directly displace more than 500 residents?	☐	☒
○ Directly displace more than 100 employees?	☐	☒
○ Affect conditions in a specific industry?	☐	☒
3. *COMMUNITY FACILITIES*: CEQR Technical Manual Chapter 6		
(a) Direct Effects		
○ Would the project directly eliminate, displace, or alter public or publicly funded community facilities such as educational facilities, libraries, hospitals and other health care facilities, day care centers, police stations, or fire stations?	☐	☒
(b) Indirect Effects		
○ **Child Care Centers:** Would the project result in 20 or more eligible children under age 6, based on the number of low or low/moderate income residential units? (See Table 6-1 in Chapter 6)	☐	☒
○ **Libraries:** Would the project result in a 5 percent or more increase in the ratio of residential units to library branches? (See Table 6-1 in Chapter 6)	☐	☒
○ **Public Schools:** Would the project result in 50 or more elementary or middle school students, or 150 or more high school students based on number of residential units? (See Table 6-1 in Chapter 6)	☐	☒
○ **Health Care Facilities and Fire/Police Protection:** Would the project result in the introduction of a sizeable new neighborhood?	☐	☒
4. *OPEN SPACE*: CEQR Technical Manual Chapter 7		
(a) Would the proposed project change or eliminate existing open space?	☐	☒
(b) Is the project located within an under-served area in the Bronx, Brooklyn, Manhattan, Queens, or Staten Island?	☒	☐
○ If "yes," would the proposed project generate more than 50 additional residents or 125 additional employees?	☒	☐
(c) Is the project located within a well-served area in the Bronx, Brooklyn, Manhattan, Queens, or Staten Island?	☐	☒
○ If "yes," would the proposed project generate more than 350 additional residents or 750 additional employees?	☐	☐
(d) If the project in located an area that is neither under-served nor well-served, would it generate more than 200 additional	☐	☒

	YES	NO
residents or 500 additional employees?		
5. *SHADOWS*: CEQR Technical Manual Chapter 8		
(a) Would the proposed project result in a net height increase of any structure of 50 feet or more?	☐	☒
(b) Would the proposed project result in any increase in structure height and be located adjacent to or across the street from a sunlight-sensitive resource?	☐	☒
6. *HISTORIC AND CULTURAL RESOURCES*: CEQR Technical Manual Chapter 9		
(a) Does the proposed project site or an adjacent site contain any architectural and/or archaeological resource that is eligible for or has been designated (or is calendared for consideration) as a New York City Landmark, Interior Landmark or Scenic Landmark; that is listed or eligible for listing on the New York State or National Register of Historic Places; or that is within a designated or eligible New York City, New York State or National Register Historic District? (See the GIS System for Archaeology and National Register to confirm)	☐	☒
(b) Would the proposed project involve construction resulting in in-ground disturbance to an area not previously excavated?	☒	☐
(c) If "yes" to either of the above, list any identified architectural and/or archaeological resources and attach supporting information on whether the proposed project would potentially affect any architectural or archeological resources.		
7. *URBAN DESIGN AND VISUAL RESOURCES*: CEQR Technical Manual Chapter 10		
(a) Would the proposed project introduce a new building, a new building height, or result in any substantial physical alteration to the streetscape or public space in the vicinity of the proposed project that is not currently allowed by existing zoning?	☒	☐
(b) Would the proposed project result in obstruction of publicly accessible views to visual resources not currently allowed by existing zoning?	☐	☒
8. *NATURAL RESOURCES*: CEQR Technical Manual Chapter 11		
(a) Does the proposed project site or a site adjacent to the project contain natural resources as defined in Section 100 of Chapter 11?	☐	☒
○ If "yes," list the resources and attach supporting information on whether the proposed project would affect any of these resources.		
(b) Is any part of the directly affected area within the Jamaica Bay Watershed?	☐	☒
○ If "yes," complete the Jamaica Bay Watershed Form, and submit according to its instructions.		
9. *HAZARDOUS MATERIALS*: CEQR Technical Manual Chapter 12		
(a) Would the proposed project allow commercial or residential uses in an area that is currently, or was historically, a manufacturing area that involved hazardous materials?	☒	☐
(b) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to hazardous materials that preclude the potential for significant adverse impacts?	☐	☒
(c) Would the project require soil disturbance in a manufacturing area or any development on or near a manufacturing area or existing/historic facilities listed in Appendix 1 (including nonconforming uses)?	☒	☐
(d) Would the project result in the development of a site where there is reason to suspect the presence of hazardous materials, contamination, illegal dumping or fill, or fill material of unknown origin?	☒	☐
(e) Would the project result in development on or near a site that has or had underground and/or aboveground storage tanks (*e.g.*, gas stations, oil storage facilities, heating oil storage)?	☒	☐
(f) Would the project result in renovation of interior existing space on a site with the potential for compromised air quality; vapor intrusion from either on-site or off-site sources; or the presence of asbestos, PCBs, mercury or lead-based paint?	☐	☒
(g) Would the project result in development on or near a site with potential hazardous materials issues such as government-listed voluntary cleanup/brownfield site, current or former power generation/transmission facilities, coal gasification or gas storage sites, railroad tracks or rights-of-way, or municipal incinerators?	☐	☒
(h) Has a Phase I Environmental Site Assessment been performed for the site?	☒	☐
○ If "yes," were Recognized Environmental Conditions (RECs) identified? Briefly identify: See attached narrative report.	☒	☐
10. *WATER AND SEWER INFRASTRUCTURE*: CEQR Technical Manual Chapter 13		
(a) Would the project result in water demand of more than one million gallons per day?	☐	☒
(b) If the proposed project located in a combined sewer area, would it result in at least 1,000 residential units or 250,000 square feet or more of commercial space in Manhattan, or at least 400 residential units or 150,000 square feet or more of commercial space in the Bronx, Brooklyn, Staten Island, or Queens?	☐	☒
(c) If the proposed project located in a separately sewered area, would it result in the same or greater development than the amounts listed in Table 13-1 in Chapter 13?	☐	☒
(d) Would the proposed project involve development on a site that is 5 acres or larger where the amount of impervious surface would increase?	☐	☒
(e) If the project is located within the Jamaica Bay Watershed or in certain specific drainage areas, including Bronx River, Coney	☐	☒

	YES	NO
Island Creek, Flushing Bay and Creek, Gowanus Canal, Hutchinson River, Newtown Creek, or Westchester Creek, would it involve development on a site that is 1 acre or larger where the amount of impervious surface would increase?		
(f) Would the proposed project be located in an area that is partially sewered or currently unsewered?	☐	☒
(g) Is the project proposing an industrial facility or activity that would contribute industrial discharges to a Wastewater Treatment Plant and/or generate contaminated stormwater in a separate storm sewer system?	☐	☒
(h) Would the project involve construction of a new stormwater outfall that requires federal and/or state permits?	☐	☒
11. *SOLID WASTE AND SANITATION SERVICES*: CEQR Technical Manual Chapter 14		
(a) Using Table 14-1 in Chapter 14, the project's projected operational solid waste generation is estimated to be (pounds per week): 7,250 lbs.		
○ Would the proposed project have the potential to generate 100,000 pounds (50 tons) or more of solid waste per week?	☐	☒
(b) Would the proposed project involve a reduction in capacity at a solid waste management facility used for refuse or recyclables generated within the City?	☐	☒
12. *ENERGY*: CEQR Technical Manual Chapter 15		
(a) Using energy modeling or Table 15-1 in Chapter 15, the project's projected energy use is estimated to be (annual BTUs): 16,065,306		
(b) Would the proposed project affect the transmission or generation of energy?	☐	☒
13. *TRANSPORTATION*: CEQR Technical Manual Chapter 16		
(a) Would the proposed project exceed any threshold identified in Table 16-1 in Chapter 16?	☐	☒
(b) If "yes," conduct the screening analyses, attach appropriate back up data as needed for each stage and answer the following questions:		
○ Would the proposed project result in 50 or more Passenger Car Equivalents (PCEs) per project peak hour?	☐	☐
If "yes," would the proposed project result in 50 or more vehicle trips per project peak hour at any given intersection? ***It should be noted that the lead agency may require further analysis of intersections of concern even when a project generates fewer than 50 vehicles in the peak hour. See Subsection 313 of Chapter 16 for more information.*	☐	☐
○ Would the proposed project result in more than 200 subway/rail or bus trips per project peak hour?	☐	☐
If "yes," would the proposed project result, per project peak hour, in 50 or more bus trips on a single line (in one direction) or 200 subway trips per station or line?	☐	☐
○ Would the proposed project result in more than 200 pedestrian trips per project peak hour?	☐	☐
If "yes," would the proposed project result in more than 200 pedestrian trips per project peak hour to any given pedestrian or transit element, crosswalk, subway stair, or bus stop?	☐	☐
14. *AIR QUALITY*: CEQR Technical Manual Chapter 17		
(a) *Mobile Sources*: Would the proposed project result in the conditions outlined in Section 210 in Chapter 17?	☒	☐
(b) *Stationary Sources*: Would the proposed project result in the conditions outlined in Section 220 in Chapter 17?	☒	☐
○ If "yes," would the proposed project exceed the thresholds in Figure 17-3, Stationary Source Screen Graph in Chapter 17? (Attach graph as needed)	☐	☒
(c) Does the proposed project involve multiple buildings on the project site?	☒	☐
(d) Does the proposed project require federal approvals, support, licensing, or permits subject to conformity requirements?	☐	☒
(e) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to air quality that preclude the potential for significant adverse impacts?	☐	☒
15. *GREENHOUSE GAS EMISSIONS*: CEQR Technical Manual Chapter 18		
(a) Is the proposed project a city capital project or a power generation plant?	☐	☒
(b) Would the proposed project fundamentally change the City's solid waste management system?	☐	☒
(c) If "yes" to any of the above, would the project require a GHG emissions assessment based on the guidance in Chapter 18?	☐	☐
16. *NOISE*: CEQR Technical Manual Chapter 19		
(a) Would the proposed project generate or reroute vehicular traffic?	☒	☐
(b) Would the proposed project introduce new or additional receptors (see Section 124 in Chapter 19) near heavily trafficked roadways, within one horizontal mile of an existing or proposed flight path, or within 1,500 feet of an existing or proposed rail line with a direct line of site to that rail line?	☐	☒
(c) Would the proposed project cause a stationary noise source to operate within 1,500 feet of a receptor with a direct line of sight to that receptor or introduce receptors into an area with high ambient stationary noise?	☐	☒
(d) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to noise that preclude the potential for significant adverse impacts?	☐	☒

	YES	NO
17. *PUBLIC HEALTH*: CEQR Technical Manual Chapter 20		
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Air Quality; Hazardous Materials; Noise?	☐	☒
(b) If "yes," explain why an assessment of public health is or is not warranted based on the guidance in Chapter 20, "Public Health." Attach a preliminary analysis, if necessary.		
18. *NEIGHBORHOOD CHARACTER*: CEQR Technical Manual Chapter 21		
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Land Use, Zoning, and Public Policy; Socioeconomic Conditions; Open Space; Historic and Cultural Resources; Urban Design and Visual Resources; Shadows; Transportation; Noise?	☐	☒
(b) If "yes," explain why an assessment of neighborhood character is or is not warranted based on the guidance in Chapter 21, "Neighborhood Character." Attach a preliminary analysis, if necessary.		
19. *CONSTRUCTION*: CEQR Technical Manual Chapter 22		
(a) Would the project's construction activities involve:		
o Construction activities lasting longer than two years?	☐	☒
o Construction activities within a Central Business District or along an arterial highway or major thoroughfare?	☐	☒
o Closing, narrowing, or otherwise impeding traffic, transit, or pedestrian elements (roadways, parking spaces, bicycle routes, sidewalks, crosswalks, corners, *etc.*)?	☒	☐
o Construction of multiple buildings where there is a potential for on-site receptors on buildings completed before the final build-out?	☒	☐
o The operation of several pieces of diesel equipment in a single location at peak construction?	☐	☒
o Closure of a community facility or disruption in its services?	☐	☒
o Activities within 400 feet of a historic or cultural resource?	☒	☐
o Disturbance of a site containing or adjacent to a site containing natural resources?	☐	☒
o Construction on multiple development sites in the same geographic area, such that there is the potential for several construction timelines to overlap or last for more than two years overall?	☒	☐
(b) If any boxes are checked "yes," explain why a preliminary construction assessment is or is not warranted based on the guidance in Chapter 22, "Construction." It should be noted that the nature and extent of any commitment to use the Best Available Technology for construction equipment or Best Management Practices for construction activities should be considered when making this determination. See attached narrative report.		

20. *APPLICANT'S CERTIFICATION*

I swear or affirm under oath and subject to the penalties for perjury that the information provided in this Environmental Assessment Statement (EAS) is true and accurate to the best of my knowledge and belief, based upon my personal knowledge and familiarity with the information described herein and after examination of the pertinent books and records and/or after inquiry of persons who have personal knowledge of such information or who have examined pertinent books and records.

Still under oath, I further swear or affirm that I make this statement in my capacity as the applicant or representative of the entity that seeks the permits, approvals, funding, or other governmental action(s) described in this EAS.

APPLICANT/REPRESENTATIVE NAME	DATE
Hiram A. Rothkrug, EPDSCO	2/14/14
SIGNATURE	

PLEASE NOTE THAT APPLICANTS MAY BE REQUIRED TO SUBSTANTIATE RESPONSES IN THIS FORM AT THE DISCRETION OF THE LEAD AGENCY SO THAT IT MAY SUPPORT ITS DETERMINATION OF SIGNIFICANCE.

Part III: DETERMINATION OF SIGNIFICANCE (To Be Completed by Lead Agency)

INSTRUCTIONS: In completing Part III, the lead agency should consult 6 NYCRR 617.7 and 43 RCNY § 6-06 (Executive Order 91 or 1977, as amended), which contain the State and City criteria for determining significance.

1. For each of the impact categories listed below, consider whether the project may have a significant adverse effect on the environment, taking into account its (a) location; (b) probability of occurring; (c) duration; (d) irreversibility; (e) geographic scope; and (f) magnitude.

IMPACT CATEGORY	Potentially Significant Adverse Impact YES	NO
Land Use, Zoning, and Public Policy	☐	☒
Socioeconomic Conditions	☐	☒
Community Facilities and Services	☐	☒
Open Space	☐	☒
Shadows	☐	☒
Historic and Cultural Resources	☐	☒
Urban Design/Visual Resources	☐	☒
Natural Resources	☐	☒
Hazardous Materials	☐	☒
Water and Sewer Infrastructure	☐	☒
Solid Waste and Sanitation Services	☐	☒
Energy	☐	☒
Transportation	☐	☒
Air Quality	☐	☒
Greenhouse Gas Emissions	☐	☒
Noise	☐	☒
Public Health	☐	☒
Neighborhood Character	☐	☒
Construction	☐	☒

2. Are there any aspects of the project relevant to the determination of whether the project may have a significant impact on the environment, such as combined or cumulative impacts, that were not fully covered by other responses and supporting materials? ☐ YES ☒ NO

If there are such impacts, attach an explanation stating whether, as a result of them, the project may have a significant impact on the environment.

3. Check determination to be issued by the lead agency:

☐ **Positive Declaration**: If the lead agency has determined that the project may have a significant impact on the environment, and if a Conditional Negative Declaration is not appropriate, then the lead agency issues a *Positive Declaration* and prepares a draft Scope of Work for the Environmental Impact Statement (EIS).

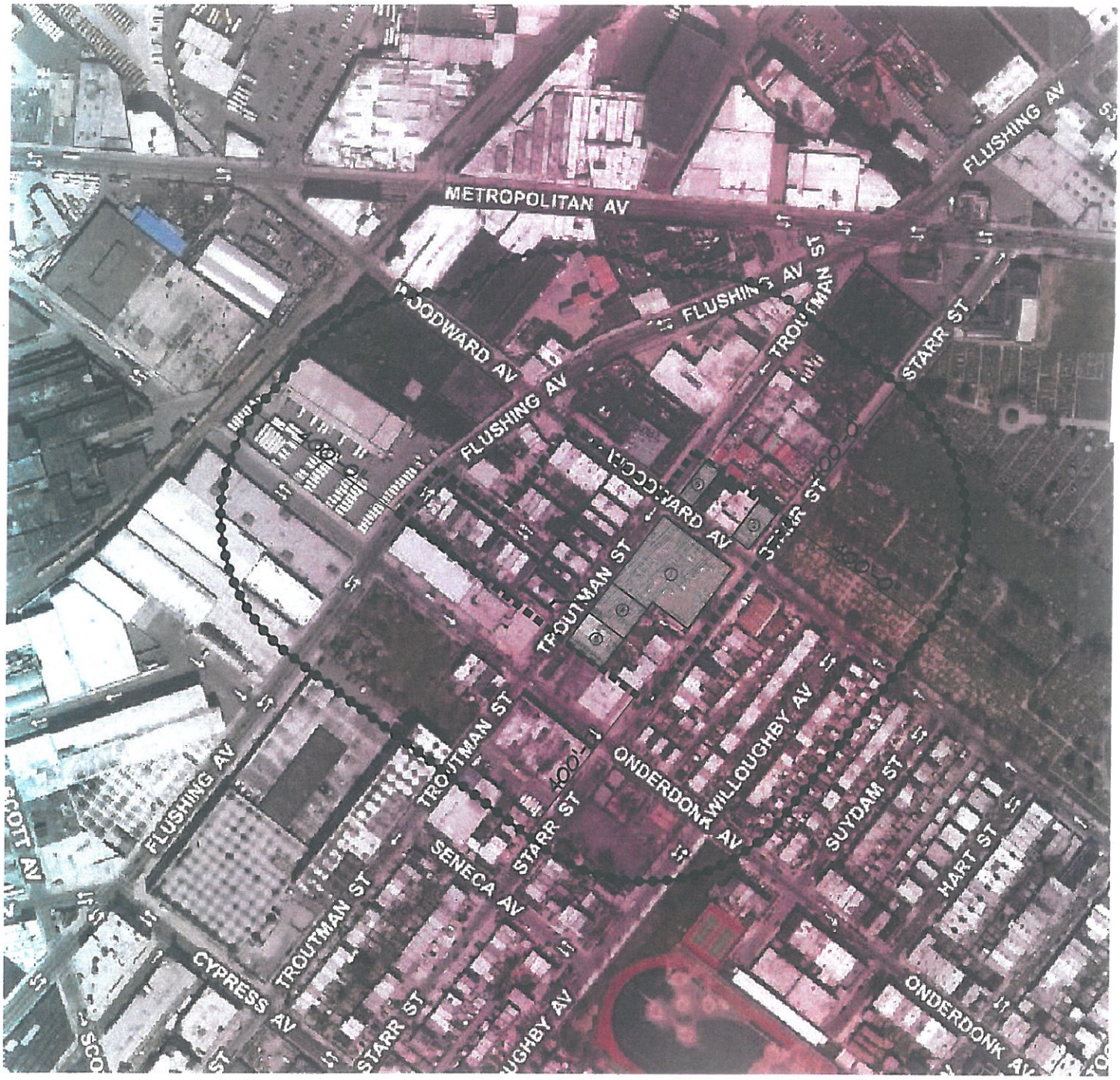
☐ **Conditional Negative Declaration:** A *Conditional Negative Declaration* (CND) may be appropriate if there is a private applicant for an Unlisted action AND when conditions imposed by the lead agency will modify the proposed project so that no significant adverse environmental impacts would result. The CND is prepared as a separate document and is subject to the requirements of 6 NYCRR Part 617.

☒ **Negative Declaration:** If the lead agency has determined that the project would not result in potentially significant adverse environmental impacts, then the lead agency issues a *Negative Declaration*. The *Negative Declaration* may be prepared as a separate document (see template) or using the embedded Negative Declaration on the next page.

4. ***LEAD AGENCY'S CERTIFICATION***

TITLE	LEAD AGENCY
Deputy Director	NYC Department of City Planning
NAME	DATE
Celeste Evans	2/14/2014
SIGNATURE	

WOODWARD AVE.
REZONING - STUDY AREA



LEGEND

- PROPOSED DEVELOPMENT SITES
- 400'-0" FOOT RADIUS
- PROPOSED REZONING AREA
- (1) DEVELOPMENT SITE NUMBER

FOR ILLUSTRATIVE PURPOSES ONLY

FIGURE 1, SITE LOCATION

FIGURE 2-TAX MAP

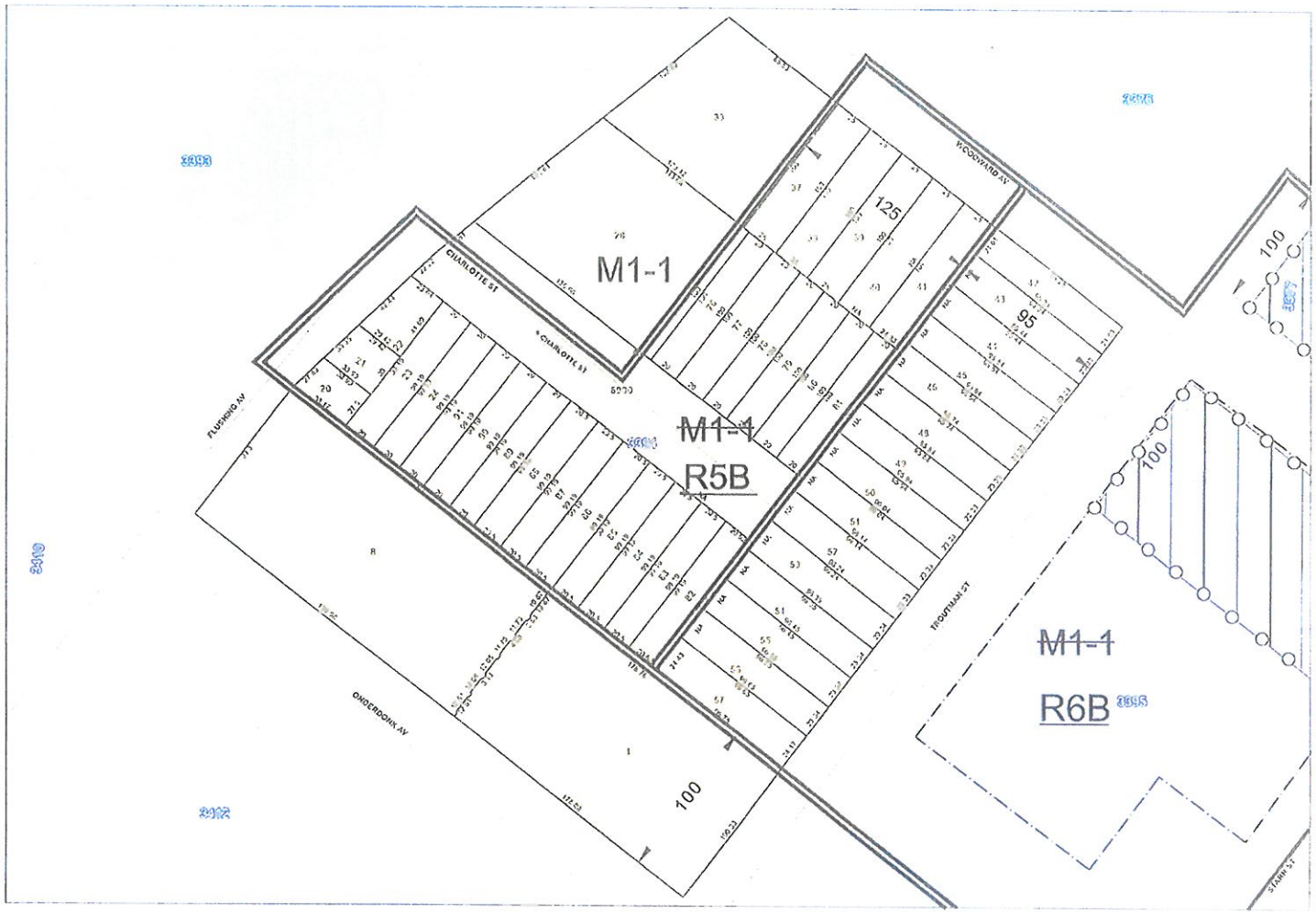


FIGURE 2a-TAX MAP

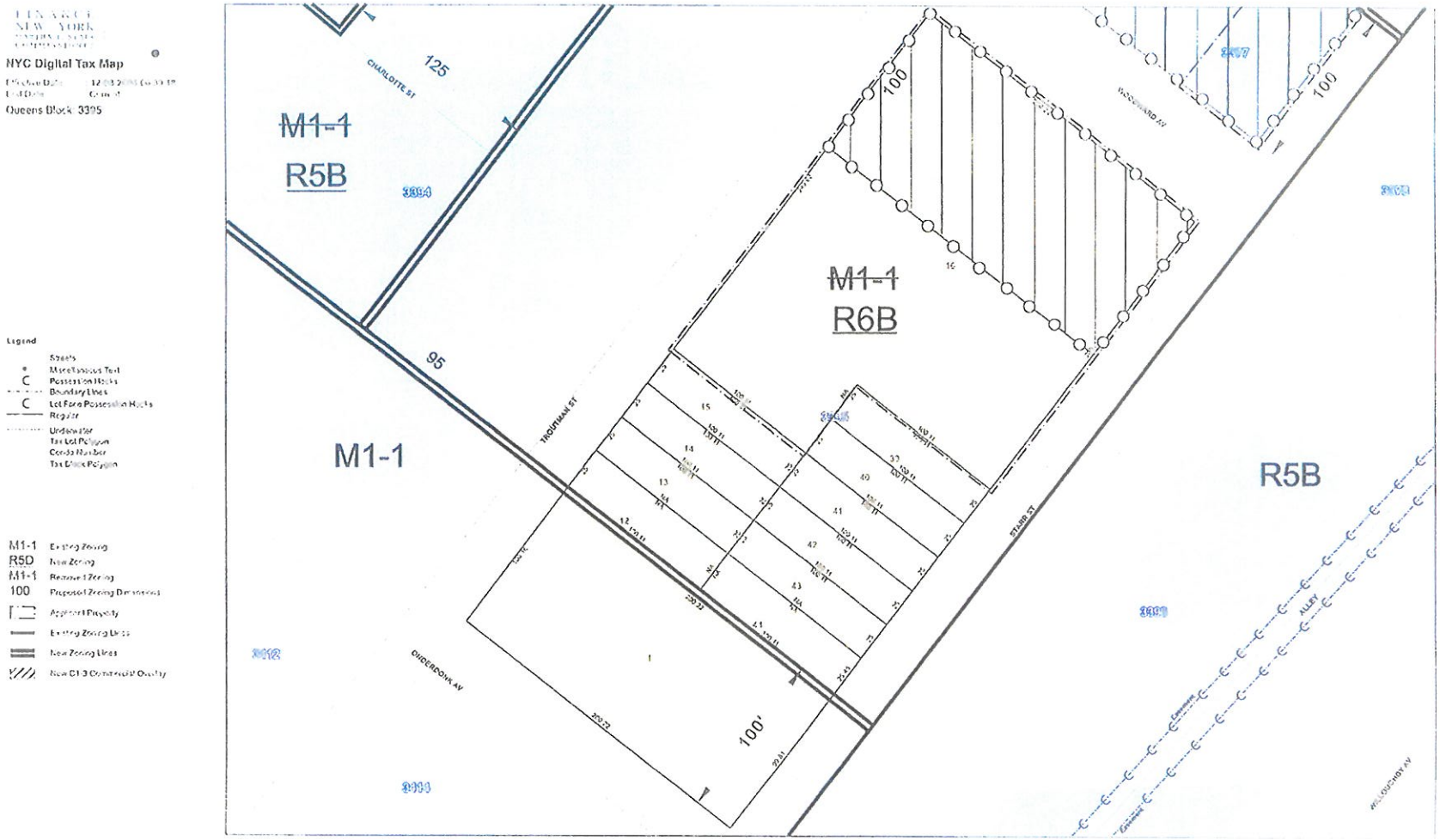
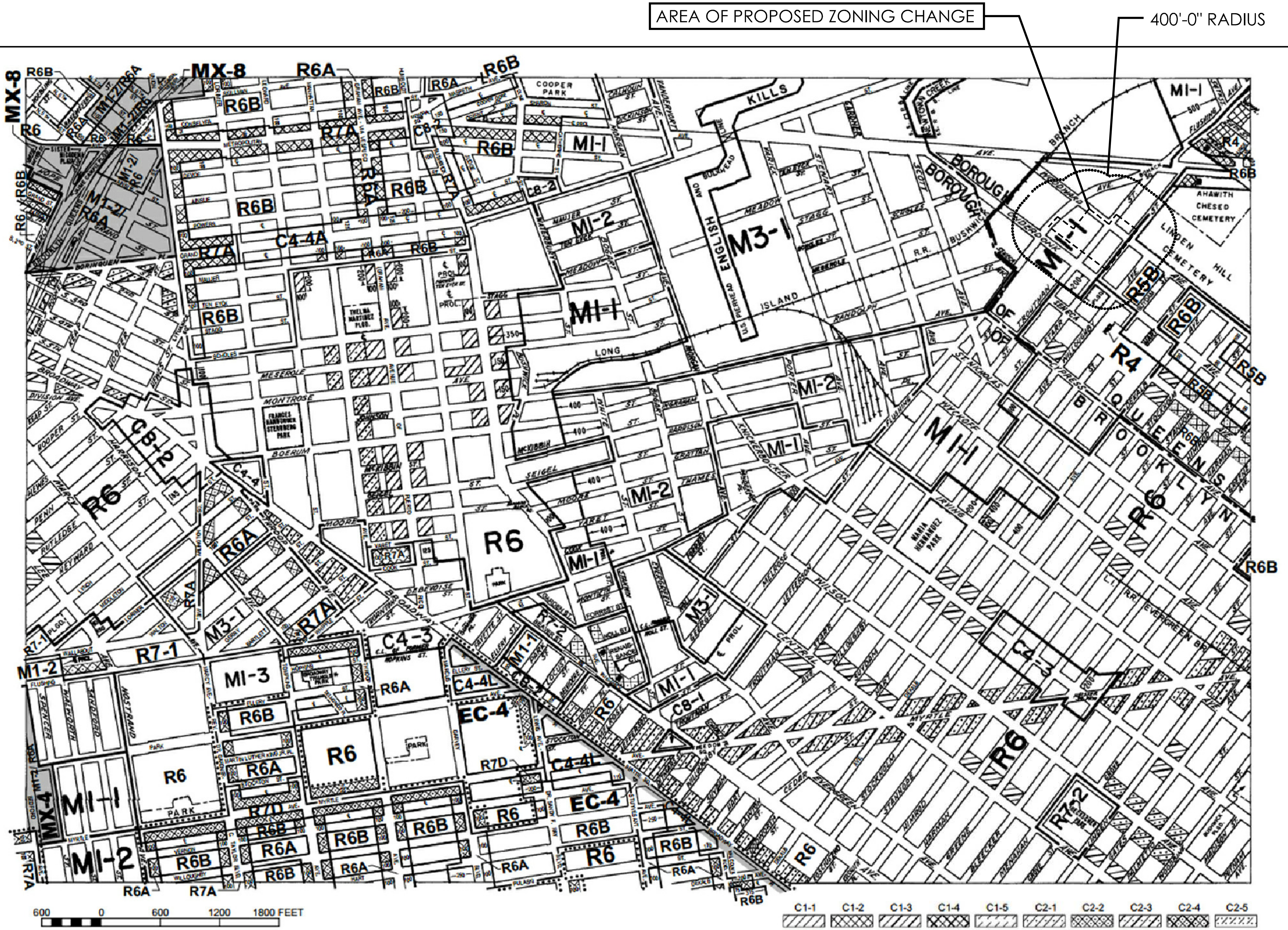


FIGURE 2b-TAX MAP



NOTE: Where no dimensions for zoning district boundaries appear on the zoning maps, such dimensions are determined in Article VII, Chapter 6 (Location of District Boundaries) of the Zoning Resolution.

ZONING MAP

THE NEW YORK CITY PLANNING COMMISSION

Major Zoning Classifications:

The number(s) and/or letter(s) that follows an R, C or M District designation indicates use, bulk and other controls as described in the text of the Zoning Resolution.

R – RESIDENTIAL DISTRICT

C – COMMERCIAL DISTRICT

M – MANUFACTURING DISTRICT

SPECIAL PURPOSE DISTRICT
The letter(s) within the shaded area designates the special purpose district as described in the text of the Zoning Resolution.

AREA(S) REZONED

Effective Date(s) of Rezoning:

10-11-2012 C 120294 ZMK

Special Requirements:

For a list of lots subject to CEQR environmental requirements, see APPENDIX C.

For a list of lots subject to "D" restrictive declarations, see APPENDIX D.

For Inclusionary Housing designated areas on this map, see APPENDIX F.

MAP KEY

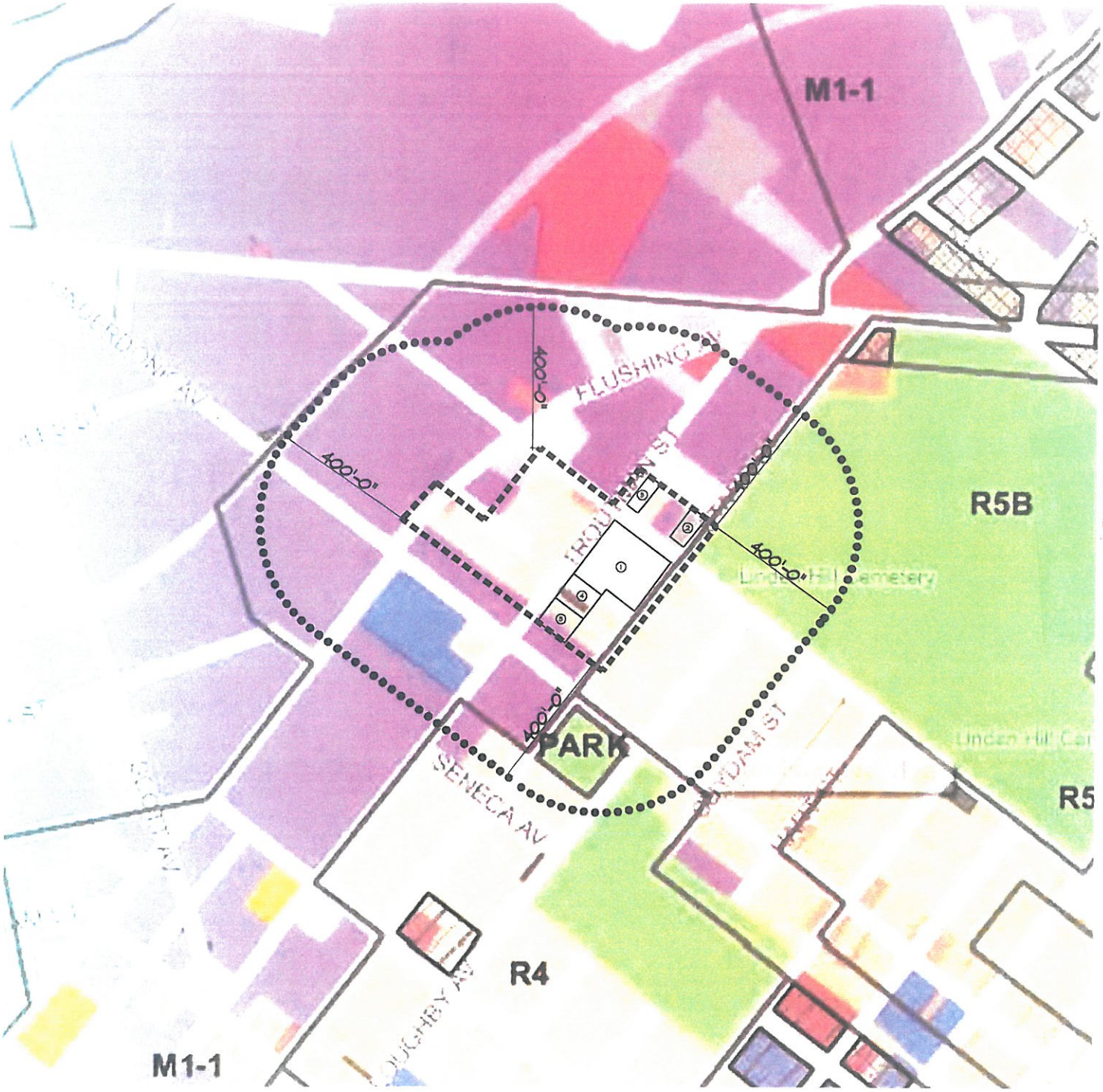
12c	13a	13c
12d	**13b**	13d
16c	17a	17c

N

ZONING MAP **13b**

NOTE: Zoning information as shown on this map is subject to change. For the most up-to-date zoning information for this map, visit the Zoning section of the Department of City Planning website: www.nyc.gov/planning or contact the Zoning Information Desk at (212) 720-3291.

FIGURE 4, LAND USE RADIUS MAP



Primary Land Use

- One & Two Family Residence
- Multi-Family Residence (Walkup)
- Multi-Family Residence (Elevator)
- Mixed Residential & Commercial
- Commercial Use
- Industrial / Manufacturing
- Transportation / Utility
- Public Facilities and Institutions
- Open Space & Recreation
- Parking
- Vacant Land

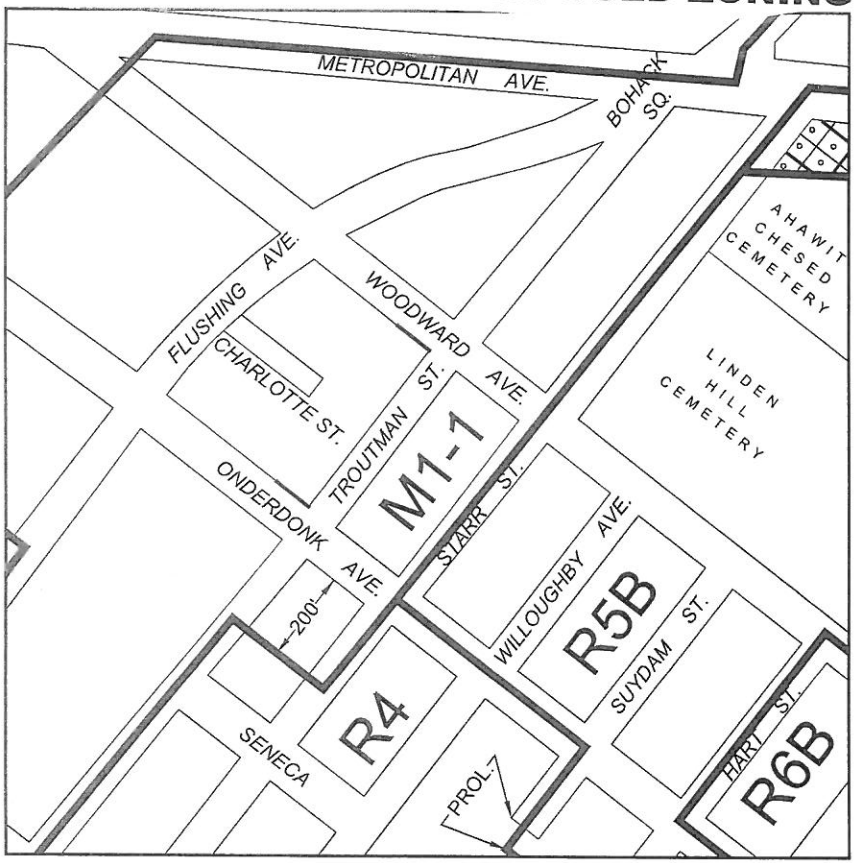
WOODWARD AVE.
LAND USE MAP

LEGEND

- PROPOSED DEVELOPMENT SITES
- 400'-0" FOOT RADIUS
- PROPOSED REZONING AREA
- (1) DEVELOPMENT SITE NUMBER

FOR ILLUSTRATIVE PURPOSES ONLY

FIGURE 5, CURRENT/PROPOSED ZONING

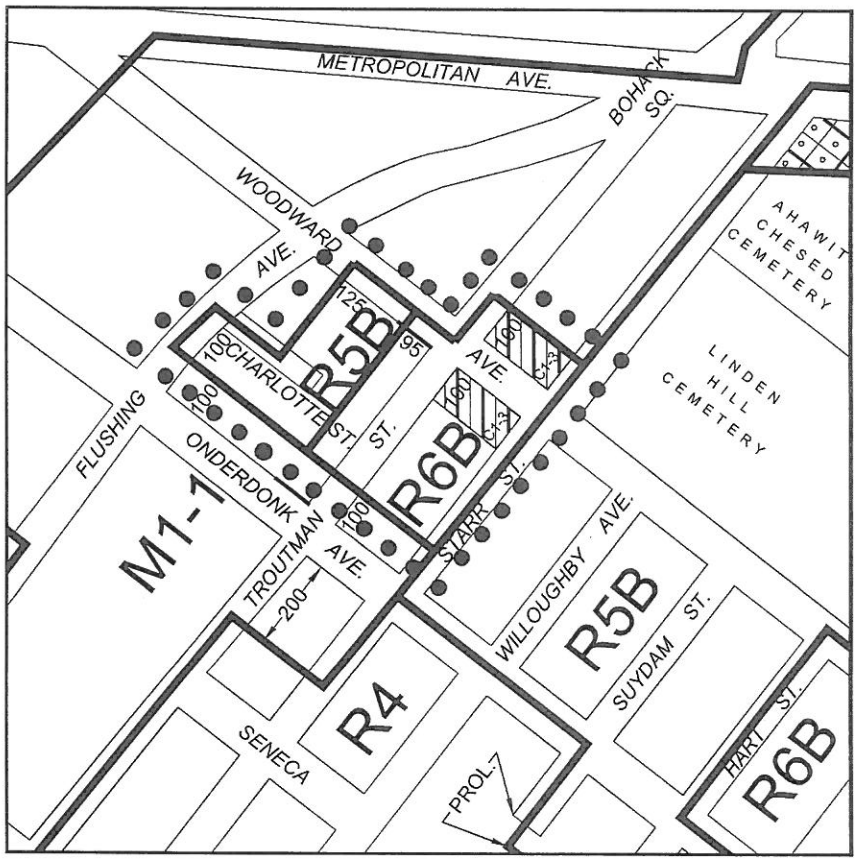


CURRENT ZONING MAP

C1-1 C1-2 C1-3 C1-4 C1-5 C2-1 C2-2 C2-3 C2-4 C2-5

NOTE: Where no dimensions for zoning district boundaries appear on the zoning maps, such dimensions are determined in Article VII, Chapter 6 (Location of District Boundaries) of the Zoning Resolution.

CURRENT / PROPOSED ZONING



PROPOSED ZONING MAP

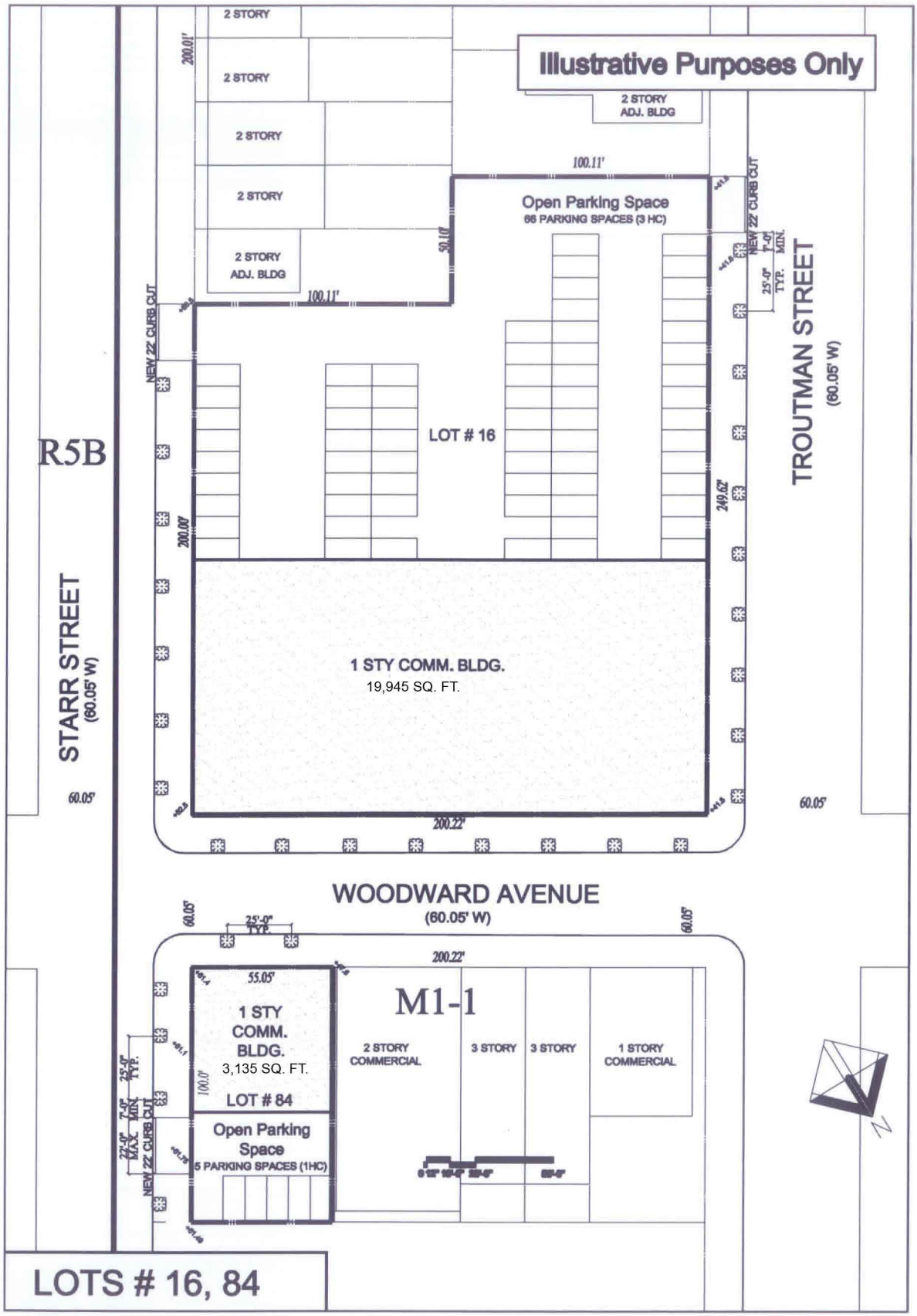
Area to be rezoned is outlined with dotted lines

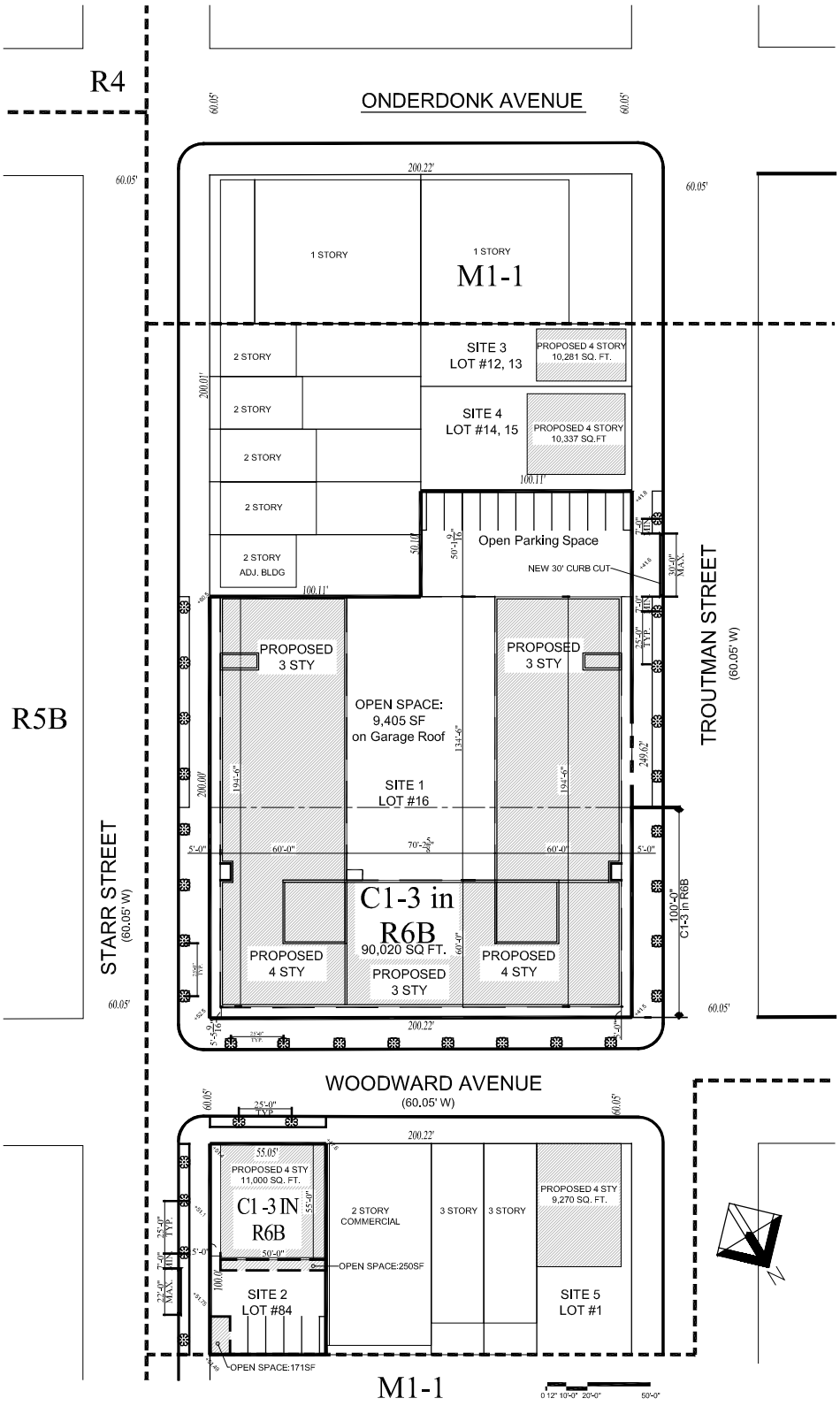
Proposed change of an M1-1 district to an R6B/C1-3 and M1-1 district to an R5B

N

FOR ILLUSTRATIVE PURPOSES ONLY

FIGURE 6-CONFORMING CONDITIONS PLAN





SITE PLAN

LEGEND

- STREET TREE
- PROPOSED BUILDING
- ZONING DISTRICT BOUNDARY
- PROPOSED COMMERCIAL OVERLAY

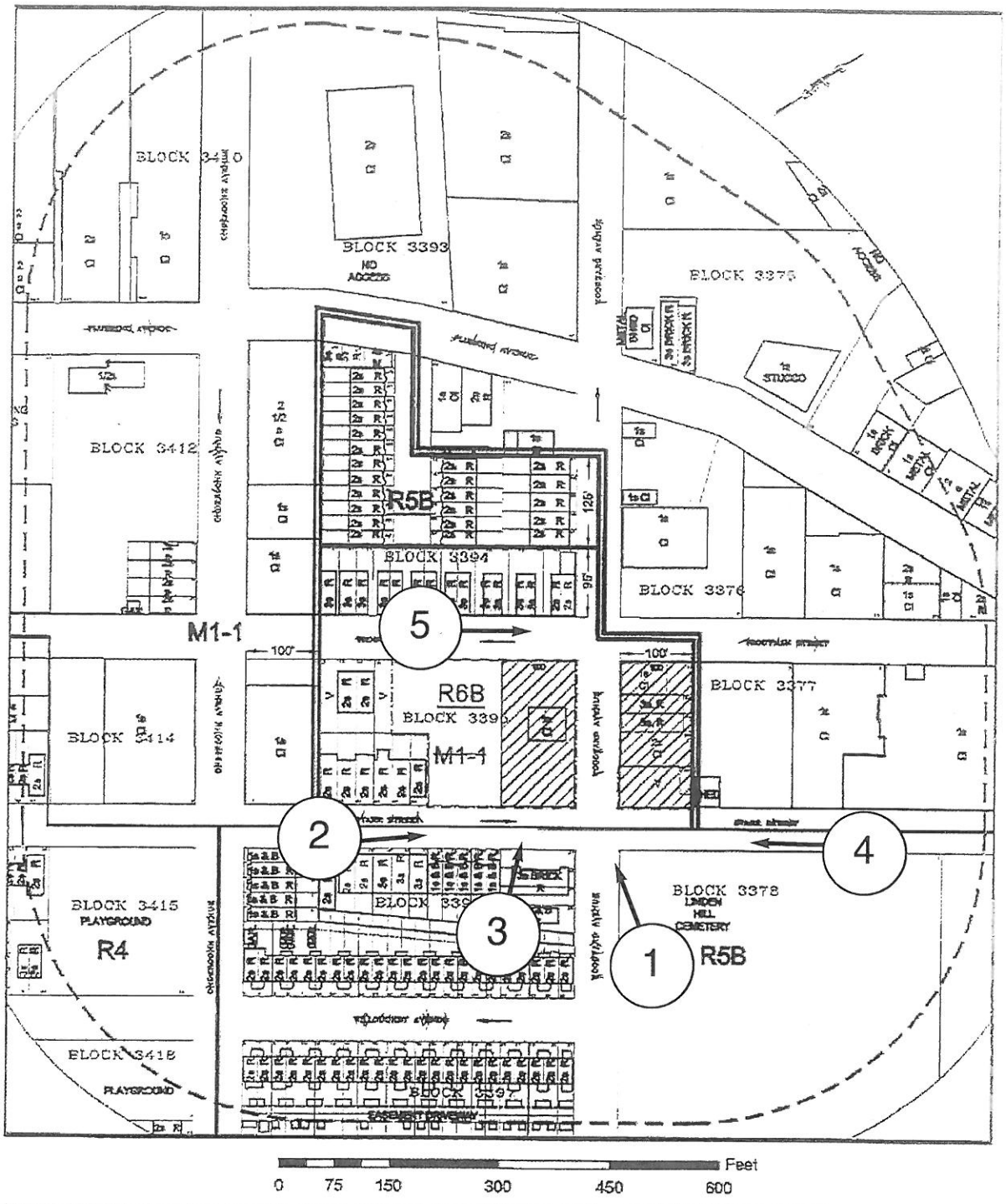
FOR ILLUSTRATIVE PURPOSES ONLY

PROPOSED SITE 1 RENDERING

FOR ILLUSTRATIVE PURPOSES ONLY

PHOTOGRAPHS

FIGURE 8-PHOTOGRAPHS



M1-1	Existing Zoning		400-foot Radius	**Key to Land use Codes**	
~~M1-1~~	Removed Zoning		Removed Zoning	R	Residential
R5D	New Zoning		New C1-3 Commercial Overlay	M	Mixed Commercial/Residential
3376	Tax Block		Existing Zoning Lines	Ci	Comemrcial/Industrial/ Manufacturing
←	Street Direction Arrow		New Zoning Lines	T	Transportion*/Utility
2s	Number of Stories		Building Footprints	Pb	Public Facilities & Institutions
100	Proposed Zoning Dimensions		Tax Blocks/Lots	O	Opne Space/Park
				Pk	Parking Failities
				V	Vacant Land


1
STARR ST
ONE WAY
Site #2
Site #1
Woodward Avenue
Starr Street
N


2
Site #1
Starr Street
N


3
FOR RENT
TRUCKS
PARKING
SPACE
AVAILABLE
INQUIRE WITHIN
(516) 817-2313
ONE WAY
Site #1
Site #2
SPACE
FOR RENT
TRUCK PARKING
ROLL OFF CONTAINERS
CONSTRUCTION COMPANIES
516-817-2313
Woodward Avenue
Starr Street
N


4
Site #1
Site #2
Starr Street
N


5
Site #5
Site #1
Troutman Street
N

ENVIRONMENTAL ASSESSMENT STATEMENT

INTRODUCTION

Based on the analysis and the screens contained in the Environmental Assessment Statement Short Form, the analysis areas that require further explanation include land use, zoning, and public policy, open space, urban design, hazardous materials, transportation, air quality, noise, and construction as further detailed below. The subject heading numbers below correlate with the relevant chapters of the *CEQR Technical Manual*.

4. LAND USE, ZONING, AND PUBLIC POLICY

INTRODUCTION

The analysis of land use, zoning, and public policy characterizes the existing conditions of the project site and the surrounding study area; anticipates and evaluates those changes in land use, zoning, and public policy that are expected to occur independently of the proposed Woodward Avenue Rezoning project; and identifies and addresses any potential impacts related to land use, zoning, and public policy resulting from the proposed project.

In order to assess the potential for project related impacts, the land use study area has been defined as the area located within a 400-foot radius of the area to be rezoned, which is the area within which the Woodward Avenue Rezoning project has the potential to affect land use or land use trends. The 400-foot radius study area is generally bounded by Suydam Street on the east, an area to the west of Flushing Avenue on the west, Flushing Avenue, Bohack Square, and Linden Hill Cemetery on the north, and Seneca Avenue on the south. Various sources have been used to prepare a comprehensive analysis of land use, zoning and public policy characteristics of the area, including field surveys, studies of the neighborhood, census data, and land use and zoning maps.

Site Description

The proposed rezoning area is located in an area roughly bounded by Woodward, Onderdonk, and Flushing Avenues and Starr Street. It includes all of Block 3395 with the exception of the 100-foot deep frontage of the block along Onderdonk Avenue; all of Block 3394 with the exception of the 100-foot deep frontage of the block along Onderdonk Avenue and two parcels[1] proceeding south from Woodward Avenue along Flushing Avenue; and the southerly 100 feet of Block 3377 fronting on Woodward Avenue in the Ridgewood neighborhood of Queens. The area to be rezoned consists of Tax Block 3377, Lots 1, 84, 86, 90, 92; Block 3394, Lots 20-24, 28 (partial), 37-46, 48-57, 76-91; and Block 3395, Lots 12-16, 39-44, and totals approximately 175,733 square feet in land area. The rezoning area is developed with the uses listed in Table 4-1 below.

[1] A very narrow portion of lot 28, approximately 1.75 feet wide and approximately 175 square feet in area, is located in the Rezoning Area.

Table 4-1

Woodward Avenue Rezoning

Existing Development/M1-1 Zone

Block/Lot #	Lot SF	Exstg. Resid SF/No. of DUs	Exstg. Com'l SF (Retail, Office)	Exstg. Manuf/Storage SF	Built FAR
Block 3395					
12	2,500	0	0	0	0
13	2,523	2,200/4	0	0	0.87
14	2,523	1,910/2	0	0	0.76
15	2,523	0	0	0	0
16[2]	**45,010**	**0**	**0**	**0**	**0**
39	2,523	1,504/2	0	0	0.60
40	2,523	2,250/3	0	0	0.89
41	2,523	2,250/4	0	0	0.89
42	2,523	2,200/2	0	0	0.87
43	2,523	2,462/2	0	0	0.98
44	2,557	2,800/4	0	0	1.10
Block 3394					
20	1,054	3,237/3	0	0	3.07
21	1,021	2,610/3	0	0	2.56
22	1,242	1,738/2	1,738	0	2.80
23	1,982	2,000/2	0	0	1.0
24	1,982	2,000/2	0	0	1.0
28 (partial)	175	0	0	0	0
37	2,500	3,000/4	0	0	1.2
38	2,500	3,000/4	0	0	1.2
39	2,500	3,000/4	0	0	1.2
40	2,500	3,000/4	0	0	1.2
41	2,500	3,000/4	0	0	1.2
42	2,062	3,684/5	1,842	0	2.68
43	2,215	4,720/6	0	0	2.13
44	2,217	4,720/6	0	0	2.13
45	2,217	4,720/6	0	0	2.13
46	2,220	4,720/6	0	0	2.13
48	2,224	4,720/6	0	0	2.12
49	2,226	4,720/6	0	0	2.12
50	2,232	4,720/6	0	0	2.11
51	2,234	4,720/6	0	0	2.11
52	2,236	4,720/6	0	0	2.11

[2] Owned by Applicant.

53	2,236	4,720/6	0	0	2.11
54	2,240	4,720/6	0	0	2.11
55	2,242	4,720/6	0	0	2.11
56	2,244	4,720/6	0	0	2.10
57	2,326	4,720/6	0	0	2.03
76	2,000	2,000/2	0	0	1.0
77	2,000	2,000/2	0	0	1.0
78	2,000	2,000/2	0	0	1.0
79	2,000	2,000/2	0	0	1.0
80	2,000	2,000/2	0	0	1.0
81	2,000	2,000/2	0	0	1.0
82	2,031	2,000/2	0	0	0.98
83	2,023	2,000/2	0	0	0.99
84	2,023	2,000/2	0	0	0.99
85	2,023	2,000/2	0	0	0.99
86	2,023	2,000/2	0	0	0.99
87	2,023	2,000/2	0	0	0.99
88	2,023	2,000/2	0	0	0.99
89	1,982	2,000/2	0	0	1.0
90	1,982	2,000/2	0	0	1.0
91	1,982	2,000/2	0	0	1.0
Block 3377					
1	4,500	0	0	200	0.04
92	2,500	4,875/6	0	0	1.95
90	2,500	4,875/6	0	0	1.95
84[3]	**5,505**	**0**	**0**	**0**	**0**
86	5,000	0	1,500	4,835	1.15
58 lots	*175,733*	*132,275/188*	*5,080*	*5,035*	---

The Applicant's property proposed for development includes approximately one-half of Block 3395 (lot 16) bounded by the south side of Woodward Avenue between Troutman and Starr Streets, identified as Projected Development Site 1, and the northwest corner of Woodward Avenue and Starr Street on Block 3377 (lot 84), identified as Projected Development Site 2. The approximately 45,010 square foot Projected Development Site 1 is currently vacant of buildings with the exception of a prefabricated shed and is used for the storage of motor vehicles and as a contractor's yard. The approximately 5,505 square foot Projected Development Site 2 is vacant and is used as a contractor's yard.

There are three projected development sites not owned by the Applicant. These properties are considered to be projected development sites based on the soft site development criteria as under the proposed action these sites would be utilizing less than half the proposed permitted floor area ratio and would allow residential where it is currently prohibited.

[3] Owned by Applicant.

Projected Development Site 3 (Block 3395, Lots 12 & 13) and Projected Development Site 4 (Block 3395, Lots 14 & 15) each consist of one vacant, undeveloped lot and an adjoining lot developed with residential uses. Projected Development Site 3 is developed with approximately 2,200 square feet of residential floor area providing four (4) dwelling units. Projected Development Site 4 is developed with approximately 1,910 square feet of residential floor area providing two (2) dwelling units. The two lots on Projected Development Sites 3 and 4 are in common ownership and each Site exceeds 5,000 square feet in lot area. The 4,500 square foot Projected Development Site 5 (Block 3377, Lot 1) is underutilized as it is only developed with an approximately 200 square foot structure.

LAND USE

Existing Conditions

The area proposed to be rezoned includes Block 3377, Lots 1, 84, 86, 90, 92; Block 3394, Lots 20-24, 28 (partial), 37-46, 48-57, 76-91; and Block 3395, Lots 12-16, 39-44, totaling approximately 175,733 square feet in land area, and contains the uses and development listed in Table 4-1 above. The Applicant for the proposed rezoning owns 50,515 square feet of this area including Projected Development Site 1 - Block 3395, Lot 16 (45,010 square feet) and Projected Development Site 2 - Block 3377, Lot 84 (5,505 square feet). The majority of the rezoning area, which is zoned M1-1, is developed with small two- to three-story, two- to six-family residential buildings. It also contains a small retail store (delicatessen), a restaurant, a contractor's yard with a small accessory office building, a warehouse and accessory office structure, a small storage use, and a truck storage lot.

The 400-foot radius study area to the north and west of the rezoning area is primarily developed with a mixture of commercial, manufacturing, and automobile related uses. Blocks 3375, 3376, and the remainder of Block 3377 to the north of the rezoning area are developed with several automotive repair uses, small commercial and retail businesses, and several warehouses. Blocks 3410 and 3393 located further to the west contain a number of small manufacturing and warehouse operations. Most of the buildings on these blocks are one-story in height. The portion of Block 3394 excluded from the rezoning area contains an automotive service station, an automobile repair shop, a restaurant, a metal glazing operation, and a vacant lot.

The 400-foot radius study area to the south and east is primarily developed with residential and open space uses. Blocks 3396 and 3397 directly east of the rezoning area are entirely developed with residences which primarily consist of two-story, attached two-family dwellings. Block 3378 to the northeast is entirely occupied by Linden Hill Cemetery. Blocks 3415 and 3418 to the southeast contain a playground (Starr Playground) and an undeveloped open space area, respectively, extending along the Onderdonk Avenue frontages of these blocks. The remaining area of these blocks is primarily developed with two-story, one- and two-family dwellings. Blocks 3412 and 3414 to the south of the rezoning area contain a mixture of two-story, attached two-family dwellings, commercial and warehouse operations, and parking lots. Block 3412 also contains the NYC Landmarks Preservation Commission designated Adrian and Ann Wyckoff Onderdonk House. Lot 1 on Block 3395, which is the only lot on this block not included in the rezoning area, contains a one-story warehouse.

Future No-Action Scenario

The following Reasonable Worst Case Development Scenario (RWCDS) has been developed for the Future No-Action Condition. Absent the proposed action, the Applicant intends to develop Projected Development Site 1 with a one-story, approximately 19,945 gross square foot (gsf) commercial building. Approximately 66 at–grade parking spaces would be provided at a ratio of one space per three hundred square feet of floor area for a general retail or service use. Similarly, absent the proposed action, the Applicant intends to develop Projected Development Site 2 with a one-story, approximately 3,135 gsf commercial building with approximately five at–grade parking spaces for a general retail or service use. The total RWCDS on Projected Development Sites 1 and 2 would therefore total approximately 23,080 gsf of commercial floor area and 71 parking spaces. The anticipated use on each development site would be Use Group 6 local retail stores and services.

Based on the existing zoning of the proposed rezoning area and due to the significant level of development on most of the lots within the area, it is not likely that additional development would occur in the remainder of the rezoning area. Therefore, the existing buildings and uses on Block 3377, Lots 1, 86, 90, 92; Block 3394, Lots 20-24, 28, 37-46, 48-57, 76-91; and Block 3395, Lots 12-15, 39-44 would remain as they are currently, which include the following development on Projected Development Sites 3-5:

Projected Development Site 3 – Approximately 2,200 square feet of residential floor area providing four (4) dwelling units.

Projected Development Site 4 – Approximately 1,910 square feet of residential floor area providing two (2) dwelling units.

Projected Development Site 5 – Approximately 200 square feet of commercial floor area.

Surrounding land uses within the immediate study area are expected to remain largely unchanged by the project build year of 2016. Within the study area, the existing dwellings, the commercial, manufacturing, and retail uses, the warehouses, the auto related facilities, the cemetery, the playground, and the parking lots are expected to remain. There is some limited conversion of several existing warehouse/manufacturing buildings in the area to artist studios and commercial lofts, according to applications filed at the Department of Buildings. Otherwise, no new development on the few existing vacant lots or redevelopment of the existing commercial and warehouse buildings within the 400-foot study area would be anticipated to occur by 2016.

There has been little or no manufacturing development and limited new commercial construction in the study area in recent years. This trend is not expected to change between now and the project build year of 2016.

Future With-Action Scenario

The following RWCDS has been developed for the Future With-Action Condition. The proposed project consists of two development parcels, Projected Development Sites 1 and 2. The proposed rezoning from M1-1 to R5B, R6B, and C1-3/R6B would result in the removal of the existing contractor's and vehicle storage uses on the sponsor-owned area of the property

(Projected Development Sites 1 and 2) in order to allow for the construction of a new development.

Projected Development Site 1 is proposed to be developed with a four-story, 90,020 gsf building containing 80,198 gsf of residential floor area for 80 dwelling units, 3,115 gsf of ground floor community facility space, and 6,707 gsf of ground floor retail space. The development would contain 118 parking spaces including 11 open parking spaces and 107 spaces of cellar/sub-cellar parking in the building. Access to the parking would be provided from Troutman Street. In addition, approximately 9,405 square feet of common recreational space would be provided on the roof of the proposed building on Projected Development Site 1.

Projected Development Site 2 is proposed to be developed with a four-story, 11,000 gsf building containing eight dwelling units within 8,650 gsf of floor area (including a 400 gsf residential lobby) on floors two through four. The ground floor of the building would contain 2,350 gsf of retail floor area. The development on this site would contain five open parking spaces accessed from Starr Street. The proposed development on Projected Development Site 2 would also include approximately 421 square feet of landscaped open space on the lot.

The total RWCDS on Projected Development Sites 1 and 2 would therefore total approximately 101,020 gsf of floor area comprised of 88,848 gsf of residential floor area for 88 dwelling units, 9,057 gsf of retail space, 3,115 gsf of medical office space, and 123 accessory parking spaces. A total of approximately 9,826 square feet of private open space for the residents of the project would also be provided. The existing uses on Projected Development Sites 1 and 2 would be removed in order to facilitate the proposed development.

The remainder of the proposed area to be rezoned would not be physically affected by the subject action. The existing development on Block 3377, Lots 1, 86, 90, 92; Block 3394, Lots 20-24, 28, 37-46, 48-57, 76-91; and Block 3395, Lots 12-15, 39-44 including 188 dwelling units, a 4,835 square foot warehouse with a 1,500 square feet accessory office, a 1,842 square foot retail store (delicatessen), a 1,738 square foot restaurant, and a 200 square foot storage use would remain. The proposed R5B and R6B zoning would legalize the existing non-conforming residential uses. The existing commercial businesses that would remain in the rezoning area, including a delicatessen, a restaurant, and a warehouse and office use, would become legal non-conforming uses within the R5B and R6B zoning districts.

Based on the City's soft site development criteria, it has been determined that the proposed rezoning would facilitate the development of up to 25,778 gsf of floor area including approximately 22 dwelling units and 2,369 gsf of retail space on Projected Development Site 3, Projected Development Site 4, and Projected Development Site 5. Projected Development Site 3 and Projected Development Site 4 each consist of one vacant, undeveloped lot and an adjoining lot developed with residential uses. In addition, the two lots comprising Projected Development Site 3 and Projected Development Site 4 are in common ownership and when combined would have a lot area of 5,023 square feet and 5,046 square feet, respectively. The 4,500 square foot Lot 1 on Block 3377 (Projected Development Site 5) is underutilized as it is only developed with an approximately 200 square foot structure. Under the proposed action, these sites would be utilizing less than half the proposed permitted floor area ratio and would allow residential where it is currently prohibited. Finally, these lots are all located on the same blocks as the

proposed development project and are therefore considered to be more likely to be developed in the future.

The breakdown of development on each of the three non-Applicant owned Projected Development Sites follows below. The number of projected new dwelling units is based on an average unit size of approximately 1,000 gsf.

Projected Development Site 3 – Approximately 7,846 square feet of additional floor area providing eight (8) new dwelling units. Assuming building mechanical space at 3% of floor area would result in 8,081 gsf of additional floor area. Although parking is required for 50% of the dwelling units in the R6B zoning district, no parking would be required or provided as the requirement is waived if 5 or fewer spaces are required.

Projected Development Site 4 – Approximately 8,182 square feet of additional floor area providing eight (8) new dwelling units. Assuming building mechanical space at 3% of floor area would result in 8,427 gsf of additional floor area. Although parking is required for 50% of the dwelling units in the R6B zoning district, no parking would be required or provided as the requirement is waived if 5 or fewer spaces are required.

Projected Development Site 5 – Approximately 8,800 square feet of new floor area for a total of 9,000 square feet on the site. The existing 200 square foot storage structure would be demolished. Assuming building mechanical space at 3% of floor area would result in 9,270 gsf of floor area. The first floor would contain 2,369 gsf of commercial retail space plus a 412 gsf residential lobby for a total floor area of 2,781 gsf. The second through fourth floors would each contain 2,163 gsf of residential space totaling 6,489 gsf of residential floor area providing six (6) new dwelling units. Although the parking required for the proposed residential and retail uses would fall below the minimum required and could therefore be waived, five spaces would be provided as for Projected Development Site 2 discussed above.

The other lots within the proposed rezoning area would not be considered soft sites under the City's soft site criteria. The breakdown of the potential development by lot is presented in Table 4-2 below.

Table 4-2

Woodward Avenue Rezoning Soft Site Analysis[4]
M1-1 to R6B & C1-3/R6B (proposed FAR of 2.0) and R5B (proposed FAR of 1.35)

Block/Lot #	Lot SF	Exstg. Resid SF/DUs	Exstg. Comm'l SF	Exstg. Warehouse/ Strg SF	Built FAR	Potential New GSF	Potential Commercial GSF, DUs[5]	
Block 3395 – Proposed R6B & C1-3/R6B								
12 (Site 3)	**2,500**	**0**	**0**	**0**	**0**	**5,150**	**5 DUs**	
13 (Site 3)	**2,523**	**2,200/4**	**0**	**0**	**0.87**	**2,931**	**3 DUs**	
14 (Site 4)	**2,523**	**1,910/2**	**0**	**0**	**0.76**	**3,230**	**3 DUs**	
15 (Site 4)	**2,523**	**0**	**0**	**0**	**0**	**5,197**	**5 DUs**	
39	2,523	1,504/2	0	0	0.60	[3,542]	No Dvlpmnt	
40	2,523	2,250/3	0	0	0.89	[2,796]	No Dvlpmnt	
41	2,523	2,250/4	0	0	0.89	[2,796]	No Dvlpmnt	
42	2,523	2,200/2	0	0	0.87	[2,846]	No Dvlpmnt	
43	2,523	2,462/2	0	0	0.98	[2,584]	No Dvlpmnt	
44	2,557	2,800/4	0	0	1.10	0	No Dvlpmnt	
Block 3394 – Proposed R5B (Lots 20-24, 28 (partial), 37-46, 48-57, 76-91)								
20	1,054	3,237/3	0	0	3.07	0	No Dvlpmnt	
21	1,021	2,610/3	0	0	2.56	0	No Dvlpmnt	
22	1,242	1,738/2	1,738	0	2.80	0	No Dvlpmnt	
23	1,982	2,000/2	0	0	1.0	0	No Dvlpmnt	
24	1,982	2,000/2	0	0	1.0	0	No Dvlpmnt	
28(partial)	175	0	0	0	0	0	No Dvlpmnt	
37	2,500	3,000/4	0	0	1.2	0	No Dvlpmnt	
38	2,500	3,000/4	0	0	1.2	0	No Dvlpmnt	
39	2,500	3,000/4	0	0	1.2	0	No Dvlpmnt	
40	2,500	3,000/4	0	0	1.2	0	No Dvlpmnt	
41	2,500	3,000/4	0	0	1.2	0	No Dvlpmnt	
42	2,062	3,684/5	1,842	0	2.68	0	No Dvlpmnt	
43	2,215	4,720/6	0	0	2.13	0	No Dvlpmnt	
44	2,217	4,720/6	0	0	2.13	0	No Dvlpmnt	
45	2,217	4,720/6	0	0	2.13	0	No Dvlpmnt	
46	2,220	4,720/6	0	0	2.13	0	No Dvlpmnt	
48	2,224	4,720/6	0	0	2.12	0	No Dvlpmnt	
49	2,226	4,720/6	0	0	2.12	0	No Dvlpmnt	
50	2,232	4,720/6	0	0	2.11	0	No Dvlpmnt	
51	2,234	4,720/6	0	0	2.11	0	No Dvlpmnt	

[4] Does not include Block 3395, lot 16 or Block 3377, lot 84 as these lots are the proposed development sites.
[5] Based on DCP's soft site criteria. The number of potential new dwelling units is based on an average unit size of approximately 1,000 gsf.

52	2,236	4,720/6	0	0	2.11	0	No Dvlpmnt	
53	2,236	4,720/6	0	0	2.11	0	No Dvlpmnt	
54	2,240	4,720/6	0	0	2.11	0	No Dvlpmnt	
55	2,242	4,720/6	0	0	2.11	0	No Dvlpmnt	
56	2,244	4,720/6	0	0	2.10	0	No Dvlpmnt	
57	2,326	4,720/6	0	0	2.03	0	No Dvlpmnt	
76	2,000	2,000/2	0	0	1.0	0	No Dvlpmnt	
77	2,000	2,000/2	0	0	1.0	0	No Dvlpmnt	
78	2,000	2,000/2	0	0	1.0	0	No Dvlpmnt	
79	2,000	2,000/2	0	0	1.0	0	No Dvlpmnt	
80	2,000	2,000/2	0	0	1.0	0	No Dvlpmnt	
81	2,000	2,000/2	0	0	1.0	0	No Dvlpmnt	
82	2,031	2,000/2	0	0	0.98	0	No Dvlpmnt	
83	2,023	2,000/2	0	0	0.99	0	No Dvlpmnt	
84	2,023	2,000/2	0	0	0.99	0	No Dvlpmnt	
85	2,023	2,000/2	0	0	0.99	0	No Dvlpmnt	
86	2,023	2,000/2	0	0	0.99	0	No Dvlpmnt	
87	2,023	2,000/2	0	0	0.99	0	No Dvlpmnt	
88	2,023	2,000/2	0	0	0.99	0	No Dvlpmnt	
89	1,982	2,000/2	0	0	1.0	0	No Dvlpmnt	
90	1,982	2,000/2	0	0	1.0	0	No Dvlpmnt	
91	1,982	2,000/2	0	0	1.0	0	No Dvlpmnt	
Block 3377 – Proposed C1-3/R6B								
1 (Site 5)	**4,500**	**0**	**0**	**200[6]**	**0.04**	**9,270**	**2,369 sf, 6 DU**	
92	2,500	4,875/6	0	0	1.95	0	No Dvlpmnt	
90	2,500	4,875/6	0	0	1.95	0	No Dvlpmnt	
86	5,000	0	1,500	4,835	1.15	[2,665]	No Dvlpmnt[7]	
56 lots	*125,218*	*132,275/ 188*	*5,080*	*5,035*	---	*25,778*	*2,369 sf, 22 DUs*	

The requested rezoning is necessary in order to allow the proposed development to proceed. The proposal would be compatible with the residential community that is located to the east of the project site. The project would also be representative of the general development trend in the area which has resulted in the conversion of underutilized and vacant lands to productive residential and commercial use.

[6] To be demolished/removed in with action scenario.

[7] Although an additional 2,665 square feet could be developed on this lot under the proposed rezoning, no additional development is considered likely as the lot contains a large manufacturing and office use and the R6B zone would not permit additional manufacturing or commercial floor area.

Conclusion

The proposed rezoning of the project site from M1-1 to R5B, R6B, and C1-3/R6B would provide the land use provisions necessary for the proposed project to proceed. The action would serve to connect the project site with other residential development in the surrounding community, and would permit the replacement of obsolete and underutilized properties with a new residential and mixed-use development. The project would also serve the neighborhood's residents and businesses by providing needed new housing, retail, and community facility space.

No potentially significant adverse impacts related to land use are expected to occur as a result of the proposed action. Therefore, further analysis of land use is not warranted.

ZONING

Existing Conditions

The proposed area to be rezoned is located within an M1-1 zoning district. Most of the surrounding 400-foot radius area is also zoned M1-1. An R5B district is located to the east across Starr Street and an R4 district is located further to the south. A C1-3/R4 commercial overlay is mapped along the north side of Cypress Avenue between Starr Street and Willoughby Avenue to the southeast.

The M1 district is often a buffer between M2 and M3 districts and adjacent residential or commercial districts. Light industries typically found in M1 areas include woodworking shops, auto storage and repair shops, and wholesale service and storage facilities. Offices and most retail uses are also permitted. Strict performance standards are common to all M1 districts. The M1-1 district permits a maximum manufacturing and commercial FAR of 1.0 and an FAR of 2.4 for Use Group 4 community facility uses.

The R5B zoning district is primarily a three-story rowhouse district typical of such neighborhoods as Ridgewood, Queens where the project site is located. The R5B district also permits detached and semi-detached buildings. The R5B district permits a maximum residential FAR of 1.35 and a maximum community facility FAR of 2.0 with a maximum building height of 33 feet. Parking is waived for one- and two-family dwellings but is required for two-thirds of the dwelling units in larger developments.

The R4 zoning district is a low density zone permitting multiple dwellings. A variety of housing types, including garden apartments and rowhouses, are common in this district. It is widely mapped in all boroughs except Manhattan and most neighborhoods zoned R4 are not served by rail rapid transit. The R4 zone permits a maximum residential FAR of 0.75 with an attic allowance of up to 0.15 for a total FAR of 0.9 and a maximum community facility FAR of 2.0 with a maximum building height of 35 feet resulting in buildings generally no taller than three stories. The district requires one parking space per dwelling unit.

The C1-3 commercial overlay is designed to accommodate the retail and personal service shops needed in residential neighborhoods. The maximum commercial FAR for a C1-3 overlay in the R4 zone is 1.0. Residential uses are permitted within these overlays with residential bulk being governed by the provisions of the surrounding residential zone. Parking requirements vary by

use within the C1-3 zone with one parking space required for each 400 square feet of general retail floor area. No loading spaces are required for the first 8,000 square feet of floor area.

Future No-Action Scenario

In the future and absent the action, the proposed area to be rezoned would continue to be governed by the provisions of the existing M1-1 zoning district. As presented in the land use discussion above, Projected Development Site 1 would be developed with a one-story, approximately 19,945 gsf commercial building with approximately 66 at–grade parking spaces for a general retail or service use. Similarly, Projected Development Site 2 would be developed with a one-story, approximately 3,135 gsf commercial building with approximately five at–grade parking spaces for a general retail or service use. The total RWCDS on Projected Development Sites 1 and 2 would therefore total approximately 23,080 gsf of commercial floor area and 71 parking spaces.

Based on the existing zoning of the proposed rezoning area and due to the significant level of development on most of the lots within the area, it is not likely that additional development would occur in the remainder of the rezoning area. Therefore, the existing buildings and uses on Block 3377, Lots 1, 86, 90, 92; Block 3394, Lots 20-24, 28, 37-46, 48-57, 76-91; and Block 3395, Lots 12-15, 39-44 **w**ould remain as they are currently, which include the following development on Projected Development Sites 3-5:

Projected Development Site 3 – Approximately 2,200 square feet of residential floor area providing four (4) dwelling units.

Projected Development Site 4 – Approximately 1,910 square feet of residential floor area providing two (2) dwelling units.

Projected Development Site 5 – Approximately 200 square feet of commercial floor area.

Based on the DCP website, no changes are proposed to the zoning districts and zoning regulations or to any public policy documents relating to the project site or the surrounding study area by the project build year of 2016.

Future With-Action Scenario

The action would rezone the project site from its current M1-1 zoning to a combination of zoning districts. It is proposed to rezone Block 3395, Lot 16 (100-foot depth from Woodward Avenue) and Block 3377, Lots 1, 84, 86, 90, and 92 to R6B/C1-3. The portion of Block 3395, Lot 16 located outside of the C1-3 commercial overlay would be zoned R6B. It is proposed to rezone Block 3395, Lots 12-15 and 39-44 and Block 3394, Lots 42-57 to R6B. It is proposed to rezone Block 3394, Lots 20-24, 28 (partial), 37-41, and 76-91 to R5B.

The basic characteristics of the proposed R5B district and the C1-3 commercial overlay are described under the existing conditions section above. The proposed R6B district is often a traditional row house district, designed to preserve the scale and harmonious streetscape of neighborhoods developed during the 19th century with four-story attached buildings. The Quality Housing bulk regulations, which are mandatory in R6B districts, also accommodate four- to five-story apartment buildings. The R6B zone allows a maximum residential and

community facility FAR of 2.0. Parking is required for 50 percent of the dwelling units in this zone and is waived if 5 or fewer spaces are required.

The proposed rezoning would facilitate the removal of the existing uses on the Applicant's Projected Development Sites 1 and 2 to allow for the construction of a new development. The proposed project would replace the underbuilt uses on Projected Development Sites 1 and 2 with a new conforming development that would fully develop these portions of the rezoning area. The project would also serve to bring the residential properties on most of the other lots in the rezoning area that do not conform with the existing M1-1 zoning into conformance under the provisions of the proposed R5B and R6B zoning districts. The existing commercial businesses that would remain in the rezoning area, including a delicatessen, a restaurant, and a warehouse and office use, would become legal non-conforming uses within the R5B and R6B zoning districts.

The proposed development would be in conformance with the use and bulk provisions of the proposed zoning districts. The project's proposed residential and community facility uses would be Use Group 2 and 4 land uses, respectively, permitted under the proposed R5B and R6B zoning of the site. The project's proposed commercial retail use would be a Use Group 6 land use, permitted under the proposed C1-3 commercial zoning overlay which would be mapped to a depth of 100 feet along both sides of Woodward Avenue between Troutman and Starr Streets. The project would also comply with or fall below the maximum bulk provisions of the proposed zoning districts, as further described below.

The proposed new building on Projected Development Site 1 would have a total FAR of 2.0 (1.78 FAR Residential, 0.07 Community Facility, and 0.15 FAR Commercial) and would, therefore, not exceed the maximum FAR of 2.0 allowed in the R6B zoning district. The proposed commercial retail space in the building would have an FAR of 0.15 and would, therefore, not exceed the maximum FAR of 1.0 allowed in the C1-3 commercial zoning overlay district. The proposed lot coverage of 27,472 square feet would be substantially less than the permitted 31,010.8 square feet. The building would be constructed to a height of 40 feet, which is ten feet less than the maximum allowable height of 50 feet, and would contain 80 dwelling units, substantially less than the 132 permitted units. The 118 parking spaces to be provided would exceed the amount required for the proposed residential, retail, and community facility uses in the building. The development would meet or exceed the minimum front, side, and rear yards requirements.

The proposed new building on Projected Development Site 2 would have an FAR of 2.0 and would, therefore, not exceed the maximum FAR of 2.0 allowed in the R6B zoning district. The proposed lot coverage of 2,750 square feet would be substantially less than the permitted 4,404 square feet. The building would be constructed to a height of 40 feet, which is ten feet less than the maximum allowable height of 50 feet, and would contain eight dwelling units, less than the 16 permitted units. Although the parking required for the proposed residential and retail uses would fall below the minimum required and could therefore be waived, five spaces would be provided. The development would meet or exceed the minimum front, side, and rear yards requirements.

The mandatory Quality Housing Program provisions applicable to the proposed R6B zoning of the projected development sites includes plantings between the building and the front lot line and one street tree for every 25 feet of lot frontage. In addition, approximately 9,405 square feet of common recreational space would be provided on the roof of the proposed building on Projected Development Site 1, which is well in excess of the amount of open space required. The proposed development on Projected Development Site 2 would also include approximately 421 square feet of landscaped open space on the lot although none is required for developments of less than 9 dwelling units.

No redevelopment of the existing 188 dwelling units, 4,835 square foot warehouse with 1,500 square feet accessory office, 1,842 square foot retail store (delicatessen), 1,738 square foot restaurant, and 200 square foot storage use is proposed as part of the project. It is possible, however, that some of the underdeveloped properties and vacant sites could be developed with new residential space in the future under the proposed rezoning. Based on the Department of City Planning's soft site criteria, explained in the Land Use discussion above, up to approximately 25,778 gsf of additional floor area including 2,369 gsf of retail space and 22 dwelling units, based on an average size of 1,000 gsf per unit, could be built on Projected Development Sites 3, 4, and 5. No additional induced development on these blocks would be anticipated. Table 4-2 above presents a summary of this potential development by individual lot.

No significant impacts to zoning patterns in the area would be expected. The area surrounding the rezoning area consists primarily of commercial, manufacturing, and automobile related uses to the north and west and residential and open space uses to the south and east. Given the character and development of the immediate vicinity, the most appropriate contextual development scenario for the subject site would be the proposed residential and mixed-use project. The proposed project would be in scale with the surrounding development in that it would represent a transition between the smaller residential buildings to the south and east and the commercial uses to the north and west. The proposed action would therefore not have a significant impact on the extent of conformity with the current zoning in the surrounding area, and it would not adversely affect the viability of conforming uses on nearby properties. The proposed R5B, R6B, and R6B/C1-3 zoning would link the area with the R5B residential zone located immediately to the southeast across Starr Street and would be compatible with the surrounding M1-1, R5B, and R4 zoning districts.

Conclusion

The proposed R5B, R6B, and R6B/C1-3 zoning for the project site would provide for an appropriate type and density of residential and mixed-use development relative to the surrounding neighborhood. These districts would be compatible with the existing zoning districts mapped over the area adjacent to the project site. The proposed rezoning would replace the obsolete manufacturing zoning of the site, which is not appropriate for most of the existing development in the proposed rezoning area and is not compatible with ongoing development trends in the area. At the same time, it would also permit the existing warehouse and commercial uses on the block to continue in operation as legal non-conforming uses.

Potentially significant adverse impacts related to zoning are not expected to occur as a result of the proposed action, and further assessment of zoning is not warranted.

PUBLIC POLICY

Existing Conditions

The Ridgewood neighborhood of Queens, which is located in Queens Community District 5, is primarily a one-, two-, and multi-family residential community with a number of developed commercial streets proceeding through the neighborhood, and a more industrial character in its northwestern corner. Ridgewood and the adjacent Middle Village and Glendale communities to the east, contain large areas of open space in several cemeteries. According to the 2010 U. S. Census, the district's population increased by 2.0 percent from 165,911 persons in 2000 to 169,190 people in 2010.

The proposed rezoning area and the larger surrounding area are located within the boundaries of the City's FRESH Program. The City has established the Food Retail Expansion to Support Health (FRESH) program in response to the issues raised in neighborhoods that are underserved by grocery stores. FRESH provides zoning and financial incentives to promote the establishment and retention of neighborhood grocery stores in underserved communities throughout the five boroughs. The FRESH program is open to grocery store operators renovating existing retail space or developers seeking to construct or renovate retail space that will be leased by a full-line grocery store operator. The proposed rezoning area and a larger area surrounding the property are eligible for various tax incentives related to grocery store development and operation.

The proposed rezoning area is not located within the boundaries of any 197-a Community Development Plans, Urban Renewal Area plans, or the City's Coastal Zone Boundary, and also is not within a historic district or a critical environmental area. However, the western edge of the surrounding 400-foot radius study area is located within the City's Coastal Zone Boundary adjacent to Newtown Creek and English Kills and is therefore subject to the City's Waterfront Revitalization Program regulations. In addition, the NYC Landmarks Preservation Commission designated Adrian and Ann Wyckoff Onderdonk House is located at the western edge of the project study area near the intersection of Flushing and Onderdonk Avenues.

Future No-Action Scenario

In the future without the action, the area proposed to be rezoned would continue to be governed by the provisions of the existing M1-1 zoning district. The tax incentives included in the City's FRESH Program would continue to be available to the proposed rezoning area and the larger surrounding area. The City's Waterfront Revitalization Program regulations and NYC Landmarks Preservation Commission requirements would pertain to the relevant areas/properties located along the western edge of the project study area. No other public policy initiatives are anticipated to pertain to the project site or to the 400-foot study area around the property by the project build year of 2016.

Future With-Action Scenario

No impact to public policies would occur as a result of the proposed action. The proposed action would provide for new residential and mixed-use development on a site which is

underdeveloped and where the current uses are obsolete, and it would serve to strengthen the existing residential character of the neighborhood to the east. The proposed R5B, R6B, and R6B/C1-3 zoning would be compatible with the surrounding M1-1, R5B, and R4 zoning districts. Additionally, the projected and potential development associated with the proposed rezoning would add up to 110 new residential dwelling units to the area's housing stock as well as 3,115 gsf of medical office space and 11,426 gsf of retail space. The project would provide for its parking needs by providing up to 128 accessory parking spaces. The nonconforming residential uses in the proposed rezoning area would be made conforming under the proposed zoning, and the existing commercial and warehouse uses on the block would remain as legal conforming uses. The proposed development would not have any adverse impacts upon the City's Coastal Zone Boundary and the Adrian and Ann Wyckoff Onderdonk House located at the western edge of the 400-foot radius project study area.

Conclusion

In accordance with the stated public policies within the study area, the action would help serve the needs of the surrounding neighborhood. The proposed rezoning and associated development project would be a positive contribution to Queens Community District 5 and to the surrounding neighborhood, and would serve to further the goals of the existing public policies for the area.

No potentially significant adverse impacts related to public policy are anticipated to occur as a result of the proposed action, and further assessment of public policy is not warranted.

No significant adverse impacts related to land use, zoning, and public policy are anticipated to occur as a result of the action. The action is not expected to result in any of the conditions that warrant the need for further assessment of land use, zoning, or public policy.

7. OPEN SPACE

Introduction

For the purpose of CEQR, open space is defined as publicly or privately owned land that is publicly accessible and has been designated for leisure, play, or sport; or land that is set aside for the protection and/or enhancement of the natural environment. Under CEQR, an open space analysis is conducted to determine whether or not a proposed action would have either a direct impact resulting from the elimination or alteration of open space or an indirect impact resulting from overtaxing the use of open space. The analyses focus only on officially designated existing or planned public open space. Open space may be public or private and may include active and/or passive areas. Active open space is the part of a facility used for active play such as sports or exercise and may include playground equipment, playing fields and courts, swimming pools, skating rinks, golf courses, lawns and paved areas for active recreation. Passive open space is used for sitting, strolling, and relaxation with benches, walkways, and picnicking areas. Certain spaces such as lawns, can be used for both active and passive recreation.

Open space analyses may be necessary when an action would potentially have a direct or indirect effect on open space. A direct impact would physically change, diminish or eliminate an open space or reduce its utilization or aesthetic value. An indirect impact could result from an action introducing a substantial new user population that would create or exacerbate an overutilization of open space resources.

Direct Effects

The proposed development would not result in any direct impacts to open space resources. The project would not eliminate or reduce the size of any existing open space facilities, would not limit access to any open spaces, and would not alter any open space areas so that they no longer serve the same user population. The proposed development would not directly affect any open space resources by causing substantial noise, odors, air pollutant emissions, or other nuisances that would interfere with the public's ability to enjoy the open space. In addition, the proposed development would not directly affect any open space resources by casting them in shadow for a substantial portion of the day as no existing or proposed open space resources are located in close enough proximity to the proposed rezoning area to be affected by shadows cast by proposed or potential new development.

Indirect Effects

Introduction

On the basis of *CEQR Technical Manual* criteria, the proposed development could potentially result in indirect effects to open space resources within the project study area and must be further assessed to determine whether significant indirect effects would be expected to occur. As the project site is located in an underserved area relative to open space resources, the threshold for additional analysis for the proposed action is the generation of 50 new residents or 125 new employees.

As described above, the project development associated with the proposed rezoning is expected to result in the construction of 110 new residential units by the project build year of 2016. These 110 dwelling units are expected to generate approximately 308 residents based on the 2010 U.S. Census average household size of 2.80 persons per household for Census Tracts within ¼ mile of the five Projected Development Sites including tracts 445, 447, 449, 453, 535, 539, and 595. The proposed action would exceed the threshold number of 50 new residents and a quantitative analysis of indirect open space impacts is therefore required. The proposed action would generate approximately 44 new employees and would therefore not exceed the threshold number of 125 new workers and a quantitative analysis of indirect open space impacts for employees would not be required.

Preliminary Assessment

Based on the methodologies presented in the *CEQR Technical Manual*, an initial quantitative open space assessment involves a determination of an area's open space ratio based on the population of the study area and the acreage of all publicly accessible open space resources within this study area. If an area's open space ratio decreases significantly as a result of a proposed action or if an area has a very low open space ratio, a more detailed assessment may be required.

Based on the calculation of the ratio of publicly accessible open space acres to the study area population, a determination of the adequacy of open space resources in the study area was quantified. The resultant computation for the study area was then compared with the median ratio for New York City, which is 1.5 acres per 1,000 residents, and with the planning benchmarks established by the DCP.

The *CEQR Technical Manual* considers an action to result in significant impacts to open space resources if it would decrease the open space ratio substantially, thereby reducing the availability of open spaces for an area's population. A decrease in the open space ratio of 5 percent or more is generally considered to be a significant adverse impact on open space resources. However, if the existing open space ratio is low even an open space ratio change of less than 1 percent may result in potential significant open space impacts.

As further detailed below, the project study area currently exhibits a low open space ratio of 0.228 acres per 1,000 residents, which is expected to remain at 0.228 acres per 1,000 residents in the future without the action, indicating a shortfall of open space. The projected decrease in the study area open space ratio from the addition of 308 residents as a result of the proposed action would be 0.003 acres representing a decrease of 1.3%. While the impact from the current project as presented may be below the standard significance threshold, the introduction of the project's additional residents in an underserved open space area would exacerbate the existing deficiencies related to open space.

Project Study Area

The *Manual* states that residential users typically travel as far as one-half mile to use local active and passive open space areas. Therefore, in order to analyze the indirect open space impacts of the proposed project, a one-half mile radius was drawn around the five Projected Development Sites. In accordance with *CEQR Technical Manual* criteria, the population of potential users of the available open space resources was determined for the census tracts that are fully or at least 50 percent within the one-half mile study area for the project and accessible to the open space resources in this area. In addition, all publicly accessible open space areas within the census tracts with at least 50% of their area within this one-half mile radius were noted. (See Figure 7-1, Open Space Facilities and Census Tracts)

Existing Conditions

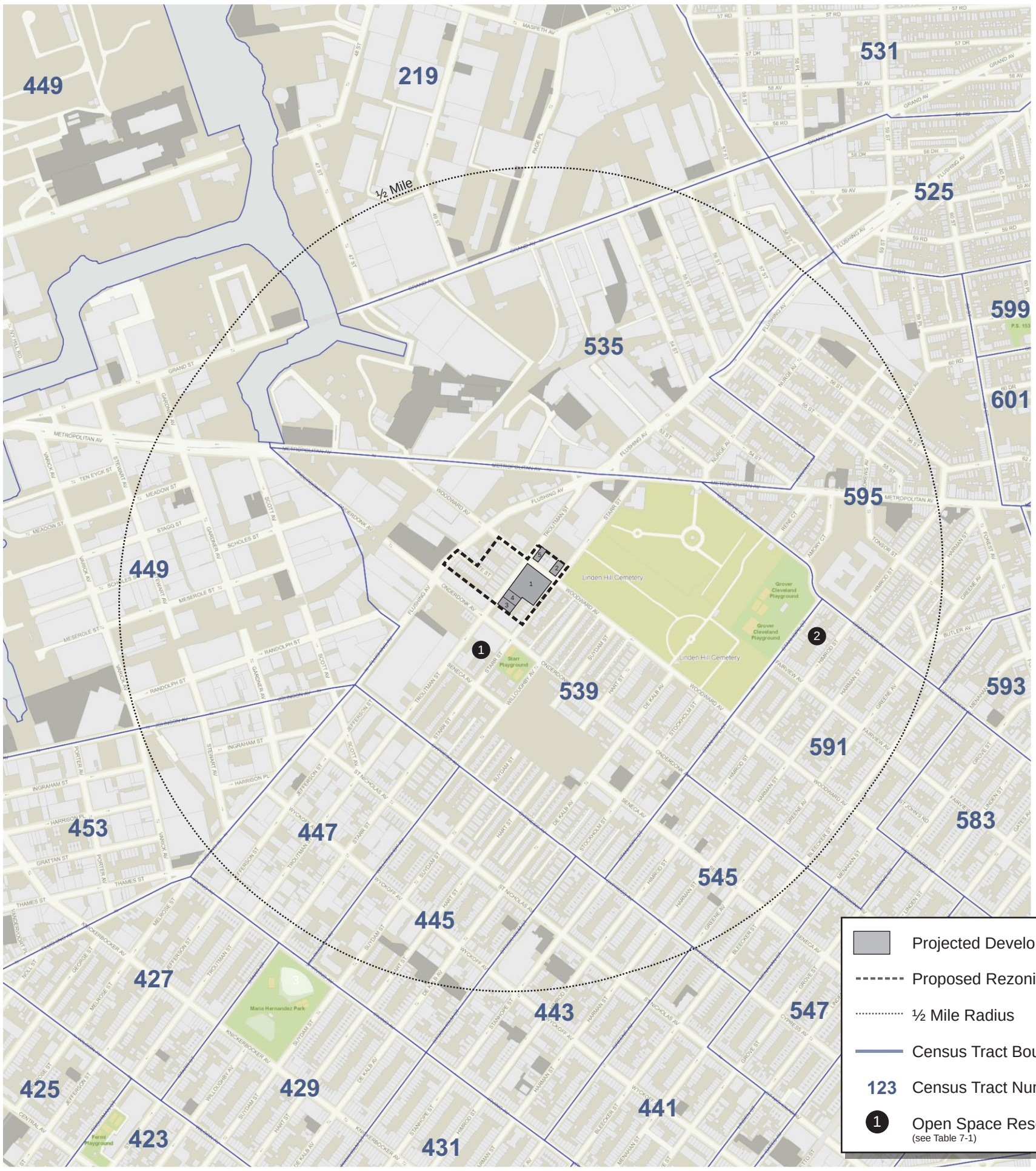
Study Area Population

The study area population was estimated using data from the 2010 U. S. Census of Population and Housing for the tracts located fully or at least 50 percent within the one-half mile study area. As shown in Table 7-1, in 2010 the study area contained a total of 26,274 residents within the seven relevant census tracts.

Study Area Open Space

The one-half mile open space study area is generally bounded by an area north of Grand Street on the north, an area north of Irving Avenue on the south, Bleecker Street on the east, and Varick Avenue on the west. Within the census tracts that are fully or at least 50 percent within

Figure 7-1: Open Space Facilities and Census Tracts within 1/2-Mile



this area, there are two publicly owned and accessible facilities as listed in Table 7-2 and shown on Figure 7-1. These facilities provide a total of 6.0 acres of open space resources.

Assessment of Open Space Adequacy

The open space ratio was calculated based on the study area population shown in Table 7-1 and the total open space acreage shown in Table 7-2. The resultant ratio is 0.228 acres per 1,000 residents. This ratio is substantially less than the citywide average of 1.5 acres and the DCP benchmark of 2.5 acres per 1,000 population, indicating that the area is relatively underserved by public open space resources.

Table 7-1

2010 Study Area Population

Census Tract	Total Population
445	4,446
447	2,310
535	1,123
539	4,147
545	3,722
591	5,826
595	4,700
Study Area Total	**26,274**

Table 7-2

Study Area Open Space Facilities

Map Key	Open Space Name	Size (acres)
1	Starr Playground	0.9
2	Glover Cleveland Park	5.1
TOT		**6.0**

Future No-Action Condition

Study Area Population

As stated above, the 2010 census population of the half-mile open space study area was 26,274, which is used as the base for current conditions in the study area. In order to account for background growth over the six-year timeframe to the 2016 build year, an annual growth rate was determined based on the 2012 American Community Survey (ACS) 5-year estimate. Based on the 2012 ACS 5-year estimate, the population of the open space study area increased by 0.06%. Assuming this growth rate remains constant, the open space study area would have a No-Action population of 26,322 in 2016.

Study Area Open Space

There would be no increase or decrease in the 6.0 acres of existing open space area within the project study area by the project build year of 2016.

Assessment of Open Space Adequacy

The future no-action open space ratio within a ½ mile radius of the five Projected Development Sites is 0.228 based on the area population of 26,322 persons in 2016 and the 6.0 acres of open space area.

Future With-Action Condition

Study Area Population

As discussed above, the project is expected to generate approximately 308 residents based on the 2010 U.S. Census average household size of 2.80 persons per household for Census Tracts 445, 447, 449, 453, 535, 539, and 595, which constitute the tracts located within ¼ mile of the five Projected Development Sites. Adding these 308 residents to the future no-action population of 26,322 persons would result in a total population of 26,630 persons.

Study Area Open Space

No new publicly accessible open space and recreational resources are planned to be added to the study area by 2016 with the proposed action. Therefore, in 2016 with the proposed action, the project study area would contain approximately 6.0 acres of open space resources, the same as under currently existing and future no-action conditions.

Assessment of Open Space Adequacy

The projected open space ratio in 2016 with the proposed action would be 0.225 acres per 1,000 residents compared with the projected ratio of 0.228 acres in the study area in the future without the project. The 0.003 acre decrease in the open space ratio would represent a decrease of 1.3%. Therefore, the community would continue to be underserved compared to the City as a whole and would not meet DCP's open space goal.

Table 7-3 shows the calculation of open space ratios for the existing and Future With-Action Scenarios.

Table 7-3

Existing and Future With-Action Open Space Ratios

	Existing Conditions	Future No-Action	Future With-Action
Publicly Accessible Open Space (Acreage)	6.0	6.0	6.0
Study Area Population	26,274	26,322	26,630
Open Space Ratio (Acres/1,000 Residents)	0.228	0.228	0.225 – 0.003 ac/1.3% decrease

Detailed Assessment

Study Area Population

The study area by population age group based on the 2010 Census is presented in Table 7-4 below.

Table 7-4

2010 Study Area Population by Age Group

Age Category	Persons	Percent of Population
Under 5	1,948	7.41%
5-9	1,792	6.82%
10-14	1,676	6.38%
15-19	1,748	6.65%
20-64	17,145	65.25%
65 and older	1,965	7.48%
Total	**26,274**	**100.0%**

Study Area Open Spaces

Open spaces included in the study area are identified and described in Table 7-5 below.

Existing Conditions

The existing open space ratio within a ½ mile radius of the five Projected Development Sites is 0.228 acres per 1,000 residents. This ratio is comprised of an active open space ratio of 0.124 acres per 1,000 residents and a passive open space ratio of 0.104 acres per 1,000 residents.

The open space ratio for the population of the study area is less than 2.5 acres per 1,000 residents, the City's planning goal, and the project site is located in an area deemed underserved by DPR. There are no major regional parks in close proximity to the five Projected Development Sites.

Future No-Action Condition

As described above, the open space study area would have a No-Action population of 26,322 in 2016. There would be no increase or decrease in the 6.0 acres of existing open space area within the project study area by the project build year of 2016.

The future no-action open space ratio within a ½ mile radius of the five Projected Development Sites is 0.228 based on the area population of 26,322 persons in 2016 and the 6.0 acres of open space area. This ratio is comprised of an active open space ratio of 0.124 acres per 1,000 residents and a passive open space ratio of 0.104 acres per 1,000 residents, essentially the same as under existing conditions.

Table 7-5

Study Area Open Space Facilities

Map Key	Name/Address	Owner (public/ private)	Size (ac)	Description Active-Passive acres (%)		Features	Quality (accept-unaccept)	Hours	User Groups	Utiliz Level
1	Starr Playground - Onderdonk Ave. bet. Starr St. and Willoughby Ave	public	0.9	0.72 act. (80%)	0.18 pass. (20%)	play equipment, benches, spray shower, water fountains, 2 handball courts, 1 full basketball court, 1 softball court, 1 stone turtle statue	Acceptable	8 AM to Dusk	All	Heavy
2	Grover Cleveland Park - Stanhope St. bet. Fairvier and Grandview Aves	public	5.1	2.55 act. (50%)	2.55 pass. (50%)	playground, benches, comfort station, spray shower, water fountains, softball field, handball courts, basketball court, wading pool	Acceptable	6 AM to 1 AM	All	Heavy
	Total		**6.0**	**3.27 act. (55%)**	**2.73 pass. (45%)**					

Future With-Action Condition

The proposed action is expected to result in the development of 110 dwelling units on the five Projected Development Sites. As described above, this development is anticipated to add approximately 308 new residents to the project study area. Adding these 308 residents to the future no-action population of 26,322 persons would result in a total population of 26,630 persons.

Although the age breakdown of the future residents of these 110 dwelling units is not known, it is anticipated that the demographic served by the development would consist primarily of young professionals with few children.

The project would not displace or encroach upon existing open space resources but it would introduce a population that would place demands on the 6.0 acres of open space resources in the study area.

The projected open space ratio in 2016 with the proposed action would be 0.225 acres per 1,000 residents compared with the projected ratio of 0.228 acres in the study area in the future without the project, a 0.003 acre decrease. This ratio is comprised of an active open space ratio of 0.123 acres per 1,000 residents and a passive open space ratio of 0.103 acres per 1,000 residents, a 0.001 acre decrease in both the active and passive open space ratios.

The development would contain a private open space component consisting of approximately 9,405 square feet (0.22 acres) of open space to be located on the roof of the structure proposed to be built on Projected Development Site 1. This private open space, as shown on the graphic entitled "Open Space at Garage Roof Area", would contain seating areas and landscaping. The proposed development on Projected Development Site 2 would also include approximately 421 square feet of landscaped open space on the lot. The amount of open space to be provided on Projected Development Sites 3, 4, and 5 is not known as these sites are not controlled by the Applicant. The outdoor recreational areas on Projected Development Sites 1 and 2 would be provided for use by project residents, and as they would not be publicly accessible, the areas have not been included in any calculations of publicly accessible open space.

The open space facilities to be provided on Projected Development Sites 1 and 2 would serve 88 of the projected 110 dwelling units and 246 of the 308 anticipated residents on the five Projected Development Sites. These open space areas would therefore serve 80% of the projected residents of the project and would essentially be passive open space resources which would be appropriate for a demographic anticipated to consist primarily of young professionals with few children.

Impact Significance

The project would not displace or encroach upon existing open space resources and would therefore have no direct impact upon open space resources.

The project, which is located in an underserved area relative to open space resources, would result in a 0.003 acre decrease in the open space ratio, representing a decrease of 1.3%. Therefore, the community would continue to be underserved compared to the City as a whole and would not meet DCP's open space goal. However, as the proposed action would satisfy a significant portion of its open passive open space needs on Projected Development Site 1 and 2, this reduction would not result in overburdening existing facilities or significantly exacerbate a deficiency in open space. Therefore, the proposed action would not result in a significant adverse indirect impact on open space resources.

Illustrative Purposes Only

OPEN SPACE @ GARAGE ROOF AREA

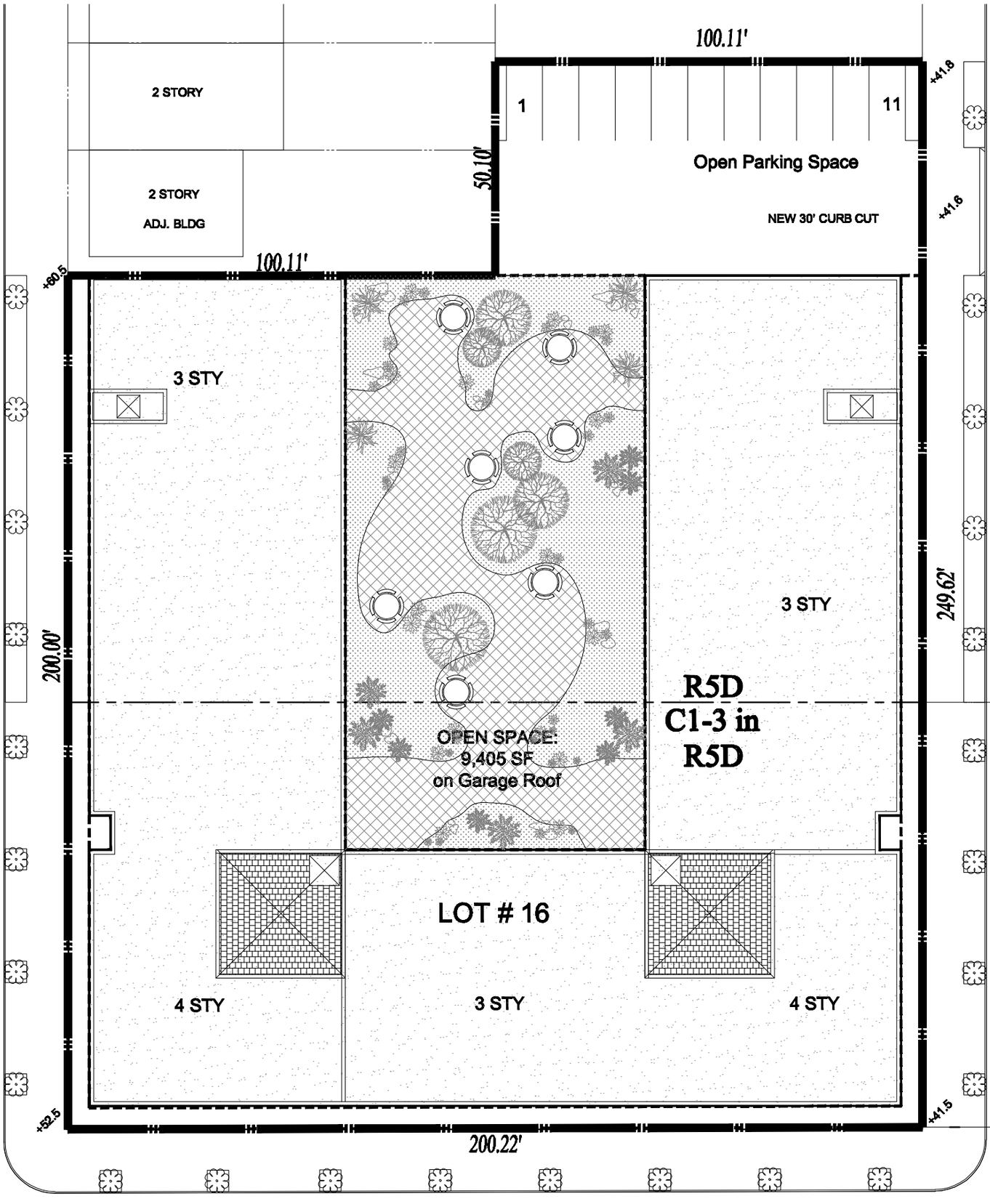
Proposed TOTAL LOT AREA : 45,010.66 SF

Lot Area for R5D : 24,988.66 SF (=INT. LOT)

Lot Area for C1-3 in R5D : 20,022.0 SF (=CORNER LOT)

PROPOSED **R5D/C1-3**

LOCATION	QUEENS
BLOCK	3395
LOTS	16
ZONING MAP	13b
EXISTING ZONING DISTRICT	M1-1
PROPOSED ZONING DISTRICT	R5D, C1-3 in R5D



LOT # 16 ONLY

Conclusion

Due to the expectation of no direct impacts on any open space resource, the moderate decrease in the future with the action open space ratio, and the additional passive private open space to be provided on the project site under the proposed action, it is anticipated that the project would not have any potentially significant adverse open space impacts and further assessment is not warranted.

10. URBAN DESIGN AND VISUAL RESOURCES

Introduction

An assessment of urban design is needed when a project may have effects on any of the elements that contribute to the pedestrian experience of public space. A preliminary assessment is appropriate when there is the potential for a pedestrian to observe, from the street level, a physical alteration beyond that allowed by existing zoning, including the following:

1. Projects that permit the modification of yard, height, and setback requirements;

2. Projects that result in an increase in built floor area beyond what would be allowed 'as-of-right' or in the future without the proposed project.

The proposed action involves the request for a rezoning of the property from its current M1-1 district to a combination of R5B, R6B, and R6B/C1-3 zoning districts. A comparison of the potential development under the existing and proposed zoning is presented below.

Projected Development Site #1 - The floor area that could feasibly be built in the future under the existing zoning is approximately 19,945 gsf of commercial space within a one-story building with 66 at–grade parking spaces for a general retail or service use. Under the proposed zoning, the maximum feasible floor area would be approximately 90,020 gsf within a 4-story mixed residential, commercial, and community facility building with 118 cellar/sub-cellar and outdoor parking spaces. The building would contain approximately 80,198 gsf of residential floor area for 80 dwelling units, 3,115 gsf of ground floor medical office space, and 6,707 gsf of ground floor retail space.

Projected Development Site #2 - The floor area that could feasibly be built in the future under the existing zoning is approximately 3,135 gsf of commercial within a one-story building with 5 at–grade parking spaces for a general retail or service use. Under the proposed zoning, the maximum feasible floor area would be approximately 11,000 gsf within a 4-story residential building containing 8 dwelling units and 2,350 gsf of retail floor area with 5 at-grade parking spaces.

Projected Development Sites 3, 4, and 5 - Under the existing zoning, it is not considered likely that additional development would occur on Projected Development Sites 3, 4, and 5 and the existing buildings and uses would remain as they are currently. Based on the City's soft site development criteria, it has been determined that under the proposed zoning, the development of up to 25,778 gsf of floor area including approximately 22 dwelling units and 2,369 gsf of retail space would occur on Projected Development Sites 3, 4, and 5.

Remainder of Rezoning Area – Under the existing zoning, it is not considered likely that additional development would occur in the remainder of the rezoning area, and the existing buildings and uses would remain as they are currently.

Difference in Development Under Existing and Proposed Zoning - The requested rezoning would facilitate the development within the proposed rezoning area of an additional approximately 110 new dwelling units, 3,115 gsf of medical office space, and 57 additional accessory parking spaces relative to the Future No-Action development. However, the Future With-Action development would contain 11,854 gsf less retail floor area than the Future No-Action development on the property. The Future With-Action developments would also be three-stories greater in height than the one-story Future No-Action developments in the proposed rezoning area.

The yard, height, and setback requirements for the existing M1-1 district and the proposed of R5B, R6B, and R6B/C1-3 zoning districts differ with the most significant difference perhaps being related to maximum building height. The existing M1-1 district allows a maximum building height of only 30 feet while the proposed R6B zone allows a maximum building height of 50 feet.

Based on the above, a preliminary urban design assessment would be required.

Preliminary Assessment

Existing Conditions

The proposed rezoning area encompasses approximately 175,733 square feet of land area located on portions of three blocks, Blocks 3395, 3394 and 3377, in the Ridgewood neighborhood of Queens. Block 3395 is bounded by Starr Street, Woodward Avenue, Troutman Street, and Onderdonk Avenue, and the rezoning area includes approximately 75% of the block fronting on Starr Street, Woodward Avenue, and Troutman Street. Block 3394 is bounded by Troutman Street, Woodward Avenue, Flushing Avenue, and Onderdonk Avenue, and the rezoning area includes most of the block, except for the Onderdonk Avenue frontage and the Flushing Avenue frontage between Charlotte Street and Woodward Avenue. Block 3377 is bounded by Woodward Avenue, Troutman Street, Metropolitan Avenue, and Starr Street, and the rezoning area only includes the properties fronting on Woodward Avenue to a depth of 100 feet.

A description of the existing conditions on the five Projected Development Sites, the remainder of the proposed rezoning area, and the 400-foot radius project study area follows below.

- Projected Development Site 1 is approximately 45,010 square feet in size and is currently vacant of buildings with the exception of a prefabricated shed and used for the storage of motor vehicles and as a contractor's yard.

- Projected Development Site 2 is approximately 5,505 square feet in area and is vacant and used as a contractor's yard.

- Projected Development Site 3 consists of one vacant, undeveloped 2,500 square foot lot and an adjoining 2,523 square foot lot developed with a multiple dwelling containing four dwelling units.

- Projected Development Site 4 consists of one vacant, undeveloped 2,523 square foot lot and an adjoining 2,523 square foot lot developed with a two-family dwelling.

- Projected Development Site 5 consists of an underutilized 4,500 square foot lot developed with an approximately 200 square foot storage use.

- The remainder of the proposed rezoning area is developed with small two- to three-story, two- to six-family residential buildings. It also contains a small retail store (delicatessen), a restaurant, a contractor's yard with a small accessory office building, a warehouse and accessory office structure, a small storage use, and a truck storage lot.

The 400-foot radius study area to the north and west of the rezoning area is primarily developed with a mixture of commercial, manufacturing, and automobile related uses. Blocks 3375, 3376, and the remainder of Block 3377 to the north are developed with several automotive repair uses, small commercial and retail businesses, and several warehouses. Blocks 3410 and 3393 located further to the west contain a number of small manufacturing and warehouse operations. Most of the buildings on these blocks are one-story in height. The portion of Block 3394 excluded from the rezoning area contains an automotive service station, an automobile repair shop, a restaurant, a metal glazing operation, and a vacant lot.

The 400-foot radius study area to the south and east is primarily developed with residential and open space uses. Blocks 3396 and 3397 directly to the east are entirely developed with residences which primarily consist of two-story, attached two-family dwellings. Block 3378 to the northeast is entirely occupied by Linden Hill Cemetery. Blocks 3415 and 3418 to the southeast contain a playground (Starr Playground) and an undeveloped open space area, respectively, extending along the Onderdonk Avenue frontages of these blocks. The remaining area of these blocks is primarily developed with two-story, one- and two-family dwellings. Blocks 3412 and 3414 to the south of the rezoning area contain a mixture of two-story, attached two-family dwellings, commercial and warehouse operations, and parking lots. Block 3412 also contains the NYC Landmarks Preservation Commission designated Adrian and Ann Wyckoff Onderdonk House. Lot 1 on Block 3395, which is the only lot on this block not included in the rezoning area, contains a one-story warehouse.

Visual resources in the vicinity of the rezoning area include Linden Hill Cemetery, Starr Playground, and the nearby undeveloped open space area noted above and one historic structure identified as the Adrian and Ann Wyckoff Onderdonk House to the southwest.

An aerial photograph of the project study area and ground level photographs of the site area and the immediate context are attached which show existing conditions on the Applicant's property (Projected Development Sites 1 and 2) and in the surrounding area. Zoning calculations of the existing conditions on the Projected Development Sites, including floor area calculations, lot coverage, and building heights, are shown in Table 10-1 below.

Future No-Action Scenario

The No-Action RWCDS under the existing M1-1 zoning mapped on the subject area consists of the following.

Projected Development Site #1 – Approximately 19,945 gsf of commercial space within a one-story building with 66 at–grade parking spaces for a general retail or service use.

Projected Development Site #2 - Approximately 3,135 gsf of commercial space within a one-story building with 5 at–grade parking spaces for a general retail or service use.

Projected Development Sites 3, 4, and 5 - Additional development is not considered likely and the buildings and uses identified under the existing conditions section above would remain.

Remainder of Rezoning Area – Under the existing zoning, it is not considered likely that additional development would occur in the remainder of the rezoning area, and the existing buildings and uses would remain as they are currently.

The future No-Action Development Scenario on the two projected development sites would result in a significant change to the existing urban design and visual character of these properties. The two parcels, which do not contain any structures, with the exception of a prefabricated shed on Projected Development Site 1, are currently used for the open storage of contractor's materials. These open uses would be replaced with two 1-story structures and at-grade parking areas that would essentially cover the entirety of each parcel. However, the character of the surrounding project study area would not change significantly as Future No-Action development on Projected Development Sites 1 and 2 would be similar to the existing development located within the 400-foot radius study area to the north and west.

The No-Action Development Scenario on the project site would not result in any significant impacts to the visual resources in the vicinity of the site. Views to the Linden Hill Cemetery, Starr Playground and the nearby undeveloped open space, and to the Adrian and Ann Wyckoff Onderdonk House would still be available from the streets bordering the proposed rezoning area to the extent that they are currently.

Zoning calculations of future No-Action conditions on the Projected and Potential Development Sites, including floor area calculations, lot coverage, and building heights, are shown in Table 10-1 below.

Future With-Action Scenario

The Applicant seeks to develop Projected Development Site 1 with a four-story, 40-foot high, 90,020 gsf building containing 80,198 gsf of residential floor area for 80 dwelling units, 3,115 gsf of ground floor medical office space, and 6,707 gsf of ground floor retail space. The development would contain 118 parking spaces including 11 open parking spaces and 107 spaces of cellar/sub-cellar parking in the building [RWCDS]. Access to the parking would be provided from Troutman Street.

The proposed building is planned to be 'U-shaped' with the closed end of the 'U' towards Woodward Avenue and the open end towards Onderdonk Avenue. The open space area

between the arms of the 'U' would be approximately 9,405 square feet in area and be located on the roof of the cellar and sub-cellar garage. Due to the changes in elevation on Projected Development Site 1, the proposed building, while having a maximum of four floors for zoning purposes, would have five- to six-stories along portions of the Starr Street frontage of the property. The proposed retail stores would be located along Woodward Avenue while the proposed community facility space would be located at the corner of Woodward Avenue and Starr Street. The development would require the removal of the existing contractor's yard and motor vehicle storage uses currently located on this parcel.

Projected Development Site 2 would be developed with a four-story, 40-foot high, 11,000 gsf rectangular shaped building containing eight dwelling units within 8,650 gsf of floor area (including a 400 gsf residential lobby) on floors two through four. The ground floor of the building would contain 2,350 gsf of retail floor area. The development on this site would contain five at-grade parking spaces accessed from Starr Street [RWCDS]. The proposed development would also include approximately 421 square feet of landscaped open space on the lot. The development would require the removal of the existing contractor's yard currently located on this parcel.

The Future With-Action Development Scenario on Projected Development Sites 1 and 2 would result in significantly taller and bulkier buildings on these parcels compared with the future No-Action Development Scenario. The Future With-Action buildings would be four-stories in height rather than one-story in the future without the action. In addition, the Future With-Action buildings would contain more than four times the floor area or 77,940 gsf more floor area than the No-Action development.

Although the proposed structures would be taller and bulkier than the immediately adjacent two-story buildings, the proposed buildings have been designed as a transitional development between the smaller residential buildings to the south and east and the bulkier commercial uses in the remainder of the surrounding area. The buildings have also been designed to meet the building and lot requirements relevant to the proposed R5B, R6B, and R6B/C1-3 zoning districts. The proposed development would replace the existing underutilized properties with modern residential and mixed-use structures that would be compatible with other residential development in the surroundings. The project would have no adverse impacts on the existing development that would remain on the block. The proposed development would not affect views available from the area of the site. It would also not affect such urban design elements as block forms and street patterns in the area.

No changes would be made to the existing development on the other lots in the proposed rezoning area. The proposed action would legalize the existing non-conforming residential uses on most of the lots occupying the remainder of the rezoning area, and the existing commercial businesses that would remain on these lots would become legal non-conforming uses under the proposed zoning.

However, based on the City's soft site development criteria, it has been determined that the proposed rezoning would facilitate the development of up to 25,778 gsf of floor area including approximately 22 dwelling units and 2,369 gsf of retail space on Projected Development Sites 3, 4, and 5 as presented below. These Sites are currently completely or nearly completely vacant

land and could be developed with buildings similar to the larger residential buildings fronting on the west side of Troutman Street and the north side of Woodward Avenue within the rezoning area. Potential development would not affect views available from the area of the site and would also not affect such urban design elements as block forms and street patterns in the area.

- Projected Development Site 3 – Approximately 7,846 square feet of additional floor area providing eight (8) new dwelling units. Assuming building mechanical space at 3% of floor area would result in 8,081 gsf of additional floor area. Although parking is required for 50% of the dwelling units in the R6B zoning district, no parking would be required or provided as the requirement is waived if 5 or fewer spaces are required.

- Projected Development Site 4 – Approximately 8,182 square feet of additional floor area providing eight (8) new dwelling units. Assuming building mechanical space at 3% of floor area would result in 8,427 gsf of additional floor area. Although parking is required for 50% of the dwelling units in the R6B zoning district, no parking would be required or provided as the requirement is waived if 5 or fewer spaces are required.

- Projected Development Site 5 – Approximately 8,800 square feet of new floor area for a total of 9,000 square feet on the site. The existing 200 square foot storage structure would be demolished. Assuming building mechanical space at 3% of floor area would result in 9,270 gsf of floor area. The first floor would contain 2,369 gsf of commercial retail space plus a 412 gsf residential lobby for a total floor area of 2,781 gsf. The second through fourth floors would each contain 2,163 gsf of residential space totaling 6,489 gsf of residential floor area providing six (6) new dwelling units. Although the parking required for the proposed residential and retail uses would fall below the minimum required and could therefore be waived, five spaces would be provided as for Projected Development Site 2 discussed above.

In summary, the difference between the No-Action and With-Action Scenarios would be the development under the With-Action Scenario of an additional approximately 103,518 gsf of total floor area, an additional 110 dwelling units, 3,115 gsf of medical office space, and 57 additional accessory parking spaces. However, the Future With-Action development would contain 11,854 gsf less retail floor area than the Future No-Action development on the property. The proposed buildings would also be three stories greater in height than the one-story Future No-Action development on the property.

Zoning calculations of future With-Action conditions on the Projected Development Sites, including floor area calculations, lot coverage, and building heights, are shown in Table 10-1 below. One 3-dimensional renderings of the future With-Action condition streetscape are also attached.

Conclusion

The proposed action would result in the development of residential, medical office, and local retail uses on underutilized property located in an area characterized by a mixture of commercial, manufacturing, and automobile related uses to the north and west and residential

and open space uses to the south and east. The proposal would be compatible with the residential community that is located to the east of the proposed rezoning area. The proposed project would be in scale with the surrounding development in that it would represent a transition between the smaller residential buildings to the south and east and the commercial uses to the north and west. The project would also be representative of the general development trend in the area which has resulted in the conversion of underutilized and vacant lands to productive residential and commercial use. The project would also serve the neighborhood's residents and businesses by providing needed new housing, retail, and community facility space. Given the character and development of the immediate vicinity, the most appropriate contextual development scenario for the subject site would be the proposed residential and mixed-use project.

The With-Action Development Scenario on the project site would not result in any significant impacts to the visual resources in the vicinity of the site as compared to a No-Action Development on the property. Views to the Linden Hill Cemetery, Starr Playground and the nearby undeveloped open space, and to the Adrian and Ann Wyckoff Onderdonk House would still be available from the streets bordering the proposed rezoning area to the extent that they are currently. It would not affect such urban design elements as block forms and street patterns.

The proposed action would not partially or totally block a view corridor or a natural or built visual resource that is rare in the area or considered a defining feature of the neighborhood. Although the project would alter the context of natural and built visual resources, specifically the three open space areas and the historic structure in the vicinity of the site, the most significant difference would occur between the existing and future No-Action Development Scenarios on the property rather than between the future No-Action and With-Action Development Scenarios. Therefore, a detailed urban design analysis would not be required.

The proposed project would not result in any adverse environmental impacts to urban design and visual character. It is therefore concluded that further analysis of urban design and visual resource impacts resulting from the proposed development is not warranted.

Table 10-1

Zoning Calculations Relevant to Urban Design Analysis

Item	Projected Site 1	Projected Site 2	Projected Site 3	Projected Site 4	Projected Site 5
Development Scenario					
Existing	Contractor's yard, vehicle storage (1 prefab bldg only)	Contractor's yard (no bldg)	4 DUs (2,200 gsf) and vacant lot	2 DUs (1,910 gsf) and vacant lot	Small storage building (200 gsf); vacant land
No-Action	19,945 gsf retail, 66 pkg sp	3,135 gsf retail, 5 pkg sp	4 DUs (2,200 gsf) and vacant lot	2 DUs (1,910 gsf) and vacant lot	Small storage building (200 gsf); vacant land
With-Action	80 DUs (80,198 gsf); 3,115 gsf medical office; 6,707 gsf retail; 118 pkg sp	8 DUs (8,650 gsf); 2,350 gsf retail; 5 pkg sp	12 DUs (10,281 gsf)	10 DUs (10,337 gsf)	6 DUs (6,901 gsf); 2,369 gsf retail
Gross Bldg. Floor Area					
Existing	0 sf	0 sf	2,200 gsf	1,910 gsf	200 gsf
No-Action	19,945 gsf	3,135 gsf	2,200 gsf	1,910 gsf	200 gsf
With-Action	90,020 gsf	11,000 gsf	10,281 gsf	10,337 gsf	9,270 gsf
Lot Coverage					
Existing	0 sf	0 sf	1,100 sf (21.9%)	955 sf (18.9%)	200 sf (4.4%)
No-Action	19,945 sf (44.3%)	3,135 sf (57.0%)	1,100 sf (21.9%)	955 sf (18.9%)	200 sf (4.4%)
With-Action	27,472 sf (61.0%)	2,750 sf (50.0%)	2,570 sf (51.2%)	2,584 sf (51.2%)	2,317 sf (51.5%)
Building Heights					
Existing	N/A	N/A	2-stories	2-stories	1-story
No-Action	1-story	1-story	2-stories	2-stories	1-story
With-Action	4-stories	4-stories	4-stories	4-stories	4-stories

WOODWARD AVE.
REZONING - STUDY AREA

LEGEND

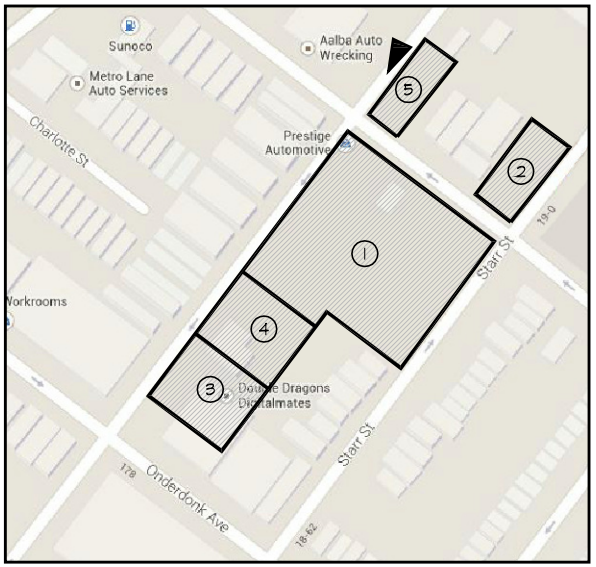
- PROPOSED DEVELOPMENT SITES
- 400'-0" FOOT RADIUS
- PROPOSED REZONING AREA
- (1) DEVELOPMENT SITE NUMBER

FOR ILLUSTRATIVE PURPOSES ONLY

PROPOSED SITE 1 RENDERING

FOR ILLUSTRATIVE PURPOSES ONLY

EXISTING SITE AND CONTEXT



DEVELOPMENT SITE KEY PLAN

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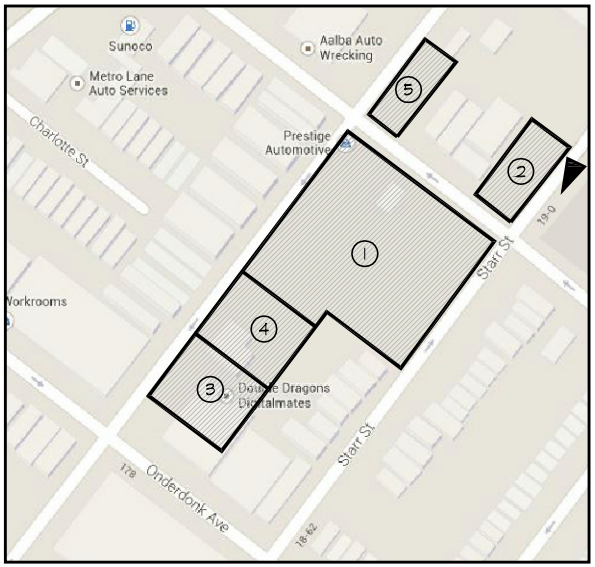

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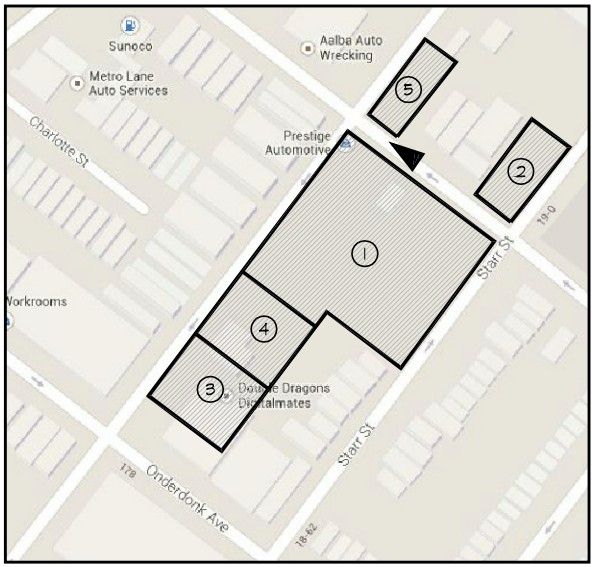

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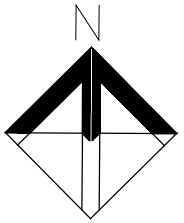

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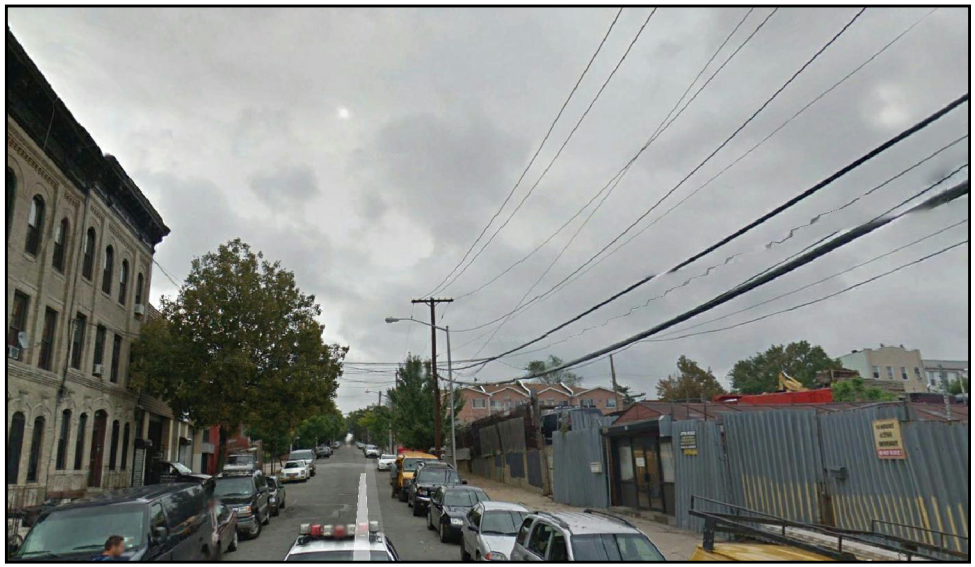

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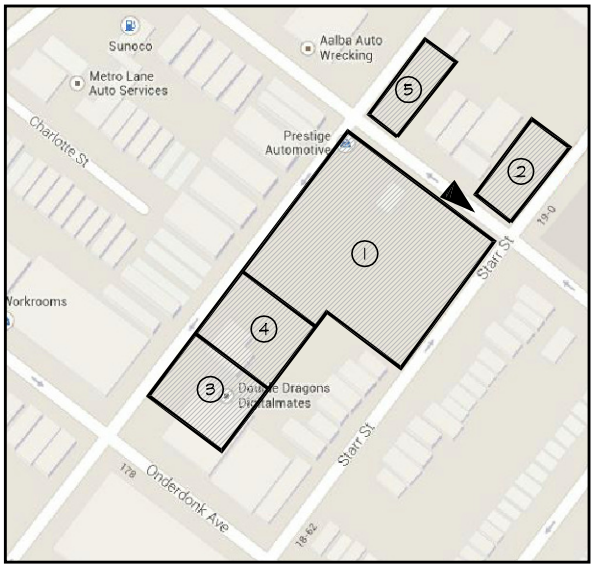

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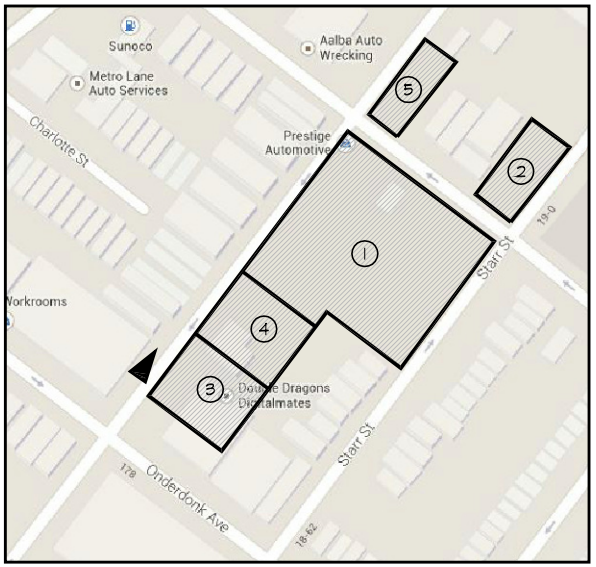

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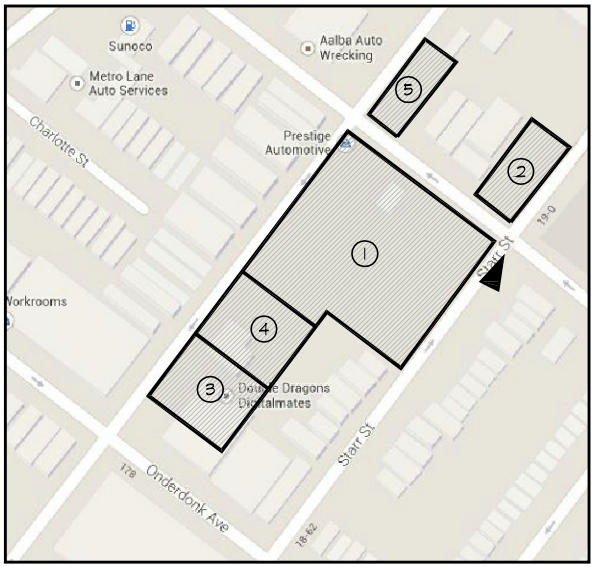

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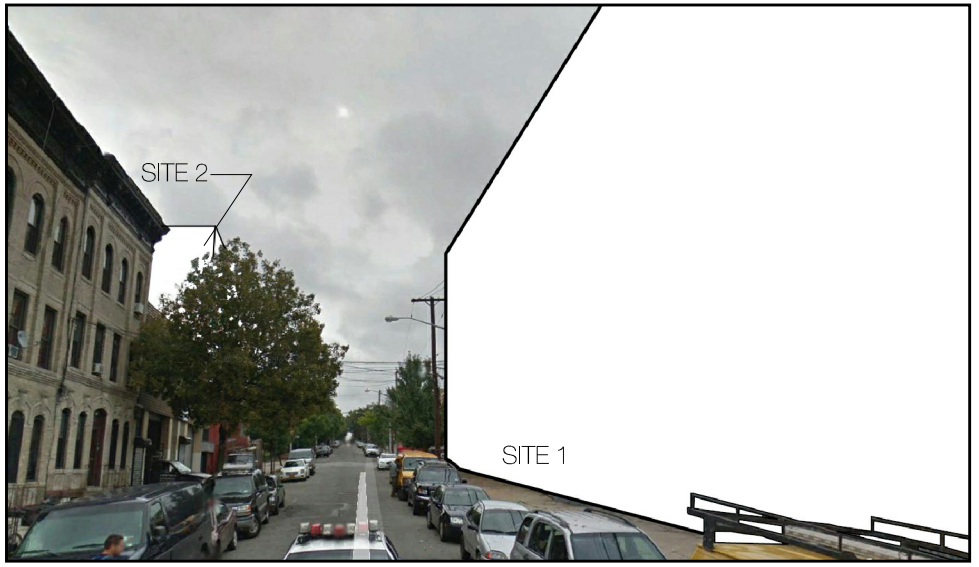

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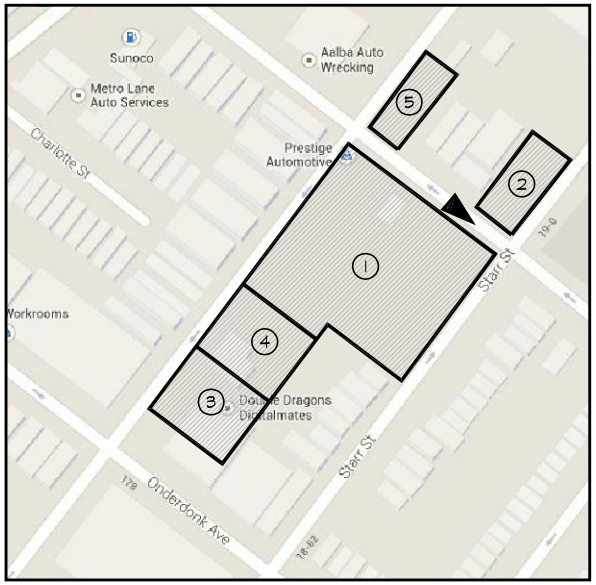

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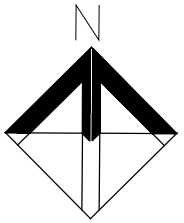

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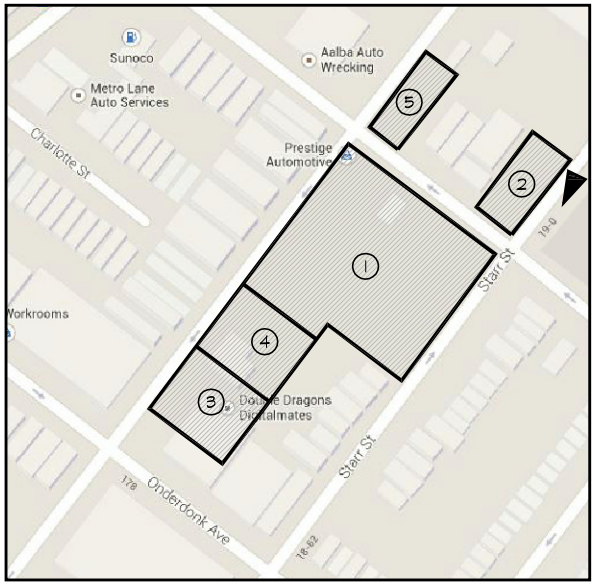

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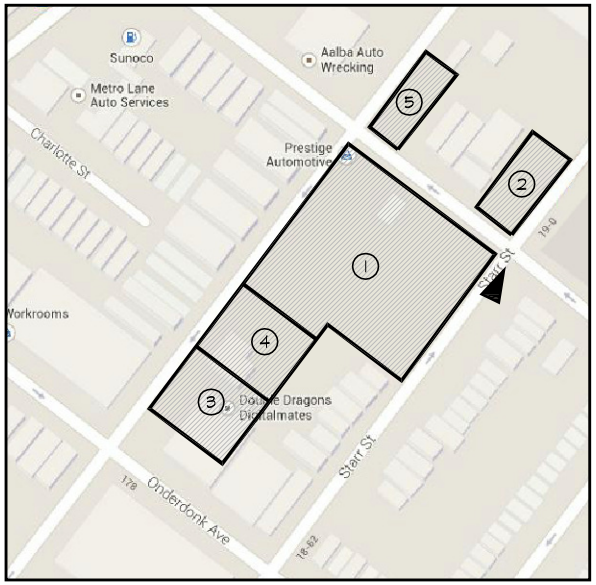

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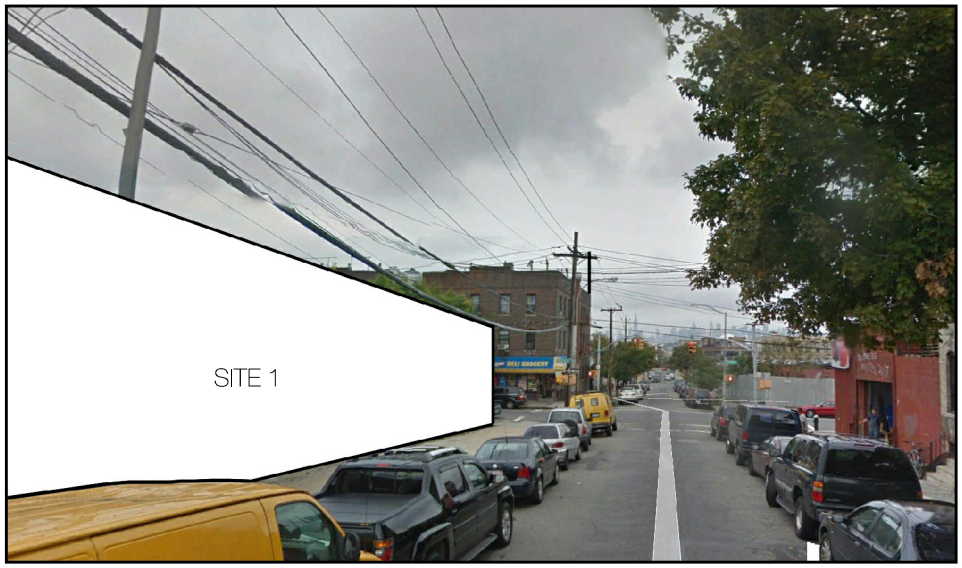

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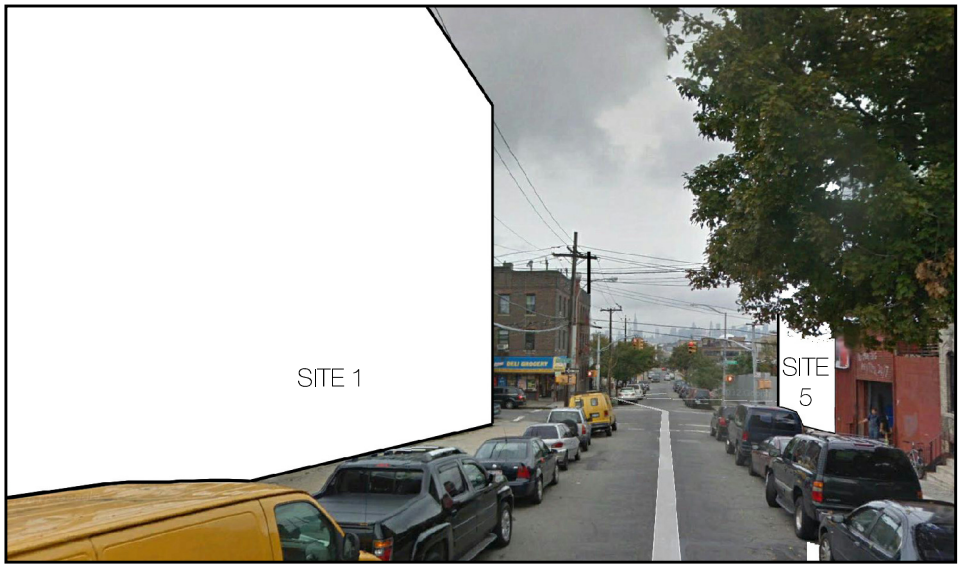

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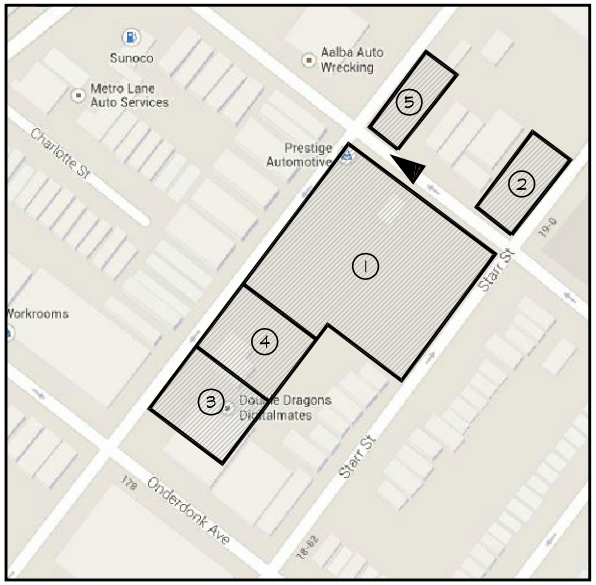

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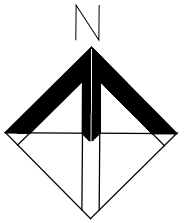

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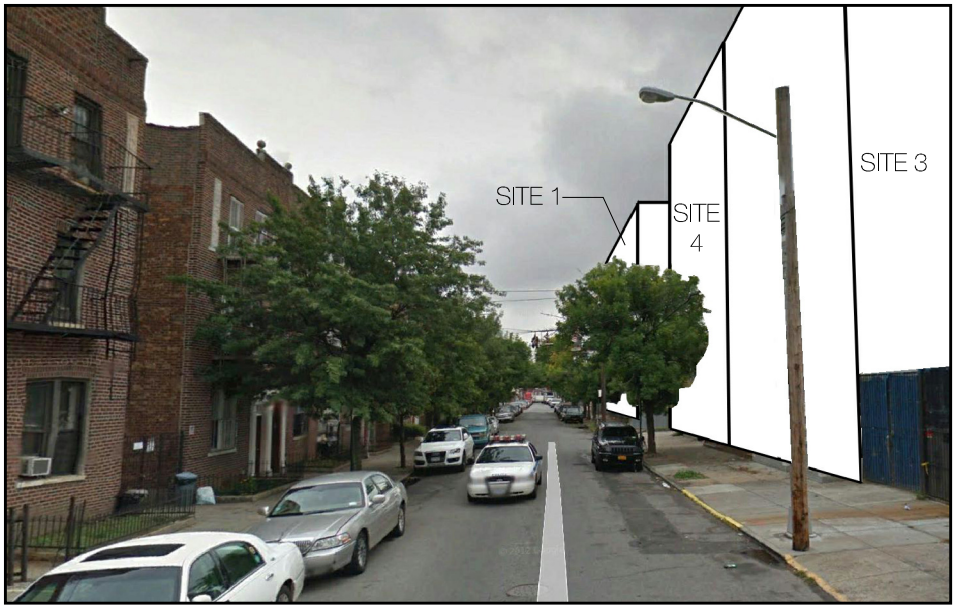

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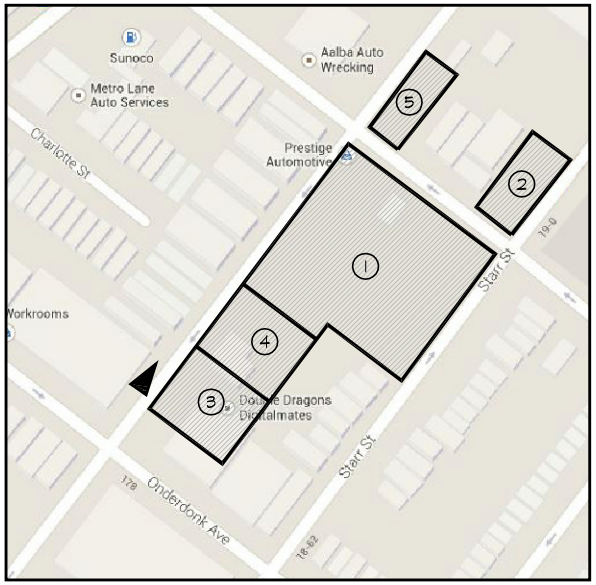

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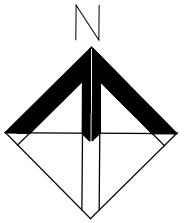

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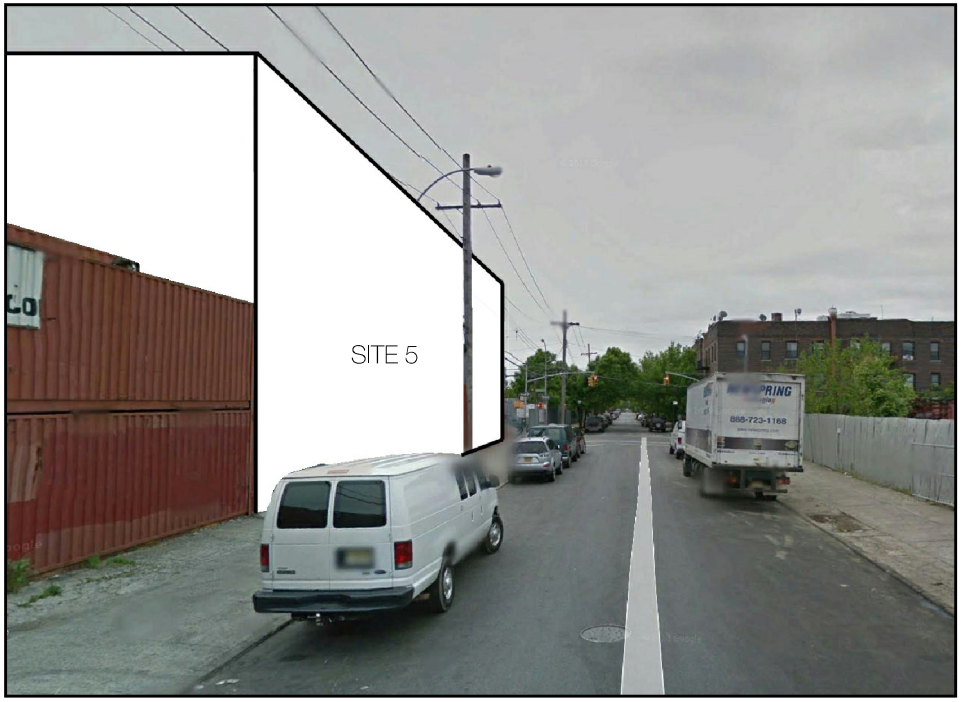

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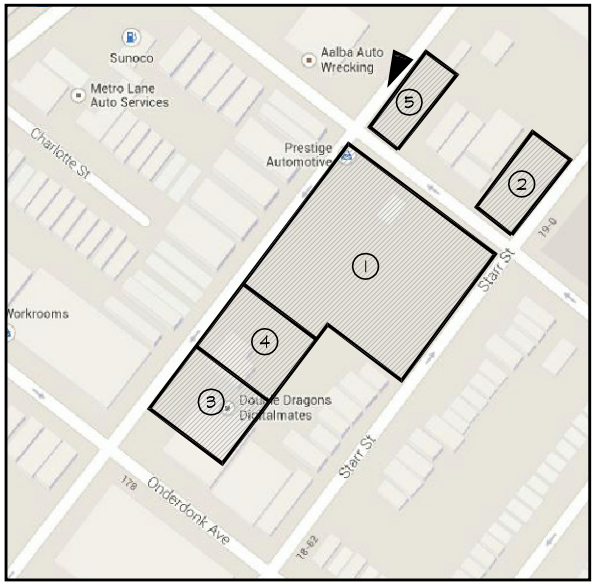

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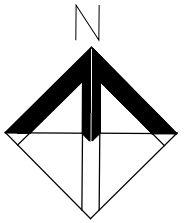

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AXONOMETRIC VIEW

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12. HAZARDOUS MATERIALS

INTRODUCTION

EPDSCO, Inc. has performed Phase I Environmental Site Assessments (ESA) of the properties located at 176 Woodward Avenue and 193 Woodward Avenue, in the Borough of Queens in the City of New York. The ESAs, dated January 2009 and June 2010, respectively, were prepared in accordance with the ASTM Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (ASTM Designation E 1527-05).

The purpose of this ESA is to identify, to the extent feasible in accordance with ASTM E 1527-05, recognized environmental conditions in connection with the site with regard to hazardous materials as defined by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), and petroleum products. Additionally, several ASTM "Non-Scope" items including asbestos-containing materials, lead-based paints, and radon are also discussed. Recognized Environmental Conditions are identified through research into the history and uses of the site and surrounding area, an inspection of the subject property and a survey of adjoining and nearby uses, and a review of available regulatory agency records and environmental databases.

The following summarizes the findings, conclusions, and recommendations of the Phase I ESA.

SITE AND SURROUNDING AREA HISTORY

Sponsor Owned Project Site

Projected Development Site 1 - Block 3395, Lot 16

Projected Development Site 1 is a roughly rectangular parcel of land approximately 45,000 square feet in area. At the time of the site visit, the eastern part of the property was being used for the storage of used automobiles, construction vehicles, and equipment including cement trucks, dump trucks, excavators, rubbish and demolition containers, bobcats, cement mixtures, etc. The western part of the site was being used as a storage yard for granite, marble, and stone slabs. According to Mr. Frank Curtin, the owner of the subject property, more than 15 companies rent storage space on the property. The surface of the property is mostly unpaved with the exception of a small concrete paved area on the northwestern part of the site. Other than weeds located at various locations at the site, the property was free of vegetation.

There is a one-story, steel frame temporary office structure[8] located on the north portion of the site. Heat and hot water for this structure are provided by electric systems.

There were not any aboveground tanks observed at the subject property during the site visit. An underground fuel oil tank fillport was observed in the sidewalk in front of the southwestern portion of the subject property along Troutman Street. Additionally, there was an underground tank fillport observed in the sidewalk in front of the northwestern portion of the property along Woodward Avenue. The 1936 Sanborn map shows the presence of a single buried gasoline tank in this area. The size of the tank is not specified on the Sanborn map, however, such tanks are typically 550 gallons.

[8] This structure has recently been removed.

In addition, the buildings which formerly occupied the subject property may have been heated by fuel oil fired heating systems with associated fuel oil storage tanks. Any fuel oil tanks which were not removed prior to the demolition of these buildings may remain at the site. Any petroleum storage tanks discovered at the site during future development are required to be removed in accordance with all applicable federal, state, and local regulations.

There were not any suspected asbestos-containing building materials or suspected lead-based paints observed at the subject property during the site visit. There were not any electrical transformers or other equipment suspected of containing PCBs observed at the subject property.

Research into the history of the subject property shows that the northeastern part of the site was occupied by a public school (PS 74) from at least 1902 until its demolition sometime between 1936 and 1950. Identified uses on this part of the site from the 1950s to the present time include storage of automobiles, trucks, construction vehicles, and equipment.

The southeastern part of the site was occupied predominantly by residential dwellings from at least 1902 to the early 1990s. This part of the site also contained a small machine shop in 1902 (shown in the area on the 1902 Sanborn map) and several retail stores in the early 1900s. From the mid-1990s to the present time, this part of the site has been used for the storage of automobiles, trucks, construction vehicles, and equipment.

The northwestern part of the subject property contained a variety of uses from the early 1900s to the mid-1990s, including residential dwellings, retail stores, a garage, and an office building. From the mid-1990s to the present time, this part of the site has been used for the storage of automobiles, trucks, construction vehicles, and equipment. Most recently, this area has been used for the storage of granite, marble, and stone slabs.

The southwestern part of the site was occupied by bakery operations (Apmann's Bakery and later The Miller Bakeries Corporation) from the early 1900s to the early-1990s. All of the former structures associated with the bakery operations were demolished by 1994. From the mid-1990s to the present time, this part of the site has been used for the storage of automobiles, trucks, construction vehicles, and equipment. Most recently, this area has been used for the storage of granite, marble, and stone slabs.

Projected Development Site 2 - Block 3377, Lot 84

Projected Development Site 2 is a 5,500+/- square foot rectangular parcel which is enclosed by sheet metal fencing with locking gates. With the exception of a small portion of the southwest corner of the site, the lot is paved with concrete and asphalt. At the time of the site visit, the northern portion of the lot contained an open-air structure built of steel framing, steel sheet metal and three steel shipping containers. This structure was occupied by a small welding business[9]. The southern portion of the lot was being used for the storage of garbage trucks and garbage containers.

[9] This structure has recently been removed.

The operations of the welding business involve typical arc welding and gas welding, and two arc welding machines and eight compressed gas cylinders were observed in the area. In addition, a five-gallon container of gasoline, most likely used to fuel the welding equipment, was observed stored on the concrete floor inside the area. There was not any staining or other indications of past spills or leaks observed on the concrete floor inside the welding area. There were not any additional hazardous materials or petroleum products observed in the welding shop. In addition, there were not any visible indications of the former storage or use of such materials observed in the area, such as discarded drums or chemical containers, chemical or oil stained surfaces, etc.

In addition to the storage of garbage trucks and garbage containers, indications of small-scale auto maintenance activities were observed on the southern portion of the site. These indications include the presence of tools, funnels, five-gallon fuel containers, several five-gallon plastic pails and a 55-gallon drum. At the time of the site visit, the 55-gallon drum and the five-gallon fuel containers were empty. Small quantities of what appeared to be waste motor oil were observed in some of the five-gallon plastic pails. In addition, a gallon of house paint was observed in the area. These items were stored on concrete and slight, localized staining was observed on the concrete around the containers. There were not any additional hazardous materials or petroleum products observed on the southern portion of the site. In addition, there were not any indications of the former storage or use of such materials observed in the area, such as discarded drums or chemical containers, chemical or oil stained surfaces, etc. Given the small-scale, localized nature of the staining observed on the concrete on the southern portion of the site, it is considered unlikely that this staining would result in significant contamination to the site. However, any waste materials should be properly disposed of in accordance with all applicable regulations.

Research into the history of the subject property shows that the site has historically been used as an auto wrecking/junk yard, as a lot for vehicle and equipment storage, and as vacant lot. The property appears as vacant land on the 1902, 1914, and 1936 Sanborn maps. Sanborn maps for the years of 1950, 1994 through 1996, 1999, and 2001 through 2006 indicate the use of the subject property as an auto junk yard/auto wrecking yard. In addition, the 1988 and 1990 through 1993 Sanborn maps indicate that the site may have been part of a larger auto wrecking yard during that time. Auto junk yard/wrecking yard operations typically involve the handling of automotive chemicals from the vehicles being scrapped, including oils, brake and transmission fluids, anti-freeze, gasoline, etc. Any past spills or leaks of such materials would represent a potential source of contamination to the subject property.

There were not any tank fill ports, vent lines or other visible indications of the presence of underground tanks observed at the subject property during the site visit. There were not any aboveground tanks observed at the subject property during the site visit.

There were not any suspected asbestos-containing building materials or suspected lead-based paints observed at the subject property during the site visit. There were not any electrical transformers or other equipment suspected of containing PCBs observed at the subject property.

The subject property is adjoined by a cemetery, by contractor's storage yards, and by a 2-story commercial building at 185 Woodward Avenue occupied by John Tara, Inc. Enclosures, Decks, Windows and Doors. Land uses in the immediate area surrounding the site are a mix of residential, commercial, retail, auto-related, warehousing, and industrial uses. A review of Sanborn historical maps shows that land uses in the area surrounding the site have contained a mix of residential, commercial, retail, auto-related, warehousing, and industrial uses since at least the 1930s.

There were not any potential off-site sources of contamination which are likely to have significantly impacted the environmental condition of the subject property identified in the regulatory agency database information reviewed.

Remainder of Proposed Rezoning Area

Land uses in the immediate area surrounding the site are a mix of residential, commercial, retail, auto-related, warehousing and industrial uses. A review of Sanborn historical maps shows that land uses in the area surrounding the site have contained a mix of residential, commercial, retail, auto-related, warehousing and industrial uses since at least the 1930s.

REGULATORY DATABASE INFORMATION

Sponsor Owned Project Site

Projected Development Site 1 - Block 3395, Lot 16

The subject site is listed in the New York State Department of Environmental Conservation's (NYSDEC) Solid Waste Facilities database. According to information in the database, Prestige Automotive Corporation at 176 Woodward Avenue is listed as a vehicle dismantling facility.

The subject property appears in the NYSDEC's Petroleum Bulk Storage (PBS) database, which lists all registered facilities with a total combined petroleum storage capacity in excess of 1,100 gallons (Facility Name: Miller Bakeries Corporation, Facility ID: 2-365319). According to information in the database, there were two underground storage tanks (USTs) registered to the former Miller Bakeries Corporation at the site. A 5,000-gallon steel fuel oil UST was administratively closed in place on 10/1/97. This tank was reportedly tightness tested on 4/1/88. A 4,000-gallon fiberglass reinforced plastic gasoline UST was closed in place at the site 9/1/99. This tank was reportedly tightness tested on 4/1/88.

The subject property does not appear in any other Federal or State environmental databases.

Projected Development Site 2 - Block 3377, Lot 84

The subject property does not appear in the New York State Department of Environmental Conservation's (NYSDEC) Petroleum Bulk Storage (PBS) database, which lists all registered facilities with a total combined petroleum storage capacity in excess of 1,100 gallons.

The subject property does not appear in any other Federal or State environmental databases.

Surrounding Area

There are not any NYSDEC-reported Active Leaking Tank spill incidents listed within 1/8 mile of the subject property. There are a total of 29 Leaking Tank spill incidents listed within ½ mile of the subject property. 27 of these incidents have been closed by the NYSDEC. The two active spill incidents occurred at locations which are topographically lower than the subject property. In addition to the leaking tank spill incidents, there are 11 spill incident from other causes listed within 1/8 mile of the subject property. Ten of these incidents are listed as closed in the database. The one active incident occurred at a location which is topographically lower than the subject property.

No properties in the surrounding area within the regulatory distance of concern appear in any other Federal or State environmental databases.

FUTURE NO-ACTION SCENARIO

Absent the action, Projected Development Site 1 would be developed with a one-story, approximately 19,945 gsf commercial building and approximately 66 at–grade parking spaces for a general retail or service use. Projected Development Site 2 would be developed with a one-story, approximately 3,135 gsf commercial building with approximately five at–grade parking spaces for a general retail or service use. Based on existing market conditions in the area and due to the significant level of development on most of the lots within the area, it is not likely that additional development would occur in the remainder of the rezoning area. Therefore, the existing buildings and uses on Block 3377, Lots 1, 86, 90, 92; Block 3394, Lots 20-24, 28 (partial), 37-46, 48-57, 76-91; and Block 3395, Lots 12-15, 39-44 would remain as they are currently.

New development on Projected Development Sites 1 and 2 would require the removal of the existing uses on these sites. Any potential hazardous materials concerns would need to be addressed on these properties before any new development could occur on them.

FUTURE WITH-ACTION SCENARIO

The proposed rezoning would remove the existing uses on Projected Development Sites 1 and 2 to allow for the construction of a new development. Projected Development Site 1 is proposed to be developed with a four-story 90,020 gsf building containing 80,198 gsf of residential floor area for 80 dwelling units, 3,115 gsf of ground floor medical office space, and 6,707 gsf of ground floor retail space. The development would contain 118 parking spaces including 11 open parking spaces and 107 spaces of cellar/sub-cellar parking in the building. Projected Development Site 2 is proposed to be developed with a four-story 11,000 gsf building containing eight dwelling units within 8,650 gsf of floor area (including a 400 gsf residential lobby) on floors two through four. The ground floor of the building would contain 2,350 gsf of retail floor area. The development on this site would contain five open parking spaces.

No changes would be made to the existing development on the other lots (Block 3377, Lots 1, 86, 90, 92; Block 3394, Lots 20-24, 28 (partial), 37-46, 48-57, 76-91; and Block 3395, Lots 12-15, 39-44) in the proposed rezoning area. However, on the basis of the City's soft site development criteria, the proposed rezoning would facilitate the development of up to 25,778 gsf of floor area including approximately 22 dwelling units and 2,369 gsf of retail space on Projected Development Sites 3, 4, and 5 in the future.

CONCLUSION

The Phase I ESA has revealed has revealed no evidence of recognized environmental conditions in connection with the subject property, with the following exceptions:

- The possible presence of site contamination from underground storage tanks on Projected Development Site 1.
- The possible presence of site contamination from past on-site vehicle dismantling and/or storage operations on Projected Development Site 1.
- The possible presence of site contamination from past auto junk yard/auto wrecking operations on Projected Development Site 2.

REMEDIAL ACTION PLAN AND CONSTRUCTION HEALTH AND SAFETY PLAN

Hydo Tech Environmental, Corp. (Hydo Tech) has prepared a Remedial Action Plan (RAP) and a Construction Health & Safety Plan (Construction HASP) dated February 8, 2013 for Projected Development Sites 1 and 2. The Hydro Tech Project Manager (PM), Site Safety Officer (SSO), and field staff (when necessary) will implement the Plan during construction. Compliance with the Construction HASP is required of all persons and third parties who perform the scope of work documented for this project.

The RAP and Construction HASP have been prepared to document the protocols to be implemented during the proposed development of Sites 1 and 2. The portions of the remedial construction activities specifically addressed in the Construction HASP will include the following:

- Supervision of the tanks excavation
- Supervision of invasive soil excavation for Site development
- Supervision of installation of vapor barrier system and sub-slab depressurization system beneath proposed building foundations (if warranted)
- Supervision of installation of concrete foundations

Tank Excavation and Removal

The 4,000 gallon gasoline UST and the 5,000 gallon No. 2 fuel-oil UST that are closed beneath the southeastern and western portions of Site 1 will be excavated and removed during Site development. The two USTs will be excavated and removed along with all associated piping in accordance with federal, state and local regulations. The NYSDEC Spill Hotline number will be maintained onsite and the Hotline will be notified if any incidents occur.

Prior to tank removal activities, the USTs PBS number 2-365319 will be adequately updated to reflect their proper removal and a tank removal affidavit will be filed with the New York City Fire Department. The soil located around the USTs will be examined by a Hydro Tech Geologist for the presence of visual/olfactory evidence of contamination. Additionally, select soil samples will be screened for the presence of organic vapors utilizing a Photoionization Detector (PID). A PID makes use of the principle of photoionization for the detection and qualitative measurement of organic vapors. A PID does not respond to all compounds similarly, rather,

each compound has its own response factor relative to its calibration. For this investigation, the PID will be calibrated to the compound isobutylene, which is published by the manufacturer. The PID has a minimum detection limit of 0.1 parts per million (ppm). This meter measures the hydrocarbon concentrations in isolated portions of the secured samples.

An end point soil investigation will also be performed in accordance with NYSDEC Bureau of Spill Prevention & Response Sampling Guidelines and Protocols, March 1991, NYSDEC CP-51/Soil Cleanup Guidance (October 2010) and NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation, May 2010. General requirements mandate sampling for every 30 linear feet of each sidewall and bottom sampling for every 900 feet of bottom of excavation pit. The end point soil samples collected from each UST pit will be analyzed at a New York State Department of Health (NYS DOH) ELAP certified laboratory for List (TCL) volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs). These end point soil samples data will be compared to the Unrestricted Use Soil Cleanup Objectives SCO (USCO) as specified in 6 NYCRR Subpart 375 Section 6.8. A tank removal report will be provided to the NYSDEC at the conclusion of tank closure activities. If the NYSDEC requests any additional investigative/remedial measures, then all pertinent documentation will be forwarded to NYCDEP for their files.

Soil Excavation

The soil excavation will be coordinated and performed by the property owner. A Hydro Tech geologist will be on-site during all excavation activities to supervise the excavation, document the fieldwork and provide progress report(s). The NYSDEC Spill Hotline number will be maintained on-site and the Hotline will be notified if any incidents occur.

A Hydro Tech Geologist will visually examine all soil that is excavated for the presence of visual/olfactory evidence of contamination. Additionally, select soil samples will be screened for the presence of organic vapors utilizing a Photoionization Detector (PID). Based upon our previous Site Investigation, Hydro Tech anticipates the presence of non-hazardous soil contamination in the form of PAHs beneath Sites 1 and 2. This contamination is associated with impacted urban fill material, which is encountered at zero to 12 feet below grade surface. The soil excavation will be set back 30 feet from northwestern property boundary of Site 1 and will extend vertically to approximately 11 feet for the layout of the cellar slab on this Site. No groundwater should be encountered during the site excavation.

The soil excavation will extend to approximately 11 feet below grade for the layout of the two building foundations. All impacted soil/fill will be excavated and segregated on-site for later disposal as a regulated waste at a licensed waste disposal facility. If excavated soil/fill material that shows evidence of soil contamination in the form of organic vapors or petroleum staining will require temporarily stockpiling on-site, it will be placed on and covered with minimum 6-mil polyethylene sheeting. The exact amount of contaminated soil/fill will be determined following removal of the USTs. In addition, Hydro Tech does not anticipate the presence of soil contamination in the form of VOCs or SVOCs beneath the contaminated soil/fill horizon.

Impacted soil/fill or other waste excavated and removed from Sites 1 and 2 will be managed as regulated material and will be disposed in accordance with all City, State and Federal laws and

regulations. A preapproval letter from disposal facility(ies), facility(ies) registration documentation, and a summary of the waste characterization data will be provided to NYCDEP prior to any soil material removal from Sites 1 and 2. The soil characterization will be performed in a manner required by the receiving facility and in conformance with its applicable permits. Waste characterization sampling and analytical methods, sampling frequency, analytical results and QA/QC will be reported in the P.E certified Remedial Closure Report. Materials will not be removed from Sites 1 and 2 or loaded onto trucks until Hydro Tech has provided the NYCDEP with all appropriate facility documentation. If a different disposal facility for the soil material is selected during the course of soil excavation, NYCDEP will be notified immediately. A manifest system for off-site transportation of exported materials will be employed and manifest information will be reported in the P.E certified Remedial Closure Report. Loaded vehicles leaving Sites 1 and 2 will comply with all applicable materials transportation requirements (including appropriate tarping, secure covering, manifests, and placards) in accordance with City, State, and Federal laws and regulations, including use of licensed haulers in accordance with 6 NYCRR Part 364.

If disposal of soil/fill from Sites 1 and 2 is proposed for unregulated disposal (i.e., clean soil removed for development purposes), including transport to a Part 360-16 Registration Facility, a formal request will be made for approval by NYCDEP with an associated plan compliant with 6NYCRR Part 360-16. This request and plan will include the location, volume and a description of the material to be recycled, including verification that the material is not impacted by site uses and that the material complies with receipt requirements for recycling under 6NYCRR Part 360. This material will be appropriately handled on-site to prevent mixing with impacted material.

Post-Site Excavation Endpoint Sampling

In order to delineate hotspot areas remaining on-site, end point soil samples will be obtained from across Sites 1 and 2 following site excavation for construction. All field sampling will be performed in accordance with NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation, May 2010. General requirements mandate one collecting sample for every 30 linear feet of sidewall and one sample from the excavation bottom for every 900 square feet of bottom area. End-point samples will be collected from the two (2) foot interval beneath the maximum (or bottom) planned excavation depth. End-point samples will be analyzed by a New York State Department of Health (NYS DOH) ELAP certified laboratory for List (TCL) VOCs, SVOCs, Pesticides/PCBs and Target Analyte List Metals. End-point soil samples will be collected and will be compared to the NYSDEC Part 375 Restricted Residential SCOs.

Vapor Barrier and Sub-Slab Depressurization Systems

If post-site excavation end point data reveal the presence of potential soil vapor encroachment (PVEC) at Sites 1 and 2, a vapor barrier system (VBS) and a Sub-Slab Depressurization System (SSDS) installation would be warranted. The vapor barrier would prevent potential vapor intrusion from VOC impacted soil beneath Sites 1 and 2 will be installed beneath the proposed building foundations. In addition, a sub-slab depressurization system (SSDS) will be installed beneath the slabs to prevent any built up of elevated soil gas levels by creating a negative pressure zone beneath the slabs. The SSDS will be designed to operate as a passive system with the capability to be converted into an active system, if warranted by future site conditions.

Final systems requirements will be coordinated with the NYCDEP and the NYSDEC in the case of a petroleum spill remediation. Both systems will be installed under the direct oversight of a project engineer. Following completion of all site construction, the installation of the VBS and SSDS will be documented in the P.E certified Remedial Closure Report Closure Report.

Reporting of Remedial Actions

A Remedial Closure Report certified by a licensed P.E. will be submitted to the NYCDEP upon completion of all remedial construction activities. This report will document all remediation activities performed at Sites 1 and 2 and provide any compliance details for applicable aspects of this RAP/Construction HASP. The P.E. certified Remedial Closure Report would also document the closure, removal, and disposal of any USTs in accordance with NYSDEC guidelines and regulations, as well as all pertinent NYSDEC documentation (i.e. NYSDEC investigation/remedial plans, tank/spill closure notification, FDNY/NYSDEC tank removal/closure affidavits, reports/administrative documentation, NYSDEC PBS registration and closure forms, etc.)

Other Considerations

Dust Suppression

When necessary, Hydro Tech personnel will take measures to suppress the generation of dust.

Importing of Clean Fill Material

Two (2) feet of certified clean fill material will be placed at any portion(s) of the property that may consist of landscaped/grass area. A highly visible demarcation barrier (i.e., orange construction fence or equivalent) will be installed beneath the two-foot clean fill/top soil layer.

The fill will be imported from an approved facility/source. Hydro Tech will collect one (1) sample of the fill material for every 250 cubic yards of material. Each sample will be analyzed for Target Compound List (TCL) VOCs, SVOCs, Pesticides/PCBs and Target Analyte List Metals by an ELAP-certified laboratory. The analytical results will then be compared to Soil Cleanup Objectives (SCOs) as specified in 6 NYCRR Subpart 375 Section 6. The analytical data will be compared to the more stringent of SCOs for VOCs, SVOCs, PCBs/Pesticides, and TAL Metals between the Protection of Groundwater and the Protection of Public Health: Restricted-Residential. The tabulated results, compared to the appropriate SCOs, will be sent to NYCDEP for review and approval prior to importing the material/soil as clean fill.

Written approval of the fill material will be obtained from the NYCDEP prior to its use. The clean fill material shall not contain any Construction/Demolition material.

Dewatering

If water discharge into the NYC sanitary system is required during the construction phase of the project, a DEP or NYSDEC Sewer Discharge Permit will be obtained. A copy of the sewer discharge permit will be included in the P.E. certified Remedial Closure Report.

(E) Designation

Based on the evidence of recognized environmental conditions presented above, Phase II testing of the site would be required on non-applicant owned properties. However, it is not feasible to conduct subsurface testing at the present time as the site is currently occupied by active uses and Phase II testing would prevent these uses from continuing. Therefore, an (E) designation is proposed to be placed on the property to ensure that testing for and mitigation and/or remediation of any hazardous materials contamination of the property be completed prior to, or as part of, future development of the site. Hazardous Material conditions on the applicant's properties (Sites 1-2) will be handled by DEP site closure per requirements of the comment letter in Appendix C.

To avoid any potential impacts associated with hazardous materials, the proposed action will place an (E) designation for hazardous materials on the following properties:

Block 3395, Lots 12-15 **and Block 3377, Lot** 1

The text of the (E) designation is as follows:

Due to the possible presence of hazardous materials on the aforementioned designated site, there is potential for contamination of the soil and groundwater. To determine if contamination exists and perform the appropriate remediation, the following tasks must be undertaken by the fee owners of the lot restricted by this (E) designation prior to any demolition or disturbance of soil on the lot.

Task 1

The fee owners of the lot restricted by this (E) designation will be required to prepare a scope of work for any soil, gas, or groundwater sampling and testing needed to determine if contamination exists, the extent of the contamination, and to what extent remediation may be required. The scope of work will include all relevant supporting documentation, including site plans and sampling locations. This scope of work will be submitted to the Mayor's Office of Environmental Remediation (OER) for review and approval prior to implementation. It will be reviewed to ensure that an adequate number of samples will be collected and that appropriate parameters are selected for laboratory analysis.

No sampling program may begin until written approval of a work plan and sampling protocol is received from the OER. The number and location of sample sites should be selected to adequately characterize the type and extent of the contamination, and the condition of the remainder of the site. The characterization should be complete enough to determine what remediation strategy (if any) is necessary after review of the sampling data. Guidelines and criteria for choosing sampling sites and performing sampling will be provided by OER upon request.

Task 2

A written report with findings and a summary of the data must be presented to OER after completion of the testing phase and laboratory analysis for review and approval. After receiving such test results, a determination will be provided by OER if the results indicate that remediation is necessary.

If OER determines that no remediation is necessary, written notice shall be given by OER.

If remediation is necessary according to test results, a proposed remediation plan must be submitted to OER for review and approval. The fee owners of the lot restricted by this (E) designation must perform such remediation as determined necessary by OER. After completing the remediation, the fee owners of the lot restricted by this (E) designation should provide proof that the work has been satisfactorily completed.

An OER-approved construction-related health and safety plan would be implemented during excavation and construction activities to protect workers and the community from potentially significant adverse impacts associated with contaminated soil and/or groundwater. This Plan would be submitted to OER for review and approval prior to implementation.

With the implementation of the above (E) designation, no significant adverse impacts related to hazardous materials would occur.

Therefore, there is no potential for the proposed action to result in significant adverse impacts related to hazardous materials.

CONCLUSION

Based on the mitigation measures proposed above, there is no potential for the proposed action to result in significant adverse impacts related to hazardous materials. Therefore, further hazardous materials analysis would not be warranted.

16. TRANSPORTATION

To determine the potential for the proposed action to result in significant adverse impacts to traffic and parking, screening analyses were performed pursuant to the methodologies identified in the *2012 CEQR Technical Manual.* Based on the projected development scenario of a total net increase of 110 dwelling units, a total net increase of 3,115 gsf of professional medical office space, a total net increase of 9,405 square feet of accessory recreational space, a total net increase of 421 square feet of accessory open space, a net increase of 57 accessory parking spaces, and a total net decrease of -11,854 gsf of commercial retail space, it was determined, as described below, that the proposed action would satisfy the *Level One Screening* for traffic, parking transit and pedestrians.

Level One Screening

To assess the potential effects of the proposed action on transportation conditions, the appropriate trip generation screening analyses, *Level One*, have been performed, based on the *2012 CEQR Technical Manual*. The resulting conclusions are summarized below.

The proposed action would generate 48, -287, and -71 net person trip ends and 28, 2, and 23 net vehicle trip ends during the AM, MD, and PM peak hours, respectively. The proposed action would generate fewer than 200 peak hour net person trip ends and 50 peak hour net vehicle trip ends during the AM, MD, and PM peak hours. Thus, based upon the *2012 CEQR Technical Manual Guidelines*, no further traffic, parking, transit, or pedestrian analysis is required.

Trip Generation Characteristics

The following assumptions were utilized in estimating likely future trips from each of the land uses resulting from the proposed action as summarized in Table 1.

Residential Development

The proposed action would include 110 residential dwelling units. The residential trip generation rates and temporal distribution are all based on the *2012 CEQR Technical Manual, Table 16-2.* A rate of 8.075 daily person trips per dwelling unit is assumed for the project's residential component. The mode of transportation (modal split) is estimated based on journey-to-work (JTW) data from the 2007-2011 American Community Survey (ACS) for the census tract numbers 535 and 539 in Queens, directly affected by the proposed action. Based on those census tracts, the modal split used is 29 percent autos, zero (0) percent taxi, 18 percent bus, 35 percent subway, 11 percent walk, and seven (7) percent other, such as bicycle, as summarized in Table 1 and shown in Exhibits 1 and 2 for modal split data and vehicle occupancy rate for autos, respectively. Based on census data, the auto vehicle occupancy rate is estimated at 1.15; and for taxis, based on the Taxi Travel Survey, a rate of 1.4 is assumed for this development.

Retail Development

The proposed action would provide a total net decrease of -11,854 gsf of retail space. The retail space projected to occur as a ground-floor component of the action-induced development is local-type stores serving building occupants and the surrounding neighborhood. The local-type retail *trip generation rates and temporal distribution information are all based on the 2012 CEQR Technical Manual, Table 16-2.* The trip generation rate is estimated at 205 person trips per 1,000 square feet of space (Table 16-2) with a 25% linked trip credit. The modal split data is 2 percent autos, 3 percent taxi, 6 percent bus, 6 percent subway, and 83 percent walk, based on the *Jamaica Plan FEIS*. The vehicle occupancy rates of 2 and 2 are also based on the *Jamaica Plan FEIS* and selected for autos and taxis, respectively.

Community Facility (Professional Medical Office) Development

The proposed action would provide a total of 3,115 gsf of professional medical office space. The medical office trip generation rates, peak hour temporal distribution, and modal split information are all based on the *Jamaica Plan FEIS.* The trip generation rates are estimated at 10 and 33.6 person trips per 1,000 square feet of space for staff and visitors trips, respectively. The modal split data reported for the staff trips is 20 percent autos, 10 percent taxi, 30 percent bus, 30 percent subway, and 10 percent walk. The modal split information for the visitors is 25 percent autos, 25 percent taxi, 11 percent bus, 29 percent subway, and 10 percent walk. The vehicle occupancy for staff and visitors trips, respectively, are 1.00 and 1.65 for autos and 1.4 and 1.2 for taxis.

Accessory Recreation Space

The proposed action would provide approximately 9,405 square feet of accessory recreational space on the roof of the building on Projected Development Site 1 for use by the building's residents. This component would generate no external trips.

Accessory Open Space
The proposed action would include approximately 421 square feet of accessory open space on Projected Development Site 2 for use by the residents of the proposed building. This component would generate no external trips.

Delivery Vehicles
The rates of 0.06 per dwelling unit, 0.35 per 1,000 square feet of retail, and 0.32 per 1,000 square feet of medical office space, as reported in the *2012 CEQR Technical Manual*, *Table 16-2*, are used to estimate daily delivery vehicles for the proposed action.

Total Person Trips
The proposed action would collectively generate 48, -287, and -71 net person trip ends during the AM, Midday, and PM peak hours, respectively, as summarized in Table 2.

Total Vehicle Trips
The proposed action would collectively generate 28, 2, and 23 net vehicle trip ends during the AM, Midday, and PM peak hours, respectively, as summarized in Table 2.

The projected development sites would collectively generate fewer than 50 net vehicle trip ends during all peak hours, thus, based upon the *2012 CEQR Technical Manual Guidelines*, the proposed action would satisfy the *Level One Screening* and no further traffic or parking analysis is required.

Bus Trips
The proposed action would collectively generate 16, -10, and 10 net bus trips and also fewer than 50 net bus trips per bus lane per direction during the AM, Midday, and PM peak hours, respectively, as summarized in Table 2.

The proposed action would generate fewer than 200 net bus trips during the AM, Midday, and PM peak hours, respectively, as summarized in Table 2. Thus, based upon the *2012 CEQR Technical Manual Guidelines*, the proposed action would satisfy the *Level One Screening* and no further bus analysis is required.

Subway Trips
The proposed action would collectively generate 32, -1, and 28 net subway trips during the AM, Midday, and PM peak hours, respectively, as summarized in Table 2.

The proposed action would generate fewer than 200 net subway trips, during the AM, Midday, and PM peak hours as summarized in Table 2. Thus, based upon the *2012 CEQR Technical Manual Guidelines*, the proposed action would satisfy the *Level One Screening* and no further subway analysis is required.

Exhibit 1

Modal Split Information

ACS 5-YEAR 2007-2011 Journey-to-Work (JTW) for Census Tract numbers 535 and 539 in Queens NY

18-70 Woodward Avenue, Queens New York

2011 ACS, Journey-to-Work:

Census Tract	Total Workers	Car or Van	Carpool	Bus	Street Car	Subway	R.R.	Ferry	Taxi	Motor cycle	Bicycle	Walked	Other Means	Worked @ Home	Total
535	602	68	8	252	0	156	0	0	0	0	38	80	0	0	602
539	2,114	518	192	249	0	793	78	0	0	0	0	216	36	32	2,114
Total	2,716	586	200	501	0	949	78	0	0	0	38	296	36	32	2,716
		0.216	*0.074*	*0.184*	*0.00*	*0.349*	*0.029*	*0.00*	*0.00*	*0.00*	*0.01*	*0.109*	*0.01*	*0.012*	*1.00*

Exhibit 2

Vehicle Occupancy Information

Census Tract # 1161 Queens, New York

2010 ACS, Vehicle Occupancy Rate:

Census Tract	Total	Drove alone	Total carpool	2person	3 Person	4 Person or more	Total
535	76	68	8	8	0	0	8
539	710	518	192	162	30	0	192
Total	786	586	200	170	30	0	200
		586		85	10	0	681

Vehicle Occupancy 1.15

Modal Split summary

Auto	0.29
Taxi	0.00
Bus	0.18
Subway	0.35
Walk	0.11
Other	0.07
Total	1.00

Table 1 : Transportation Planning Factors

18-70 Woodward Avenue, Queens NY

Land Use:	Residential	Medical Office		Commercial Retail	Recreational	Open Space
	d.u.	sq.ft.		sq.ft.	Space (sq.ft.)	sq.ft.
Size/Units:	110	3,115		-11,854	9,405	421
	(1)	(3)	(3)	(1)		(1)
Trip Generation:						
Weekday	8.075	10	33.6	205	Accessory to	139
	per d.u.	per 1,000 sq.ft.		per 1,000 sq.ft.	to building's	per acre
Linked-Trip:	-	-	-	25%	residents	-
Temporal Distribution:	(1)	(3)	(3)	(1)	and patrons	(1)
AM Peak Hour	10%	24%	6%	3%	-	3%
MD Peak Hour	5%	17%	9%	19%	-	5%
PM Peak Hour	11%	24%	5%	10%	-	6%
	(2)	(3)	(3)	(3)		(4)
Modal Split :	AM/MD/PM	AM/MD/PM	AM/MD/PM	AM/MD/PM	-	AM/MD/PM
Auto	29%	20%	25%	2%	-	0%
Taxi	0%	10%	25%	3%	-	0%
Subway	35%	30%	29%	6%	-	0%
Bus	18%	30%	11%	6%	-	0%
Walk	11%	10%	10%	83%	-	100%
Other	7%	0%	0%	0%	-	0%
Total	100%	100%	100%	100%	-	100%
	(3)	(3)		(3)		
In/Out Splits:	In/Out	In/Out		In/Out	-	In/Out
AM Peak Hour	20/80	94/6		50/50	-	50/50
MD Peak Hour	51/49	50/50		50/50	-	50/50
PM Peak Hour	65/35	12/88		50/50	-	50/50
Vehicle Occupancy:	(2)	(3)	(3)	(3)		(4)
Auto	1.15	1	1.65	2	-	n/a
Taxi	1.40	1.4	1.2	2	-	n/a
	(1)	(1)		(1)		(4)
Truck Trip Generation:	0.06	0.32		0.35	-	n/a
	per d.u.	per 1,000 s.f.		per 1,000 s.f.		
	(1)	(1)		(1)		(4)
AM Peak Hour	12%	10%		8%	-	n/a
MD Peak Hour	9%	11%		11%	-	n/a
PM Peak Hour	2%	2%		2%	-	n/a
	(1)	(1)		(1)		(4)
AM/MD/PM	50/50	50/50		50/50	-	n/a

Sources:

(1)-2012 CEQR Technical Manual, Table 16-2.

(2)-2007-2011 American Community Survey (ACS) for tract numbers 535 and 539.

(3)-The Jamaica Plan FEIS, Tables 16-10 and 16-10a.

(4)-Saint Vincent FEIS.

Table 2 : Estimated Person and Vehicular Trips

18-70 Woodward Avenue, Queens NY

Land Use:	Residential	Medical Office		Commercial Retail	Recreational	Open Space	Total Net
	d.u.	sq.ft.		sq.ft.	Space (sq.ft.)	sq.ft.	Demand
Size/Units:	110	3,115		-11,854	9,405	421	
Peak hour Trips							
AM	89	7	6	-55	0	0	48
MD	44	5	9	-346	0	0	-287
PM	98	7	5	-182	0	0	-72
Person Trips:							
AM							
Auto	26	1	2	-1	0	0	28
Taxi	0	1	2	-2	0	0	1
Subway	31	2	2	-3	0	0	32
Bus	16	2	1	-3	0	0	16
Walk	10	1	1	-45	0	0	-34
Other	6	0	0	0	0	0	6
Total	89	7	6	-55	0	0	48
Midday							
Auto	13	1	2	-7	0	0	9
Taxi	0	0	2	-10	0	0	-8
Subway	16	2	3	-21	0	0	-1
Bus	8	2	1	-21	0	0	-10
Walk	5	0	1	-287	0	0	-282
Other	3	0	0	0	0	0	3
Total	44	5	9	-346	0	0	-287
PM							
Auto	28	1	1	-4	0	0	27
Taxi	0	1	1	-5	0	0	-4
Subway	34	2	2	-11	0	0	28
Bus	18	2	1	-11	0	0	10
Walk	11	1	1	-151	0	0	-139
Other	7	0	0	0	0	0	7
Total	98	7	6	-182	0	0	-71
Vehicular Trips							
AM							
Auto (Total)	22	1	1	-1	0	0	24
Taxi	0	1	1	-1	0	0	
Taxi (Balanced)	0	2	2	-2	0	0	2
Truck	1	0	0	0	0	0	
Truck(Balanced)	2	0	0	0	0	0	2
Total	24	3	3	-3	0	0	28
Midday							
Auto (Total)	11	1	1	-3	0	0	10
Taxi	0	0	2	-5	0	0	
Taxi (Balanced)	0	0	4	-12	0	0	-8
Truck	1	0	0	0	0	0	
Truck(Balanced)	2	0	0	-2	0	0	0
Total	13	1	5	-17	0	0	2
PM							
Auto (Total)	25	1	1	-2	0	0	25
Taxi	0	1	1	-3	0	0	
Taxi (Balanced)	0	2	2	-6	0	0	-2
Truck	0	0	0	0	0	0	
Truck(Balanced)	0	0	0	0	0	0	0
Total	25	3	3	-8	0	0	23

Pedestrian Trips

The proposed action would collectively generate 20, -290, and -94 net pedestrian (bus, subway, walk, and other) trips during the AM, Midday, and PM peak hours, respectively, as summarized in Table 2.

Based on trip generation and mode split characteristics as described above, the proposed action would generate fewer than 200 net pedestrian trip ends, during the AM, Midday, and PM peak hours, respectively, as summarized in Table 2. Thus, based upon the *2012 CEQR Technical Manual Guidelines*, the proposed action would satisfy the *Level One Screening* and no further pedestrian analysis is required.

Conclusion

The results of the transportation analysis indicate that the proposed project would generate fewer than 50 net vehicle trip ends during the AM, Midday, and PM periods. No significant adverse impacts related to traffic and parking conditions are anticipated to occur. Similarly, no significant adverse impacts related to transit and pedestrians would be expected. No significant adverse impacts related to transportation would occur as a result of the proposed action, and no further assessment is warranted.

17. AIR QUALITY

INTRODUCTION

Under CEQR, two potential types of air quality impacts are examined. These are mobile and stationary source impacts. Potential mobile source impacts are those which could result from an increase in traffic in the area, resulting in greater congestion and higher levels of carbon monoxide (CO). Potential stationary source impacts are those that could occur from stationary sources of air pollution, such as major industrial processes or heat and hot water boilers of major buildings in close proximity to the proposed project. Both the potential impacts of the proposed project on surrounding buildings and potential impacts of uses in the environs of a proposed sensitive use, such as residences, schools, and hospitals, are considered in the assessment. Odors resulting from the operation of a proposed development or affecting a project are also discussed in the assessment, if relevant.

MOBILE SOURCES

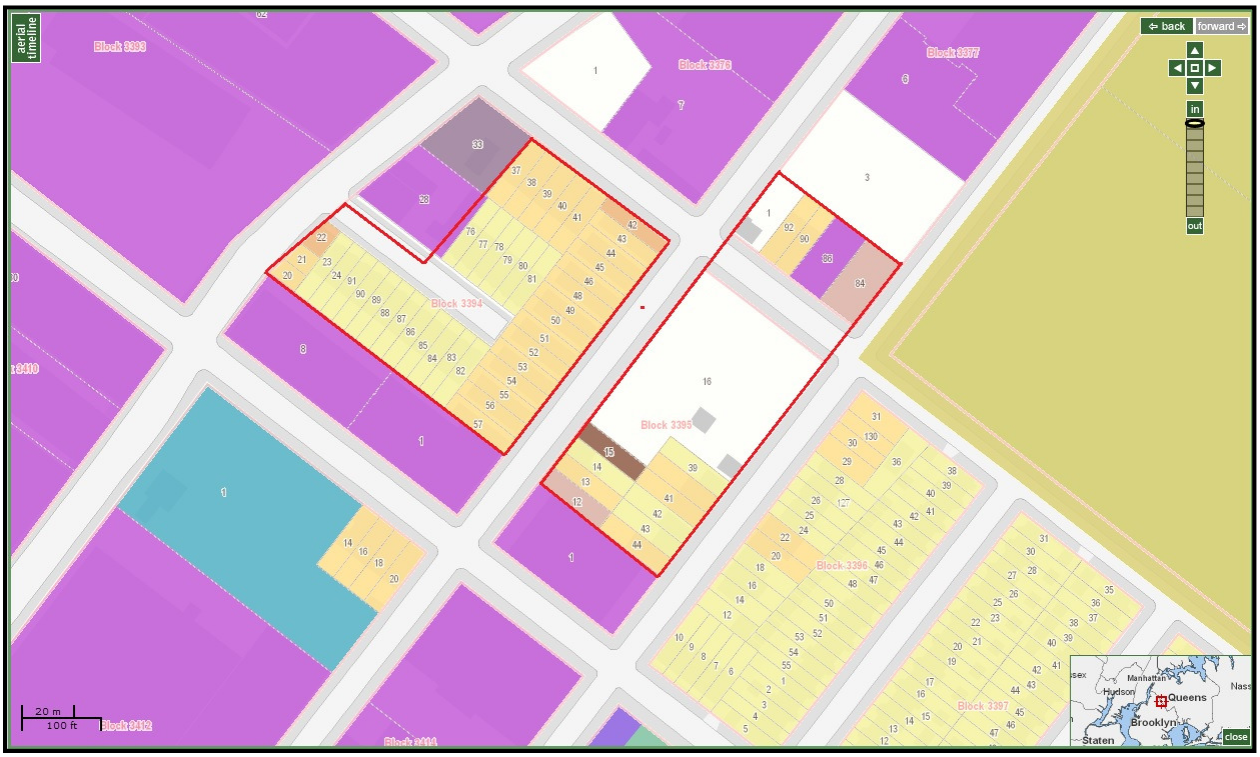
Under guidelines contained in the *CEQR Technical Manual*, and in this area of New York City, projects generating fewer than 170 additional vehicular trips in any given hour are considered as highly unlikely to result in significant mobile source impacts, and do not warrant detailed mobile source air quality studies. The incremental difference between the No-Action and With-Action Scenarios would be the development under the With-Action Scenario of an additional 110 dwelling units, 3,115 gsf of medical office space, and 57 parking spaces, but also 11,854 gsf less retail floor area than the No-Action Scenario. The incremental difference between the No-Action and With-Action Scenarios would not result in the generation of 170 additional vehicular trips in any given hour. Therefore, no significant mobile source air quality impacts would be generated under the proposed action.

STATIONARY SOURCES

INTRODUCTION

The applicant, 176 Woodward Owner, LLC., seeks the approval of a Zoning Map Amendment to Block 3395 (Lots 12-16, 39-44), Block 3394 (Lots 20-24, 28 (partial), 37-46, 48-57, 76-91), and Block 3377 (Lots 1, 84, 86, 90, 92) in the Ridgewood neighborhood of Queens, NY (the "Proposed Action"). Currently, the properties are zoned M1-1. The Proposed Action would rezone Block 3395, Lot 16 (100-foot depth from Woodward Avenue) and Block 3377, Lots 1, 84, 86, 90, and 92 to R6B/C1-3. The portion of Block 3395, Lot 16, located outside of the C1-3 commercial overlay would be zoned R6B. Block 3395, Lots 12-15 and 39-44, and Block 3394, Lots 42-57, would be rezoned to R6B. Block 3394, Lots 20-24, 28 (partial), 37-41, and 76-91 would be rezoned to R5B. Figure 1 shows the project blocks.

Figure 1:
Project Location



Source: Sandstone Environmental Associates, Inc.

SCOPE OF WORK

The purpose of this document is to evaluate the potential for significant adverse air quality impacts from HVAC systems and air toxics. This includes potential impacts to the proposed action from existing uses as well as impacts caused by the proposed action on surrounding land uses. Potential project-on-project impacts are also included. The work was carried out in compliance with the NYC *CEQR Technical Manual* (2012).

STANDARDS AND GUIDELINES

National Ambient Air Quality Standards

Ambient air is defined by the United States Environmental Protection Agency (EPA) as that portion of the atmosphere, external from buildings, to which the general public has access. National Ambient Air Quality Standards (NAAQS) were promulgated by EPA to protect public health and welfare, allowing for an adequate margin of safety. The NAAQS include sulfur dioxide, carbon monoxide, ozone, nitrogen dioxide, fine particulates, and lead. They consist of primary standards, established to protect public health with an adequate safety margin, and secondary standards, established to protect "plants and animals and to prevent economic damage." The six pollutants are deemed criteria pollutants because threshold criteria can be established for determining adverse effects on human health. These pollutants are described below.

- Carbon Monoxide (CO) is a colorless, odorless gas produced from the incomplete combustion of gasoline and other fossil fuels. The primary source of CO in urban areas is from motor vehicles. Because this gas disperses quickly, CO concentrations can vary greatly over relatively short distances.

- Fine Particulates (PM_{10}, $PM_{2.5}$) also are known as Inhalable or Respirable Particulates. Particulate matter is a generic term for a broad range of discrete liquid droplets or solid particles of various sizes. The PM_{10} standard covers particles with diameters of 10 micrometers or less, which are the ones most likely to reach the lungs. The $PM_{2.5}$ standard covers particles with diameters of 2.5 micrometers or less.

- Lead (Pb) is a heavy metal. Emissions are principally associated with industrial sources and motor vehicles that use gasoline containing lead additives. Most U.S. vehicles produced since 1975, and all produced after 1980, are designed to use unleaded fuel. As a result, ambient concentrations of lead have declined significantly.

- Nitrogen dioxide (NO_2) is a highly oxidizing, extremely corrosive toxic gas. It is formed by chemical conversion from nitric oxide (NO), which is emitted primarily by industrial furnaces, power plants, and motor vehicles.

- Ozone (O_3) is a principal component of smog. It is not emitted directly into the air, but is formed through a series of chemical reactions between hydrocarbons and nitrogen oxides in the presence of sunlight.

- Sulfur dioxides (SO_2) are heavy gases primarily associated with the combustion of sulfur-containing fuels such as coal and oil. No significant quantities are emitted from mobile sources.

In addition to NAAQS, New York State Ambient Air Quality Standards further regulate concentrations of the criteria pollutants discussed above. The New York State Department of

Environmental Conservation (NYSDEC), Air Resources Division, is responsible for air quality monitoring in the state. Monitoring is performed for each of the criteria pollutants to assess compliance. Table 1 shows the New York and National Ambient Air Quality Standards, as well as monitored values at the monitoring stations closest to the site.

Table 1:
National and New York State Ambient Air Quality Standards

Pollutant	Averaging Period	Standard	2012 Value	Monitor
Sulfur Dioxide	3-hour average	500 ppb	17.1 ppb (44.8 µg/m^3)	Queens College 2
	1-hour average[e]	75 ppb	24.7 ppb (64.7 µg/m^3)	
Inhalable Particulates (PM10)	24-hour average	150 µg/m3	33 µg/m^3	Queens College 2
Inhalable Particulates (PM2.5)	3-yr average annual mean	12 µg/m3	9.1 µg/m^3	Queens College 2
	Maximum 24-hr. 3-yr. avg.[c]	35 µg/m3	24 µg/m^3	
Carbon Monoxide	8-hour average[a]	9 ppm	1.1 ppm	Queens College 2
	1-hour average[a]	35 ppm	1.7 ppm	
Ozone	Maximum daily 8-hr avg.[b]	0.075 ppm	0.081 ppm	Queens College 2
Nitrogen Dioxide	12-month arithmetic mean	53 ppb	17.5 ppb (32.9 µg/m^3)	Queens College 2
	1-hour average[d]	75 ppb	64 ppb (120.3 µg/m^3)	
Lead	Quarterly mean	0.15 µg/m3	0.008 µg/m^3 (2011)	Morrisania

Notes: ppm = parts per million; µg/m^3 = micrograms per cubic meter.
a. Not to be exceeded more than once a year.
b. Three-year average of the annual fourth highest maximum 8-hour average concentration effective May 27, 2008.
c. Not to be exceeded by the 98th percentile of 24-hour $PM_{2.5}$ concentrations in a year (averaged over 3 years).
d. Three-year average of the 98th percentile of the daily maximum 1-hour average, effective January 22, 2010.
e. Three-year average of the 99th percentile of the daily maximum 1-hour average, final rule signed June 2, 2010.
Sources: New York State Department of Environmental Conservation; New York State Ambient Air Quality Development Report, New York City Department of Environmental Protection, 2012.

NYC De Minimis *Criteria*

For carbon monoxide from mobile sources, the New York City's *de minimis* criteria are used to determine the significance of the incremental increases in CO concentrations that would result from a proposed action. These set the minimum change in an 8-hour average carbon monoxide concentration that would constitute a significant environmental impact. According to these criteria, significant impacts are defined as follows:

- An increase of 0.5 parts per million (ppm) or more in the maximum 8-hour average carbon monoxide concentration at a location where the predicted No Action 8-hour concentration is equal to or above 8 ppm.
- An increase of more than half the difference between the baseline (i.e., No Action) concentrations and the 8-hour standard, where No Action concentrations are below 8 ppm.

The following criteria should be used for determination of significant adverse $PM_{2.5}$ impacts for projects subject to CEQR:

- Predicted24-hour maximum $PM_{2.5}$ concentration increase of more than half the difference between the 24-hour background concentration and the 24-hour standard; or

- Predicted annual average $PM_{2.5}$ concentration increments greater than 0.1 ug/m^3 at ground level on a neighborhood scale (i.e., the annual increase in concentration representing the average over an area of approximately 1 square kilometer, centered on the location where the maximum ground-level impact is predicted for stationary sources; or for mobile sources, at a distance from a roadway corridor similar to the minimum distance defined for locating neighborhood scale monitoring stations); or

- Predicted annual average $PM_{2.5}$ concentration increments greater than 0.3 µg/m^3 at any receptor location for stationary sources.

The de minimis value for 24-hour $PM_{2.5}$ was based on the 98th percentile concentrations averaged over 3 years (2010-2012). This average, 23.6 ug/m^3, was subtracted from the standard of 35 ug/m^3 and divided by 2. Therefore, the de minimis is 5.7 ug/m^3.

State Implementation Plan (SIP)

The Clean Air Act requires states to submit to the EPA a SIP for attainment of the NAAQS. The 1977 and 1990 amendments required comprehensive plan revisions for areas where one or more of the standards have yet to be attained. Queens County is part of a CO maintenance area and is nonattainment (moderate) for the 8-hour ozone standard and nonattainment for PM_{10} and $PM_{2.5}$. The state is under mandate to develop SIPs to address ozone, carbon monoxide, and PM_{10}. It is also working with the EPA to formulate standard practices for regional haze and $PM_{2.5}$.

New York State Department of Environmental Conservation (NYSDEC)

In addition to criteria pollutants, a wide range of non-criteria air pollutants known as toxic air pollutants may be emitted from industrial sources. These pollutants, ranging from high to low toxicity, can be grouped into two categories: carcinogenic air pollutants and non-carcinogenic air pollutants. NYSDEC has established Short-Term Guideline Concentrations (SGCs) and Annual Guideline Concentrations (AGCs) for numerous toxic or carcinogenic non-criteria pollutants for which EPA has no established standards. They are maximum allowable 1-hour and annual guideline concentrations, respectively, that are considered acceptable concentrations below which there should be no adverse effects on the health of the general public. SGCs are intended to protect the public from acute, short-term effects of pollutant exposures, and AGCs are intended to protect the public from chronic, long-term effects of the exposures. Pollutants with no known acute effects have no SGC criteria, but do have AGC criteria. NYSDEC's *DAR-1 AGC/SGC Tables* (October 18, 2010) contains the most recent compilation of the SGC and AGC guideline concentrations.

Where the NYSDEC-established AGC is based on a health risk criteria (i.e., a one in a million cancer risk), and the source has Best Available Control Technology (BACT) installed, NYCDEP may consider the potential impacts to be insignificant if the projected ambient concentration is less than 10 times the AGC. This is because NYSDEC developed the AGCs for these pollutants by reducing the health risk criteria by a factor of 10 as an added safety measure.

No NAAQs, SGCs, or AGCs exist for emissions of pollutants that are grouped together such as total solid particulates, total hydrocarbons, or total organic solvents. Therefore, as recommended by NYCDEP, all solid particulates are assumed to be PM_{10}. For total organic solvents or total hydrocarbons, the SGCs and AGCs for specific compounds should be obtained and used in an analysis.

Based on SGCSs and AGCs, EPA also developed methodologies that can be used to estimate the potential impacts of air toxic pollutants from multiple emission sources. The "Hazard Index Approach" can be used to estimate the potential impacts of non-carcinogenic pollutants. If the combined ratio of estimated pollutant concentrations divided by the respective SGCs or AGCs value for each of the toxic pollutants is found to be less than 1, no significant air quality impacts are predicted to occur. Using these factors, the AGC equivalent to a "one in a million cancer risk" from an individual pollutant and/or combined pollutants can be estimated. If the cancer risk is less than one in one million, no significant air quality impacts are predicted to occur due to these pollutant releases.

EXISTING CONDITIONS

Existing Air Quality

As stated previously, Queens County is part of a CO maintenance area and is nonattainment (Moderate) for the 8-hour ozone standard and nonattainment for PM_{10} and $PM_{2.5}$. It is in compliance with all other NAAQS.

Background Concentrations

For SO_2, and NO_x, and PM_{10}, the background concentrations were obtained from the air quality monitor at Queens College 2 / Public School 219. The background values were calculated as follows:

- 64.4 $\mu g/m^3$ for the 1-hour SO_2 concentration averaged over 3 years of data (2010-2012) at the 99^{th} percentile,
- 71.3 $\mu g/m^3$ for the 3-hour SO_2 concentration based the highest second highest value averaged over 5 years (2008-2012)
- 38.2 $\mu g/m^3$ for the annual NO_2 averaged over 5 years of data (2008-2012) at the 98^{th} percentile,
- 120.32 ug/m^3 for the 1-hour NO_2 averaged over 3 years of data (2010-2012) at the 98^{th} percentile and
- 50 $\mu g/m^3$ for the 24-hour PM_{10} average based on the highest second maximum concentration over three years of data (2010-2012).

As a conservative approach for CO, the highest value from the past 5 years of monitored values was used as the background value. Based on the Queens College station, the CO background would be 3.4 ppm for the 1-hour average and 2.7 ppm for the 8-hour average as shown in Table 2.

Table 2: Monitored CO Concentrations (ppm)

Monitor	Year	1-Hour Value	8-Hour Value
Queens College 2, Queens	2008	2.3	1.7
	2009	3.1	1.9
	2010	**3.4**	**2.7**
	2011	2.1	1.8
	2012	1.7	1.1

Note: Numbers in bold type are the highest in their category.
Source: New York State Department of Environmental Conservation.

FUTURE WITHOUT THE PROPOSED ACTION

A RWCDS has been developed for the Future No-Action Condition under the existing M1-1 zoning mapped on the property. Absent the action, the Applicant intends to develop Projected Development Site 1 with a one-story, approximately 19,945 gsf commercial building. Approximately 66 at–grade parking spaces would be provided. Similarly, absent the action, the Applicant intends to develop Projected Development Site 2 with a one-story, approximately 3,135 gsf commercial building with approximately five at–grade parking spaces for a general retail or service use. The total RWCDS on Projected Development Sites 1 and 2 would therefore total approximately 23,080 gsf of commercial floor area and 71 parking spaces. The anticipated use on each development site would be Use Group 6 local retail stores and services.

Based on the existing zoning of the proposed rezoning area and due to the significant level of development on most of the lots within the area, it is not likely that additional development would occur in the remainder of the rezoning area. Therefore, the existing buildings and uses on Block 3377, Lots 1, 86, 90, 92; Block 3394, Lots 20-24, 28 (partial), 37-46, 48-57, 76-91; and Block 3395, Lots 12-15, 39-44 would remain as they are currently, which includes Projected Development Sites 3-5:

- Projected Development Site 3 – Approximately 2,200 square feet of residential floor area providing four (4) dwelling units.
- Projected Development Site 4 – Approximately 1,910 square feet of residential floor area providing two (2) dwelling units.
- Projected Development Site 5 – Approximately 200 square feet of commercial floor area.

FUTURE WITH THE PROPOSED ACTION

Description of the Proposed Action

The Applicant's property includes as Block 3395, Lot 16 (Projected Development Site 1) and

Block 3377, Lot 84 (Projected Development Site 2).The proposed action would facilitate a proposal by the Applicant to redevelop these two currently underutilized sites primarily for residential purposes with medical office space, local retail space, and accessory parking as further detailed below.

Projected Development Site 1 –The site would be developed with a four-story, 90,020 gross square foot (gsf) building containing 80,198 gsf of residential floor area for 80 dwelling units, 3,115 gsf of ground floor medical office space, and 6,707 gsf of ground floor retail space. The development would contain 118 parking spaces including 11 open parking spaces and 107 spaces of cellar/sub-cellar parking in the building. Access to the parking would be provided from Troutman Street. Approximately 9,405 square feet of common recreational space would be provided on the roof of the proposed building.

Projected Development Site 2 - The site would be developed with a four-story, 11,000 gsf building containing eight dwelling units within 8,650 gsf of floor area (including a 400 gsf residential lobby) on floors two through four. The ground floor of the building would contain 2,350 gsf of retail floor area. The development would contain five open parking spaces accessed from Starr Street. The development would include approximately 421 square feet of landscaped open space on the lot.

Based on the City's soft site development criteria, the proposed rezoning would facilitate the development of up to 25,778 gsf of floor area for approximately 22 dwelling units and 2,369 gsf of retail space on Projected Development Site 3 (Block 3395, Lots 12 & 13), Projected Development Site 4 (Block 3395, Lots 14 & 15), and Projected Development Site 5 (Block 3377, Lot 1) as further detailed below.

Projected Development Site 3 – Approximately 7,846 square feet of additional floor area providing eight (8) new dwelling units is planned for this site. Assuming that building mechanical space at 3% of floor area, the total size of the building would be 8,081 gsf. When added to the existing development on the site that would remain, Projected Development Site 3 would contain 10,281 gsf of floor area for 12 dwelling units. No parking would be provided.

Projected Development Site 4 – Approximately 8,182 square feet of additional floor area providing eight (8) new dwelling units would be developed. Assuming building mechanical space at 3% of floor area would result in a total of 8,427 gsf of new floor area. When added to the existing development on the site that would remain, Projected Development Site 4 would contain 10,337 gsf of floor area for 10 dwelling units. No parking would be provided.

Projected Development Site 5 – Approximately 8,800 square feet of new floor area would be added, resulting in a total of 9,000 square feet on the site. The existing 200 square-foot storage structure would be demolished. Assuming building mechanical space at 3% of floor area would result in a total of 9,270 gsf of floor area for this site. The first floor would contain 2,369 gsf of commercial retail space plus a 412 gsf residential lobby for a total floor area of 2,781 gsf. The second through fourth floors would each contain 2,163 gsf of residential space totaling 6,489 gsf of residential floor area providing six (6) new dwelling units. Five parking spaces would be provided.

Stationary Source Screening Analysis, HVAC

Emissions from the fuel combustion for heating, ventilation, and air conditioning (HVAC) systems of the buildings may affect air quality levels at nearby land uses. According to *CEQR Technical Manual* (2012), the impacts of these emissions are a function of fuel type, stack height, building size, and location of each emission source relative to a nearby sensitive land use. As a screening analysis, using the nomographs in the *CEQR Technical Manual*, the size of the development is plotted against the distance in feet between the lot lines of the source and receptor buildings. The nomographs are applicable to buildings where the boiler stack is at least 30 feet from the nearest building of similar or greater height. If the distance is less than 30 feet, the analysis must be carried out using AERSCREEN or AERMOD modeling. If the plotted point is on or above the applicable curve, the potential for a significant air quality impact exists, and further analysis is required using AERSCREEN or AERMOD modeling.

For residential developments, the screening analysis typically uses the nomographs shown in Figure 17-3 (Stationary Source Screen), Figure 17-5 (SO_2 boiler screen for residential fuel oil #2) or Figure 17-7 (NO_2 boiler screen for residential natural gas) of the *2012 CEQR Technical Manual and* Air Quality Appendix. The screening is based on the following considerations:

- If the distance between the lot line of a source building and the lot line of the nearest receptor building of similar or greater height is less than the 30 foot threshold distance provided in the nomographs, then more detailed analysis using AERSCREEN or AERMOD modeling is required.

- If the distance between source and receptor lot lines is less than or equal to the threshold distance (i.e., falls above the curve on the nomographs), further analysis is required using EPA's AERSCREEN or AERMOD models.

- If the source building is taller than the receptor building or the distance between the two buildings falls below the applicable curve provided in the nomographs, a potential significant impact due to boiler stack emissions is unlikely and no further analysis is needed.

- If there is a large emission source within 1,000 feet of the With-Action development may require coordination with NYCDEP to determine the potential impact of emissions, even if it is higher than the buildings in the With-Action development.

Projected and Potential Development Sites on Existing Buildings

Based on Figure 17-3 from the *CEQR Technical Manual* , the heating and hot water ventilation systems for the anticipated buildings on Projected Development Sites 1 through 5 would not result in air quality impacts to existing development. The projected buildings on all five development sites would be four stories (40 feet) high and their boiler stacks would be at least 43 feet high. Table 3 gives a breakdown of the square footages for the projected development sites. Their emissions stacks would be higher than all existing buildings within 400 feet of the

project site. Therefore, using Figure 17-3 from the *CEQR Technical Manual*, the 90,020 gsf building on Projected Development Site 1, the 11,000 gsf building on Projected Development Site 2, the 10,281 gsf building on Projected Development Site 3, the 10,337 gsf building on Projected Development Site 4, and the 9,270 gsf building on Projected Development Site 5 would pass the screen. No potential significant adverse impacts are projected on the existing development in the vicinity of the proposed rezoning area due to boiler stack emissions, and no detailed analysis of stationary source impacts from the proposed development is required. Figure 2 shows the site plan of the proposed buildings.

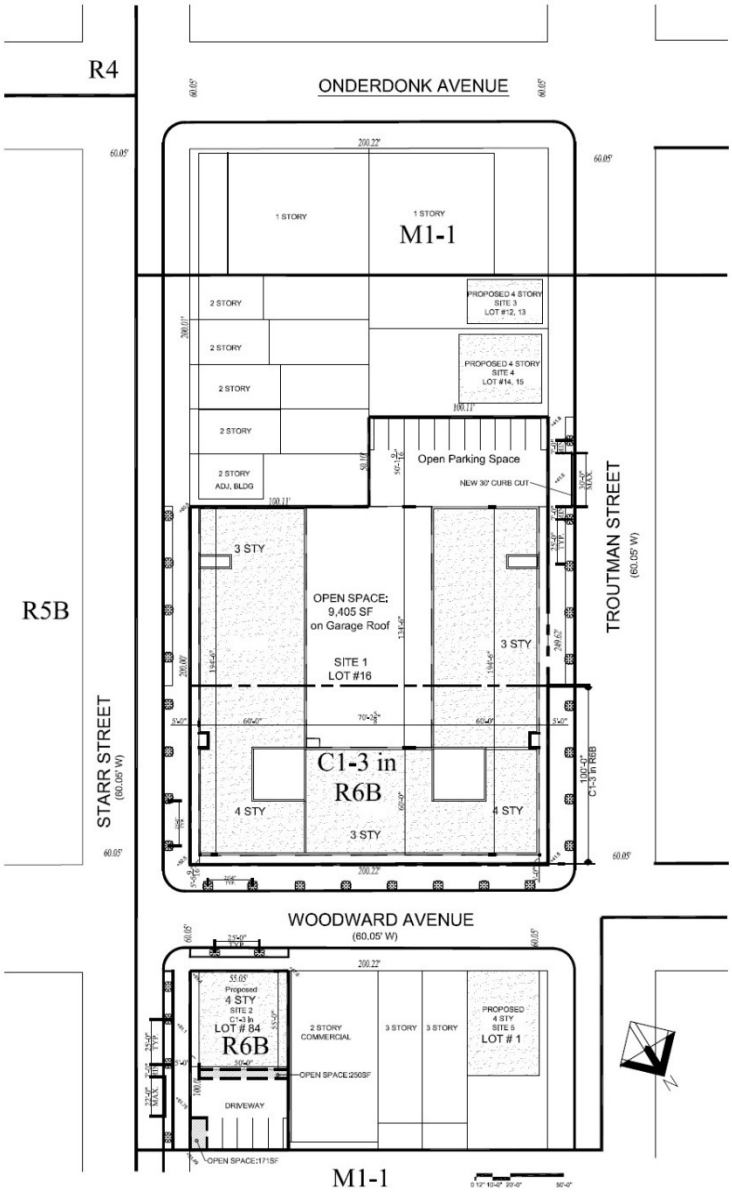
Table 3

Projected Development Sites, Action Conditions

Address	Building ID	Tax Block	Lot(s)	Projected Square Footage					Height (ft)
				Residential	Retail	Medical Office	Sub-total	Parking Spaces	
Projected Development Sites, Applicant									
18-70 Troutman Street	1	3395	16	80,198	6,707	3,115	90,020	225	40
1901 Starr Street	2	3377	84	8,650	2,350	-	11,000	5	40
1860-1864 Troutman Street	3	3395	12,13	10,281	-	-	10,281	-	40
18-66 Troutman street	4	3395	14,15	10,337	-	-	10,337	-	40
175 Woodward Avenue	5	3377	1	6,489	2,781	-	9,270	5	40

Source: EPDSCO

Figure 2
Site Plan of Buildings 1-5



SITE PLAN

Source: EPDSCO

Project on Project Impacts

The five new buildings have the option of using ultra low sulfur home heating oil # 2 (ULSHO #2) or natural gas for HVAC. A screening analysis of project-on-project impacts was carried out to evaluate the potential for adverse impacts from HVAC operations. The results are shown in Table 4. Site 1, which is controlled by the applicant, would use natural gas, but the other buildings could use either #2 fuel oil or natural gas. The screens were carried out using Figure 17-5 (SO_2 boiler screen for residential #2 fuel oil) and Figure17-7 (NO_2 boiler screen for residential natural gas) from the *2012 CEQR Technical Manual AQ Appendices*.

Figure 3 shows the section diagrams for the proposed four-story building on Site 1. Starr Street has a base elevation ranging from 18.3 feet to 11.5 feet above mean sea level. Since Site 1 would have recreational use on the roof, the stack is assumed to be 10 feet higher than the roof. As a result, the release height of the stack would be at 60 feet including the base elevation of Starr Street. However, in order to provide a conservative analysis the stack height of 43 feet was used for screening analysis purposes since the building is proposed to be four-stories. As shown in Table 5, Site 1 will require an Air Quality E-designation to preclude any air quality impacts.

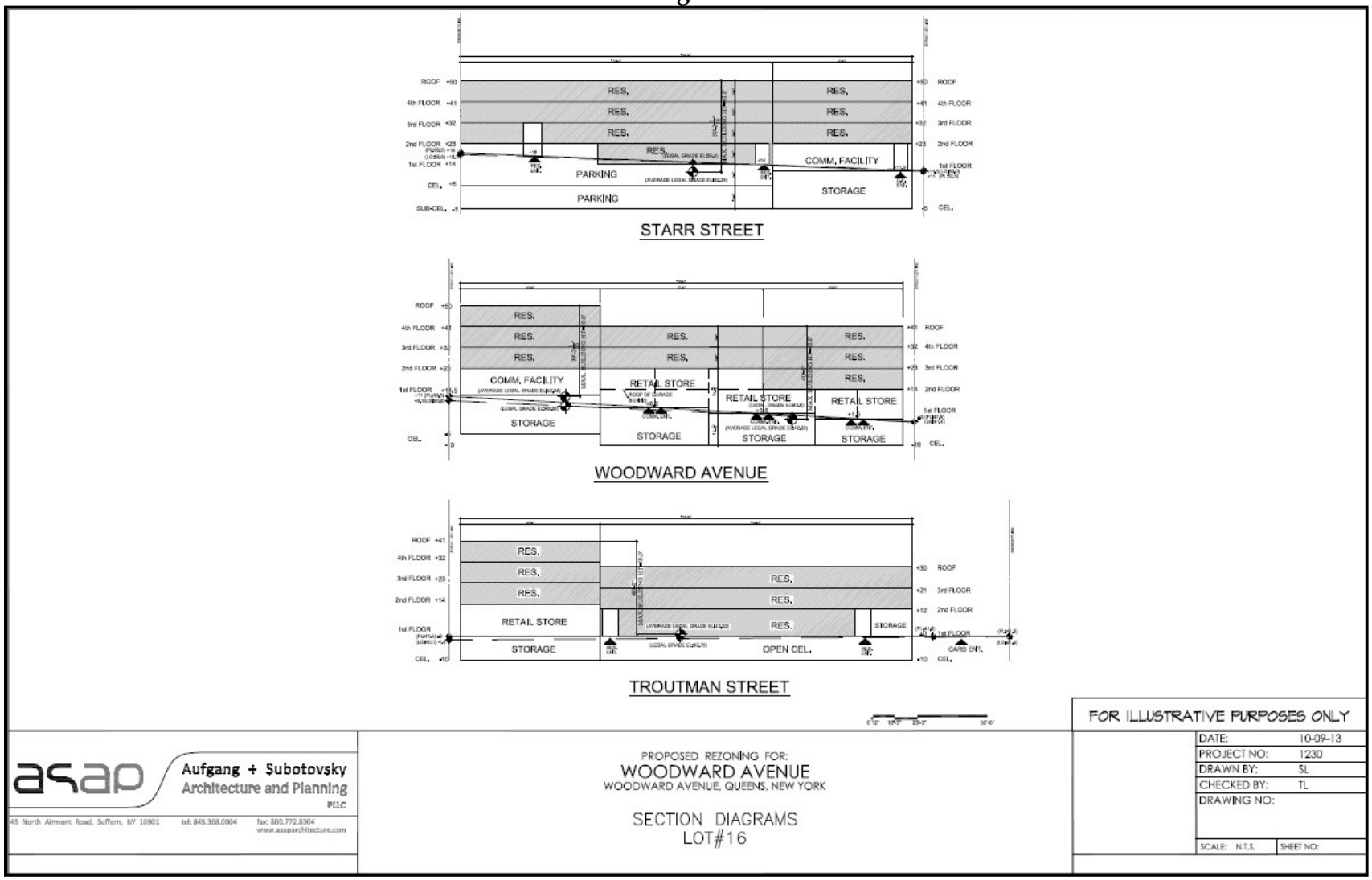
Site 3 and Site 4 would have a total square footage of 10,281 sq.ft and 10,337 sq. ft respectively. Site 3 screens out for stationary source impacts on Site 1. The distance between the building on Site 4 and the building on Site 1 is approximately 50 feet. As shown in Figure 4, the portion of the building on Site 1 that is north of Site 4 is three stories high and therefore lower in height than the four story building on Site 4. Because of its greater height and the distance between the two buildings, Site 4 is not expected to have any air quality impacts on Site 1 (see Figure 5). However because of their similar heights, AERMOD modeling is required for the impacts of Site 3 and Site 4 on each other.

Table 4
HVAC Screen for Project Impacts

Building	Fuel Type	Heated Area (sq. ft.)	Stack Height (feet)	Receptor Sites	Distance from Stack to Nearest Building (feet)	CEQR Screening Results for #2 Fuel Oil	CEQR Screening Results for Natural Gas
Projected Development Site							
Site 1 (Block 3395, Lot 16)	Natural Gas	90,020	43	2	60	NA	Fails
				5	60		Fails
				3	50		Fails
				4	0		Fails (E-designation)
Site 2 (Block 3377, Lot 84)	#2 Fuel oil	11,000	43	1	60	Screens Out	Screens Out
				5	100	Screens Out	Screens Out
Site 3 (Block 3395, Lots 12,13)	#2 Fuel oil	10,281	43	1	50	Screens Out	Screens Out
				4	<30	AERMOD modeling required	
Site 4 (Block 3395, Lots 14,15)	#2 Fuel oil	10,337	43	1	50	Screens Out	Screens Out
				3	<30	AERMOD modeling required.	
				5	300	Screens Out	Screens Out
Site 5 (Block 3377, Lot 1)	#2 Fuel oil	9,270	43	2	100	Screens Out	Screens Out
				1	60	Screens Out	Screens Out
				4	300	Screens Out	Screens Out

Source: Sandstone Environmental Associates

Figure 3
Section Diagrams for Site 1



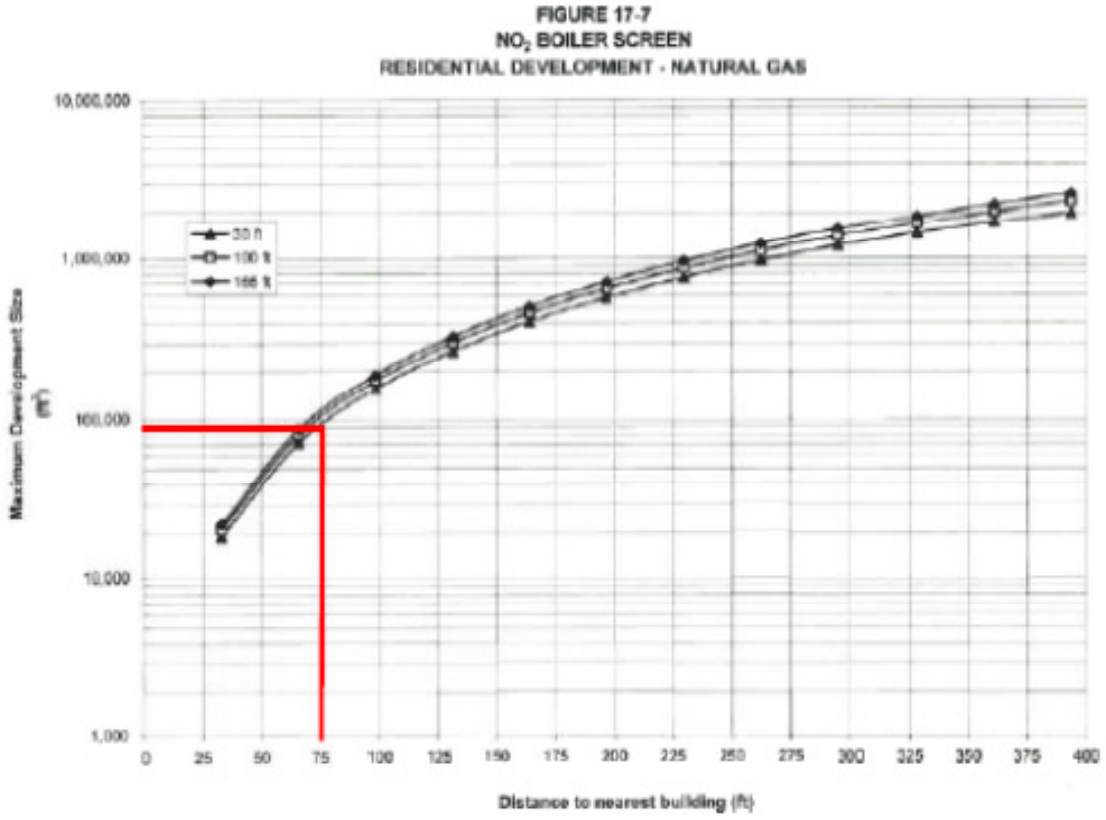
Source: EPDSCO

Figure 4
Proposed building Heights

Source: EPDSCO

Figure 5
NO_2 Boiler Screen for Site 1

Projected Site 1
Size: 90,020 sf; Stack Hight: 43 ft.
Nearest Building of = or > height = 75 ft.



Modeling for Effects of Projected Development Sites 3 and 4

AERMOD, designed to support EPA's regulatory modeling programs, is a steady-state Gaussian plume model with three separate components: AERMOD (a dispersion model), AERMAP (a terrain preprocessor), and AERMET (a meteorological preprocessor). AERMOD can handle emissions from point, line, area, and volume sources. The model is run with five years of meteorological data that include surface mixing height, wind speed, stability class, temperature, and wind direction.

Urban/rural

Both the airport and the sites are in urban locations, and AERMOD's URBAN option was selected.

Stack parameters

EPA defines GEP (good engineering practice) stack height as the height necessary to insure that emissions from a building's stack do not result in excessive concentrations of any air pollutant in the immediate vicinity of the source as a result of atmospheric downwash, eddies, or wakes that may be created by the source itself, nearby structures, or nearby terrain obstacles. The Building Profile Input Program (BPIP) was run in conjunction with AERMOD. The model was run both with and without building downwash to determine which condition would provide worst-case results.

HVAC stacks on the proposed buildings were assumed to be 3 feet higher than the rooftop. Per guidance from the New York City *CEQR Technical Manual*, the temperature and diameters of the stacks were assumed based on the NYCDEP "CA Permit[10]" database and the heat input (with units of 10^6 BTU/hr) of the boilers. Based on the square footage of the areas to be heated in the buildings, the calculated BTU ratings of the boilers were calculated to be less than 5 million BTU per hour. For boilers of this size, the stacks were assumed to have an exhaust temperature of 300° F and an inside stack diameter of 0.5 feet. The exhaust velocities were calculated from the fuel consumption and other stack parameters.

Pollutants

Pollutants included NO_2, SO_2, PM_{10}, and $PM_{2.5}$. Emission factors for natural gas were based on an annual consumption rate of 45.2 cubic feet of natural gas per square foot for a residential structure, as indicated in the *2012 CEQR Technical Manual.* The annual consumption of natural gas, in cubic feet, was converted to pounds using a multiplier of 100 as recommended in Table 1.4-1 of EPA's AP-42 publication for external combustion sources. The resulting annual emissions were converted to hourly and annual emission rates in grams/second based on 2,400 hours per year of use for heating. Because these emissions represent both NO and NO_2 combined, the annual emissions were next multiplied by 0.80 to reflect the component of the total that is nitrogen dioxide. The 1-hour modeling was run using the Plume Volume Molar Ration Method (PVMRM) option and hourly ozone data.

For fuel oil #2, the SO_2 emission factor used a sulfur content of 0.15%, consumption of 0.21 gallons/sq. ft., and a conversion factor of 142 lbs/1,000 gallons. For PM_{10}, the consumption rate of 0.21 gallons/sq. ft. was used with a conversion factor of 2.38 lbs/1,000 gallons. For $PM_{2.5}$, the consumption rate of 0.21 gallons/sq. ft. was used with a conversion factor of 2.13 lbs/1,000 gallons.

Meteorological Data

The model was run with data from LaGuardia Airport for 2008 through 2012. The upper air station used with La Guardia is Brookhaven. The data was obtained from Trinity Consultants, which provided the following description of the data and processing methods:

[10] CA refers to Combustion Applicable

BREEZE FILLSFC: The BREEZE FILLSFC program identifies outlying and missing parameters, identifies the percentage of missing unprocessed data (to verify compliance with EPA's 90% regulation), and specifies how missing data is filled. The program is created to follow the EPA's guidelines for filling missing data in raw surface files as specified in their *Procedures for Substituting Values for Missing NWS Meteorological Data for Use in Regulatory Air Quality Models*. BREEZE FILLSFC is a FORTRAN executable program that reads raw surface meteorological data in CD-144 format and fills in missing observations of a length specified by the processor (typically 5 hours). The program measures the data capture of eight parameters: ceiling height, wind direction, wind speed, temperature, total opaque sky, station pressure, relative humidity, and total sky cover. Based on guidelines set forth by the EPA, the parameters are filled in using the following methods:

- Ceiling height, total opaque sky, station pressure, relative humidity, and total sky cover: Filled using persistence – the value prior to a gap of missing hours is persisted through the missing period;

- Temperature**:** Filled using interpolation – missing hours are filled in by interpolating between the values prior to and following the gap;

- Wind Speed: Filled by averaging – an arithmetic average of the four surrounding values (two before and two after) is taken and the gap is filled accordingly;

- Wind Direction: Filled by vector averaging – a unit vector average of the four surrounding values (two before and two after) is taken and the gap is filled accordingly. Only valid wind directions are used in this average - calms and variables are ignored and other steps are taken to ensure only valid data is used.

The program generates a report which details the data capture percentage prior to filling as well as the number of hours filled for each parameter sorted by the method used to fill the missing data.

BREEZE FSL Fill: The BREEZE FSL Fill program reads in the raw upper air data files in FSL format and identifies missing soundings. For individual missing soundings, the program fills in the sounding from the same time on the previous day. For consecutive missing days, the first day is filled with the previous day, the last day is filled with the following day and the soundings in between are just left as missing. Using persistence for upper air filling has been used quite extensively and is generally acceptable since upper air conditions vary much less than surface conditions and AERMET uses very limited information from the files in any case. The program also has an option to fill in missing soundings with data from another station should that methodology be necessary.

Surface characteristics

Surface characteristics for the project site and meteorological site were identified according to EPA's *AERMOD Implementation Guide*. In accordance with the U.S. EPA's AERMOD Implementation Guide dated 08009, Trinity Consultants used their AERSURFACE program for determining surface characteristics to be used in AERMET processing. By default, 12 sectors were implemented for determining surface roughness, and the seasonal averaging period was used. Both the airport and the site are in urban locations, and AERMOD's URBAN option was selected. The population used for the urban area was 1,700,000, and the default urban surface roughness length of 1.0 m was used for the site.

Receptors

Receptor points were placed on the rooftop of the receiving buildings at a foot above the plume height as a worst-case.

Stacks

Figure 6 shows the stack locations used for modeling AERMOD.

Figure 6
Projected Stack Locations on Site 3 and Site 4

Source: Sandstone Environmental Associates, Inc.

AERMOD Results for Boilers Using Natural Gas

AERMOD emission factors were calculated for Building Sites 3 and 4 based on 2,400 hours of annual use of HVAC for heating and consumption factors in EPA's AP-42 document. They are shown in Table 5. No AERMOD analysis was carried out for the 1-hour NO_2 concentrations, as these are typically not required for small projects that do not require an EIS.

Table 5
AERMOD Emission Factors (g/s)

Site	1-Hr SO_2	3-Hr SO_2	24-Hr $PM_{2.5}$	Annual $PM_{2.5}$	24-Hr PM_{10}	Annual NO_2
3	.0000024	0.000024	0.000241	0.000066	0.000270	0.00535
4	0.000024	0.000024	0.000243	0.000067	0.000271	0.0005.8

Source: Sandstone Environmental Associates, Inc.

The worst-case annual modeling results for boilers using natural gas are shown in Table 6. For both the buildings, the stack was placed in the middle of the rooftop. One-hour concentrations are based on a five-year average of the 8th highest modeled concentrations. Annual concentrations assume that 80% of the modeled NO_x is NO_2. As shown in the tables below, no significant adverse impacts are projected with the proposed project.

Table 6
Nitrogen Dioxide AERMOD Annual Concentrations (μg/m³)

Buildings		Annual Concentrations (μg/m³)			Comments
Source	Receiver	Modeled	Background	Total	
With Building Downwash					
Projected Development					
Site 3	Site 4	0.58	38.2	38.8	No impact
Site 4	Site 3	1.6	38.2	39.8	No impact
Without Building Downwash					
Projected Development					
Site 3	Site 4	3.5	38.2	41.7	No impact
Site 4	Site 3	3.4	38.2	41.6	No impact
NO_2 NAAQS (ug/m³) Standard			**100**		

Source: Sandstone Environmental Associates, Inc.

AERMOD Results for Boilers Using ULSHO #2: New development in New York City has the option of using ultra low sulfur home heating oil #2 (ULSHO#2) for HVAC. This fuel type is limited to 0.15% sulfur. Table 7 and 8 show the modeled results for $PM_{2.5}$ for the sites that may use this fuel type.

Table 7
24-hour $PM_{2.5}$ AERMOD Concentrations ($\mu g/m^3$)

Buildings		24-Hour Concentrations ($\mu g/m^3$)			
Source	Receiver	Modeled	Background	Total	Comments
With Building Downwash					
Projected Development					
Site 3	Site 4	1.6	NA	1.6	No impact
Site 4	Site 3	5.0	NA	5.0	No impact
Without Building Downwash					
Projected Development					
Site 3	Site 4	13.3	NA	13.3	Potential impact
Site 4	Site 3	9.9	NA	9.9	Potential impact
$PM_{2.5}$ De Minimis (ug/m^3)			**5.6**		

Source: Sandstone Environmental Associates, Inc.

Table 8
Annual $PM_{2.5}$ AERMOD Concentrations ($\mu g/m^3$)

Buildings		Annual Concentrations ($\mu g/m^3$)			
Source	Receiver	Modeled	Background	Total	Comments
With Building Downwash					
Projected Development					
Site 3	Site 4	0.1	NA	0.1	No impact
Site 4	Site 3	0.2	NA	0.2	No impact
Without Building Downwash					
Projected Development					
Site 3	Site 4	0.4	NA	0.4	Potential impact
Site 4	Site 3	0.4	NA	0.4	Potential impact
$PM_{2.5}$ De Minimis (ug/m^3)			**0.3**		

Source: Sandstone Environmental Associates, Inc.

Table 9 shows the worst-case results for PM_{10} for buildings that may use the #2 fuel oil type. Based on the concentrations shown in the table, no impacts would occur.

Table 9
PM_{10} AERMOD Concentrations ($\mu g/m^3$)

Buildings		24-Hour Concentrations ($\mu g/m^3$)			Comments
Source	Receiver	Modeled	Background	Total	
With Building Downwash					
Projected Development					
Site 3	Site 4	1.8	40.7	42.5	No impact
Site 4	Site 3	5.6	40.7	46.3	No impact
Without Building Downwash					
Projected Development					
Site 3	Site 4	14.9	40.7	55.6	No impact
Site 4	Site 3	11.1	40.7	51.8	No impact
PM 10 NAAQS (ug/m^3) Standard			**150**		

Source: Sandstone Environmental Associates, Inc.

Tables 10 and 11 show the resulting SO_2 concentrations from the AERMOD modeling with ULSHO#2 for the proposed project. No impacts are projected and no stack location restrictions would be required based on the SO_2 concentrations.

Table 10
4th High 1-hour Sulfur Dioxide AERMOD Concentrations ($\mu g/m^3$)

Buildings		4th High 1-Hour SO_2 Concentrations ($\mu g/m^3$)			Comments
Source	Receiver	Modeled	Background	Total	
With Downwash					
Site 3	Site 4	0.3	64.4	64.7	No impact
Site 4	Site 3	2.2	64.4	66.6	No impact
Without Downwash					
Site 3	Site 4	2.9	64.4	67.3	No impact
Site 4	Site 3	2.6	64.4	67.0	No impact
SO_2 NAAQS (ug/m^3) Standard			**196**		

Table 11
3-hour Sulfur Dioxide AERMOD Concentrations (μg/m³)

Buildings		3-Hour SO_2 Concentrations (μg/m³)			
Source	**Receiver**	**Modeled**	**Background**	**Total**	**Comments**
With Downwash					
Site 3	Site 4	0.3	71.3	71.6	No impact
Site 4	Site 3	2.1	71.3	73.4	No impact
Without Downwash					
Site 3	Site 4	3.2	71.3	74.5	No impact
Site 4	Site 3	2.2	71.3	73.5	No impact
SO_2 NAAQS (ug/m³) Standard			**1300**		

Source: Sandstone Environmental Associates, Inc.

As shown above, the detailed HVAC analysis did not project air quality impacts from the Site 3 and Site 4 on one another (project-on-project) provided they commit to using natural gas as the type of fuel for HVAC purposes. Therefore, to preclude the potential for significant adverse project-on-project air quality impacts, (E) designations would be required on the planned buildings of the Projected Development Site.

The restrictions would specify the fuel type and required stack setback distance (i.e. the distance that the stack on the building roof must be from the lot line). In addition, restrictions on the stack height would specify the required above-ground stack height. The use of an (E) designation would ensure adequate distance between HVAC exhaust stacks and nearby buildings of the With-Action Development that are of similar or greater height. The proposed restrictions would ensure that the Proposed Action would not cause violations of the NAAQS and would therefore have no significant adverse air quality impacts. Figure 9 shows the modeled stack locations on Site 3 and Site 4.

The (E)-designation requirements related to air quality would apply to three of the projected development sites as described below:

- Block 3395, Lot 16 (Site 1):
  Any new residential/commercial development on the above referenced properties must ensure that fossil fuel-fired heating and hot water system(s) utilize only natural gas, and that the heating and hot water system(s) exhaust stack(s) are located at least 43 feet above ground level and at least 25 feet from the lot line facing Woodward Avenue and 75 feet from the lot line facing Onderdonk Avenue, to avoid any potential significant air quality impacts.

- Block 3395, Lot 12,13 (Site 3):
  Any new residential/commercial development on the above referenced properties must ensure that fossil fuel-fired heating and hot water system(s) utilize only natural gas, and that the heating and hot water system(s) exhaust stack(s) are located at least 43 feet above ground level and at least 10 feet from the lot line facing Woodward Avenue , to avoid any potential significant air quality impacts.

– Block 3395, Lot 14,15 (Site 4): **Any new residential/commercial development on the above referenced properties must ensure that fossil fuel-fired heating and hot water system(s) utilize only natural gas, and that the heating and hot water system(s) exhaust stack(s) are located at least 43 feet above ground level and at least 10 feet from the lot line facing Onderdonk Avenue, to avoid any potential significant air quality impacts.**

To the extent permitted under Section 11-15 of the Zoning Resolution, the requirements of the (E) designations may be modified, or determined to be unnecessary, based on new information or technology, additional facts or updated standards that are relevant at the time the site is developed.

Existing Facilities with Air Quality Permits

Potential adverse effects on the proposed new development from existing industrial emissions are a source of concern. This section addresses whether toxic emissions currently generated by nearby industrial sources would significantly impact the proposed development sites.

According to the *CEQR Technical Manual*, existing facilities with the potential to cause adverse air quality impacts are those that would require permitting under city, state and federal regulations. The *Manual* lists the following types of uses as a source of concern for the residential uses that would occur under the proposed action:

- large emission source (e.g., solid waste or medical waste incinerators, cogeneration facilities, asphalt and concrete plants, or power generating plants) within 1,000 feet,
- a medical, chemical, or research laboratory nearby,
- a manufacturing or processing facility within 400 feet, and
- an odor producing facility within 1,000 feet.

To identify facilities in the categories listed above, a manufacturing survey was done which included on-line searches of NYSDEC's Air Permit Facilities Registry and EPA's Facility Registry System for permitted facilities, data provided by the NYC Department of Buildings, New York City's Open Accessible Space Information System Cooperative (OASIS) data base, telephone directory listings, available aerial photos provided by Google and Bing, internet websites, NYSDEC's DAR-1, and a search for NYCDEP permits.

The survey indicated numerous residential uses, as well as a variety of small industrial establishments. No large industrial emission sources and laboratories or odor-producing facilities were identified within 1,000 feet of the rezoning boundaries.

Based on the survey and the OASIS data base, a list of industrial and commercial sites was submitted to NYCDEP for a permit search. The NYCDEP identified a total of 32 permits for boilers or industrial operations. Of the 32 permits, only 4 sites warranted further analysis. The locations of the sites within 400 feet of the projected development sites are listed in Table 12 below and also are shown in Figure 7.

Boiler Permits

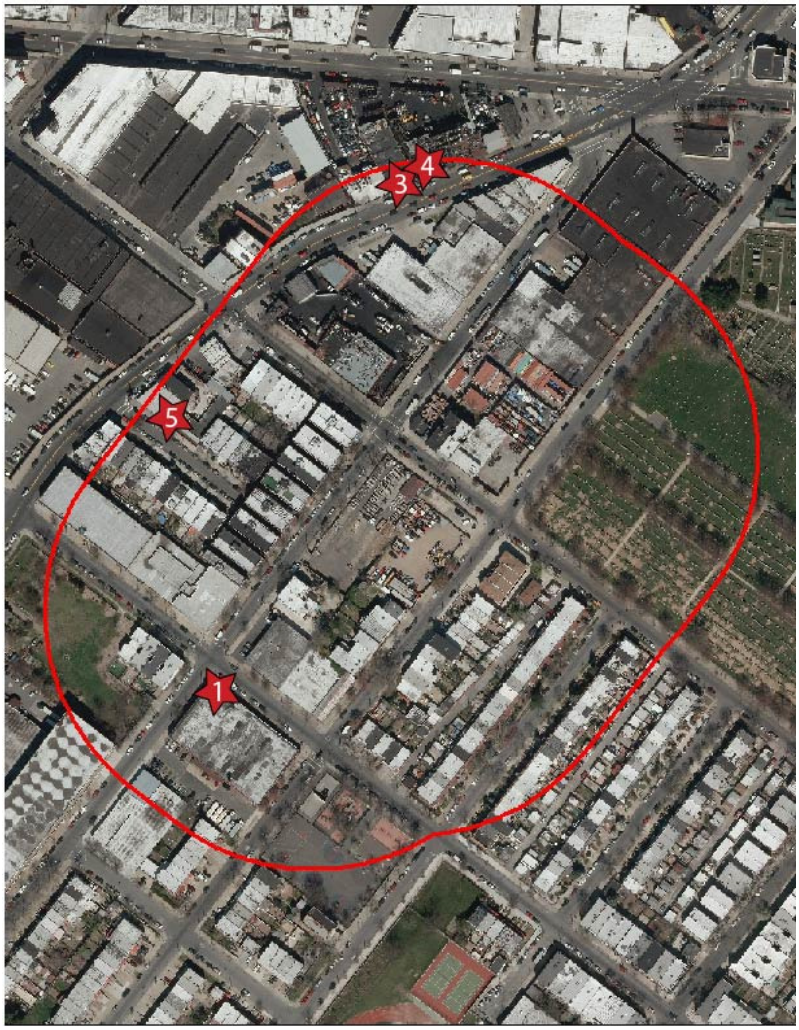
Permit CA151490R is for a boiler burning #4 fuel oil for a 50,000-sq. ft. building at 1831 Starr Street. Based on the size of the building and the distance shown in Table 12, the boiler screens out using the nomographs in the CEQR Technical Manual Air Quality Appendices. Therefore, no further analysis is warranted.

Table 12
Sites within 400 feet of Rezoning Boundaries

Site No:	Facility Name	Address	Block	Lot	Permit #	Distance to Projected Development Site (ft.)
1	1831 Starr Street Realty LLC. Boerum Hill Joinery	1831 Starr St.	3414	2	CA151490R PB015409H	250
3	Martinez Complete Auto Repair	1935 Flushing Ave.	3375	72	PB008311R	353
4	B&M Auto Collision NY Corp.	1935 Flushing Ave.	3375	72	PB001407L	353
5	Metro Lane Auto Services	1882 Flushing Ave.	3394	28	Not available	348

Source: NYC Department of Environmental Protection: Bureau of Environmental Compliance.

Figure 7
NYCDEP Permits Evaluated within 400 feet of Projected and Potential Development Sites



☆ *Location of permitted site*
Source: Sandstone Environmental Associates, Inc.

Air Toxics

Five permits on four sites (Sites 1, 3, 4, and 5) were analyzed further for air toxics. They are discussed below.

1831 Starr Street (Block 3414, Lot 2). This is Site 1 on Figure 10. NYCDEP found an operational permit for Boerum Hill Joinery located at 1831 Starr Street. Online records indicate that this establishment manufactures custom millwork for furniture. This would include the development, sanding, and painting of such items. The woodworking permit (CA151490R) provided no information on pollutants emitted. Therefore, information from two permits for a similar operation was used: Wolski Woodworks at 21 Garden Street in Brooklyn (Block 3138, Lot 13) carries out architectural millworking, solid woodworking, and residential development. The permits for Wolski Woodworks indicate three pollutants are being emitted – particulates (sawdust and solids), dipropylglycolmethether, and 2propy,1butoxy. Particulates from the permit for the table saw and belt sander are captured by a bag filter and are not emitted to the outside. The permit for solids and other pollutants from the spray booth stated that they were emitted from a stack that is six feet above the rooftop. Additional analyses of 1831 Starr Street using this Wolski permit were carried out using the Industrial Source Screen. All concentrations at the projected development site were within the NYSDEC AGCs and SCGs.

1935 Flushing Avenue (Block 3375, Lot 72). This is represented by Sites 3 and 4 on Figure 10. Online records indicate that this is an auto body repair and painting shop. Two permits for two separate facilities are available for this address. The first permit is PB008311R for Martinez Complete Auto Repair. Only particulate emissions are listed on the permit. The second permit, PB001407L, is for B&M Auto Collision. It covers the operation of an auto paint spray/drying booth, used to apply paint onto vehicles in an enclosed fashion. The permit provided no information on pollutants emitted. Therefore, information for a typical auto facility was used. Permits for both Martinez and B&M were further analyzed using the Industrial Source Screen.

1882 Flushing Avenue (Block 3394, Lot 28). This is Site 5 on Figure 10. Because no information was available for this establishment, information from a permit for a typical auto body facility was used with the Industrial Source Screen.

Auto Spray Painting Emissions

Based on information from available permits on file with NYCDEP, auto body paint spray booths operate from four to eight hours per day, 200 to 250 days per year. Four hours per day was used as a conservative assumption because dividing the daily emissions by four hours results in a higher hourly emission rate than dividing by eight hours.

Product data sheets for various companies indicate that a vehicle may require multiple coats of paints or other coatings, and drying time between coats ranges from 15 minutes to six hours. The recommended surface and air temperature during application and drying is 40 to 90^{o}F. Relative humidity should be less than 80%.

Auto paint composition is described in terms of solids and solvents-volatile organic compounds (VOCs). A gallon of auto paint could weight from six to fifteen pounds, depending on the ingredients. For the purposes of this study, a typical weight of 10 lbs will be used.

During spraying, the solids would generate emissions of total particulates, while the VOCs, which are gases, would generate emissions of air toxics. Due to state and federal legislation intended to reduce health hazards from VOCs, the trend has been towards paints with higher proportions of solids and lower proportions of VOCs. Typical VOC content may range from 30% to 60% by weight. In general, VOC content greater than or equal to 5 lbs/gallon is high, between 4 and 5 lbs/gallon is low, and less than 4 lbs/gallon is very low.[11] 6NYCRR Part 228 requires the use of compliant coatings for all auto body shops. Table 13 shows the current maximum VOC content of compliant coatings for New York State. The VOC contents shown in Table 13 are lower than those that would be derived from Table 4.2.2.8-2 of EPA's AP-42, *Chapter 4, Evaporative Loss Sources, Section 4.2.2.8, Automobile and Light Duty Truck Surface Coating*, which was published in 1982. For the purposes of this study, a VOC content of 5.0 lb/gallon will be used. This is equivalent to a 50.0% VOC content for a 10-lb gallon of paint.

Table 13
VOC Content of Compliant Coatings, 6NYCRR Part 228

Coating Type	Maximum permitted VOC content (minus water and excluded VOC) of coating at time of application (after mixing, thinning, etc.)
Pretreatment primer	6.5 lb/gallon
Primer-surfacer	4.8 lb/gallon
Primer-sealer	4.6 lb/gallon
Automotive topcoats:	
Single Stage-topcoat	5.0 lb/gallon
2-stage basecoat/clearcoat	5.0 lb/gallon
3 or 4-stage basecoat/clearcoat	5.2 lb/gallon
Multi-colored	5.7 lb/gallon
Automotive Specialty	7.0 lb/gallon

Source: New York State Department of Environmental Conservation.

Table 14 shows the percentages by weight of various volatile organic compounds (mostly solvents) found in representative auto spray primers and paints. The percentages were obtained from Material Safety Data Sheets (MSDS) for one representative primer and two representative auto paints by major manufacturers. Some compounds are found in both primer and paint, while others are found only in one or the other. Acetone clearly accounts for the largest percentage of the emissions (up to 43%), while the remaining compounds account for 1 to 11 percent of the paints and primers. The proportion of a compound in a paint by weight would be representative of its proportion in the emissions.

[11] Consolidated Screening Checklist for Automotive Repair Facilities Guidebook, p. 42, USEPA, October 2003.

As a conservative measure, the highest percentage shown for the chemical compounds in Table 14 will be used. This would result in a total greater than 1.0 when the percentages are summed. However, it would result in a worst-case analysis of the potential emissions of the individual pollutants.

According to NYCDEP, a typical auto body painting facility that uses an average of two quarts of auto paint per day, or 0.50 gallons. If it uses two quarts (half a gallon) of paint per day, and a gallon of paint weighs 10 lbs, and the % of solids is 50%, then the facility uses 2.5 lbs of solids during daily operations (0.5 x 10 x .5).

Table 14
Typical Composition of VOC Emissions from Auto Spray Paint Booths

			Sherwin William Paints	
		Rust-Oleum Primer	Twilight Blue	Black Sunfire
Chemical Name	CAS #	Weight % Less Than	% by Weight	% by Weight
1,2,4-Trimethylbenzene	95-63-6			
Acetone*	67-64-1	10	42	43
Aliphatic Hydrocarbon	64742-89-8	10		
Aromatic Petroleum distillates	64742-94-5	5		
Butane	106-97-8		10	11
Ethanol	64-17-5		1	2
Ethyl 3-Ethoxyproprioanate	763-69-9		9	9
Ethylbenzene	100-41-4	5		
Methyl Ethyl Ketone	78-93-3		8	7
N-Butyl Acetate	123-86-4	5		
Propane	74-98-6		10	11
Stoddard Solvents	8052-41-3	10		
Toluene	108-88-3	10	9	8
Xylene	1330-20-7	10		

**EPA exempted acetone from its list of volatile organic compounds in 1995, but NYSDEC still maintains AGCs and SGCs for this pollutant.*
Source: Material Safety Data Sheets, 2005.

All emissions of solids were assumed to be PM_{10}. The amount of PM_{10} emitted into the air depends on the transfer efficiency of the paint gun. EPA's AP-42, Section 4.2.2.8, addresses evaporation losses for automobile and light duty truck surface coating operations. Table 4.2.2.8-3 of that section indicates that the average transfer efficiency of solventborne spray is 40%, which means that 60% of the solids are emitted into the air. Current technology may achieve a higher transfer efficiency of 80% or more with the use of high-pressure paint guns, but the value of 40% was used for this analysis as a conservative assumption. Therefore, sixty percent of the solids, or 1.5 lbs per day, are emitted into the air (0.6 x 2.5).

The square feet of metal that can be covered with half a gallon of paint varies with the type, color, and thickness of the coating. The thickness of an auto coating is measured in mils

(thousands of an inch). Auto repairs may require two coats of primer, two coats of base coat, and two coats of clearcoat. Altogether, an auto from the factory will have 4 to 7 mils of coatings. Although the recommended thickness of each type of coat varies, a typical breakdown might include 1.0 mils for the primer, 1.75 mils for the base coat, and 3.0 mils for the clear coat for a total of 5.70 mils. Based on this breakdown, the emissions of solids would be greater when painting a clear coat than when painting a primer, but the clear coat may take nearly an hour to dry while the primer and base coats may dry in as little as 10 minutes. Thus, painting with a clear coat would occur for only a portion of an hour, and the average hourly emission factors are sufficient for calculating hourly, 24-hour, and annual emissions.

Painting a mid-sized vehicle would require at least three quarts and as much as two gallons of paint, while a large truck or vehicle would need at least six to seven quarts of paint[12] However, B &M and Metro Lane are more likely to be carrying out repairs rather than fully painting an auto. The manager of Jeff's Auto Body shop in Metuchen, New Jersey stated that two quarts per day would enable them to do four or five repairs, each repair equivalent to a hood, fender, or panel, with an average of five to six square feet per repair to be covered with coatings. The calculated PM_{10} emissions of 1.5 lbs per day would be an average of 0.3 lbs per vehicle for repair of five vehicles.

The VOC content listed for a gallon of paint is not necessarily equivalent to the VOC of the sprayed paint because the product may be mixed with reducers, thinners, or hardeners that may contain a greater percentage of VOCs. However, the values shown in Table 14 already account for mixing and thinning. Therefore, no additional increase in VOC per gallon will be calculated for this analysis.

In EPA's AP-42, Section 4.2.2.8, the formula for calculating VOC emissions from auto painting spray booths is:

$$Ev = (A_v \times C_1 \times T_f \times V_c \times C_2) / (S_c \times e_T)$$

Where:

Ev = emission factor for VOC (lb/vehicle) (exclusive of add-on control devices)
Av = area coated per vehicle (sq. ft.)
C1 = conversion factor: 1 ft./12,000 mil
Tf = thickness of dry coating film (mil)
Vc = VOC (organic solvent) content of coating as applied, less water
C2 = conversion factor: 7.48 gal./cubic foot
Sc = solids in coating as applied, volume fraction (gal. solids/gal. coating)
eT = transfer efficiency fraction (fraction of coating solids remaining on coated parts)

This equation can be used to determine solids by substituting solids emitted into the air for Vc. Since the emission of solids (Ev) is known (1.5 lbs/day), the equation can be solved to determine the area coated per vehicle, which would be:

[12] "How Much paint Does it Take to Paint a Car?", by Lauren Wise, www.ehow.com, 3/16/10

- 5.8 square feet per vehicle per coating for five vehicles, or
- 17.5 square feet per vehicle for all coatings combined for five vehicles, or
- 87.5 square feet per day for five vehicular repairs.

Average daily emissions for solids and VOCs were calculated using the EPA formula and the square footage shown above. These daily emissions were converted to average grams per second over hourly, daily, and annual periods for use in the Industrial Source Screen. Table 15 shows the resulting pollutant emissions for a typical day.

Table 15
Air Toxics Emissions (lbs)/Vehicle Painted

Variable			Av	C1	Tf	Vc	C2	Sc	eT	Ev	
Typical Auto Paint	% by Weigh t	Air Pol-lutants (lbs)	Area Coated/ Vehicle (sq. ft.)	Conversion (ft/12,000 mil)	Dry Coating thickness (mil)	VOC Content as Applied	Conversion (gal/cubic ft)	Fraction of Solids in Coating as Applied	Transfer Efficiency (Spray)	VOC/ Vehicle (lbs)	VOC/Day (lbs), 5 Vehicles
Acetone	43.0%	2.15	5.8	8.333E-05	5.5	4.30	7.48	0.50	0.4	0.43	2.15
Aliphatic Hydrocarbon	10.0%	0.50	5.8	8.333E-05	5.5	1.00	7.48	0.50	0.4	0.10	0.50
Aromatic Petroleum distillates	5.0%	0.25	5.8	8.333E-05	5.5	0.50	7.48	0.50	0.4	0.05	0.25
Butane	5.0%	0.25	5.8	8.333E-05	5.5	0.50	7.48	0.50	0.4	0.05	0.25
Ethanol	11.0%	0.55	5.8	8.333E-05	5.5	1.10	7.48	0.50	0.4	0.11	0.55
Ethyl 3-Ethoxyproprioanate	2.0%	0.10	5.8	8.333E-05	5.5	0.20	7.48	0.50	0.4	0.02	0.10
Ethylbenzene	9.0%	0.45	5.8	8.333E-05	5.5	0.90	7.48	0.50	0.4	0.09	0.45
Methyl Ethyl Ketone	5.0%	0.25	5.8	8.333E-05	5.5	0.50	7.48	0.50	0.4	0.05	0.25
N-Butyl Acetate	5.0%	0.25	5.8	8.333E-05	5.5	0.50	7.48	0.50	0.4	0.05	0.25
Propane	30.0%	1.50	5.8	8.333E-05	5.5	3.00	7.48	0.50	0.4	0.30	1.50
Stoddard Solvents	8.0%	0.40	5.8	8.333E-05	5.5	0.80	7.48	0.50	0.4	0.08	0.40
Toluene	10.0%	0.50	5.8	8.333E-05	5.5	1.00	7.48	0.50	0.4	0.10	0.50
Xylene	11.0%	0.55	5.8	8.333E-05	5.5	1.10	7.48	0.50	0.4	0.11	0.55
						Airborne Solids				Solids/ Vehicle (lbs)	Solids/Day (lbs)
PM10	44.4	2.50	5.8	8.333E-05	5.5	3.00	7.48	0.50	0.4	0.30	1.50

Industrial Source Screen

The NYC *CEQR Technical Manual* provides pollutant concentrations (µg/m^3), at various distances, from a source emitting 1 g/s of a generic pollutant. It assumes that all inputs represent worst-case conditions for stack temperature, stack diameter, exhaust velocity, and other variables. Both the receptor height and stack height are assumed to be 20 feet high. Table 16 shows the generic table from the *CEQR Technical Manual*.

Industrial sources typically emit pollutants at a lower rate than 1 g/s. Thus, the emissions would be scaled downward accordingly. For example, if a stack was 65 feet from the project site and emitted a pollutant at a rate of 0.004158 grams/second, it would have a 1-hour concentration of 159 µg/m^3 (38,139 × 0.004158). This concentration would be compared with the NYSDEC SGC for that pollutant to determine whether an impact was likely.

Table 16
Generic Pollutant Concentrations for Industrial Source Screen

Generic Pollutant Concentrations (1 g/s emission rate) 20 foot Source Height				
	Averaging Periods (µg/m^3)			
Distance from Source (ft)	**1 Hour**	**8-Hours**	**24 Hours**	**Annual**
30	126,370	64,035	38,289	6,160
65	27,787	15,197	8,841	1,368
100	12,051	7,037	4,011	598
130	7,345	4,469	2,511	367
165	4,702	2,967	1,643	236
200	3,335	2,153	1,174	167
230	2,657	1,720	924	131
265	2,175	1,377	727	103
300	1,891	1,142	594	84
330	1,703	991	509	73
365	1,528	857	434	62
400	1,388	755	377	54

Note: Numbers in bold indicate the distance & concentrations used for the screen analysis
Source: NYC CEQR Technical Manual (2012).

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Table 17 shows the results of the Industrial Source Screen analysis compared with the NYSDEC SGCs and AGCs. All pollutants would fall within the NYSDEC SGCs and AGCs as well as the NAAQS and NYCDEP guidelines. No significant impacts to the Proposed Action are expected as a result of the analysis of Air Toxics.

Table 17
Cumulative Air Pollutant Concentrations at Projected Development

Pollutant	CAS NO.	Summary by Pollutant			
		Concentrations (ug/m3)		NYSDEC Guidelines	
		1-Hour	Annual	SGC	AGC
Particulates	NY075-00-0	185	0.99	380	45
2 Propy, 1butoxy	05131-86-8*	0.34	0.00	NA	NA
Dipropylglycolmethether	34590-94-8	0.34	0.00	91000	1400
Acetone	00067-64-1	230.9	1.13	180,000.00	30,000.00
Aliphatic Hydrocarbon	64742-89-8	53.7	0.26	N/A	3,200
Aromatic Petroleum distillates	64742-94-5	26.8	0.13	N/A	100
Butane	00106-97-8	26.8	0.13	N/A	57,000.00
Ethanol	00064-17-5	59.1	0.29	N/A	45,000.00
Ethyl 3-Ethoxyproprioanate	00763-69-9	10.7	0.05	140	64
Ethylbenzene	00100-41-4	48.3	0.24	54,000.00	1,000.00
Methyl Ethyl Ketone	00078-93-3	26.8	0.13	13,000.00	5,000.00
N-Butyl Acetate	00123-86-4	26.8	0.13	95,000.00	17,000.00
Propane	00074-98-6	161.1	0.79	N/A	43,000.00
Stoddard Solvents	08052-41-3	43.0	0.21	N/A	900.00
Toluene	00105-88-3	53.7	0.26	37,000.00	5,000.00
Xylene	01330-20-7	59.1	0.29	4,300.00	100

Source: Sandstone Environmental Associates, Inc.

SUMMARY

An air quality analysis was carried out for the proposed rezoning action. Based on the information in this report, the proposed action would not result in violations of ambient air quality standards or exceedances of health-related guideline values, and would therefore not result in any significant adverse air quality impacts.

CONCLUSION

Conditions associated with the project development would not result in any violations of the ambient air quality standards. Therefore, the action would not result in any potentially significant adverse stationary or mobile source air quality impacts, and further assessment is not warranted.

19. NOISE

INTRODUCTION

Two types of potential noise impacts are considered under CEQR. These are potential mobile source and stationary source noise impacts. Mobile source impacts are those which could result from a proposed project adding a substantial amount of traffic to an area, or if the project site is located near a heavily trafficked thoroughfare. Potential stationary source noise impacts are considered when a proposed action would cause a stationary noise source to be operating within 1,500 feet of a receptor, with a direct line of sight to that receptor, or if the project would include unenclosed mechanical equipment for building ventilation purposes.

MOBILE SOURCE

Relative to mobile source impacts, a noise analysis would only be required if a proposed project would at least double existing passenger car equivalent (PCE) traffic volumes along a street on which a sensitive noise receptor (such as a residence, a park, a school, etc.) was located. The 400-foot radius study area is predominantly developed with relatively small one- to three-story, two-family and multiple dwellings and open space uses to the south and east. The 400-foot radius study area to the north and west of the rezoning area is primarily developed with a mixture of commercial, manufacturing, and automobile related uses. Sensitive receptors consisting of residences are located along both sides of Starr and Troutman Streets adjacent to and across from the project site.

Traffic generated by the proposed development would access the buildings on Projected Development Sites 1 and 2 along Starr and Troutman Streets in order to enter the proposed accessory parking garage and the at-grade parking lots for the new buildings. Projected Development Sites 3, 4, and 5 are also sited along Starr and Troutman Streets and traffic generated by development on these parcels would travel along Starr and Troutman Streets. However, the traffic generated by the proposed development would not be enough to double PCE volumes along these streets or any other streets in the study area as the proposed development is relatively small compared to the level of surrounding development. The project would also not cause any traffic to be rerouted. Therefore, no significant mobile source noise impacts would be anticipated to occur under the proposed action.

STATIONARY SOURCE

The proposed project would not include any unenclosed mechanical equipment for building ventilation purposes that could result in stationary source noise impacts to the surrounding area. All mechanical equipment would be located either in the cellar areas of the buildings on the projected and potential development sites or in enclosed penthouses on the roof of these structures. Additionally, the new development would not locate a receptor within 1,500 feet of a substantial stationary source noise generator, and there are no substantial stationary source noise generators located in close proximity to the project site.

However, and due to the fact that the proposed action would introduce new sensitive receptors in an area that has historically been designated for industrial uses, ambient noise measurements were performed pursuant to the *CEQR Technical Manual*, Section 331.2, in order to quantify background noise levels in the area and the potential for noise impacts on the future residents of the projected and potential developments. The goal of the measurements was to quantify the noise generated by vehicular traffic in the area, in addition to any industrial uses, and to establish acoustical requirements for the exterior wall assembly as defined by CEQR. The following presents our findings and recommendations.

Criteria

Tables 19-2 and 19-3 of the *CEQR Technical Manual*, respectively, list exterior noise level standards based on the receptor type and required attenuation values to achieve acceptable interior noise levels. Tables 19-1 and 19-2 below summarize the CEQR standards and required attenuation.

Table 19-1

CEQR noise exposure guidelines for residential buildings

Time Period	Acceptable	Marginally Acceptable	Marginally Unacceptable	Clearly Unacceptable
7AM-10PM	$L_{10} \leq 65$dBA	$65 < L_{10} \leq 70$dBA	$70 < L_{10} \leq 80$dBA	$L_{10} > 80$dBA
10PM-7AM	$L_{10} \leq 55$dBA	$55 < L_{10} \leq 70$dBA	$70 < L_{10} \leq 80$dBA	$L_{10} > 80$dBA

Table 19-2

Required Attenuation Values to Achieve Acceptable Interior Noise Levels

	Marginally Unacceptable			**Clearly Unacceptable**	
Noise level with proposed action	$70 < L_{10} \leq 73$	$73 < L_{10} \leq 76$	$76 < L_{10} \leq 78$	$78 < L_{10} \leq 80$	$80 < L_{10}$
Attenuation[A]	(I) 28 dBA	(II) 31 dBA	(III) 33 dBA	(IV) 35 dBA	$36 + (L_{10} - 80)$[B] dBA

Note: [A] The above composite window-wall attenuation values are for residential dwellings and community facility development. Commercial office spaces and meeting rooms would be 5 dBA less in each category. All the above categories require a closed window situation and hence alternate means of ventilation.

[B] Required attenuation values increase by 1 dBA increments for L_{10} values greater than 80 dBA.

Source: New York City Department of Environmental Protection, 2010.

Noise Monitoring

Noise monitoring was carried out on Thursday, November 18, 2010 at two corner locations on Queens Block 3395 to determine existing outdoor noise levels along Woodward Avenue. Each monitoring site is listed below and shown in Figure 19-1.

(1) the SW corner of the intersection of Starr Street and Woodward Avenue, and

(2) the SE corner of the intersection of Troutman Street and Woodward Avenue.

Noise levels were monitored for the peak AM (8:00-9:00 a.m.), Midday (12:00-1:00 p.m.), and PM (5:00-6:00 p.m.) periods. The noise levels were monitored according to the procedures outlined in the *NYC CEQR Technical Manual*. The instrument used was a Brüel & Kjær Sound Level Meter Type 2250, an ANSI Type I instrument. It was mounted on a tripod at a height of five feet above the ground. The noise monitor was calibrated before and after use. A wind screen was used during all sound measurements except for calibration. All measurement procedures conformed to the requirements of ANSI Standard S1.13-1971 (R1976). During the monitoring periods, the

temperatures were in the mid 40s (°F) during the morning hours to the low 50s during the afternoon and early evening, and the conditions were sunny to partly cloudy. Local traffic along Starr Street, Troutman Street, and Woodward Avenue were the primary sources of noise. Other sources of noise included aircraft flyovers and pedestrian voices.

Figure 19-1
Noise Monitoring Locations

Source: Google Earth.

☆= Noise Monitoring Sites.

Table 19-3 shows the noise monitoring results, and Table 19-4 summarizes the traffic for the equivalent 1-hour period. Traffic classification counts were carried out for total vehicle movements at each observed street intersection. At Site 1, the highest observed L_{10} of 68.9 dBA occurred during the peak AM period. At Site 2, the highest observed L_{10} of 67.5 dBA also occurred during peak AM period.

Table 19-3

Monitored Noise Levels (dBA)

ID	Site	Time of Day	L_{eq}	L_{10}	L_{min}	L_{max}	L_{01}	L_{90}
1	Woodward Ave. / Starr St.	8:18 a.m. - 8:38 a.m.	66.2	68.9	53.1	81.7	75.8	57.7
		12:03 p.m. - 12:23 p.m.	64.7	67.8	51.2	82.9	74.8	55.2
		5:03 p.m. - 5:23 p.m.	64.8	68.0	51.9	80.4	74.6	56.0
2	Woodward Ave. / Troutman St.	8:41 a.m. - 9:01 a.m.	65.1	67.5	51.8	80.7	76.4	55.0
		12:25 p.m. - 12:45 p.m.	64.4	66.6	51.7	83.5	75.1	54.8
		5:28 p.m. - 5:48 p.m.	62.3	64.5	51.3	82.1	72.7	54.6

Source: Sandstone Environmental Associates, Inc.

Table 19-4

1-Hour Equivalent Traffic Volumes

ID	Site	Peak Period	Auto	Medium Trucks	Heavy Trucks	Buses	Motor-cycles	Total	Aircraft
1	Woodward Ave. / Starr St.	AM	522	15	3	15	0	555	24
		MD	444	21	6	9	0	480	24
		PM	519	21	0	15	0	555	18
2	Woodward Ave. / Troutman St.	AM	222	24	0	18	0	264	12
		MD	261	27	3	0	0	291	24
		PM	267	12	0	0	0	279	27

Source: Sandstone Environmental Associates, Inc.

Attenuation Ratings

Window/wall attenuation can be described in terms of sound transmission class (STC), transmission loss (TL), and outdoor-indoor transmission class (OITC). Although these terms are sometimes used interchangeably, they are unique from each other. Transmission loss refers to how many decibels of sound a façade (wall) or façade accessory (window or door) can stop at a given frequency. The TL for a given construction material varies with the individual frequencies of the noise.

To simplify the noise attenuation properties of a wall, the STC rating was developed. It is a single number that describes the sound isolation performance of a given material for the range of test frequencies between 125 and 4,000 Hz. These frequencies sufficiently cover the range of human speech. Higher STC values reflect greater efficiencies to block airborne sound.

The OITC is similar to the STC, except that it is weighted more towards the lower frequencies associated with aircraft, rail, and truck traffic. It considers frequencies down to 80 Hz. In selecting suitable window material, the final attenuation level depends upon a variety of factors, among which include the type of material selected, the thickness of the panel, and quality of the installation.

Conclusions and Recommendations

Based on the maximum exterior L_{10} of 68.9 dBA at the intersection of Starr Street and Woodward Avenue, the street-facing façades of Block 3395, Lot 18 and Block 3377, Lot 84 would fall into the Marginally Acceptable category of noise exposure. Windows with an OITC rating of 24.0 dBA would ensure interior noise levels are 45 dBA or less. However, the *CEQR Technical Manual* does not specify attenuation requirements where exterior noise levels are less than 70 dBA.

CONCLUSION

Conditions associated with the project development would not result in any violations of NYC noise standards.

Therefore, the project would not have any potentially significant adverse mobile or stationary source noise impacts, and further assessment is not warranted.

22. CONSTRUCTION

Based on 2012 *CEQR Technical Manual* guidelines, where the duration of construction is expected to be short-term (less than two years), any impacts resulting from construction generally do not require detailed assessment. Construction of the proposed development on the Applicant-owned Projected Development Sites 1 and 2 is expected to occur concurrently and be completed within 12 months as follows:

Excavation and Foundation: 2.5 months
Superstructure: 3.5 months
Façade and windows: 1.5 months
All plumbing, MEP and interior work: 3.5 months
Punch list and TCO process: 1 month

As development on Projected Development Sites 3, 4, and 5 consists of much smaller structures than on Projected Development Sites 1 and 2, it is anticipated that these developments would also be completed within no more than 12 months assuming the same construction schedule breakdown for Sites 1 and 2 presented above.

The following construction impacts may result from the proposed project, but as explained under each item, a preliminary construction assessment is not warranted.

- *The project's construction activities could temporarily impede moving traffic lanes, close sidewalks, affect corners/crosswalks, and remove on-street parking spaces.*

  The project's construction activities could temporarily impede moving traffic lanes, close sidewalks, affect corners/crosswalks, and remove on-street parking spaces. However, changes to moving traffic lanes, if any, would be of limited duration and the temporary removal of on-street parking spaces would likely be limited to the sections of Woodward Avenue and Troutman and Starr Streets adjacent to the Projected Development Sites. These

locations would not be particularly sensitive to such a closure as they are not areas with high pedestrian activity, are not located near sensitive land uses such as a school, hospital, or park, and the sidewalks and roadways affected by the proposed construction would not be considered to be near capacity. Any potential closure of the sidewalks adjacent to the Projected Development Sites would be considered a routine closure that would be addressed by a permit and pedestrian access plan issued by the NYC DOT Office of Construction Mitigation and Coordination at the time of closure.

- *The project involves the construction of multiple buildings where there is the potential for on-site receptors on buildings completed before the final build-out.*

  Construction on the Projected Development Sites 1 and 2 controlled by the Applicant would commit to using the Best Available Technology (BAT) for construction equipment. Both sites would be developed with relatively modest sized four-story structures that would not cause construction equipment to be operating within 1,500 feet of a receptor for a period of time exceeding two years. Although it is not known whether the developers on Projected Development Sites 3, 4, and 5 would similarly commit to using BAT, development on these sites would be limited to relatively small structures of less than 10,000 square feet each. Construction equipment used on these sites would similarly not be operating within 1,500 feet of a receptor for a period of time exceeding two years. In addition, there are no highly sensitive receptors, such as schools and hospitals, in the vicinity of the Projected Development Sites where a shorter construction period would be of concern.

- *Construction activities could be occurring within 400 feet of a historic or cultural resource.*

  The NYC Landmarks Preservation Commission designated Adrian and Ann Wyckoff Onderdonk House is located within 400 foot of the proposed rezoning area at 18-20 Onderdonk Avenue (Block 3412, Lot 1). However, the proposed action would not result in any construction impacts to this historic resource as the nearest Projected Development Sites that could experience new development under the action (Projected Development Site 3) is located approximately 480 feet from the Onderdonk House.

- *Construction would occur on multiple development sites in the same geographic area such that there is the potential for several construction timelines to overlap or last for more than two years overall.*

  Construction would not last more than 3 years. Construction of the proposed development on the Applicant-owned Projected Development Sites 1 and 2 is expected to be completed within 12 months. As development on Projected Development Sites 3, 4, and 5 consists of much smaller structures than on Projected Development Sites 1 and 2, it is anticipated that these developments would also be completed within 12 months.

  The construction peak would generate fewer vehicle trips than the operational project peak and, as discussed above, the project has been determined not to produce the potential for significant adverse traffic impacts. As development on Projected Development Sites 3, 4, and 5 would be limited to relatively small structures of less than 10,000 square feet each, construction traffic generated by these projects would be minimal.

On the basis of the above analysis, the proposed action would not have any potentially significant adverse construction impacts, and further analysis would not be warranted.

APPENDIX A

NYC LANDMARKS SIGN-OFF

NYC Landmarks Preservation Commission

1 Centre Street
9th Floor North
New York, NY 10007

Voice (212)-669-7700
Fax (212)-669-7960
http://nyc.gov/landmarks

ENVIRONMENTAL REVIEW

Project number: DEPARTMENT OF CITY PLANNING / 77DCP103Q
Project: WOODWARD AVE REZONING
Date received: 11/7/2013

Comments: as indicated below. Properties that are individually LPC designated or in LPC historic districts require permits from the LPC Preservation department. Properties that are S/NR listed or S/NR eligible require consultation with SHPO if there are State or Federal permits or funding required as part of the action.

Properties with no Architectural or Archaeological significance:

1) ADDRESS: 175 WOODWARD AVENUE, BBL: 4033770001
2) ADDRESS: 18-70 TROUTMAN STREET, BBL: 4033950016
3) ADDRESS: TROUTMAN STREET, BBL: 4033950015
4) ADDRESS: 18-66 TROUTMAN STREET, BBL: 4033950014
5) ADDRESS: 18-64 TROUTMAN STREET, BBL: 4033950013
6) ADDRESS: 18-60 TROUTMAN STREET, BBL: 4033950012
7) ADDRESS: 1901 STARR STREET, BBL: 4033770084

Gina Santucci

11/13/2013

SIGNATURE DATE

Gina Santucci, Environmental Review Coordinator

File Name: 28942_FSO_DNP_11132013.doc

APPENDIX B

AIR PERMIT SEARCH

November 21, 2012

Ms. Gerry Kelpin
City of New York Department of Environmental Protection
59-17 Junction Boulevard
Flushing, New York 11373

Re: 18-70 Woodward Avenue, Ridgewood, NY Air Toxics

Dear Ms. Kelpin,

We are preparing an air quality survey for the 18-70 Woodward Avenue project Block 3395 (Lots 12-16, 39-44), Block 3394 (Lots 20-24, 28, 37-46, 48-57, 76-91), and Block 3377 (Lots 1, 84, 86, 90, 92) in the Ridgewood neighborhood of Queens and have identified the following addresses as possible facilities that may have NYCDEP permits for HVAC or manufacturing operations. Please let us know whether permits are available for the addresses listed below.

Block	Lot(s)	Dept of Finance Code	Address	Observed Land Use
2611	450	F4	50-05 Metropolitan Avenue	US Metropolitan International Corp. (wholesale)
	452	E1	48-25A Metropolitan Avenue	Rite Way Wholesale Inc. (importer/exporter)
	454	F9	49-29 Metropolitan Avenue	White Glove Transportation Services Inc.
	458	E3	48-01 Metropolitan Avenue	Pur Pac Inc. (suppliers of restaurant/janitorial products)
2632	12	E9	52-02 Flushing Avenue	Kam Kuo Trading Corp.
	19	E9	52-14 Flushing Avenue	Ace Atlas Corp.
2979	1	F1	114 Scott Avenue	Warehouse for steel tube assembly (from CO)
	5	F4	160 Scott Avenue	Transfer station for construction debris & solid waste (from CO)
	7	F1	150 Scott Avenue	*No Information Available*
	45	E9	255 Randolph Street	Handylee Enterprises USA
	50	E9	269 Randolph Street	Unidentified warehouse use
	60	E9	283 Randolph Street	Metal products fabrication & accessory storage (from CO)
	64	F9	90 Scott Avenue	Vali Industries Inc.
	75	E1	281 Randolph Street	*No Information Available*
	107	F1	154 Scott Avenue	Unidentified warehouse use
	164	F9	110 Scott Avenue	Unidentified warehouse use
2990	1	E9	70 Scott Avenue	Unidentified warehouse use
	10	F4	32 Scott Avenue	Unidentified warehouse use
	11	F4	36 Scott Avenue	Unidentified warehouse use
	12	E9	270 Randolph Street	ACM Fan Inc.
	36	E3	1345 Flushing Avenue	Accurate Specialty Metal Fabricators Inc.

SANDSTONE ENVIRONMENTAL ASSOCIATES, INC.
505 Main Street, Metuchen, N.J. 08840
P:732-494-1100 F:732-494-1107 www.sandstoneairnoise.com

	42	E3	1293 Flushing Avenue	B&W International Inc. (plumbing & heating wholesale)
	50	E9	1285 Flushing Avenue	USA Shun Da Trading Inc. (importers/wholesalers)
3190	7	F9	25 St. Nicholas Avenue	*No Information Available*
	8	F9	454 Troutman Street	Unidentified warehouse use
	12	F9	460 Troutman Street	Aron's Mfg. Corp. / Artcraft Belt Co.
	37	E1	321 Starr Street (aka 48 Cypress Avenue)	Apollo Windows & Metal Studs LLC
	45	F4	309 Starr Street	Excalibur Bronze Sculpture Foundry
3375	1	E3	47-02 Metropolitan Avenue	Eco Friendly Trading Inc. / Best Adhesives Co.
	15	F9	47-40 Metropolitan Avenue	Unidentified warehouse use
	23	F9	63 Woodward Avenue	Unidentified warehouse use
	33	Z9	49-06 Metropolitan Avenue	A&G Auto Salvage / Auto Glass
	52	G4	50-02 Metropolitan Avenue	Power Test Gas Station
	72	G2	19-35 Flushing Avenue	B&M Auto Collision Corp.
	87	F9	19-25 Flushing Avenue	Open Lot
	88	S5	19-07 Flushing Avenue	Maldonado Properties (Real Estate)
	89	S5	19-05 Flushing Avenue	Flushing Tire Shop
3376	1	Z9	19-02 Flushing Avenue	AALBA Auto Salvage Inc. (used auto & truck parts)
	7	E3	151 Woodward Avenue	Unidentified warehouse use
	15	E3	19-40 Flushing Avenue	Top Choice Trading USA Inc.
	20	G9	19-52 Flushing Avenue	Mi Amigo Auto Muffler Shop
	24	K9	19-62 Flushing Avenue	John's Cafe Deli & Salad Bar (and office space)
3377	3	Z9	19-20 Troutman Street	Sacco Truck Parts
	6	F1	19-30 Troutman Street	Unidentified warehouse use
	14	E9	19-48 Troutman Street	Tay Shing Corporation
	36	O6	51-10 Metropolitan Avenue	Citibank branch
	86	F4	185 Woodward Avenue	John Tara Replacement Windows & Storm Doors
3393	1	Z9	46-00 Metropolitan Avenue	Metro Auto Glass
	16	G7	46-24 Metropolitan Avenue	Alpine Ready Mix & Container Service
	19	F9	46-26 Metropolitan Avenue	Alpine Ready Mix & Container Service
	23	F9	46-46 Metropolitan Avenue	*No Information Available*
	49	E9	2 Woodward Avenue	Open Lot
	62	E1	24 Woodward Avenue	G W Manufacturing / General Coating Technologies / Grand Industries Inc. / Kitchen Cabinet Depot
	179	F9	75 Onderdonk Avenue	CWBF Inc. / National Brand Coffee Services / Sino Sharp Import Export
3394	1	F9	157 Onderdonk Avenue	R T Workrooms
	8	F9	47 Onderdonk Avenue	U2 Metal & Glazing System, Inc.
	33	G3	18-84 Flushing Avenue	Sunoco Gas Station
3395	1	F1	18-56 Onderdonk Avenue	Unidentified warehouse use
	16	Z9	18-70 Troutman Street	Indo American Granite Marble (wholesale & distributor)
3410	145	E1	18-19 Flushing Avenue	Jin Ming Huang Trading Inc. / North American Trading Group, Inc.
	150	E9	6-48 Seneca Avenue	Unidentified warehouse use
	180	E9	18-27 Flushing Avenue	M & V Provision Company, Inc.

	190	E1	18-13 Flushing Avenue	American Conveyor Corp.
3412	1	P7	18-20 Onderdonk Avenue	Onderdonk House
	47	F1	17-10 Flushing Avenue	Diversified Heat Transfer Inc. / Top Grade Products, Inc.
3414	1	E4	18-04 Troutman Street	W & C International Import Inc.
	2	E1	18-32 Onderdonk Avenue	Unidentified warehouse use

CO - Certificate of Occupancy, E1 - Fireproof Warehouse, E3 – Semi-Fireproof Warehouse, E4 - Metal Frame Warehouse, E9 – Misc. warehouse, F1 – Heavy Manufacturing Fireproof Factory, F4 – Industrial Semi-Fireproof Warehouse, F9 – Industrial-Misc. Factory,G2 - One Story Semi-Fireproof or Fireproof Garage, G4 - Gas Station with Enclosed Workshop, G9 – Misc. Garage or Gas Station; K9 – Misc. Store Building, O6 – Bank Building designed exclusively for Banking; P7 – Museum, S5 – Primarily 5-6 Family Building with 1 Store or Office, Z9 – Other Misc. Structure

We would appreciate a response at your earliest convenience. Thank you for your assistance with this.

Sincerely,

William Grossett
Sandstone Environmental Associates, Inc.

APPENDIX C

DEP COMMENT LETTER

NYC Environmental Protection

Carter H. Strickland, Jr.
Commissioner

Angela Licata
Deputy Commissioner
of Sustainability
alicata@dep.nyc.gov

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Flushing, NY 11373
T: (718) 595-4398
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May 10th, 2013

Mr. Robert Dobruskin
Director, Environmental Assessment and Review Division
New York City Department of City Planning
22 Reade Street, Room 4E
New York, New York 10007-1216

Re: 176 Woodward Avenue Rezoning
Block 3395, Lots 12- 16, 39-44
Block 3394, Lots 20-24, Lot 28 (partial), 37-46, 48-57, 76-91
Block 3377; Lots 1, 84, 86, 90 and 92
DEP # 13DEPTECH067Q / CEQR # 77DCP103Q
Queens, New York

Dear Mr. Dobruskin:

The New York City Department of Environmental Protection, Bureau of Environmental Planning and Analysis (DEP) has reviewed June 2006 Phase I Environmental Site Assessment Report and Limited Phase II Assessment (Phase II) prepared by Merritt Engineering Consultants, P.C., the January 2009 Phase I Environmental Site Assessment (Phase I) (Block 3395, Lot 16) and the April 2013 Environmental Statement, the June 2010 Phase I Environmental Site Assessment (Block 3377, Lot84) prepared by Environmental Project Data Statements Company, the September 2010 Phase II Environmental Site Assessment (Phase II) prepared by Energy & Environmental Analysts, Inc. (EEA), and the February 2013 Remedial Action Plan (RAP) and Construction Health & Safety Plan (Construction HASP) prepared by Hydro Tech Environmental Corp. on behalf of 176 Woodward Owner, LLC (applicant) for the above referenced project. It is our understanding that the applicant is seeking a zoning map amendment from the New York City Department of City Planning to rezone an M1-1 district to R6B, R5B and R6B/C1-3 districts. As currently proposed, the rezoning action would facilitate the development of a four-story mixed-use commercial, residential and community building with a full cellar and a partial sub-cellar at Lot 16 and a four-story residential building with full cellar at Lot 84. The site is bounded by Starr Street, Woodard Avenue, Onderdonk Avenue, and Flushing Avenue in the Ridgewood neighborhood of Queens, Community District 5. It should be noted that Block 3395, Lot 16 and Block 3377, Lot84 are under the control of the applicant. **Block 3395, Lots 12-15, 39-44, Block 3394, Lots 20-24, Lot 28 (partial), 37-46, 48-57, 76-91 and Block 3377, Lots 1, 86, 90 and 92** are not under the control of the applicant.

The Phase I reports revealed that historical on-site and surrounding area land uses consisted of a variety of residential and industrial uses including warehousing, a welding business, a bakery, an auto wrecking/junk yard, a storage yard for granite, marble, and stone slabs and a lot for vehicle and

equipment storage. The June 2006 Phase I report revealed the presence of two underground storage tanks (one 4,000 gallon gasoline tank and one 5,000 gallon No. 2 fuel-oil tank). The tanks are registered in the New York State Department of Environmental Conservation (NYSDEC) petroleum bulk storage (PBS) unit under PBS file number 2-365319 and are listed as closed in place and administratively closed. The New York State Department of Environmental Conservation (NYSDEC) database identified 28 New York State Leaking Tank Spill incidents (LTANKS) within ½ mile radius of the site.

During the September 2010 Phase II investigation, EEA conducted seven soil borings (B-1 through B-7) to depth of approximately 12 feet. Two soil samples (one from 0 to 2 ft. and one from 10 to 12 ft.) were collected from six of the seven soil borings and analyzed for Volatile Organic Compounds (VOCs) by United States Environmental Agency (EPA) Method 8260, Semi-Volatile Organic Compounds (SVOCs) by EPA method 8270, Pesticides/Polychlorinated Biphenyls by EPA Method 8081/8082 and Target Analyte List (TAL) metals. Two groundwater samples were collected via temporary wells from soil borings B-1 and B-7 and analyzed for VOCs using EPA Method 8260, SVOCs using EPA Method 8270BN, Pesticides and PCBs by EPA Method 8081/8082 and TAL Metals.

The soil analytical results revealed several metals (barium, cadmium, and lead) which were detected at concentrations exceeding their respective NYSDEC Part 375 Residential Use Soil Cleanup Objectives (SCOs). Several SVOCs (Benzo(a)anthracene, Benzo(k)fluoranthene, Benzo(a)pyrene, Chrysene, Indeno(1,2,3-cd)pyrene) were detected at concentrations exceeding their respective NYSDEC Part 375 Residential-Use SCOs. The groundwater analytical results revealed that VOCs, SVOCs, Pesticides, and PCBs were either non-detect or below NYSDEC Technical and Operational Guidance Series (TOGS) groundwater quality standards. Several metals (antimony, barium, beryllium, chromium, copper, lead, magnesium, manganese, nickel, selenium, sodium and iron) were detected in the unfiltered groundwater samples at concentrations exceeding their respective NYSDEC TOGS 1.1.1 GQS. In addition, sodium and manganese were detected above TOGS guidelines in the filtered groundwater sample. It should be noted that the Phase II Sampling was not approved by DEP and soil vapor sampling was not conducted during the September 2010 Phase II investigation.

Projected Development site under the control of the applicant
Block 3395, Lot 16 and Block 3377, Lot 84

The February 2013 RAP proposes the proper handling, transportation, and disposal of contaminated soils in accordance with applicable NYSDEC regulations; removal/closing of the 4,000 gallon gasoline UST and the 5,000 gallon No. 2 fuel-oil UST on Lot 16 in accordance with applicable NYSDEC regulations; de-watering into storm/sewer drains in accordance with applicable NYCDEP requirements; dust monitoring; installation of a vapor barrier system and a Sub-Slab Depressurization System (SSDS) (if warranted); and the installation of at least two feet of certified clean fill in open areas not covered with concrete, asphalt, or pavers. Furthermore, the February 2013 CHASP addresses worker and community health and safety during redevelopment.

Based upon our review of the submitted documentation, we have the following comments and recommendations to DCP:

- DCP should inform the applicant that a passive sub-slab depressurization system (SSDS) with the capability of being converted to an active SSDS should be incorporated into the design plan of the proposed construction projects.

- DCP should instruct the applicant that for all areas, which will either be landscaped or covered with grass (not capped), a minimum of two (2) feet of clean fill/top soil must be imported from an approved facility/source and graded across all landscaped/grass covered areas of the sites not capped with concrete/asphalt. The clean fill/top soil must be segregated at the source/facility, have qualified environmental personnel collect representative samples at a frequency of one (1) sample for every 250 cubic yards, analyze the samples for Target Compound List VOCs, semi-volatile organic compounds, pesticides, polychlorinated biphenyls, and Target Analyte List metals by a NYSDOH Environmental Laboratory Approval Program certified laboratory, compared to NYSDEC Part 375 Environmental Remediation Programs.

- DCP should instruct the applicant that if any petroleum-impacted soils (which display petroleum odors and/or staining) are encountered during the excavation/grading activities, the impacted soils should be removed and properly disposed of in accordance with NYSDEC regulations.

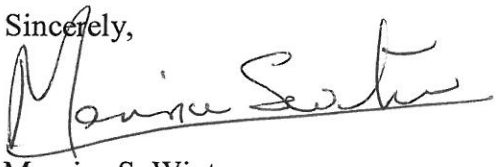
DEP finds the February 2013 RAP and HASP for the proposed project acceptable as long as the aforementioned information is incorporated into the RAP and HASP. DCP should instruct the applicant that at the completion of the project, a Professional Engineer (P.E) certified Remedial Closure Report should be submitted to and approved by DEP for the proposed project. The P.E. Certified Remedial Closure Report should indicate that all remedial requirements have been properly implemented (i.e. proper transportation/disposal manifests and certificates from impacted soils removed and disposed of in accordance with NYSDEC, proof of installation of SSDS and vapor barrier and two feet of DEP approved certified clean fill/top soil capping requirement if any landscaped/grass covered areas are not capped with concrete/asphalt etc.,)

Sites not under the control or ownership of the applicant
Block 3395, Lots 12- 15, 39-44, Block 3394, Lots 20-24, Lot 28 (partial), 37-46, 48-57, 76-91 and Block 3377, Lots 1, 86,90 and 92

Since these sites are not under the control or ownership of the applicant, DEP recommends that an "E" designation for hazardous materials should be placed on the zoning map pursuant to Section 11-15 of the New York City Zoning Resolution for any projected and/or potential development sites. The "E" designation will ensure that testing and mitigation will be provided as necessary before any future development.

Future correspondence and submittals related to this project should include the following tracking number **13DEPTECH067Q**. If you have any questions, you may contact Ms. Callista Nazaire at (718) 595-4401.

Sincerely,



Maurice S. Winter
Deputy Director, Site Assessment

c: E. Mahoney
M. Winter
C. Nazaire
T. Estesen
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