# ENVIRONMENTAL ASSESSMENT STATEMENT

# 48-18 VAN DAM STREET REZONING

**CEQR No.___20DCP096Q___**

**Lead Agency: City Planning Commission**

**Applicant:**
**48-18 Van Dam Property Holdings, LLC**

**Prepared by:**
**Philip Habib & Associates**

**April 2, 2021**

# 48-18 Van Dam Street Rezoning

## Environmental Assessment Statement (EAS)

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# 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*** **48-18 Van Dam Street Rezoning**

**3. *Reference Numbers***

| | |
|---|---|
| CEQR REFERENCE NUMBER (to be assigned by lead agency)<br>**20DCP096Q** | BSA REFERENCE NUMBER (if applicable) |
| ULURP REFERENCE NUMBER (if applicable)<br>**190260ZMQ** | OTHER REFERENCE NUMBER(S) (if applicable)<br>(*e.g.*, legislative intro, CAPA) |

| **4a. *Lead Agency Information*** | | | **4b. *Applicant Information*** | | |
|---|---|---|---|---|---|
| NAME OF LEAD AGENCY<br>**NYC Department of City Planning** | | | NAME OF APPLICANT<br>**48-18 Van Dam Property Holdings, LLC, c/o International Brotherhood of Teamsters Local 813** | | |
| NAME OF LEAD AGENCY CONTACT PERSON<br>**Olga Abinader** | | | NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON<br>**Philip A. Habib, P.E.** | | |
| ADDRESS **120 Broadway, 31st floor** | | | ADDRESS **102 Madison Avenue, 11th floor** | | |
| CITY **New York** | STATE **NY** | ZIP **10271** | CITY **New York** | STATE **NY** | ZIP **10016** |
| TELEPHONE **212.720.3423** | EMAIL **OAbinad@planning.nyc.gov** | | TELEPHONE **212.929.5656** | EMAIL **phabib@phaeng.com** | |

**5. *Project Description***

**The applicant, 48-18 Van Dam Property Holdings, LLC, is seeking a zoning map amendment to change Queens Block 284 from M2-1 to M1-5, to facilitate a proposed development at 48-18 Van Dam Street (Block 294, Lot 1), a 29,783-square-foot (sf) trapezoidal lot that occupies the northwest corner of Van Dam Street and Hunters Point Avenue in Long Island City. The reasonable worst case development scenario (RWCDS) for this site is the expansion of the existing two-story, approximately 56,632 gsf (53,800 zsf) building on the proposed development site, adding six stories and approximately 127,510 gsf, which would house the headquarters of the two labor-management pension trust funds and five related trust funds and the International Brotherhood of Teamsters Local 813 and related functions. The development also would include 877 sf of on-site private open space. (As detailed in Attachment A, the applicant's development proposal for this site differs in some respects from the RWCDS.) In addition to the proposed development site, under the RWCDS, the project area also includes two other sites that are not owned or controlled by the applicant but which are considered likely to be redeveloped as a result of the proposed action. These projected development sites include Block 284, Lot 6, and Block 284, Lot 14. The analysis build year for the proposed action is 2023.**

***Project Location***

| | | |
|---|---|---|
| BOROUGH **Queens** | COMMUNITY DISTRICT(S) **2** | STREET ADDRESS **See Attachment A** |
| TAX BLOCK(S) AND LOT(S) **Block 284, Lots 1, 6, 14** | | ZIP CODE **11101** |

DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS

**Block bounded by 48th Ave., Van Dam St., Hunters Point Ave., and 31st Pl.**

EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY **M2-1** | ZONING SECTIONAL MAP NUMBER **9b**

**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
☐ RULEMAKING
☐ CONSTRUCTION OF PUBLIC FACILITIES
☐ 384(b)(4) APPROVAL
☐ OTHER, explain:

☐ FUNDING OF CONSTRUCTION, specify:
☐ 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:

***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.): **66,331** Waterbody area (sq. ft) and type: **0**

Roads, buildings, and other paved surfaces (sq. ft.): **66,331** Other, describe (sq. ft.): **N/A**

**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):

**184,142 gsf (proposed); 239,758 gsf (projected)**

NUMBER OF BUILDINGS: **3 (on proposed/projected dev. sites)** GROSS FLOOR AREA OF EACH BUILDING (sq. ft.): **See Attach. A**

HEIGHT OF EACH BUILDING (ft.): **See Attach. A** NUMBER OF STORIES OF EACH BUILDING: **See Attach. A**

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:

The total square feet not owned or controlled by the applicant:

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: sq. ft. (width x length) VOLUME OF DISTURBANCE: cubic ft. (width x length x depth) **730,960 (est.)**

AREA OF PERMANENT DISTURBANCE: sq. ft. (width x length) **36,548 (est.)**

***Description of Proposed Uses*** (please complete the following information as appropriate) **Only Expansion Details Provided**

| | *Residential* | *Commercial* | *Community Facility* | *Industrial/Manufacturing* |
|---|---|---|---|---|
| ***Size*** (in gross sq. ft.) | **n/a** | **272,168 sf** | **n/a** | **n/a** |
| ***Type*** (*e.g.,* retail, office, school) | **n/a** units | **Retail and office** | **n/a** | **n/a** |

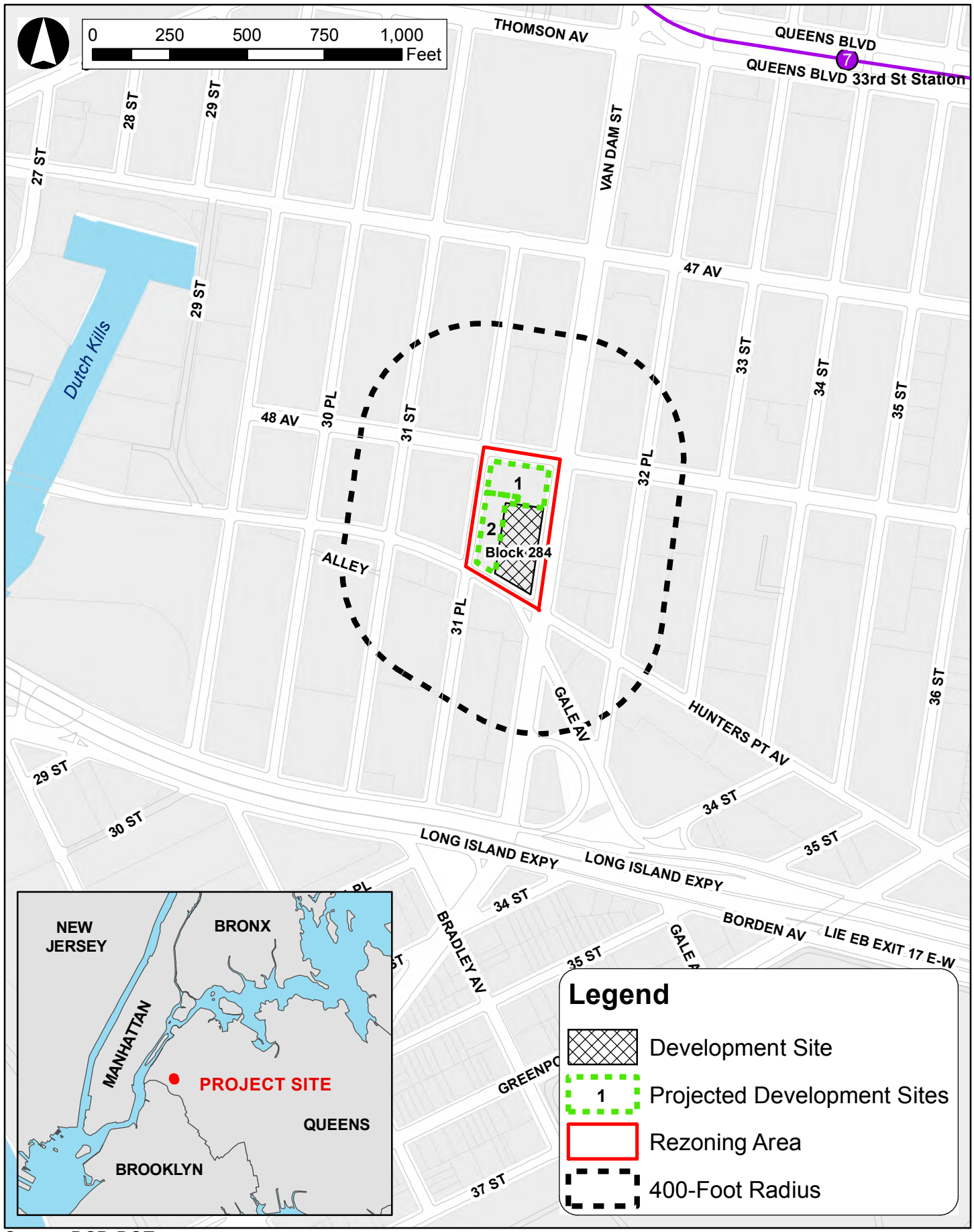
Does the proposed project increase the population of residents and/or on-site workers? ☒ YES ☐ NO

If "yes," please specify: NUMBER OF ADDITIONAL RESIDENTS: **n/a** NUMBER OF ADDITIONAL WORKERS: **1,126**

Provide a brief explanation of how these numbers were determined:

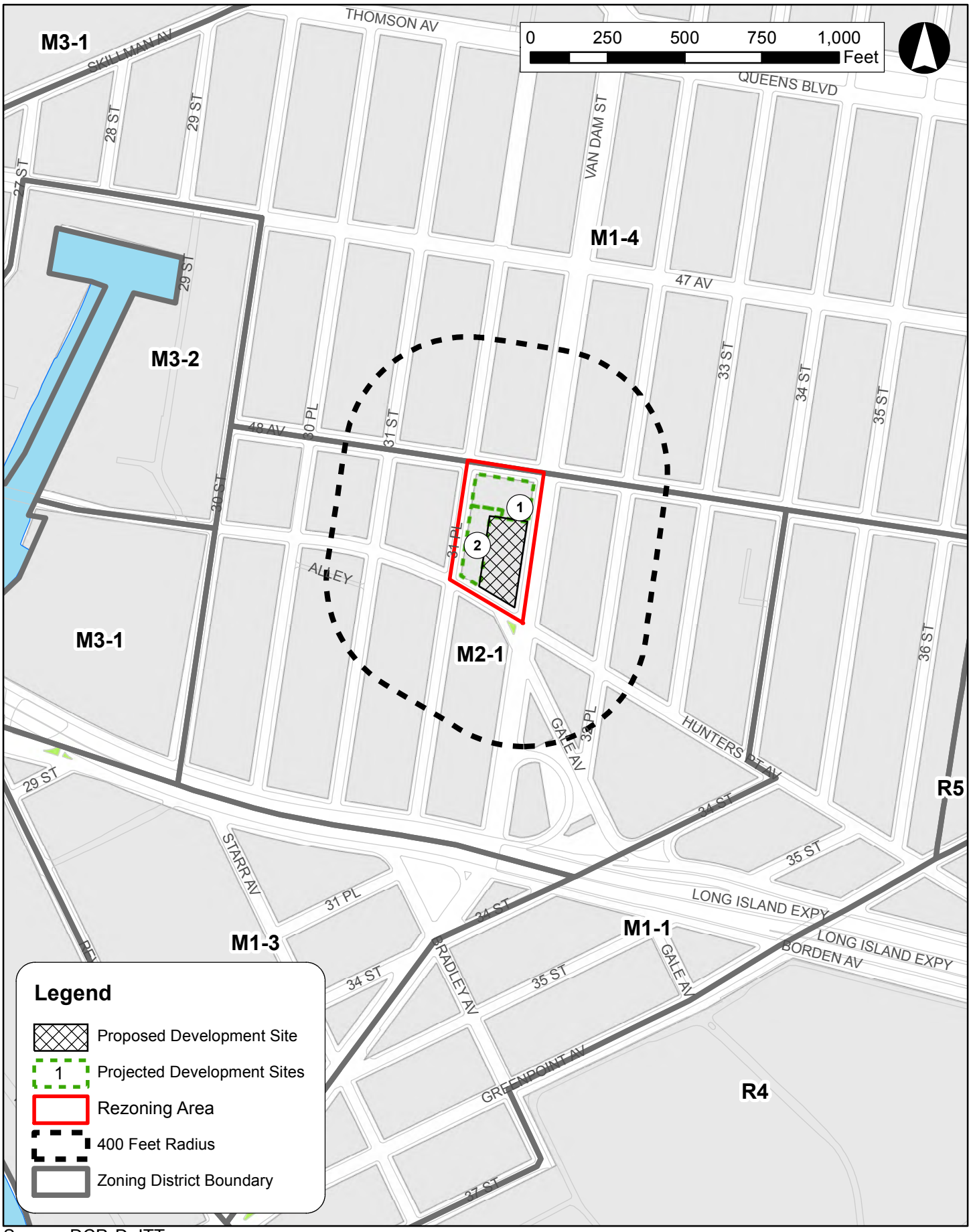
**1 worker per every 250 gsf of office (294,142/1000 = 1,177)**
**1 worker per every 1000 gsf of retail multiply by 3 (54,968/1000*3 = 165)**
**1,177 + 165 = 1,342 (with-action workers)**
**1,342 – 216 (No-Action workers) = 1,126 incremental workers**

**Figure 1**
**Project Location**



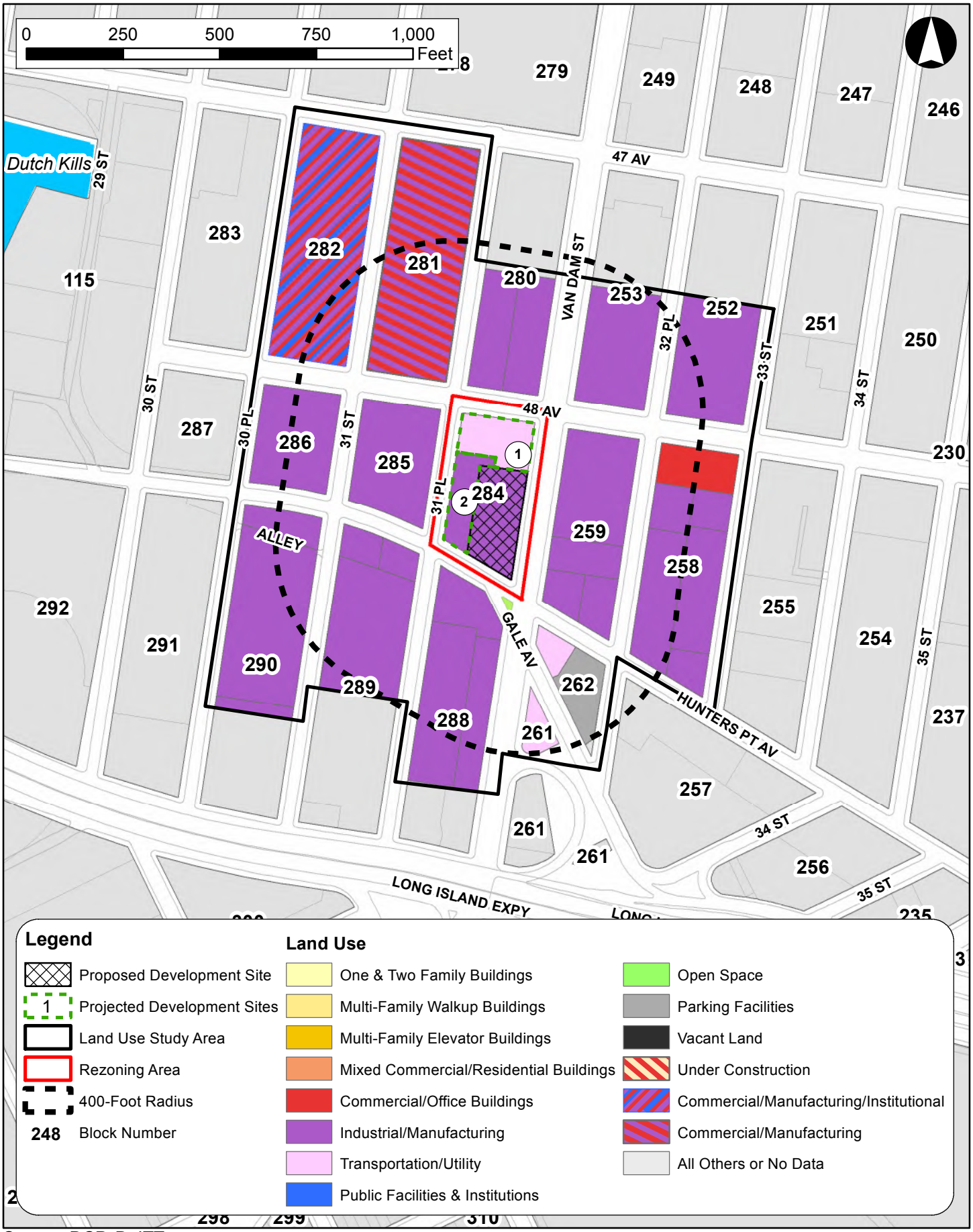

Source: DCP, DOT

**Figure 2**
**Zoning Map**

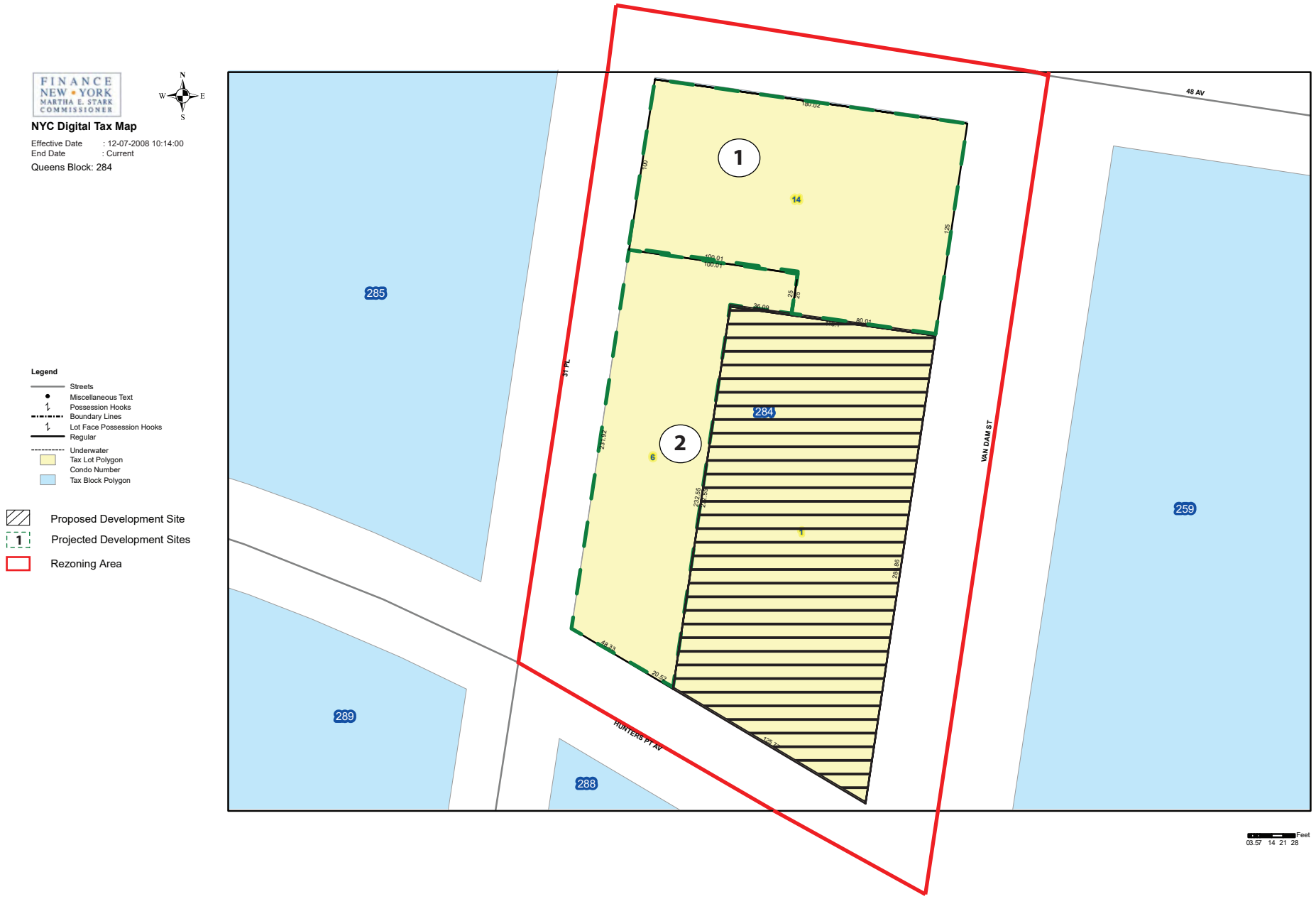



Source: DCP, DoITT

**Figure 3**
**Land Use Map**




Source: DCP, DoITT




**48-18 Van Dam Street Rezoning EAS**

**Figure 4**
**Tax Map Block 284**




Facing northwest from intersection of Hunters Point Avenue and Van Dam Street to the Proposed Development Site




The Proposed Development Site facing west from Van Dam Street




Facing north from Hunters Point Avenue to the Proposed Development Site




Facing west to Projected Development Site #1 located on the corner of 48th Avenue and Van Dam Street




**Photo Key**
Not to Scale

Proposed Development Site

Rezoning Area

1 Projected Development Site




Looking southwest from the intersection of 48th Avenue and Van Dam Street towards Projected Development Site #1




Facing southeast from the intersection of 48th Avenue and 31st place towards Projected Development Site #1




Facing southeast along 31st Place to Projected Development Site #2




Looking north from Hunts Point Avenue and 31st Place to Projected Development Site #2






Looking northwest from 48th Avenue and 31st Place




**Photo Key**
Not to Scale

Proposed Development Site

Rezoning Area

1 Projected Development Site




Looking northwest from the intersection of Van Dam Street and 48th Street




Facing northeast from Van Dam Street between Hunters Point Avenue and 48th Avenue




Facing southeast from Hunters Point Avenue and 31st Place




Looking northwest from 31st Place in between Hunters Point Avenue and 48th Avenue




**Photo Key**
Not to Scale

Proposed Development Site

Rezoning Area

1 Projected Development Site

Does the proposed project create new open space? ☒ YES ☐ NO If "yes," specify size of project-created open space: **877** sq. ft.

**Note: Proposed open space would be private, open to users of Applicant's site and the two other properties within the rezoning area block.**

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: **The existing building would remain and would be occupied by approximately 22,267 gsf of ground floor local retail space and approximately 34,365 gsf of office space on the first and second floors.**

**9. *Analysis Year*** CEQR Technical Manual Chapter 2

ANTICIPATED BUILD YEAR (date the project would be completed and operational): **2023**

ANTICIPATED PERIOD OF CONSTRUCTION IN MONTHS: **See Attach. B**

WOULD THE PROJECT BE IMPLEMENTED IN A SINGLE PHASE? ☐ YES ☒ NO | IF MULTIPLE PHASES, HOW MANY? **See Attach. B**

BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE: **See Attach. B**

**10. *Predominant Land Use in the Vicinity of the Project*** (check all that apply)

☐ RESIDENTIAL ☒ MANUFACTURING ☒ COMMERCIAL ☐ PARK/FOREST/OPEN SPACE ☒ OTHER, specify: **Institutional**

## 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, if needed, attach supporting information) 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. **See Attach. C** | | |
| **(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? **See Attach. D** | ☒ | ☐ |
| ○ 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 **See Attach. E** | | |
| **(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 residents or 500 additional employees? | ☐ | ☐ |
| **5. *SHADOWS***: CEQR Technical Manual Chapter 8 | | |

| | YES | NO |
|---|---|---|
| **(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. **See Attach. B** | | |
| **7. *URBAN DESIGN AND VISUAL RESOURCES***: CEQR Technical Manual Chapter 10 **See Attach. F** | | |
| **(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 Attach. B** | ☒ | ☐ |
| **10. *WATER AND SEWER INFRASTRUCTURE***: CEQR Technical Manual Chapter 13 **See Attach. E** | | |
| **(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? **N/A** | ☐ | ☐ |
| **(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 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? | ☐ | ☒ |

| | YES | NO |
|---|---|---|
| **(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): **20,327 lb** | | |
| ○ 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): **75,047 MMBTU** | | |
| **(b)** Would the proposed project affect the transmission or generation of energy? | ☐ | ☒ |
| **13. *TRANSPORTATION***: CEQR Technical Manual Chapter 16 **See Attach. H** | | |
| **(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 **See Attach. I** | | |
| **(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 **See Attach. J** | | |
| **(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? | ☐ | ☒ |
| **17. *PUBLIC HEALTH***: CEQR Technical Manual Chapter 20 | | |

| | YES | NO |
|---|---|---|
| **(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. **See Attach. B** | | |
| **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. **See Attach. B** | | |
| **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 Attach. B** | | |

**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 |
|---|---|
| **Philip A. Habib, P.E.** | April 1st 2021 |

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).

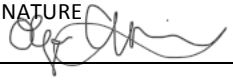
☒ **Conditional Negative Declaration:** A *Conditional Negative Declaration* (CND) may be appropriate if there is a private applicant for an Unlisted action AND when conditions imposed by the lead agency will modify the proposed project so that no significant adverse environmental impacts would result. 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 |
|---|---|
| Director, Environmental Assessment and Review Division | Department of City Planning on behalf of the City Planning Commission |
| NAME | DATE |
| Olga Abinader | April 2, 2021 |

SIGNATURE



CITY PLANNING COMMISSION CITY OF NEW YORK
OFFICE OF THE CHAIR

# CONDITIONAL NEGATIVE DECLARATION

**Project Identification**
CEQR No. 20DCP096Q
ULURP No. 190260ZMQ
SEQRA Classification: Unlisted

**Lead Agency**
City Planning Commission
Contact: Olga Abinader
(212) 720-3493

**Name, Description and Location of Proposal**

**48-18 Van Dam Teamsters Rezoning**

The applicant, 48-18 Van Dam Property Holdings, LLC, is seeking a zoning map amendment to Queens Block 284 from M2-1 to M1-5, to facilitate a proposed development at 48-18 Van Dam Street (Block 284, Lot 1), a 29,783- square-foot (sf) trapezoidal lot that occupies the northwest corner of Van Dam Street and Hunters Point Avenue in Long Island City, Queens Community District 2. The reasonable worst case development scenario (RWCDS) for this site is the expansion of the existing two-story, approximately 56,632 gsf (53,800 zsf) building on the proposed development site, adding six stories and approximately 127,510 gsf, which would house the headquarters of the two labor-management pension trust funds and five related trust funds and the International Brotherhood of Teamsters Local 813 and related functions. The development also would include 877 sf of on-site private open space. In addition to the proposed development site, under the RWCDS, the project area also includes two other sites that are not owned or controlled by the applicant but which are considered likely to be redeveloped as a result of the proposed action. These projected development sites include Block 284, Lot 6, and Block 284, Lot 14. The analysis build year for the proposed action is 2023.

**Statement of No Significant Effect:**

The Environmental Assessment and Review Division of the Department of City Planning, on behalf of the City Planning Commission, has completed its technical review of the Environmental Assessment Statement, dated April 1, 2021, prepared in connection with the ULURP Application (No. 190260ZMQ). The City Planning Commission has determined that the proposed action will have no significant effect on the quality of the environment, once it is modified as follows:

> The applicant will enter into a Restrictive Declaration (RD) to ensure the implementation of mitigation relating to transportation and open space which would avoid the potential for any significant adverse impacts. The applicant would be responsible for the design, required approvals, and implementation of the mitigation measures. The mitigation measures are as follows:

- Transportation
  - i. *48th Avenue and Van Dam Street (Northbound/Southbound)*
    Transfer 3 seconds of green time from Northbound/Southbound to Eastbound/Westbound in the AM and PM
  - ii. *Hunters Point Ave Eastbound/Westbound and Van Dam Street (Northbound/Southbound)*
    Transfer 2 seconds of green time from Northbound/Southbound to Eastbound/Westbound in the AM and PM, respectively.
  - iii. *Gale Avenue (Westbound) and Van Dam Street (Northbound/Southbound)*
    Transfer 2 seconds and 4 seconds of green time from Northbound to Eastbound/Westbound in the AM and PM
  - iv. *Borden Avenue (Westbound) and Van Dam Street (Northbound/Southbound)*
    Transfer 1 second of green time from Northbound/Southbound to Westbound in the AM.

- Open Space
  - i. Under CEQR, an analysis of open space is conducted to determine whether or not a proposed project would have a direct impact resulting from the elimination or alteration of open space and/or an indirect impact resulting from overtaxing available open space. A direct effect would "physically change, diminish, or eliminate an open space or reduce its utilization or aesthetic value." An indirect effect may occur when the population generated by a proposed action would be sufficient to noticeably diminish the ability of an area's open space to serve the existing or future population. The proposed action would be located in an "underserved" area in Queens and will would generate more than 125 additional employees. Based on the analysis provided in the EAS, the proposed action would have the potential to result in a significant adverse open space impact, however, in consultation with the lead agency and the NYC Department of Parks and Recreation, the applicant has committed to implementing a measure that would preclude this impact. This measure consists of the creation of 877 sf of private open space accessible to employees on the proposed development site and employees of the projected developments

To avoid the potential for significant adverse impacts related to hazardous materials, air quality, and noise, an (E) designation, (E-608), has been incorporated into the Proposed Actions as described below.

The (E) designation E-608 applying to Block 284 Lots 1, 14, and 6 related to hazardous materials is as follows:

Task 1-Sampling Protocol
The applicant submits to OER, for review and approval, a Phase I of the site along with a soil, groundwater and soil vapor testing protocol, including a description of methods and a site map with all sampling locations clearly and precisely represented. If site sampling is necessary, no sampling should begin until written approval of a protocol is received

from OER. The number and location of samples should be selected to adequately characterize the site, specific sources of suspected contamination (i.e., petroleum based contamination and non-petroleum based contamination), and the remainder of the site's condition. The characterization should be complete enough to determine what remediation strategy (if any) is necessary after review of sampling data. Guidelines and criteria for selecting sampling locations and collecting samples are provided by OER upon request.

Task 2-Remediation Determination and Protocol

A written report with findings and a summary of the data must he submitted to OER after completion of the testing phase and laboratory analysis for review and approval. After receiving such results, a determination is made 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 indicated from test results, a proposed remediation plan must be submitted to OER for review and approval. The applicant must complete such remediation as determined necessary by OER. The applicant should then provide proper documentation that the work has been satisfactorily completed. A construction-related health and safety plan should be submitted to OER and would be implemented during excavation and construction activities to protect workers and the community from potentially significant adverse impacts associated with contaminated soil, groundwater and/or soil vapor. This plan would be submitted to OER prior to implementation.

To avoid any potential impacts associated with air quality on the project area (Block 284, Lots 1, 6, and 14), as part of the proposed action, an (E) designation for air quality would be recorded against the property. The text for the (E) designation, E-608, will be as follows:

*Proposed Development, Block 284 Lot 1*

Any new commercial development on the above-referenced property must ensure that the heating, ventilating, and air conditioning (HVAC) and hot water stack is located at the height at least 111 feet above grade to avoid any potential significant adverse air quality impacts.

*Projected Site 1, Block 284, Lot 14*

Any new commercial development on the above-referenced property must use exclusively natural gas as the type of fuel for heating, ventilating, and air conditioning (HVAC) and hot water equipment and ensure that the HVAC stack is located at no more than 63 feet from the lot line facing 48th Avenue, at the height at least 86.5 feet above grade to avoid any potential significant adverse air quality impacts.

*Projected Site 2 Block 284, Lot 6*

Any new commercial development on the above-referenced property must use exclusively natural gas as the type of fuel for heating, ventilating, and air conditioning (HVAC) and hot water equipment, ensure that the heating and hot water system exhaust be routed to two roof-top stacks with equal emissions, and the two stacks be located at least 60 feet apart and at no more than 20 feet from the lot line facing 31 Place and no more than 110 feet from the lot line facing Hunter Point Avenue, at the height at least 86.5 feet above ground to avoid any potential significant adverse air quality impacts.

To avoid any potential impacts associated with noise on the project area (Block 284, Lots 1, 6, and 14), as part of the proposed action, an (E) designation for noise would be recorded against the property. The text for the (E) designation, E-608, will be as follows:

Block: 284, Lot 1 (Proposed Development Site)
In order to ensure an acceptable interior noise environment, future commercial office uses must provide a closed-window condition with a minimum of 26 dBA of window/wall attenuation on all facades facing Van Dam Street and all facades facing Hunters Point Avenue and the façades facing 48th Avenue within 50 feet of Van Dam Street and the facades facing 31st Place within 50 feet of Hunters Point Avenue to maintain an interior noise level not greater than 50 dBA for commercial office uses as illustrated in the EAS. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning.

Block: 284, Lot 14 (Projected Development Site 1)
In order to ensure an acceptable interior noise environment, future commercial office uses must provide a closed-window condition with a minimum of 28 dBA of window/wall attenuation on all facades facing 48th Avenue and the facades facing 31st Place within 50 feet of 48th Avenue and the facades facing Van Dam Street within 50 feet of 48th Avenue, and a minimum of 26 dBA of window/wall attenuation on all remaining facades facing Van Dam Street beyond 50 feet from 48th Avenue and the facades facing Hunters Point Avenue within 50 feet of Van Dam Street to maintain an interior noise level not greater than 50 dBA for commercial office uses as illustrated in the EAS. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning.

Block: 284, Lot 6 (Projected Development Site 2)
In order to ensure an acceptable interior noise environment, future commercial office uses must provide a closed-window condition with a minimum of 26 dBA of window/wall attenuation on all facades facing Hunters Point Avenue and the façades facing Van Dam Street within 50 feet of Hunters Point Avenue and the facades facing 31st Place within 50 feet of Hunters Point Avenue to maintain an interior noise level not greater than 50 dBA for commercial office uses as illustrated in the EAS. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning.

**Supporting Statement:**

The above determination is based on an environmental assessment which finds that:

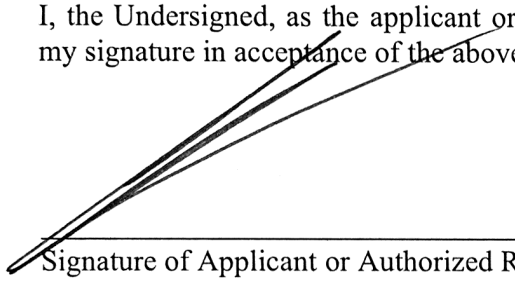
1. The applicant will enter into a Restrictive Declaration to ensure the implementation of project components and mitigation relating to transportation and open space which would avoid the potential for any significant adverse impacts related thereto.
2. Analysis related to land use, zoning, and public policy is included in the EAS. The assessment concludes that the proposed project would be compatible with existing land uses and planned developments in the surrounding community, and that the proposed actions would not result in any significant adverse impacts to land use, zoning, or public policy according to the 2020 CEQR Technical Manual.

3. No other significant adverse effects on the environment which would require an Environmental Impact Statement are foreseeable.

It is fully agreed and understood that if the foregoing conditions, modification, and alterations are not fully incorporated into the proposed action, this Conditional Negative Declaration shall become null and void. In such event, the applicant shall be required to prepare a Draft Environmental Impact Statement before proceeding further with said proposal

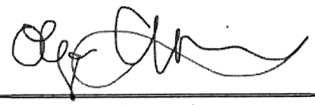
This Conditional Negative Declaration has been prepared in accordance with Article 8 of the Environmental Conservation Law 6NYCRR part 617.

I, the Undersigned, as the applicant or authorized representative for this proposal, hereby affix my signature in acceptance of the above conditions to the proposed action.



Signature of Applicant or Authorized Representative — Date: 04/02/2021

ERIC PALATNIK, ESQ.
Name of Applicant or Authorized Representative — Date: 04/02/2021



Olga Abinader, Director
Environmental Assessment and Review Division
Department of City Planning — Date: 04/02/2021

Marisa Lago, Chair
City Planning Commission — Date: _____

**ATTACHMENT A:**
**PROJECT DESCRIPTION**

## A. INTRODUCTION

This environmental assessment statement (EAS) considers the anticipated effects of a proposed zoning map amendment (the "proposed action"), a discretionary action requested by 48-18 Van Dam Property Holdings, LLC, (the "applicant"). The proposed action would facilitate a new development at 48-18 Van Dam Street (Block 284, Lot 1), a 29,783-square-foot (sf) trapezoidal lot that occupies the southeast corner of Van Dam Street and Hunters Point Avenue in Long Island City (the "proposed development site"). With the adoption of the proposed action, the applicant proposes the expansion of the existing two-story, approximately 56,632-gsf (53,800-zsf) building on the development site, by adding four stories and approximately 126,812 gsf (the "proposed project") which would house the headquarters of two labor-management pension trust funds -- Paper Products, Miscellaneous Chauffeurs, Warehousemen, Helpers, Messengers, Production and Office Workers Local 27 Pension Fund, Local 813 I.B.T. Pension Trust Fund (and their five related trust funds) (collectively "the Funds") -- and the International Brotherhood of Teamsters (IBT) Local 813 ("the Union"), as well as meeting space for other labor unions (the "proposed project"). A reasonable worst case development scenario (RWCDS) for the proposed development site has been identified, which differs in some respects from the proposed project. The RWCDS for the proposed development site would result in the expansion of the existing building by six stories, rather than four stories, and an increase of 127,510 gsf, rather than 126,812 gsf. The proposed uses would be the same under the RWCDS as under the applicant's proposed project apart from a slightly higher amount of office space, i.e., 698 gsf additional with the RWCDS. The proposed project also would include 877 sf of private open space on the proposed development site.

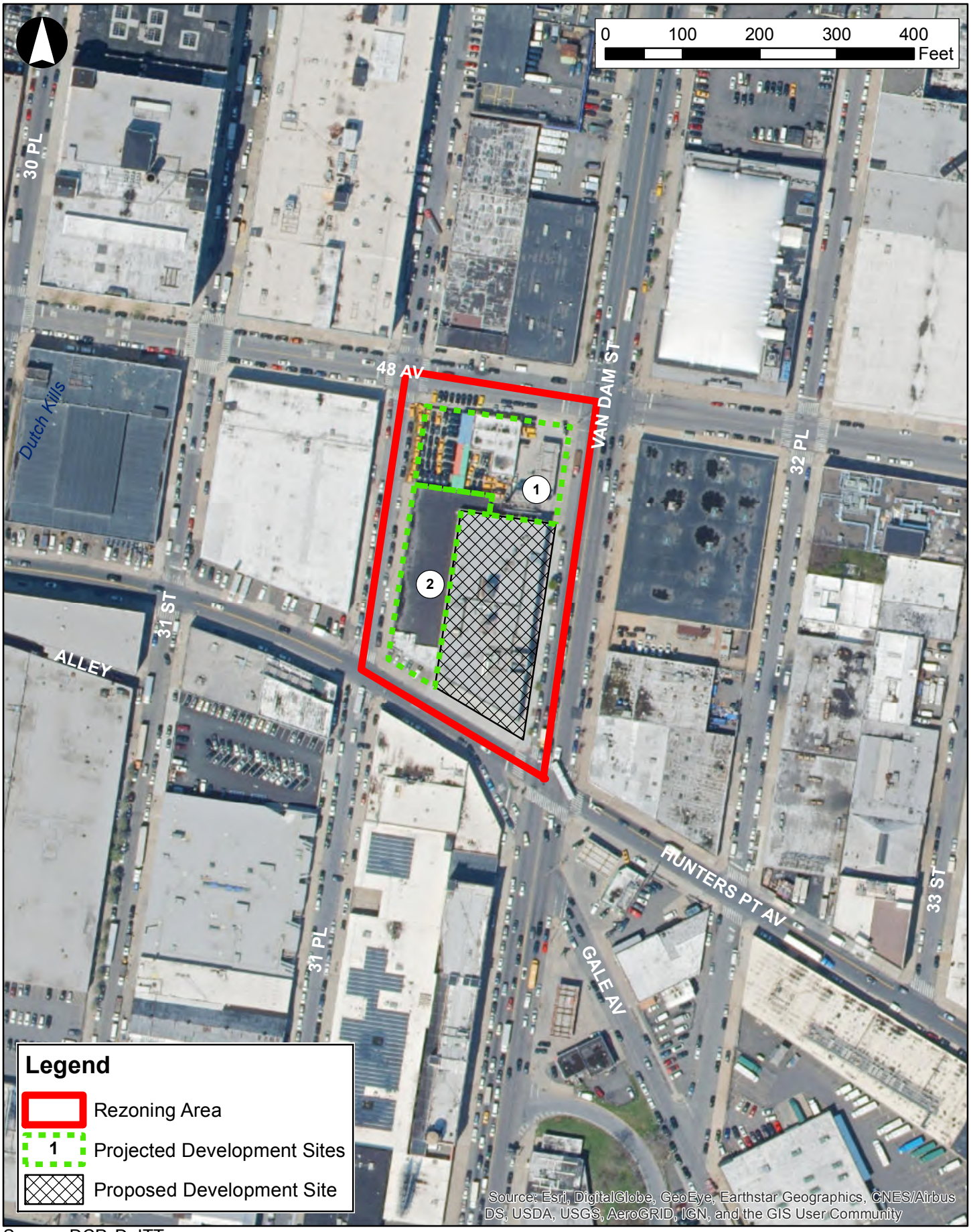
The proposed action would rezone one block in Queens Community District 2, tax Block 284 (the "project area"), changing the zoning district from M2-1 to M1-5. In addition to the proposed development site, the project area also includes two other sites that are not owned or controlled by the applicant. Under the RWCDS, these two other sites are considered likely to be redeveloped as a result of the proposed action. These include Block 284, Lot 6, and Block 284, Lot 14 (the "projected development sites").

Figure 1 (attached to the EAS Form) shows the project area, including the proposed and projected development sites' location and Figure A-1 shows an aerial view of the project area.

The proposed action is subject to environmental review under City Environmental Quality Review (CEQR) regulations and guidance of the 2020 *City Environmental Quality Review (CEQR) Technical Manual*.

In the RWCDS future without the proposed action ("No-Action condition"), it is projected that the existing approximately 56,632-gsf building on the proposed development site would remain and it would be occupied by approximately 22,267 gsf of ground floor local retail space and approximately 34,365 gsf of office space on the first and second floors. On the projected

**Figure A-1**
**Aerial Photo**




Source: DCP, DoITT

development sites, Block 284, Lot 6 would continue to be occupied by the existing 16,800-gsf building with warehouse use, and Block 284, Lot 14 would continue to be occupied by the existing automobile sales, leasing and repair business and a commercial vehicle storage lot with adjoining one-story building housing a taxi related company.

In total, under No-Action conditions the three development sites would contain 34,365 gsf of office space, 25,777 gsf of local retail, 16,800 gsf of warehouse space, and an automobile sales, leasing, and repair business with vehicle storage and adjoining one-story building housing a taxi related company.

In the RWCDS future with the proposed action ("With-Action condition"), it is projected that the existing building on the proposed development site would be expanded, from two to eight stories, with a roof height of approximately 111 feet. The building would have approximately 184,142 gsf, including 148,915 zsf of floor area, which equates to a 5.0 FAR (maximum permitted in the proposed M1-5 district). The enlargement would represent an additional 95,115 zsf to the existing approximately 53,800 zsf on the premises. The site would include approximately 22,267 gsf of ground floor local retail space (as would be the case under the No-Action scenario), approximately 134,485 gsf of office space, and approximately 27,390 gsf of parking area, providing 49 accessory parking spaces, on the second floor. There also would be 877 sf of private open space on the site, accessible to building workers as well as workers from the projected developments.

For the two projected development sites on Lots 6 and 14, the RWCDS With-Action scenario would result in two new, six-story buildings. Combined, they would have 159,657 gsf of office space, 32,701 gsf of local retail space, and 158 accessory parking spaces.

With the proposed project on the proposed development site and the projected developments under With-Action conditions instead of the as-of-right No-Action conditions, the RWCDS incremental change in development would be as follows: +29,191 gsf of local retail; +259,777 gsf of office; +74,790 gsf of accessory parking area (+207 accessory parking spaces); +346,958 gsf of total building area. There also would be +877 sf of private open space. The net incremental difference between the With-Action and No-Action serves as the basis for the environmental impact analyses.

This attachment provides a summary and description of the existing conditions of the project area and vicinity, requested approvals, purpose and need for the proposed action, associated development scenario, and the required review procedures.

## B. BACKGROUND AND EXISTING CONDITIONS

### Project Area

#### Description of the Proposed Development Site

The proposed development site consists of one tax lot (Lot 1) on Block 284. It contains approximately 280 feet of frontage along Van Dam Street, approximately 126 feet of frontage on Hunters Point Avenue, and is approximately 116 feet deep (measured perpendicularly from Van

Dam Street). It contains a two-story, approximately 56,632 gsf (53,800 zsf) building constructed in 1928, formerly occupied by warehouse and manufacturing uses, which in recent years has been occupied by retail, office, and general commercial uses. It is partly occupied at present, with one tenant (a fire alarm system company).

**Description of the Balance of the Project Area**

In addition to the proposed development site, the proposed zoning map amendment area would include the rest of Block 284 (Lots 6 and 14). As such, the project area encompasses one full block.

**Table A-1, Rezoning Area Conditions**

| Block | Lot | Address | Street Frontage[1] | Existing Condition | Zoning | Lot Area |
|---|---|---|---|---|---|---|
| ***Proposed Development Site*** | | | | | | |
| 284 | 1 | 48-18 Van Dam St. | 280' (Van Dam St.)<br>126' (Hunters Point Av.) | Partially occupied; retail and office space | M2-1 | 29,783 sf |
| ***Projected Development Sites*** | | | | | | |
| 284 | 6 | 48-29 31st Pl. | 232' (31st Pl.)<br>69' (Hunters Point Av.) | Occupied warehouse | M2-1 | 16,546 sf |
| 284 | 14 | 31-56 48th Ave. | 180' (48th Av.)<br>125' (Van Dam St.)<br>100' (31st Pl.) | Occupied lot with auto sales, leasing and repair business and commercial vehicle storage | M2-1 | 20,002 sf |

[1] Street frontages shown are rounded to the nearest whole number

Projected Development Sites

The RWCDS also includes the two additional projected development sites on Block 284 comprised of: (1) 48-29 31st Place (Lot 6), a 16,546-sf irregular-shaped property improved with a two-story industrial building constructed in approximately 1964 with 16,800 gsf, used as a warehouse; and (2) 31-56 48th Avenue (Lot 14), a 20,002-sf rectangular property improved with an automobile sales, leasing, and repair business (in its eastern portion) and a commercial vehicle storage lot with adjoining one-story building housing a taxi related company (in its western portion) for a total floor area of 3,510 gsf. Overall, Block 284 is bound by 48th Avenue on the north, Van Dam Street on the east, Hunters Point Avenue on the south, and 30th Place on the west. This entire block is zoned M2-1. Lots 6 and 14 are not owned by the applicant or any affiliated entities.

**Previous Land Use and Zoning Actions**

Block 284 has been zoned M2-1 since the adoption of the 1961 Zoning Resolution.

**Description of the Surrounding Area**

The project area lies within Long Island City and near the neighborhoods of Sunnyside and Blissville and the First Calvary Cemetery in Queens. The East River shoreline is located approximately a mile and a half to the west. The surrounding properties within 400 feet of the

project area are characterized by a wide variety of industrial, commercial, and public facilities and institutional land uses with various building types.

In terms of zoning, the area immediately surrounding the project area, i.e., within a 400-foot radius, includes M1-4 to the north, northeast, and northwest; and M2-1 to the south, east, and west. M1 districts allow light industrial, commercial (including hotels), and some community facility uses and often serve as buffers between M2 or M3 districts and adjacent residential or commercial districts. M1 districts typically include light industrial uses, such as woodworking shops, repair shops, and wholesale service and storage facilities. Nearly all industrial uses are allowed in M1 districts if they meet the stringent M1 performance standards. Offices, transient hotels operated exclusively for the public purpose of temporary housing assistance, and most retail uses are also permitted. M2 districts occupy the middle ground between light and heavy industrial areas. (There are M3-1 and M3-2 districts located west of these M1-4 and M2-1 districts, which are located more than a block west of the 400-foot radius area.) Parking is not required for most uses in M1-4, M1-5, M1-6, M2-3, M2-4, and M3-2 districts, but is required in other M districts, including M2-1 and M3-1.

Attachment C, "Land Use, Zoning, and Public Policy," provides more detailed information on the density, use, bulk, parking, loading, and related controls that apply in the zoning districts in the vicinity of the project area.

Within a 400-foot radius of the project area public institutions include Robert F. Wagner Secondary School for Arts and Technology and the Queensboro Correctional Facility. Additional institutional uses located outside the 400-foot radius but in larger surrounding area include LaGuardia Community College in Long Island City, Bard Early Colleges (high school), the Middle College High School at LaGuardia,

The project area is served by public transit, including the 7, E, M, and R subway lines and multiple bus lines, and a Citi Bike station three blocks away. It is also accessible by foot and bicycle from surrounding neighborhoods. (See Attachment H, Transportation, for further details.) Taken together, these transit options connect the project area with other parts of Queens, Midtown Manhattan, and beyond.

## The Applicant

The applicant, 48-18 Van Dam Property Holdings, LLC, is a New York limited liability company that was established by its members, two labor-management pension trust funds – Paper Products, Miscellaneous Chauffeurs, Warehousemen, Helpers, Messengers, Production and Office Workers Local 27 Pension Fund and Local 813 I.B.T. Pension Trust Fund – to acquire and hold legal title to 48-18 Van Dam, Long Island City, New York. The applicant is seeking the proposed action to facilitate the creation of the proposed project, which would serve as the headquarters for the Funds (and their five related trust funds), and Local Union No. 813 I.B.T., as well as meeting space for other labor unions.

The Union represents workers in the New York metropolitan area employed in various industries, including private sanitation, funeral, demolition, rental car, paper and corrugated products factory

and warehousing. The Union's mission is to strive to achieve a higher standard of living for its members through organizing and educating workers. On behalf of its members, the Union engages in collective bargaining with employers in the above enumerated industries and maintains approximately 200 collective bargaining agreements ("CBA"). Under the CBAs, the Union and the contributing employers sponsor the Funds and provide funding through employer contributions negotiated between the parties. The Funds provide the members and their families with various employee benefits such as pension, severance, health and welfare, and other benefits. The Funds currently occupy a 12,500-sf space at 45-18 Court Square. The current space is undersized for the needs of the Funds and the Union and the proposed development on Van Dam Street would allow them to better serve their members by increasing their office and storage space and provide space for related entities, as well as provide expanded and improved training and meeting spaces for the members.

As a labor union serving workers in a wide range of industrial jobs, the applicant believes that its proposed project, although offices in term of its land use classification, would be supportive of the area's many industrial uses. It would provide improved training and meeting space for its members and supportive functions critical to the retention of quality industrial employment. While there are currently no union offices located within the rezoning area or a 400-foot radius, there are currently approximately 19 union offices located within the Long Island City area, including many within manufacturing zoning districts. As such, the applicant believes that its proposed project would be compatible with existing land uses in the area and with the aims of the City's Industrial Business Zone (IBZ) policies, which include providing ancillary office space for industrial businesses.

## C. REQUESTED APPROVALS

### Action Necessary to Facilitate the Proposed Project

The proposed project requires the following approval from the City Planning Commission (CPC):

- A zoning map amendment to modify Map 9b, pursuant to ZR § 71-10. By amending the zoning map and adopting M1-5 for Block 284, the new zoning designations would be more appropriate for the project area (described in detail below).

### *Zoning Map Amendment*

The zoning map amendment would designate the project area as M1-5, changing Block 284 from M2-1.

As noted above, the zoning map amendment area consists of the Block 284 and as such includes not only the applicant's proposed development site (Block 284, Lot 1) but two other tax lots (Block 284, Lots 6 and 14) that are not owned or controlled by the applicant. The intent of the zoning map amendment is to more appropriately match the zoning for the project area to proposed/projected conditions on Block 284. The proposed action would modify FAR, bulk, use, parking, and loading regulations in the project area, as compared to what is allowed/required under as-of-right conditions.

The new zoning designation includes a maximum 5.0 FAR with a maximum base height before setback of 85 feet. Attachment C provides more details on the proposed zoning controls that would apply to the project area under M1-5 zoning.

Related to this zoning map amendment, the applicant and the City would execute a Restrictive Declaration (RD) for the project site, running with the land, that would require as a condition of the expansion of the proposed development site that 877 sf of private open space be provided consistent with a plan indicating the location of seating and plantings. The RD would require that workers based in the proposed project as well as workers from the projected developments have access to this private open space. This private open space is being provided to preclude an open space impact identified in this EAS (please see Attachment E, "Open Space," for further details).

**RWCDS With-Action Condition/Proposed Project**

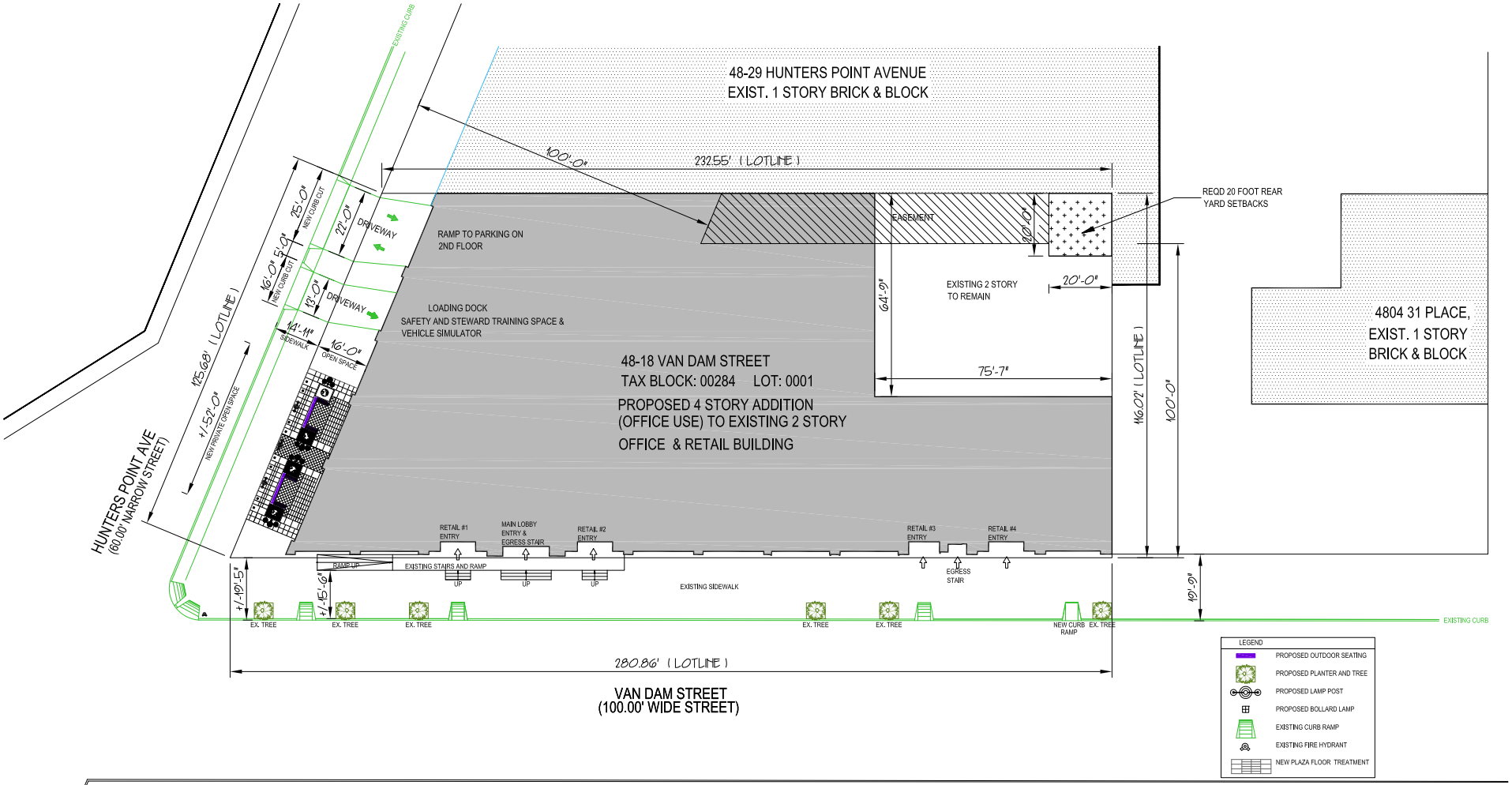
The proposed action would facilitate the proposed project on the applicant's proposed development site. Under the RWCDS With-Action condition the existing building would be enlarged with six additional floors added above the existing two-story building. This enlarged building would have a six-story, approximately 83.5-foot tall streetwall facing Van Dam Street. Facing Hunters Point Avenue, the building would retain an existing setback at the ground level of approximately 16 feet, an area previously used as a private railroad siding. The 877-sf private open space would occupy a portion of this open area, consistent with a plan included with the RD. In total, it would rise eight stories to a roof height of approximately 111 feet. It would have approximately 184,142 gsf, including 148,915 zsf of floor area, which equates to 5.0 FAR (maximum permitted in the proposed M1-5 district). The enlargement would represent an addition of 95,115 zsf to the existing approximately 53,800 zsf on the premises. The site would include approximately 22,267 gsf of ground floor local retail space (as would be the case under the RWCDS No-Action scenario), approximately 134,485 gsf of office space, and approximately 27,390 gsf of parking area, providing 49 accessory parking spaces, on the second floor. The proposed project would house the headquarters of the Funds, the Union, as well as meeting space for other labor unions, primarily on the third through eighth floor with a lobby and training space on the ground floor. Functions would include offices, accessory meeting spaces, and training areas. Figures A-2 and A-3 present a site plan and elevations, respectively, the RWCDS With-Action scenario for the proposed development site.

**Other Sites in the Project Area**

Following CEQR guidance, a determination as to whether a site may be redeveloped is based on two primary considerations: whether sites are of sufficient size to support new development and whether such sites are substantially underbuilt relative to future permitted density. Other considerations include the potential for land assemblages, site dimensions, the status of existing uses and ownership, and whether a new zoning designation would result in a change in permitted uses. For the proposed action, all sites within the rezoning area are substantially larger than 5,000 sf and therefore are considered of sufficient size to be redeveloped. Besides the applicant's proposed development site, the two other sites on Block 284, Lots 6 and 14, are substantially underbuilt relative to the permitted density that would be allowed under the proposed action, i.e.,

PROPOSED SITE PLAN - PRIVATE OPEN SPACE AND NEW COMMERCIAL 4 STORY ADDITION

SCALE: 1" = 20'-0"





David Shteierman, R.A.
DJ associates architect, pc
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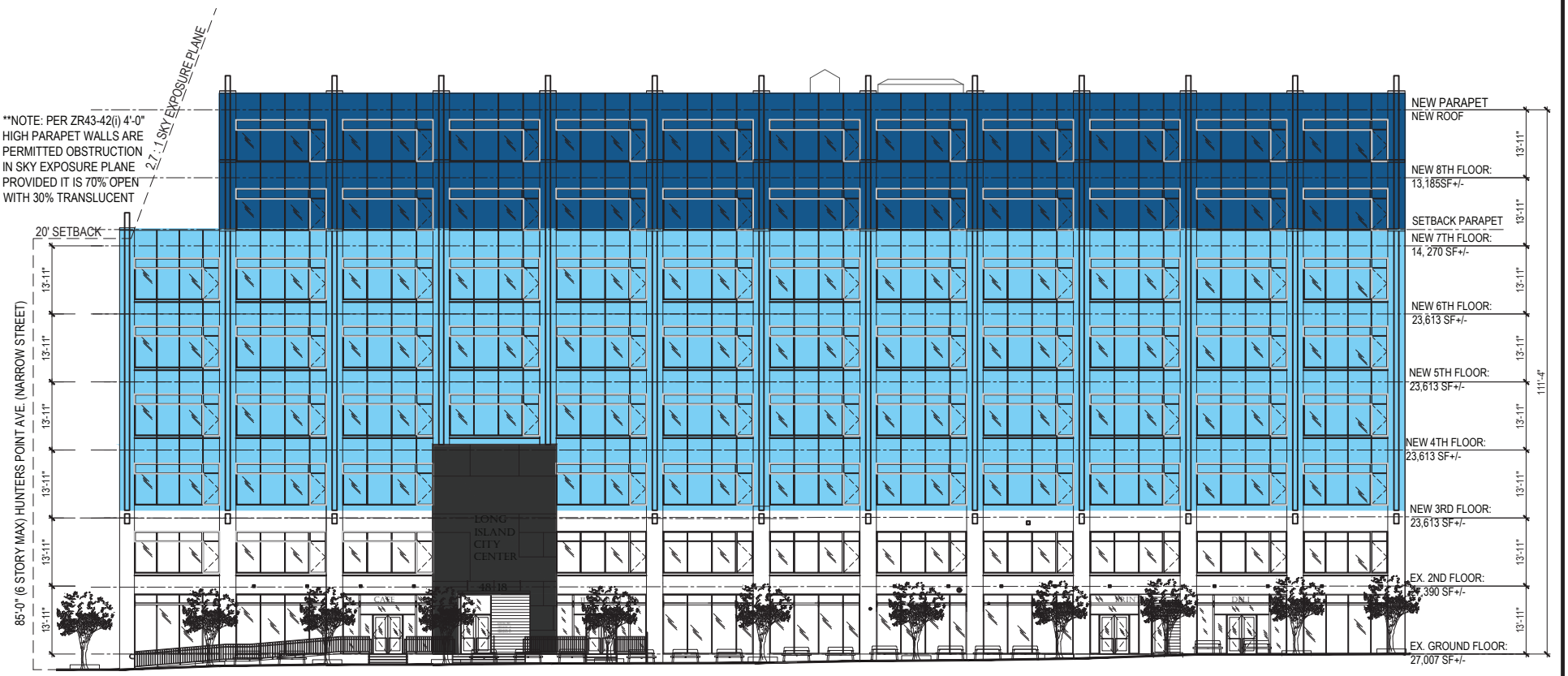
New York, NY 10004
Tel: 212.968.7127
www.djapc.com


| Project: | Drawing Title: | DWG #: |
|---|---|---|
| FEASIBILITY STUDY<br>48-18 VAN DAM STREET<br>LONG ISLAND CITY, N.Y. | ZONING ANALYSIS FOR M1-5 ( PROPOSED ) | Z-1.1 |

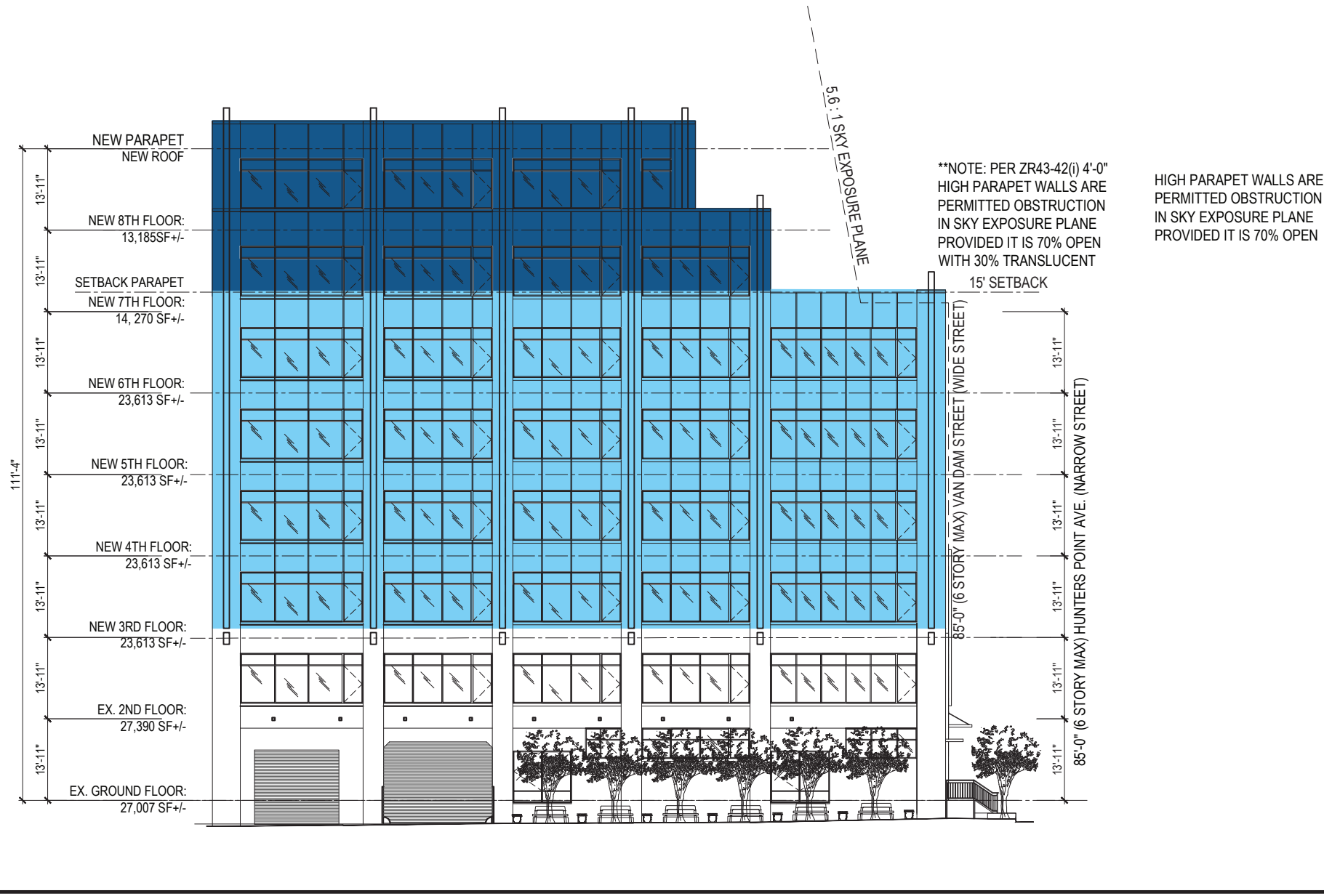
| Description: | Date: | Scale: | Drawn by: | Project #: | Block: | Lot: |
|---|---|---|---|---|---|---|
| PROPOSED 4 STORY COMMERCIAL OFFICE ADDITION | 12-23-2019 | AS NOTED | DJ | J845 | 284 | 1 |




**48-18 Van Dam Street Rezoning EAS**

**Figure A-3a**

**Proposed Van Dam Street East Elevation**




**48-18 Van Dam Street Rezoning EAS**

**Figure A-3b**

**Proposed Hunter's Point Avenue South Elevation**

each site has a built FAR less than half the permitted 5.0 FAR. Therefore, both sites are considered projected development sites that would be redeveloped in the future With-Action condition. The RWCDS for these sites is discussed below.

## D. PROJECT PURPOSE AND NEED

The purpose and need for the proposed action is two-fold. First, the proposed action is intended to facilitate the applicant's proposal for an expansion of the existing 2-story, approximately 56,632 gsf (53,800 zsf) building on the proposed development site, by adding six stories and approximately 127,510 gsf (as noted above this represents the RWCDS which differs in some respects from the applicant's proposed project which includes adding only a four-story addition and an increment of 126,812 gsf). As noted above in Section B, this would enable the trust fund and union office, meeting, and training functions to be consolidated in one building that is served by transit but also able to accommodate vehicles used for field work. Second, the proposed action would adopt a zoning designation that is more appropriate for the remainder of the project area. On the remainder of Block 284, the proposed action would provide an impetus for the redevelopment of two underutilized sites in an area that includes a mix of commercial and light industrial uses and has experienced a trend of increased investment in properties and occupancy of space. The low density allowed by the current M2-1 zoning, a 2.0 FAR, is less likely to spur the creation of new space that could accommodate demand for commercial or light manufacturing space.

## E. REASONABLE WORST-CASE DEVELOPMENT SCENARIO (RWCDS)

For environmental analysis purposes, a RWCDS has been identified for the project area for the 2023 analysis year ("Build Year"). The incremental difference between the future No-Action and future With-Action scenarios is the basis for the impact category analyses of this EAS. Table A-3 provides a comparison of the 2023 No-Action and With-Action conditions and identifies the project increment.

To determine the scenarios, standard methodologies have been used following *CEQR Technical Manual* guidelines and employing reasonable, worst-case assumptions. These methodologies have been used to identify the amount and location of future development, as discussed below.

### Future without the Proposed Action (No-Action)

Proposed Development Site

For the applicant's proposed development site, it is projected that the existing approximately 56,632-gsf building would remain and it would be occupied by approximately 22,267 gsf of ground floor local retail space and approximately 34,365 gsf of office space on the first and second floors.

Projected Development Sites

As for the projected development sites, Block 284, Lot 6 would continue to be occupied by the 16,800-sf building with warehouse use and Block 284, Lot 14 would continue to be occupied by an automobile sales, leasing, and repair business and a commercial vehicle storage lot with adjoining one-story building occupied by a taxi related company.

Table A-3 summarizes information on the RWCDS No-Action condition.

**Future with the Proposed Action (With-Action)**

Proposed Development Site

For the applicant's proposed development site, the RWCDS With-Action condition is based on applicant's proposed project, though modified to maximize permitted area and include a taller building volume. This reflects a reasonable worst-case condition in terms of use, as offices on the upper floors would generate a higher number of employees and peak hour vehicle trips than other likely permitted uses such as warehousing or light manufacturing. Likewise, a full retail building is considered unlikely based on existing land use and market conditions. The With-Action scenario would utilize the maximum permitted floor area, filling a building envelope expansion above the existing building base.

As discussed above in Section C, the RWCDS With-Action scenario would be that the existing building would be enlarged with six additional floors added above the existing two-story building. This enlarged building would rise to a height of approximately 111 feet, with approximately 184,142 gsf, including 148,915 zsf of floor area, which equates to 5.0 FAR (maximum permitted in the proposed M1-5 district). The enlargement would represent an additional 95,115 zsf to the existing approximately 53,800 zsf on the premises. The site would include approximately 22,267 gsf of ground floor local retail space, approximately 134,485 gsf of office space primarily on the third through eighth floors, and approximately 27,390 gsf of parking area, providing 49 accessory parking spaces, on the second floor. There also would be 877 sf of private open space.

Projected Development Sites

There are no known development plans for the two projected development sites. Under the RWCDS With-Action condition for these sites, similar to the proposed development, they would be redeveloped with ground floor retail and upper floor office uses. No accessory parking is required, but it is projected that on-site parking would be provided below-grade as it is anticipated that these developments would be new buildings with cellar space. Each of the buildings would be six stories, approximately 83.5 feet tall, with continuous streetwalls. The RWCDS With-Action scenario would utilize the maximum permitted 5.0 commercial floor area, filling building envelopes with floorplates of equal size to provide five levels of contiguous, vertically aligned office space.

**Table A-3: Comparison of 2020 RWCDS No-Action and With-Action Scenarios**

| | | | No-Action Scenario | | | | | | | With-Action Scenario | | | | | | | Increment | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Building Gross Square Feet | | | | | | | Building Gross Square Feet | | | | | | | Building Gross Square Feet | | | | | | |
| Site | Block | Lot | Local Retail | Office | Wrhs | Parking | Total | Parking Spaces | Other Uses | Local Retail | Office | Wrhs | Parking | Total | Parking Spaces | Other Uses | Local Retail | Office | Wrhs | Parking | Total | Parking Spaces | Other Uses |
| Proposed | 284 | 1 | 22,267 | 34,365 | 0 | 0 | 56,632 | 0 | | 22,267 | 134,485 | 0 | 27,390 | 184,142 | 49 | See note [2] | 0 | 100,120 | 0 | 27,390 | 127,510 | 49 | See note [2] |
| Projected 1 | 284 | 14 | 3,510 | 0 | 0 | 0 | 3,510 | 0 | See note [1] | 17,897 | 87,378 | 0 | 25,800 | 131,075 | 86 | | 14,387 | 87,378 | 0 | 25,800 | 127,565 | 86 | See note [1] |
| Projected 2 | 284 | 6 | 0 | 0 | 16,800 | 0 | 16,800 | 0 | | 14,804 | 72,279 | 0 | 21,600 | 108,683 | 72 | | 14,804 | 72,279 | -16,800 | 21,600 | 91,883 | 72 | |
| **Total, All Development Sites** | | | **25,777** | **34,365** | **16,800** | **0** | **76,942** | **0** | | **54,968** | **294,142** | **0** | **74,790** | **423,900** | **207** | | **29,191** | **259,777** | **-16,800** | **74,790** | **346,958** | **207** | **See notes** |

Notes:

[1] Lot 14 currently also includes an automobile sales, leasing, and repair business, taxi related company company, and taxi storage lot; these uses would continue under No-Action conditions.

[2] Under With-Action conditions, the Proposed Development Site would include 877 sf of private open space, in order to preclude a potential open space impact.

For the projected development site on Lot 14, a new building would have approximately 105,275 gsf of commercial area, consisting of approximately 87,378 gsf of office space and approximately 17,897 gsf of ground floor local retail. It also would have approximately 25,800 gsf of parking area located below-grade, providing 86 accessory parking spaces. In total, the building would have 131,075 gsf of total area.

For the projected development site on Lot 6, a new building would have approximately 87,083 gsf of commercial area, consisting of 72,279 gsf of office space and 14,804 gsf of ground floor local retail. It also would have approximately 21,600 gsf of parking area located below-grade, providing 72 accessory parking spaces. In total, the building would have 108,683 gsf of total area.

Figure A-4 provides a With-Action roof plan and section for Lot 14 (Projected Development Site 1) and Figure A-5 provides a roof plan and section for Lot 6 (Projected Development Site 2).

## F. REVIEW PROCEDURES

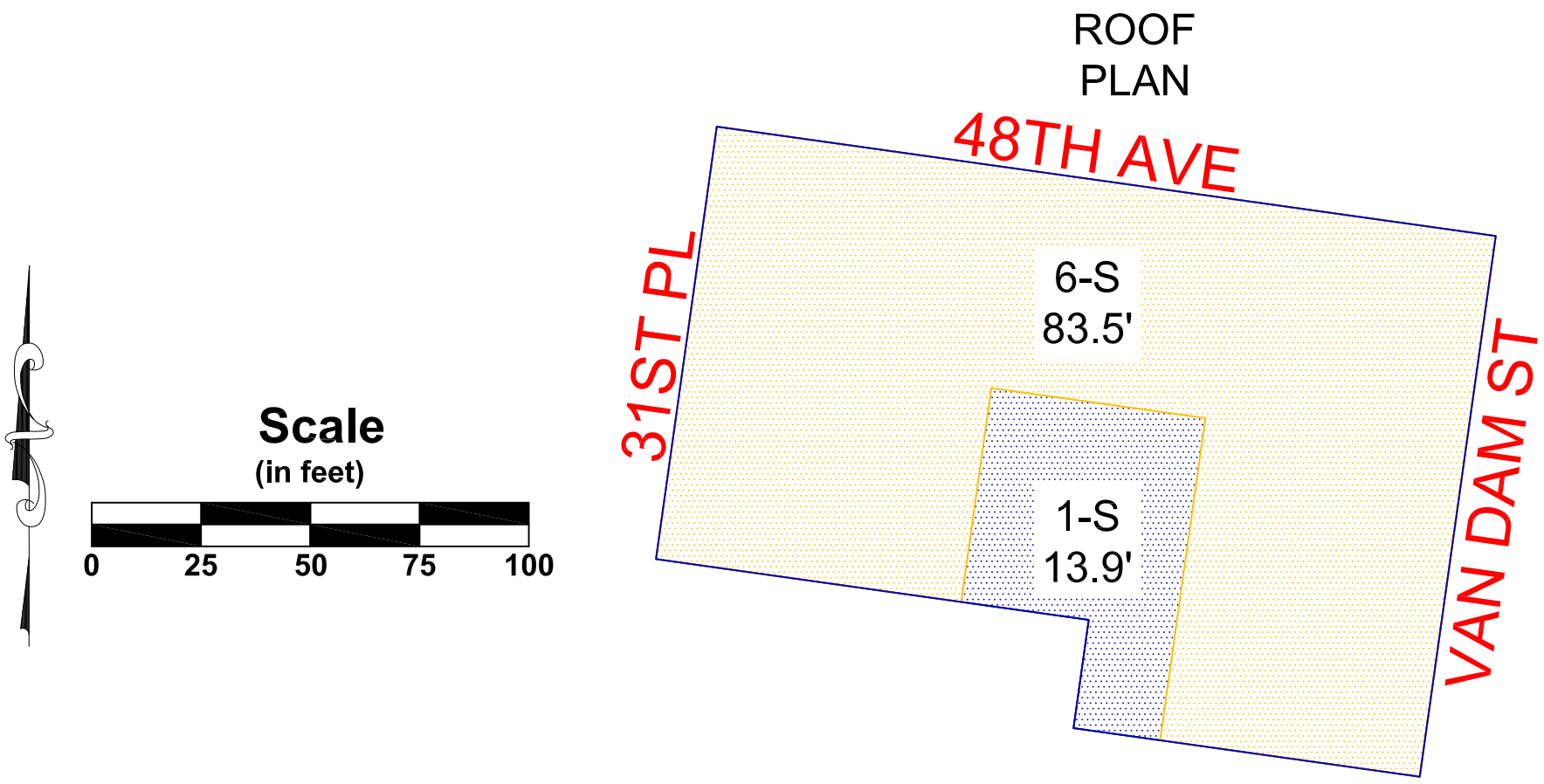
The proposed action is subject to the City's land use and environmental review processes, described below.

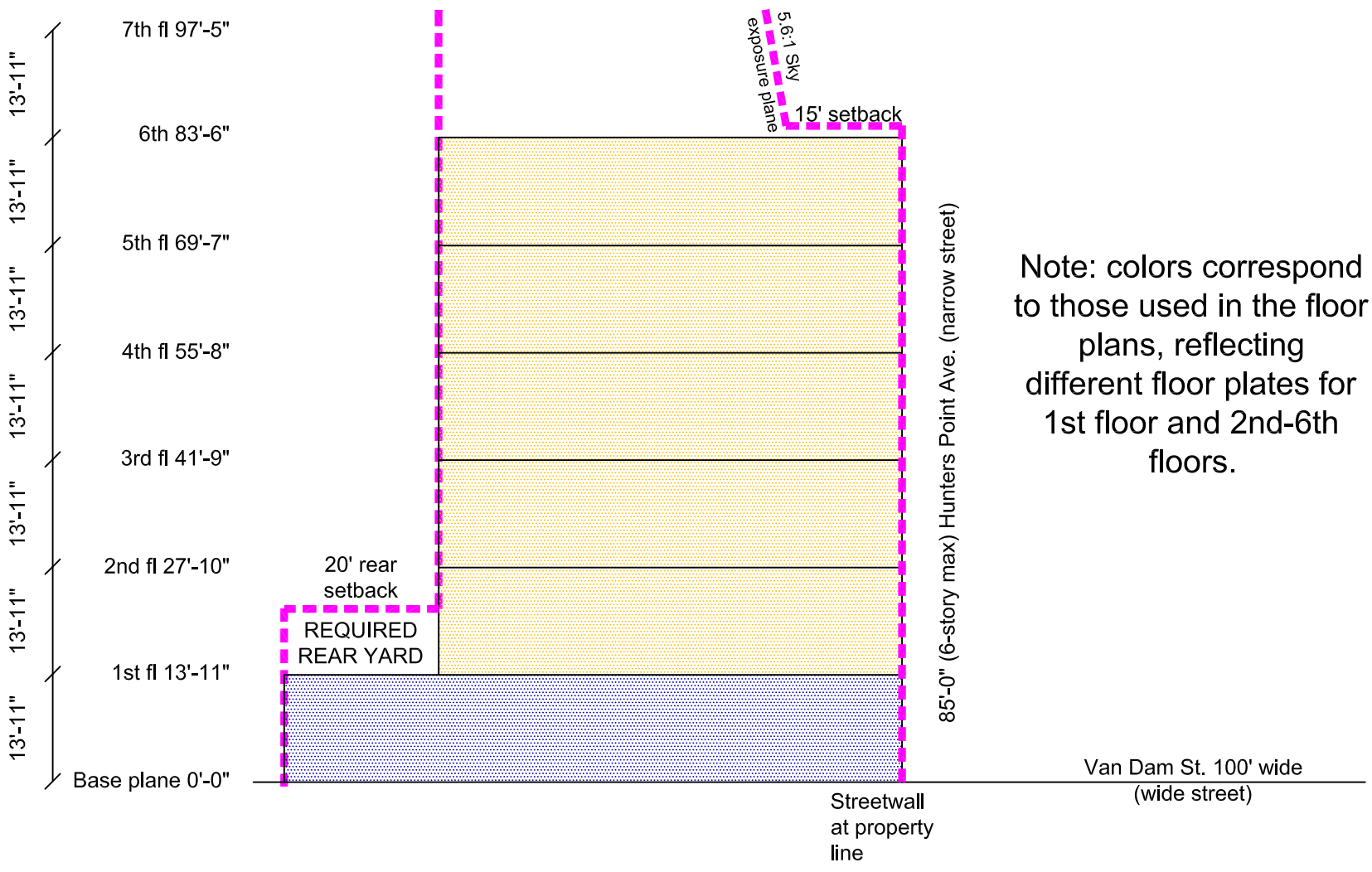
### Uniform Land Use Review Procedure

The City's Uniform Land Use Review Procedure (ULURP), mandated by Sections 197-c and 197-d of the City Charter, is a process specially designed to allow public review of a proposed action requiring discretionary land use approvals under the jurisdiction of the CPC at four levels: the Community Board, the Borough President and (if applicable) the Borough Board, the CPC, and the City Council. The procedure sets time limits for review at each stage to ensure a maximum total review period of approximately seven months.

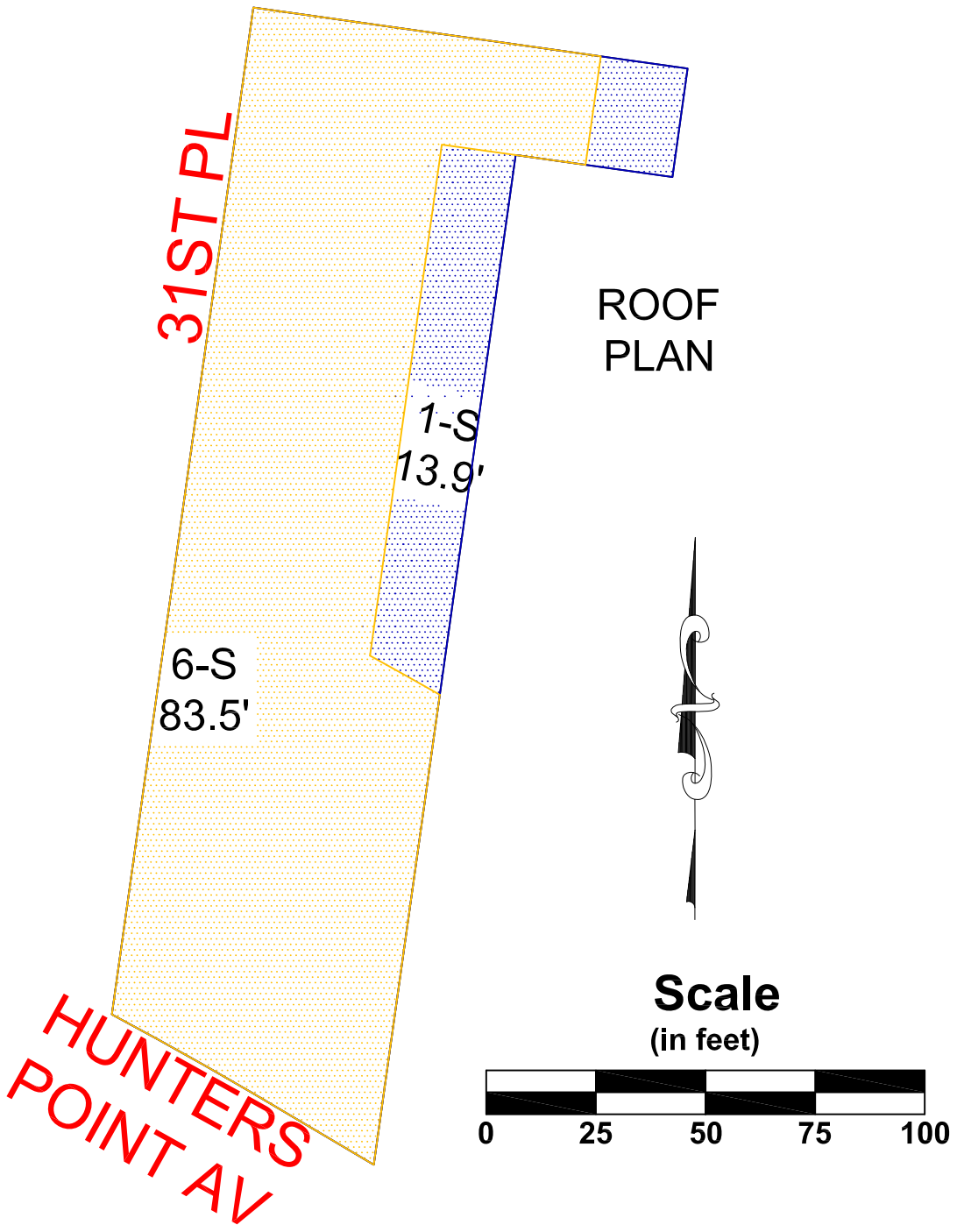
The ULURP process begins with a certification by the Department of City Planning (DCP) that the land use application is complete, which includes a CEQR determination by the lead agency. The application is then forwarded to the community board, in this case Queens CB 2, which has up to 60 days in which to review the proposal, hold public hearings, and adopt recommendations regarding the application. Once this step is complete, the Borough President reviews the application for up to 30 days and may elect to hold a public hearing. CPC then has 60 days to review the application, during which time a public hearing is held. CPC may approve, approve with modifications or deny the application. If the ULURP application is approved, or approved with modifications, certain types of applications, including zoning map and text amendments, are subject to a mandatory review by the City Council, while the City Council may elect to review ("call-up") other types of applications, including special permits. The City Council has 50 days to review the application and during this time hold a public hearing, through its Subcommittee on Zoning and Franchises and Land Use Committee. The Council may approve, approve with modifications or deny the application. If the Council proposes a modification to the application, the ULURP review process stops for 15 days, providing time for a CPC determination on whether the proposed modification is within the scope of the environmental review and ULURP review. If it is, then the Council may proceed with the modification; if not, then the Council may only vote

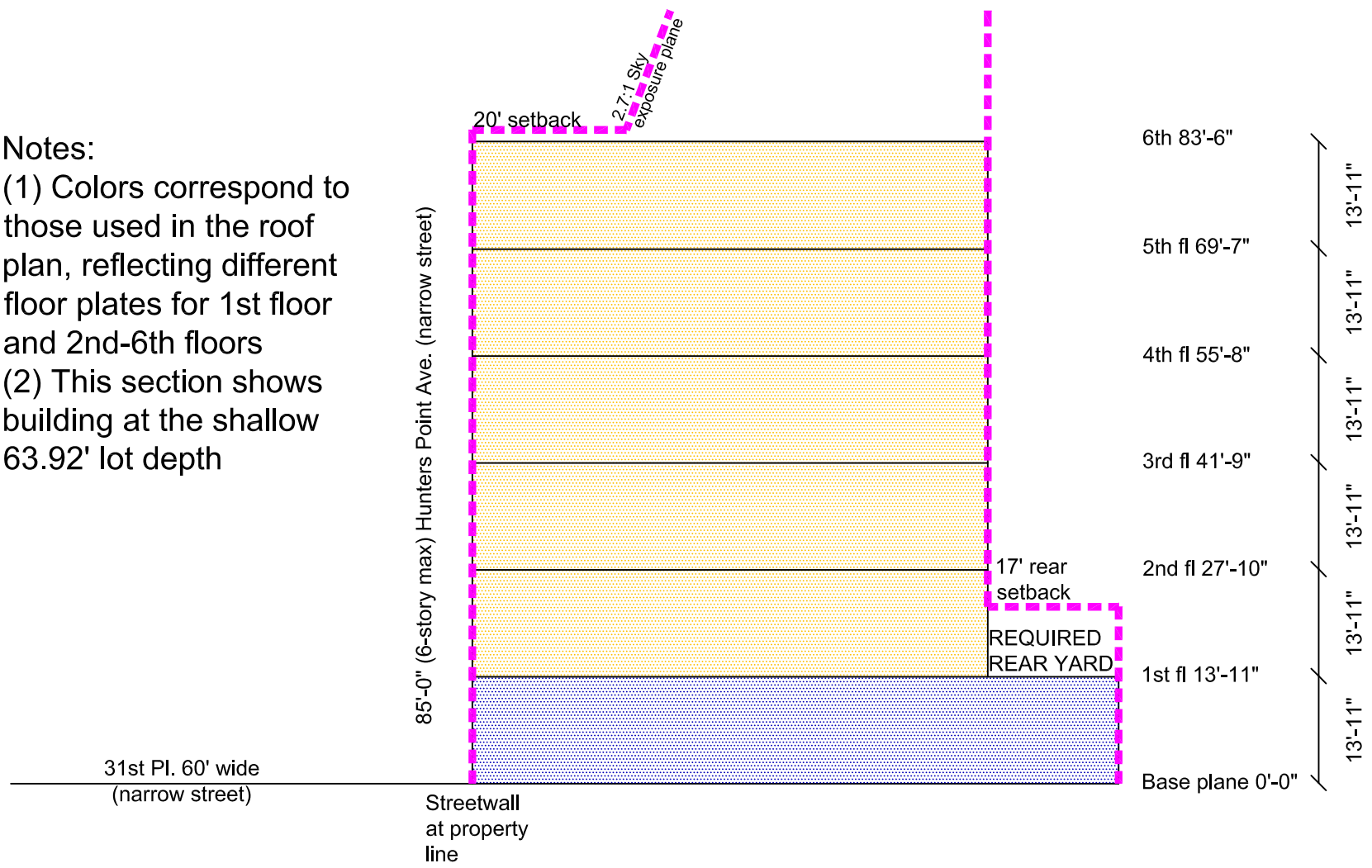
# Projected Development Site 1 (Lot 14) Roof Plan and Section



## Projected Development Site 2 (Lot 6) Roof Plan and Section




Notes:
(1) Colors correspond to those used in the roof plan, reflecting different floor plates for 1st floor and 2nd-6th floors
(2) This section shows building at the shallow 63.92' lot depth

on the actions as approved by the CPC. Following the Council's vote, the Mayor has five days in which to veto the Council's actions, or otherwise it is adopted. The City Council may override the mayoral veto by a two-thirds vote within 10 days.

**Environmental Review**

The proposed action is subject to CEQR, which is a process by which agencies review discretionary actions for the purpose of identifying the effects those actions may have on the environment. The CEQR process requires City agencies to assess, disclose, and mitigate to the greatest extent practicable the significant environmental consequences of their decisions to fund, directly undertake, or approve a project. DCP, acting on behalf of the CPC, is the lead agency for the proposed action.

# ATTACHMENT B:
# SUPPLEMENTAL SCREENING

## A. INTRODUCTION

This environmental assessment statement ("EAS") has been prepared in accordance with the guidance and methodologies presented in the 2020 *City Environmental Quality Review (CEQR) Technical Manual*. For each technical area, thresholds are defined, which if met or exceeded, require that a detailed technical analysis be undertaken. Using this guidance, preliminary screening assessments were conducted for the proposed action in all CEQR analysis categories to determine whether detailed analysis of any technical area was appropriate.

Part II of the EAS Form identified those technical areas that warrant additional assessment. For those technical areas that warranted a "Yes" answer in Part II of the EAS Form, including Land Use, Zoning, and Public Policy; Socioeconomic Conditions; Open Space; Shadows; Historical and Cultural Resources; Urban Design and Visual Resources; Hazardous Materials; Water and Sewer Infrastructure; Transportation; Air Quality (stationary sources); Noise; Public Health; Neighborhood Character; and Construction, supplemental screening assessments are provided in this attachment. Per the screening assessments provided in this attachment, some of these technical areas do not warrant detailed analysis, including shadows; historic and cultural resources; hazardous materials; public health; neighborhood character; and construction, as preliminary analyses presented herein determined that significant adverse impacts would not occur. Conversely, further analyses of Land Use, Zoning, and Public Policy; Socioeconomic Conditions; Open Space; Urban Design and Visual Resources; Water and Sewer Infrastructure; Transportation; Air Quality; and Noise, are warranted and are provided in Attachments C, D, E, F, G, H, I, and J, respectively. For the other technical areas, based on "No" answers on Part II of the EAS Form, analysis is not warranted since these areas either do not trigger initial CEQR thresholds and therefore are unlikely to result in significant adverse impacts. These areas screened out from any further assessment include: Community Facilities; Natural Resources; Solid Waste and Sanitation Services; Energy; and Greenhouse Gas Emissions. Table B-1 presents a summary of analysis screening information for the proposed action.

It is projected that action-generated construction would be completed by 2023.

As described in Attachment A, "Project Description", the proposed action consists of one discretionary approval necessary to facilitate the proposed project, including: (i) a zoning map amendment affecting all of Block 284 (Lots 1, 6, and 14), rezoning it from M2-1 to M1-5 .

This approval would facilitate the expansion of the existing two-story, approximately 56,632-gsf (53,800-zsf) building on the proposed development site, by adding six stories and approximately 127,510 gsf of office and accessory parking space. This eight-story, 5.0 built floor area ratio (FAR) building would have 148,915 zoning square feet (zsf) of floor area. The proposed project would be constructed on the development site at 48-18 Van Dam Street (Block 284, Lot 1), a l29,783-

square-foot (sf) trapezoidal lot that occupies the northwest corner of Van Dam Street and Hunters Point Avenue in Long Island City. There also would be 877 sf of on-site private open space.

**Table B-1. Summary of CEQR Technical Areas Screening**

| ***CEQR* TECHNICAL AREA** | **SCREENED OUT PER EAS FORM** | **SCREENED OUT PER SUPPLEMENTAL SCREENING** | **FURTHER ASSESSMENT REQUIRED** |
|---|---|---|---|
| Land Use, Zoning, & Public Policy | | | X |
| Socioeconomic Conditions | | | X |
| Community Facilities and Services | X | | |
| Open Space | | | X |
| Shadows | | X | |
| Historic & Cultural Resources | | X | |
| Urban Design & Visual Resources | | | X |
| Natural Resources | X | | |
| Hazardous Materials | | X | |
| Water & Sewer Infrastructure | | | X |
| Solid Waste & Sanitation Services | X | | |
| Energy | X | | |
| Transportation<br>- Traffic & Parking<br>- Transit<br>- Pedestrians | | | <br>X<br>X<br>X |
| Air Quality<br>- Mobile Sources (Garage)<br>- Mobile Sources (Traffic)<br>- Stationary Sources | <br>X[1]<br>X[1] | | <br><br><br>X |
| Greenhouse Gas Emissions | X | | |
| Noise | | | X |
| Public Health | | X | |
| Neighborhood Character | | X | |
| Construction | | X | |

[1] Information supporting the Air Quality Mobile Source screening determinations are provided in this attachment.

In addition to the applicant's proposed development, under the reasonable worst-case development scenario (RWCDS) identified in Attachment A, the proposed action is expected to result in two new buildings, referred to as the projected developments, on Block 284, Lots 6 and 14. On Lot 6, the existing two-story, 16,800-gsf warehouse would be replaced by a new six-story, 108,683 gsf building with office, local retail, and accessory parking space. On Lot 14, the existing automobile sales, leasing, and repair business, vehicle storage lot, and adjoining one-story building occupied by a taxi related company would be replaced by a new six-story, 131,075-gsf building with office, local retail, and accessory parking space.

In the future without the proposed action, it is projected that the existing approximately 56,632-gsf building on the proposed development site would remain and it would be occupied by approximately 22,267 gsf of ground floor local retail space and approximately 34,365 gsf of office space on the first and second floors. As for the projected development sites, Block 284, Lot 6 would continue to be occupied by the 16,800-gsf building with warehouse use and Block 284, Lot 14 would continue to be occupied by an automobile sales, leasing, and repair business and a

commercial vehicle storage lot with adjoining one-story building occupied by a taxi related company. The proposed project would be completed by 2023, which is the analysis year used in this EAS.

Under With-Action conditions, with the proposed project on the development site and the projected developments on the projected development sites instead of the as-of-right No-Action development, the incremental change in development would be as follows: 0 gsf of local retail; +100,120 gsf of office; 27,390 gsf of accessory parking area (39 accessory parking spaces); +127,510 gsf of total building area. In place of the existing low-rise structures that would remain under No-Action conditions, there would be an expanded eight-story, 111-foot tall building on the projected development site and new six-story, 83.5-foot tall buildings with below-grade space on the projected development sites. There also would be +877 sf of private open space. The net incremental difference between the With-Action and No-Action serves as the basis for the environmental impact analyses.

## B. SUPPLEMENTAL SCREENING AND SUMMARY OF DETAILED ANALYSES

### Land Use, Zoning, and Public Policy

Following *CEQR Technical Manual* guidance, a preliminary assessment, which includes a basic description of existing and future land uses and zoning, should be provided for all projects that would affect land use or would change the zoning on a site, regardless of the project's anticipated effects. A detailed assessment of land use and zoning is appropriate if a proposed action would result in a significant change in land use or would substantially affect regulations or policies governing land use. An assessment of zoning is typically performed in conjunction with a land use analysis when the action would change the zoning on the site or result in the loss of a particular use. As the proposed action is a zoning map amendment, a detailed land use, zoning, and public policy is warranted and is provided in Attachment C, "Land Use, Zoning, and Public Policy." Based on the analysis provided therein, the proposed action would not result in significant adverse impacts related to land use, zoning, and public policy.

### Socioeconomic Conditions

Per CEQR guidance, the socioeconomic character of an area includes its population, housing, and economic activity, and socioeconomic changes may occur when a project directly or indirectly changes any of these elements. The *CEQR Technical Manual* guidance recommends examination of five ways in which a project could alter socioeconomic conditions: (1) direct residential displacement; (2) direct business displacement; (3) indirect residential displacement; (4) indirect business displacement; and (5) adverse effects on specific industries. The proposed action would generate a net increase of more than 200,000 square feet of commercial space and as such, a more detailed assessment is warranted and is provided in Attachment D, "Socioeconomic Conditions." Based on the analysis provided therein, the proposed action would not result in significant adverse socioeconomic conditions impacts.

## Open Space

Under CEQR, an analysis of open space is conducted to determine whether or not a proposed project would have a direct impact resulting from the elimination or alteration of open space and/or an indirect impact resulting from overtaxing available open space. A direct effect would "physically change, diminish, or eliminate an open space or reduce its utilization or aesthetic value." An indirect effect may occur when the population generated by a proposed action would be sufficient to noticeably diminish the ability of an area's open space to serve the existing or future population. The proposed action would be located in an "underserved" area in Queens and will would generate more than 125 additional employees and as such, a more detailed assessment is warranted and is provided in Attachment E, "Open Space." Based on the analysis provided therein, the proposed action would have the potential to result in a significant adverse open space impact, however, in consultation with the lead agency and the NYC Department of Parks and Recreation, the applicant has committed to implementing a mitigation measure that would preclude this impact. This mitigation consists of the creation of 877 sf of private open space accessible to employees on the proposed development site and employees of the projected developments.

## Shadows

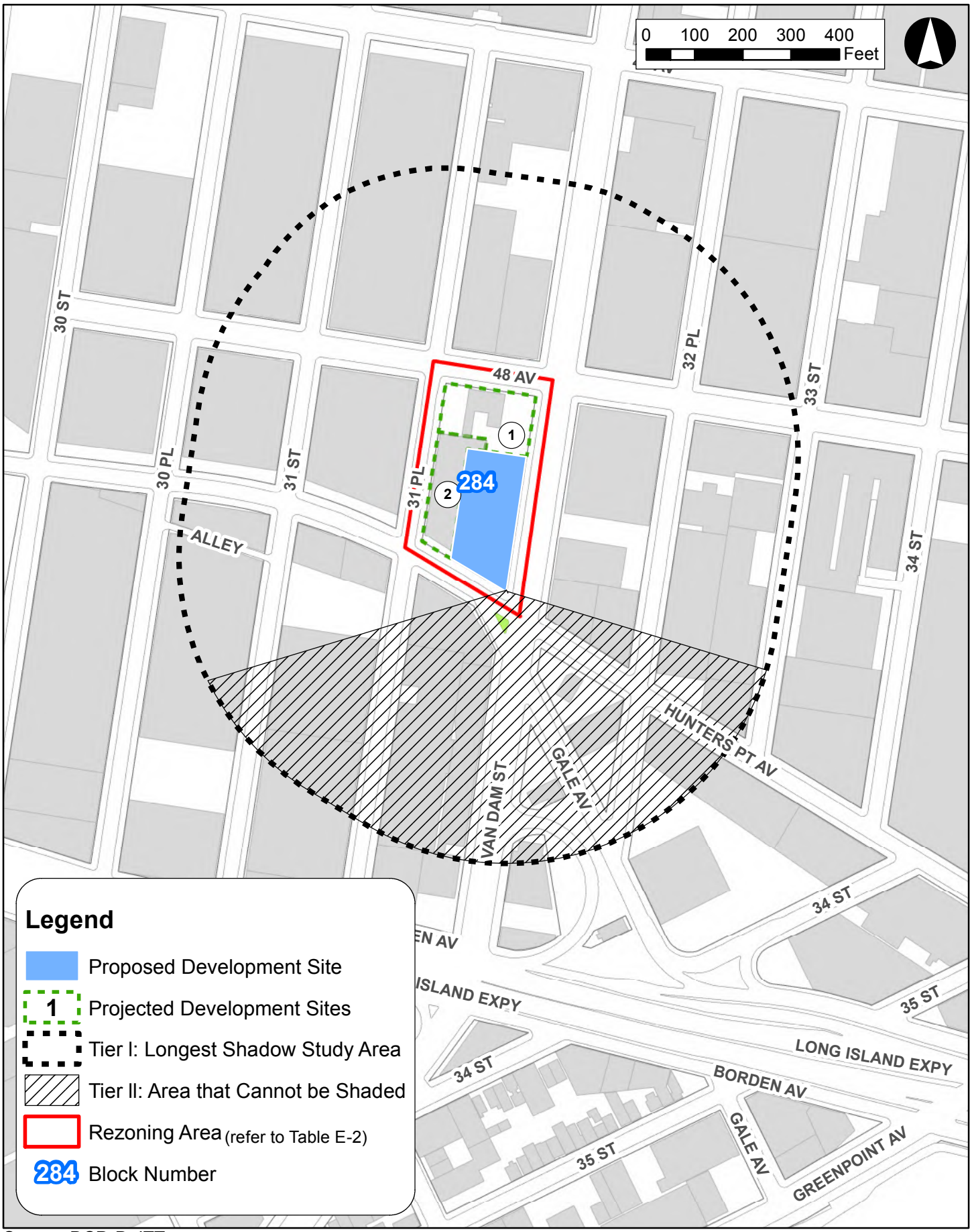
A shadows assessment considers proposed actions that result in new shadows long enough to reach a publicly accessible open space or historic resource (except within an hour and a half of sunrise or sunset). For proposed actions resulting in structures less than 50 feet high, a shadow assessment is generally not necessary unless the site is adjacent to a park, historic resource, or important natural feature (if the features that make the structure significant depend on sunlight). According to the *CEQR Technical Manual*, some open spaces contain facilities that are not sunlight-sensitive, and do not require a shadow analysis including paved areas (such as handball or basketball courts) and areas without vegetation.

As the RWCDS for the proposed action includes new buildings with incremental height increases of more than 50 feet and the project area lies adjacent to an S/NR-eligible historic district, further shadows screening is warranted to determine if detailed analysis should be conducted.

### Screening Assessment

Figure B-1 includes the Tier I and II Screening for the new buildings generated as a result of the proposed action. As shown, the only sunlight-sensitive resource near the action-generated buildings is the LIC Roots Community Garden located on the corner of 47th Avenue and 30th Street. The community garden is located outside the radius of the largest shadow generated by the proposed development and projected development sites. Additionally, as discussed below in the Historical Resources section of this attachment, Blocks 281 and 282, located northwest of the rezoning area, are a part of the larger S/NR-eligible Degnon Terminal Historic District. The southern portion of these two blocks are located in the area that a shadow created by the proposed development and projected development sites could reach. However, the New York City Landmarks Preservation Commission (NYCLPC) has advised that the two facades on Blocks 281 and 282 are not considered sunlight-sensitive resources (see Appendix A for NYCLPC Environmental Review letter dated 19 January 2018). Therefore, no further analysis of shadow

**Figure B-1**
**Tier I and II Shadow Assessment**




Source: DCP, DoITT

impacts is warranted as the proposed action would not have the potential to result in significant adverse shadows impacts.

**Historic and Cultural Resources**

Historic resources are defined as districts, buildings, structures, sites and objects of historical, aesthetic, cultural, and archaeological importance. This includes properties that have been designated or are under consideration as New York City Landmarks or Scenic Landmarks or are eligible for such designation; properties within New York City Historic Districts; properties listed on the State and/or National Register of Historic Places (S/NR); and National Historic Landmarks. According to *CEQR Technical Manual* guidance, a study area defined by a radius of 400 feet from the boundaries of the project site is typically adequate to assess potential impacts on historic/architectural resources. Archaeological resources are assessed only for areas proposed for development, if they would entail in-ground disturbance.

Architectural Resources

An assessment of architectural resources is usually required for projects that are located adjacent to historic or landmarked structures, or are located within a locally or nationally recognized historic district. The rezoning area and the proposed and projected development sites within in it do not contain a historic or landmark structure and is not located within a locally or nationally recognized historic district. However, the New York City Landmarks Preservation Commission (NYCLPC) has advised that two properties within a 400-foot radius of the project area fall within the State and National Register of Historic Places (S/NR)-eligible Degnon Terminal Historic District (see Appendix A for NYCLPC Environmental Review letter dated 12 December 2017).

*S/NR-eligible Degnon Terminal Historic District*

The S/NR-eligible Degnon Terminal Historic District consists of an intact four and one-half block core of daylight factory buildings that historically were part of the Michael Degnon Realty and Terminal Improvement Co. development. The Degnon Company developed an approximately 30-block area along the Dutch Kills that was created between 1905 and 1912. The company undertook the area's infilling to create one of the earliest planned industrial parks in the country, located adjacent to the LIRR and Sunnyside Yard. The company built streets in the Degnon Terminal area by dredging the Dutch Kills and then developed it with several large daylight factory buildings that were sold to companies including the Loose-Wiles Sunshine Biscuit Company, the American Ever Ready Works, the Adams Chewing Gum factory, and a warehouse for the R.H. Macy & Company. The district contributes to the industrial heritage of Long Island City from the early twentieth century. The district consists of five contributing buildings: 30-20 and 30-30 Thomson Avenue; 47-09 30th Street; and 30-30 and 31-02 47th Avenue.[1] Two of these, 30-30 and 31-02 47th Avenue, are located within historic resources study area, i.e., within 400 feet of the rezoning area, but are not expected to be redeveloped as a result of the proposed action, while the other three buildings are located outside the historic resources study area.

[1] "Degnon Terminal Historic District: Eligibility Determination, Summary Statement," 12 January 2018. Accessed via Cultural Resource Information System (CRIS), NY State Historic Preservation Office.
< https://cris.parks.ny.gov/ >

Table B-2 identifies the historic resources that are located within 400 feet of the rezoning area. The location of the properties identified in Table B-2 are shown in Figure B-2.

A description of these historic resources is provided below.

*30-30 47th Avenue*

The ten-story reinforced concrete warehouse was built in 1920, with a 1923 addition. It was built for R.H. Macy & Company (now "Macy's"). Notable architectural features include that the building's bays are separated by heavy, stucco-faced pilasters and contain large window openings with non-original windows.[2] It covers nearly the full block bound by 47th Avenue, 31st Street, 48th Avenue, and 30th Place, but is set back approximately 15 feet from 47th Avenue. It is now occupied by retail, office, and light industrial uses and is called The Factory. See Figure B-3 for a recent photograph of this building.

**Table B-2, Rezoning Area Historic Resources**

| No. | Block and Lot | Address | Status | Location |
|---|---|---|---|---|
| 1 | Block 282, Lot 1 | 30-30 47th Av., Long Island City | In S/NR-eligible Degnon Terminal HD | 330' NW of Projected Development Site 1 |
| 2 | Block 281, Lot 1 | 31-02 47th Av., Long Island City | In S/NR-eligible Degnon Terminal HD | 100' NW of Projected Development Site 1 |

*31-02 47th Avenue*

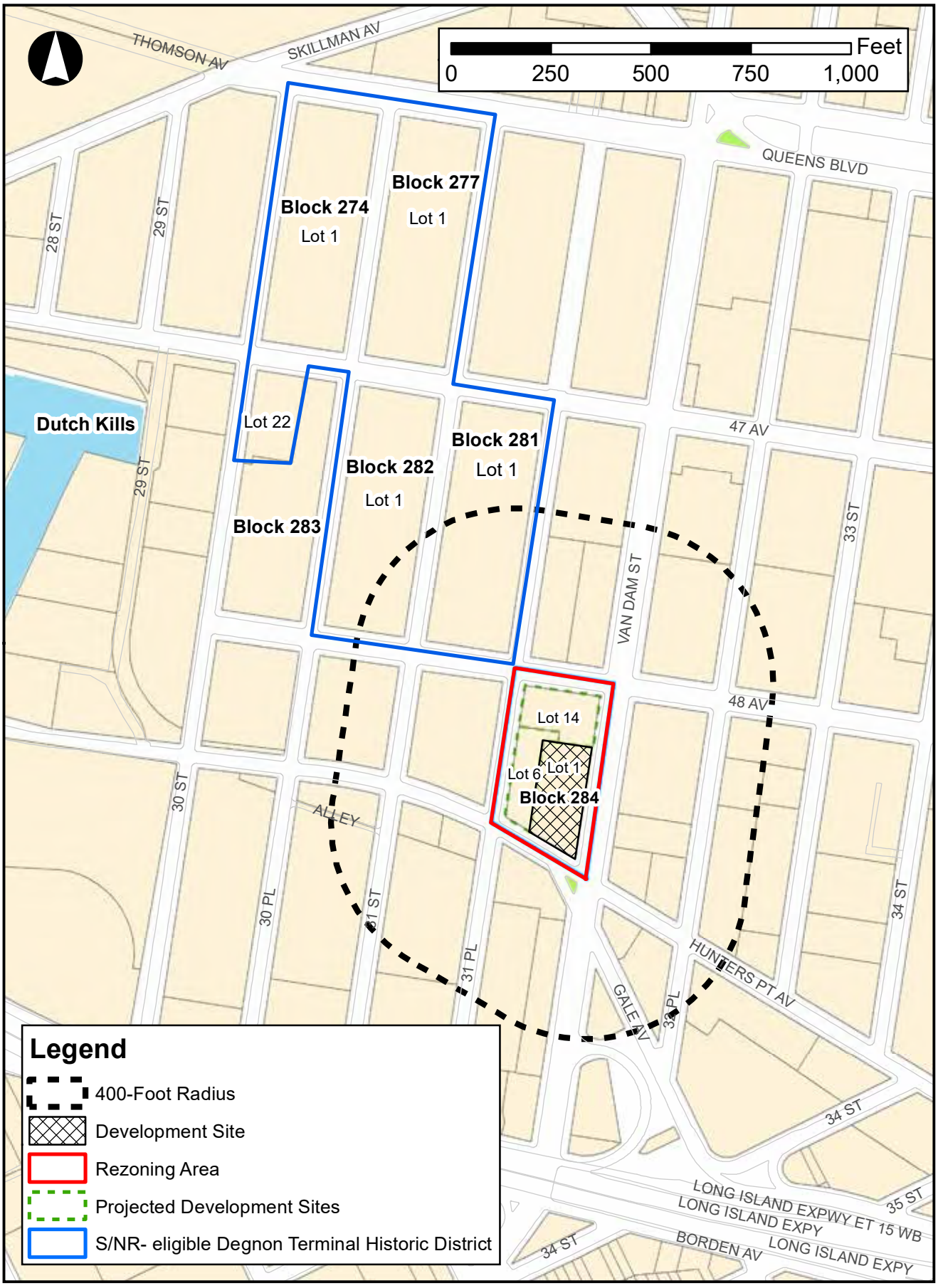
This five-story building, which occupies the full block bound by 47th Avenue, 31st Street, 31st Place, and 48th Avenue, was built 1922 as a distribution center and office for James Butler, Inc. a grocery store chain and was later used for many years by Gimbel Brothers department store as a warehouse.[3] Similar to 30-30 47th Avenue, it is set back approximately 15 feet from 47th Avenue (this setback area was previously a corridor containing a private freight railroad siding). It is currently occupied by various commercial and light industrial uses and is called the Falchi Building. See Figure B-3 for a recent photograph of this building.

Archaeological Resources

The proposed action would not have the potential to result in any effects on archaeological resources as LPC has determined that the project area is not archaeologically sensitive.

[2] "30-30 47th Avenue, Long Island City: Inventory Form," 31 July 2012. Accessed via Cultural Resource Information System (CRIS), NY State Historic Preservation Office. < https://cris.parks.ny.gov/ >
[3] *Real Estate Record and Builders' Guide*, "Butler Buys in Long Island City," 10 June 1922; and *New York Herald Tribune*, "Butler Chain Warehouse Purchased by Gimbel's," 12 March 1937.

**Figure B-2**
**Historic Resources Location**





*Above: 30-30 47th Av. (The Factory), contributing building in S/NR-eligible Degnon Terminal Historic District; looking southeast from 47th Av. & 30th Pl.*

*Below: 31-02 47th Av. (Falchi Building), contributing building in S/NR-eligible Degnon Terminal Historic District, with 30-30 47th Av. in the background; looking northwest from 48th Av. & 31st Pl.*



### *Effects of the Proposed Action*

According to the *CEQR Technical Manual*, generally, if a proposed action would affect those characteristics that make a resource eligible for New York City Landmark designation or S/NR listing, this could be a significant adverse impact. The historic resources in the study area are significant both for their architectural quality as well as for their value as part of the City's historic development. The proposed action was assessed in accordance with guidance established in the *CEQR Technical Manual* (Chapter 3F, Part 420), to determine (a) whether there would be a physical change to any designated property or its setting as a result of the proposed action, and (b) if so, is the change likely to diminish the qualities of the resource that make it important (including non-physical changes such as context or visual prominence).

### *Assessment of Direct Effects, Construction Effects, and Indirect Effects*

Direct Effects

The proposed action would have no direct effects as the proposed and projected development sites are not an architectural historic resource and are not located in a designated or listed historic district and have not been identified as part of an eligible historic district. As noted above, the developments sites are not archaeologically sensitive and therefore, although the projected developments are expected to cause in-ground disturbance, the proposed action would not have the potential to result in significant adverse impacts on archaeological resources.

Construction Effects

The proposed action would not have construction or indirect effects on any architectural historic resources, including the nearby S/NR-eligible buildings at 30-30 and 31-02 47th Avenue. As shown in Table B-2, these buildings are located more than 90 feet from the development sites; 90 feet is the lateral distance identified in NYC Building regulations for which historic buildings may potentially be adversely affected by construction on neighboring sites. Construction projects located within 90 feet of designated historic resources are follow a required monitoring program to reduce the likelihood of construction damages to adjacent historic structures and to detect at an early stage the beginnings of damage so that construction procedures can changed. Historic resources more than 90 feet from a construction project do not require such special protective measures. Accordingly, the proposed action would not have the potential to result in significant adverse historic and cultural resources impacts and no further assessment is warranted.

Indirect Effects

Indirect effects, also referred to as contextual effects, can occur when: development results in the isolation of a property from or alteration of its setting or visual relationship with the streetscape; introduction of incompatible visual, audible, or atmospheric elements to a resource's setting; replication of aspects of a resource so as to create a false historic appearance; or elimination or screening of publicly accessible views of the resource. Buildings in the S/NR-eligible Degnon Terminal Historic District reflect the historic development of this part of Long Island City as a warehousing area with early twentieth century, large floorplate, multi-story buildings. While the

uses of these building have evolved, reflecting changing economic conditions, to a blend of retail, office, and light industrial. The proposed action would result in contemporary buildings that would share bulk characteristics with the nearby historic warehouse. The proposed and projected developments would be multi-story buildings with streetwalls on or near the streetline and would have densities more similar to the Falchi Building and The Factory. In this respect, under With-Action conditions, the sites would have buildings that are more compatible in their built form than the existing low rise buildings and, in the case of Lot 14, low lot coverage. Therefore, it would not introduce incompatible elements to the setting of the historic resources located within the vicinity of the proposed and projected development sites.

Accordingly, the proposed action does not have the potential to result in significant adverse historic and cultural resources impacts due to indirect effects and no further analysis is necessary.

**Urban Design and Visual Resources**

An area's urban design components and visual resources together define the look and character of the neighborhood. The urban design characteristics of the neighborhood encompass the various components of buildings and streets in the area, including building bulk, use, and type; building arrangement; block form and street pattern; streetscape elements; street hierarchy; and natural features. An area's visual resources are its unique or important public view corridors, vistas, or natural or built features. For CEQR analysis purposes, this includes only views from public and publicly accessible locations and does not include private residences or places of business.

An analysis of urban design and visual resources is appropriate if a proposed action would (a) result in buildings that have substantially different height, bulk, form, setbacks, size, scale, use, or arrangement than exists in an area; (b) change block form, de-map an active street or map a new street, or affect the street hierarchy, street wall, curb cuts, pedestrian activity or streetscape elements; or (c) would result in above-ground development in an area that includes significant visual resources.

As the proposed action involves a zoning map amendment that would permit higher density in the rezoning area than allowed under the No-Action condition and would result in buildings volumes on the development sites that would not occur under the No-Action condition, an analysis of the potential impacts of the proposed action on urban design and visual resources is warranted and is provided in Attachment E. As discussed therein the proposed action would not result in a significant adverse impact to urban design or visual resources on the proposed and projected development sites or in the surrounding area.

**Hazardous Materials**

A hazardous material is any substance that poses a threat to human health or the environment. Substances that can be of concern include, but are not limited to, heavy metals, volatile and semi-volatile organic compounds, methane, polychlorinated biphenyls, and hazardous wastes (defined as substances that are chemically reactive, ignitable, corrosive, or toxic. According to the *CEQR Technical Manual*, the potential for significant adverse impacts from hazardous materials can occur when: (a) hazardous materials exist on a site and (b) an action would increase pathways to

their exposure; or (c) an action would introduce new activities or processes using hazardous materials. The applicant's proposed project would result in the new construction of six additional floors on Block 284, Lot 1, a site which was formerly occupied by industrial uses. Additionally, under the RWCDS, projected developments are anticipated on Block 284, Lot 14, which currently includes an automobile sales, leasing, and repair business and a vehicle storage lot with a one-story building occupied by a taxi related company, and Block 284, Lot 6, a warehouse. Given that all three buildings have a history of industrial use and in an M2-1 manufacturing district, a hazardous materials assessment is warranted.

Phase I Environmental Site Assessment (ESA)

A Phase I Environmental Site Assessment (ESA) was prepared for the proposed development site (Block 284, Lot 1) by Environmental Affiliates, INC. in May 2015. The Phase I ESA was based upon a site reconnaissance and interview(s) with site contacts, as well as a review of historical fire insurance maps, City directory records, local, state, and federal databases, and DOB, DCP, and New York City Department of Housing Preservation and Development (HPD) records.

The Phase I ESA identified the following Recognized Environmental Conditions (RECs):

- The presence of a 2,000-gallon No. 2 heating oil underground storage tank (UST) that is located on the property.

Given that the Phase I ESA identified an REC, a site specific Phase II ESI Work Plan is warranted. If the Phase II Report indicates that remedial efforts are required, a Remedial Action Plan (RAP) and Construction Health and Safety Plan (CHASP) also would be warranted.

Proposed (E) Designations: Sites 1, 6, and 14

Due to the potential hazardous materials exposure risks associated with the proposed action, an institutional control in the form of an (E) designation would be assigned to Block 284, Lots 1, 6, and 14, which are not currently subject to (E) designations. Assigning an (E) designation to these sites precludes the potential for significant adverse hazardous materials impacts.

The hazardous materials (E) designation is an institutional control that can be placed on a site as a result of the CEQR review of a zoning map or zoning text amendment or action pursuant to the Zoning Resolution. It provides a mechanism to ensure that testing for and mitigation and/or remediation of hazardous materials, if necessary, are completed prior to, or as part of, future development of an affected site, thereby eliminating the potential for hazardous materials impacts. The New York City Office of Environmental Remediation (OER) would provide the regulatory oversight of the environmental investigation and remediation during any development process. Building permits would not be issued for the development by the New York City Department of Buildings (DOB) without prior OER approval of the investigation and/or remediation pursuant to the provisions of Section 11-15 of the Zoning Resolution of the City of New York (Environmental Requirements). The DOB will typically issue the foundation permits when OER approves the remedial action work plan – the actual remediation is usually done concurrently with the

construction. Engineering controls may also be incorporated into the development to eliminate exposure risks for future occupants.

These requirements related to hazardous materials would apply to:

**Development Site:**
**Block 284, Lot 1**

**Projected Development Site 1:**
**Block 284, Lot 14**

**Projected Development Site 2:**
**Block 284, Lot 6**

The (E) designation, E-608, text related to hazardous materials is as follows:

> **Task 1-Sampling Protocol**
>
> **The applicant submits to OER, for review and approval, a Phase I of the site along with a soil, groundwater and soil vapor testing protocol, including a description of methods and a site map with all sampling locations clearly and precisely represented. If site sampling is necessary, no sampling should begin until written approval of a protocol is received from OER. The number and location of samples should be selected to adequately characterize the site, specific sources of suspected contamination (i.e., petroleum based contamination and non-petroleum based contamination), and the remainder of the site's condition. The characterization should be complete enough to determine what remediation strategy (if any) is necessary after review of sampling data. Guidelines and criteria for selecting sampling locations and collecting samples are provided by OER upon request.**
>
> **Task 2-Remediation Determination and Protocol**
>
> **A written report with findings and a summary of the data must he submitted to OER after completion of the testing phase and laboratory analysis for review and approval. After receiving such results, a determination is made 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 indicated from test results, a proposed remediation plan must be submitted to OER for review and approval. The applicant must complete such remediation as determined necessary by OER. The applicant should then provide proper documentation that the work has been satisfactorily completed.**
>
> **A construction-related health and safety plan should be submitted to OER and would be implemented during excavation and construction activities to protect workers and the community from potentially significant adverse impacts associated with**

**contaminated soil, groundwater and/or soil vapor. This plan would be submitted to OER prior to implementation.**

With the requirements of the (E) designation to be assigned to these sites there would be no impact from the potential presence of contaminated materials. The implementation of the preventative and remedial measures outlined in the (E) designation would preclude the potential for significant adverse hazardous materials impacts from proposed action. Therefore, no further analysis is required at this time.

**Water and Sewer Infrastructure**

For assessment purposes, the City's "infrastructure" comprises the physical systems supporting its population, including: water supply, wastewater treatment, and stormwater management. Other infrastructure components are addressed separately per CEQR guidance. Given the size of New York City's water supply system and the City's commitment to maintaining adequate water supply and pressure, few actions have the potential to cause significant impacts on this system. Therefore, only very large developments or actions having exceptionally large water demands (e.g., more than one million gallons per day) would warrant a detailed water supply assessment. For wastewater and stormwater conveyance and treatment, the *CEQR Technical Manual* indicates that a preliminary assessment is needed if a project is located in a combined sewer area and would exceed the following incremental development of residential units or commercial space thresholds above the predicted No-Action scenario: (a) 1,000 residential units or 250,000 sf of commercial space or more in Manhattan; or (b) 400 residential units or 150,000 sf of commercial space or more in the Bronx, Brooklyn, Staten Island, or Queens.

The proposed action would result in the incremental development of 288,968 gsf of commercial space (exclusive of accessory parking area) on the three development sites and, therefore, would exceed the CEQR analysis threshold for wastewater and stormwater conveyance and treatment. As presented in Attachment G, "Water and Sewer Infrastructure," the proposed action would not result in significant adverse impacts on wastewater treatment or stormwater conveyance infrastructure.

**Transportation**

The objective of a transportation analysis is to determine whether a proposed action may have a potentially significant adverse impact on traffic operations and mobility, public transportation facilities and services, pedestrian elements and flow, safety of all roadway users (pedestrians, bicyclists, and vehicles), on- and off-street parking or goods movement.

The *CEQR Technical Manual* identifies minimum development densities that have the potential to result in significant adverse impacts to transportation conditions and therefore require a detailed analysis. As shown in Table 16-1 of the *CEQR Technical Manual*, actions with a single or multiple land use(s) that would result in fewer than fifty peak hour vehicle trips are generally unlikely to cause significant adverse impacts. As the proposed project would exceed the Level 1 screening threshold, further assessment is warranted, which is included in Attachment H, "Transportation."

## Air Quality – Stationary Sources

According to the guidance provided in the *CEQR Technical Manual*, air quality analyses are conducted in order to assess the effect of an action on ambient air quality (i.e., the quality of the surrounding air), or effects on the project because of ambient air quality. Air quality can be affected by "mobile sources," pollutants produced by motor vehicles, and by pollutants produced by fixed facilities, i.e., "stationary sources." As per the *CEQR Technical Manual*, an air quality assessment should be carried out for actions that can result in either significant adverse mobile source or stationary source air quality impacts. Per the EAS Form, further analyses of air quality mobile sources from action-generated and/or action-diverted vehicle trips and of emissions from industrial sources has been screened out in accordance with *CEQR Technical Manual* assessment screening thresholds. In addition, the proposed action would not introduce any air quality sensitive receptors as commercial and light industrial uses would be present on the proposed and projected development sites under both No-Action and With-Action conditions.

Stationary Source Emissions

As the proposed action would result in new heating, ventilation, and air conditioning systems and that would ventilate emissions into ambient air, per *CEQR Technical Manual* Chapter 17, "Air Quality," Section 220, an assessment of emissions is warranted for the proposed action and is provided in Attachment I. As discussed therein the proposed action would not result in any significant adverse air quality impacts.

## Air Quality – Mobile Sources

Traffic

Section 210 of the *CEQR Technical Manual* advises that projects generating or diverting 160 or more peak hour auto trips through an intersection in the Long Island City area of concern require further analysis for potential impacts related to carbon monoxide (CO) emissions. As shown in Attachment H, the highest number of action-generated vehicle trips at any intersection would be 70 at the intersection of Hunters Point Avenue and Van Dam Street in the weekday PM peak hour, which is well below the 160-vehicle screening threshold. Therefore, there would not be a potential for significant adverse CO impacts and no further analysis is warranted.

Section 210 of the *CEQR Technical Manual* also advises that projects that generating or diverting 12 to 23 (depending on the roadway classification) heavy-duty diesel vehicle (HDDV) trips or their equivalent in vehicular emissions require further analysis for potential impacts related to particulate matter with an aerodynamic diameter of less than or equal to 2.5 micrometers ($PM_{2.5}$) emissions. Calculations for the proposed action indicate that the proposed action would not exceed the applicable screening thresholds for the roadways bounding the rezoning area. The highest number of action-generated HDDV equivalent trips would be 7 at the intersection of Hunters Point Avenue and Van Dam Street in the weekday PM peak hour, which is well below the applicable thresholds. Therefore, there would not be a potential for significant adverse $PM_{2.5}$ impacts and no further analysis is warranted.

Parking Garage Emissions

The proposed action would result in three new enclosed garages, a 49-space facility on the proposed development site and 86-space and 72-space garages in the projected developments. It is expected that each of these would be conventionally operated garages with mechanical ventilation of automobile emissions. The *CEQR Technical Manual* advises that for projects that would result in parking facilities, consultation with the lead agency regarding whether an air quality analysis of parking facilities is necessary is recommended.

**Noise**

The principal types of noise sources affecting the New York City environment are mobile sources (primarily motor vehicles), stationary sources (typically machinery or mechanical equipment associated with manufacturing operations or building heating, ventilating and air conditioning systems) and construction noise. The *CEQR Technical Manual* states that the initial impact screening for noise considers whether the project would: (1) generate any mobile or stationary sources of noise; and/or (2) be located in an area with existing high ambient noise levels. As discussed below, the proposed action would generate or divert vehicular traffic, but this would not represent a substantial new mobile source of noise. It is located in an area of potentially high ambient noise levels, particularly along Van Dam Street, and therefore a detailed noise analysis warranted and is provided in Attachment J. As indicated therein, the proposed action would not result in any significant adverse noise impacts.

Mobile Source Screening

As indicated on the EAS Form, the proposed action would generate or divert vehicular traffic. Therefore, a screening assessment is necessary to determine if a detailed mobile source noise analysis is warranted. As indicated in the *CEQR Technical Manual*, Chapter 19, "Noise," Section 311.1, if existing Noise passenger car equivalent (PCE) values are not increased by 100 percent or more at any sensitive receptor location, a significant adverse mobile source noise impact would not occur and no further analysis is needed. Based on the traffic analysis provided in Attachment H, the proposed action would generate a maximum increase in incremental vehicular volumes on any one street link of 68 vehicles, which would occur on Hunters Point Avenue adjacent to the proposed development site in the weekday PM peak hour. This would not double passenger car equivalent (PCE) values as this street link currently carries 575 vehicles per hour in that peak hour. Accordingly, the proposed action would not result in significant adverse stationary source noise impact and detailed mobile source noise analysis is not warranted.

**Public Health**

Public health involves the activities that society undertakes to create and maintain conditions in which people can be healthy. Many public health concerns are closely related to air quality, hazardous materials, construction, and natural resources.

According to the guidance of the *CEQR Technical Manual*, a public health assessment may be warranted if a project results in a) increased vehicular traffic or emissions from stationary sources resulting in significant adverse air quality impacts; b) increased exposure to heavy metals and other contaminants in soil/dust resulting in significant adverse impacts, or the presence of contamination from historic spills or releases of substances that might have affected or might affect ground water to be used as a source of drinking water; c) solid waste management practices that could attract vermin and result in an increase in pest populations; d) potentially significant adverse impacts to sensitive receptors from noise and odors; e) vapor infiltration from contaminants within a building or underlying soil that may result in significant adverse hazardous materials or air quality impacts; or f) exceedances of accepted federal, state, or local standards; or (g) other actions that might not exceed the preceding thresholds but might, nonetheless, result in significant health concerns.

Detailed analysis of air quality is required for the proposed action due to the potential effects of emissions vented from the buildings heating, ventilating, and air conditioning systems. As shown in the analysis provided in Attachment I, "Air Quality," the proposed action would not result in significant adverse air quality impacts. Therefore, the proposed action does not have the potential to result in significant adverse public health impacts and further assessment is not warranted.

**Neighborhood Character**

As this EAS provides a detailed analysis of land use, zoning, and public policy; and socioeconomic conditions; open space; urban design and visual resources; transportation; and noise, a preliminary screening analysis is needed to determine if a detailed neighborhood character analysis is needed.

Neighborhood character is an amalgam of various elements that give neighborhoods their distinct "personality." According to the *CEQR Technical Manual*, a preliminary assessment may be appropriate if a project has the potential to result in significant adverse impacts on any of the following technical areas: land use, zoning, and public policy; socioeconomic conditions; open space; historic and cultural resources; urban design and visual resources; shadows; transportation or noise. Per the analyses provided in this EAS, although the proposed actions required supplemental screening or detailed analyses of some of these technical areas, there would be no project-generated significant adverse impacts, apart from transportation impacts which can be mitigated by low-cost measures.

The *CEQR Technical Manual* also states that for projects not resulting in significant adverse impacts to any technical areas related to neighborhood character, additional analyses may be required to determine if the proposed action would result in a combination of moderate effects to several elements that cumulatively may affect neighborhood character. However, the *CEQR Technical Manual* indicates that neighborhood character impacts are rare and it would be unusual that, in the absence of a significant adverse impact in any of the relevant technical areas, a combination of moderate effects in the neighborhood would result in any significant adverse impact to neighborhood character.

Preliminary Assessment

Per the *CEQR Technical Manual*, a preliminary assessment determines whether changes expected in other technical areas may affect a contributing element of neighborhood character. The assessment should answer the following two questions: (1) What are the defining features of the neighborhood; and (2) Does the project have the potential to affect the defining features of the neighborhood, either through the potential for a significant adverse impact or a combination of moderate effects in relevant technical areas?

The proposed action would not adversely affect any component of the surrounding area's neighborhood character. The proposed action would facilitate the redevelopment of a site that has long underutilized with a new addition containing commercial uses, specifically offices for labor-management pension trust funds and a labor union. In addition, the proposed action is projected to result in two new retail and office developments on sites that are currently occupied by low-density commercial and light industrial uses. This would continue the existing trend in commercial office construction in the Long Island City neighborhood and would not conflict with the surrounding activities or land use patterns. Overall, the proposed action would not result in any significant adverse impacts to neighborhood character and no further analysis is warranted.

**Construction**

Although temporary, construction impacts can include noticeable and disruptive effects from an action that is associated with construction or could induce construction. Determination of the significance of the construction impacts and the need for mitigation is generally based on the duration and magnitude of the impacts. Based on *CEQR Technical Manual* guidelines, when 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 impacts are usually important when construction activity could affect traffic conditions, archaeological resources, the integrity of historic resources, community noise patterns, and/or air quality conditions.

The proposed action would result in temporary disruptions including construction related traffic, dust, noise, and mobile source emissions. However, these effects would be temporary, as the duration of construction activities for the proposed development are not expected to exceed 24 months and construction activity would be limited to the hours of 7:00 AM to 5:00 PM on weekdays. Construction on the applicant-owned site would last approximately 18 months and the building would be completed and occupied by the end of 2023. Completion of construction and occupation of the projected development sites is also anticipated to be approximately 18 months for each site and to be completed by 2023, although the exact timing of the construction schedules for these development sites is not known, and in the case of the projected development sites, cannot be determined by the applicant.

It is anticipated that construction staging would primarily occur on the development sites. Construction activities are not expected to adversely affect surrounding land uses. As noted in Attachment C, the development site neighboring properties are occupied by light industrial and commercial uses (similar to the proposed and projected developments), while the closest institutional use (the Robert F. Wagner Secondary School for Arts and Technology) is located

approximately 330 feet from the development sites and there are no residential uses within a 400-foot radius. As required by City regulations, sidewalk protection bridges and full height plywood barriers would be installed to protect the public right of way. Periodic lane and sidewalk closures likely would be required to facilitate material delivery, construction debris removal, and related activities, subject to the City's construction permit process. Standard practices would be followed to ensure safe pedestrian and vehicular access to nearby buildings and along affected streets and sidewalks. During construction, access to all adjacent buildings and other uses would be maintained according to the regulations established by DOB. While the proposed development would result in temporary disruptions, these effects are not considered as significant or adverse. Therefore, no further analysis is warranted.

Most construction activity would take place Monday through Friday, although the delivery and installation of certain equipment could occur on weekend days. Hours of construction are regulated by DOB and apply in all areas of the City. In accordance with those regulations, almost all work would occur between 7 AM and 6 PM on weekdays, although some workers would arrive and begin to prepare work areas before 7 AM. Occasionally, Saturday or overtime hours could be required to complete time-sensitive tasks. Weekend work requires a permit from the DOB and, in certain instances, approval of a noise mitigation plan from DEP under the New York City Noise Code.

Construction activities may result in short-term disruption of both traffic and pedestrian movements in the vicinity of the three development sites. This would occur primarily due to the potential temporary loss of curbside lanes from the staging of equipment and the movement of materials to and from the development sites. Most construction traffic would take place outside of the AM and PM traffic peak hours in vicinity of the development sites due to typical construction hours. Additionally, construction may at times result in temporary closings of sidewalks adjacent to the development sites in order to accommodate construction vehicles, equipment, and supplies. The construction site would be surrounded by construction fencing and barriers as required by DOB, which would limit the effects of construction on nearby land uses. While it is anticipated that some sidewalks immediately adjacent to construction sites would be closed to accommodate heavy loading areas for at least several months of the construction period for each site, detailed Maintenance and Protection of Traffic (MPT) plans for each construction site must be submitted for approval to the New York City Department of Transportation's (DOT's) Office of Construction Mitigation and Coordination (OCMC), the entity that insures critical arteries are not interrupted, especially in peak travel periods. Given the limited duration of any obstructions, these conditions would not result in significant adverse impacts on traffic and transportation conditions.

Noise associated with construction would be limited to typical construction activities and would be subject to compliance with the New York City Noise Code and the United States Environmental Protection Agency (EPA) noise emission standards for construction equipment. These controls and the temporary nature of construction activity would assure that there would be no significant adverse noise impacts associated with construction activity.

While construction of the proposed and projected development sites would result in temporary disruption in some of the surrounding area, including noise, dust, and traffic associated with the delivery of materials and arrival of workers, the incremental effects of construction of the

developments, if any, would not be considered significant or adverse. Therefore, no impacts from construction are expected as a result of the proposed action.

**ATTACHMENT C:**
**LAND USE, ZONING, AND PUBLIC POLICY**

## A. INTRODUCTION

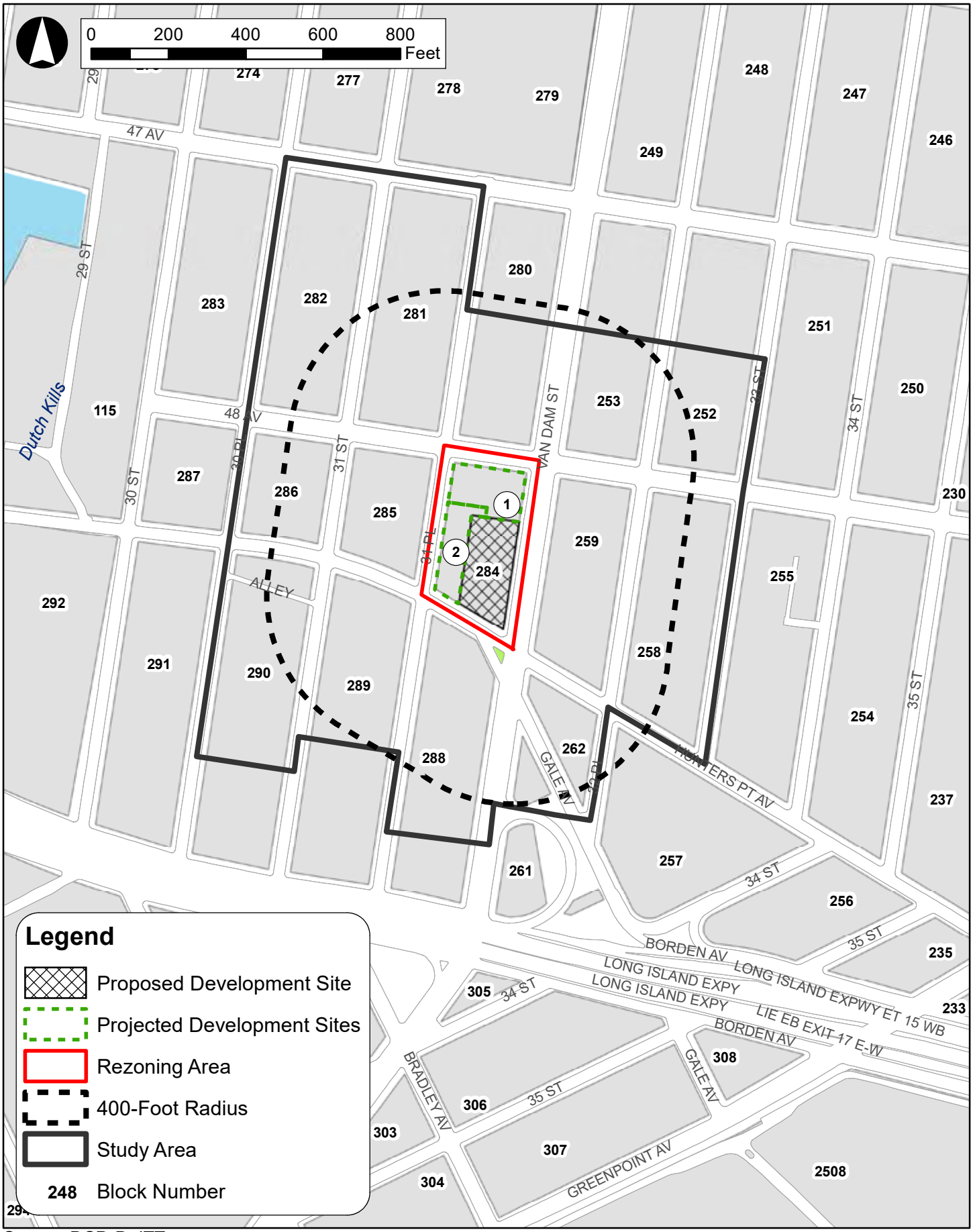
This attachment examines the proposed action's compatibility and consistency with land use patterns in the surrounding area, ongoing development trends, land use and zoning policies, as well as other public policies. This assessment provides a description of the existing land use, zoning, and public policy conditions in the primary and secondary study areas, which are defined as the locations where the direct and indirect effects of the proposed action, respectively, may occur. The assessment also forecasts land use, zoning, and public policy conditions in the future without the proposed action (the "No-Action" condition). The No-Action condition is determined by identifying developments and other relevant changes anticipated to occur by the time both the applicant's site and two projected development sites would be redeveloped, which is expected to be 2023. The No-Action condition serves as the baseline condition against which the proposed action's incremental changes are measured. Finally, the assessment forecasts land use, zoning, and public policy conditions with the completion of the proposed project in the future with the proposed action (the "With-Action" condition) and makes a determination as to the potential for significant adverse impacts on land use, zoning, and public policy.

As described in Attachment A, "Project Description," the proposed action consists of a zoning map amendment to facilitate the proposed project in Queens Community District 2. Block 284, which includes the proposed and two projected development sites, would be rezoned from M2-1 to M1-5 (refer to Figure C-1).

Approval of the proposed action would facilitate the expansion of an existing two-story building on Block 284, Lot 1. The existing 53,800-zoning-square-foot (zsf) / 56,632-gross-square-foot (gsf) building would be renovated and expanded vertically to include six additional stories, 95,115 zsf of added floor area, which would fully utilize the available 5.0 FAR available to properties in the M1-5 zoning district. This enlarged eight-story building would rise to a height of 111 feet and would include 22,267 gsf of ground floor local retail space, 134,485 gsf of office space, and approximately 27,390 gsf of parking area, providing 49 accessory parking spaces on the second floor, and a total building area of 127,510 gsf. The office space would house the headquarters of two labor-management pension trust funds (and five related trust funds) (collectively "the Funds") and Local 813 of the International Teamsters Union ("the Union"), as well as meeting space for other labor unions, and training areas. There also would be 877 sf of on-site private open space.

As discussed in Attachment A, the proposed action would also facilitate redevelopment on two projected development sites, also on Block 284. On Lot 14 (Projected Development Site 1), a 105,011-gsf building would be constructed consisting of 87,378 gsf of office space, 17,897 gsf of ground floor local retail space, and 86 accessory parking spaces. Lot 6 (Projected Development Site 2), would be improved with an 87,083 gsf building with 72,279 gsf of office space 14,804 gsf of ground floor local retail, and 72 accessory parking spaces. Both projected development sites would be six-stories (85-feet) tall and include below grade parking.

**Figure C-1**
**Land Use Study Area**




Source: DCP, DoITT

In the future without the proposed action, it is anticipated that the development site would continue to be occupied by the existing 53,800 zsf / 56,632 gsf building with 22,267 gsf of ground floor local retail space and 34,365 gsf of office space on the first and second floors. Projected Development Sites 1 and 2 would continue to operate with their existing uses under the No-Action scenario, Site 1 as an automobile sales, leasing, and repair business and vehicle storage lot with one-story building occupied by a taxi related company and Site 2 as a warehouse.

The assessment provided in this attachment concludes that the proposed action would be compatible with and supportive of land use, zoning and public policies in the area. As shown in the analysis presented in this attachment, the proposed action would not result in significant adverse impacts related to land use, zoning, and public policy.

## B. PRINCIPAL CONCLUSIONS

No significant adverse impacts on land use, zoning, or public policy, per the guidance for determining impact significance found in the 2020 *City Environmental Quality Review (CEQR) Technical Manual*, are anticipated in the future with the proposed action in the project area (the primary study area) or within a 400-foot radius (secondary study area). The proposed project resulting from the proposed action would not directly displace any land uses so as to adversely affect surrounding land uses, nor would it generate land uses that would be incompatible with land uses, zoning, or public policies in the secondary study area.

The proposed action, with these beneficial elements, would not result in any significant adverse impacts to land use, zoning, or public policy.

## C. METHODOLOGY

The purpose of this attachment is to examine the effects of the proposed action and determine whether or not it would result in any significant adverse impacts on land use, zoning, or public policy. The analysis methodology is based on the guidance of the *CEQR Technical Manual* and examines the proposed action's consistency with land use patterns and development trends, zoning regulations, and other applicable public policies.

According to the *CEQR Technical Manual*, a detailed assessment of land use, zoning, and public policy may be appropriate when a change in land use and zoning would occur and a preliminary assessment cannot succinctly describe land use conditions in the study area. As the proposed action involves a zoning text amendment that would result in changes to permitted commercial and manufacturing densities, uses, and bulk, a detailed assessment is necessary to provide a sufficient description and assessment of the effects on conditions. In addition, a detailed assessment is needed to sufficiently inform other technical reviews and determine whether changes in land use could affect conditions analyzed in those technical areas. Therefore, this attachment includes a detailed analysis that involves a thorough description of existing land uses within the directly affected area and the broader study area. Following the guidance of the *CEQR Technical Manual*,

the detailed analysis describes existing and anticipated future conditions to a level necessary to understand the relationship of the proposed action to such conditions, assesses the nature of any changes on these conditions that would be created by the proposed action, and identifies those changes, if any, that could be significant or adverse.

**Analysis Year**

The analysis year is the anticipated Reasonable Worst Case Development Scenario (RWCDS) completion date of 2023. As the project area includes projected development sites that are not under control of the applicant the development of as-of-right projects with commercial office and ground floor local retail uses development may not occur immediately following approval of the proposed action. It would likely take up to four years following approval for the full build out of development generated by the proposed action to occur.

**Study Area Definition**

In order to identify and assess the direct and indirect effects of the proposed action, this analysis has defined two study areas within which the proposed action would have the potential to affect land use or land use trends. Following guidance provided in the CEQR *Technical Manual*, these include a primary study area, consisting of the project area subject to the zoning text amendment (Block 284) which would be affected directly by the proposed action, and a secondary study area that encompasses properties that have the potential to experience indirect impacts as a result of the proposed action. According to the *CEQR Technical Manual*, the appropriate size of the secondary study area for land use, zoning, and public policy is related to the type and size of the proposed project, as well as the location and context of the area that could be affected by the project. Study area boundaries vary according to these factors, with suggested study areas ranging from 400 feet for a small project to 0.5 miles for a very large project. Given the geographic scope of the proposed action, affecting one block, and the scale of the proposed project and projected developments relative to the density of the surrounding area, a 400-foot radius of the project area has been selected as the secondary study area as it is considered unlikely that the proposed action would have indirect effects beyond a 400-foot radius.

As shown in Figure C-1, the study area has been amended from the 400-foot radius to include buildings that are substantially within the 400-foot radius of the rezoning area. The secondary study area is bound generally by 47th Avenue to the north, 33rd Street to the east, the midblock between Hunters Point Avenue and the Long Island Expressway to the south, and 30th Place to the west. Figure C-1 provides a clearer definition of the secondary study area.

**Data Sources**

Existing land uses in the study area were identified through review of a combination of sources including field surveys and the City's Primary Land Use Tax Lot Output (PLUTO™) data files for 2019 and websites, such as NYC Open Accessible Space Information System (OASIS, www.oasisnyc.net) and NYCityMap (http://gis.nyc.gov/doitt/nycitymap/). New York City Zoning Maps and the Zoning Resolution of the City of New York were consulted to describe existing zoning districts in the study areas and provided the basis for the zoning evaluation of the future

No-Action and future With-Action conditions. Relevant public policy documents, recognized by the New York City Department of City Planning (DCP) and other City agencies were utilized to describe existing public policies pertaining to the study areas.

## D. EXISTING CONDITIONS

### Land Use

**Existing Conditions**

*Rezoning Area*

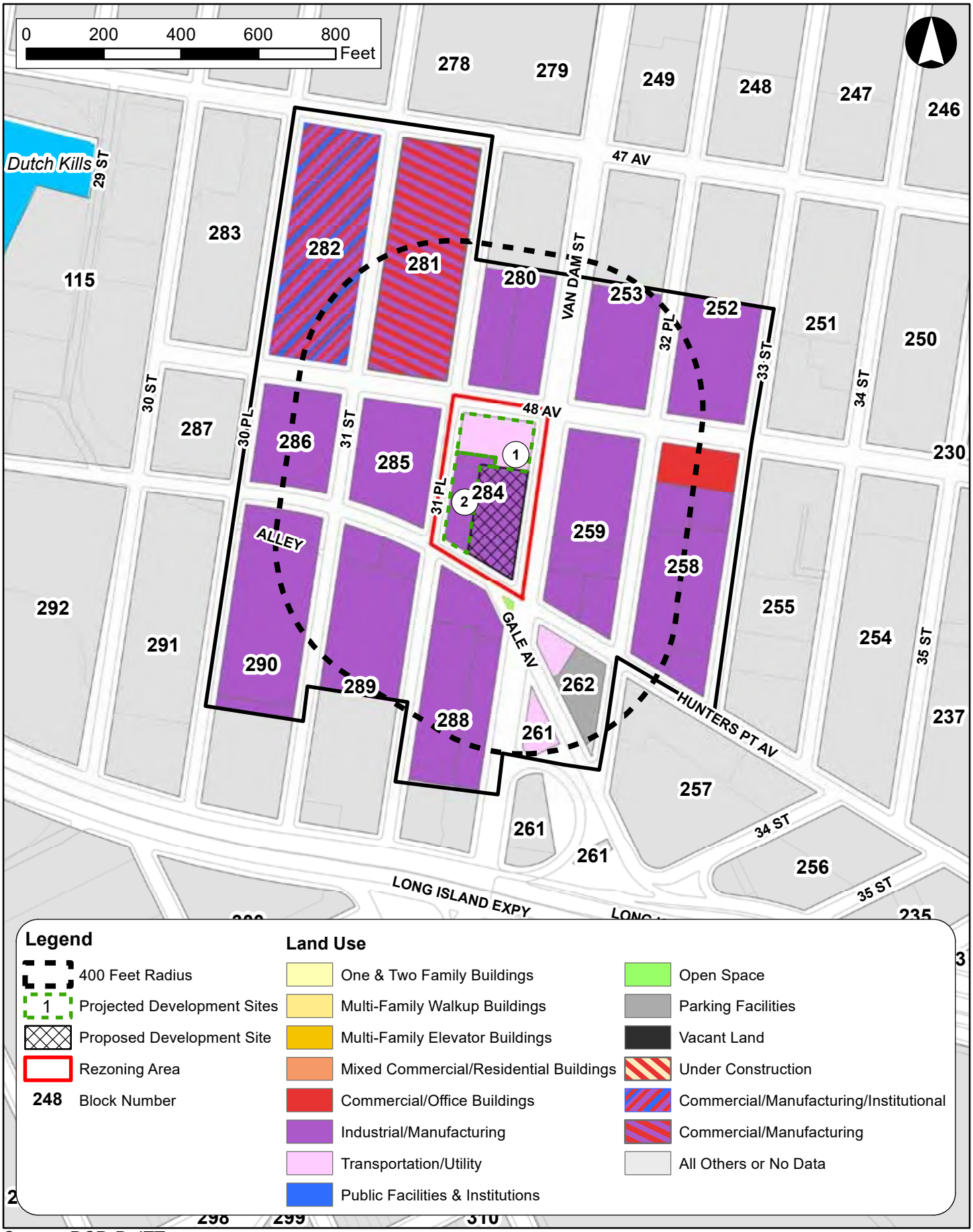
The approximately 66,331-sf rezoning area consists of the applicant-owned proposed development site (Block 284 Lot 1), the two projected developments sites (Block 284 Lots 6 and 14), in the Long Island City neighborhood of Queens Community District (CD) 2.

The 29,783-sf proposed development site (Block 284 Lot 1), is located at the southeast corner of Block 284 bound by Van Dam Street to the east, Hunters Point Avenue to the south, 31st Place to the east, and 48th Avenue to the north. The lot is currently occupied by a two-story building, built in 1928 and formerly occupied by warehouse and manufacturing uses. As discussed previously, the building includes 22,267 sf of ground floor local retail space and 34,365 sf of commercial office space spread across the first and second floors, although it is only partly occupied at present. The remaining two lots on Block 284 are both projected as development sites. Lot 14 (Projected Development Site 1), is occupied by a 3,510-sf single-story building that is used by an automobile sales, leasing, and repair business as well as a taxi related company. Lot 6 (Projected Development Site 2) contains a 16,800-sf storage warehouse, built about 1964, occupied by Best Buy/Geek Squad. As such, the development sites currently contain a range of commercial and light industrial spaces, including Use Groups 6 and 16.

*Secondary Study Area*

As shown in Figure C-2 and Table C-1, land uses in the secondary study area are predominantly comprised of industrial/manufacturing and commercial/office buildings. As shown in the table below, in the secondary study area industrial/manufacturing uses occupy the majority of the lot area, at 71.6 percent, but commercial/office uses comprise the majority of floor area with 60.0 percent of the total built floor area. This reflects the higher density of buildings occupied by commercial/office uses, specifically the Factory and Falchi buildings, which are predominantly commercial buildings with ground floor retail and upper floor offices but, as shown in Figure C-2, also contain other uses.

**Figure C-2**
**Existing Land Use**




Source: DCP, DoITT

**Table C-1: Predominant Existing Land Uses within the Secondary Study Area[1]**

| Land Use | Number of Lots | Percentage of Total Lots (%) | Lot Area (sf) | Percentage of Total Lot Area (%) | Building Area (sf) | Percentage of Total Building Area (%) |
|---|---|---|---|---|---|---|
| Residential | 0 | 0% | 0 sf | 0% | 0 sf | 0% |
| *One & Two-Family Residential* | 0 | 0% | 0 sf | 0% | 0 sf | 0% |
| *Multi-Family Walkup Buildings* | 0 | 0% | 0 sf | 0% | 0 sf | 0% |
| *Multi-Family Elevator Buildings* | 0 | 0% | 0 sf | 0% | 0 sf | 0% |
| Mixed Commercial/Residential Buildings | 0 | 0% | 0 sf | 0% | 0 sf | 0% |
| Commercial/Office Buildings | 3 | 10.3% | 260,000 sf | 24.9% | 1,576,000 sf | 60.0% |
| Industrial/Manufacturing | 23 | 79.3% | 746,604 sf | 71.6% | 1,035,688 sf | 39.4% |
| Transportation/Utility | 2 | 6.9% | 16,310 sf | 1.6% | 4,410 | 0.2% |
| Public Facilities & Institutions | 0 | 0.0% | 0 sf | 0% | 0sf | 0% |
| Open Space | 0 | 0.0% | 0 sf | 0% | 0 sf | 0% |
| Parking Facilities | 1 | 3.4% | 19,625 sf | 1.9% | 9,592 sf | 0.4% |
| Vacant Land | 0 | 0.0% | 0 sf | 0.0% | 0 sf | 0% |
| **Total** | 29 | 100.0% | 1,042,539 sf | 100.0% | 2,625,627 sf | 100.0% |

**Source:** NYC Map PLUTO (19v2) 2019
**Notes:**
[1] Includes all lots fully or partially within the secondary study area, exclusive of the rezoning area.

As shown in Figure C-2, there are no residential or mixed residential-commercial buildings within the secondary study area.

## Zoning

*Rezoning Area*

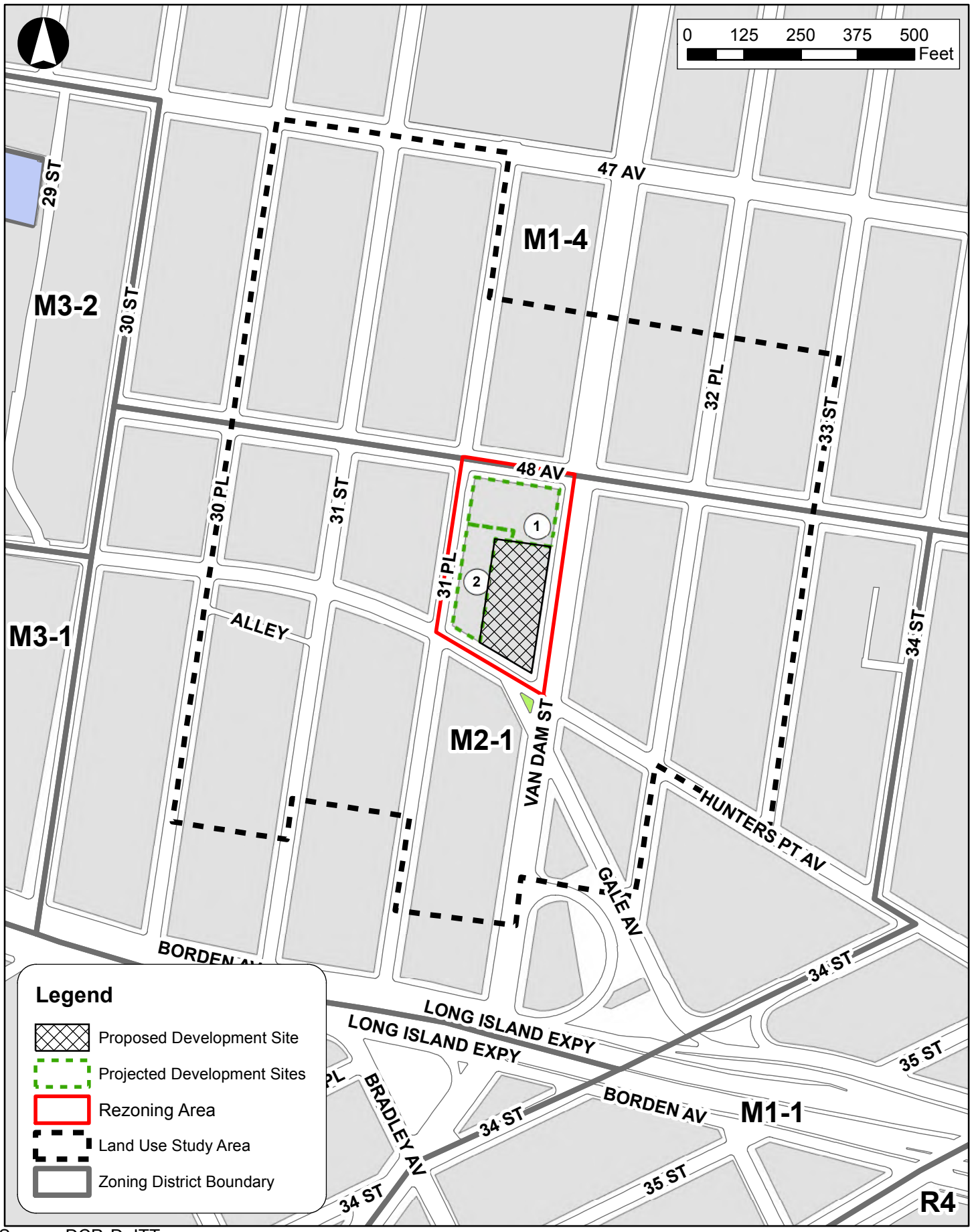
The proposed and projected development sites on Block 284 are in an M2-1 manufacturing zoning district. M2 districts are intended to provide a buffer between heavier and lighter manufacturing uses. The M2-1 district permits a maximum 2.0 floor area ratio (FAR). Buildings in this district may reach a maximum base height of 60 feet before being required to setback from the street. A setback of 15 is required for buildings on narrow streets and 20 feet for buildings on wide streets (75 feet or wider). Maximum height in this district is governed by the sky exposure plane (refer to Figure C-3).

*Secondary Study Area*

As shown in Figure C-3, the secondary study area south of 48th Avenue is zoned M2-1 and north of 48th Avenue is zoned M1-4.

M1-4 districts are intended for light manufacturing and commercial uses at a maximum FAR of 2.0 and some community facility uses are also permitted. Height and setback regulations for the M1-4 district are identical to the previously discussed M2-1 district. Within the secondary study

**Figure C-3**
**Existing Zoning**




Source: DCP, DoITT

area's M1-4 district, the Factory and Falchi buildings are pre-existing non-complying buildings in terms of density and bulk with built FARs of 8.08 and 4.73, respectively. Blocks 281 and 282 were rezoned in 1995 from M2-1 to M1-4 pursuant to a zoning map amendment (950403 ZMQ; CEQR No. 95DCP045Q) that was part of the area-wide Long Island City Rezoning. (Block 284 has been zoned M2-1 since the adoption of the 1961 Zoning Resolution.

As shown in Table C-2, parking requirements in manufacturing districts can vary by use, amount of floor area, and number of employees. In the M1-4 district, no parking is required regardless of use or density. In the M2-1 district, parking varies by the use with commercial and retail uses requiring more parking than lower-traffic generating uses such as storage facilities.

**Table C-2: Study Area Zoning Districts**

| District | Definition/General Use | Maximum FAR | Parking Requirements |
|---|---|---|---|
| M1-4 | M1 districts typically include light industrial uses. Offices and most retail uses are also permitted. Certain community facilities, such as hospitals, and hotels, are allowed in M1 districts only by special permit, but houses of worship are allowed as-of-right. Use Groups 4-14, 16, and 17 are permitted. | R: Not permitted<br>C: 2.0<br>CF: 2.0 (Use Group 4 only)<br>M: 2.0 (Use Group 17 only) | None required |
| M2-1 | M2 districts are generally buffers between light and heavy manufacturing districts. Use Groups 6-14, 16 and 17 are permitted. | R: Not permitted<br>C: 2.0<br>CF: Not Permitted<br>M: 2.0 (Use Group 17 only) | Commercial/Retail Uses: 1 space per 300 sf<br><br>CF Uses: 1 space per 1,000 sf<br><br>Manufacturing uses: 1 space per 1,000 sf (2,000 sf for storage uses) or 1 space per 3 employees, whichever is greater[1] |

**Notes:** CF: community facility; R: residential; C: commercial; M: manufacturing

[1] Parking is only required for manufacturing/semi-industrial uses as long as the property has a minimum of 7,500 sf of floor area or 15 employees. Parking is required for storage facilities or miscellaneous uses for properties with a minimum of 10,000 sf of floor area or 15 employees.

## Public Policy

In addition to zoning, officially adopted and promulgated public policies also describe the intended use applicable to an area or particular site(s) in New York City. These include Urban Renewal Plans, 197-a Plans, Industrial Business Zones (IBZs), the New York City Comprehensive Waterfront Plan, the Criteria for the Location of City Facilities ("Fair Share" criteria), Solid Waste Management Plan, Business Improvement Districts ("BIDs"), the New York City Landmarks Law, the Waterfront Revitalization Program ("WRP"), and Sustainability, as defined by PlaNYC. Some

of these policies have regulatory status, while others describe general goals. They can help define the existing and future context of the land use and zoning of an area.

*Public Policies Applicable to the Rezoning and Secondary Study Area*

In terms of geographically specific policies, the rezoning area is located within the boundaries of the Long Island City Industrial Business Zone (IBZ) and the service area of the Long Island City Partnership, a neighborhood development organization. One Citywide policy considered under CEQR, the OneNYC plan, is particularly relevant to the proposed action given that the RWCDS would result in a new development with commercial and local retail uses in an area with a growing demand for office space.

*Long Island City IBZ*

As shown in Figure C-4, the proposed rezoning area and secondary study area are located within the Long Island City IBZ. The Long Island City IBZ includes approximately 1,200 different properties. In 2006, the Mayor's Office for Industrial and Manufacturing Businesses ratified the establishment of sixteen IBZs in which the City provides expanded assistance services to industrial firms in partnership with local development groups. Since 2006, additional IBZs have been established and the boundaries of select IBZs modified. There are currently 21 IBZs throughout New York City. Usually built upon pre-existing In-Place Industrial Parks, IBZs offer various incentives to prevent industrial uses from relocating outside of the City and represent a commitment by the City not to rezone these areas for residential uses.

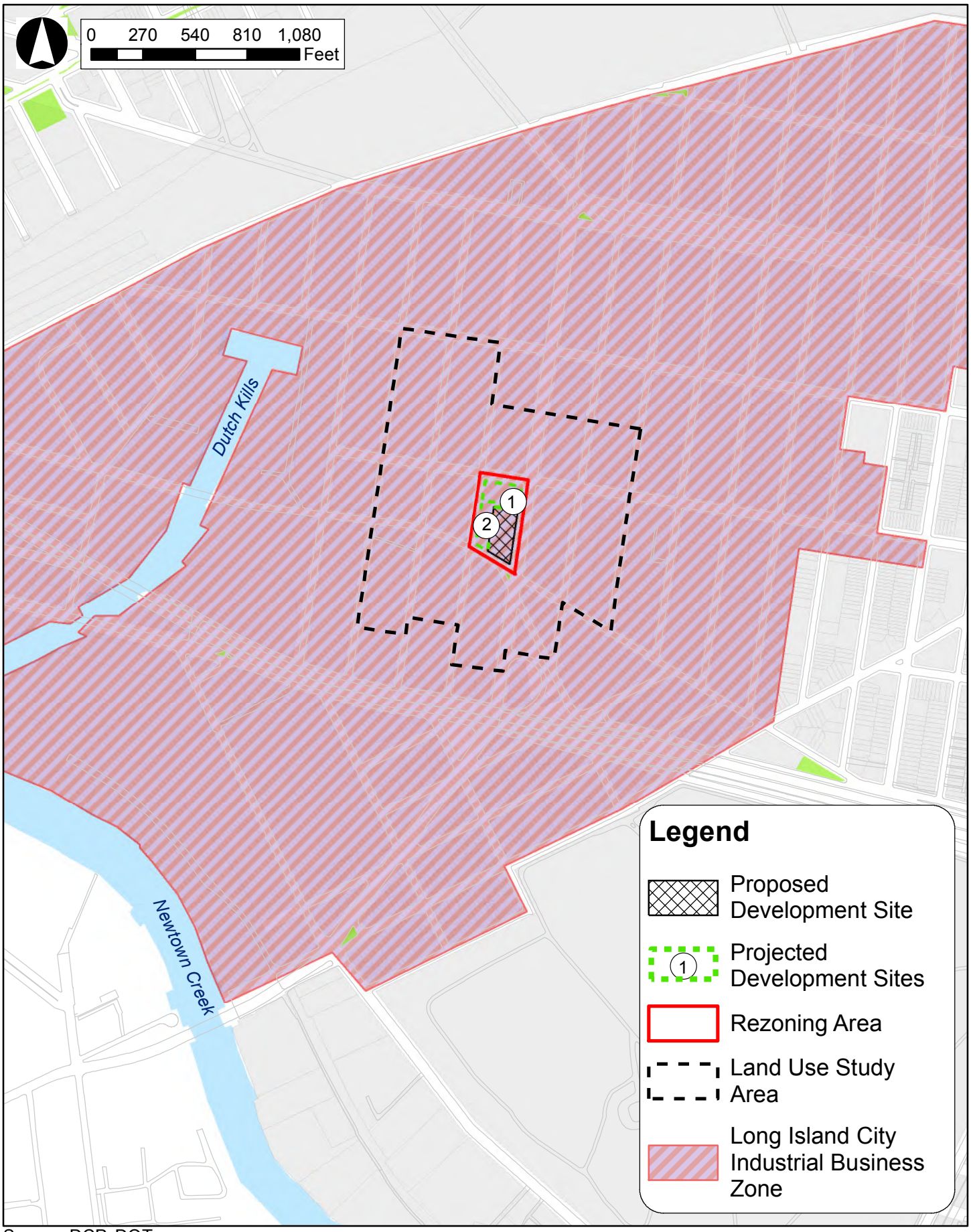
Planning studies are performed to determine changes that can be made to improve business efficiency within the City's IBZs. These changes can include traffic and parking monitoring, clustering of similar businesses, and IBZ-specific marketing. Higher regulation and steeper penalties for illegal conversions, as well as a guarantee not to rezone to residential districts, help to alleviate real estate uncertainty. Tax incentives also encourage new industrial uses to move to these areas of the City.

Within an IBZ, Industrial Business Solutions Providers offer industrial firms guidance accessing appropriate financial and business assistance programs, navigating and complying with regulatory requirements, developing workforces, and ensuring the neighborhood is well-maintained. The Long Island City IBZ is managed by the Long Island City Partnership, Inc. (LICP).

*Long Island City Partnership: Long Island Comprehensive Plan*

In addition to managing the IBZ, LIPC, which is a non-profit corporation that partners with local businesses and public agencies, also serves as a neighborhood development organization for the wider Long Island City area. It describes its missions as "to advocate for economic development that benefits the area's industrial, commercial, tech, cultural, tourism, and residential sectors." LICP issued the *Long Island City Comprehensive Plan* in November 2016. It aims to preserve and enhance the vibrant mix of uses in the area. The plan identifies several key issues, including some of particular relevance to the proposed action. One concern noted in the plan is the unmet demand for commercial office space in Long Island City without the development of new buildings,

**Figure C-4**
**Industrial Business Zone (IBZ)**




Source: DCP, DOT

limiting economic growth and putting pressure on existing industrial spaces in the area. Another is working to relieve parking strain on LIC businesses and organizations by creating additional parking for businesses. The plan also calls for support of workforce training programs.

*New York Works*

In June 2017, Mayor Bill de Blasio released *New York Works,* a 10-year plan to invest in new industries, raise wages, and train New Yorkers for new careers. *New York Works* includes 25 initiatives to spur the creation of 100,000 new jobs in cyber security, freight, life sciences and healthcare, virtual reality, culture, tech, manufacturing, and apprenticeships. As affordability has persisted as an issue for many New Yorkers this plan attempts to identify opportunities to spur job creation for jobs paying more than $50,000 a year, making New York a more affordable place to live and work.

The plan has three objectives:

- Invest in the creation of middle-class jobs
- Ensure those jobs are accessible to New Yorkers
- Prepare for jobs of the future

## E. FUTURE WITHOUT THE PROPOSED ACTION

### Land Use

*Rezoning Area*

As discussed in Attachment A, in the future without the proposed action, it is anticipated that the development site would continue to be occupied by the existing building with 22,267 gsf of ground floor local retail space and 34,365 gsf of office space on the first and second floors. Unlike under existing conditions, it is assumed that the building would be fully occupied. Projected Development Sites 1 and 2 would continue to operate with their existing uses under the No-Action scenario, Site 1 as an automobile sales, leasing, and repair business and a vehicle storage lot with a one-story building occupied by a taxi related company and Site 2 as a warehouse. As such, with the existing zoning remaining in place, land uses would not change under the No-Action scenario.

*Secondary Study Area*

In the No-Action scenario, there is only two known development occurring within the secondary study area that will affect land use. The first is the renovation occurring at 30-02 48th Avenue (Block 287, Lot 11), also known as The Bindery. The three-story, 150,000 sf building was formerly used as a warehouse. The property was purchased in the summer of 2015 and is being converted to include 13,412 gsf of retail, 58,857 gsf of office use, and 69,167 gsf of manufacturing use. The building is being improved with a new lobby, elevators, and a roof deck for the building's tenants. As of 2019 renovations at the site were still on-going but are expected to be completed by the 2023 Build Year.

Also by the 2023 future without the proposed action, the approximately 319,737 gsf of office space recently renovated Factory Building is expected to be reoccupied on an as-of-right basis, a process that already has been occurring on an ongoing basis.

### *Zoning*

*Rezoning Area*

In the future No-Action condition, no zoning changes are anticipated within the project area. As such, it is anticipated that the existing M2-1 and M1-4 zoning districts would be retained.

*Secondary Study Area*

There are currently no planned zoning changes in the secondary study area in the future without the proposed action.

### Public Policy

There are no anticipated changes to public policy in the study area in the future without the proposed action.

## F. FUTURE WITH THE PROPOSED ACTION

### Proposed Action

In the future with the proposed action (the With-Action scenario), the proposed zoning map amendment would facilitate development of the proposed expansion of an existing two-story building on the proposed development site at Block 284, Lot 1. The existing 53,800 zoning-square-foot (zsf) building would be renovated and expanded vertically to include six additional stories, 95,115 zsf of added floor area, which would fully utilize the available 5.0 FAR available to properties in the M1-5 zoning district. This enlarged building would rise to a height of 111 feet and would include 22,267 gsf of ground floor local retail space, 134,485 gsf of office space, and approximately 27,390 gsf of parking area, providing 49 accessory parking spaces on the second floor, and would have a total building area of approximately 184,142 gsf. There also would be 877 sf of on-site private open space.

As discussed in the RWCDS section of Attachment A, the proposed action would also facilitate redevelopment on two projected development sites, also on Block 284. On Lot 14 (Projected Development Site 1), a 105,011-gsf building would be constructed consisting of 87,378 gsf of office space, 17,897 gsf of ground floor local retail space, and 86 accessory parking spaces. Lot 6 (Projected Development Site 2), would be improved with an 87,083 gsf building with 72,279 gsf

of office space and 14,804 gsf of ground floor local retail. Both projected development sites would be six-stories (85-feet) tall and include below grade accessory parking.

## Land Use

*Rezoning Area*

Table C-2 displays the net increase of floor area as a result of the proposed action. The proposed project and development on the two projected development sites would result in a net increase of 213,189 gsf of office use, 37,824 gsf of local retail, and 191 accessory parking spaces and a net decrease of −16,800 gsf of warehouse space and elimination of existing transportation/utility uses on Lot 14, including automobile sales, leasing, and repair business, vehicle storage lot, and adjoining one-story building occupied by a taxi related use.

**Table C-3: Comparison of 2023 RWCDS No-Action and With-Action Scenarios**

| **Land Use** | **No-Action** | **With-Action** | **Increment** |
|---|---|---|---|
| Office | 34,365 gsf | 247,549 gsf | + 213,189 sf |
| Local Retail | 25,777 gsf | 60,091 gsf | + 37,824 sf |
| Warehouse | 16,800 gsf | 0 gsf | − 16,800 sf |
| Transportation/Utility[1] | See note | See note | See note |
| **Total Building Area (excluding parking)** | **76,642 gsf** | **307,640 gsf** | **+ 231,003 gsf** |
| Accessory Parking Area | 0 gsf | 74,790 gsf | + 74,790 gsf |
| Accessory Parking Spaces | 0 | 191 | + 191 |
| **Private Open Space** | **0** | **877 sf** | **+877 sf** |
| **Population** | **No-Action** | **With-Action** | **Increment** |
| Employees[2] | 216 | 1,344 | + 1,128 |

**Notes:**
[1] Block 284, Lot 14 (Projected Development Site 1) currently contains an automobile sales, leasing, and repair business and vehicle storage lot with adjoining one-story building housing a taxi related business. These uses would remain under No-Action conditions but would not be present under With-Action conditions. The 3,510-gsf which is part of the automobile sales, leasing, and repair business and taxi related business, is accounted for under retail.
[2]See EAS Form for employee generation rates.

Approval of the proposed action would facilitate development that matches land use patterns within the proposed rezoning area and in the surrounding area. As discussed above in the Existing Conditions section, both the Factory and Falchi Buildings provide a combination of manufacturing, commercial office, and ground floor local retail space in large six- to ten-story buildings. The development facilitated by the proposed action would mimic this pattern, allowing for buildings between six to eight stories that include commercial office and ground floor retail uses.

*Secondary Study Area*

As noted above in the descriptions of the existing and No-Action conditions, the study area and surrounding area have seen an increase in demand for commercial office space, as evidenced by the conversion at The Bindery, as well as the on-going leasing of office space at the Falchi and Factory Buildings. No additional changes to land use are anticipated in the secondary study area as a result of the proposed action.

Assessment

The proposed action would not result in significant adverse impacts to land use on the development site, within the larger project area, or in the secondary study area. The proposed action would allow for new office and ground floor local retail space in an area with a mix of manufacturing, commercial, and public facility use. The office space on the proposed development site, as space occupied by offices and related training and meeting space for labor union activities, would be supportive of the retention of quality industrial employment in Long Island City and the City generally. As such, although not an industrial use per se, it would be compatible with the industrial land uses in the study area. Furthermore, the proposed project and projected development sites would be built at a density and bulk compatible with the other properties in the secondary study area which are typical of many blocks in Long Island City with its concentration of large floorplate, multi-story warehouse buildings, many of which have been adaptively reused for other purposes. The density and uses permitted by the proposed action is appropriate given that the area is served by subway and has land use patterns supportive of pedestrian activity, i.e., the presence of retail oriented to workers and an urbanistic built environment which would be strengthened with the developed of new buildings on the projected development sites. This portion of Long Island City has experience considerable public and private investment in properties, creating spaces for job growth and academic space as warehouse uses have declined and many spaces were vacant or underutilized. As such, the proposed action would result in development that would complement the land use character of the secondary study area as a whole.

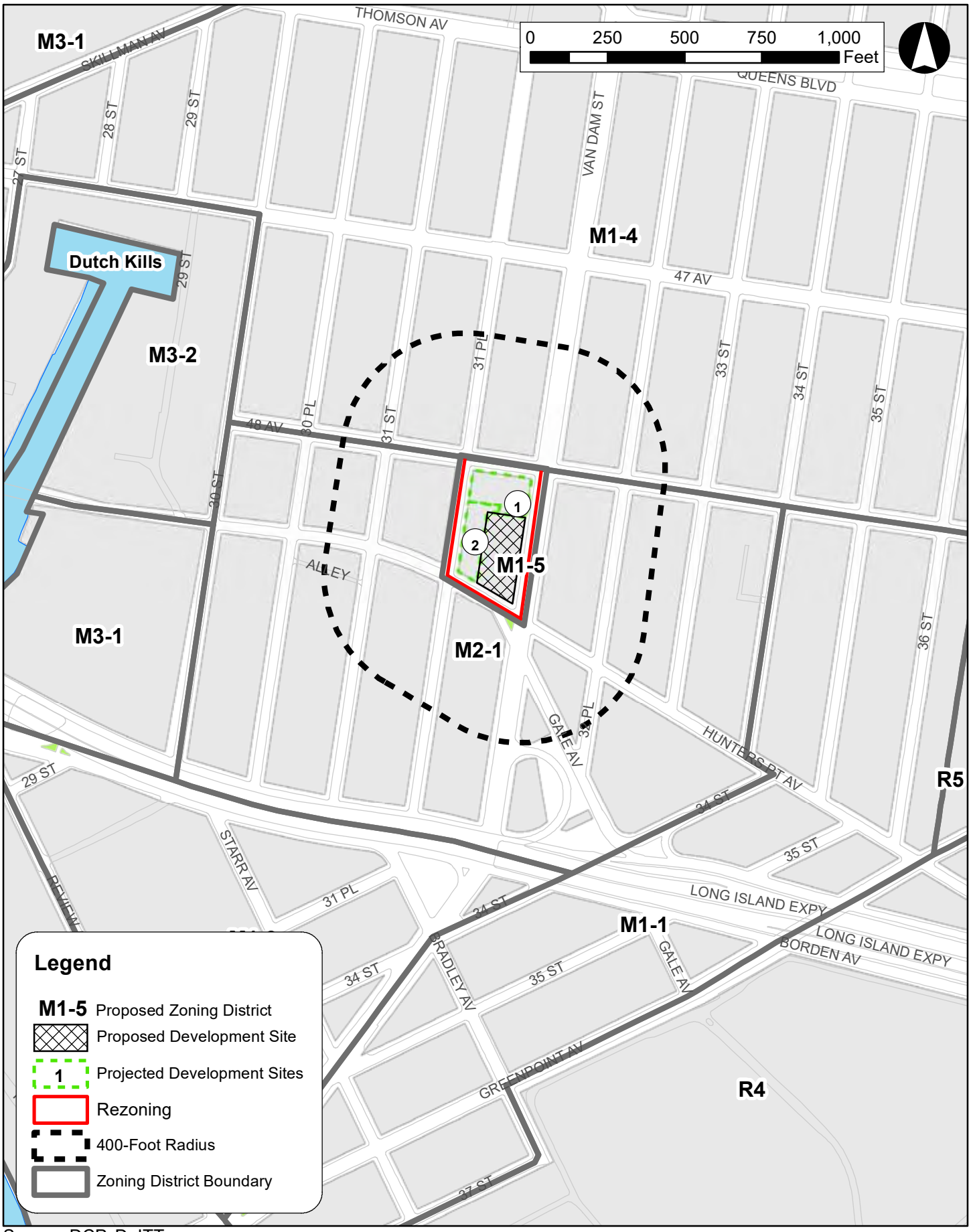
## Zoning

The proposed action would amend the zoning map to rezone Block 284 from M2-1 to M1-5 , as shown in Figure C-5. No other changes to zoning are anticipated in the secondary study area as a result of the proposed action.

Assessment

Although there are currently no M1-5 zoning districts in the primary or secondary study areas, the proposed zoning would allow uses and densities that are already present in the area. With the proposed action, permitted uses would be slightly broadened to include Use Group 4 community facilities and Use Group 5 (limited to transient hotels operated exclusively for the public purpose of temporary housing assistance) while Use Groups 6-14, 16, and 17 would continue to be allowed. As the proposed action would result in zoning that is compatible with the range of existing uses

**Figure C-5**
**Proposed Zoning Map**




Source: DCP, DoITT

and densities found in the secondary study area, it would not result in any significant adverse zoning impacts.

**Public Policy**

As discussed under "Existing Conditions," the proposed rezoning area and the secondary study area fall within the geographic jurisdiction of one public policy. Additionally, the proposed rezoning area and the proposed project fall under one citywide policy; New York Works. Policy assessments of each policy are provided below.

Assessment

*Long Island City IBZ*

The proposed action would not be detrimental to the IBZ program in that it would not displace any active manufacturing uses on Lots 1, 6, or 14. As discussed above, the proposed and projected development sites currently contain a building with ground floor local retail space and office space (Lot 1), an automobile sales, leasing and repair business, vehicle storage, and taxi related company in an adjoining one-story building (Lot 14), and a storage warehouse (Lot 6). As discussed in Attachment A, the office space located on Lot 1 would be utilized by the Funds and the Union, groups that represents employees across a variety of industrial sectors and as such is supportive of the retention of quality industrial employment in Long Island City and throughout the City. Approval of the proposed action would allow close proximity between the Fund's and the Union's offices and those that they represent. As discussed in Attachment D, "Socioeconomic Conditions," the existing establishments on Lots 6 and 14, which are projected to be replaced by new office and retail uses with substantially higher employment, are low-intensity uses that do not engage in manufacturing and could be relocated to other industrial areas where their low density character would be more suitable than in this area of Long Island City, with its sizable worker and student populations. Table C-1 indicates that the majority of floor area in the secondary study area, all of which is included in the Long Island IBZ, is used for non-industrial purposes including institutional and commercial uses. While the proposed action would not introduce any light industrial uses, it would not introduce any uses potentially incompatible with light industrial, such as hotels or residences. Office and local retail uses are already prevalent in the project area and secondary study area where they are located on the same site as light industrial firms, specifically in the Factory and Falchi buildings.

*Long Island City Partnership: Long Island City Comprehensive Plan*

The proposed action would be consistent with the goals of the *Comprehensive Plan* in that it would facilitate new office construction in Long Island City with on-site accessory parking. It would allow the Funds and the Union to expand their office space in the area without displacing any industrial/manufacturing establishments. With this new space, the Union would have expanded area where it would hold training for its membership.

*New York Works*

The proposed action would be consistent with the New York Works program in that it would create over 200,000 gsf of new commercial office space in an area with a growing number of conversions to office uses (e.g., The Bindery and portions of the Falchi and Factory Buildings). The proposed and projected developments would allow for an improved quality of office space in the Long Island City neighborhood.

Accordingly, the proposed action would not result in any significant adverse public policy impacts.

# ATTACHMENT D:
# SOCIOECONOMIC CONDITIONS

## A. INTRODUCTION

This attachment assesses whether the proposed action would result in significant adverse impacts to the socioeconomic character of the area surrounding the rezoning area, which, as shown in Figure D-1, is comprised of one block in Long Island City, Queens Community District 2. As described in the 2020 *City Environmental Quality Review* (CEQR) *Technical Manual,* the socioeconomic character of an area includes its population, housing and economic activities. Socioeconomic changes may occur when a project directly or indirectly changes these elements. Although some socioeconomic changes may not result in environmental impacts under CEQR, they are disclosed if they would affect land use patterns, low-income populations, the availability of goods and services, or economic investment in a way that changes the socioeconomic character of the area.

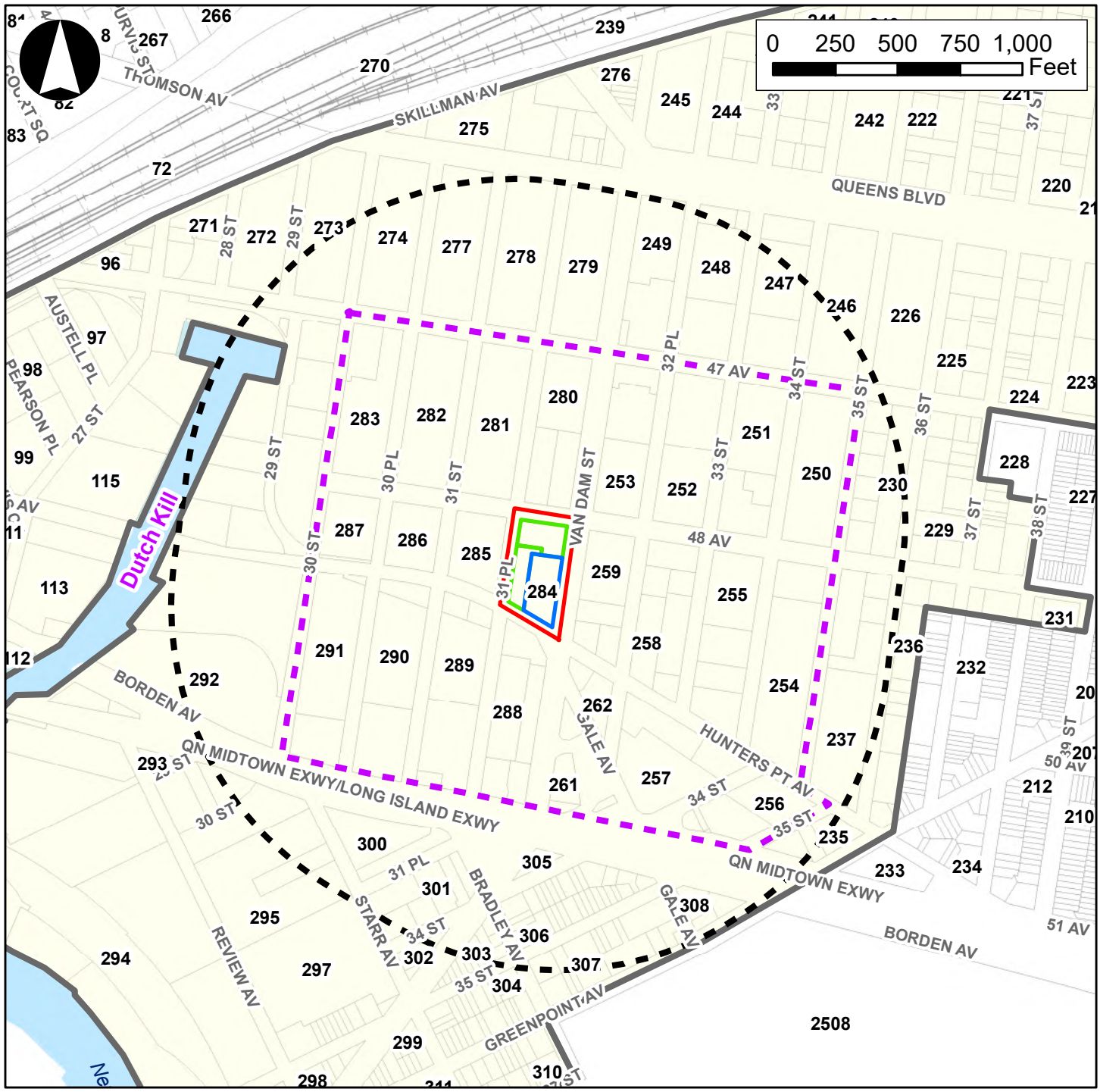
As described in Attachment A, "Project Description," the proposed action involves the rezoning of Queens Block 284 from M2-1 to M1-5. The proposed action would facilitate the expansion of the existing two-story, approximately 56,632-gross-square-foot (gsf) building at 48-18 Van Dam Street (Block 284, Lot 1) with an additional six stories and approximately 127,510 gsf to house the headquarters of the International Brotherhood of Teamsters Local 813 and related functions. There also would be 877 sf of on-site private open space. In addition to the applicant-owned development site, under the reasonable worst-case development scenario (RWCDS), the rezoning area also includes two other sites that are not owned or controlled by the applicant but which are considered likely to be redeveloped as a result of the proposed action: Block 284, Lot 6, and Block 284, Lot 14. As compared to the No-Action condition, the proposed action would result in an incremental increase of approximately 29,191 gsf of local retail space, 259,777 gsf of office space, 74,790 gsf of accessory parking area (207 accessory parking spaces), 877 sf of private open space, and a net decrease of 16,800 gsf of warehousing space in the rezoning area.

In accordance with *CEQR Technical Manual* guidance, the socioeconomic analysis considers whether the proposed action could result in significant adverse socioeconomic impacts due to: (1) direct displacement of residential population from the rezoning area; (2) direct displacement of existing businesses or institutions from the rezoning area; (3) indirect displacement of residential population; (4) indirect displacement of businesses or institutions; and (5) adverse effects on a specific industry.

## B. PRINCIPAL CONCLUSIONS

The proposed action and associated RWCDS would not result in any significant adverse indirect business displacement socioeconomic impacts. The concern under CEQR is whether the proposed action could lead to changes in local market conditions that would lead to increases in commercial

**Figure D-1**
**Socioeconomic Study Area**




## Legend

- Rezoning Area
- Applicant-Owned Development Site
- RWCDS Projected Development Sites
- Quarter Mile Study Area
- Census Track 199 Block Group 1 Boundries
- Long Island City Industrial Business Zone (IBZ)
- 284 Block Number
- Long Island Railroad (LIRR)

Sources: DCP, DOT

property values and rents within the study area, making it difficult for some categories of businesses to remain in the area. Another concern under CEQR is whether the proposed action would lead to displacement of a use type that directly supports businesses in the study area, or brings people to the area that form a customer base for local businesses.

The proposed action would facilitate the incremental increase of approximately 29,191 gsf of local retail space, approximately 259,777 gsf of office space, 877 sf of private open space, and a net decrease of 16,800 gsf of warehousing space on Block 284. The office and retail spaces that would be developed as a result of the proposed action are permitted uses in both the existing and the proposed manufacturing districts of the rezoning area. Both of these uses would be consistent with existing and anticipated land uses trends in the area, and would not represent new uses that would substantially alter economic patterns.

Development facilitated by the proposed action would not add to the concentration of a particular sector of the local economy enough to alter or accelerate an ongoing trend or to change economic patterns. While the proposed action would contribute to an existing trend of increasing commercial development in the study area, any upward rent pressure experienced by industrial businesses in the area would be present in the future without the proposed action, as detailed below. As such, the proposed action is not expected to result in any significant adverse indirect business displacement.

## C. METHODOLOGY

Under CEQR, the socioeconomic character of an area is defined by its population, housing, and economic activities. The assessment of socioeconomic conditions usually distinguishes between the socioeconomic conditions of an area's residents and businesses. However, proposed actions affect either or both of these segments in similar ways: they may directly displace residents or businesses; or they may alter one or more of the underlying forces that shape socioeconomic conditions in an area and thus may cause indirect displacement of residents or businesses. The objective of the CEQR analysis is to disclose whether any changes created by a proposed action would have a significant impact compared with what would happen in the future without the proposed action (i.e., the "No-Action condition").

Direct displacement is defined as the involuntary displacement of residents, businesses, or institutions from the actual site of (or sites directly affected by) a proposed action. Examples include the proposed redevelopment of a currently occupied site for new uses or structures, or a proposed easement or right-of-way that would take a portion of a parcel and thus render it unfit for its current use. Since the occupants of a particular site are usually known, the disclosure of direct displacement focuses on specific businesses and employment and an identifiable number of residents and workers.

Indirect or secondary displacement is defined as the involuntary displacement of residents, businesses, or employees in an area adjacent to, or close to, a project site that results from changes in socioeconomic conditions created by a proposed project. Examples include rising residential rents in an area that result from a new concentration of higher-income housing introduced by a

project, which ultimately could make existing housing unaffordable to lower income residents; a similar turnover of industrial to higher-rent commercial tenancies induced by the introduction of a successful office project in an area; or the flight from a neighborhood that can occur if a proposed project creates conditions that break down the community (such as a highway dividing the area). Unlike direct displacement, the exact occupants to be indirectly displaced are not known. Therefore, an assessment of indirect displacement usually identifies the size and type of groups of residents, businesses, or employees potentially affected.

Even if projects do not directly or indirectly displace businesses, they may affect the operation and viability of a major industry or commercial operation in the City. An example would be new regulations that prohibit or restrict the use of certain processes that are critical to certain industries. In these cases, the CEQR review may involve the assessment of the economic impact of the project on the specific industry in question.

*Direct and Indirect Residential Displacement*

The proposed action would not result in direct or indirect residential displacement. The rezoning area does not contain any residential uses, and as the area would continue to be zoned manufacturing under With-Action conditions (which prohibits residential uses), the proposed action would not facilitate the development of residential space in the rezoning area. As such, per *CEQR Technical Manual* guidance, analyses of direct and indirect residential displacement are not warranted for the proposed action.

*Direct Business Displacement*

The proposed action would not directly displace more than 100 employees or directly displace a business whose products or services are uniquely dependent on its location, are the subject of policies or plans aimed at its preservation, or serve a population uniquely dependent on its services in its present location. The applicant-owned development site at 48-18 Van Dam Street (Queens Block 284, Lot 1) accommodates one business: D&W Central Station Fire Alarm Co., Inc., which currently has a 10-year lease in the building and would continue to be located onsite both during and after construction of the proposed project. All other existing retail and office space in the building is currently vacant. As such, the proposed action would not result in any direct business displacement on the proposed development site.

The projected development site at 48-29 31st Place/48-29 Hunters Point Avenue (Queens Block 284, Lot 6) contains a warehouse for Best Buy's Geek Squad, which employs approximately two people. Two commercial businesses are located at the other projected development site at 48-02 Van Dam Street/48-04 31st Place (Queens Block 284, Lot 14): Glyde Management, which stores commercial vehicles, rents taxis, provides related services and an Aloha Car Store, an automobile sales, leasing, and repair business (approximately 23 employees combined). As detailed in Attachment A, "Project Description," in the future with the proposed action, the two projected development sites on Block 284 are expected to be redeveloped with office buildings containing ground-floor retail space. Therefore, Best Buy's Geek Squad warehouse, Glyde Management, and Aloha Car Store would be directly displaced as a result of the proposed action. These three small businesses employ a total of approximately 25 workers, which would not exceed the 100-employee

*CEQR Technical Manual* threshold warranting an assessment of potential direct business displacement.

Further, none of these businesses provide products or services uniquely dependent on the rezoning area's location or serve a population uniquely dependent on services in or around the area. There are alternative sources of goods, services, and employment surrounding the rezoning area for each of the directly displaced businesses. Additionally, none of the potentially directly displaced firms are the subject of regulations or plans to preserve, enhance, or otherwise protect it.

It should be noted that the proposed rezoning area is located within the Long Island City Industrial Business Zone (IBZ), which the City established to protect existing manufacturing districts and encourage industrial growth citywide. In IBZs, expanded business services are available for industrial and manufacturing businesses in order to create competitive advantages and zone-specific planning efforts to foster real estate certainty. The proposed action would not change the rezoning area's manufacturing designation, but rather, would increase permitted densities in the area. As detailed in Attachment A, "Project Description," the proposed and projected development sites on Block 284 are currently zoned M2-1 with maximum permitted FARs of 2.0. In the future with the proposed action, the sites would be rezoned M1-5, increasing maximum allowable FAR to 5.0. The proposed action would modify allowable uses on Block 284. Currently, under M2-1, use groups 6-14, 16, and 17 are permitted as-of-right. Under M1-5, use groups 4-14, 16 and 17 would be permitted, but hotels (use group 5) and self-service storage facilities (use group 16) would only be allowed by special permit. With this change, certain types of community facilities would be permitted as-of-right although such uses are not proposed or projected for the rezoning area. (Use Group 5 transient hotels operated exclusively for the public purpose of temporary housing assistance would be permitted as-of-right although such uses are not proposed or projected for the rezoning area.)

As the number of potentially directly displaced workers would be fewer than 100-worker *CEQR Technical Manual* threshold for additional assessment of potential impacts, the proposed action is not expected to result in significant adverse impacts with respect to direct business displacement, and further analysis is not warranted.

*Indirect Business Displacement*

As the proposed action would introduce more than 200,000 sf of commercial space over the No-Action condition, and an assessment of potential indirect business displacement is warranted, and is provided below.

*Adverse Effects on Specific Industries*

The proposed action would not significantly affect business conditions, substantially reduce employment, or impair viability in any industry or category of business. The proposed action involves a zoning map amendment to increase the allowable density in the rezoning area. The proposed action would only slightly broaden the permitted uses on Block 284, which encompasses the proposed and projected development sites. The proposed action would not affect conditions within a specific industry in the rezoning area or surrounding area. As detailed above, the proposed

action would result in the direct displacement of three businesses with a total of approximately 25 employees on Queens Block 284. Collectively, these three businesses account for a small fraction of total employment and economic activity in the study area. Furthermore, the proposed action is not expected to cause significant indirect displacement due to increased rents that would affect a particular industry. Therefore, the proposed action would not result in an adverse impact on any industry or category of businesses within or outside of the rezoning area, and would not substantially reduce employment or impact economic viability in an industry or category of business, and as such, further analysis is not warranted.

**Analysis Format**

Based on *CEQR Technical Manual* guidelines, the analyses of indirect business displacement due to increased rents begins with a preliminary assessment. The objective of the preliminary assessment is to learn enough about the potential effects of the proposed project to either rule out the possibility of significant adverse impacts or determine that a more detailed analysis is required to fully determine the extent of the impacts. A detailed analysis, when required, is framed in the context of existing conditions and evaluates the changes to those conditions in the future with the proposed action as compared with the changes that would be expected in the No-Action condition. In conjunction with the land use task, specific development projects expected to occur by the build year of the applicant-owned development site (i.e. 2023) are identified. These projects are described in terms of the possible changes to socioeconomic conditions that they would cause, including potential population increases, changes in income characteristics of the affected area, changes to the rents or sale prices of residential units, new commercial or industrial uses, or changes to employment or retail sales. Those conditions are then compared with the future with the proposed action to determine the potential for significant adverse impacts. As discussed below, a preliminary assessment was sufficient to determine that the proposed action would not result in any significant adverse indirect business displacement impacts.

**Study Area Definition**

Typically, the socioeconomic study area boundaries are similar to those of the land use study area, encompassing the rezoning area and adjacent area within 400 feet, quarter-mile, or half-mile, depending on project size and area characteristics. As shown in Figure D-1, the study area used for the socioeconomic conditions preliminary assessment includes lots within a quarter-mile of the rezoning area, and is roughly bound by 27th Street to the west, the Long Island Railroad (LIRR) tracks to the north, 36th Street to the east, and blocks fronting the Queens Midtown Expressway/Long Island Expressway to the south.

**Data Sources**

For the indirect business displacement analyses, employment data for the study area, borough of Queens, and New York City as a whole were obtained from the U.S. Census Bureau, Longitudinal Employer-Household Dynamics (LEHD) employment data for 2017. The employment data gathered identifies the industry sectors that dominate or characterize the study area, borough and City. Historic employment data from 2012 and 2005 were also obtained for the quarter mile study area. The analyses were also supported by field visits to the study area conducted by PHA in fall

2017 and Winter 2018. Office market data for Long Island City and Manhattan were obtained from Newmark Grubb Knight Frank.

## D. PRELIMINARY ASSESSMENT OF INDIRECT BUSINESS DISPLACEMENT

The objective of the preliminary assessment of indirect business displacement is to determine whether the proposed action could potentially introduce trends that would make it more difficult for nearby existing businesses that provide products or services essential to the local economy or that are targeted to be preserved in their current locations under adopted public plans to remain in the area. A proposed action could introduce such a trend by causing a marked increase in rents and property values in the area (such as by stimulating the demand for more lucrative land uses and thus redevelopment or by increasing the demand for new commercial or retail services with which the existing businesses cannot compete). Additionally, it could directly displace businesses or residents who serve as suppliers or the customer base for nearby businesses, affecting their viability or altering the desirability of their existing location. Finally, it could create enough new retail space to draw substantial sales from existing businesses (i.e., a market saturation impact).

In most cases, the issue for indirect displacement of businesses is that an action would markedly increase property values and rents throughout the study area, making it difficult for some categories of businesses to remain in the area. Pursuant to CEQR guidance, the preliminary assessment of indirect business displacement examines the following circumstances described in Section 322.2 of Chapter 5 of the *CEQR Technical Manual*:

***Would the proposed project introduce a trend that increases commercial property values, making it difficult for businesses essential to the local economy – or a business that is the subject of regulations or publicly adopted plans to preserve, enhance, or otherwise protect it – to remain in the study area?***

As shown in Table D-1, as of 2017 (the most recent data available), there were an estimated 5,122 private employees within a quarter-mile radius of the rezoning area.[1] These employees represented nearly one percent of Queens' total employment and approximately 0.15 percent of the employment in all of New York City. Within the quarter-mile study area, the manufacturing sector accounted for approximately 24 percent, the largest percentage for a single sector in the area with a total of 1,229 jobs. More broadly, all industrial sectors within an approximate quarter-mile of the rezoning area (in addition to manufacturing, this also includes construction, wholesale trade, transportation, and warehousing) collectively employ 2,984 workers in the study area, 58.3 percent of the area's total employment, well above industrial sectors employment in Queens (30.8 percent of the borough's employment) and New York City as a whole (13.4 percent of the City's employment). These industrial jobs reflect the study area's historic roots of industry which has evolved into a current state of economic diversity.

[1] As shown in Figure D-1, the quarter mile study area corresponds roughly to Queens Census tract 199, block group 1, which includes 37 blocks and is roughly bounded by 47th Avenue to the north, 35th Street to the east, the Queens Midtown Expressway to the south, and 30th Street to the west.

As shown in Table D-1, professional, scientific, and technical services accounted for nearly 17 percent of study area employees. The proportion of professional, scientific, and technical services employees in the study area is higher than the borough of Queens 3.4 percent) and New York City as a whole (11.4 percent), and as detailed below, can be largely attributed to recent factory and warehouse conversions that contain new office, light industrial, and flex spaces, as well as ground-floor retail in the study area.

**Table D-1, Estimated Private Employment in the Study Area, Queens, & New York City**

| | Quarter Mile Study Area | | Queens | | New York City | |
|---|---|---|---|---|---|---|
| **NAICS by Industry Sector** | **Employees** | **Percentage** | **Employees** | **Percentage** | **Employees** | **Percentage** |
| Agriculture, Forestry, Fishing & Hunting | 0 | 0.0% | 30 | 0.0% | 327 | 0.0% |
| Mining, Quarrying, & Oil and Gas Extraction | 2 | 0.0% | 23 | 0.0% | 43 | 0.0% |
| Utilities | 1 | 0.0% | 3,115 | 0.6% | 17,786 | 0.5% |
| Construction | 509 | 9.9% | 51,367 | 9.7% | 141,889 | 4.0% |
| Manufacturing | 1,229 | 24.0% | 19,847 | 3.8% | 70,952 | 2.0% |
| Wholesale Trade | 885 | 17.3% | 22,834 | 4.3% | 143,022 | 4.1% |
| Retail Trade | 480 | 9.4% | 61,781 | 11.7% | 328,963 | 9.4% |
| Transportation & Warehousing | 361 | 7.0% | 68,108 | 12.9% | 116,497 | 3.3% |
| Information | 86 | 1.7% | 5,309 | 1.0% | 186,769 | 5.3% |
| Finance & Insurance | 15 | 0.3% | 15,820 | 3.0% | 329,968 | 9.4% |
| Real Estate & Rental and Leasing | 137 | 2.7% | 14,584 | 2.8% | 122,291 | 3.5% |
| Professional, Scientific, & Technical Services | 861 | 16.8% | 17,880 | 3.4% | 400,256 | 11.4% |
| Management of Companies & Enterprises | 53 | 1.0% | 2,687 | 0.5% | 73,902 | 2.1% |
| Admin. & Support, Waste Management & Remediation | 123 | 2.4% | 36,181 | 6.9% | 227,951 | 6.5% |
| Educational Services | 10 | 0.2% | 15,229 | 2.9% | 173,177 | 4.9% |
| Health Care & Social Assistance | 93 | 1.8% | 119,280 | 22.6% | 633,481 | 18.0% |
| Arts, Entertainment, & Recreation | 84 | 1.6% | 5,514 | 1.0% | 75,084 | 2.1% |
| Accommodation & Food Services | 101 | 2.0% | 44,045 | 8.4% | 314,072 | 8.9% |
| Other Services (excluding Public Admin.) | 92 | 1.8% | 23,390 | 4.4% | 160,362 | 4.6% |
| ***Total Private Employment*** | ***5,122*** | ***100.0%*** | ***527,024*** | ***100.0%*** | ***3,516,792*** | ***100.0%*** |

**Notes:**

[1]The boundary of the quarter mile study area was modified to match the boundary of Queens Census tract 199, block group 1, which most closely defines the quarter mile (i.e., is at least 50 percent within the quarter mile perimeter around the proposed rezoning area).

**Source:** Employment data obtained from the U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics.

Table D-2 shows the trends in the number of industrial firms from 2005 to 2017 (the most recent data available) within the quarter-mile study area. As shown in Table D-2, with the exception of construction. the industrial sectors in the quarter mile study area have declined by more than 11 percentage points between 2005 and 2017. The most significant decrease occurred in the wholesale sector, which accounted for a total of approximately 24 percent of all businesses in the area in 2005, compared to roughly 17 percent in 2017.

**Table D-2, Details for Industrial Sectors in Quarter Mile Study Area**

| | 2017 | | 2012 | | 2005 | |
|---|---|---|---|---|---|---|
| **Industry Description** | **Employees** | **Percentage** | **Employees** | **Percentage** | **Employees** | **Percentage** |
| Construction | 509 | 9.9% | 767 | 14.2% | 222 | 4.1% |
| Manufacturing | 1,229 | 24.0% | 1,434 | 26.5% | 1,419 | 26.2% |
| Wholesale Trade | 885 | 17.3% | 1,011 | 18.7% | 1,302 | 24.1% |
| Transportation & Warehousing | 361 | 7.0% | 388 | 7.2% | 421 | 7.8% |
| *Industrial Sectors Total* | *2,984* | *58.3%* | *3,600* | *66.5%* | *3,364* | *62.2%* |
| ***Total Private Employment*** | ***5,122*** | ***100.0%*** | ***5,417*** | ***100.0%*** | ***5,407*** | ***100.0%*** |

**Notes:**
[1]The boundary of the quarter mile study area was modified to match the boundary of Queens Census tract 199, block group 1, which most closely defines the quarter mile (i.e., is at least 50 percent within the quarter mile perimeter around the proposed rezoning area).
**Source:** Employment data obtained from the U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics.

As detailed in Attachment C, "Land Use, Zoning, & Public Policy," land use in the area surrounding the rezoning area is predominately industrial and commercial/office.

Several former factories and warehouses in the quarter-mile study area have recently been converted into modern office and light industrial/manufacturing spaces with flexible layouts, high ceilings, and large windows not found in traditional office buildings. As quoted in the *New York Times*, "There's a huge appetite for this kind of aesthetic. They market these things by harkening back, the 'Bindery,' the 'Zipper Factory.'"[2] Additionally, in order to attract companies to the area, recent conversions have included a wide variety of amenities for workers, including ample retail and restaurant spaces.

For example, The Factory Building (Block 282) and The Falchi Building (Block 281), two former warehouses located northwest of the rezoning area, were converted into "hubs" for office, industrial, manufacturing, and retail spaces. Completed in 2015, the renovated Factory Building accommodates a ground-floor food market setup similar to Chelsea Market in Manhattan, with offices for companies like Macy's, J.Crew/Madewell, NYC Department of Design and Construction, and Two Boots Pizza and educational spaces for the Robert F. Wagner Secondary School for Arts and Technology on its upper floors. The Falchi Building was renovated in 2014 with food production space for companies including Doughnut Plant, Juice Press, and Astoria Distilling, as well as office space with tenants including Uber, Lyft, NYC Taxi and Limousine Commission, and Spaces.

Additionally, west of the rezoning area on Block 287 is The Bindery, a former warehouse converted into office space with amenities that include a gym for workers, food trucks in the lobby, and bike storage for commuters (as detailed in Attachment C, further upgrades to the building, including a new roof deck were undertaken more recently). Farther west, The Zipper Building (Block 98, Lot 30), a former factory, was renovated in 2016 into office and community facility space with ground-floor retail, cafes, and a rooftop lounge.

[2] Dwyer, Jim. "Say Goodbye to the Upholstery Guy." *New York Times* (April 27, 2017)

Other recently developed projects in the study area and surrounding area include a new, 140,000-sf distribution center for FedEx Ground completed in 2013 (Block 292), as well as two hotels: the Days Inn Long Island City built in 2006 (Block 275, Lot 2), and the Feather Factory Hotel, which was newly renovated in 2012 (Block 96, Lot 10).

As shown in Figure D-1, the rezoning area and the majority of the quarter-mile study area are located within the Long Island City Industrial Business Zone (IBZ). Established in 2006, the Long Island City IBZ is one of seven IBZs in Queens. It is roughly bounded by Skillman Avenue to the north, 39th Street to the east, Greenpoint Avenue to the south, and the Newtown Creek/Vernon Boulevard to the west. As discussed in Attachment C and shown in Table D-3, the IBZ is mapped within a variety of manufacturing zoning districts.

**Table D-3, Existing Zoning within the Long Island City IBZ**

| Zoning | Lot Area | Number of Lots | Building Area | Number of Buildings |
|---|---|---|---|---|
| **M1-1** | 1,153,430 sf | 166 | 1,314,464 sf | 174 |
| **M1-3** | 776,693 sf | 32 | 826,509 sf | 31 |
| **M1-4** | 5,304,170 sf | 225 | 11,391,704 sf | 229 |
| **M2-1** | 1,356,539 sf | 47 | 1,638,673 sf | 49 |
| **M3-1** | 2,155,663 sf | 20 | 691,877 sf | 44 |
| **M3-2** | 2,964,047 sf | 89 | 2,166,402 sf | 82 |
| ***Total:*** | ***13,710,542 sf*** | ***579*** | ***18,029,629 sf*** | ***609*** |

**Source:** DCP's PLUTO data.

The City created IBZs in the mid-2000s to protect existing manufacturing districts and encourage industrial growth citywide, with expanded business services available for industrial and manufacturing firms, fostering high-performing business districts by creating competitive advantages over locating in areas outside of New York City. To protect industrial and manufacturing activities, the City announced a 10-Point Industrial Action Plan in fall 2015 to reaffirm its commitment to strengthen and invest in the City's core industrial areas, via its Industrial Business Zone program. IBZs are supported by tax credits for relocating within them, zone-specific planning efforts, and direct business assistance from Industrial Providers of New York City Business Solutions' Industrial and Transportation Division. With a stated purpose for fostering industrial sector growth by creating real estate certainty, the City established IBZs in areas with significant concentrations of industrial businesses and stated that it would not support the rezoning of these areas for residential use.

In its entirety, the Long Island City IBZ includes 609 buildings that contain more than 18 million sf of floor area on 579 lots (refer to Table D-3). Over 60 percent of building square footage in the Long Island IBZ is factory and storage space (approximately 35 percent and nearly 26 percent, respectively). Office space accounts for approximately 13 percent of building area in the IBZ, and retail space accounts for approximately four percent of building area. Less than three percent of lots in the IBZ are vacant.

Although IBZs were established by the Bloomberg administration to protect existing manufacturing districts and encourage industrial growth in the City, there is an existing, well-established trend in the area toward warehouse conversion to office and light industrial spaces, as discussed above, transforming the Long Island City IBZ into a more mixed commercial and industrial area. New uses have primarily consisted of office and institutional spaces, as well as retail and restaurant tenants that cater to the increased volume of workers in the area.

The proposed action would not change the existing manufacturing zoning designation of the area, but rather, it would increase permitted densities in the proposed zoning area. As detailed in Attachment A, "Project Description," the proposed and projected development sites on Block 284 are currently zoned M2-1 with maximum permitted FARs of 2.0. In the future with the proposed action, the sites would be rezoned M1-5, increasing maximum allowable FAR to 5.0. The proposed action would change allowable uses on Block 284, by adding Use Group 4 and Use Group 5 (limited to transient hotels operated exclusively for the public purpose of temporary housing assistance) while Use Groups 6-14, 16, and 17 would continue to be permitted on Block 284 with or without the proposed action.

As manufacturing zones permit commercial uses, including office, hotels by special permit, nightclubs, retail, and restaurants, as well as industrial uses, manufacturers and other industrial uses must compete with these commercial uses for space, which can typically afford higher rents. As a result of the influx of office space and amenities provided in the study area warehouse conversions detailed above, real estate values in the study area have increased, and rents have followed suit. As a result, industrial businesses looking to move or expand in Long Island City have faced an increasingly tight market.

Long Island City remains and is becoming more attractive for commercial office, retail and light industrial uses, reinforcing its mixed-use character. As shown in Table D-4, from 2006 to 2017, more than 2.5 million sf of office space was developed in Long Island City (which includes the Long Island City IBZ as well as Astoria and the Long Island City Waterfront/Hunter's Point), and the availability rate in the area increased from 7.9 percent to 17.9 percent. During this time, the average asking rents for office space in the area rose by $21.19 per sf (an increase of 118.8 percent). The largest increase in average asking rents occurred between 2014 and 2017, when average asking rents for office space in Long Island City rose by $16.84 per sf (an increase of 75.9 percent). As detailed in Newmark Grubb Knight Frank's *Long Island City Office Market Reports* during this time, the large office rent increases in Long Island City were driven by large, premium-priced blocks added to the inventory, including the warehouse conversions detailed above, and high-profile tech, advertising, media, and information (TAMI), fashion, transportation, and retail tenants expanding and relocating to the area from Manhattan.

**Table D-4: Office Market Trends in Long Island City, 2006 to 2017**

| | 2006, Q4 | 2010, Q1 | 2014, Q1 | 2017, Q4 | Change 2006 - 2017 |
|---|---|---|---|---|---|
| ***Average Asking Rent per SF*** | $17.84 | $21.00 | $22.19 | $39.03 | + **$21.19** |
| ***Availability Rate*** | 7.9% | 8.4% | 4.6% | 17.9% | + **10%** |
| ***Total Inventory (sf)*** | 9,864,417 | 10,352,870 | 7,981,806 | 12,385,070 | + **2,520,653** |

**Sources:** *Long Island City Office Market Reports* by Newmark Grubb Knight Frank.

In 2016, Newmark Grubb Knight Frank began dividing the Long Island City office market into three submarkets in order to further analyze trends in the area: the Factory District (which roughly encompasses the Long Island City IBZ), the Long Island City Waterfront/Hunter's Point, and Astoria. Table D-5 below presents the average asking rents per sf, availability rates, and total inventories for the Factory District, Long Island City, and Manhattan office markets.

As shown, average asking rents for office space are higher in the Factory District than in Long Island City as a whole, but are still a fraction of office rents in Manhattan. As Newmark Grubb Knight Frank noted in *Long Island City Office Market Report (4Q15)*, "rents in the area still offer a significant discount to tenants looking for value-priced space proximate to Midtown Manhattan." Additionally, the Factory District continues to have inventory with availability rates well above both Long Island City and Manhattan. From the third quarter of 2016 to the fourth quarter of 2017, over 50 percent of Long Island City's total inventory growth occurred in the Factory District (refer to Table D-5). The additional inventory and availability in the area are expected to continue to attract value-seeking tenants from Manhattan, continuing to drive office rents higher in the Factory District.

**Table D-5, Office Market Trends in the Factory District vs. Long Island City, 2016 & 2017**

| | 2016, Q3 | | | 2017, Q4 | | |
|---|---|---|---|---|---|---|
| | Factory District | Long Island City | Manhattan[1] | Factory District | Long Island City | Manhattan |
| ***Average Asking Rent per SF*** | $40.46 | $37.78 | $76.07 | $42.17 | $39.03 | $75.32 |
| ***Availability Rate*** | 15.1% | 13.2% | 12.0% | 21.6% | 17.9% | 12.1% |
| ***Total Inventory (sf)*** | 4,524,742 | 11,696,340 | 445,000,000 | 4,880,388 | 12,385,070 | 449,000,000 |

**Note:** [1] 2016 Manhattan data from Q4.
**Source:** Newmark Grubb Knight Frank.

As detailed in Attachment A, "Project Description," the proposed action would facilitate a new development on the applicant-owned proposed development site at 48-18 Van Dam Street (Block 284, Lot 1). The new development would involve the expansion of the existing two-story building by adding six stories which would house the headquarters of the International Brotherhood of Teamsters Local 813 and related functions. There also would be 877 sf of on-site private open space. In addition to the proposed development site, it is expected that the two remaining lots on Block 284 would be redeveloped under the RWCDS for the proposed action. It is expected that, in the future with the proposed action, the warehouse on Lot 6 and the gas station, service center,

taximeter shop, and adjacent vehicle storage parking on Lot 14 would be demolished and replaced with two, six-story office buildings with ground-floor local retail space. As such, it is anticipated that the proposed action would facilitate the incremental development of approximately 29,191 gsf of local retail space, approximately 259,777 gsf of office space, 877 sf of private open space, and a net decrease of 16,800 gsf of warehousing space on Block 284 of the rezoning area.

The With-Action office tenant of the applicant-owned proposed development site, Local 813, represents workers in the New York metropolitan area employed in a variety of industries, including private sanitation, funeral, demolition, rental car, paper and corrugated products, warehousing, and various driving occupations. The union's mission is to organize and educate workers towards a higher standard of living. It provides collective bargaining on behalf of its members and also administers trust funds that use employer contributions to pay for pensions, savings, severance, retirement, and other benefits. As a trade union serving workers in a wide range of industrial jobs, the applicant believes that the proposed project, although offices in terms of its land use classification, would be supportive of the area's many industrial uses, providing improved training and meeting space for its members and supportive functions critical to the retention of quality industrial employment. As such, the proposed project would be compatible with existing land uses in the area and with the aims of the City's IBZ policies, which include providing ancillary office space for industrial businesses.

Additionally, the proposed action would align with the Long Island City Partnership's *Long Island City Comprehensive Plan*. Released in November 2016, Long Island City's first comprehensive plan aims to preserve and enhance the vibrant mix of uses in the area. One of the key issues noted in the plan is the unmet demand for commercial office space in Long Island City without the development of new buildings, limiting economic growth and putting pressure on existing industrial spaces in the area. As the proposed action involves a zoning map amendment that would facilitate new commercial office development in the rezoning area, it would further the Partnership's goals of creating commercial office space in Long Island City and reducing pressure on available industrial spaces in the area.

As discussed in Attachment A, there are no known development plans for the two projected development sites. However, the RWCDS for the proposed actions assumes With-Action developments of office buildings with ground-floor retail space, similar to development trends in the surrounding area. It is anticipated that the office tenants of these site would be similar to those moving into the surrounding area, as discussed above. It is expected that the retail spaces in these buildings, as well as in the applicant-owned proposed development site, would have small footprints and would be occupied by local retail uses, similar to trends in the area's surrounding office conversions. It is also anticipated that all three buildings would contain accessory parking.

The proposed action and associated RWCDS would not introduce any new types of uses or economic activities within the study area, and is not expected to alter existing economic patterns in the study area or add substantially to a particular sector of the local economy. It would facilitate the development of predominately office and retail uses on Queens Block 284, both of which are currently permitted in the existing M2-1 district mapped on the block. The proposed uses would be consistent with the existing and emerging mix of land uses in the study area and would not represent new uses that would substantially alter existing economic patterns or accelerate an

ongoing trend. Although the proposed and projected developments on Block 284 would be sizeable (approximately 184,142 gsf on Lot 1, 108,683 gsf on Lot 6, and 108,683 gsf on lot 14), they would not be the largest office buildings within the quarter-mile study area. For example, The Factory on Block 282 is approximately 970,000 sf and The Falchi Building on Block 281 is approximately 568,000 sf.

Businesses most vulnerable to indirect displacement due to increased rents are typically those businesses whose uses are less compatible with the economic trend that is creating upward rent pressures in a study area, i.e., those businesses that tend not to benefit directly (in terms of increased business activity) from the market forces generating the increases in rent. For example, if a neighborhood is becoming a more desirable place to live, uses that are less compatible with residential conditions (such as manufacturing) would be less able to afford increases in rent due to increases in property values than a neighborhood service use, such as a restaurant, which would see increased business activity from the increased residential presence. In addition, industrial businesses tend not to benefit directly from the increased consumer dollars in the area and therefore are less able to afford rent increases due to rising property values.

Industrial businesses could be considered potentially vulnerable to indirect displacement, as a property owner could decide to convert an existing industrial property to retail or other commercial uses. While some industrial businesses could be displaced due to upward rent pressure in the future With-Action condition, upward rent pressure is already present in the study area and is expected to continue into the future without the proposed action. As described above, manufacturers and other industrial uses are currently experiencing real estate pressures of increasing rents and land values, and are often forced to compete with commercial uses for space, which can typically afford higher rents. A number of formerly industrial properties in the study area have recently been converted into office or mixed office and light industrial/manufacturing spaces, as detailed above. While proposed action would contribute to an existing trend of increasing commercial conversions/development in the study area, any upward rent pressure experienced by industrial businesses in the area would be present in the future without the proposed action. Additionally, it should be noted that the proposed action would increase permitted densities in the proposed rezoning area, which could potentially relieve some demand pressures in the study area.

Therefore, the proposed action would not alter existing economic patterns by introducing a new economic activity to the study area.

***Would the proposed project directly displace uses of any type that directly support businesses in the area or bring people to the area that form a customer base for local businesses?***

As discussed above, the proposed action would potentially directly displace up to three businesses in the rezoning area: Best Buy's Geek Squad at 48-29 31st Place/48-29 Hunters Point Avenue (Queens Block 284, Lot 6); and Millennium Taximeter Corp. and a Shell gas station, service center, and food mart at 48-02 Van Dam Street/48-04 31st Place (Queens Block 284, Lot 14). None of these businesses directly support businesses in the area or bring people to the area that form a customer base for local businesses.

***Would the proposed project directly or indirectly displace residents, workers, or visitors who form the customer base for local businesses?***

As discussed above, the proposed action would not result in any direct or indirect residential displacement, and is not expected to directly or indirectly displace a substantial number of workers who form a customer base for local businesses. The proposed action is not anticipated to result in significant indirect business displacement that would negatively affect the customer base of any existing businesses in the study area. Rather, the proposed action would introduce a substantial amount of new office, retail, institutional, and light industrial workers that are expected to add to the customer base of existing retail businesses in the surrounding area.

**ATTACHMENT E:**
**OPEN SPACE**

## A. INTRODUCTION

This attachment assesses the potential impacts of the proposed action on open space resources. Open space is defined in the 2020 *City Environmental Quality Review (CEQR) Technical Manual* as publicly accessible, publicly or privately owned land that is available for leisure, play, or sport or serves to protect or enhance the natural environment. The *CEQR Technical Manual* indicates that an open space analysis should be conducted if a project would result in a direct effect, such as a physical loss or alteration of public open space, or an indirect effect, such as when a substantial new population could place added demand on an area's open spaces.

As described in Attachment A, "Project Description", the proposed action would result in the rezoning of Block 284 in Queens Community District 2, changing the zoning district M2-1 to M1-5. This would facilitate the development of Block 284, with new, higher density commercial uses, including new headquarters of Local 813 of the International Teamsters Union, including related trust funds, and space for other labor unions on the proposed development site (Block 284, Lot 1) and is also expected to result in new commercial buildings with office and local retail space on the projected development sites (Block 284, Lots 6 and 14). There also would be 877 sf of on-site private open space, without which there would be a significant adverse open space impact. As such, this private open space represents a project commitment codified in a Restrictive Declaration (RD) to be executed at the time of project approval.

## B. PRINIPAL CONCLUSIONS

According to the *CEQR Technical Manual*, a proposed project may result in a significant adverse impact on open space resources if (a) there would be direct displacement/alteration of existing open space within the study area that would have a significant adverse effect on existing users; or (b) it would reduce the open space ratio and, consequently, result in the overburdening of existing facilities or further exacerbating a deficiency in open space.

### Direct Effects

The proposed action would not remove or alter any existing publicly-accessible open spaces. In addition, the proposed action would not result in any significant adverse operational or construction air quality or noise impacts affecting open space resources, as there are no publicly-accessible open spaces located on or within the vicinity of the proposed and projected development sites. Therefore, the proposed action would not result in any significant adverse direct impacts to open space.

### Indirect Effects

The study area is significantly lacking in public open space. In order to address the open space needs of the additional projected employees, the proposed project includes private open space. Although the private open space will not address the lack of public open space in the study area, the private open space will adequately serve the projected increase in non-residents and prevent the proposed development from accentuating the lack of open space. The existing open space ratio of 0.0102 is equivalent to 6.8 percent of the optimal level, the No-Action open space ratio of 0.0084 is equivalent to 5.6 percent of the optimal level while the With-Action open space ratio, considering the private open space, would be 0.0092, equivalent to 6.1 percent of the optimal level.

The applicant is committing to providing 877 sf of private open space on its property, specifically a portion of the former railroad siding along the site's Hunters Point Avenue frontage. This commitment would be codified in an RD to be executed at the time of project approval. This RD, running with the land, would require as a condition of the expansion of the proposed development site that 877 sf of private open space be provided consistent with a plan indicating the location of seating and plantings. The RD would require that workers based in the proposed project as well as workers from the projected developments have access to this private open space. The lead agency, in consultation with NYC Parks, determined that by providing sufficient open space for action-generated employees, the proposed action would not exacerbate the study area's public open space deficiency and thereby this measure would preclude a potential impact.

## C. METHODOLOGY

### Direct Effects

According to the *CEQR Technical Manual*, a proposed project would directly affect open space conditions if it causes the loss of public open space, changes the use of an open space so that it no longer serves the same user population, limits public access to an open space, or results in increased noise or air pollutant emissions, odor, or shadows that would temporarily or permanently affect the usefulness of a public open space. As no open space resources would be physically displaced or otherwise directly affected by the construction or operation of the proposed and projected developments, the proposed action would not directly affect any open spaces within, or in close proximity to, the rezoning area.

### Indirect Effects

As described in the *CEQR Technical Manual*, open space can be indirectly affected by a proposed project if the project would add enough population, either residential or non-residential, to noticeably diminish the capacity of open space in the area to serve the future population. Typically, an assessment of indirect effects is conducted when a project would introduce more than 200 residents or 500 workers to an area; however, the thresholds for assessment are slightly different for areas of the City that have been identified as either underserved or well-served by open space. For areas underserved by open space, the threshold for assessment is more than 50 residents or 125 workers, and for areas well-served by open space, the threshold for assessment is more than

350 residents or 750 workers. As the rezoning area is located in an area that is underserved, the 50-resident/125-worker threshold applies.

The open space analysis and impact assessment is based on the anticipated RWCDS development in the rezoning area. As discussed in Attachment A, "Project Description," the proposed action would include development of Block 284, which would introduce an estimated net increase of 1,136, i.e., greater than 125, new workers but no new residents. As such, an open space assessment for non-residential populations generated by the proposed action is warranted.

***Study Areas***

The first step in assessing potential open space impacts is to establish the appropriate study area(s) for the new population(s) to be added as a result of a proposed project. The open space study areas are based on the distance a person is assumed to walk to reach a neighborhood open space, which differs by user. Workers typically use passive open spaces within a short walking distance of their workplaces. Workers are assumed to walk up to an approximately a ¼-mile distance to reach neighborhood open spaces.

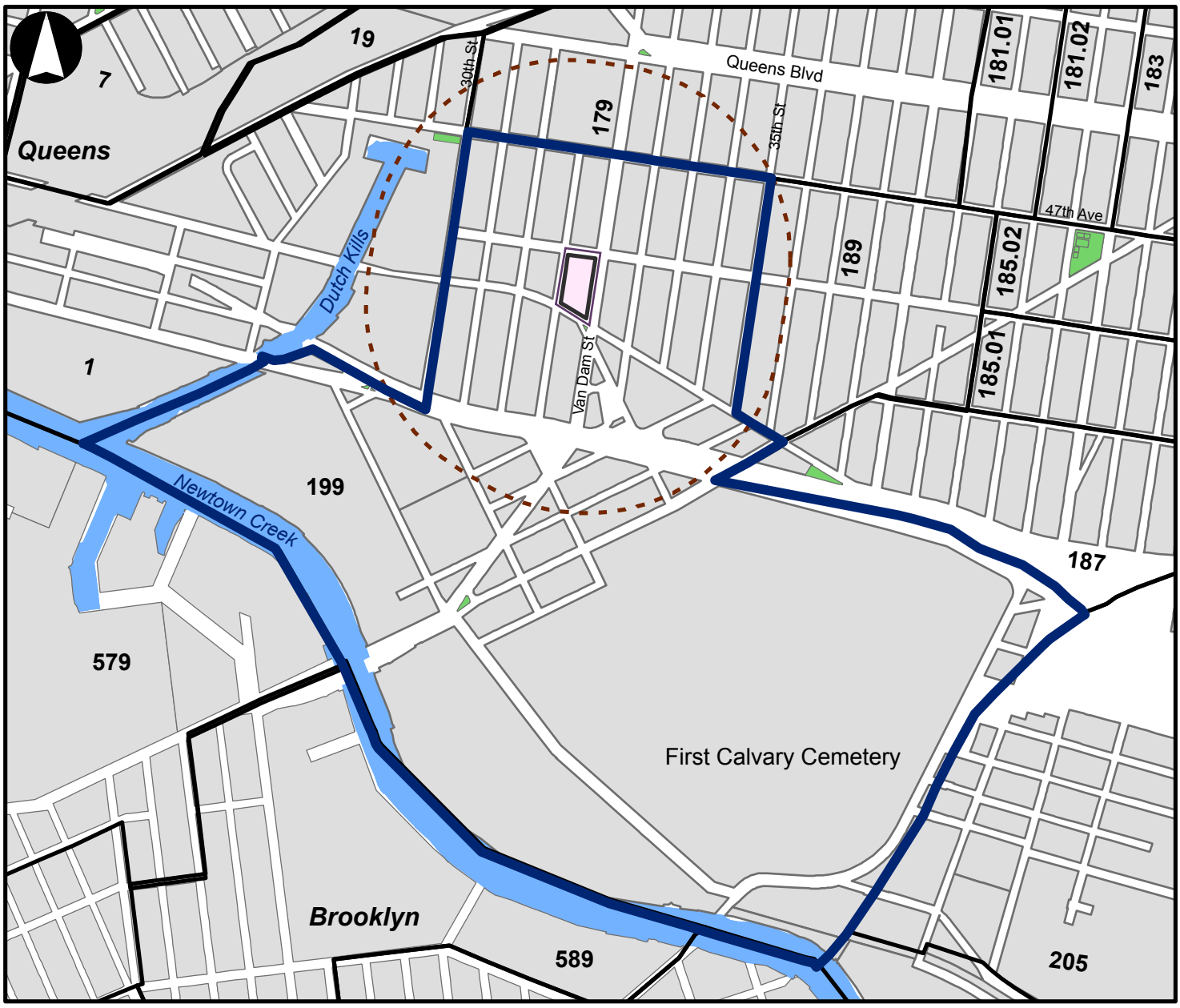
As noted above, the proposed action would not generate any residents and therefore an open space assessment for residential populations is not warranted and is not necessary to identify a residential study area. Therefore, one study area is evaluated: a non-residential (worker and student) study area based on a ¼-mile distance from the proposed and projected development sites.

Per the *CEQR Technical Manual*, the study area boundary should be adjusted to include all census tracts with at least 50 percent of their area within the ¼-mile radius. As shown in Figure E-1, there are no census tracts with at least 50 percent of their area within the ¼-mile radius. Small portions of census tracts 1, 179 and 189 lie within the ¼-mile radius and their inclusion in the study area is not warranted. By contrast, although less than 50 percent of census tract 199 lies within the ¼-mile radius, given that a majority of the ¼-mile radius area lies within the census tract, including the proposed and projected development sites, and a study area must contain at least one census tract, census tract 199 was identified as the only census tract within the study area.[1]

There are no publicly-accessible open spaces located within the study area. There is one very small open space which does not contain seating, the 0.01-acre greenstreet triangle bound by Hunters Point Avenue, Van Dam Street, and Gale Avenue in census tract 199, but it does not meet the criteria for inclusion in an open space assessment as described in the *CEQR Technical Manual*. However, immediately outside the study area boundary on 47th Avenue but located within the ¼-mile radius, there is a publicly-accessible open space called LIC Roots Community Garden, providing passive recreation space. This is the only publicly-accessible open space located within the ¼-mile radius. Accordingly, LIC Roots Community Garden is included in the assessment even though it is outside the census tract-defined study area boundary. In this way, the assessment allows for an analysis of the open spaces ratios in the study area.

[1] A substantial portion of census tract 199 located outside the ¼-mile radius encompasses First Calvary Cemetery, a 119-acre property that has a relatively small workforce and its own on-site private open space. As such, its inclusion in the study area would not materially affect the assessment of conditions within a reasonable walking distance for non-residents of the rezoning area.

**Figure E-1**
**Open Space Study Area**




## Legend

- Study Area
- 199 — Census Tract Numbers and Boundaries
- Rezoning Area
- 1/4-Mile Radius
- Development Sites
- Open Space

0 0.125 0.25 0.5 Miles

### *Analysis Framework*

The *CEQR Technical Manual* methodology suggests conducting an initial quantitative assessment to determine whether more detailed analyses are appropriate, but also recognizes that for projects that introduce a large population in an area that is underserved by open space, it may be clear that a full, detailed analysis should be conducted.

With the passive open space resource in the study area, the adequacy of open space in the study area can be assessed both quantitatively and qualitatively. The quantitative approach looks at the open space acreage to the population in the study area and compares the ratio with the City's guidance. The qualitative assessment examines other factors that may have an impact on conclusions about the adequacy of open space resources in the study area. Specifically, the analysis in this attachment includes:

- As the proposed action would generate new employees and the study area is characterized by a workforce population that may use public open spaces, the number of existing employees in the study areas has been calculated, based on reverse journey-to-work census data provided by Census Transportation Planning Products (CTPP), which is identified from 2006-2010 estimates from the American Community Survey (ACS).
- As the study area also contains a school, the student population of the study area also has been identified as part of the non-residential open space analysis, based on data available from the Department of Education.
- An inventory of all publicly accessible passive recreational facilities in the non-residential open space study area. As noted above, this consists of one resource, the LIC Roots Community Garden. Characteristics of this resource's facilities, condition, and utilization have been identified by conducting research and a field visit.
- An assessment of the quantitative ratio of open space in study areas by comparing the ratio of open space acreage to the non-residential population in study area and comparing this open space ratio with citywide local open space norms.
- An evaluation of qualitative factors affecting open space use has also been conducted, including the condition of the study area's public open space resource and identification of private open space resources that are available to some or all populations in the study area.
- A determination of the adequacy of open space in the non-residential open space study areas.
- An assessment of expected changes in future levels of open space supply and demand in the 2023 analysis year, based on other planned development projects and anticipated background growth rates within the open space study areas. The daytime population of the proposed and projected development sites is estimated based on standard ratios of one employee per 250 sf of office, three employees per 1,000 sf of retail, and one employee per 15,000 sf of warehouse uses. Background growth rate was based on changes in the non-residential populations in the census tract 199 between 2000 and 2010. Open space ratios are calculated for future conditions and compared to determine changes in future levels of adequacy.

### *Impact Assessment*

Impacts are based in part on how a project would change the open space ratios in the study area. According to the *CEQR Technical Manual*, an open space ratio decrease is generally considered to be a significant adverse impact, warranting a detailed analysis, if it would approach or exceed five percent in areas that are currently below the City's median community district ratio of 1.5 acres per 1,000 residents. If a study area exhibits a low open space ratio (e.g., 0.15 acres of passive space per 1,000 non-residential users), indicating a shortfall of open space, smaller decreases in that ratio as a result of the project may constitute significant adverse impacts. In addition to the quantitative factors cited above, the *CEQR Technical Manual* also recommends consideration of qualitative factors in assessing the potential for open space impacts. These include the availability of nearby destination resources, the beneficial effects of new open space resources provided by a project, and the comparison of projected open space ratios with established City guidance. It is recognized that the open space ratios of the City guidance described above are not feasible for many areas of the City, and they are not considered impact thresholds on their own. Rather, these are benchmarks that indicate how well an area is served by open space.

## D. EXISTING CONDITIONS

### Study Area Population

Since the study area is not a residential area[2], this assessment is only considering non-residential population in calculating open space ratios. Based on US Census American Community Survey (ACS) reverse journey-to-work data compiled by Census Transportation Planning Package (CTPP) program, the existing worker population in the study area is estimated at approximately 10,130 workers. With Robert F. Wagner Secondary School for Arts and Technology, the non-residential study area also has approximately 635 students. With workers and students combined, the total non-residential study area population is 10,765. Refer to Table E-1.

**Table E-1, Existing Non-residential population**

| Census Tract | Worker population | Student Population | Total |
|---|---|---|---|
| 199 | 10,130 | 635 | 10,765 |

### Inventory of Publicly-Accessible Open Space

According to the *CEQR Technical Manual*, open space may be public or private and may be used for active or passive recreational purposes. Publicly accessible open space is defined as facilities open to the public at designated hours on a regular basis and is assessed for impacts using both a

[2] Census tract 199, which covers approximately 393 acres, was newly created for the 2010 Census by merging two tracts, 191 and 197. Such mergers typically occur due to small residential size. Per the 2010 Census, the merged tract has a population of 1,028 residents, including 613 in households and 415 in group quarters. The group quarters population is likely associated with the Queensboro Correctional Facility and its residents would not be able to access public open space.

quantitative and a qualitative analysis, whereas private open space is not accessible to the general public on a regular basis and is considered qualitatively. Field surveys and secondary sources were used to determine the number, availability, and condition of publicly accessible open space resources in the non-residential and residential study areas.

An open space is determined to be active or passive by the uses that the design of the space allows. 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 and typically contains benches, walkways, and picnicking areas. However, some passive spaces can be used for both passive and active recreation, such as a green lawn or riverfront walkway, which can also be used for ball playing, jogging, or rollerblading.

The study area contains one publicly accessible open space that is included in the quantitative analysis. This is the LIC Roots Community Garden, a 0.11-acre passive recreation space located on the south side of 47th Avenue between 29th and 30th streets. Refer to Table E-2.

**Table E-2, Study Area Public Open Space**

| Name | Location | Owner/ Agency | Amenities | Acreage | Passive | | Active | | Condition | Utilization |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Acres | % | Acres | % | | |
| LIC Roots Community Garden | 29-08 47th Avenue | GrowNYC | Benches, garden, landscaped areas | 0.11 | 0.11 | 100 | 0.00 | 0 | Fair | Moderate |

### *Non-Residential (¼-mile Study Area)*

As shown in the above table, the non-residential study area contains a total of 0.11 acres of open space, which serves as a passive recreational facility. LIC Roots Community Garden is located northwest of the proposed and projected development sites. It was established in 2000 and is operated by GrowNYC, an organization which describes itself as a sustainability resource. The passive recreational facilities here include benches and landscaped areas.

## Assessment of Open Space Adequacy

### *Non-Residential (¼-mile Study Area)*

The analysis of the non-residential study area focuses on passive open spaces that may be used by the workers and students in the area. To assess the adequacy of open spaces in the area, the ratio of non-residents to acres of passive open space is compared to the City's planning guidance of acres of passive open space per 1,000 workers.

*Quantitative Assessment*

The non-residential study area includes a total of 0.11 acres of passive open space. A total of 10,130 workers and 635 students, combined to form a total non-residential population of 10,765

present in the study area, i.e., census tract 199. The *CEQR Technical Manual* has labeled this area as an underserved area. The ¼-mile study area has a passive open space ratio of 0.0102 per 1,000 workers, which is much less than the City's guideline of 0.15 acres. Refer to Table E-3.

**Table E-3, Existing Open Space Ratio**

| Available open space (acres) | Current Non-residential Population, census tract 199 | Open space ratio (per 1,000 people) |
|---|---|---|
| 0.11 | 10,130 | 0.0102 |

*Qualitative Assessment*

The passive space in the non-residential study area is in fair condition, and the use level is moderate. There are features such as benches, landscaped areas and plantings in the passive space. In addition to this public open space, the two-block long section of 47th Avenue between 31st Street and 30th place includes the primary entrances to both the Factory and Falchi buildings. Both of these buildings are set back from the sidewalk, providing space for seating areas including benches and picnic tables and are host to food trucks along the sidewalk. These buildings do not provide a formally designated publicly-accessible open space but do act as open space resources for the customers of their retail facilities. Each of these spaces covers approximately 0.06 acres.

## E. FUTURE WITHOUT THE PROPOSED ACTION (NO-ACTION CONDITION)

### Study Area Population

In the 2023 future without the proposed project, it is anticipated that the existing building on the proposed development site, 48-18 Van Dam Street, would be fully occupied with 34,365 gsf of office space and 22,267 gsf of local retail space. This would result in an increase of 205 workers.[3] (On the two projected development sites, no changes in on-site employment are projected as the existing uses would continue under No-Action conditions.) In addition to the projected development site, as discussed in Attachment C, 'Land Use, Zoning, and Public Policy," there are two other study area No-Action developments with anticipated employee generation. These involve the re-occupancy of space in The Bindery, The Factory and the full occupancy of Lot 1, that combined will introduce 1,828 additional workers.

In addition, a worker population background growth rate to account for smaller developments and general trends was determined based on growth that occurred between 2000 and 2010, according to Census reverse-journey-to-work data. When calculating the growth rate in census tract 199, an annual rate of 0.3471 percent was identified. This was then used to estimate a background growth of 467 workers added to the study area from 2010 to 2023, under the No-Action condition.

[3] There is one existing tenant in the proposed development site building which is expected to remain in the future under No-Action and With-Action conditions, but to be conservative no credit is taken for this company's existing employees.

No changes to the student population in the study area is anticipated.

Overall, with increased workers on the projected development site, the two No-Action developments, and due to background growth, the study area non-residential population would increase by 2,295 workers between existing and No-Action conditions, from 10,765 to 13,060. Refer to Table E-4.

**Table E-4, No-Action Study Area Non-residential Population**

| Existing Non-residential Population | No-Action development employee generation | Background Growth (till 2023) | No-Action 2023 Population |
|---|---|---|---|
| 10,765 | 1,828 | 467 | 13,060 |

### Open Space Resources

There are no new publicly-accessible open spaces expected to be added to the study area under the No-Action condition.

### Assessment of Open Space Adequacy

#### *Non-Residential (¼-mile Study Area)*

As described above, the non-residential population of the study area is expected to increase but there is no expected increase in the amount of public open space in the 2023 No-Action condition. As a result, the passive open space ratio is expected to decrease. The passive space would still be 0.11 acres whereas the non-residential population would be approximately 13,060 with the background growth and No-Action developments' employees and current non-residential population combined. As a result, the study area open ratio would change by 0.0018 from 0.0102 under the existing condition to 0.0084 under the No-Action condition, a 17.6 percent decrease.

## F. FUTURE WITH THE PROPOSED ACTION (WITH-ACTION CONDITION)

Under With-Action conditions, the proposed action would facilitate the development (project increment) of Block 284 with office spaces in Lots 1, 6 and 14 and retail spaces in Lots 6 and 14. The existing uses on Lots 6 and 14, which would remain under No-Action conditions, would be removed. An increment of 225,412 gsf of office and 10,434 gsf of local retail space would be added and 16,800 gsf of warehouse space would be eliminated.

### Direct Effects

Direct effects occur when a project results in the loss of public open space, changes the use of an open space so that it no longer serves the same user population, limits public access to an open space, or results in increased noise, air pollutant emissions, odor, or shadows that would temporarily or permanently affect the usefulness of a public open space.

The proposed action would not remove or alter any existing publicly accessible open spaces, and would not cause any significant adverse direct impacts to open space. Similarly, as there are no publicly-accessible open spaces in the immediate vicinity of the proposed and projected development sites, the proposed action would not result in any construction related effects or cast incremental shadows on any publicly-accessible open spaces.

## Indirect Effects

### *Study Area Population*

The proposed action would introduce a net increment of approximately 1,126 workers through the addition of 259,777 gsf of office space and 29,191 gsf of local retail space and the elimination of 16,800 gsf of warehouse space.[4] With these 1,126 workers added to the 13,060 non-residential population in the study area under the No-Action condition, the non-residential study area population under With-Action conditions would be 14,186. Refer to Table E-5.

**Table E-5, With-Action Study Area Population**

| Existing Population | No-Action 2023 Population | With-Action development employee generation | Resulting With-Action 2023 Population |
|---|---|---|---|
| 10,765 | 13,060 | 1,126 | 14,186 |

### *Open Space Resources*

There are no new publicly-accessible open spaces expected to be added to the study area under the With-Action condition.

### *Assessment of Open Space Adequacy*

*Non-Residential (¼-mile) Study Area*

As described above, under With-Action conditions the non-residential population of the study area is expected to increase but there is no expected increase in the amount of public open space in the 2023 With-Action condition. As a result, the passive publicly accessible open space ratio is expected to decrease. The passive space would still be 0.11 acres whereas the non-residential population would be approximately 14,186. As a result, the study area publicly accessible open ratio would change by approximately 0.0006 from 0.0084 under the No-Action condition to 0.0078 under the With-Action condition, a 7.9 percent decrease. However, the applicant is committing to providing 877 sf of private open space on its property, specifically a portion of the former railroad siding along the site's Hunters Point Avenue frontage. This commitment would be codified in an RD executed at the time of project approval. This RD, running with the land, would require as a condition of the expansion of the proposed development site that 877 sf of private open space be provided consistent with a plan indicating the location of seating and plantings. The RD would

[4] No credit is taken for the removal of workers associated with the vehicle storage lot on Lot 14.

require that workers based in the proposed project as well as workers from the projected developments have access to this private open space.

### *Determining Impact Significance*

There would be no direct displacement or alteration of existing open space within the study area as a result of the proposed action. However, a significant adverse open space impact may occur if a proposed project would reduce the open space ratio, thereby overburdening existing facilities, in an already underserved open space study area. The optimal ratio for worker populations is 0.15 acres of passive open space per 1,000 non-residents. Table E-6 expresses the percentage change from No-Action to With-Action conditions in the non-residential study areas.

**Table E-6, Open Space Ratios Summary**

| Ratio | *CEQR Technical Manual* Open Space Guidance | Open Space Ratios per 1000 | | | Percent Change (No-Action to With-Action Condition) |
|---|---|---|---|---|---|
| | | Existing | No-Action | With-Action | |
| ***Non-Residential (¼-Mile Study Area)*** | | | | | |
| Passive – Workers | 0.1500 | 0.0102 | 0.0084 | 0.0078 | -7.9% |

*Non-residential (¼-mile) Study Area*

The *CEQR Technical Manual* states that a proposed project may result in a significant adverse open space impact if it would reduce the open space ratio by more than 5 percent in areas that are currently below the City's median community district open space ratio of 1.5 acres per 1,000 residents. In areas that are extremely lacking in open space, a reduction as small as 1 percent may be considered significant, depending on the area of the City. These reductions may result in overburdening existing facilities or further exacerbating a deficiency in open space.

In the future with the proposed action, the non-residential study area's passive open space ratio would decrease by 7.9 percent, exceeding the 5 percent threshold. The study area is extremely lacking in public open space. In consultation with the NYC Department of Parks and Recreation, the analysis shows that without the private open space included as a part of the development, the proposed action would have the potential to result in a significant adverse open space impact due to the additional demand for open space that would be generated by the action-generated workers. However, the project includes sufficient private open space to preclude a potential open space impact.

The private open space is adequately sized for the projected increase in non-residents as a result of the proposed development, as established by the fact that when factored into the open space ratio, the With-Action open space ratio [remains the same or only decrease by]. As such, the lead agency, in consultation with NYC Parks, determined that by providing sufficient open space for action-generated employees, the proposed action would not exacerbate the study area's public open space deficiency and thereby this measure would preclude the potential impact.

# ATTACHMENT F:
# URBAN DESIGN AND VISUAL RESOURCES

## A. INTRODUCTION

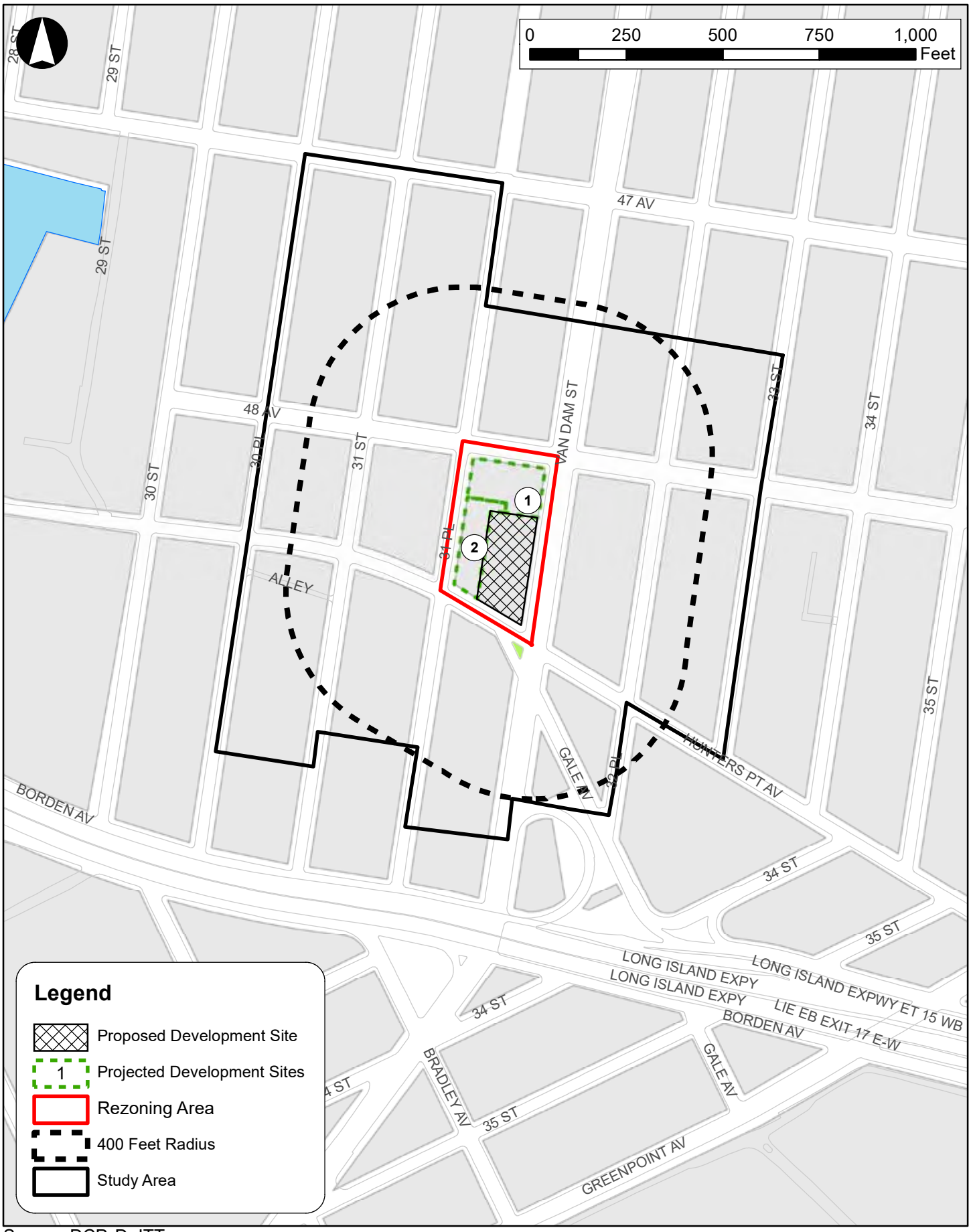
The 2020 *City Environmental Quality Review* (CEQR) *Technical Manual* states that the urban design components and visual resources determine the "look" of a neighborhood – its physical appearance, including the street pattern, the size and shape of buildings, their arrangement on blocks, streetscape features, natural resources, and noteworthy views that may give an area a distinctive character. Pursuant to CEQR methodology, actions that would allow a project to potentially obstruct view corridors, compete with icons in the skyline, or make substantial alterations to the streetscape of a neighborhood by noticeably changing the scale of buildings may warrant a detailed urban design and visual resources analysis. Since the proposed action/RWCDS would facilitate the construction of buildings that would be different in bulk, type, and use from the urban design of the project site and the surrounding area, a detailed urban design and visual resources analysis was prepared.

This attachment considers the potential for the proposed action to affect urban design characteristics and visual resources of the project area and the surrounding study area. As discussed in Attachment A, "Project Description," the proposed action would facilitate the development of an eight-story commercial building with ground floor retail, offices with accessory meeting spaces, training areas, and parking at 48-18 Van Dam Street (Block 284, Lot 1), a 29,783-square-foot (sf) corner lot, in southeastern Long Island City, Queens Community District 2.. The rezoning area (Block 284) is bound by 48th Avenue to the north, Van Dam Street to the east, Hunters Point Avenue to the south, and 31st Place to the west. The technical analysis presented in this attachment follows the guidance of the *CEQR Technical Manual* and addresses each of the previously listed characteristics for existing conditions, the future without the proposed action (the No-Action condition), and the future with the proposed action (the With-Action condition) for proposed and projected development.

As described in Attachment A, "Project Description," the proposed action would consist of a zoning map change affecting a total land area of 306,369 sf. The zoning map amendment would change the existing M2-1 (Block 284) district to an M1-5 district.

Under the With-Action condition, the existing two-story, 56,632-gsf building on the proposed development site would be redeveloped by adding 127,510 gsf of space across six stories, for a total of eight stories and a height of approximately 111.3 feet. There also would be 877 sf of on-site private open space. The RWCDS includes two other lots as projected development sites under the With-Action condition, both also on Block 284 (shown in Figure F-1). The RWCDS assumes that both of these lots would be built to the maximum floor area ratio (FAR) allowed in M1-5 districts (5.0), and would reach a height of approximately 83.5 feet. Lots 14 and 6 would be redeveloped with a 131,075 gsf and 108,683 gsf buildings, respectively. Each of these buildings would be six stories tall and primarily contain commercial office uses with ground floor retail and below-grade accessory parking.

**Figure F-1**
**Urban Design Study Area**




Source: DCP, DoITT

As discussed in Attachment C, "Land Use, Zoning, and Public Policy," the existing M2-1 district mapped on Block 284 allows a maximum FAR of 2.0 for manufacturing and commercial uses. The M2-1 district allows for a maximum base height of 60 feet before being subject to the sky exposure plane, but also requires a 20-foot minimum rear yard.

As the proposed action would result in the construction of new development built due to a rezoning that would change bulk regulations and increase permitted density, and urban design and visual resources analysis is warranted.

## B. PRINCIPAL CONCLUSIONS

The proposed action would not result in any significant adverse impacts related to urban design and visual resources. The proposed action would permit development that is similar to the existing buildings within and surrounding the proposed rezoning area. The analysis in this attachment finds that the proposed action would not result in development that would alter views of any visual resources from publicly-accessible locations within the rezoning and surrounding study area.

## C. METHODOLOGY

Together, the urban design components and visual resources of an area define the distinctive identity of a neighborhood. In an urban design assessment under CEQR, one considers whether and to what degree a project may change the visual experience of a pedestrian in the study area. The assessment focuses on the components of the proposed project that may have the potential to alter the arrangement, appearance, and functionality of the built environment from the pedestrian point of view. These components include building bulk, use, and type; building arrangement; block form and street pattern; streetscape elements; street hierarchy; and natural features. The concept of bulk is created by the size of a building and the way it is massed on a site. Height, length, and width define a building's size; volume, shape, setbacks, lot coverage, and density define its mass. A visual resources analysis identifies and assesses the effects of the proposed action on the study area's visual resources, which are its unique, or important public view corridors, vistas, or natural or built features. Waterfront views, public parks, landmarked structures, landmarked districts, and natural resources are examples of visual resources. As per the guidance of CEQR, only views of visual resources from public and publicly-accessible locations will be assessed. The analysis in this attachment addresses each of these characteristics of existing conditions and the future without and with the proposed action for the year 2023.

In accordance with the *CEQR Technical Manual*, this assessment considers the effects of the proposed action/RWCDS on the following elements that play an important role in the pedestrian's experience of public space:

- ***Streets*** – the arrangement and orientation of streets define location, flow of activity, street views, and create blocks on which buildings and open spaces are arranged. Other elements

including sidewalks, plantings, streetlights, curb cuts, and street furniture also contribute to an area's streetscape.

- ***Buildings*** – building size, shape, pedestrian and vehicular entrances, lot coverage and orientation to the street are important urban design components that define the appearance of the built environment.
- ***Open Space*** – open space consists of public and private areas that do not include structures, such as parks and other landscaped areas, cemeteries, and parking lots.
- ***Natural Features*** – natural features include vegetation, geologic and aquatic features that are natural to the area.
- ***View Corridors and Visual Resources*** – visual resources include significant natural or built features, such as important view corridors, public parks, landmark structures or districts, or otherwise distinct buildings.
- ***Wind*** – Channelized wind pressure from between tall buildings and down-washed wind pressure from parallel tall buildings may cause winds that may jeopardize pedestrian comfort and safety.

As the proposed action would result in physical changes to the proposed development site and projected development sites beyond the bulk and form currently permitted as-of-right, it has the potential to result in development that could alter the arrangement, appearance, and functionality of the built environment and, therefore, change a pedestrian's experience of the project area. Therefore, it is appropriate to assess the proposed actions/RWCDS's potential impacts to urban design and visual resources. As described in Attachment A, "Project Description," this analysis assumes that the With-Action condition would attempt to maximize the building envelope permitted through zoning. The urban design analysis presented below follows the guidance of the *CEQR Technical Manual.*

## Wind Screening

As per Section 230 of the *CEQR Technical Manual,* projects involving multiple, tall buildings at or in close proximity to the waterfront may result in an exacerbation of wind conditions due to "downwash" effects that may affect the pedestrian experience in the area. The proposed action is not expected to result in the construction of unusually tall buildings. Under the proposed action, building heights in the project area are expected to be approximately 83.5 to 111 feet tall, which is not significantly taller than other buildings in the area. Additionally, the project area is located in an inland area of Queens that does not typically experience high wind conditions. Therefore, a study of wind conditions and their effect on pedestrian level safety is not warranted.

## Definition of Study Area

The *CEQR Technical Manual* defines the urban design study area as the area "where the project may influence land use patterns and the built environment, and is generally consistent with [the study area] used for the land use analysis." The urban design study area is divided into a rezoning area (where urban design effects of the proposed action are direct) and a secondary study area (where the effects of the proposed action are indirect). As discussed in Attachment C, the secondary study area for this analysis has been identified as a 400-foot radius from the rezoning area, with that boundary extended to include buildings that fall partially within the 400-foot radius.

This is considered the area within the surrounding area whose land use and built environment have the potential to be indirectly effected by the proposed action.

The urban design and visual resources study area includes all buildings located within or substantially within a 400-foot radius of the rezoning area (seen in Figure F-1). The study area extends as far north as 47th Avenue, as far east as 33rd Street, as far south as the midblock between the Long Island Expressway and Hunters Point Avenue, and as far west as 30th Place.

The analysis is based on field visits, aerial views, photographs, and other graphic images of the rezoning area and surrounding study area. Zoning calculations, including floor area calculations, and building height information is also provided. An aerial photo of the study area is provided in Figure F-2 and a photo key for figures displaying the rezoning area and study area is provided in Figure F-3. Figures F-4 through F-7 present photos and display urban design characteristics of the study area.

## D. PRELIMINARY ASSESSMENT

Under CEQR, a preliminary assessment of urban design 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; and 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 action. According to the *CEQR Technical Manual*, detailed analyses are generally appropriate if an action introduces a new building requiring exception to existing zoning and would result in changes in height and setback requirements. As the proposed action includes a zoning map amendment that would facilitate buildings with bulk characteristics and density beyond what is permitted as-of-right, a detailed urban design and visual resources assessment is warranted.

## E. EXISTING CONDITIONS

### Rezoning Area

The project area is composed of a one-block area which is currently occupied by manufacturing/industrial, commercial, and transportation/utility uses. The area encompasses Queens Block 284. This block can be seen in relation to the surrounding area in Figure F-1.

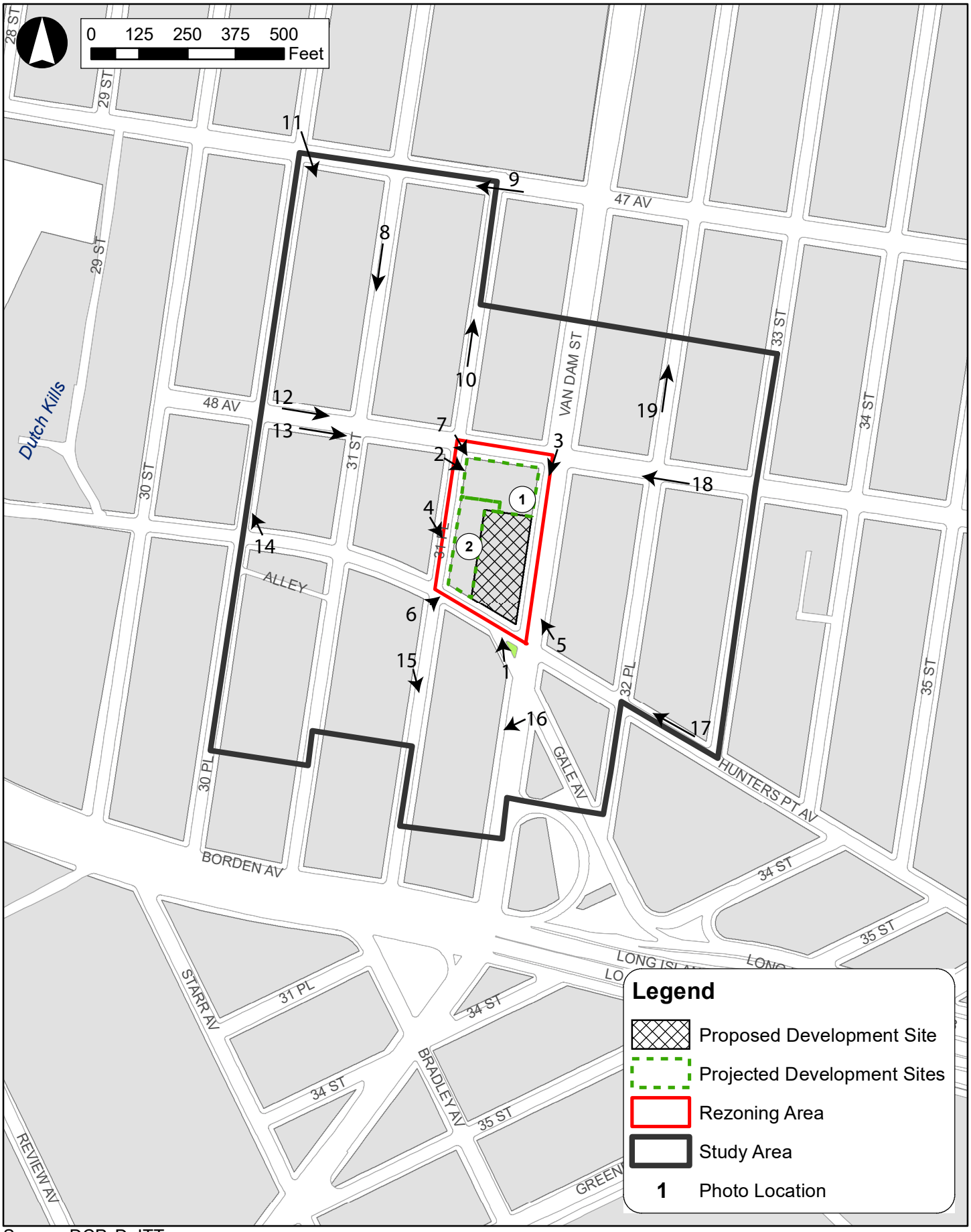
*Streets*

As seen in Figure F-1 the rezoning area is irregular in shape and bound by 48th Avenue to the north, Van Dam Street to the east, Hunters Point Avenue to the south, and 31st Place to the west. Block 284 is trapezoidal in shape and has 180.02 feet of frontage along 48th Avenue, 405.86 feet of frontage on Van Dam Street, 191.68 feet of frontage on Hunters Point Avenue, and 331.92 feet of frontage along 31st Place.

**Figure F-2**
**Urban Design Aerial**




Source: DCP, DoITT




Source: DCP, DoITT




1. Looking south at the Potential Development Site from the intersection of Van Dam Street and Hunters Point Avenue.



2. The northern sidewalk of Projected Development Site #1 facing east from the intersection of 48th Avenue and 31st Place.




3. Looking west at Projected Development Site #1 from the intersection of Van Dam Street and 48th Avenue.



4. Project Development Site #2 facing southeast from the intersection of 48th Avenue and 31st Place.




5. The Proposed Development site seen from the intersection of Van Dam Street and Hunts Point Avenue



6. Looking northeast towards Projected Development Site #2 from the interesection of 31st Place and Hunters Point Avenue.



7. Looking southeast towards Projected Development Site #1 from the intersection of 31st Place and 48th Avenue.



8. Sidewalk on the eastern side of the Factory Building facing south along 31st Street



9. The sidewalk on the northern side of the Falchi Building facing west from the intersection of 47th Avenue and 31st Place.



10. The eastern sidewalk of the Falchi Building facing north along 31st Place.



11. Looking southeast from the intersection of 30th Place and 47th Avenue towards the Factory Building.



12. The southern sidewalk of the Factory Building. Facing east from the intersection of 48th Avenue and 30th Place.



13. Southern sidewalk of 48th Avenue, east of 30th Place, facing east.



14. The Bindery building facing northwest from the intersection of Hunters Point Avenue and 30th Place.



15. 31st Place, south of Hunters Point Avenue, facing south.



16. Facing southwest from the intersection of Hunters Point Avenue and Van Dam Street.



17. Looking west towards the Manhattan skyline from the intersection of Hunters Point Avenue and 33rd

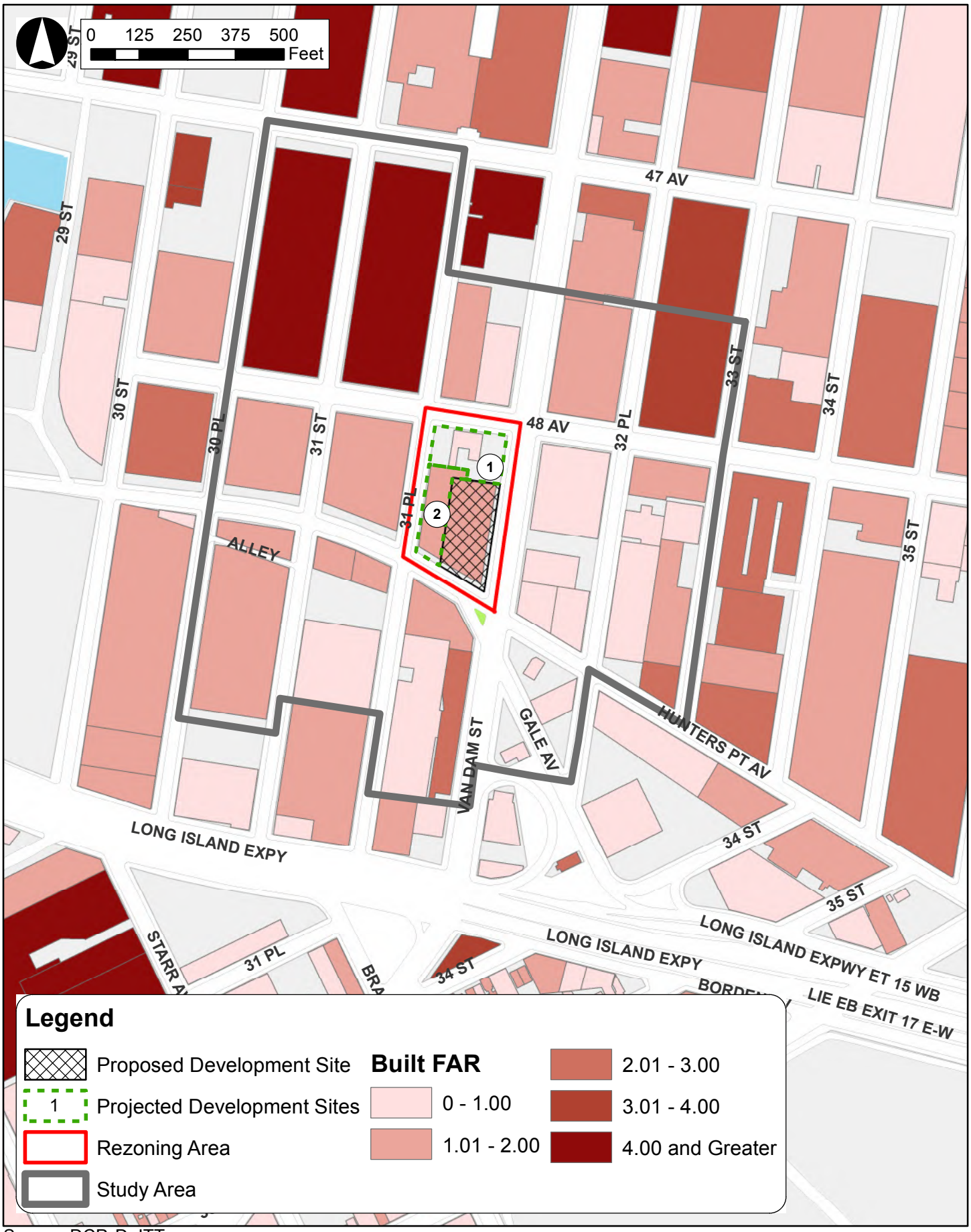


18. Facing west from 48th Avenue between 32nd Place and 33rd Street.



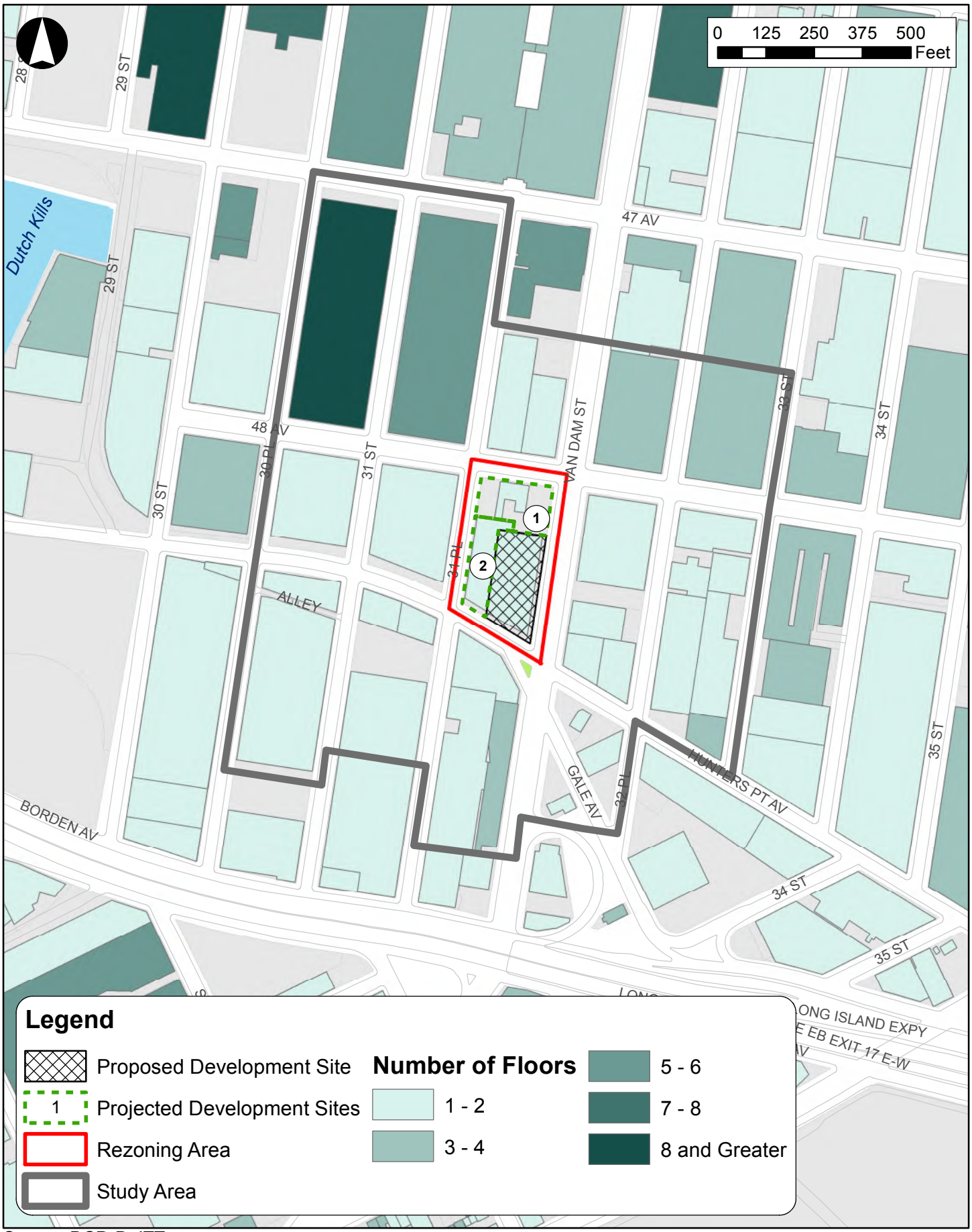
19. The western side of 32nd Place, north of 48th Avenue, facing north.

**Figure F-6**
**Built FAR**




Source: DCP, DoITT

**Figure F-7**
**Building Height**




Source: DCP, DoITT

Hunters Point Avenue and 31st Place each have a width of 60 feet with 30 feet dedicated for roadway and each sidewalk measuring 15 feet in width. There is no sidewalk along the western portion of Block 284 along 31st Place. Currently, this area is used for parking area but is unpaved (shown in Figure F-4a). 48th Avenue is 80 feet wide with a 45-foot wide roadbed and 17.5 feet of sidewalk on either side of the street. Finally, Van Dam Street is 100 feet wide, operating as a four-lane street with a 60-foot wide roadbed and 20-foot wide sidewalks on either side. 48th Avenue is a two-lane, two-way street that carries east and westbound traffic with parking lanes on either side of the street. Hunters Point Avenue, the only other east-west roadway in the study area is a two-way street with no parking lanes, though as seen in Figure F-4a cars are frequently parked on the sidewalks. Hunters Point Avenue differs from other streets in the rezoning area in that it does not run parallel/perpendicular to nearby streets. As seen in Figure F-1, as Hunters Point Avenue extends east the street curves to the southeast, creating irregular block shapes along the avenue. The north/south bound streets in the rezoning area include 31st Place and Van Dam Street. 31st Place and Van Dam Street each contain two-way traffic with parking lanes on either side of the street. Paving materials in the area generally consists of the typical asphalt for roadways and concrete for sidewalks.

Streetscape elements throughout the rezoning area are limited. Along 31st Place the sidewalks include traffic signage and standard street lamps. Much of the sidewalk surface in these areas is bare and used as entrances to underground parking or loading areas. The 48th Avenue streetscape elements include only signage and streetlights. Just north of the proposed development site and projected development site 1, along 48th Avenue, much of the sidewalk area is used for parking for the Taxi Company and the Enterprise Car Rental shop (shown in Figure F-4a). In both of these areas, there are few windows facing these streets at ground level. In contrast, Van Dam Street includes street trees, signage, street lighting, and several ground floor retail spaces on the proposed development site that contain windows facing the sidewalk (shown in Figures F-4a and F-5).

*Buildings*

The rezoning area includes three buildings on Block 284. On Lot 1, (proposed development site) the existing building is a two-story 56,632-gsf building formerly occupied by warehouse and manufacturing uses, which in recent years has been occupied by retail, office, and general commercial uses. The existing building on the proposed development site covers the majority of the lot. Along the southern side of the block the existing building is set back from the lot line approximately 15 feet, in an area that was formerly a private freight railroad siding. The area between the building and the lot line is now used as a parking and loading area (shown in Figure F-4a). To the north of the proposed development site on Lot 14 (projected development site 1) is a one-story 3,510-gsf building occupied by an automobile sales, leasing, and repair business and also a small storefront business serving the taxi industry that covers a small portion of the lot. Finally, on Lot 6 (projected development site 2 is a two-story, 16,800-gsf industrial building that covers most of the lot, with the exception of a setback area along Van Dam Street, which is now used for parking and loading but formerly part of a private freight railroad siding.

*Visual Resources*

There are no notable visual resources located within the project area. Visible from the project area facing west from 48th Avenue and Hunters Point Avenue are views of the Manhattan skyline (shown in Figure F-8).

*Open Space*

As defined by the *CEQR Technical Manual* for the purposes of urban design assessment, open space is defined as unenclosed areas including public and private areas such as parks, yards, cemeteries, parking lots, and privately owned public spaces (POPS). Though there are no parks or landscaped areas within the rezoning area, projected development site 1 is currently an automobile sales, leasing, and repair business and vehicle storage facility with a one-story building occupied by a taxi related company with an abundance of open area not occupied by a building. As seen in Figure F-4a, a shelter structure (previously used by the former gas station on the property) is set back from the property line, creating a piece of open space at the corner of 48th Avenue and Van Dam Street. The western portion of this site includes an open vehicle storage lot for taxis.

*Natural Features*

The rezoning area has a slightly uneven topography and slopes downward approximately 1 to 2 feet from 48th Avenue to the south. As mentioned in the discussion of open space in the rezoning area there are no green spaces or unique natural features in the rezoning area.

**Study Area**

The larger study area, not including the one block within the rezoning area, contains all or part of 14 blocks. As discussed previously, the study area extends as far north as 47th Avenue, as far east as 33rd Street, as far south as the midblock between the Long Island Expressway and Hunters Point Avenue, and as far west as 30th Place (as seen in Figure F-1).

*Streets*

The street pattern north of 48th Avenue in the larger secondary study area generally forms a grid that creates a set of rectangular blocks. Blocks throughout the study area commonly measure 180 to 200 feet in width and 600 feet in length. In the southern portion of the secondary study area, Hunters Point Avenue is a two-way street carrying east and westbound traffic. As seen in Figure F-1 as the road leads east it begins to turn to the southeast, creating irregular blocks shapes along the avenue. Blocks widths are unaffected by the avenue (as measured by their distance parallel to 48th Avenue), but block lengths in the study area south of 48th Avenue vary relative to the surrounding area. Blocks bound on the north by 48th Avenue and on the south by Hunters Point Avenue within the study area range from 250 to 630 feet in length, with the distances increasing from west to east as Hunters Point Avenue bends southeast away from 48th Avenue. Blocks to the south of Hunters Point Avenue within the study area range between 595 to 790 feet in length. Gale Avenue, running northwest to southeast in the southeastern portion of the study area also



Facing west from 48th Avenue between 32nd Place and 33rd Street.



Looking west towards the Manhattan skyline from the intersection of Hunters Point Avenue and 33rd

creates an irregularly shaped block bounded by 32nd Place to the east, Van Dam Street to the west, Hunters Point Avenue to the north, and Gale Avenue to the south.

Streets in the surrounding study area are similar to streets found adjacent to and within the rezoning area. 47th Avenue has street characteristics generally similar to 48th Avenue (described above), though The two-block section of 47th Avenue between 31st Place and 30th Place includes the most pedestrian oriented streetscape elements within the study area. As seen in Figure F-4b, this area includes the primary entrances to both the Factory and Falchi buildings. Both of these buildings are set back from the sidewalk along this frontage, providing space for public seating areas including benches and picnic tables and are host to food trucks along the sidewalk. (These setback areas were formerly occupied by private freight railroad sidings and in some areas vestigial tracks embedded in street beds and sidewalks are visible.) In front of the Falchi Building is a Citi Bike station located on the edge of the sidewalk. The bulk of pedestrian traffic on sidewalks in the study area is concentrated around 47th Avenue entrances to these buildings.

32nd Place and 33rd Street are each one-way streets, 60 feet wide with a 30-foot roadbed and 15-foot sidewalks on each side of the street. 32nd Place carries southbound traffic with parking lanes on each side of the street. 33rd Street carries northbound traffic and includes parking lanes on each side of the street. Aside from Hunters Point Avenue the only other irregularly aligned street in the secondary study area is Gale Avenue. Gale Avenue is a 60-foot wide street with 30 feet of roadbed and 15 feet of sidewalks on each side of the street and a parking lane on the southwestern side of the street. The street has one northwest bound lane that leads into Van Dam Street.

Streetscape elements found in the larger secondary study area are similar to those within the rezoning area. The study area has a noticeably less active streetscape than blocks north of 47th Avenue where La Guardia Community College and large office buildings occupied by City agencies and others organizations along with proximity to the 33rd Street-Rawson Street subway station support a more vibrant and articulated pedestrian environment. As shown in Attachment C, the majority of buildings in this area are used for manufacturing/industrial purposes, apart from the Factory and Falchi buildings. Pedestrian traffic in the area is limited due to the lack of residences and limited retail uses in the area. As such, much of the streetscape includes simple signage and street lamps. Sidewalks in the area are commonly used for loading/parking purposes, limiting areas for pedestrians to navigate the area. Van Dam Street (in front of the proposed development site), the area directly south of the Factory building, and a small portion of 33rd Street are the only areas south of 47th Avenue to contain any street trees/plantings or bike racks.

*Buildings*

There are approximately 29 buildings located in the surrounding study area. As discussed in Attachment C, the majority of these buildings are used for manufacturing/industrial and commercial uses (the latter predominantly consisting of the Factory and Falchi buildings in the northwest portion of the study area). Generally, buildings in the area can be described as warehouses that have either been maintained for manufacturing/industrial uses or have been repurposed for other uses. Seen in Figure F-7, buildings in the study area are generally built to the lot line and rise between one to four stories, though there are several mid-rise buildings that occupy large lots or full blocks. Buildings that are still occupied by manufacturing/industrial uses typically

lack any windows (or have been covered) on the ground floor. The siting and height of these buildings creates continuous streetwalls throughout much of the study area. In cases where buildings are not built to the lot line the space between the building and the lot line is typically occupied by parking or loading areas. In terms of bulk, buildings follow a trend similar to the one shown with building height. As seen in Figure F-6, higher density buildings are more frequently found in the northern section of the study area with density decreasing in the southern portion. The Factory and Falchi buildings are also notable in terms of their bulk and density, the former includes 970,000 gsf of retail, office, light manufacturing and institutional uses and reaches a maximum height of 175 feet and 11 stories. The latter is a six-story, 86-foot tall, 568,000 gsf building including office, retail, and light manufacturing uses.

*Visual Resources*

There are no notable visual resources located within the study area. Visible from the project area facing west from 47th Avenue, 48th Avenue, and Hunters Point Avenue are views of the Manhattan skyline as seen in Figure F-8.

*Open Space*

As previously discussed the amount of high lot coverage buildings drastically limits the amount of open space in the study area. Open space in the study area is limited to the greenstreet triangle located at the intersection of Hunters Point Avenue, Van Dam Street, and Gale Avenue and a manufacturing loading area on 31st Street and 31st Place south of Hunters Point Avenue. In addition, portions of some lots are occupied by accessory parking or other unenclosed service areas.

*Natural Features*

The topography of the surrounding study area is noticeably more varied than the rezoning area. From north to south the study area's topography slopes upward two to four feet from 47th to 48th avenues. Moving south from 48th Avenue the topography slopes downward two to three feet to the southern study area boundary. From east to west the topography slopes upwards across the study area from west to east. The study area does not contain any distinguishable natural features, aside from the previously discussed open spaces and street trees and planting throughout the area.

## F. FUTURE WITHOUT THE PROPOSED ACTION (NO-ACTION)

### Rezoning Area

In the 2023 future without the proposed action (No-Action conditions), the proposed development site and the two projected development sites are not expected to be redeveloped. Under this scenario the proposed development site would be re-occupied by retail and office uses and the existing uses on the projected development sites would remain unchanged.

### Study Area

In the larger secondary study area, no new buildings are expected to be constructed by 2023. As mentioned in Attachment C, there are two building improvements expected to be completed by the 2023 analysis year. The first is the renovations occurring at The Bindery, a conversion of an existing building from a manufacturing use to a blend of non-residential uses that will include 13,412 gsf of retail, 58,857 gsf of office use, and 69,167 gsf of manufacturing use. Also, the approximately 319,737 gsf of office space recently renovated Factory Building is expected to be reoccupied on an as-of-right basis, a process that already has been occurring on an ongoing basis, although this would result in interior changes that would not have a direct effect on exterior conditions related to urban design though it could contribute to the vitality of the area's streets.

## F. FUTURE WITH THE PROPOSED ACTION (WITH-ACTION)

### Rezoning Area

Under the With-Action condition, the proposed development site (Block 284, Lot 1) would be renovated and vertically expanded to accommodate six new stories of commercial office space, adding 127,510 gsf to the existing 56,632 gsf building. The eight-story building would have a six-story, approximately 83.5-foot tall base, would set back approximately 24 feet from the street frontage above the sixth floor and reach a maximum height of approximately 111 feet. As it would extend above the footprint of the site's existing building, it would have a streetwall at the front property line along Van Dam Street but would continue to be set back approximately 16 feet from Hunters Point Avenue, retaining the street level setback of the former private railroad siding on the site (the applicant intends to replace the current parking in this area with landscaping and paving that would provide 877 sf of private open space). On the ground floor, 22,267 gsf would be used as local retail space and on the second floor approximately 27,390 gsf would be used as accessory parking area. Under the RWCDS two projected development sites would be redeveloped under the With-Action condition. Projected Development Site 1 would be redeveloped with an approximately 131,075-gsf building, including 87,378 gsf of commercial office space, 17,897 gsf of ground floor local retail space, and 25,800 gsf of accessory parking space. Projected Development Site 2 would be redeveloped with an approximately 108,683-gsf new building consisting of 72,279 gsf of commercial office space, 14,804 gsf of ground floor local retail, and 21,600 gsf of accessory parking space. Both projected developments are expected to be six stories and approximately 83.5 feet tall, with streetwalls rising to the roof. Blocks 281 and 282 are not expected to change between No-Action and With-Action condition.

As discussed in Attachment C, the proposed M1-5 district permits a maximum FAR of 5.0. Under the RWCDS these three proposed and projected development sites are expected to fully utilize this 5.0 FAR. As represented in Figure F-6, existing building density on Blocks 281 and 282 measure 4.73 to 8.08 FAR respectively. Therefore, the proposed and projected buildings' density is consistent with the existing density in the rezoning area.

## Study Area

Though the proposed action would facilitate the development of buildings built with a bulk that is not permitted by existing zoning, the proposed and projected buildings would match the characteristics of other existing buildings found within the larger study area. The proposed development site and projected development sites would provide streetwalls similar to what currently exists in many sections of the study area.

Similar to the existing M2-1 and M1-4 districts, the M1-5 district does not stipulate a maximum building height. The M1-5 district allows a maximum base height of 85 feet, after which a 15- or 20-foot setback from the streetwall is required depending on whether the street is wide or narrow (wide streets are streets that are greater than 75 feet in width). After the required setback, the building's massing is controlled by the sky exposure plane. For analysis purposes it is assumed that the two buildings on the projected development sites would be built to six stories, reaching a maximum height of 83.5 feet with no setback from the streetwall (refer to Figure F-9). As shown in Figure F-10 the proposed development site would reach a maximum building height of eight stories. The seventh and eighth stories, shown in Figure F-10, would set back 24 feet from the streetwall. The building heights and bulk would be compatible with buildings in the rezoning area and larger study area as well. Building heights of existing buildings in the study area to the north of these potential and projected developments range from 30-155 feet. Existing buildings south of these sites are between 25-55 feet in height. The development of the potential and projected development sites would not be out of character to surrounding buildings with regard to height.

Overall, the proposed action would allow for development that is similar to the existing built environment. The proposed action and subsequent development would improve the urban design conditions of the study area by creating active ground floor uses that connect the area to other commercial office and ground floor retail uses and educational institutions to the north.

*Visual Resources*

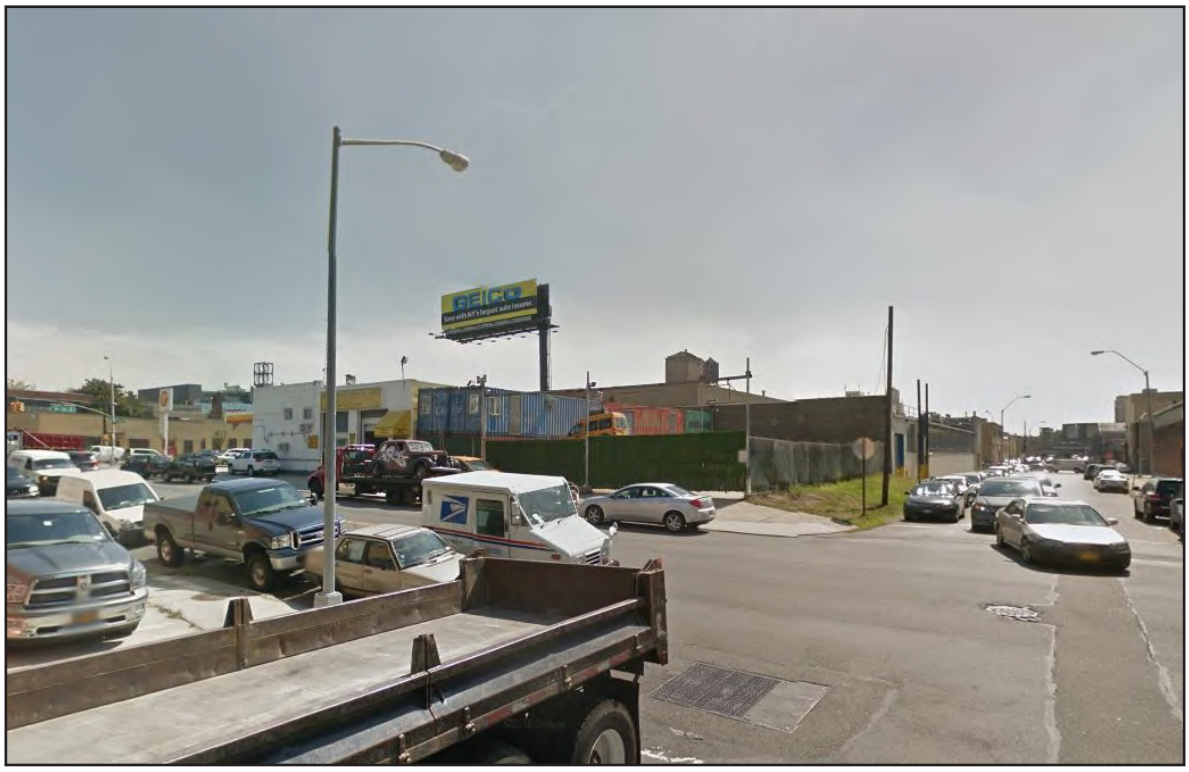
As discussed under the existing conditions, the rezoning and larger study areas do not contain any significant visual resources. The Manhattan skyline is visible from east-west streets within both of these areas. The redevelopment of these sites would not have the potential to affect any views of this resource, as all development would occur within existing blocks. Therefore, the proposed action would not result in any significant adverse visual resource impact.

## Summary

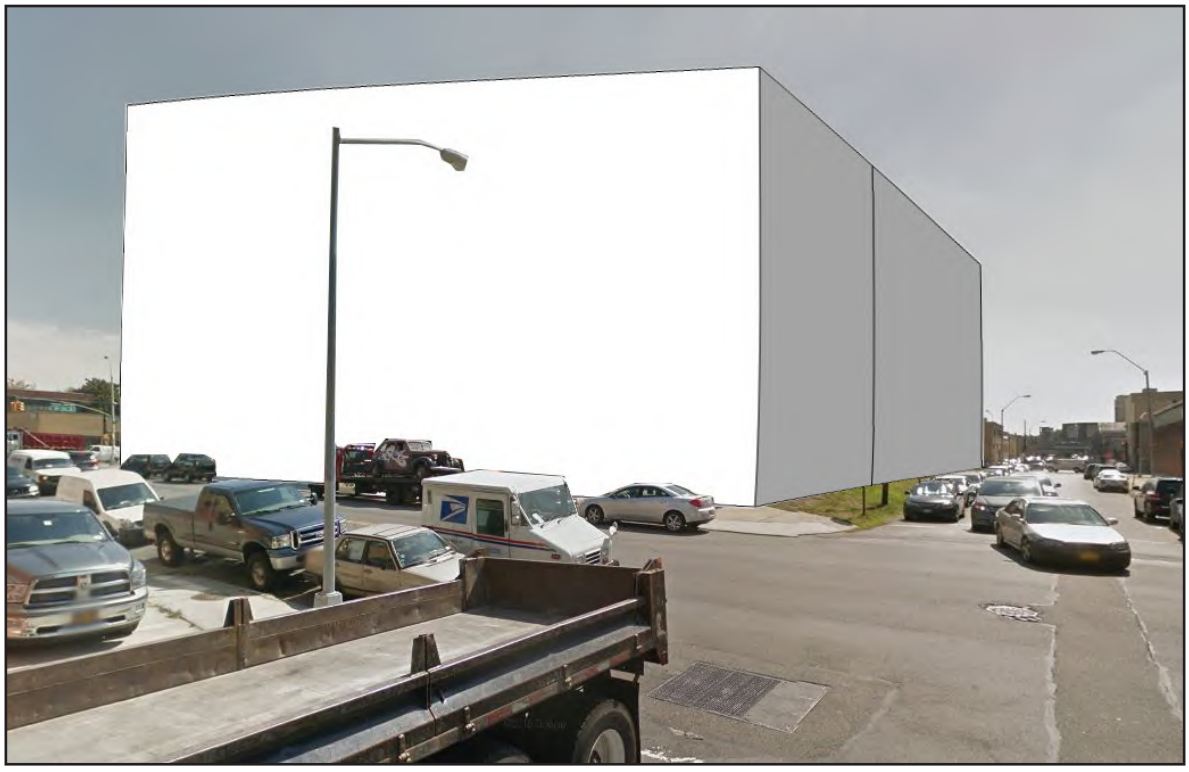
The proposed action would allow for new buildings with a greater amount of bulk than what is currently permitted under the existing zoning. Though the proposed M1-5 district has no height restriction (height is regulated by the sky exposure plane in M1-5 districts) it is assumed that new buildings as a result of the proposed action would range in height between six and eight stories, or 83.5 to 111 feet. Though the proposed action would result in an increase in height and bulk for buildings on the proposed and projected development sites, this development would be similar in scale to buildings currently found in the rezoning area and in the surrounding study area. Unlike buildings in the rezoning area and larger study area, the buildings generated under the With-Action condition would be required to incorporate a setback from the streetwall after reaching a maximum

**Figure F-9**

**Projected Development Sites 1 & 2: No-Action and With-Action Condition**




No-Action Condition



With-Action Condition

**Figure F-10**

**Proposed Development Site Ilustrative Rendering**



base height of 85 feet. Buildings such as the Falchi Building, the Factory Building, and others just outside the study area boundary to the north (such as the Queensboro Correctional Facility, Queens Atrium Corporate Center, and the LaGuardia Community College building) all rise continuously to their maximum building height, above 85 feet, without any setback from the streetwall. The permitted streetwall, up to a height of 85 feet ensures that buildings would be built to a similar scale as currently exists in the larger study area but also would be sensitive to the pedestrian experience by allowing for light and air in the affected area. The proposed action would facilitate development that would activate the streetscape by facilitating ground-floor retail uses that serve the needs of the area's growing commercial office workforce.

As these new sites will be built to the lot lines (apart from the retention of the ground level setback formerly used as a private railroad siding along Hunters Point Avenue part of which would be dedicated for use as an 877-sf private open space) but would not alter the street layout or extend above any public rights-of-way, the action-generated buildings would not have the potential to affect the view of any visuals resources from publically-accessible areas. Therefore, the proposed action would not result in any significant adverse urban design or visual resource impacts.

**ATTACHMENT G:**
**WATER AND SEWER AND INFRASTRUCTURE**

## A. INTRODUCTION

This attachment assesses the potential effects of the proposed and projected development sites on the City's water supply, wastewater treatment, and stormwater management infrastructure.

As outlined in Attachment A, "Project Description," the proposed action would involve the expansion of the existing two-story, approximately 56,632 gsf (53,800 zsf) building on proposed development site, by adding six stories. The proposed action would include the rezoning of one block in Queens Community District 2, tax Blocks 284 (the "project area"), specifically changing the zoning district on Block 284 from M2-1 to M1-5. In addition to the proposed development site, under the reasonable worst case development scenario (RWCDS), the project area also includes two other sites that are not owned or controlled by the applicant but which are considered likely to be redeveloped as a result of the proposed. These include Block 284, Lot 6, and Block 284, Lot 14 (the "projected development sites").

## B. PRINCIPAL CONCLUSIONS

Based on the methodology set forth in the 2020 *City Environmental Quality Review* (CEQR) *Technical Manual*, the analysis finds that projects on the proposed and projected development sites would not result in a significant adverse impact on the City's water supply or wastewater and stormwater conveyance and treatment infrastructure.

### Water Supply

The anticipated water usage of the projects on the proposed and projected development sites is expected to total 101,955 gallons per day (gpd), which would represent less than 0.01 percent of the City's overall water demand. Incrementally, the proposed and projected development sites will generate 82,108 (gpd) to the site. Given the relatively minor incremental increase in water consumption as compared to citywide demand and the project site's location in an area well-served by water infrastructure, the proposed and projected development sites are not expected to adversely affect the City's water supply or system water pressure.

### Sanitary (Dry Weather) Flows

The estimated amount of sanitary sewage generated by the projects on the proposed and projected development sites would be 101,955 gpd. This amount would represent approximately 0.07 percent of the average daily flow of 150 million gallons per day (mgd) at the Bowery Bay Water Pollution Control Plant (WPCP) and would not result in an exceedance of the plant's permitted capacity pf 150 mgd. Because the City's sewers are sized and designed based on the designated zoning of an area and related population density and surface coverage characteristics, proposed rezonings may result in development that is inconsistent with the design of the existing built sewer

system. In order to obtain a permit to connect to the City sewer, a site-specific hydraulic analysis to determine whether the existing sewer system is capable of supporting higher density development and related increases in sanitary flows would be prepared prior to development of the proposed and projected developments. Sewer improvements and/or a new drainage plan, may also be required to support the house or site connection proposal. Therefore, the proposed and projected actions would not create a significant adverse impact on the City's sanitary sewage treatment system. In addition, per the New York City Plumbing Code (Local Law 33 of 2007), low-flow fixtures would be required to be implemented and would help to reduce sanitary flows from the proposed and projected developments.

**Stormwater (Wet Weather) Flows**

Compared to existing conditions, in the future with the projects on the proposed and projected development sites, the combined wet weather flows from the project site would increase slightly (by 0.001 million gallons (mg) to 0.016 mg, depending on rainfall duration and intensity) over existing conditions.

The project site is located in an area that is well served by combined sewer infrastructure. As the wastewater treatment capacity at the Bowery Bay WPCP and the sewer conveyance infrastructure near the project site would be sufficient to handle wastewater flows that would result from the proposed and projected development sites, there would not be any significant adverse impacts on wastewater treatment or stormwater conveyance infrastructure.

## C. METHODOLOGY

According to the *CEQR Technical Manual*, a preliminary water supply infrastructure analysis is needed if a project would result in an exceptionally large demand for water (e.g., more than one mgd) or is located in an area that experiences low water pressure (e.g., areas at the end of the water supply distribution system). While the proposed and projected development sites would not generate more than one million gpd of incremental water demand, and an analysis is not warranted, water demand estimates are provided in this attachment to inform the wastewater and stormwater conveyance and treatment analysis.

For wastewater and stormwater conveyance and treatment, the *CEQR Technical Manual* indicates that a preliminary assessment would be needed if a project is located in a combined sewer area and would exceed the following incremental development of residential units or commercial space above the predicted No-Action scenario: (a) 1,000 residential units or 250,000 sf of commercial space or more in Manhattan; or (b) 400 residential units or 150,000 sf of commercial space or more in the Bronx, Brooklyn, Staten Island, or Queens. As the proposed and projected development sites would result in a net increase of more than 250,000 sf of non-residential space, a preliminary assessment of wastewater and stormwater infrastructure is provided.

To assess the proposed and projected development sites potential impacts on water and sewer infrastructure, this attachment:

- Describes the existing water and sewer infrastructure serving the project site and estimates water demand and sewage and stormwater generation under existing conditions and in the No-

Action condition (for the 2023 analysis year). Existing and future water demands and sewage generation are calculated based on use generation rates provided in the *CEQR Technical Manual*. Stormwater runoff and sanitary flows are calculated using the New York City Department of Environmental Protection (DEP) Flow Calculation Matrix.

- Describes relevant planned infrastructure improvements including the affected area, project components, and current schedules.
  - Forecasts water demand and sewage and stormwater generated by the proposed and projected development sites based on *CEQR Technical Manual* guidelines.
  - Assesses the effects of the proposed and projected development sites water demand and sewage and stormwater generation on the City's water and sewer infrastructure, pursuant to *CEQR Technical Manual* guidelines.

## D. EXISTING CONDITIONS

### Water Supply

The New York City water supply system comprises a network of reservoirs, lakes, and aqueducts extending into the Catskill region and a pipe network that distributes water within the City. New York City obtains nearly all of its water from the Delaware, Catskill, and Croton watersheds, which are located within 125 miles of the City. Water from the watersheds is stored at 19 reservoirs and three control lakes, having a combined capacity of approximately 580 billion gallons. The water is then carried into the City by aqueducts. The water enters the City via City Tunnel No. 1, which runs through the Bronx, Manhattan, and Queens, and City Tunnel No. 2, which runs through the Bronx, Queens, and Brooklyn. The partially complete City Tunnel No. 3 serves the Bronx, Manhattan, and Queens, and, when fully complete, will terminate in Brooklyn. Staten Island obtains its water via the Richmond Tunnel, which is an extension of City Tunnel No. 2.

Once in the City, the three aqueducts distribute water into a network of water mains. Water mains up to 96 inches in diameter feed the smaller mains, which deliver water to their final destination. These are the same mains that provide water to fire hydrants. Nearly all of the water reaches its consumers by gravity alone, although some four percent (generally located at the outer limits of the system where in-line pressure is lowest, at high elevations, or at a pressure extremity, such as Far Rockaway) is pumped to its final destination. Pressure regulators throughout the City monitor and control the water pressure.

Water conservation measures taken by DEP in the 1990s have resulted in a steady reduction in the City's overall water demand over the last 20 years. As of 2016, the in-City water consumption totaled approximately 1,002 mgd.

The project site is served by 12-inch cast iron pipe water mains located beneath Van Dam Street and Hunters Point Avenue. There is also a 16-inch cast iron pipe located on Van Dam Street. There are no water mains on 31st Place between Hunters Point and 48th avenues.

**Sewer System**

According to the *CEQR Technical Manual*, wastewater is considered to include sanitary sewage, wastewater generated by industries, and stormwater. Water used for air conditioning generates a negligible amount of wastewater as it recirculates or evaporates in the cooling and heating process.

New York City's sewer system consists of a grid of sewers beneath the streets that send wastewater flows to fourteen different WPCPs. The City's WPCPs are regulated by the NYSDEC, which issues permits regulating the discharge of treated effluent. Combined, all fourteen WPCPs in New York City have a SPDES permitted total capacity of 1.8 billion gpd. The area served by each plant is called a "drainage area" or "catchment area." The majority of New York City's sewers are combined sewers, since they receive both sanitary wastewater and stormwater runoff. During wet weather, large volumes of rainfall runoff enter the combined system through storm drains and catch basins in streets and mix with sanitary sewage, then flow through regulators (relief valves), before being sent to the WPCPs through interceptor sewers. During such wet-weather events, excessive volumes of stormwater runoff (ten to 50 times the dry-weather flow) can enter the combined sewer system and, if transported to the WPCP, could exceed the treatment design capacity. For limited periods, WPCPs are designed for only twice the average dry-weather flow. Flow into the interceptor sewers are controlled by regulators along the length of the interceptor sewers. The purpose of the regulators is to divert sanitary flow from the existing combined sewers to the interceptor sewers during normal flow periods (dry weather) and limit the flow to the interceptor sewers to twice dry weather flow during storm periods (wet weather). The existing tide gates placed on the combined sewer overflows (CSOs) downstream of the regulators are designed to keep tidal water from entering the existing combined sewers and the interceptor sewers. Tide gates can be part of the regulator structure or stand-alone chambers. The New York City sewer system currently (in 2015) treats approximately 1.3 billion gpd of municipal wastewater and a portion of combined sewer flow during wet weather events.

Sanitary sewers can be one to two feet in diameter on side streets and three or four feet in diameter under larger roadways. They connect to trunk sewers, which are generally five to seven feet in diameter. Combined sewers discharge to regulators and the inceptors carry wastewater to the WPCPs for treatment. The wastewater collection system at the project site consists of a 96-inch-by-54-inch flat top, combined sewer, which runs along Hunters Point Avenue. A circular 30-inch combined sewer also runs along Hunters Point Avenue. Circular 12 inch combined sewers lines run along 31st Place and Van Dam Street, both beginning at 48th Avenue. Another circular 12-inch combined sewer begins at the corner of Van Dam Street and 48th Avenue, running along 48th Avenue.

The project site is served by the Bowery Bay WPCP, which is located on in northeast Queens. The Bowery Bay WPCP catchment area covers 15,203 acres and is regulated by an SPDES permit to treat and discharge up to 150 mgd. As presented in Table G-1, in the 12-month period between December 2016 and November 2017, the Bowery Bay WPCP handled an average of 103.75 mgd of flows, which is less than the facility's permitted capacity of 150 mgd.

***Sanitary Flows (Dry Weather)***

As indicated in Table G-4, below, the estimated amount of sanitary sewage generated by the current development site would be 5,475 gpd. This amount would represent approximately less

than 0.005 percent of the average daily flow of 103.75 mgd at the Bowery Bay WPCP and would not result in an exceedance of the plant's permitted capacity of 150 mgd.

### *Stormwater Flows (Wet Weather)*

As outlined in Attachment A, "Project Description," the project site totals approximately 66,329 sf on Block 284, Lots 1, 6, and 14. Table G-2 describes the surfaces, surface areas, and the weighted runoff coefficient (the fraction of precipitation that becomes surface runoff) for each surface type present on the project site. As indicated in the table, approximately 46,706 sf (70 percent) of the project site comprises rooftop area, with the remaining 30 percent (19,623 sf) comprised of pavement and walks. Based on the existing project site surface areas, the weighted runoff coefficient of the project area is 0.96.

**Table G-1, Existing Bowery Bay WPCP Average Daily Sewer Flows**

| Month | Year | Average Daily Flows (mgd) |
|---|---|---|
| January | 2017 | 109 |
| February | | 98 |
| March | | 111 |
| April | | 109 |
| May | | 112 |
| June | | 109 |
| July | | 103 |
| August | | 104 |
| September | | 97 |
| October | | 96 |
| November | | 95 |
| December | 2016 | 102 |
| ***12-Month Average*** | | 103.75 |

**Source:** DEP "Monthly Operating Efficiency" tables.

**Table G-2, Existing Project Site Surface Areas and Runoff Coefficients**

| Surface Type | Roof | Pavement and Walks | Other | Grass and Softscape | Total |
|---|---|---|---|---|---|
| **Area** | 70% | 30% | 0% | 0% | 100% |
| **Surface Area (sf)** | 46,706 | 19,623 | 0 | 0 | 66,329 |
| **Runoff Coefficient** | 1.00 | 0.85 | 0.85 | 0.20 | 0.96 |

**Notes:**
[1] Weighted runoff coefficient calculations based on the DEP Flow Volume Calculation Matrix provided in the *CEQR Technical Manual.*

For this analysis, the runoff coefficients were used to calculate the amount of stormwater runoff during a range of storm events, with rainfall averaging from 0.00 to 2.50 inches over durations of 3.80 to 19.50 hours. Table G-3 shows the existing stormwater runoff for the project site. As indicated in the table, the project site currently generates between 0.001 and 0.004 mg of wet weather flows for different rainfall intensities. Stormwater flows generated on the project site are currently conveyed via the existing combined sewers along Van Dam Street, 31st Place, Hunters Point and 48th avenues to the Bowery Bay WPCP, depending on rainfall intensity.

**Table G-3, Existing Project Site Stormwater and Sanitary Sewage Flow Volumes**

| Rainfall Volume (in) | Rainfall Duration (hr) | Runoff Volume Direct Drainage | Runoff Volume to CSS | Sanitary Volume to CSS (MG) | Total Volume to CSS (MG) |
|---|---|---|---|---|---|
| 0.00 | 3.80 | 0.00 | 0.00 | 0.001 | 0.00 |
| 0.40 | 3.80 | 0.00 | 0.02 | 0.001 | 0.02 |
| 1.20 | 11.30 | 0.00 | 0.05 | 0.003 | 0.05 |
| 2.50 | 19.50 | 0.00 | 0.10 | 0.004 | 0.10 |

**Notes:**
CSS = combined sewer system; MG = million gallons

## E. FUTURE WITHOUT THE PROPOSED ACTION (NO-ACTION CONDITION)

In the future without the proposed action (the No-Action condition), it is projected that the existing approximately 56,632-gsf building would remain and it would be occupied by approximately 22,267 gsf of ground floor local retail space and approximately 34,365 gsf of office space on the first and second floors. As for the projected development sites, Block 284, Lot 6 would continue to be occupied by the 16,800-sf building with warehouse use and Block 284, Lot 14 would continue to be occupied by an automobile sales, leasing, and repair business and a commercial vehicle storage lot with adjoining one-story building occupied by a taxi related company.

### Water Supply

The overall water supply system in New York City is not expected to change materially in the future without the proposed action. In 2011, DEP launched the Water for the Future program, a comprehensive long-term planning effort to repair leaks in sections of the Delaware Aqueduct by 2021. To support this program, a newly created Demand Management Unit within DEP was tasked with the development of a citywide strategy that will outline DEP's plan for the implementation of water demand management projects. DEP's 2013 *Water Demand Management Plan* identified five key strategies for managing water demand in New York City and detailed 21 specific initiatives to be implemented by 2021 in order to achieve targeted water demand reductions. It is anticipated that these initiatives will offset much of the increased demands citywide that may result from population growth and new development.

As the proposed and projected development sites are not expected change with the No-Action condition, as under existing conditions, the project site will not generate any extra water demand.

### Sewer System

The proposed and projected development sites will continue to be served by the Bowery Bay WPCP in the future without the proposed action. There are no anticipated changes to the local sewer system serving the project area.

#### *Sanitary Flows (Dry Weather)*

As the project sites are not expected change with the No-Action condition, as under existing conditions, the project site will not generate any extra sanitary flows.

As indicated in Table G-4, above, the estimated amount of sanitary sewage generated by the proposed development sites would be 101,955 gpd. This amount would represent approximately 0.1 percent of the average daily flow of 103.75 mgd at the Bowery Bay WPCP and would not result in an exceedance of the plant's permitted capacity of 150 mgd.

***Stormwater Flows (Wet Weather)***

No changes in the surface areas currently present on the project site are anticipated in the future without the proposed action, and, therefore, no changes to the stormwater flows generated on the project site would occur. As under existing conditions, the project site would generate between 0.00 and 0.10 mg of wet weather flows, depending on rainfall duration and intensity. Stormwater flows generated on the project site would continue to be conveyed via the existing combined sewers along Van Dam Street, 31st Place, Hunters Point and 48th avenues to the Bowery Bay WPCP, depending on rainfall intensity.

## F. FUTURE WITH THE PROPOSED ACTION (WITH-ACTION CONDITION)

In the RWCDS future with the proposed action, it is projected that the existing building on the proposed development site would be expanded, from two to eight stories, with a roof height of approximately 111 feet. The building would have approximately 184,142 gsf, including 148,915 zsf of floor area, which equates to 5.0 FAR (maximum permitted in the proposed M1-5 district). The enlargement would represent an additional 95,115 zsf to the existing approximately 53,800 zsf on the premises. The site would include approximately 22,267 gsf of ground floor local retail space (as would be the case under the No-Action scenario), approximately 134,485 gsf of office space, and approximately 27,390 gsf of parking area, providing 49 accessory parking spaces, on the second floor. There also would be 877 sf of on-site private open space.

For the two projected development sites on Lots 6 and 14, the RWCDS With-Action scenario would result in two new, six-story buildings. Combined, they would have 159,657 gsf of office space, 32,701 gsf of local retail space, and 158 accessory parking spaces.

### Water Supply

The proposed and projected development sites would generate increased demand on the DEP water supply system, compared to No-Action conditions (see Table G-4). As indicated in the table, the proposed and projected development sites would generate an incremental water demand of approximately 82,108 gpd. The incremental demand represents less than 0.03 percent of the approximately one billion gallons of water supplied daily to New York City by DEP. These estimated demands include water for both domestic uses and air conditioning systems.

**Table G-4, Expected Water Demand on Project Site – 2023 No-Action vs. 2023 With-Action Conditions**

| | Use | Area (gsf) | Domestic Use (gpd)[1] | A/C use (gpd) | Totals |
|---|---|---|---|---|---|
| **No-Action Condition** | Commercial – Office | 46,329 | 4,633 | 7,876 | 4,633 |
| | Commercial – Retail | 3,510 | 842 | 597 | 842 |
| | ***Total No-Action Water Supply Demand*** | | | 13,948 | |
| | ***Total No-Action Sewage Generation*** | | | 5,475 | |
| **With-Action Condition** | Commercial – Office | 294,142 | 29,414 | 50,004 | 79,418 |
| | Commercial – Retail | 54,968 | 13,192 | 9,345 | 22,537 |
| | ***Total With-Action Water Supply Demand*** | | | 101,955 | |
| | ***Total With- Action Sewage Generation*** | | | 42,606 | |
| **Increment** | ***Incremental Water Supply Demand*** | | | 82,108 | |
| | ***Incremental Sewage Generation*** | | | 37,101 | |

**Notes:**
[1] Based on average daily water use rates provided in Table 13-2 of the *CEQR Technical Manual* (unless otherwise indicated)
- Residential use: 100 gpd per resident (assumes 2.41 residents per DU).
- Office use: 0.10 gpd per sf, plus 0.17 gpd per sf for air conditioning.
- Retail use: 0.24 gpd per sf, plus 0.17 gpd per sf for air conditioning.
- Community Facility use: assumes office rate.

As discussed above, the project site is served by 12 and 16-inch water mains located beneath Van Dam Street and Hunters Point Avenue. There are no water main improvements planned in conjunction with the proposed and projected development sites, and the existing water mains that are located along the project site's four street frontages are expected to adequately accommodate the incremental water demand generated by the proposed and projected development sites.

Given the relatively minor incremental increase in water consumption (as compared to citywide demand) and the project area's location in an area well-served by water infrastructure, the proposed and projected development sites is not expected to adversely affect the City's water supply or system water pressure.

## Sewer System

### *Sanitary Flows (Dry Weather)*

As indicated in Table G-4, above, the estimated amount of sanitary sewage generated by the proposed and projected development sites would be 42,606 gpd. This amount would represent approximately 0.1 percent of the average daily flow of 103.75 mgd at the Bowery Bay WPCP and would not result in an exceedance of the plant's permitted capacity of 150 mgd.

Pursuant to Chapter 31 of Title 15 of the Rules of the City of New York (RCNY), as amended in 2012, for a new development, the stormwater release rate is the greater of 0.25 cubic feet per second (cfs) or ten percent of the allowable flow. For alterations, the stormwater release rate for the altered areas will be directly proportional to the ratio of the altered area to the total site area, and no new points of discharge are permitted. Therefore, the proposed and projected development sites would be required to achieve the new flow rate. Flexibility in achieving this rate is provided to the development community through a variety of approvable systems, including subsurface and rooftop detention systems. Joint DEP and New York City Department of Buildings (DOB) guidelines (http://www.nyc.gov/html/dep/html/stormwater/stormwater_management_construction.shtml) are available to ensure the proper design and construction begins in the early stages of site planning

and building design. This performance standard allows for a wide range of management techniques, costs, and space considerations.

With the 2012 RCNY amendment, self-certification of house or site connection proposals is not permitted in connection with any proposed new development or expansions of existing developments as per Title 15, Chapter 31, "Rule Governing House/Site Connections to the Sewer System." Because the City's sewers are sized and designed based on the designated zoning of an area, and related population density and surface coverage characteristics, the proposed rezoning may result in development that is inconsistent with the design of the existing built sewer system. To be issued a permit to connect to the City sewer, a site-specific hydraulic analysis to determine whether the existing sewer system is capable of supporting higher density development and related increases in sanitary flows would be prepared prior to development of each of the proposed/projected development sites. Sewer improvements and/or a new drainage plan, may also be required to support the house or site connection proposal. Therefore, the proposed and projected development sites would not create a significant adverse impact on the City's sanitary sewage treatment system. In addition, per the New York City Plumbing Code (Local Law 33 of 2007), low-flow fixtures would be required to be implemented, which would help to reduce sanitary flows generated by the proposed and projected development sites.

### *Stormwater Flows (Wet Weather)*

Based on the reasonable worst-case development scenario (RWCDS) massing for the proposed and projected development sites, in the future With-Action condition, it is assumed that approximately 97 percent of the project site (64,317 sf) would be comprised of roof, with the remaining 3 percent comprised of pavement and walks (2,012 sf) (see Table G-5). Based on these assumptions, the weighted runoff coefficient of the project site would be 1.00.

**Table G-5, Project Site Runoff Coefficient – With-Action Condition**

| Surface Type | Roof | Pavement and Walks | Other | Grass and Softscape | Total |
|---|---|---|---|---|---|
| **Area** | 97% | 3% | 0% | % | 100% |
| **Surface Area (sf)** | 64,317 | 2,012 | 0 | 0 | 66,329 |
| **Runoff Coefficient[1]** | 1.00 | 0.85 | 0.85 | 0.20 | 1.00 |

**Notes:**
[1] Weighted runoff coefficient calculations based on the DEP Flow Volume Calculation Matrix provided in the *CEQR Technical Manual.*

Using these sanitary and stormwater flow calculations, the DEP Flow Volume Calculation Matrix was completed for the future With-Action condition and compared to the existing conditions presented in Table G-3, above. The calculations from the Flow Volume Calculation Matrix help to determine the change in wastewater flow volumes to the combined sewer system from existing to With-Action conditions, based on four rainfall volume scenarios with varying durations. The drainage analysis assumes that all stormwater runoff from the project site would flow via the existing combined sewer infrastructure adjacent to the project site. The summary tables, taken from the DEP Flow Volume Calculation Matrix, are presented in Table G-6.

**Table G-6, Project Area Stormwater and Sanitary Sewage Flow Volumes – With-Action vs. Existing Conditions**

| Rainfall Volume (in) | Rainfall Duration (hr) | Runoff Volume Direct Drainage | Runoff Volume to CSS | Sanitary Volume to CSS (MG) | Total Volume to CSS (MG) | Incremental Volume to CSS over Existing Conditions (MG)[1] |
|---|---|---|---|---|---|---|
| 0.00 | 3.80 | 0.00 | 0.00 | 0.016 | 0.02 | 0.02 |
| 0.40 | 3.80 | 0.00 | 0.02 | 0.016 | 0.03 | 0.01 |
| 1.20 | 11.30 | 0.00 | 0.05 | 0.048 | 0.10 | 0.05 |
| 2.50 | 19.50 | 0.00 | 0.10 | 0.083 | 0.19 | 0.09 |

**Notes:**
CSS = combined sewer system; MG = million gallons
[1]Refer to Table G-3.

As shown in Table G-6, in the future With-Action condition, approximately 0.00 to 0.15 mg of stormwater and approximately 0.04 to 0.18 mg of sanitary sewage would be conveyed to the existing combined sewers, for a total of 0.04 to 0.33 mg of combined volumes to the combined sewer system. Compared to existing conditions, the total stormwater flows from the project site would decrease slightly, and the total sanitary flows from the project site into the combined sewer system would increase, resulting in an incremental increase (0.04 to 0.15 mg) in total volumes to the combined sewer system.

The proposed and project development sites are located in an area that is well-served by combined sewer infrastructure. As previously noted, the wastewater collection system at the proposed and projected development sites are a 96-inch-by-54-inch flat top, combined sewer and a circular 30-inch combined sewer lines run along Hunters Point Avenue. Circular 12 inch combined sewers lines run along 31st Place and Van Dam Street, both beginning at 48th Avenue. Another circular 12-inch combined sewer begins at the corner of Van Dam Street and 48th Avenue, running along 48th Avenue. Given the size of the existing combined sewer facilities in the vicinity of the project area, it is anticipated that there is ample capacity in the adjacent sewer infrastructure to accommodate the additional combined flows generated by the proposed and projected development sites. However, as noted above, a site-specific hydraulic analysis to determine whether the existing sewer system is capable of supporting higher density development and related increases in sanitary flows would be prepared prior to development of the proposed and projected developments. If requested by DEP, capacity and flow measurements may also be required, in coordination with the Bureau of Wastewater Treatment, if the developer proposes to make a site connection to the existing combined sewers. Sewer improvements, a new drainage plan, and/or the incorporation of BMPs may also be required to support the house or site connection proposal.

Post-construction stormwater management measures that would be integrated into the proposed and projected development sites could include measures such as underground detention, infiltration practices, and vegetated areas. The following typical BMP measures could be used to help manage stormwater flows: the implementation of BMPs described in the New York City Green Infrastructure Plan and/or green technologies, such as blue and green roofs, subsurface detention and infiltration, porous pavement, enhanced tree pits, and rain cisterns, depending on site conditions. The design of detention tanks, green roofs, and/or other chosen stormwater control BMPs, would achieve an overall release rate of 0.25 cfs, or ten percent of DEP's allowable flow rate (whichever is greater) from the proposed and projected development sites.

Therefore, with the incorporation of appropriate BMPs that would be required as part of the site connection approval process to be reviewed and approved by DEP, the overall volume of sanitary sewer discharge and stormwater runoff, as well as the peak stormwater runoff rate, would be substantially reduced. As the wastewater treatment capacity at the Bowery Bay WPCP and the sewer conveyance infrastructure near the project site would be sufficient to handle wastewater flows that would result from the proposed and projected development sites, there would not be any significant adverse impacts on wastewater treatment or stormwater conveyance infrastructure.

## DEP Review

DEP reviewed the water and sewer infrastructure assessment provided herein and issued a comment memorandum dated April 9, 2020. Please refer to Appendix A, Agency Correspondence for a copy of the memo. This attachment is consistent with DEP's comments.

**ATTACHMENT H:**
**TRANSPORTATION**

## A. INTRODUCTION

This attachment presents the findings of the analyses of traffic, transit, pedestrian and parking conditions for the proposed action.

As discussed in Attachment A, "Project Description," the proposed action would result in the rezoning of Block 284 in Queens Community District 2. This would facilitate the redevelopment of Block 284, Lot 1 (the applicant-owned proposed development site) as well as the potential redevelopment of the remaining two lots on Block 284: Lot 6 and Lot 14 (the "projected development sites"). Lot 6 (48-29 31st Place) is a 16,546-sf irregular-shaped lot containing an approximately two-story, 16,800 square foot (sf) warehouse. Lot 14 (48-02 Van Dam Street) is a 20,002-sf lot containing an automobile repair, sales and leasing business and a commercial vehicle storage lot with adjoining one-story building, for a total floor area of 3,510 sf. See Figure H-1.

The redevelopment of the applicant-owned proposed development site (Lot 1) would include the expansion of the existing two-story building to approximately 184,142 gross square feet (gsf). The site would include approximately 22,267 gsf of ground floor local retail space, approximately 134,485 gsf of office space, and approximately 27,390 gsf of parking area (49 accessory spaces) on the second floor. Projected development site Lot 6 would be redeveloped with approximately 14,804 gsf of ground floor local retail, approximately 72,279 gsf of office space, and approximately 21,600 gsf of below-grade parking area (72 accessory spaces). Similar to Lot 6, projected development site Lot 14 would also be redeveloped with ground floor local retail (17,897 gsf), office space (87,378 gsf), and below-grade accessory parking (25,800 gsf; 86 spaces) uses. In total, it is estimated that approximately 54,968 gsf of ground floor local retail space, approximately 294,142 gsf of office space, and 207 accessory parking spaces would be provided on Block 284 as a result of the proposed action.

As discussed in Attachment A, "Project Description", in the absence of the proposed action, it is expected that the existing approximately 56,632-gsf building on applicant-owned Lot 1 would remain, and it would be occupied by approximately 22,267 gsf of ground floor local retail space and approximately 34,365 gsf of office space on the first and second floors. (The retail space is vacant in the existing condition, but is assumed to be fully leased in the future without and with the proposed action for the purposes of the transportation analyses.) As for the projected development sites, Lot 6 would continue to be occupied by the 16,800-sf warehouse building, while Lot 14 would continue to be occupied by an automobile repair, sales, and leasing business and a commercial vehicle storage lot with adjoining one-story building for a total floor area of 3,510 gsf.

Contingent on approval of the proposed action, construction of the project area is expected to begin in 2021 with all components completed and fully operational in 2023. The incremental difference between the No-Action and With-Action scenarios serves as the basis for the transportation impact analysis, which was conducted in accordance with the 2020 *City Environmental Quality Review* (*CEQR) Technical Manual.*

**Figure H-1**
**Project Location**




Source: DCP, DOT

## B. PRINCIPAL CONCLUSIONS

### Traffic

Weekday AM and PM peak hour traffic conditions were evaluated at five intersections along Van Dam Street from 48th Avenue to Borden Avenue. These five intersections are where traffic generated by the proposed action is expected to be most concentrated.

Incremental vehicle trips generated by the proposed action would have the potential to result in significant adverse traffic impacts to five lane groups at three intersections along Van Dam Street (at 48th Avenue, Hunters Point Avenue and westbound Borden Avenue) in one or both analyzed peak hours based on *CEQR Technical Manual* impact criteria. However, in conjunction with the proposed action, traffic improvement measures consisting of minor signal timing changes are recommended for implementation at these three intersections. With incorporation of the recommended improvement measures, the proposed action would not result in any significant adverse traffic impacts in either analyzed peak hour.

### Transit

Subway

The proposed action would generate a net increment of approximately 300 and 291 new subway trips during the weekday AM and PM commuter peak hours, respectively. The analysis of subway station conditions focuses on New York City Transit's 33rd Street – Rawson Street station (served by No. 7 local trains on the Flushing Line) where incremental demand from the proposed action would exceed the 200-trip *CEQR Technical Manual* analysis threshold in the weekday PM peak hour.

In the future with the proposed action, the analysis shows that there would be no potential for significant adverse impacts at any analyzed street stair or fare array at the 33rd Street – Rawson Street subway station in either the weekday AM or PM peak hour. Additionally, as the proposed action is not expected to generate 200 or more new subway trips in the peak direction on No. 7 trains during the AM or PM commuter peak hours, significant adverse subway line haul impacts are considered unlikely to occur based on *CEQR Technical Manual* guidance, and a detailed analysis of line haul conditions is not warranted.

Bus

Four local bus routes operate within one quarter-mile of the project area, including the Q32 operated by New York City Transit and the Q39, Q60 and Q67 operated by MTA Bus Company. The proposed action would generate a net increase of approximately 63 and 68 person trips by bus during the weekday AM and PM commuter peak hours, respectively. As these trips would be distributed among the four routes serving the project area, it is unlikely that any one route would experience 50 or more trips in one direction in either peak hour. Significant adverse impacts to bus service are therefore considered unlikely to occur based on *CEQR Technical Manual* guidance, and a detailed analysis of local bus conditions is not warranted.

**Pedestrians**

The proposed action would generate an increment of approximately 522, 1,440, and 837 total pedestrian trips (including walk-only trips and pedestrians en route to/from bus stops and the subway) during the weekday AM, midday and PM peak hours, respectively. Peak hour conditions were evaluated at a total of 18 pedestrian elements where the proposed action would generate 200 or more new trips in one or more peak hours. These elements – five sidewalks, eight corner areas, and five crosswalks – are primarily located along the Van Dam Street and 31st Place corridors in the vicinity of the project area.

In the future with the proposed action, the analysis shows that there would be no potential for significant adverse impacts at any analyzed pedestrian element in the weekday AM, midday and PM peak hours.

**Vehicular and Pedestrian Safety**

Crash data for the traffic and pedestrian study area intersections were obtained from the New York City Department of Transportation for the three-year reporting period between January 1, 2015 and December 31, 2017 (the most recent period for which data are available). The data quantify the total number of crashes as well as the total number of crashes involving injuries to pedestrians or bicyclists. During the three-year reporting period, a total of 136 crashes and nine pedestrian/bicyclist-related injury crashes occurred at analyzed study area intersections. None of these crashes involved fatalities.

According to the 2020 *CEQR Technical Manual*, a high crash location is one where there were 48 or more reportable and non-reportable crashes or five or more pedestrian/bicyclist-related crashes in any consecutive 12 months within the most recent three-year period for which data are available. Based on these criteria, no analyzed intersections are classified as high crash locations.

**Parking**

The parking analysis documents changes in parking supply and utilization within a primary study area extending one quarter-mile from the project area. Within this study area there are a total of four off-street public parking facilities. Under the proposed action, no existing off-street public parking would be displaced, and it is anticipated that a total of 207 accessory parking spaces would be provided in the project area, sufficient to accommodate approximately 66 percent of the 315 spaces of project-generated parking demand in the peak weekday midday period. The incremental off-site demand attributable to the proposed action (61 autos) would only amount to approximately three percent of the total on-street and off-street public parking capacity within one quarter-mile of the project area.

Based on anticipated changes in parking demand through 2023, it is estimated that in the future with the proposed action there would be a deficit of approximately 172 spaces of on-street and off-street public parking capacity within one quarter-mile of the project area in the weekday midday period, and a surplus of approximately 117 spaces within an expanded study area extending one half-mile from the project area. While some drivers destined for the project area would potentially

have to travel a greater distance (e.g., up to one-half mile) to find available parking, the weekday midday shortfall in public parking spaces within one quarter-mile of the project area under the proposed action would not be considered a significant adverse parking impact given the availability of alternative modes of transportation, the magnitude of the shortfall (only three percent of study area capacity), and the fact the majority of project demand would be accommodated on-site.

## C. PRELIMINARY ANALYSIS METHODOLOGY

The *CEQR Technical Manual* describes a two-level screening procedure for the preparation of a "preliminary analysis" to determine if quantified operational analyses of transportation conditions are warranted. As discussed below, the preliminary analysis begins with a trip generation (Level 1) analysis to estimate the number of person and vehicle trips attributable to the proposed project. According to the *CEQR Technical Manual*, if the proposed project is expected to result in fewer than 50 peak hour vehicle trips and fewer than 200 peak hour transit or pedestrian trips, further quantified analyses are not warranted. When these thresholds are exceeded, trip assignments (Level 2) should be performed to estimate the incremental trips that could be incurred at specific transportation elements and to identify potential locations for further analyses. If the trip assignments show that the proposed project would generate 50 or more peak hour vehicle trips at an intersection, 200 or more peak hour subway trips at a station, 50 or more peak hour bus trips in one direction along a bus route, or 200 or more peak hour pedestrian trips traversing a sidewalk, corner area, or crosswalk, then further quantified operational analyses may be warranted to assess the potential for significant adverse impacts on traffic, transit, pedestrians, parking, and vehicular and pedestrian safety. The results of the two-level screening assessments are described below.

## D. LEVEL 1 SCREENING ASSESSMENT

A Level 1 trip generation screening assessment was conducted to estimate the numbers of person and vehicle trips by mode expected to be generated by the proposed project during the weekday AM, midday, and PM, and Saturday peak hours. These estimates were then compared to the *CEQR Technical Manual* analysis thresholds of 50 peak hour vehicle trips, 200 peak hour subway riders, 50 peak hour bus riders along one route in one direction, and 200 peak hour pedestrian trips to determine if a Level 2 screening and/or quantified operational analyses may be warranted. The travel demand assumptions used for the assessment are discussed below and a detailed travel demand forecast is provided.

### Transportation Planning Factors

Table H-1 shows the transportation planning factors used to forecast the travel demand generated by the proposed/projected uses in the weekday AM, midday, and PM, and Saturday peak hours. These include trip generation rates, temporal and directional distributions, mode choice factors, vehicle occupancies, and truck trip factors for existing and proposed retail, office, warehouse and auto repair/related uses. The factors in Table H-1 were based on data cited in the 2020 *CEQR Technical Manual*, the 2019 *Special Flushing Waterfront District EAS*, the 2016 *East New York*

*Rezoning FEIS*, and the *ITE Trip Generation Handbook, 10th Edition.* American Association of State Highway Transportation Officials (AASHTO) Census Transportation Planning Products (CTPP) reverse journey-to-work five-year data for Queens census tracts 1, 19, 179, 187, 189, and 199 were also used, as were data from the New York City Department of Transportation (NYCDOT). Data from a 2017 PHA count of vehicles entering and exiting a gas station and a commercial vehicle storage facility on projected site Lot 14 were also used to determine the number of vehicle trips generated by these uses.[1] Additional details on the transportation planning factors used for the travel demand forecast are presented in the *Transportation Planning Factors Technical Memorandum* provided in Appendix B.

**Travel Demand Forecast**

Table H-2 summarizes the results of the travel demand forecast for the proposed action based on the factors shown in Table H-1 and discussed above. Table H-2 shows the number of peak hour person and vehicle trips that would be generated by each of the proposed/projected uses in 2023 with and without the proposed action, as well as the incremental difference between the 2023 No-Action and With-Action scenarios. As shown in Table H-2, the proposed action would generate an incremental increase of approximately 712, 1,562, 1,058, and 776 person trips during the weekday AM, midday, and PM, and Saturday peak hours, respectively. Incremental vehicle trips (auto, taxi and truck, combined) would total approximately 177, 92, 180, and 69 during these same periods, respectively. During the weekday AM and PM commuter peak hours, the proposed action would generate approximately 300 and 291 incremental subway trips, respectively, and 63 and 68 incremental bus trips, respectively. The proposed action would also generate an incremental increase of 522, 1,440, 837, and 686 total pedestrian trips (walk-only trips and pedestrians walking to/from the subway or nearby bus stops) during the weekday AM, midday, and PM, and Saturday peak hours, respectively.

As the number of incremental peak hour trips resulting from the proposed action would exceed *CEQR Technical Manual* analysis thresholds for vehicular traffic, transit, and pedestrian trips during one or more peak hours, a Level 2 screening assessment was undertaken to identify specific transportation elements where additional detailed analyses may be warranted.

[1] This gas station was converted to an auto repair, sales and leasing business subsequent to the traffic data collection program.

# Table H-1
# Transportation Planning Factors

| Land Use: | Local Retail | | Office | | Warehouse | | Auto Repair/Related | |
|---|---|---|---|---|---|---|---|---|
| **Size/Units:** | 54,968 gsf | | 294,142 gsf | | 16,800 gsf | | 3,510 **gsf** | |
| **Trip Generation:** | (1) | | (1) | | (5) | | (6) | |
| Weekday | 205 | | 18.0 | | 2.36 | | 19.42 | |
| Saturday | 240 | | 3.9 | | 0.2 | | 19.42 | |
| | per 1,000 sf | | per 1,000 sf | | per 1,000 sf | | per 1,000 sf | |
| **Temporal Distribution:** | (1) | | (8) | | (5)(8) | | (6) | |
| AM | 3.0% | | 12.0% | | 10.0% | | 13.2% | |
| MD | 19.0% | | 11.0% | | 9.0% | | 11.0% | |
| PM | 10.0% | | 11.0% | | 11.0% | | 14.2% | |
| Saturday | 10.0% | | 13.0% | | 33.0% | | 10.7% | |
| | (2) | | (3) | (4) | (7) | | (6) | |
| **Modal Splits:** | AM/MD/PM | SAT | AM/PM /SAT | MD | All Periods | | All Periods | |
| Auto | 11.0% | 8.0% | 32.0% | 2.0% | 38.0% | | 85.0% | |
| Taxi | 0.0% | 0.0% | 1.0% | 1.0% | 1.0% | | 5.0% | |
| Subway | 4.0% | 7.0% | 53.0% | 7.0% | 47.0% | | 1.0% | |
| Bus | 3.0% | 4.0% | 10.0% | 7.0% | 10.0% | | 1.0% | |
| Walk/Other | 82.0% | 81.0% | 4.0% | 83.0% | 4.0% | | 8.0% | |
| | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | | 100.0% | |
| | (4) | | (4) | | (5)(8) | | (6) | |
| **In/Out Splits:** | In | Out | In | Out | In | Out | In | Out |
| AM | 50% | 50.0% | 96.0% | 4.0% | 77% | 23.0% | 65% | 35% |
| MD | 50% | 50.0% | 48.0% | 52.0% | 53% | 47.0% | 50% | 50% |
| PM | 50% | 50.0% | 5.0% | 95.0% | 27% | 73.0% | 50% | 50% |
| Saturday | 50% | 50.0% | 60.0% | 40.0% | 64% | 36.0% | 50% | 50% |
| **Vehicle Occupancy:** | (4) | | (3)(4) | | (6)(7) | | (6) | |
| | AM/MD/PM | SAT | All Periods | | All Periods | | All Periods | |
| Auto | 1.50 | 1.60 | 1.12 | | 1.10 | | 1.30 | |
| Taxi | 1.50 | 1.60 | 1.13 | | 1.30 | | 1.30 | |
| **Truck Trip Generation:** | (1) | | (1) | | (5) | | (6) | |
| Weekday | 0.35 | | 0.32 | | 0.91 | | 0.89 | |
| Saturday | 0.04 | | 0.01 | | 0.08 | | 0.89 | |
| | per 1,000 sf | | per 1,000 sf | | per 1,000 sf | | per 1,000 sf | |
| | (1) | | (1) | | (5)(8) | | (6) | |
| AM | 8.0% | | 10.0% | | 9.9% | | 14.0% | |
| MD | 11.0% | | 11.0% | | 8.0% | | 9.0% | |
| PM | 2.0% | | 2.0% | | 7.0% | | 1.0% | |
| Saturday | 11.0% | | 11.0% | | 28.0% | | 0.0% | |
| | In | Out | In | Out | In | Out | In | Out |
| All Periods | 50.0% | 50.0% | 50.0% | 50.0% | n/a | n/a | 50.0% | 50.0% |
| AM | | | | | 67.0% | 33.0% | | |
| MD | | | | | 57.0% | 43.0% | | |
| PM | | | | | 60.0% | 40.0% | | |
| Saturday | | | | | 42.0% | 58.0% | | |

**Notes :**

(1) *2020 City Environmental Quality Review (CEQR) Technical Manual.*

(2) NYCDOT Local Retail Mode Choice Study, Queens - Transit Zone.

(3) 2012-2016 AASHTO CTTP reverse journey-to-work (7AM-10AM) data for Queens census tracts 1, 19, 179, 187, 189, and 199.

(4) *Special Flushing Waterfront District EAS*, 2019.

(5) *ITE Trip Generation Handbook, 10th Edition,* Land Use Code 150 (Warehousing); Trip generation rate includes a 1.51 adjustment factor per NYCDOT trip generation survey.

(6) *East New York Rezoning FEIS*, 2016.

(7) 2012-2016 AASHTO CTTP reverse journey-to-work data for Queens census tracts 1, 19, 179, 187, 189, and 199.

(8) Based on data provided by NYCDOT.

# Table H-2
# Travel Demand Forecast

| | | With-Action | | | | | | No-Action | | | | | | | | | | | Net Increment | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Land Use:** | | **Local Retail** | | **Office** | | **Total** | | **Local Retail** | | **Office** | | **Warehouse** | | **Auto Repair/ Related** | | **Comm. Vehicle Storage** | **Total** | | *(With-Action - No-Action)* | | |
| **Size/Units:** | | **54,968 gsf** | | **294,142 gsf** | | | | **22,267 gsf** | | **34,365 gsf** | | **16,800 gsf** | | **3,510 gsf** | | | | | | | |
| **Peak Hour Trips:** | | (1) | | | | | | (1) | | | | | | | | (See Note 2) | | | | | |
| | **AM** | 304 | | 636 | | **940** | | 138 | | 76 | | 4 | | 10 | | | **228** | | *712* | | |
| | **MD** | 1,928 | | 584 | | **2,512** | | 868 | | 70 | | 4 | | 8 | | | **950** | | *1,562* | | |
| | **PM** | 1,014 | | 584 | | **1,598** | | 456 | | 70 | | 4 | | 10 | | | **540** | | *1,058* | | |
| | **SAT** | 1,188 | | 150 | | **1,338** | | 534 | | 18 | | 2 | | 8 | | | **562** | | *776* | | |
| **Person Trips:** | | | | | | | | | | | | | | | | | | | | | |
| | | In | Out | In | Out | **In** | **Out** | In | Out | In | Out | In | Out | In | Out | | **In** | **Out** | *In* | *Out* | *Total* |
| **AM** | **Auto** | 17 | 17 | 195 | 8 | **212** | **25** | 8 | 8 | 23 | 1 | 2 | 0 | 7 | 3 | | **40** | **12** | *172* | *13* | *185* |
| | **Taxi** | 0 | 0 | 6 | 0 | **6** | **0** | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | | **1** | **0** | *5* | *0* | *5* |
| | **Subway** | 6 | 6 | 324 | 13 | **330** | **19** | 3 | 3 | 39 | 2 | 2 | 0 | 0 | 0 | | **44** | **5** | *286* | *14* | *300* |
| | **Bus** | 5 | 5 | 61 | 3 | **66** | **8** | 2 | 2 | 7 | 0 | 0 | 0 | 0 | 0 | | **9** | **2** | *57* | *6* | *63* |
| | **Walk/Other** | 124 | 124 | 25 | 1 | **149** | **125** | 56 | 56 | 3 | 0 | 0 | 0 | 0 | 0 | | **59** | **56** | *90* | *69* | *159* |
| | **Total** | 152 | 152 | 611 | 25 | **763** | **177** | 69 | 69 | 73 | 3 | 4 | 0 | 7 | 3 | | **153** | **75** | *610* | *102* | *712* |
| | | In | Out | In | Out | **In** | **Out** | In | Out | In | Out | In | Out | In | Out | | **In** | **Out** | *In* | *Out* | *Total* |
| **MD** | **Auto** | 106 | 106 | 6 | 6 | **112** | **112** | 48 | 48 | 1 | 1 | 1 | 1 | 4 | 4 | | **54** | **54** | *58* | *58* | *116* |
| | **Taxi** | 0 | 0 | 3 | 3 | **3** | **3** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | **0** | **0** | *3* | *3* | *6* |
| | **Subway** | 39 | 39 | 20 | 21 | **59** | **60** | 17 | 17 | 2 | 3 | 1 | 1 | 0 | 0 | | **20** | **21** | *39* | *39* | *78* |
| | **Bus** | 29 | 29 | 20 | 21 | **49** | **50** | 13 | 13 | 2 | 3 | 0 | 0 | 0 | 0 | | **15** | **16** | *34* | *34* | *68* |
| | **Walk/Other** | 790 | 790 | 233 | 251 | **1,023** | **1,041** | 356 | 356 | 28 | 30 | 0 | 0 | 0 | 0 | | **384** | **386** | *639* | *655* | *1,294* |
| | **Total** | 964 | 964 | 282 | 302 | **1,246** | **1,266** | 434 | 434 | 33 | 37 | 2 | 2 | 4 | 4 | | **473** | **477** | *773* | *789* | *1,562* |
| | | In | Out | In | Out | **In** | **Out** | In | Out | In | Out | In | Out | In | Out | | **In** | **Out** | *In* | *Out* | *Total* |
| **PM** | **Auto** | 56 | 56 | 9 | 178 | **65** | **234** | 25 | 25 | 1 | 21 | 0 | 1 | 5 | 5 | | **31** | **52** | *34* | *182* | *216* |
| | **Taxi** | 0 | 0 | 0 | 6 | **0** | **6** | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | | **0** | **1** | *0* | *5* | *5* |
| | **Subway** | 20 | 20 | 15 | 294 | **35** | **314** | 9 | 9 | 2 | 35 | 2 | 1 | 0 | 0 | | **13** | **45** | *22* | *269* | *291* |
| | **Bus** | 15 | 15 | 4 | 55 | **19** | **70** | 7 | 7 | 0 | 7 | 0 | 0 | 0 | 0 | | **7** | **14** | *12* | *56* | *68* |
| | **Walk/Other** | 416 | 416 | 1 | 22 | **417** | **438** | 187 | 187 | 0 | 3 | 0 | 0 | 0 | 0 | | **187** | **190** | *230* | *248* | *478* |
| | **Total** | 507 | 507 | 29 | 555 | **536** | **1,062** | 228 | 228 | 3 | 67 | 2 | 2 | 5 | 5 | | **238** | **302** | *298* | *760* | *1,058* |
| | | In | Out | In | Out | **In** | **Out** | In | Out | In | Out | In | Out | In | Out | | **In** | **Out** | *In* | *Out* | *Total* |
| **SAT** | **Auto** | 48 | 48 | 29 | 19 | **77** | **67** | 21 | 21 | 3 | 2 | 1 | 0 | 4 | 4 | | **29** | **27** | *48* | *40* | *88* |
| | **Taxi** | 0 | 0 | 1 | 1 | **1** | **1** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | **0** | **0** | *1* | *1* | *2* |
| | **Subway** | 42 | 42 | 47 | 32 | **89** | **74** | 19 | 19 | 7 | 4 | 1 | 0 | 0 | 0 | | **27** | **23** | *62* | *51* | *113* |
| | **Bus** | 24 | 24 | 9 | 6 | **33** | **30** | 11 | 11 | 1 | 1 | 0 | 0 | 0 | 0 | | **12** | **12** | *21* | *18* | *39* |
| | **Walk/Other** | 480 | 480 | 4 | 2 | **484** | **482** | 216 | 216 | 0 | 0 | 0 | 0 | 0 | 0 | | **216** | **216** | *268* | *266* | *534* |
| | **Total** | 594 | 594 | 90 | 60 | **684** | **654** | 267 | 267 | 11 | 7 | 2 | 0 | 4 | 4 | | **284** | **278** | *400* | *376* | *776* |

## Table H-2 (continued)
## Travel Demand Forecast

| | | With-Action | | | | | | No-Action | | | | | | | | | | | | Net Increment | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use: | | Local Retail | | Office | | Total | | Local Retail | | Office | | Warehouse | | Auto Repair/ Related | | Comm. Vehicle Storage | | Total | | (With-Action - No-Action) | | |
| Vehicle Trips : | | | | | | | | | | | | | | | | | | | | | | |
| | | In | Out | In | Out | In | Out | In | Out | In | Out | In | Out | In | Out | In | Out | In | Out | In | Out | Total |
| AM | Auto (Total) | 11 | 11 | 174 | 7 | 185 | 18 | 5 | 5 | 21 | 1 | 2 | 0 | 5 | 2 | 0 | 2 | 33 | 10 | 152 | 8 | 160 |
| | Taxi | 0 | 0 | 5 | 0 | 5 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 4 | 0 | 4 |
| | Taxi Balanced | 0 | 0 | 5 | 5 | 5 | 5 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 4 | 4 | 8 |
| | Truck | 1 | 1 | 5 | 5 | 6 | 6 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 4 | 5 | 9 |
| | Total | 12 | 12 | 184 | 17 | 196 | 29 | 5 | 5 | 23 | 3 | 3 | 0 | 5 | 2 | 0 | 2 | 36 | 12 | 160 | 17 | 177 |
| | | In | Out | In | Out | In | Out | In | Out | In | Out | In | Out | In | Out | In | Out | In | Out | In | Out | Total |
| MD | Auto (Total) | 71 | 71 | 5 | 5 | 76 | 76 | 32 | 32 | 1 | 1 | 1 | 1 | 3 | 3 | 0 | 6 | 37 | 43 | 39 | 33 | 72 |
| | Taxi | 0 | 0 | 3 | 3 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 6 |
| | Taxi Balanced | 0 | 0 | 6 | 6 | 6 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 6 | 12 |
| | Truck | 1 | 1 | 5 | 5 | 6 | 6 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | 2 | 4 | 4 | 8 |
| | Total | 72 | 72 | 16 | 16 | 88 | 88 | 32 | 32 | 2 | 2 | 2 | 2 | 3 | 3 | 0 | 6 | 39 | 45 | 49 | 43 | 92 |
| | | In | Out | In | Out | In | Out | In | Out | In | Out | In | Out | In | Out | In | Out | In | Out | In | Out | Total |
| PM | Auto (Total) | 37 | 37 | 8 | 159 | 45 | 196 | 17 | 17 | 1 | 19 | 0 | 1 | 4 | 4 | 0 | 3 | 22 | 44 | 23 | 152 | 175 |
| | Taxi | 0 | 0 | 0 | 5 | 0 | 5 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 4 | 4 |
| | Taxi Balanced | 0 | 0 | 5 | 5 | 5 | 5 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 4 | 4 | 8 |
| | Truck | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 3 | 2 | 0 | 0 | 0 | 0 | 3 | 2 | -2 | -1 | -3 |
| | Total | 37 | 37 | 14 | 165 | 51 | 202 | 17 | 17 | 2 | 20 | 3 | 3 | 4 | 4 | 0 | 3 | 26 | 47 | 25 | 155 | 180 |
| | | In | Out | In | Out | In | Out | In | Out | In | Out | In | Out | In | Out | In | Out | In | Out | In | Out | Total |
| SAT | Auto (Total) | 30 | 30 | 26 | 17 | 56 | 47 | 13 | 13 | 3 | 2 | 1 | 0 | 3 | 3 | 0 | 0 | 20 | 18 | 36 | 29 | 65 |
| | Taxi | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| | Taxi Balanced | 0 | 0 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 4 |
| | Truck | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Total | 30 | 30 | 28 | 19 | 58 | 49 | 13 | 13 | 3 | 2 | 1 | 0 | 3 | 3 | 0 | 0 | 20 | 18 | 38 | 31 | 69 |

**Notes:**

(1) 0% linked-trip credit applied to No-Action local retail uses.

(2) 10% linked-trip credit applied to With-Action local retail uses.

(3) Commercial vehicle storage gsf included in total for auto repair/related uses. Vehicle trips based on 2017 PHA field counts.

## E. LEVEL 2 SCREENING ASSESSMENT

A Level 2 screening assessment involves the assignment and distribution of project-generated trips to the study area street network, pedestrian elements, and transit facilities, and the identification of specific locations where the incremental increase in demand may potentially exceed *CEQR Technical Manual* analysis thresholds and therefore require a quantitative analysis. These assignments are discussed below for each mode.

### Traffic

The origins and destinations of project increment auto and taxi trips were estimated based on 2012-2016 AASHTO CTPP reverse-journey-to-work data for Queens census tracts 1, 19, 179, 187, 189, and 199 in the vicinity of the project area. Autos and taxis were first assigned to the most likely routes between these origins/destinations and the project area. Auto trips were then assigned to/from the proposed project's parking garage entrance on Hunters Point Avenue and parking garage entrances for the projected development sites, assumed to be located on 48th Avenue and 31st Place. As it is anticipated that not all project demand would be accommodated on-site (see Section K, "Parking"), some autos were also assigned to nearby off-street public parking facilities. Taxis were assigned to the street frontages of each site. Figures H-2 and H-3 show the assignment of incremental vehicle trips (including auto, taxi, and truck trips) generated by the proposed action during the weekday AM, midday, and PM, and Saturday peak hours. As shown in Figures H-2 and H-3, incremental trips at a total of five signalized intersections along Van Dam Street are expected to exceed the 50-trip *CEQR Technical Manual* analysis threshold in the weekday AM and/or PM commuter peak hours, and these intersections have therefore been selected for detailed analysis. These intersections include:

1. Van Dam Street at 48th Avenue;
2. Van Dam Street at Hunters Point Avenue;
3. Van Dam Street at Gale Avenue;
4. Van Dam Street at Borden Avenue (eastbound); and
5. Van Dam Street at Borden Avenue (westbound).

Office uses typically generate lower levels of vehicular travel demand outside of the weekday AM and PM commuter peak periods. Consequently, as shown in Figures H-2 and H-3, the proposed action is not expected to generate 50 or more incremental trips at any intersection in the weekday midday or Saturday peak hours. Significant adverse traffic impacts during the weekday midday and Saturday peak hours are therefore not anticipated based on *CEQR Technical Manual* guidance, and further detailed analysis of traffic conditions during these periods is not warranted.

### Transit

Subway Stations

As shown in Table H-2, the proposed action is expected to generate a net total of 300 and 291 subway trips (in and out combined) in the weekday AM and PM commuter peak hours, respectively. These trips are expected to use the 33rd Street – Rawson Street subway station, which is located 0.4-mile to the north of the project area and is served by No. 7 local trains operating on

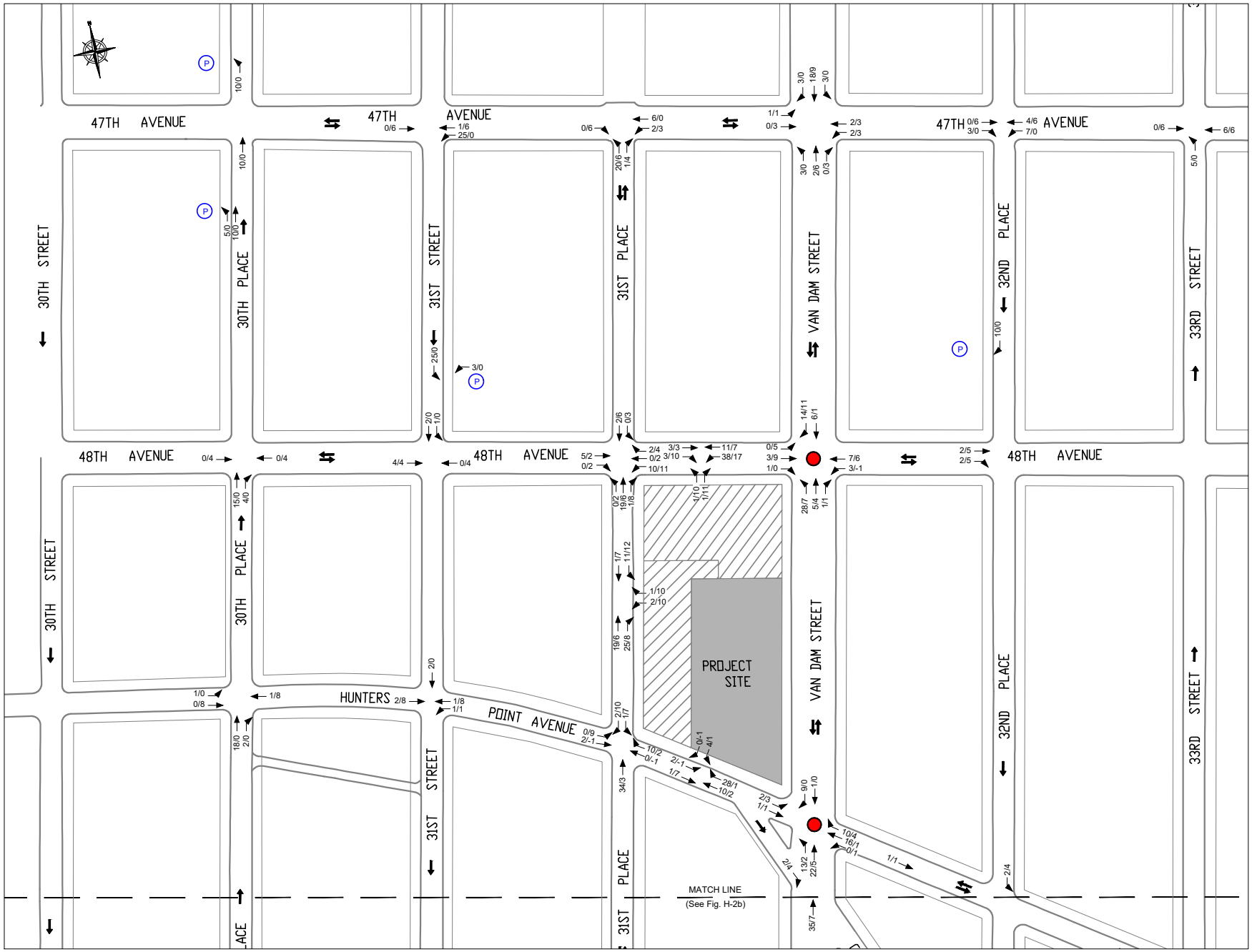
Analyzed Intersection

Projected Development Site

Public Parking Facility

20/6 - Weekday AM/Midday Vehicular Volumes

# Incremental Vehicle Volumes - AM/Midday

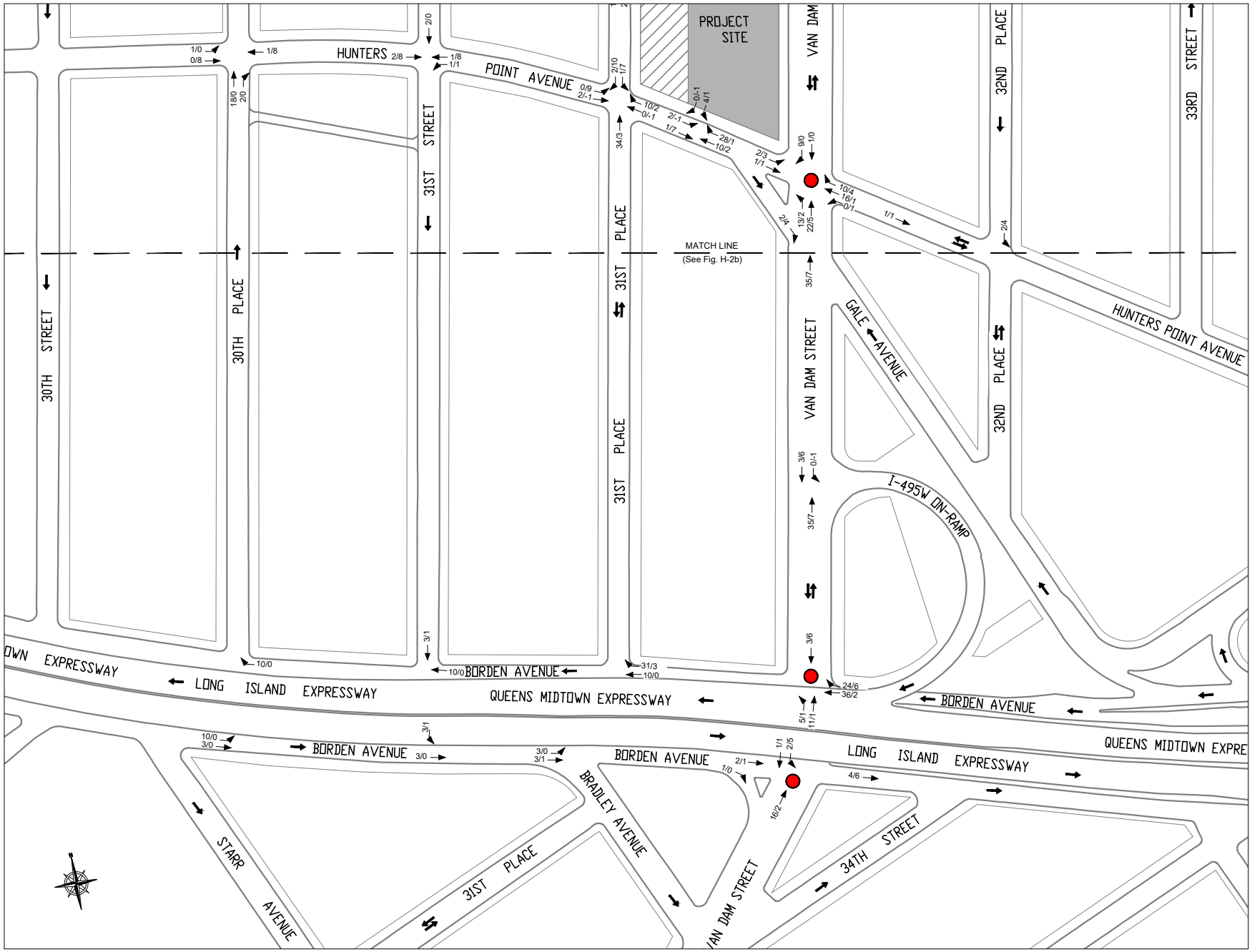


Analyzed Intersection

Projected Development Site

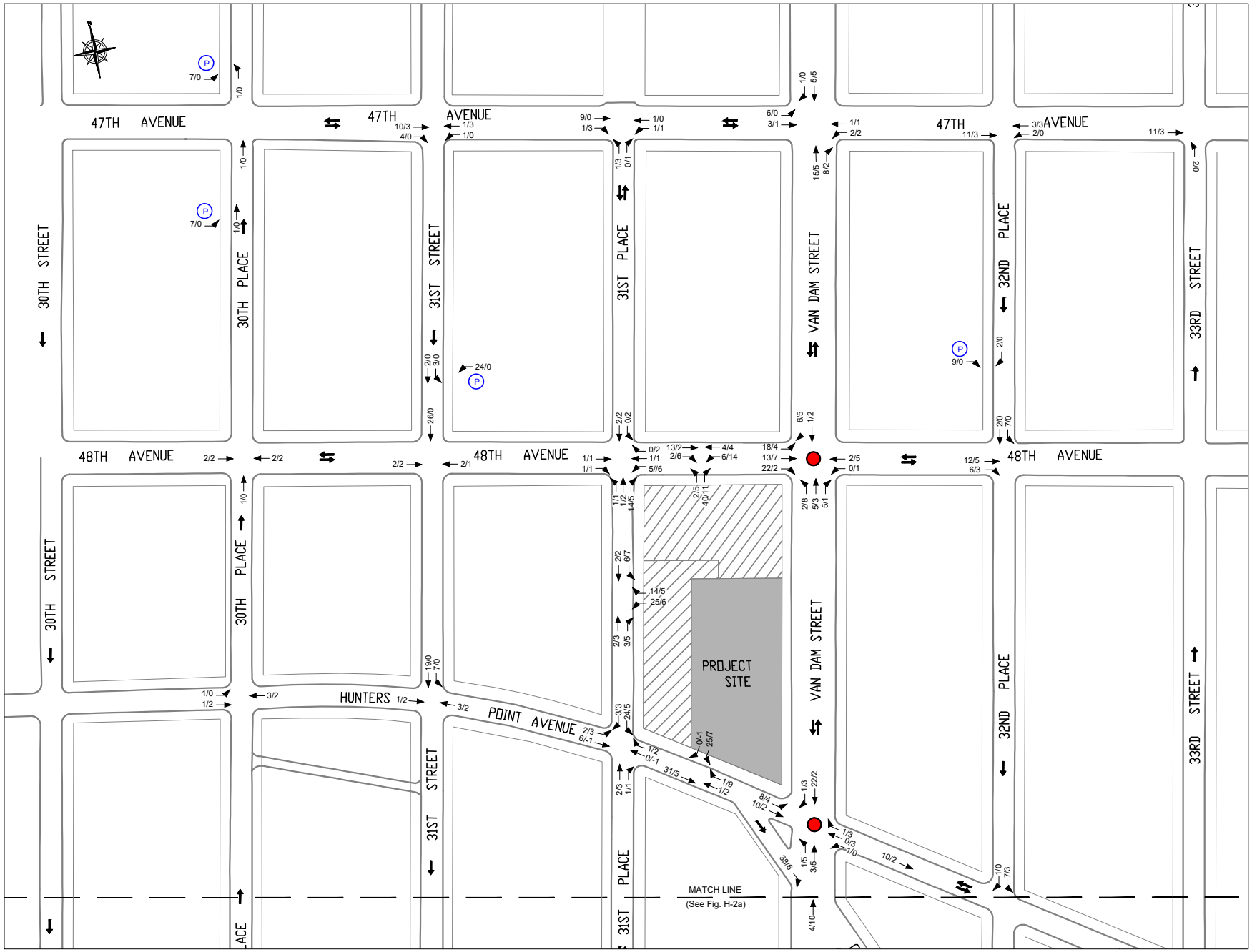
# Incremental Vehicle Volumes - AM/Midday

20/6 - Weekday AM/Midday Vehicular Volumes



Analyzed Intersection
Projected Development Site
Public Parking Facility
20/6 - Weekday PM/Saturday Vehicular Volumes

# Incremental Vehicle Volumes - PM/Saturday

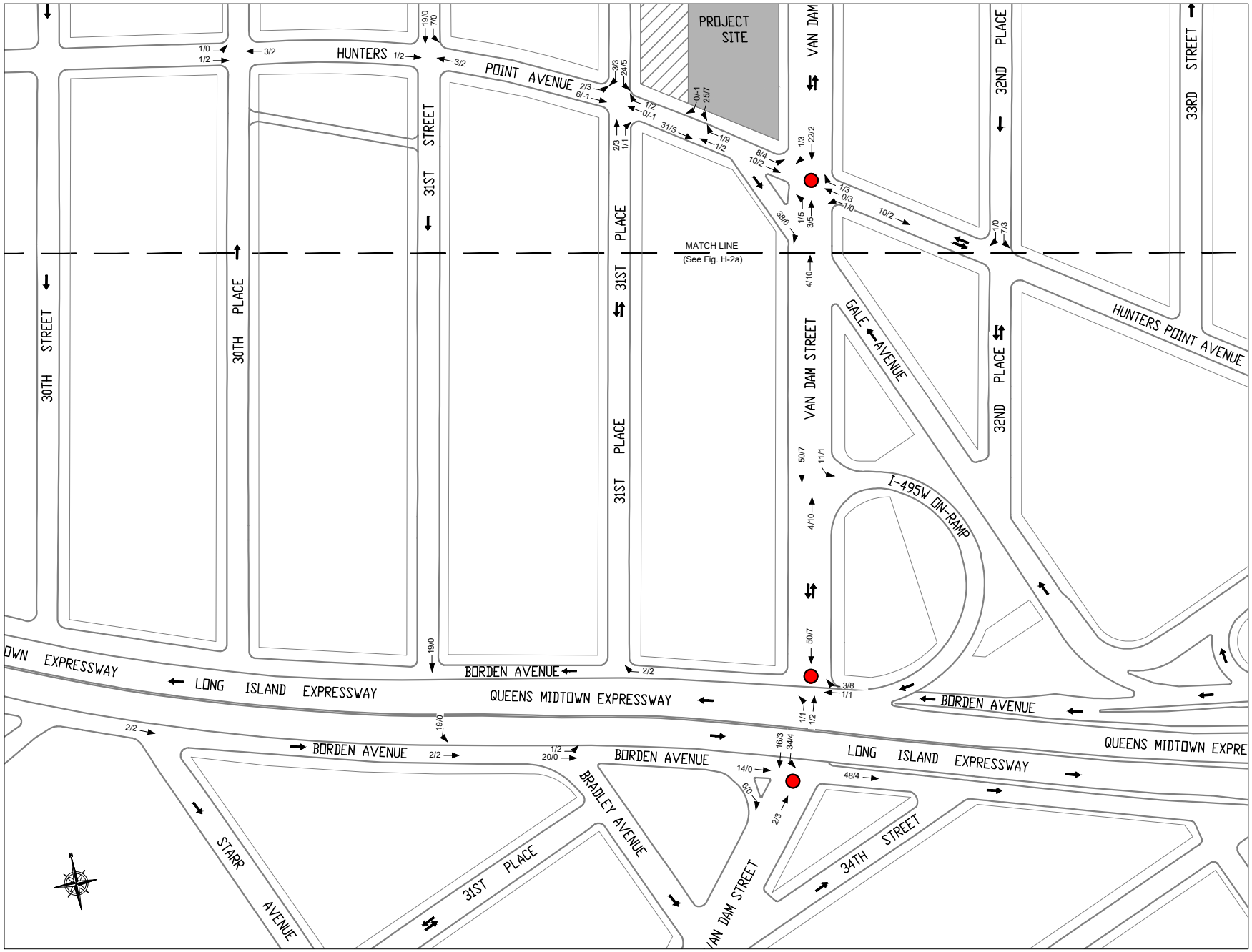


Analyzed Intersection

Projected Development Site

# Incremental Vehicle Volumes - PM/Saturday

20/6 - Weekday PM/Saturday Vehicular Volumes



the Flushing Line. As the number of project-generated trips at this station would exceed the 200-trip *CEQR Technical Manual* analysis threshold in the weekday AM and PM peak hours, this station is included for detailed analysis. Key circulation elements (e.g., stairs and fare arrays) expected to be used by concentrations of project-generated trips are analyzed.

Subway Line Haul

Line haul is the volume of transit riders passing a defined point on a given transit route. Subway line haul is typically analyzed in the peak direction of travel at the maximum load point on a route (the point where the trains carry the maximum number of passengers in the peak hour). For trains traveling between Manhattan and Queens, such as the No. 7 train, this is typically at or near the East River crossing, and the peak direction of travel is Manhattan-bound (southbound) in the AM and Queens-bound (northbound) in the PM.

As discussed above, the proposed action is expected to generate a net total of 300 and 291 subway trips (in and out combined) on Flushing Line No. 7 local trains in the weekday AM and PM commuter peak hours, respectively. As the proposed project is commercial in nature, project-generated subway trips would be predominantly inbound to the project area in the AM peak hour and outbound in the PM peak hour. Given the location of the project area in Long Island City, few if any project-generated trips are expected to travel into Manhattan in the AM peak hour and from Manhattan to Queens in the PM peak hour. Consequently, the proposed action is not expected to generate 200 or more peak direction trips (the *CEQR Technical Manual* analysis threshold) through the maximum load point for No. 7 trains in either period. Therefore, significant adverse subway line haul impacts are not anticipated and further analysis is not warranted.

Local Bus

Four local bus routes operate within one quarter-mile of the project area, including the Q32 operated by New York City Transit (NYCT) and the Q39, Q60 and Q67 operated by MTA Bus Company. As shown in Table H-2, the proposed action would generate a net increase of 63 and 68 person trips by bus during the weekday AM and PM commuter peak hours, respectively. As these trips would be distributed among the four routes serving the project area, it is unlikely that any one route would experience 50 or more trips in one direction in either peak hour. Significant adverse impacts to bus service are therefore considered unlikely to occur based on *CEQR Technical Manual* criteria, and a detailed analysis of local bus conditions is not warranted.

**Pedestrians**

Many project-generated trips would include a walk component using local sidewalks, street corners, and crosswalks, to access the project area. As shown above in Table H-2, the proposed action would generate a net total of 522, 1,440, 837, and 686 pedestrian trips (walk-only trips and pedestrians en route to/from bus stops and the subway) during the weekday AM, midday, and PM, and Saturday peak hours, respectively. As the number of project generated pedestrian trips would exceed the 200-trip *CEQR Technical Manual* analysis threshold during each peak hour, a Level 2 screening assessment is warranted.

Figure H-4 shows the assignment of project-generated pedestrian trips to pedestrian elements (sidewalks, corner areas, and crosswalks) in the vicinity of the project area. Subway and bus walk trips were assigned to the most direct paths between the project area and the 33rd Street – Rawson Street (7) subway station or nearby bus stops. Walk-only trips were dispersed along sidewalks throughout the study area. Based on these assignments, Figure H-4 also shows 18 pedestrian elements (five sidewalks, eight corner areas and five crosswalks) in the vicinity of the project area where project-generated trips would exceed the 200-trip *CEQR Technical Manual* analysis threshold and therefore require a detailed analysis for the weekday AM, midday and PM peak hours. As project increment pedestrian trips during the Saturday peak hour would generally have assignment patterns similar to those of the weekday midday but with lower overall volumes, significant adverse impacts over and above those identified for the weekday midday are considered unlikely. The Saturday peak hour is therefore not analyzed for pedestrians. The pedestrian elements analyzed for the weekday AM, midday, and PM peak hours include:

*Sidewalks*

1. West sidewalk on Van Dam Street between 48th Avenue and Hunters Point Avenue.
2. North sidewalk on 48th Avenue between Van Dam Street and 32nd Place.
3. South sidewalk on 48th Avenue between Van Dam Street and 32nd Place.
4. South sidewalk on 48th Avenue between 31st Place and Van Dam Street
5. East sidewalk on 31st Place between 48th Avenue and Hunters Point Avenue.

*Corners*

6. Northeast corner of the 48th Avenue and Van Dam Street intersection.
7. Southeast corner of the 48th Avenue and Van Dam Street intersection.
8. Southwest corner of the 48th Avenue and Van Dam Street intersection.
9. Northwest corner of the 48th Avenue and Van Dam Street intersection.
10. Northeast corner of the 48th Avenue and 31st Place intersection.
11. Southeast corner of the 48th Avenue and 31st Place intersection.
12. Southwest corner of the 48th Avenue and 31st Place intersection.
13. Northwest corner of the Hunters Point Avenue and Van Dam Street intersection.

*Crosswalks*

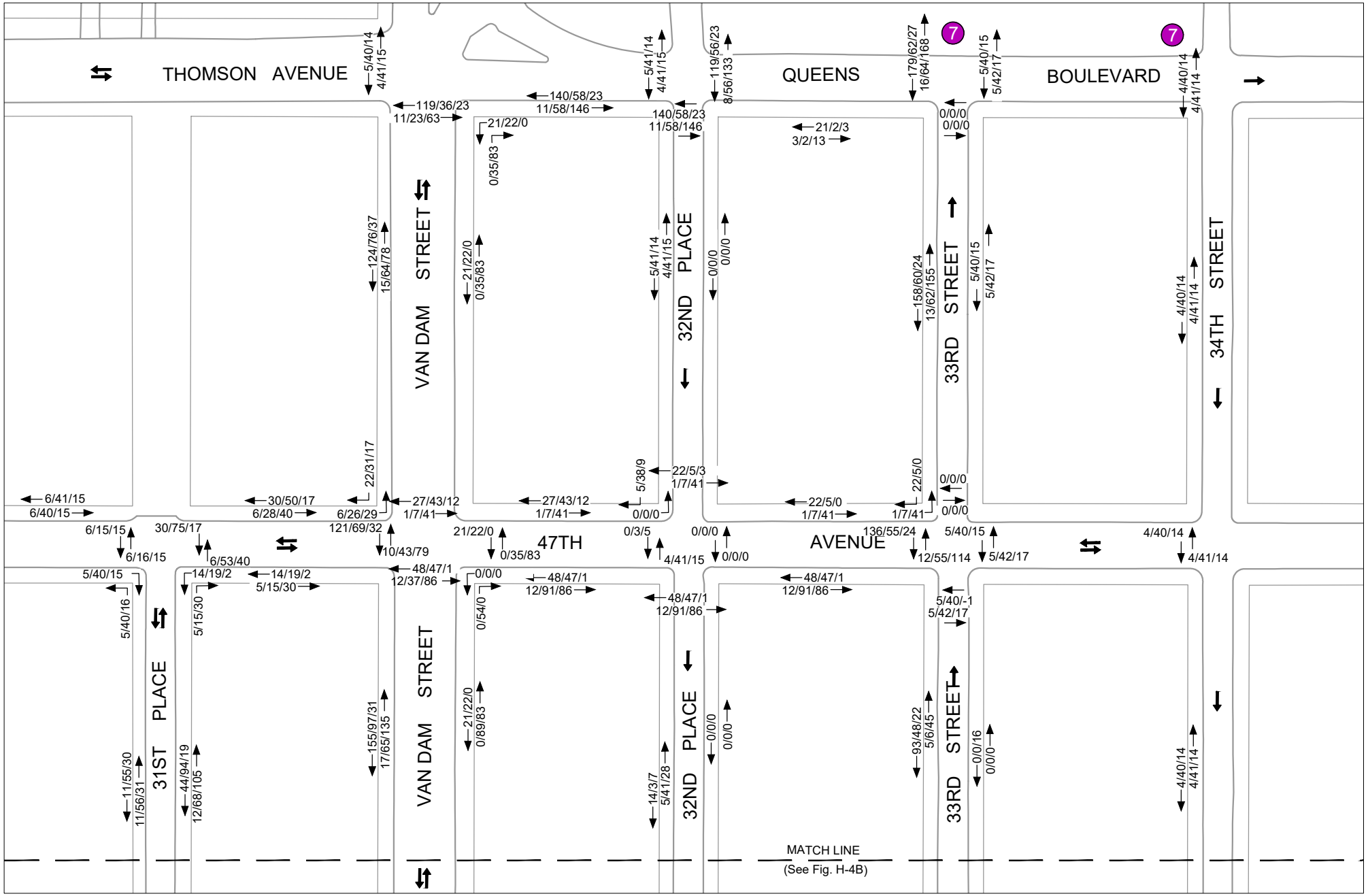
14. North crosswalk on Van Dam Street at 48th Avenue.
15. South crosswalk on Van Dam Street at 48th Avenue.
16. West crosswalk on 48th Avenue at Van Dam Street.
17. South crosswalk on 31st Place at 48th Avenue.
18. East Crosswalk on 48$^{th}$ Avenue at 31$^{st}$ Place.

**Parking**

The parking demand forecast focuses on the weekday midday period when commercial parking demand is typically greatest. As some action-generated auto trips have been assigned to off-site public parking facilities, the weekday AM commuter period is also analyzed to document available capacity during this period. As shown in Table H-3, weekday parking demand generated by the proposed/projected office and local retail uses in the project area would peak at approximately 343 spaces during the 2-3 PM period.

Pedestrian Volumes - Increment

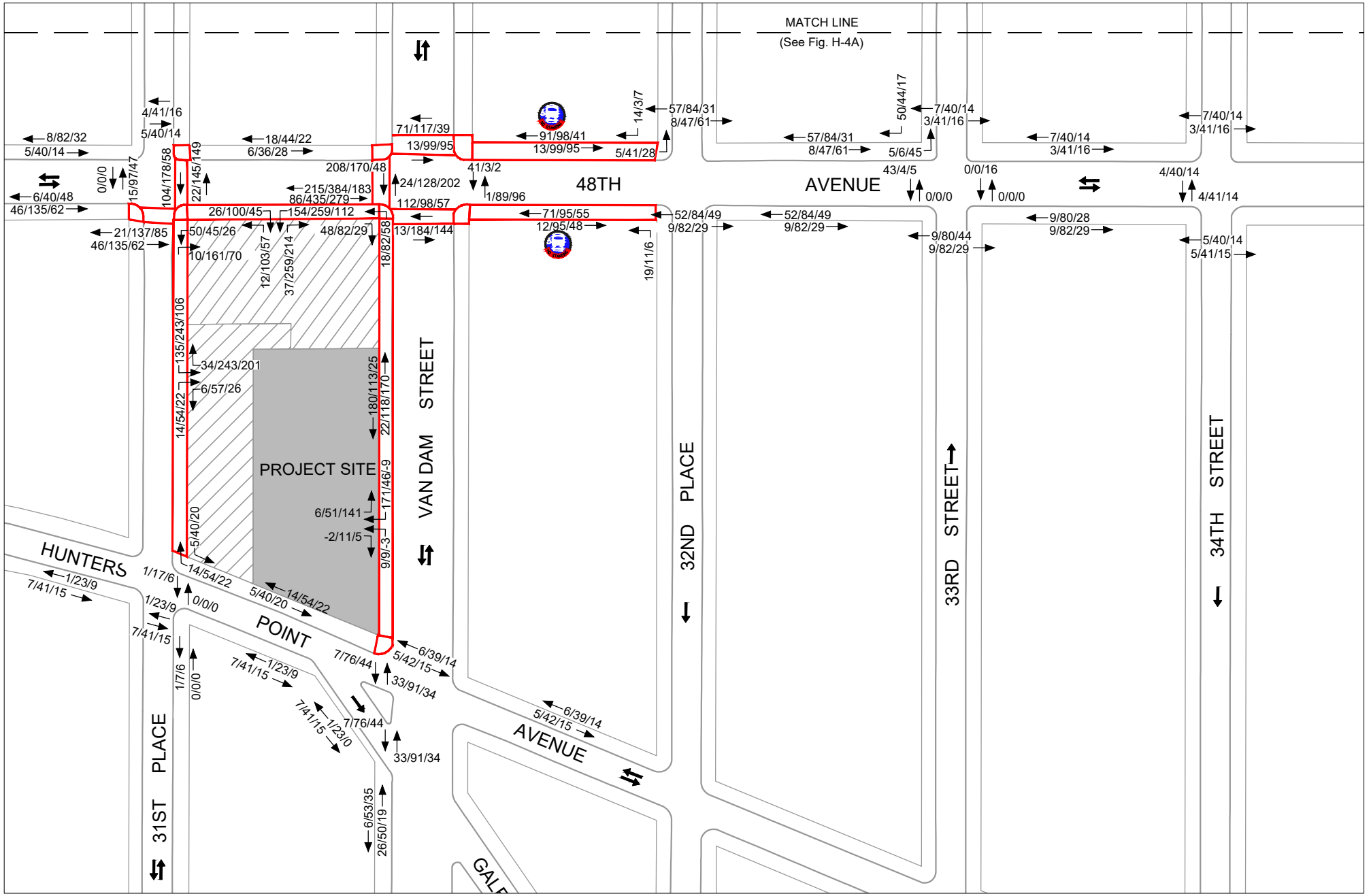
7 MTA Subway Station  MTA Bus Stop  Proposed Analysis Location  Projected Development Site




20/9/6 - Weekday AM/MD/PM Pedestrian Volumes

# Pedestrian Volumes - Increment

7 MTA Subway Station | MTA Bus Stop | Proposed Analysis Location | Projected Development Site




20/9/6 - Weekday AM/MD/PM Pedestrian Volumes

As discussed above, it is anticipated that a total of 207 parking spaces would be provided under the proposed action (49 spaces on Lot 1, 72 spaces on Lot 6, and 86 spaces on Lot 14). As this number of spaces would not be sufficient to accommodate the peak parking demand, weekday on-street and off-street parking conditions are analyzed.

**Table H-3**
**Weekday Parking Accumulation**

| Total | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Local Retail 54,968 gsf 748 auto trips/day | | | Office 294,142 gsf 964 auto trips/day | | | Total Demand | | |
| | #In | #Out | Accum. | #In | #Out | Accum. | #In | #Out | Accum. |
| 12-1 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1-2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2-3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3-4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4-5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5-6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6-7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7-8 | 8 | 3 | 5 | 14 | 1 | 13 | 22 | 4 | 18 |
| 8-9 | 11 | 11 | 5 | 173 | 7 | 179 | 184 | 18 | 184 |
| 9-10 | 24 | 17 | 12 | 145 | 24 | 300 | 169 | 41 | 312 |
| 10-11 | 25 | 13 | 24 | 24 | 17 | 307 | 49 | 30 | 331 |
| 11-12 | 25 | 20 | 29 | 10 | 29 | 288 | 35 | 49 | 317 |
| 12-1 PM | 28 | 30 | 27 | 5 | 5 | 288 | 33 | 35 | 315 |
| 1-2 | 71 | 71 | 27 | 5 | 5 | 288 | 76 | 76 | 315 |
| 2-3 | 31 | 31 | 27 | 54 | 26 | 316 | 85 | 57 | 343 |
| 3-4 | 30 | 31 | 26 | 19 | 40 | 295 | 49 | 71 | 321 |
| 4-5 | 31 | 35 | 22 | 17 | 128 | 184 | 48 | 163 | 206 |
| 5-6 | 37 | 37 | 22 | 8 | 159 | 33 | 45 | 196 | 55 |
| 6-7 | 25 | 29 | 18 | 7 | 35 | 5 | 32 | 64 | 23 |
| 7-8 | 15 | 23 | 10 | 1 | 6 | 0 | 16 | 29 | 10 |
| 8-9 | 10 | 15 | 5 | 0 | 0 | 0 | 10 | 15 | 5 |
| 9-10 | 3 | 8 | 0 | 0 | 0 | 0 | 3 | 8 | 0 |
| 10-11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11-12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 374 | 374 | | 482 | 482 | | 856 | 856 | |

# F. TRANSPORTATION ANALYSES METHODOLOGIES

## Traffic

Analysis Methodology

To establish the existing conditions traffic network for the study area, turning movement, vehicle classification, and automatic traffic recorder (ATR) counts were conducted during the weekday AM and PM peak periods in October 2017. Field surveys of parking regulations, lane configurations, and other physical and operational characteristics of the street network were also undertaken in October 2017 and supplemented with additional field observations conducted in October and November 2020. Current signal timing plans for signalized intersections within the study area were obtained from the New York City Department of Transportation (DOT).

The traffic analysis examines conditions in the weekday AM and PM peak hours when demand is expected to be greatest. Based on existing peak traffic volumes along major corridors in the study area, the peak hours selected for the analyses are 7:30-8:30 AM and 4:00-5:00 PM.

The capacity analyses at study area intersections are based on the methodology presented in the *Highway Capacity Manual (HCM) Software HCS+ Version 5.5*. Traffic data required for these analyses include the hourly volumes on each approach and various other physical and operational characteristics. Field inventories were conducted to document the physical layout, lane markings, curbside parking regulations, and other relevant characteristics needed for the analyses.

The HCM methodology provides a volume-to-capacity (v/c) ratio for each signalized intersection approach. The v/c ratio represents the ratio of traffic volumes on an approach to the approach's carrying capacity. A ratio of less than 0.90 is generally considered indicative of non-congested conditions in dense urban areas; when higher than this value, the ratio reflects increasing congestion. At a v/c ratio of between 0.95 and 1.0, near-capacity conditions are reached and delays can become substantial. Ratios of greater than 1.0 indicate saturated conditions with queuing. The HCM methodology also expresses quality of flow in terms of level of service (LOS), which is based on the amount of delay that a driver typically experiences at an intersection. Levels of service range from A, with minimal delay (ten seconds or less per vehicle), to F, which represents long delays (greater than 80 seconds per vehicle).

For unsignalized intersections, the HCM methodology generally assumes that major street traffic is not affected by minor street flows. Left turns from the major street are assumed to be affected by the opposing, or oncoming, major street flow; minor street traffic is affected by all conflicting movements. Similar to signalized intersections, the HCM methodology expresses the quality of flow at unsignalized intersections in terms of LOS based on the amount of delay that a driver experiences. This relationship differs somewhat from the criteria used for signalized intersections, primarily because drivers expect different levels of performance from the two different kinds of transportation facilities. For unsignalized intersections, levels of service range from A, with minimal delay (ten seconds or less per vehicle), to F, which represents long delays (over 50 seconds per vehicle).

Table H-4 shows the LOS/delay relationship for signalized and unsignalized intersections using the HCM methodology. Levels of service A, B, and C generally represent highly favorable to fair levels of traffic flow. At LOS D, the influence of congestion becomes noticeable. LOS E is considered to be the limit of acceptable delay, and LOS F is considered to be unacceptable to most drivers. In this analysis, a signalized lane grouping operating at LOS E or F or a v/c ratio of 0.90 or above is identified as congested. For unsignalized intersections, a lane group with LOS E or F is also identified as congested.

**Table H-4**
**Intersection Level of Service Criteria**

| Level of Service (LOS) | Average Delay per Vehicle (seconds) | |
|---|---|---|
| | Signalized Intersections | Unsignalized Intersections |
| A | ≤10 | 0–10 |
| B | >10–20 | >10–15 |
| C | >20–35 | >15–25 |
| D | >35–55 | >25–35 |
| E | >55–80 | >35–50 |
| F | >80 | >50.0 |

**Source:** *2000 Highway Capacity Manual.*

Significant Impact Criteria

The identification of significant adverse traffic impacts at analyzed intersections is based on criteria presented in the *CEQR Technical Manual*. According to *CEQR Technical Manual* criteria, if a lane group under the With-Action condition is within LOS A, B, or C, or marginally acceptable LOS D (average control delay less than or equal to 45.0 seconds/vehicle for signalized intersections and 30.0 seconds/vehicle for unsignalized intersections), the impact is not considered significant. If the lane group LOS deteriorates from LOS A, B, or C in the No-Action condition to worse than mid-LOS D (i.e., delay greater than 45 seconds/vehicle at signalized intersections or 30 seconds/vehicle at unsignalized intersections) or to LOS E or F under the With-Action condition, then a significant traffic impact has occurred. For a lane group operating at LOS D under the No-Action condition, an increase of five or more seconds is considered significant if the With-Action delay exceeds mid-LOS D (45 second delay). For a lane group operating at LOS E under the No-Action condition, an increase in projected delay of four or more seconds is considered significant, and for a lane group operating at LOS F under the No-Action condition, an increase in projected delay of three or more seconds is considered significant.

## Transit

Subway Stations

*Analysis Methodology*

To determine existing conditions at analyzed subway station elements, subway ridership data was collected at the 33rd Street–Rawson Street (7) subway station in October 2017. The *CEQR Technical Manual* methodology for assessing subway station pedestrian circulation elements (stairs, escalators, and passageways) and fare control elements (turnstiles, high entry/exit turnstiles [HEETs], and high exit turnstiles [HXTs]) compares existing and projected pedestrian volumes

with the element's design capacity to yield a v/c ratio. All analyses reflect pedestrian flow volumes over a 15-minute interval during each peak hour. Based on existing pedestrian volumes at the 33rd Street–Rawson Street subway station, the peak hours selected for the analysis of subway station conditions are 7:30-8:30 AM and 5:00-6:00 PM. (As noted previously, transit analyses typically focus on the weekday AM and PM commuter peak hours as it is during these periods that overall demand on the subway and bus systems is usually highest.)

Under *CEQR Technical Manual* guidance, the capacity of a stairway or passageway is determined based on four factors: the NYCT guideline capacity, the effective width, surging factors, and friction/counter-flow factors, if applicable. NYCT guideline capacity is ten passengers per foot per minute (pfm) for stairs and 15 pfm for passageways. The effective width of a stair or passageway is the actual width adjusted to reflect pedestrian avoidance of sidewalls and center handrails, if present. A surging factor is applied to existing pedestrian volumes to reflect conditions where pedestrian flows tend to be concentrated (or surged) during shorter periods within the 15-minute analysis interval. This factor, which is based on the size of the station and the proximity of the pedestrian element to the station platforms, can reduce the calculated capacity by up to 25 percent. Lastly, a friction (or counter-flow) factor reducing calculated capacity by ten percent is applied where opposing pedestrian flows use the same stair or passageway. No friction factor is applied if the flow is all or predominantly in one direction.

By contrast with stairway and passageways, under *CEQR Technical Manual* guidance the capacity of an escalator or turnstile is determined based on only two factors: the NYCT guideline capacity for a 15-minute interval and a surging factor of up to 25 percent.

The estimated v/c ratio is compared to NYCT criteria to determine an LOS for the operation of an element. Table H-5 shows the LOS and corresponding v/c ratios for all subway station elements. Six levels of service are defined with letters A through F. LOS A representative of free flow conditions without pedestrian conflicts and LOS F depicts severe congestion and queuing.

**Table H-5**
**LOS Criteria for Subway Station Elements**

| LOS | Description | V/C Ratio |
|---|---|---|
| A | Free Flow | 0.00 to 0.45 |
| B | Fluid Flow | 0.45 to 0.70 |
| C | Fluid, somewhat restricted | 0.70 to 1.00 |
| D | Crowded, walking speed restricted | 1.00 to 1.33 |
| E | Congested, some shuffling and queuing | 1.33 to 1.67 |
| F | Severely congested, queued | > 1.67 |

**Source:** *CEQR Technical Manual*

*Significant Impact Criteria*

The *CEQR Technical Manual* identifies a significant impact for stairways and passageways in terms of the minimum width increment threshold (WIT) based on the minimum amount of additional capacity that would be required to restore conditions to either their No-Action v/c ratio or to a v/c ratio of 1.00 (LOS C/D), whichever is greater. Stairways that are substantially degraded in level of service or that experience the formation of extensive queues are classified as

significantly impacted. Significant adverse stairway or passageway impacts are typically considered to have occurred once the thresholds shown in Table H-6 are reached or exceeded.

**Table H-6**
**Significant Impact Thresholds for Stairways and Passageways**

| With-Action V/C Ratio | WIT for Significant Impact (inches) | |
|---|---|---|
| | Stairway | Passageway |
| 1.00-1.09 | 8 | 13 |
| 1.10-1.19 | 7 | 11.5 |
| 1.20-1.29 | 6 | 10 |
| 1.30-1.39 | 5 | 8.5 |
| 1.40-1.49 | 4 | 6 |
| 1.50-1.59 | 3 | 4.5 |
| ≥1.6 | 2 | 3 |

**Source:** *CEQR Technical Manual*

For turnstiles, escalators, and high-wheel exit gates, the *CEQR Technical Manual* defines a significant impact as an increase from a No-Action v/c ratio of below 1.00 to a v/c ratio of 1.00 or greater. Where a facility is already at a v/c ratio of 1.00 or greater, a 0.01 change in v/c ratio is considered significant.

## Pedestrians

Analysis Methodology

Data on peak period pedestrian flow volumes were collected along analyzed sidewalks, corner areas, and crosswalks in October 2017. Peak hours were determined by comparing rolling hourly averages, and the highest 15-minute volumes within the selected peak hours were used for analysis. Based on existing peak pedestrian volumes along major corridors in the study area, the peak hours selected for analysis include the weekday 7:30-8:30 AM, 12:15-1:15 PM (midday) and 5:00-6:00 PM periods. As project increment pedestrian trips during the Saturday midday would generally have assignment patterns similar to those of the weekday midday but with lower overall volumes, significant adverse pedestrian impacts over and above those identified for the weekday midday are considered unlikely. The Saturday midday peak hour is therefore not analyzed for pedestrians.

Peak 15-minute pedestrian flow conditions during the weekday AM, midday, and PM peak hours are analyzed using the *2000 Highway Capacity Manual* methodology and procedures outlined in the *CEQR Technical Manual*. Using this methodology, the congestion level of pedestrian facilities is determined by considering pedestrian volume, measuring the sidewalk or crosswalk width, determining the available pedestrian capacity and developing a ratio of volume flows to capacity conditions. The resulting ratio is then compared with LOS standards for pedestrian flow, which define a qualitative relationship at a certain pedestrian traffic concentration level. The evaluation of street crosswalks and corners is more complicated as these spaces cannot be treated as corridors due to the time incurred waiting for traffic lights. To effectively evaluate these facilities a "time-space" analysis methodology is employed which takes into consideration the traffic light cycle at intersections.

LOS standards are based on the average area available per pedestrian during the analysis period, typically expressed as a 15-minute peak period. LOS grades from A to F are assigned, with LOS A representative of free flow conditions without pedestrian conflicts and LOS F depicting significant capacity limitations and inconvenience. Table H-7 defines the LOS criteria for pedestrian crosswalk/corner area and sidewalk conditions based on the *Highway Capacity Manual* methodology.

The analysis of sidewalk conditions includes a "platoon" factor in the calculation of pedestrian flow to more accurately estimate the dynamics of walking. "Platooning" is the tendency of pedestrians to move in bunched groups or "platoons" once they cross a street where cross traffic required them to wait. Platooning generally results in a level of service one level poorer than that determined for average flow rates.

**Table H-7**
**Pedestrian Crosswalk/Corner Area and Sidewalk Levels of Service Descriptions**

| LOS | Crosswalk/Corner | Crosswalk/Corner Area Criteria ($ft^2$/ped) | Non-Platoon Sidewalk Criteria ($ft^2$/ped) | Platoon Sidewalk Criteria ($ft^2$/ped) |
|---|---|---|---|---|
| A | (Unrestricted) | > 60 | > 60 | > 530 |
| B | (Slightly Restricted) | > 40 to 60 | > 40 to 60 | > 90 to 530 |
| C | (Restricted but fluid) | > 24 to 40 | > 24 to 40 | > 40 to 90 |
| D | (Restricted, necessary to continuously alter walking stride and direction) | > 15 to 24 | > 15 to 24 | > 23 to 40 |
| E | (Severely restricted) | > 8 to 15 | > 8 to 15 | > 11 to 23 |
| F | (Forward progress only by shuffling; no reverse movement possible) | ≤ 8 | ≤ 8 | ≤ 11 |

**Notes:**
Based on average conditions for 15 minutes
$ft^2$/ped – square feet of area per pedestrian
**Source:** *CEQR Technical Manual*

Significant Impact Criteria

*Sidewalks*

The *CEQR Technical Manual* impact criteria for a central business district (CBD) location are used to identify significant adverse impacts due to the proposed action. These criteria define a significant adverse sidewalk impact to have occurred under platoon conditions if the average pedestrian space under the No-Action condition is greater than 39.2 square feet/pedestrian ($ft^2$/ped), and the average pedestrian space under the With-Action condition is less than 31.5 $ft^2$/ped (worse than mid-LOS D). If the average pedestrian space under the With-Action condition is greater than or equal to 31.5 $ft^2$/ped (mid-LOS D or better), the impact should not be considered significant. If the No-Action pedestrian space is between 6.4 and 39.2 $ft^2$/ped, a reduction in pedestrian space under the With-Action condition should be considered significant based on Table H-8, which shows a sliding-scale that identifies what decrease in pedestrian space is considered a significant impact for a given pedestrian space value in the No-Action condition. If the reduction in pedestrian space is less than the value in Table H-8, the impact is not considered significant. If

the average pedestrian space under the No-Action condition is less than 6.4 $ft^2$/ped, then a reduction in pedestrian space greater than or equal to 0.3 $ft^2$/ped, under the With-Action condition, should be considered significant.

**Table H-8**
**Impact Criteria for Sidewalks**
**With Platoon Flow in a CBD Location**

| No-Action Condition Pedestrian Flow ($ft^2$/ped) | With-Action Conditions Pedestrian Space Reduction to be Considered a Significant Impact ($ft^2$/ped) |
|---|---|
| >39.2 | With-Action Condition < 31.5 |
| 38.7 to 39.2 | Reduction ≥ 3.8 |
| 37.8 to 38.6 | Reduction ≥ 3.7 |
| 36.8 to 37.7 | Reduction ≥ 3.6 |
| 35.9 to 36.7 | Reduction ≥ 3.5 |
| 34.9 to 35.8 | Reduction ≥ 3.4 |
| 34.0 to 34.8 | Reduction ≥ 3.3 |
| 33.0 to 33.9 | Reduction ≥ 3.2 |
| 32.1 to 32.9 | Reduction ≥ 3.1 |
| 31.1 to 32.0 | Reduction ≥ 3.0 |
| 30.2 to 31.0 | Reduction ≥ 2.9 |
| 29.2 to 30.1 | Reduction ≥ 2.8 |
| 28.3 to 29.1 | Reduction ≥ 2.7 |
| 27.3 to 28.2 | Reduction ≥ 2.6 |
| 26.4 to 27.2 | Reduction ≥ 2.5 |
| 25.4 to 26.3 | Reduction ≥ 2.4 |
| 24.5 to 25.3 | Reduction ≥ 2.3 |
| 23.5 to 24.4 | Reduction ≥ 2.2 |
| 22.6 to 23.4 | Reduction ≥ 2.1 |
| 21.6 to 22.5 | Reduction ≥ 2.0 |
| 20.7 to 21.5 | Reduction ≥ 1.9 |
| 19.7 to 20.6 | Reduction ≥ 1.8 |
| 18.8 to 19.6 | Reduction ≥ 1.7 |
| 17.8 to 18.7 | Reduction ≥ 1.6 |
| 16.9 to 17.7 | Reduction ≥ 1.5 |
| 15.9 to 16.8 | Reduction ≥ 1.4 |
| 15.0 to 15.8 | Reduction ≥ 1.3 |
| 14.0 to 14.9 | Reduction ≥ 1.2 |
| 13.1 to 13.9 | Reduction ≥ 1.1 |
| 12.1 to 13.0 | Reduction ≥ 1.0 |
| 11.2 to 12.0 | Reduction ≥ 0.9 |
| 10.2 to 11.1 | Reduction ≥ 0.8 |
| 9.3 to 10.1 | Reduction ≥ 0.7 |
| 8.3 to 9.2 | Reduction ≥ 0.6 |
| 7.4 to 8.2 | Reduction ≥ 0.5 |
| 6.4 to 7.3 | Reduction ≥ 0.4 |
| <6.4 | Reduction ≥ 0.3 |

**Source:** *CEQR Technical Manual*

**Table H-9**
**Significant Impact Criteria for Corners and Crosswalks in a CBD Location**

| No-Action Condition Pedestrian Space ($ft^2$/ped) | With-Action Condition Pedestrian Space Reduction to be Considered a Significant Impact ($ft^2$/ped) |
|---|---|
| > 21.5 | With-Action Condition < 19.5 |
| 21.3 to 21.5 | Reduction ≥ 2.1 |
| 20.4 to 21.2 | Reduction ≥ 2.0 |
| 19.5 to 20.3 | Reduction ≥ 1.9 |
| 18.6 to 19.4 | Reduction ≥ 1.8 |
| 17.7 to 18.5 | Reduction ≥ 1.7 |
| 16.8 to 17.6 | Reduction ≥ 1.6 |
| 15.9 to 16.7 | Reduction ≥ 1.5 |
| 15.0 to 15.8 | Reduction ≥ 1.4 |
| 14.1 to 14.9 | Reduction ≥ 1.3 |
| 13.2 to 14.0 | Reduction ≥ 1.2 |
| 12.3 to 13.1 | Reduction ≥ 1.1 |
| 11.4 to 12.2 | Reduction ≥ 1.0 |
| 10.5 to 11.3 | Reduction ≥ 0.9 |
| 9.6 to 10.4 | Reduction ≥ 0.8 |
| 8.7 to 9.5 | Reduction ≥ 0.7 |
| 7.8 to 8.6 | Reduction ≥ 0.6 |
| 6.9 to 7.7 | Reduction ≥ 0.5 |
| 6.0 to 6.8 | Reduction ≥ 0.4 |
| 5.1 to 5.9 | Reduction ≥ 0.3 |
| < 5.1 | Reduction ≥ 0.2 |

**Source:** *CEQR Technical Manual*

*Corner Areas and Crosswalks*

For CBD areas, *CEQR Technical Manual* criteria define a significant adverse corner area or crosswalk impact to have occurred if the average pedestrian space under the No-Action condition is greater than 21.5 $ft^2$/ped and, under the With-Action condition, the average pedestrian space decreases to 19.5 $ft^2$/ped or less (mid-LOS D or worse). If the pedestrian space under the With-Action condition is greater than or equal to 19.5 $ft^2$/ped (mid-LOS D or better), the impact should not be considered significant. If the average pedestrian space under the No-Action condition is between 5.1 and 21.5 $ft^2$/ped, a decrease in pedestrian space under the With-Action condition should be considered significant based on Table H-9, which shows a sliding-scale that identifies what decrease in pedestrian space is considered a significant impact for a given amount of pedestrian space in the No-Action condition. If the decrease in pedestrian space is less than the value in Table H-9, the impact is not considered significant. If the average pedestrian space under the No-Action condition is less than 5.1 $ft^2$/ped, then a decrease in pedestrian space greater than or equal to 0.2 $ft^2$/ped should be considered significant.

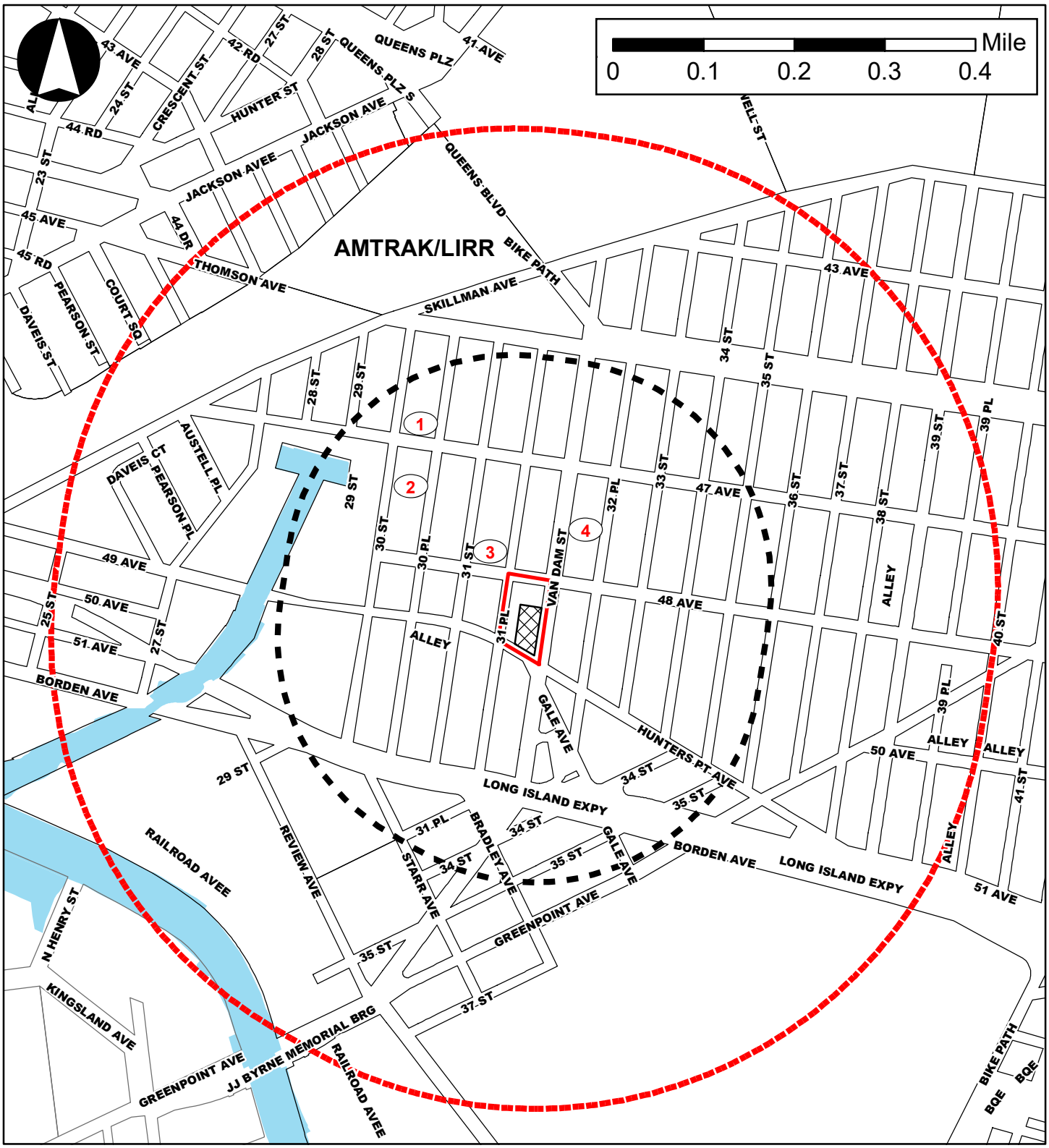
**Pedestrian and Vehicular Safety Evaluation**

Pursuant to *CEQR Technical Manual* guidelines, an evaluation of vehicular and pedestrian safety is needed for locations within the traffic and pedestrian study areas that have been identified as high crash locations. These are defined as locations where 48 or more total reportable and non-reportable crashes or five or more pedestrian/bicyclist injury crashes have occurred in any consecutive 12 months of the most recent three-year period for which data are available. For these locations, crash trends would be identified to determine whether projected vehicular and pedestrian traffic would further impact safety, or whether existing unsafe conditions could adversely impact the flow of the projected new trips. The determination of potential significant safety impacts depends on the type of area where the project area is located, traffic volumes, crash types and severity, and other contributing factors. Where appropriate, measures to improve traffic and pedestrian safety should be identified and coordinated with DOT.

**Parking**

The parking analysis identifies the extent to which on-street and off-street parking is available and utilized under existing and future conditions and estimates the parking demand resulting from the proposed action during the peak weekday AM and midday periods. It takes into consideration any anticipated changes in area parking supply and provides a comparison of parking needs versus availability to determine if a parking shortfall is likely to result from parking displacement attributable to, or additional demand generated by, the proposed action. Typically, this analysis encompasses a study area within a quarter-mile radius of the project area (refer to Figure H-5). The study area is generally bounded by Thomson Avenue to the north, 36th Street to the east, Starr Avenue and Greenpoint Avenue to the south, and 29th Street to the west. Existing on-street parking regulations, capacities, and utilization were inventoried for the parking study area on a block-by block basis. The on-street capacities account for curbside regulations, curb cuts, fire hydrants, and other obstructions to curbside parking during each respective period.

**Figure H-5**
**Parking Study Area**




## Legend

- Rezoning Area
- Proposed Development Site
- Quarter-Mile Radius
- Half-Mile Radius
- 1 Off-Street Public Parking Facilities (refer to Table H-31)

*Significant Shortfall Criteria*

Should a proposed action generate the need for more parking than it provides, a shortfall of spaces may be considered significant. The availability of off-street and on-street parking spaces within a convenient walking distance (about one quarter-mile), as well as the availability of alternative modes of transportation, are considered in making this determination. The availability of parking spaces within a greater distance (up to one half-mile) may also be considered.

Under *CEQR Technical Manual* guidance, different criteria for determining significance are applied based on whether or not a proposed project is located in residential or commercial areas designated as Parking Zones 1 and 2 as shown in Map 16-2, "CEQR Parking Zones, May 2010," in the 2020 *CEQR Technical Manual*. As the project area is located just outside of Zone 2 as shown in Map 16-2, a parking shortfall that exceeds more than half the available on-street and off-street parking spaces within one quarter-mile of the site can be considered significant. (Within Zone 2, the inability of a proposed project or the surrounding area to accommodate future parking demands would be considered a parking shortfall, but would generally not be considered significant due to the magnitude of available alternative modes of transportation.) Factors to be considered in determining whether a shortfall is significant include the availability and extent of transit in the area; the proximity of the project to such transit; any features of the project that are considered trip reduction or travel demand management measures; travel modes of customers of area commercial businesses; and patterns of automobile usage by area residents.

## G. TRAFFIC

### Existing Conditions

The applicant-owned project site (Lot 1) is currently occupied by a two-story approximately 56,632-gsf commercial building with approximately 34,365 gsf of occupied office space and 22,267 gsf of vacant ground-floor retail space. The remaining two lots comprising the project area contain a two-story approximately 16,800 gsf warehouse (Lot 6), and an auto repair, sales and leasing business and a commercial vehicle storage lot with adjoining one-story building with a total combined floor area of 3,510 gsf (Lot 14).

Study Area Network

As shown in Figure H-1, the street network in proximity to the project area is comprised of an irregular grid pattern of collector and one-way and two-way local streets. Most intersections are signalized. The project area itself is bordered by 48th Avenue on the north, Hunters Point Avenue on the south, Van Dam Street on the east and 31st Place on the west. **48th Avenue** is a two-way, east-west street that typically operates with one moving lane plus curbside parking in each direction and is traversed by Q39 buses operated by MTA Bus Company. **Hunters Point Avenue** is a two-way, east-west street that typically operates with one moving lane in each direction. On-street parking is not permitted on either side of the street Monday through Friday from 7:00 AM to 6:00 PM within the vicinity of the project area. **Van Dam Street** is a two-way, north-south street that typically operates with one to two moving lanes plus curbside parking in each direction.

It is a DOT-designated Through Truck Route that provides access to the Long Island Expressway (I-495) to the south of the project area, and Queens Boulevard (the area's primary arterial roadway) to the north. Both I-495 and Queens Boulevard are also DOT-designated Through Truck Routes. The segment of Van Dam Street adjacent to the project area is used by buses traveling from the Ed Koch Queensboro Bridge to I-495 on 11 routes that operate between Queens and Manhattan. **31st Place** is a two-way, north-south local street that operates with one moving lane in each direction. Curbside parking is restricted by no standing anytime regulations along much of the street in the vicinity of the project area.

Two additional roadways of note are 47th Avenue to the north of the project area and Borden Avenue to the south. **47th Avenue** is a two-way, east-west street that parallels 48th Avenue and typically operates with one moving lane plus curbside parking in each direction. **Borden Avenue** functions as a service road for I-495 and operates with three moving lanes eastbound and two westbound. The eastbound and westbound lanes are separated by a wide median area within which are located the support columns for the elevated structure that carries I-495. Q67 buses travel along Borden Avenue in both directions.

Figure H-6 shows existing traffic volumes at analyzed intersections during the analyzed weekday and Saturday peak hours.

Intersection Capacity Analysis

Table H-10 shows the existing v/c ratios, delays, and levels of service by lane group at each of the five analyzed intersections in the weekday AM and PM peak hours, and identifies those lane groups that are considered congested in one or both of these periods (i.e., those operating at LOS E or F and/or with a high v/c ratio—0.90 and above).

As shown in Table H-10, two analyzed intersections along Van Dam Street currently experience congestion in the AM and/or PM peak hours. At the intersection of 48th Avenue and Van Dam Street, the westbound left-through lane group currently operates above capacity in the AM peak hour with LOS F conditions and a v/c ratio of 1.05. The westbound right-turn operates at LOS E during this period. At the intersection of Hunters Point Avenue and Van Dam Street, the westbound approach currently operates above capacity during both analyzed peak hours, with a v/c ratio of 1.05 in both the AM and PM, and LOS F conditions in both periods. The northbound approach is also considered congested in the AM with a v/c ratio of 0.95, as is the eastbound approach in the PM with LOS F conditions.

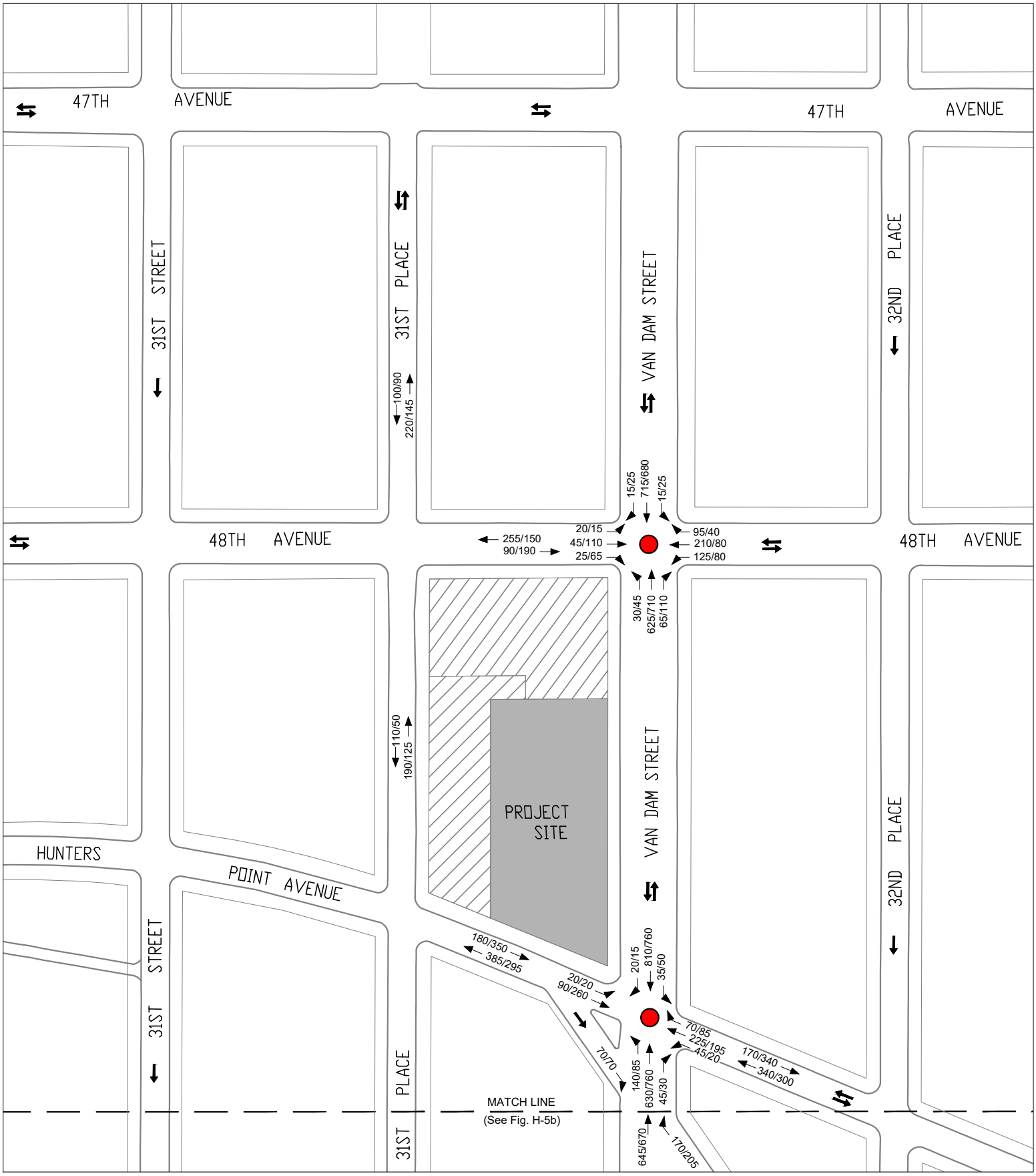
It should be noted that the Hunters Point Avenue/Van Dam Street intersection is unique among analysis locations in that it features a slip ramp that allows eastbound traffic on Hunters Point Avenue to access southbound Van Dam Street without being subject to the traffic signal at the intersection. However, it was noted that the slip ramp is, at times, effectively blocked by traffic queued for the signal. The analysis of the Hunters Point Avenue/Van Dam Street intersection therefore takes a conservative approach by not including any of the capacity of the slip ramp, and instead reflects all eastbound traffic as being governed by the traffic signal. Additional adjustments made in conjunction with this modeling approach included assuming no pedestrian conflicts with

## Vehicle Volumes - Existing Conditions

Analyzed Intersection

Projected Development Site

20/6 - Weekday AM/PM Vehicular Volumes

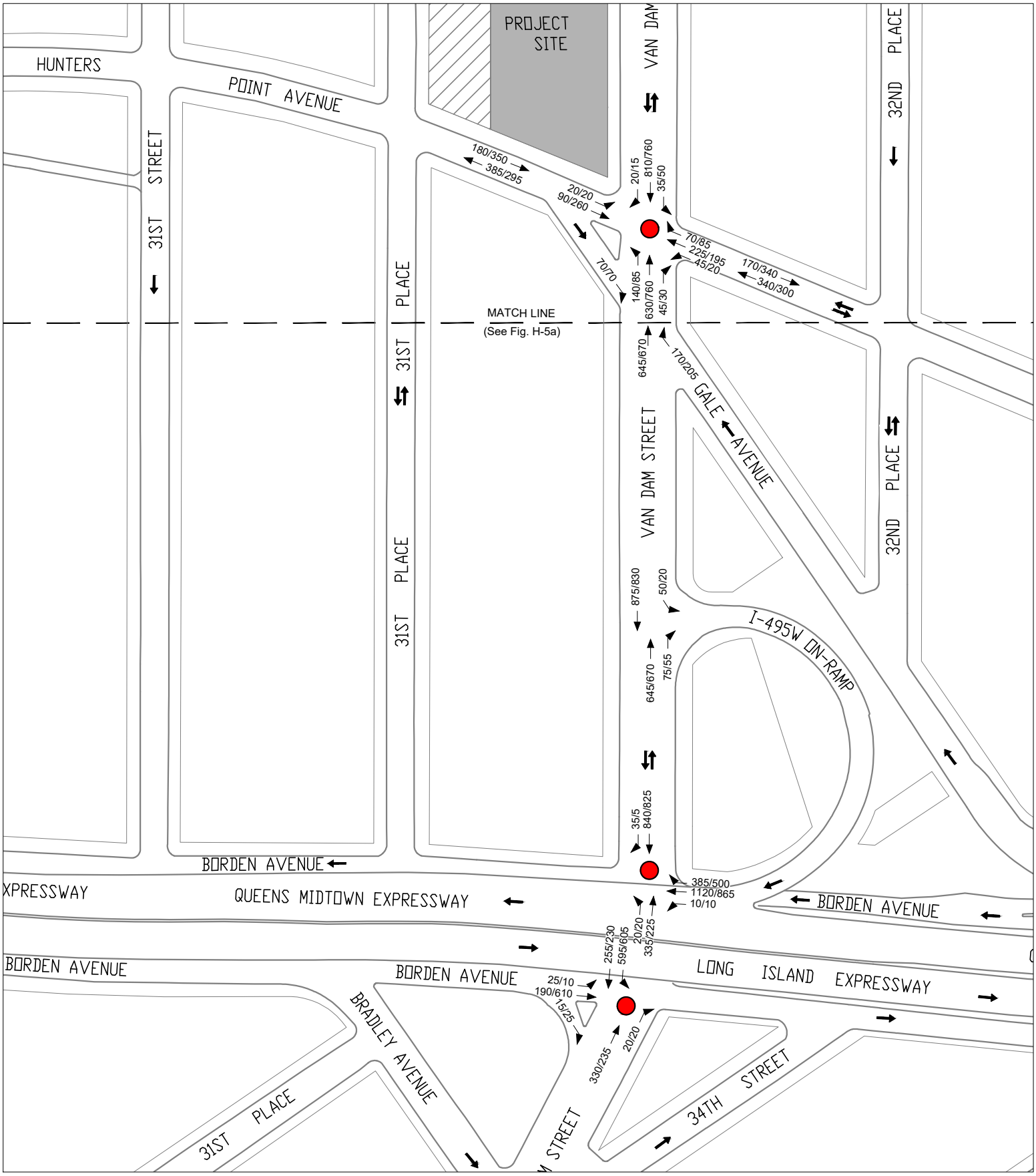


## Vehicle Volumes - Existing Conditions

Analyzed Intersection

Projected Development Site

20/6 - Weekday AM/PM Vehicular Volumes



the eastbound right-turn, and adjusting the With-Action heavy vehicle factor for this intersection to reflect that most vehicle trips generated by the proposed action would be predominantly autos.

**Table H-10**
**Traffic Level of Service Analysis – Existing Conditions**

| Signalized Intersections | Approach | Lane Group | Weekday AM Peak Hour V/C Ratio | Weekday AM Peak Hour Delay (sec/veh) | Weekday AM Peak Hour LOS | | Weekday PM Peak Hour V/C Ratio | Weekday PM Peak Hour Delay (sec/veh) | Weekday PM Peak Hour LOS | |
|---|---|---|---|---|---|---|---|---|---|---|
| 48th Ave & | EB | LT | 0.26 | 34.6 | C | | 0.33 | 35.4 | D | |
| Van Dam St | EB | R | 0.10 | 31.7 | C | | 0.23 | 33.9 | C | |
| | WB | LT | 1.05 | 103.1 | F | * | 0.64 | 46.5 | D | |
| | WB | R | 0.67 | 55.6 | E | * | 0.17 | 33.0 | C | |
| | NB | LTR | 0.62 | 14.2 | B | | 0.66 | 15.4 | B | |
| | SB | LTR | 0.56 | 14.6 | B | | 0.54 | 14.2 | B | |
| Hunters Point Ave & | EB | LTR | 0.64 | 48.1 | D | | 1.05 | 101.7 | F | * |
| Van Dam St | WB | LTR | 1.05 | 103.9 | F | * | 1.05 | 108.1 | F | * |
| | NB | LTR | 0.95 | 18.6 | B | * | 0.83 | 8.2 | A | |
| | SB | LTR | 0.66 | 14.1 | B | | 0.68 | 14.9 | B | |
| Hunters Point Ave/Gale Av & | WB | R | 0.34 | 22.4 | C | | 0.42 | 23.9 | C | |
| Van Dam St | NB | T | 0.65 | 28.0 | C | | 0.57 | 25.2 | C | |
| Borden Av WB & | WB | LTR | 0.88 | 36.2 | D | | 0.83 | 32.7 | C | |
| Van Dam St | NB | LT | 0.39 | 22.4 | C | | 0.27 | 20.7 | C | |
| | SB | TR | 0.84 | 33.3 | C | | 0.71 | 28.4 | C | |
| Borden Av EB & | EB | LTR | 0.32 | 28.9 | C | | 0.62 | 34.4 | C | |
| Van Dam St | NB | TR | 0.59 | 42.8 | D | | 0.42 | 38.9 | D | |
| | SB | DefL | 0.71 | 32.3 | C | | 0.67 | 30.5 | C | |
| | SB | T | 0.61 | 20.1 | C | | 0.53 | 19.4 | B | |

**Notes:**
EB - eastbound, WB - westbound, NB - northbound, SB - southbound
L - left, T - through, R - right, DefL - Analysis considers a defacto left-turn lane on this approach
V/C ratio - volume-to-capacity ratio
Sec/veh - seconds per vehicle
LOS - level of service
* - Denotes a congested movement (LOS E or F, or v/c ratio greater than or equal to 0.9)
Analysis is based on the 2000 Highway Capacity Manual methodology (HCS+, version 5.5)

## Future Without the Proposed Action (No-Action Conditions)

The 2023 No-Action scenario incorporates changes to the study area's traffic network due to general background growth and development projects in proximity to the study area. As per *CEQR Technical Manual* guidance, an annual background growth rate of 0.25 percent per year was assumed for the period through 2022, and a 0.125 percent annual growth rate was used for the 2022 through 2023 period. These background growth rates are applied to account for general increases in travel demand not attributable to specific development projects in proximity to the study area.

Additionally, the No-Action scenario includes demand from three new developments located on or within one half-mile of the project area that are expected to be completed and/or occupied by 2023. These include approximately 319,737 gsf of office space available for lease in the recently renovated Factory Building located at 30-30 47th Avenue; approximately 13,412 gsf of new retail space, 58,857 gsf of office space, and 69,167 gsf of manufacturing space at The Bindery, a former warehouse located at 30-02 48th Avenue; and the leasing of approximately 22,267 gsf of ground floor retail space on the proposed development site. In addition, the gas station located in the project area on Lot 14 was closed and converted into an auto repair, sales and leasing business in 2018. As it occurred subsequent to the traffic data collection program, this change in use (and the resulting change in travel demand) is also reflected in the No-Action Scenario.

Intersection Capacity Analysis

Figure H-7 shows the expected 2023 No-Action weekday AM and PM peak hour traffic volumes at analyzed intersections within the study area. Table H-11 shows the v/c ratios, delays, and levels of service by lane group at each analyzed intersection in each peak hour in the No-Action condition, and identifies those lane groups that are considered congested in one or more peak hours.

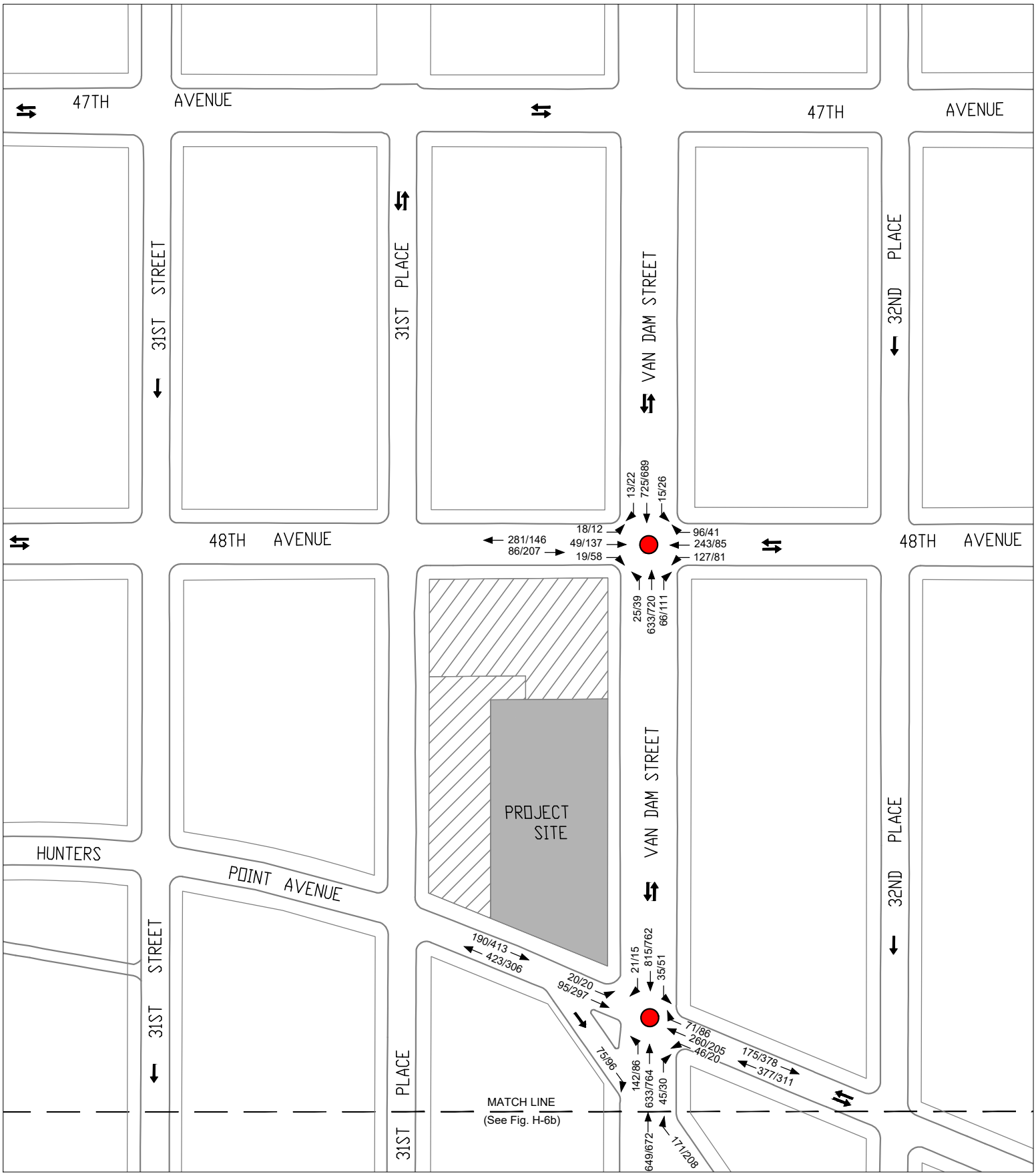
As shown in Table H-11, all of the movements that are congested under existing conditions would remain congested in the 2023 No-Action condition, and one additional lane group would become newly congested. At the intersection of Borden Avenue with Van Dam Street, the westbound approach would become newly congested in the AM peak hour with a v/c ratio of 0.95 compared to a v/c ratio of 0.88 under existing conditions. Overall, in the No-Action condition there would be five congested lane groups at three intersections in the AM peak hour, and two congested lane groups at one intersection in the PM peak hour. This compares to four congested lane groups at two intersections in the AM peak hour and two congested lane groups at one intersection in the PM under existing conditions.

# Vehicle Volumes - No-Action Conditions

Analyzed Intersection

Projected Development Site

20/6 - Weekday AM/PM Vehicular Volumes

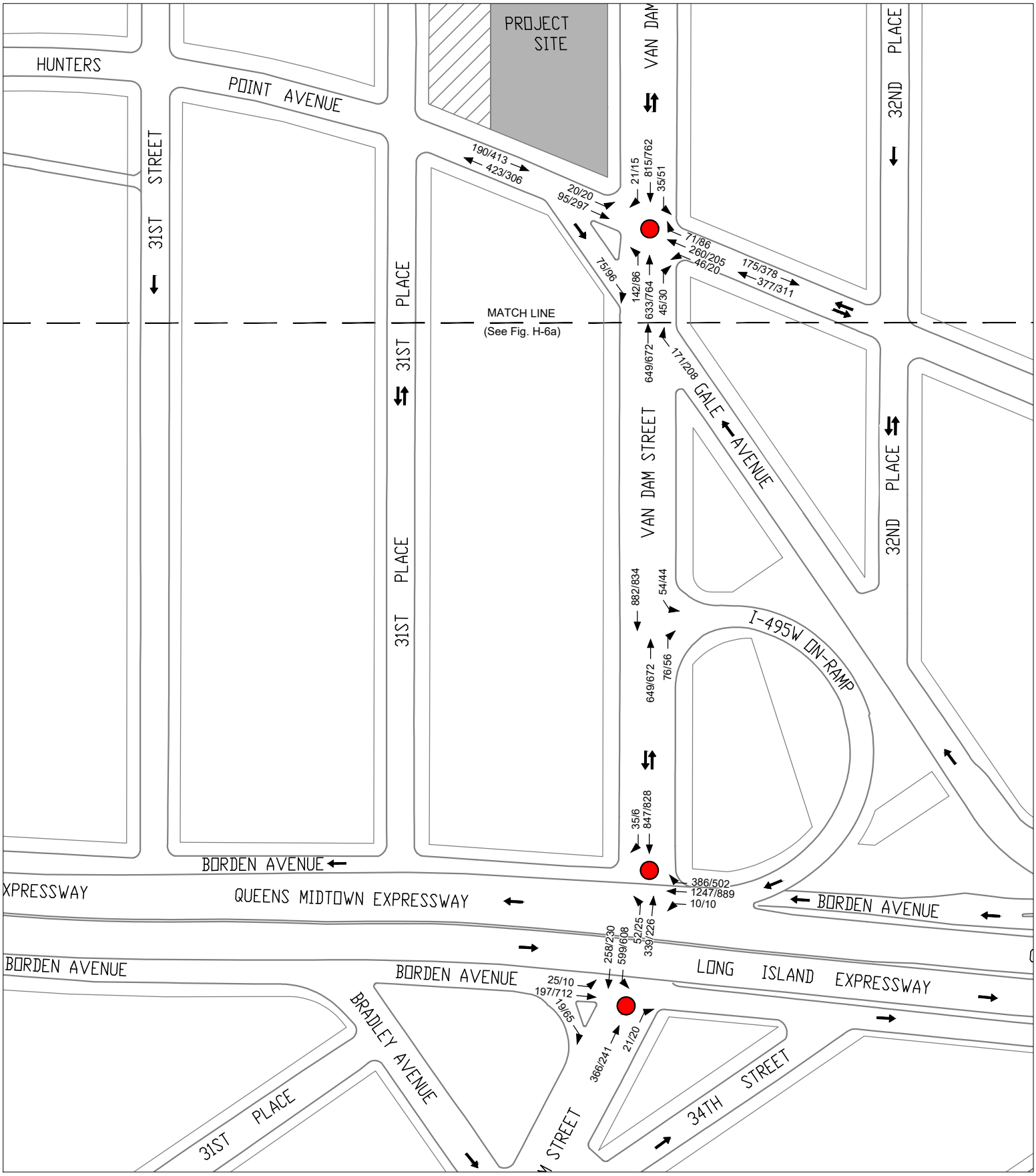


# Vehicle Volumes - No-Action Conditions

Analyzed Intersection

Projected Development Site

20/6 - Weekday AM/PM Vehicular Volumes



## Table H-11
## Traffic Level of Service Analysis – No-Action Condition

| Signalized Intersections | Approach | Lane Group | Weekday AM Peak Hour | | | | | | Weekday PM Peak Hour | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Existing | | | No-Action | | | Existing | | | No-Action | | |
| | | | V/C Ratio | Delay (sec/veh) | LOS | V/C Ratio | Delay (sec/veh) | LOS | V/C Ratio | Delay (sec/veh) | LOS | V/C Ratio | Delay (sec/veh) | LOS |
| 48th Ave & | EB | LT | 0.26 | 34.6 | C | 0.27 | 34.9 | C | 0.33 | 35.4 | D | 0.38 | 36.4 | D |
| Van Dam St | EB | R | 0.10 | 31.7 | C | 0.09 | 31.5 | C | 0.23 | 33.9 | C | 0.24 | 34.4 | C |
| | WB | LT | 1.05 | 103.1 | F * | 1.18 | 147.6 | F * | 0.64 | 46.5 | D | 0.73 | 53.8 | D |
| | WB | R | 0.67 | 55.6 | E * | 0.72 | 61.3 | E * | 0.17 | 33.0 | C | 0.20 | 33.7 | C |
| | NB | LTR | 0.62 | 14.2 | B | 0.67 | 18.7 | B | 0.66 | 15.4 | B | 0.72 | 20.4 | C |
| | SB | LTR | 0.56 | 14.6 | B | 0.62 | 19.5 | B | 0.54 | 14.2 | B | 0.60 | 19.3 | B |
| Hunters Point Ave & | EB | LTR | 0.64 | 48.1 | D | 0.69 | 51.0 | D | 1.05 | 101.7 | F * | 1.22 | 164.4 | F * |
| Van Dam St | WB | LTR | 1.05 | 103.9 | F * | 1.16 | 142.9 | F * | 1.05 | 108.1 | F * | 1.16 | 146.3 | F * |
| | NB | LTR | 0.95 | 18.6 | B * | 0.96 | 20.2 | C * | 0.83 | 8.2 | A | 0.84 | 8.6 | A |
| | SB | LTR | 0.66 | 14.1 | B | 0.66 | 14.1 | B | 0.68 | 14.9 | B | 0.68 | 15.0 | B |
| Hunters Point Ave/Gale Av & | WB | R | 0.34 | 22.4 | C | 0.34 | 22.4 | C | 0.42 | 23.9 | C | 0.42 | 24.0 | C |
| Van Dam St | NB | T | 0.65 | 28.0 | C | 0.66 | 26.7 | C | 0.57 | 25.2 | C | 0.57 | 25.2 | C |
| Borden Av WB & | WB | LTR | 0.88 | 36.2 | D | 0.95 | 43.7 | D * | 0.83 | 32.7 | C | 0.84 | 33.5 | C |
| Van Dam St | NB | LT | 0.39 | 22.4 | C | 0.58 | 26.5 | C | 0.27 | 20.7 | C | 0.29 | 20.9 | C |
| | SB | TR | 0.84 | 33.3 | C | 0.84 | 33.6 | C | 0.71 | 28.4 | C | 0.71 | 28.5 | C |
| Borden Av EB & | EB | LTR | 0.32 | 28.9 | C | 0.34 | 29.1 | C | 0.62 | 34.4 | C | 0.77 | 39.3 | D |
| Van Dam St | NB | TR | 0.59 | 42.8 | D | 0.65 | 44.6 | D | 0.42 | 38.9 | D | 0.43 | 39.0 | D |
| | SB | DefL | 0.71 | 32.3 | C | 0.71 | 32.2 | C | 0.67 | 30.5 | C | 0.68 | 30.9 | C |
| | SB | T | 0.61 | 20.1 | C | 0.61 | 20.2 | C | 0.53 | 19.4 | B | 0.53 | 19.4 | B |

**Notes:**
EB - eastbound, WB - westbound, NB - northbound, SB - southbound
L - left, T - through, R - right, DefL - Analysis considers a defacto left-turn lane on this approach
V/C ratio - volume-to-capacity ratio
Sec/veh - seconds per vehicle
LOS - level of service
* - Denotes a congested movement (LOS E or F, or v/c ratio greater than or equal to 0.9)
Analysis is based on the 2000 Highway Capacity Manual methodology (HCS+, version 5.5)

**The Future With the Proposed Action (With-Action Condition)**

As discussed previously, the proposed action would facilitate a total of approximately 54,968 gsf of ground floor local retail space, 294,142 gsf of office space, and 207 accessory parking spaces in the project area, including an approximately 184,142 gsf commercial building on Lot 1 containing approximately 22,267 gsf of ground floor local retail space, approximately 134,485 gsf of office space, and approximately 27,390 gsf of parking area (49 accessory spaces); an approximately 87,083 gsf commercial building on Lot 6 containing approximately 14,804 gsf of ground floor local retail space and approximately 72,279 gsf of office space with 72 below-grade parking spaces; and an approximately 105,275 gsf commercial building on Lot 14 containing approximately 17,897 gsf of ground floor local retail space and approximately 87,378 gsf of office space with 86 below-grade parking spaces. Redevelopment pf the project area is anticipated to be completed and occupied by 2023. Figure H-8 shows the weekday AM and PM peak hour traffic network volumes under 2023 future With-Action conditions. The volumes shown in Figure H-8 are the combination of the net incremental traffic generated by redevelopment of the project area (Figure H-2) and the No-Action traffic network (Figure H-6). No physical changes to the study area street network are planned in conjunction with the proposed action. However, to better accommodate new project-generated vehicle demand, minor signal timing changes are proposed in conjunction with the proposed action at four analyzed intersections along Van Dam Street at 48th Avenue, Hunters Point Avenue, Gale Avenue and westbound Borden Avenue. Table H-12 shows the proposed signal timing changes at each of these four locations.

As discussed previously, the analysis of the Hunters Point Avenue/Van Dam Street intersection takes a conservative approach by not including any of the capacity of the eastbound Hunters Point Avenue slip ramp to southbound Van Dam Street, and instead reflects all eastbound traffic as being governed by the traffic signal. Additional adjustments made in conjunction with this modeling approach included assuming no pedestrian conflicts with the eastbound right-turn, and adjusting the With-Action heavy vehicle factor for this intersection to reflect that vehicle trips generated by the proposed action would be predominantly autos.

Intersection Capacity Analysis

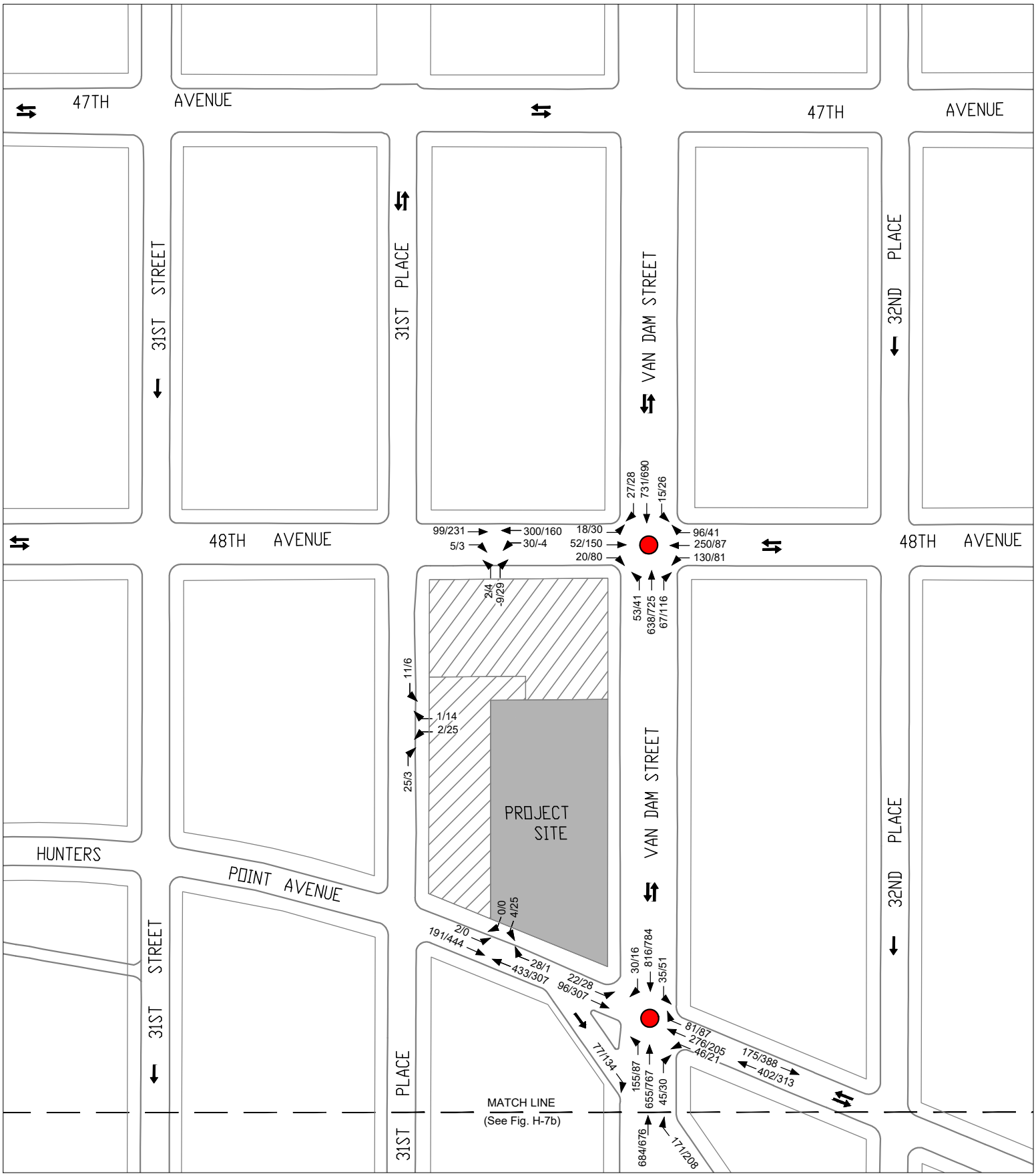
Table H-13 shows the With-Action AM and PM peak hour v/c ratios, delays, and levels of service by lane group at each analyzed intersection both with and without the proposed traffic improvements, and compares them to the No-Action condition. As shown in Table H-13, incremental vehicle trips generated by the proposed action would have the potential to result in significant adverse traffic impacts to five lane groups at three intersections in one or both analyzed peak hours based on the *CEQR Technical Manual* impact criteria discussed above in Section F, "Transportation Analyses Methodologies." These would include the westbound left-through lane group (AM/PM) and right-turn (AM) on 48th Avenue at Van Dam Street, the eastbound Hunters Point Avenue approach (PM) and westbound approach (AM/PM) at Van Dam Street, and the westbound Borden Avenue approach to Van Dam Street (AM). However, as discussed previously and shown in Table H-12, traffic improvement measures consisting of minor signal timing changes are recommended for implementation at these three intersections in conjunction with the proposed action. As shown in Table H-13, with incorporation of the recommended improvement measures,

# Vehicle Volumes - With-Action Conditions

Analyzed Intersection

Projected Development Site

20/6 - Weekday AM/PM Vehicular Volumes

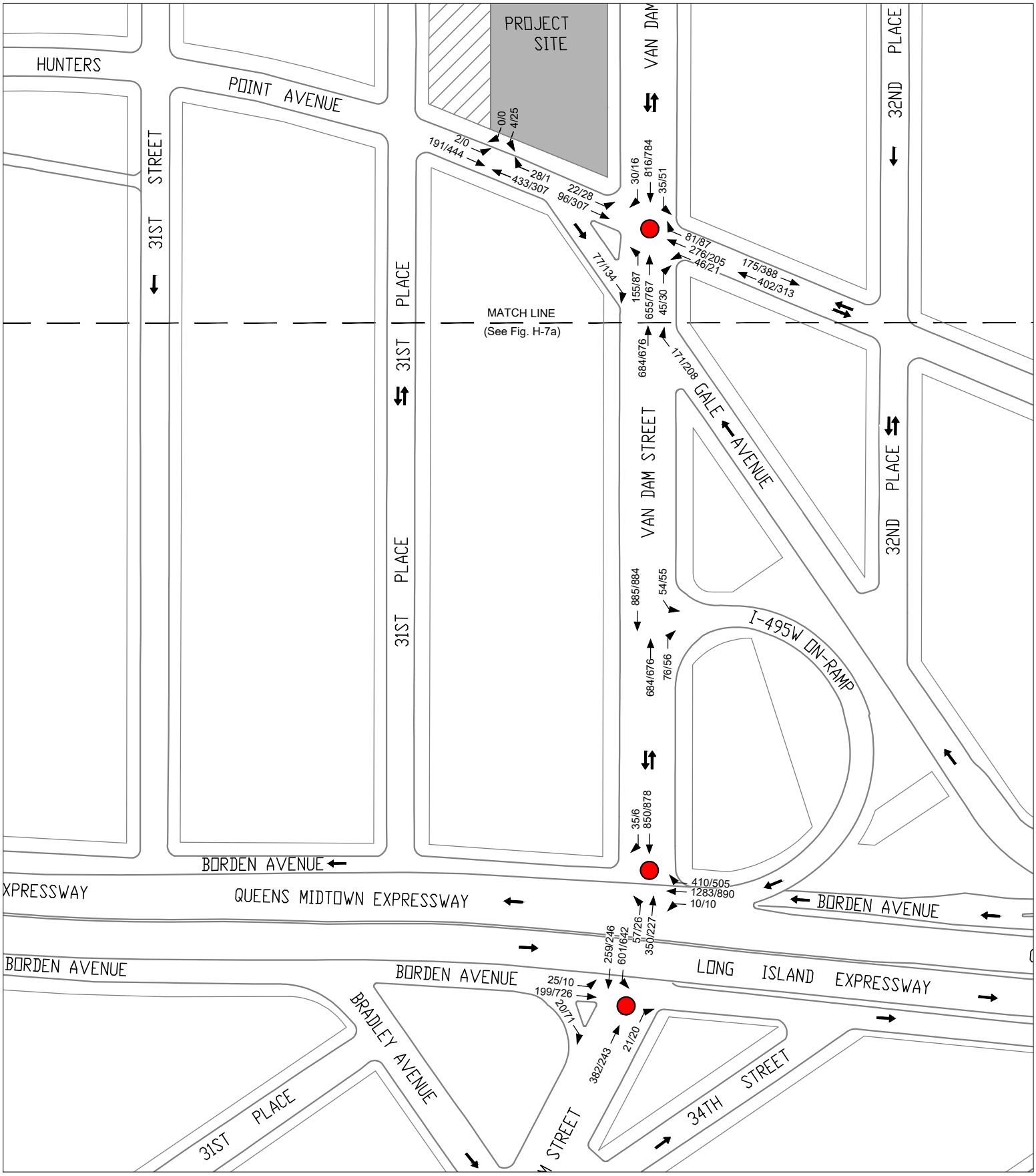


# Vehicle Volumes - With-Action Conditions

Analyzed Intersection

Projected Development Site

20/6 - Weekday AM/PM Vehicular Volumes



the proposed action would not result in any significant adverse traffic impacts in either analyzed peak hour based on the *CEQR Technical Manual* impact criteria.

**Table H-12**
**Proposed Traffic Improvement Measures**

| Intersection | Peak Hour | Phase | No-Action Signal Timing (Seconds) (1) AM | No-Action Signal Timing (Seconds) (1) PM | Proposed Signal Timing (Seconds) (1) AM | Proposed Signal Timing (Seconds) (1) PM | Proposed Improvement Measures |
|---|---|---|---|---|---|---|---|
| **48th Ave (EB/WB) & Van Dam Street (NB/SB)** | AM/PM | EB/WB<br>NB/SB<br>Ped | 40<br>73<br>7 | 40<br>73<br>7 | 43<br>70<br>7 | 43<br>70<br>7 | -Transfer 3s of green time from NB/SB to EB/WB in AM and PM. |
| **Hunters Point Ave (EB/WB) & Van Dam Street (NB/SB)** | AM/PM | EB/WB<br>NB/SB | 36<br>84 | 36<br>84 | 38<br>82 | 40<br>80 | -Transfer 2s and 4s of green time from NB/SB to EB/WB in AM and PM, respectively. |
| **Gale Ave (WB) & Van Dam Street (NB/SB)** | AM/PM | EB/WB<br>WB<br>NB | 36<br>24<br>60 | 36<br>24<br>60 | 38<br>24<br>58 | 40<br>24<br>56 | -Transfer 2s and 4s of green time from NB to EB/WB in AM and PM. |
| **Borden Ave (WB) & Van Dam Street (NB/SB)** | AM | WB<br>NB/SB | 60<br>60 | 60<br>60 | 61<br>59 | 60<br>60 | -Transfer 1s of green time from NB/SB to WB in AM. |

**Notes:**
(1) Signal timings shown indicate green plus yellow (including all red) for each phase.

## Table H-13
## Traffic Level of Service Analysis—With-Action with Improvements Conditions

| Signalized Intersections | Approach | Lane Group | Weekday AM Peak Hour | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | No-Action | | | With-Action | | | With-Action w/Improvements | | |
| | | | V/C Ratio | Delay (sec/veh) | LOS | V/C Ratio | Delay (sec/veh) | LOS | V/C Ratio | Delay (sec/veh) | LOS |
| 48th Ave & | EB | LT | 0.27 | 34.9 | C | 0.29 | 35.4 | D | 0.25 | 32.1 | C |
| Van Dam St | EB | R | 0.09 | 31.5 | C | 0.10 | 31.9 | C | 0.09 | 29.6 | C |
| | WB | LT | 1.18 | 147.6 | F | 1.27 | 184.0 | F * | 1.16 | 138.3 | F |
| | WB | R | 0.72 | 61.3 | E | 0.81 | 74.9 | E * | 0.72 | 59.5 | E |
| | NB | LTR | 0.67 | 18.7 | B | 0.81 | 21.6 | C | 0.86 | 24.7 | C |
| | SB | LTR | 0.62 | 19.5 | B | 0.65 | 20.4 | C | 0.68 | 23.0 | C |
| Hunters Point Ave & | EB | LTR | 0.69 | 51.0 | D | 0.73 | 54.4 | D | 0.67 | 48.3 | D |
| Van Dam St | WB | LTR | 1.16 | 142.9 | F | 1.25 | 175.8 | F * | 1.16 | 138.1 | F |
| | NB | LTR | 0.96 | 20.2 | C | 1.02 | 33.7 | C | 1.04 | 42.4 | D |
| | SB | LTR | 0.66 | 14.1 | B | 0.68 | 14.4 | B | 0.70 | 15.9 | B |
| Hunters Point Ave/Gale Av & | WB | R | 0.34 | 22.4 | C | 0.34 | 22.4 | C | 0.33 | 21.0 | C |
| Van Dam St | NB | T | 0.66 | 26.7 | C | 0.69 | 27.3 | C | 0.72 | 29.2 | C |
| Borden Av WB & | WB | LTR | 0.95 | 43.7 | D | 0.99 | 50.8 | D * | 0.97 | 46.3 | D |
| Van Dam St | NB | LT | 0.58 | 26.5 | C | 0.62 | 27.6 | C | 0.64 | 28.7 | C |
| | SB | TR | 0.84 | 33.6 | C | 0.85 | 33.6 | C | 0.86 | 35.2 | D |
| Borden Av EB & | EB | LTR | 0.34 | 29.1 | C | 0.34 | 29.2 | C | 0.34 | 29.2 | C |
| Van Dam St | NB | TR | 0.65 | 44.6 | D | 0.68 | 45.6 | D | 0.68 | 45.6 | D |
| | SB | DefL | 0.71 | 32.2 | C | 0.71 | 32.1 | C | 0.71 | 32.1 | C |
| | SB | T | 0.61 | 20.2 | C | 0.61 | 20.2 | C | 0.61 | 20.2 | C |

**Notes:**
EB - eastbound, WB - westbound, NB - northbound, SB - southbound
L - left, T - through, R - right, DefL - Analysis considers a defacto left-turn lane on this approach
V/C ratio - volume-to-capacity ratio
Sec/veh - seconds per vehicle
LOS - level of service
* - Denotes a significant adverse impact based on *CEQR Technical Manual* criteria.
Analysis is based on the 2000 Highway Capacity Manual methodology (HCS+, version 5.5)

## Table H-13 (continued)
## Traffic Level of Service Analysis—With-Action with Improvements Conditions

| Signalized Intersections | Approach | Lane Group | Weekday PM Peak Hour | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | No-Action | | | With-Action | | | With-Action w/Improvements | | |
| | | | V/C Ratio | Delay (sec/veh) | LOS | V/C Ratio | Delay (sec/veh) | LOS | V/C Ratio | Delay (sec/veh) | LOS |
| 48th Ave & | EB | LT | 0.38 | 36.4 | D | 0.51 | 40.1 | D | 0.47 | 36.6 | D |
| Van Dam St | EB | R | 0.24 | 34.4 | C | 0.40 | 39.0 | D | 0.36 | 35.4 | D |
| | WB | LT | 0.73 | 53.8 | D | 0.85 | 69.0 | E * | 0.76 | 54.6 | D |
| | WB | R | 0.2 | 33.7 | C | 0.24 | 35.0 | C | 0.21 | 32.1 | C |
| | NB | LTR | 0.72 | 20.4 | C | 0.75 | 21.1 | C | 0.79 | 23.8 | C |
| | SB | LTR | 0.6 | 19.3 | B | 0.62 | 19.7 | B | 0.65 | 22.2 | C |
| Hunters Point Ave & | EB | LTR | 1.22 | 164.4 | F | 1.44 | 257.3 | F * | 1.23 | 165.5 | F |
| Van Dam St | WB | LTR | 1.16 | 146.3 | F | 1.25 | 179.6 | F * | 1.03 | 96.4 | F |
| | NB | LTR | 0.84 | 8.6 | A | 0.85 | 9.4 | A | 0.91 | 14.4 | B |
| | SB | LTR | 0.68 | 15.0 | B | 0.70 | 15.4 | B | 0.74 | 18.7 | B |
| Hunters Point Ave/Gale Av & | WB | R | 0.42 | 24.0 | C | 0.42 | 24.0 | C | 0.39 | 21.0 | C |
| Van Dam St | NB | T | 0.57 | 25.2 | C | 0.58 | 25.3 | C | 0.62 | 28.7 | C |
| Borden Av WB & | WB | LTR | 0.84 | 33.5 | C | 0.84 | 33.6 | C | 0.84 | 33.6 | C |
| Van Dam St | NB | LT | 0.29 | 20.9 | C | 0.30 | 21.1 | C | 0.30 | 21.1 | C |
| | SB | TR | 0.71 | 28.5 | C | 0.75 | 29.7 | C | 0.75 | 29.7 | C |
| Borden Av EB & | EB | LTR | 0.77 | 39.3 | D | 0.79 | 40.4 | D | 0.79 | 40.4 | D |
| Van Dam St | NB | TR | 0.43 | 39.0 | D | 0.44 | 39.1 | D | 0.44 | 39.1 | D |
| | SB | DefL | 0.68 | 30.9 | C | 0.72 | 32.1 | C | 0.72 | 32.1 | C |
| | SB | T | 0.53 | 19.4 | B | 0.57 | 20.0 | B | 0.57 | 20.0 | B |

**Notes:**
EB - eastbound, WB - westbound, NB - northbound, SB - southbound
L - left, T - through, R - right, DefL - Analysis considers a defacto left-turn lane on this approach
V/C ratio - volume-to-capacity ratio
Sec/veh - seconds per vehicle
LOS - level of service
* - Denotes a significant adverse impact based on *CEQR Technical Manual* criteria.
Analysis is based on the 2000 Highway Capacity Manual methodology (HCS+, version 5.5)

# H. TRANSIT

## Existing Conditions

Subway Station

As discussed above in Section E "Level 2 Screening Assessment," the proposed action would generate new demand at NYCT's 33rd Street – Rawson Street subway station on the Flushing Line. The station is located on an elevated structure above the central median of Queens Boulevard. It consists of two side platforms and three tracks, one each for Manhattan-bound (southbound) and Flushing-bound (northbound) No. 7 local trains, and a center track used by peak direction No. 7 express trains during peak periods. From the street, pedestrians access the platforms via two mezzanines, one located at 33rd Street and a second at 34th Street. As the 33rd Street mezzanine is the closest to the project area, it is expected to be used by the majority of the demand generated by the proposed action. As shown in Figure H-9, four entrance stairs at 33rd Street provide access to this mezzanine from street level—one each at the northeast and northwest corners of eastbound Queens Boulevard (S5 and S7, respectively) and at the southeast and southwest corners of westbound Queens Boulevard (S6 and S8, respectively). Within the mezzanine is a 24-hour fare booth (R-516) and two fare arrays each consisting of three turnstiles. Fare array R516-SG1 controls access to two stairs (P11/P12 and P15/P16) leading to the southbound platform and fare array R516-SG2 controls access to two stairs (P9/P10 and P13/P14) leading to the northbound platform.

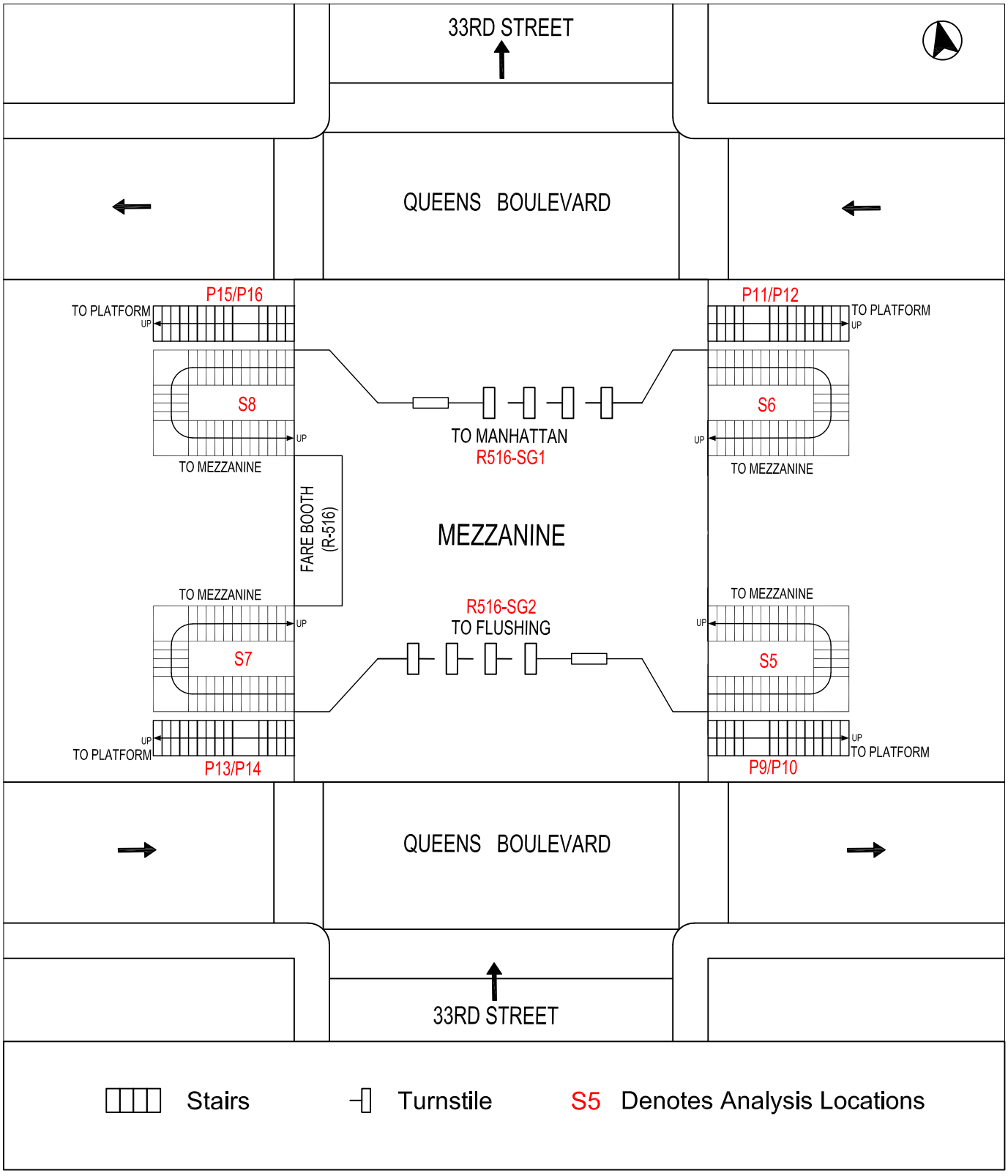
Tables H-14 and H-15 summarize existing conditions at the analyzed stairs and fare arrays during the weekday AM and PM peak hours. As shown in Tables H-14 and H-15, all analyzed stairs and fare arrays at the 33rd Street – Rawson Street subway station currently operate at an acceptable LOS C or better during both peak hours, except for stair S7 at the northwest corner of 33rd Street and eastbound Queens Boulevard, which operates at LOS F during the AM peak hour. The congested conditions on this stair in the AM are likely due, in part, to demand generated by LaGuardia Community College, which is located on eastbound Queens Boulevard to the west of the station.

## Future Without the Proposed Action (No-Action Condition)

Subway Station

Increased demand at the 33rd Street – Rawson Street subway station from background growth and development projects in proximity to the project area expected to be developed by the 2023 Build year was added to existing volumes to determine volumes in the future without the proposed action. As per *CEQR Technical Manual* guidance, an annual background growth rate of 0.25 percent per year was assumed for the period through 2022, and a 0.125 percent annual growth rate was used for the 2022 through 2023 period. These background growth rates are applied to account for general increases in travel demand not attributable to specific development projects in proximity to the study area.

Analyzed Elements at the 33rd Street - Rawson Street (7) Subway Station




NOT TO SCALE

## Table H-14
## 33rd Street–Rawson Street Subway Station Stair Analysis – Existing Condition

| Peak Hour | Stair | Total Width (ft) | Effective Width (ft) | Peak Hour Volumes | | Peak 15 Min Volumes | | Surging Factor | | Friction Factor | V/C Ratio | LOS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Up | Down | Up | Down | Up | Down | | | |
| AM | S5 | 4.83 | 4.33 | 23 | 355 | 7 | 111 | 1.0 | 0.80 | 0.90 | 0.25 | A |
| | P9/P10 | 4.75 | 4.25 | 24 | 560 | 8 | 175 | 1.0 | 0.75 | 1.00 | 0.38 | A |
| | S7 | 4.87 | 4.37 | 39 | 3128 | 12 | 978 | 1.0 | 0.80 | 1.00 | 1.88 | F |
| | P13/P14 | 4.75 | 4.25 | 12 | 280 | 4 | 88 | 1.0 | 0.75 | 1.00 | 0.19 | A |
| | S6 | 4.75 | 4.25 | 45 | 565 | 14 | 177 | 1.0 | 0.80 | 0.90 | 0.41 | A |
| | P11/P12 | 4.75 | 4.25 | 73 | 711 | 23 | 222 | 1.0 | 0.75 | 0.90 | 0.56 | B |
| | S8 | 4.80 | 4.30 | 46 | 980 | 14 | 306 | 1.0 | 0.80 | 1.00 | 0.61 | B |
| | P15/P16 | 4.75 | 4.25 | 36 | 355 | 11 | 111 | 1.0 | 0.75 | 0.90 | 0.28 | A |
| PM | S5 | 4.83 | 4.33 | 311 | 24 | 97 | 8 | 1.0 | 0.80 | 0.90 | 0.18 | A |
| | P9/P10 | 4.75 | 4.25 | 474 | 160 | 148 | 50 | 1.0 | 0.75 | 0.90 | 0.37 | A |
| | S7 | 4.87 | 4.37 | 1159 | 441 | 362 | 138 | 1.0 | 0.80 | 0.90 | 0.91 | C |
| | P13/P14 | 4.75 | 4.25 | 237 | 80 | 74 | 25 | 1.0 | 0.75 | 0.90 | 0.19 | A |
| | S6 | 4.75 | 4.25 | 503 | 92 | 157 | 29 | 1.0 | 0.80 | 0.90 | 0.34 | A |
| | P11/P12 | 4.75 | 4.25 | 612 | 141 | 191 | 44 | 1.0 | 0.75 | 0.90 | 0.44 | A |
| | S8 | 4.80 | 4.30 | 393 | 175 | 123 | 55 | 1.0 | 0.80 | 0.90 | 0.33 | A |
| | P15/P16 | 4.75 | 4.25 | 306 | 71 | 123 | 55 | 1.0 | 0.75 | 0.90 | 0.34 | A |

**Notes:**
Methodology based on *CEQR Technical Manual* guidance.
V/c ratio - volume-to-capacity ratio.
LOS - level of service.

## Table H-15
## 33rd Street–Rawson Street Subway Station Fare Array Analysis – Existing Condition

| Peak Hour | Fare Array | Control Elements | | | Peak 15 Min Volumes | | Surging Factor | | Friction Factor | V/C Ratio | LOS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Turnstile | HEET | HXT | System Entries | System Exits | System Entries | System Exits | | | |
| AM | NB | 3 | 0 | 0 | 11 | 263 | 1.00 | 0.75 | 1.00 | 0.19 | A |
| | SB | 3 | 0 | 0 | 34 | 333 | 1.00 | 0.75 | 0.90 | 0.28 | A |
| PM | NB | 3 | 0 | 0 | 222 | 75 | 1.00 | 0.75 | 0.90 | 0.25 | A |
| | SB | 3 | 0 | 0 | 287 | 66 | 1.00 | 0.75 | 0.90 | 0.30 | A |

**Notes:**
Methodology based on *CEQR Technical Manual* guidance.
V/c ratio - volume-to-capacity ratio.
LOS - level of service.
NB - Flushing-bound fare array R516-SG2.
SB - Manhattan-bound fare array R516-SG1.

Additionally, the No-Action scenario includes demand from three new developments located in proximity to the project area that are expected to be completed and/or occupied by 2023. These include approximately 319,737 gsf of office space available for lease in the recently renovated Factory Building located at 30-30 47th Avenue; approximately 13,412 gsf of new retail space, 58,857 gsf of office space, and 69,167 gsf of manufacturing space at The Bindery, a former warehouse located at 30-02 48th Avenue; and the leasing of approximately 22,267 gsf of retail space on the proposed development site.

Tables H-16 and H-17 show the resulting 2023 No-Action conditions at analyzed stairs and fare arrays. As shown in Tables H-16 and H-17, all analyzed stairs and fare arrays would continue to operate at an acceptable LOS C or better in both the AM and PM peak hours with the exception of street stair S7 at the northwest corner of 33rd Street and eastbound Queens Boulevard. This stair would continue to operate at a congested LOS F during the AM peak hour.

**Table H-16**
**33rd Street–Rawson Street Subway Station Stair Analysis – No-Action Condition**

| Peak Hour | Stair | Total Width (ft) | Effective Width (ft) | Peak Hour Volumes | | Peak 15 Min Volumes | | Surging Factor | | Friction Factor | V/C Ratio | LOS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Up | Down | Up | Down | Up | Down | | | |
| AM | S5 | 4.83 | 4.33 | 25 | 557 | 8 | 174 | 1.0 | 0.80 | 1.00 | 0.35 | A |
| | P9/P10 | 4.75 | 4.25 | 27 | 831 | 8 | 260 | 1.0 | 0.75 | 1.00 | 0.56 | B |
| | S7 | 4.87 | 4.37 | 43 | 3368 | 13 | 1053 | 1.0 | 0.80 | 1.00 | 2.03 | F |
| | P13/P14 | 4.75 | 4.25 | 14 | 415 | 4 | 130 | 1.0 | 0.75 | 1.00 | 0.28 | A |
| | S6 | 4.75 | 4.25 | 46 | 573 | 14 | 179 | 1.0 | 0.80 | 0.90 | 0.41 | A |
| | P11/P12 | 4.75 | 4.25 | 91 | 775 | 28 | 242 | 1.0 | 0.75 | 0.90 | 0.61 | B |
| | S8 | 4.80 | 4.30 | 72 | 1075 | 23 | 336 | 1.0 | 0.80 | 0.90 | 0.76 | C |
| | P15/P16 | 4.75 | 4.25 | 44 | 387 | 14 | 121 | 1.0 | 0.75 | 0.90 | 0.31 | A |
| PM | S5 | 4.83 | 4.33 | 315 | 24 | 98 | 8 | 1.0 | 0.80 | 0.90 | 0.18 | A |
| | P9/P10 | 4.75 | 4.25 | 532 | 185 | 166 | 58 | 1.0 | 0.75 | 0.90 | 0.42 | A |
| | S7 | 4.87 | 4.37 | 1252 | 482 | 391 | 151 | 1.0 | 0.80 | 0.90 | 0.98 | C |
| | P13/P14 | 4.75 | 4.25 | 266 | 93 | 83 | 29 | 1.0 | 0.75 | 0.90 | 0.21 | A |
| | S6 | 4.75 | 4.25 | 510 | 93 | 159 | 29 | 1.0 | 0.80 | 0.90 | 0.34 | A |
| | P11/P12 | 4.75 | 4.25 | 869 | 148 | 272 | 46 | 1.0 | 0.75 | 0.90 | 0.58 | B |
| | S8 | 4.80 | 4.30 | 772 | 184 | 241 | 58 | 1.0 | 0.80 | 0.90 | 0.54 | B |
| | P15/P16 | 4.75 | 4.25 | 435 | 74 | 136 | 23 | 1.0 | 0.75 | 0.90 | 0.29 | A |

**Notes:**
Methodology based on *CEQR Technical Manual* guidance.
V/c ratio - volume-to-capacity ratio.
LOS - level of service.

**Table H-17**
**33rd Street–Rawson Street Subway Station Fare Array Analysis – No-Action Condition**

| Peak Hour | Fare Array | Control Elements | | | Peak Hour Volumes | | Peak 15 Min Volumes | | Surging Factor | | Friction Factor | V/C Ratio | LOS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Turnstile | HEET | HXT | System Entries | System Exits | System Entries | System Exits | System Entries | System Exits | | | |
| AM | NB | 3 | 0 | 0 | 41 | 1,246 | 13 | 389 | 1.00 | 0.75 | 1.00 | 0.28 | A |
| | SB | 3 | 0 | 0 | 136 | 1,162 | 43 | 363 | 1.00 | 0.75 | 0.90 | 0.32 | A |
| PM | NB | 3 | 0 | 0 | 798 | 278 | 249 | 87 | 1.00 | 0.75 | 0.90 | 0.29 | A |
| | SB | 3 | 0 | 0 | 1,305 | 222 | 408 | 69 | 1.00 | 0.75 | 0.90 | 0.41 | A |

**Notes:**
Methodology based on *CEQR Technical Manual* guidance.
V/c ratio - volume-to-capacity ratio.
LOS - level of service.
NB - Flushing-bound fare array R516-SG2.
SB - Manhattan-bound fare array R516-SG1.

## Future With the Proposed Action (With-Action Condition)

Subway Station

As shown in Table H-2, the proposed action is expected to generate a net total of 300 and 291 new subway trips in the weekday AM and PM peak hours, respectively. It was conservatively assumed for the analysis that all of these trips would utilize the 33rd Street – Rawson Street subway station. Tables H-18 and H-19 show the results of the With-Action condition at the analyzed station elements. As shown in Tables H-18 and H-19, all analyzed stairs and fare arrays would continue to operate at an acceptable LOS C or better in both the AM and PM peak hours with the exception of street stair S7 at the northwest corner of 33rd Street and eastbound Queens Boulevard. This stair would continue to operate at a congested LOS F during the AM peak hour, with the v/c ratio increasing from 2.03 to 2.10, and would degrade from LOS C (0.98 v/c ratio) to LOS D (1.02 v/c ratio) in the PM peak hour.

As discussed above in Section F, "Transportation Analyses Methodologies," the *CEQR Technical Manual* identifies a significant impact for stairways in terms of the minimum width increment threshold (WIT) based on the minimum amount of additional capacity that would be required to restore conditions to either their No-Action v/c ratio or to a v/c ratio of 1.00 (LOS C/D), whichever is greater. As shown in Table H-6, for a stair operating at a v/c ratio of 1.6 or greater, a WIT of two inches or more would be considered a significant adverse impact, and for a stair operating at a v/c ratio of 1.00 to 1.09, a WIT of eight inches or more would be considered a significant impact. As shown in Table H-18, the WIT for stair S7 would be 1.84 in the AM peak hour, below the two-inch impact threshold for a v/c ratio of 1.6 or greater. In the PM peak hour, the WIT would be 0.98 inches, below the eight-inch impact threshold for a v/c ratio of 1.00-1.09. Therefore, stair S7 would not be considered significantly adversely impacted by the proposed action in either peak hour based on *CEQR Technical Manual* criteria.

## Table H-18
## 33rd Street–Rawson Street Subway Station Stair Analysis – With-Action Condition

| Peak Hour | Stair | Total Width (ft) | Effective Width (ft) | Project Increment | | Peak Hour Volumes | | Peak 15 Min Volumes | | Surging Factor | | Friction Factor | V/C Ratio | LOS | WIT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Up | Down | Up | Down | Up | Down | Up | Down | | | | |
| AM | S5 | 4.83 | 4.33 | 1 | 118 | 26 | 675 | 8 | 211 | 1.0 | 0.80 | 1.00 | 0.42 | A | |
| | P9/P10 | 4.75 | 4.25 | 1 | 158 | 28 | 989 | 9 | 309 | 1.0 | 0.75 | 1.00 | 0.66 | B | |
| | S7 | 4.87 | 4.37 | 1 | 119 | 44 | 3487 | 14 | 1090 | 1.0 | 0.80 | 1.00 | 2.10 | F | 1.84"<2.0" |
| | P13/P14 | 4.75 | 4.25 | 1 | 79 | 15 | 494 | 5 | 154 | 1.0 | 0.75 | 1.00 | 0.33 | A | |
| | S6 | 4.75 | 4.25 | 0 | 0 | 46 | 573 | 14 | 179 | 1.0 | 0.80 | 0.90 | 0.41 | A | |
| | P11/P12 | 4.75 | 4.25 | 8 | 33 | 99 | 808 | 31 | 253 | 1.0 | 0.75 | 0.90 | 0.64 | B | |
| | S8 | 4.80 | 4.30 | 12 | 49 | 84 | 1124 | 26 | 351 | 1.0 | 0.80 | 0.90 | 0.80 | C | |
| | P15/P16 | 4.75 | 4.25 | 4 | 16 | 48 | 403 | 15 | 126 | 1.0 | 0.75 | 0.90 | 0.32 | A | |
| PM | S5 | 4.83 | 4.33 | 0 | 0 | 315 | 24 | 98 | 8 | 1.0 | 0.80 | 0.90 | 0.18 | A | |
| | P9/P10 | 4.75 | 4.25 | 31 | 12 | 563 | 197 | 176 | 62 | 1.0 | 0.75 | 0.90 | 0.45 | A | |
| | S7 | 4.87 | 4.37 | 46 | 18 | 1298 | 500 | 406 | 156 | 1.0 | 0.80 | 0.90 | 1.02 | D | 0.98"<8.0" |
| | P13/P14 | 4.75 | 4.25 | 15 | 6 | 281 | 99 | 88 | 31 | 1.0 | 0.75 | 0.90 | 0.23 | A | |
| | S6 | 4.75 | 4.25 | 0 | 0 | 510 | 93 | 159 | 29 | 1.0 | 0.80 | 0.90 | 0.34 | A | |
| | P11/P12 | 4.75 | 4.25 | 149 | 3 | 1018 | 151 | 318 | 47 | 1.0 | 0.75 | 0.90 | 0.66 | B | |
| | S8 | 4.80 | 4.30 | 223 | 4 | 995 | 188 | 311 | 59 | 1.0 | 0.80 | 0.90 | 0.66 | B | |
| | P15/P16 | 4.75 | 4.25 | 74 | 1 | 509 | 75 | 159 | 23 | 1.0 | 0.75 | 0.90 | 0.33 | A | |

**Notes:**

Methodology based on *CEQR Technical Manual* guidance.

V/c ratio - volume-to-capacity ratio.

LOS - level of service.

WIT - width increment threshold.

## Table H-19
## 33rd Street–Rawson Street Subway Station Fare Array Analysis – With-Action Condition

| Peak Hour | Fare Array | Control Elements | | | Project Increment | | Peak Hour Volumes | | Peak 15 Min Volumes | | Surging Factor | | Friction Factor | V/C Ratio | LOS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Turnstile | HEET | HXT | System Entries | System Exits | System Entries | System Exits | System Entries | System Exits | System Entries | System Exits | | | |
| AM | NB | 3 | 0 | 0 | 2 | 237 | 43 | 1,483 | 13 | 463 | 1.00 | 0.75 | 1.00 | 0.33 | A |
| | SB | 3 | 0 | 0 | 12 | 49 | 148 | 1,211 | 46 | 378 | 1.00 | 0.75 | 0.90 | 0.33 | A |
| PM | NB | 3 | 0 | 0 | 46 | 18 | 844 | 296 | 264 | 93 | 1.00 | 0.75 | 0.90 | 0.30 | A |
| | SB | 3 | 0 | 0 | 223 | 4 | 1,528 | 226 | 478 | 71 | 1.00 | 0.75 | 0.90 | 0.48 | B |

**Notes:**

Methodology based on *CEQR Technical Manual* guidance.

V/c ratio - volume-to-capacity ratio.

LOS - level of service.

NB - Flushing-bound fare array R516-SG2.

SB - Manhattan-bound fare array R516-SG1.

# I. PEDESTRIANS

## Existing Conditions

As discussed previously in Section E "Level 2 Screening Assessment," five sidewalks, eight corner areas, and five crosswalks have been selected for analysis, as they are locations where project-generated pedestrian trips are expected to exceed the 200-trip *CEQR Technical Manual* analysis threshold in one or more peak hours. As shown previously in Figure H-4, these analyzed pedestrian elements are located along Van Dam Street, 48th Avenue, and 31st Place in the vicinity of the project area.

Sidewalks

Analyzed sidewalks in the study area range from 15 feet in width (along 31st Place), to up to 20 feet in width (along Van Dam Street). Of note is the east sidewalk on 31st Place between 48th Avenue and Hunters Point Avenue, approximately 100 feet of which approaching 48th Avenue is unpaved and is currently used for vehicle parking associated with the adjacent commercial vehicle storage facility on Lot 14. The analysis assesses existing and No-Action conditions on the built section of this sidewalk to the south of the unpaved area. (It is assumed that the unpaved section of sidewalk would be built-out in conjunction with the development on Lot 14 under With-Action conditions.) In addition, it should be noted that vehicles associated with the commercial vehicle storage facility are also often parked perpendicular to, and partially on, the south sidewalk on 48th Avenue east of 31st Place. This condition is also reflected in the existing and No-Action sidewalk analyses.

As shown in Figure H-10, existing pedestrian volumes on analyzed sidewalks are relatively low, with 128 persons per hour or less in each analyzed peak period. Table H-20 shows the existing peak hour pedestrian volumes, average pedestrian space (in square feet per pedestrian) and platoon-adjusted levels of service at analyzed sidewalks. As shown in Table H-20, all analyzed sidewalks currently operate at an uncongested LOS A in all peak hours.

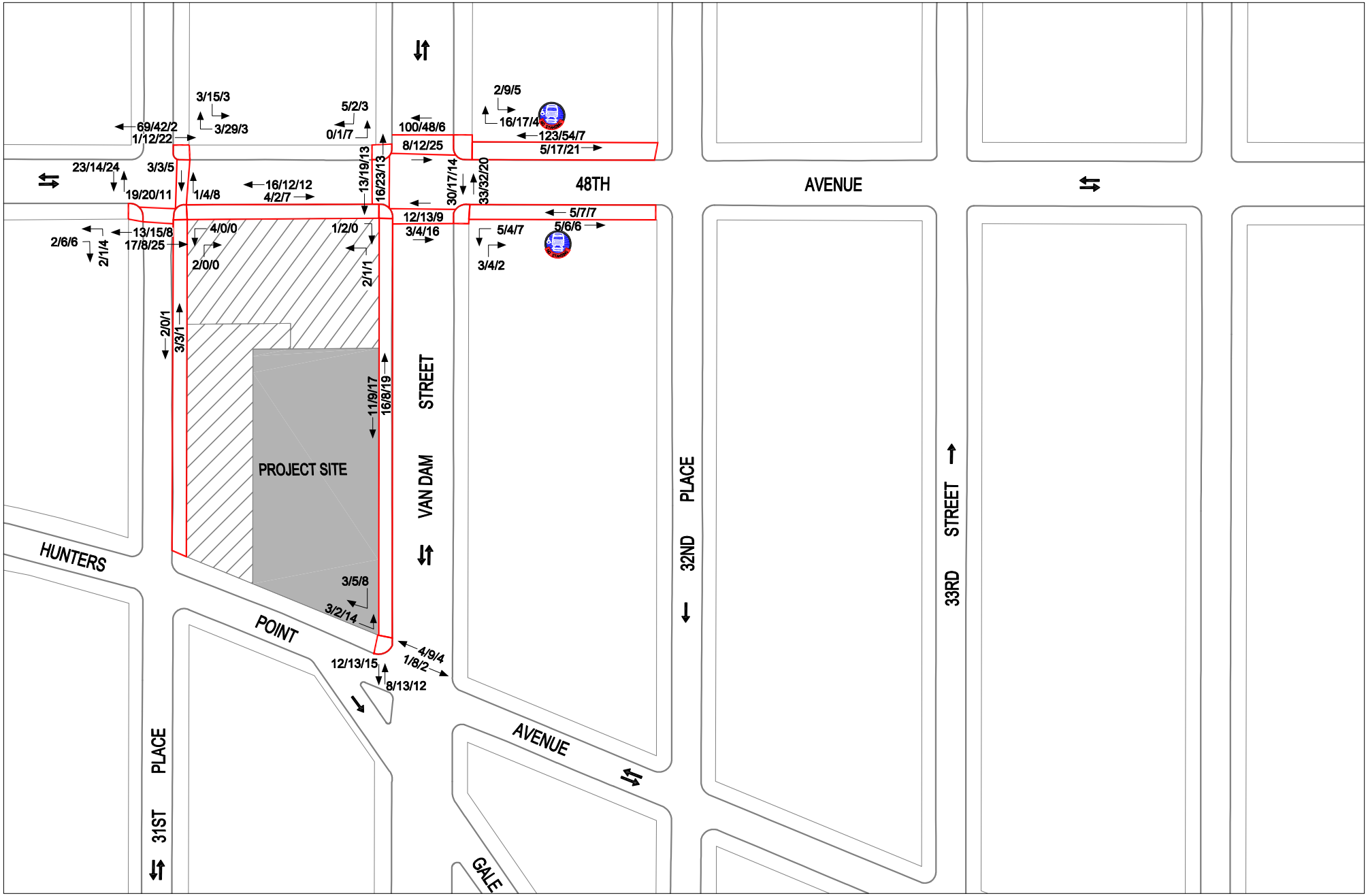
**Table H-20**
**Sidewalk Analysis – Existing Conditions**

| | Location | Sidewalk | Total Width | Effective Width | Peak Hour Volume | | | Average Pedestrian Space (ft2/ped) | | | Platoon-Adjusted Level of Service | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | AM | MD | PM | AM | MD | PM | AM | MD | PM |
| S1 | Van Dam St btwn 48th Ave & Hunters Point Ave | West | 20.0 | 5.5 | 27 | 17 | 36 | 1,144.0 | 1,851.9 | 891.0 | A | A | A |
| S2 | 48th Ave btwn Van Dam St & 32nd Pl | North | 19.8 | 11.6 | 128 | 71 | 28 | 792.8 | 882.2 | 2,953.0 | A | A | A |
| S3 | 48th Ave btwn Van Dam St & 32nd Pl | South | 18.7 | 7.5 | 10 | 13 | 13 | 4,212.0 | 3,053.1 | 3,364.6 | A | A | A |
| S4 | 48th Ave btwn 31st Pl & Van Dam Street | South | 17.5 | 6.5 | 20 | 14 | 19 | 2,597.4 | 2,306.6 | 1,958.2 | A | A | A |
| S5 | 31st Pl btwn 48th Ave & Hunters Point Ave | East | 15.0 | 11.0 | 5 | 3 | 2 | 15,444.0 | 15,048.0 | 14,850.0 | A | A | A |

Figure H-10

Existing Pedestrian Volumes

MTA Bus Stop | Analysis Location | Projected Development Site




20/9/6 - Weekday AM/MD/PM Pedestrian Volumes

Corner Areas

Table H-21 shows the peak hour volumes, average pedestrian space (in sf/ped) and levels of service at analyzed corner areas. As shown in Table H-21, all analyzed corner areas currently operate at an uncongested LOS A or B in all analyzed peak hours.

**Table H-21**
**Corner Area Analysis – Existing Conditions**

| | | | Peak Hour Volume | | | Average Pedestrian Space (ft2/ped) | | | Level of Service | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Location | Corner | AM | MD | PM | AM | MD | PM | AM | MD | PM |
| C1 | 48th Ave & Van Dam Street | NE | 18 | 26 | 9 | 956.9 | 964.3 | 2,005.0 | A | A | A |
| C2 | | SE | 8 | 8 | 9 | 2,053.2 | 1,920.4 | 2,062.1 | A | A | A |
| C3 | | SW | 3 | 3 | 1 | 2,794.3 | 1,899.8 | 2,119.1 | A | A | A |
| C4 | | NW | 5 | 3 | 10 | 953.0 | 832.5 | 1,619.2 | A | A | A |
| C5 | 48th Ave & 31st Place | NE | 6 | 44 | 6 | 1,052.0 | 740.7 | 1,870.5 | A | A | A |
| C6 | | SE | 6 | 0 | 0 | 1,915.6 | 2,501.3 | 2,123.1 | A | A | A |
| C7 | | SW | 4 | 7 | 10 | 1,447.3 | 1,452.9 | 1,276.0 | A | A | A |
| C8 | Hunters Point Ave & Van Dam Street | NW | 6 | 7 | 22 | 1,509.7 | 1,022.4 | 888.2 | A | A | A |

Crosswalks

Study area intersections are a mix of signalized and stop controlled, and the signalized intersections generally include pedestrian signals. High visibility crosswalk striping is present at many of these intersections. Table H-22 shows the peak hour volumes, average pedestrian space (in sf/ped), and LOS at analyzed crosswalks. As shown in Table H-22, all analyzed crosswalks currently operate at an uncongested LOS A in all analyzed peak hours.

**Table H-22**
**Crosswalk Analysis – Existing Conditions**

| | | | Peak Hour Volume | | | Average Pedestrian Space (ft2/ped) | | | Level of Service | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Location | Crosswalk | AM | MD | PM | AM | MD | PM | AM | MD | PM |
| X1 | 48th Ave & Van Dam Street | North | 108 | 60 | 31 | 180.3 | 157.3 | 582.6 | A | A | A |
| X2 | | South | 15 | 17 | 25 | 1,077.4 | 656.6 | 590.0 | A | A | A |
| X3 | | West | 29 | 42 | 26 | 1,753.3 | 1,069.4 | 1,492.4 | A | A | A |
| X4 | 48th Ave & 31st Place | South | 30 | 23 | 33 | 675.4 | 797.1 | 847.6 | A | A | A |
| X5 | | East | 4 | 7 | 13 | 2531.7 | 2238.1 | 843.0 | A | A | A |

**The Future Without the Proposed Action (No-Action)**

Increased pedestrian demand from background growth and development projects in proximity to the project area expected to be developed by the 2023 Build year was added to existing volumes to determine future volumes without the proposed action. As per *CEQR Technical Manual* guidance, an annual background growth rate of 0.25 percent per year was assumed for the period through 2022, and a 0.125 percent annual growth rate was used for the 2022 through 2023 period. These background growth rates are applied to account for general increases in travel demand not attributable to specific development projects in proximity to the study area.

Additionally, the No-Action scenario includes demand from three developments located in proximity to the project area that are expected to be completed and/or occupied by 2023. These include approximately 319,737 gsf of office space available for lease in the recently renovated Factory Building located at 30-30 47th Avenue; approximately 13,412 gsf of new retail space, 58,857 gsf of office space, and 69,167 gsf of manufacturing space at The Bindery, a former warehouse located at 30-02 48th Avenue; and the leasing of approximately 22,267 gsf of retail space on the proposed development site.

Lastly, the No-Action corner area and crosswalk analyses at the intersection of Van Dam Street and 48th Avenue reflect a new signal timing plan implemented by DOT in December 2020.
Figure H-11 shows the weekday AM, midday and PM peak hour pedestrian volumes in the 2023 future without the proposed action.

Sidewalks

Table H-23 shows the No-Action peak hour pedestrian volumes, average pedestrian space, and platoon-adjusted LOS at analyzed sidewalks. As shown in Table H-23, in the future without the proposed action, all analyzed sidewalks are expected to operate at an uncongested LOS A or B in all peak hours with the exception of the west sidewalk on Van Dam Street between 48$^{th}$ Avenue and Hunters Point Avenue which would operate at LOS C in the midday and PM peak hours.

Corner Areas

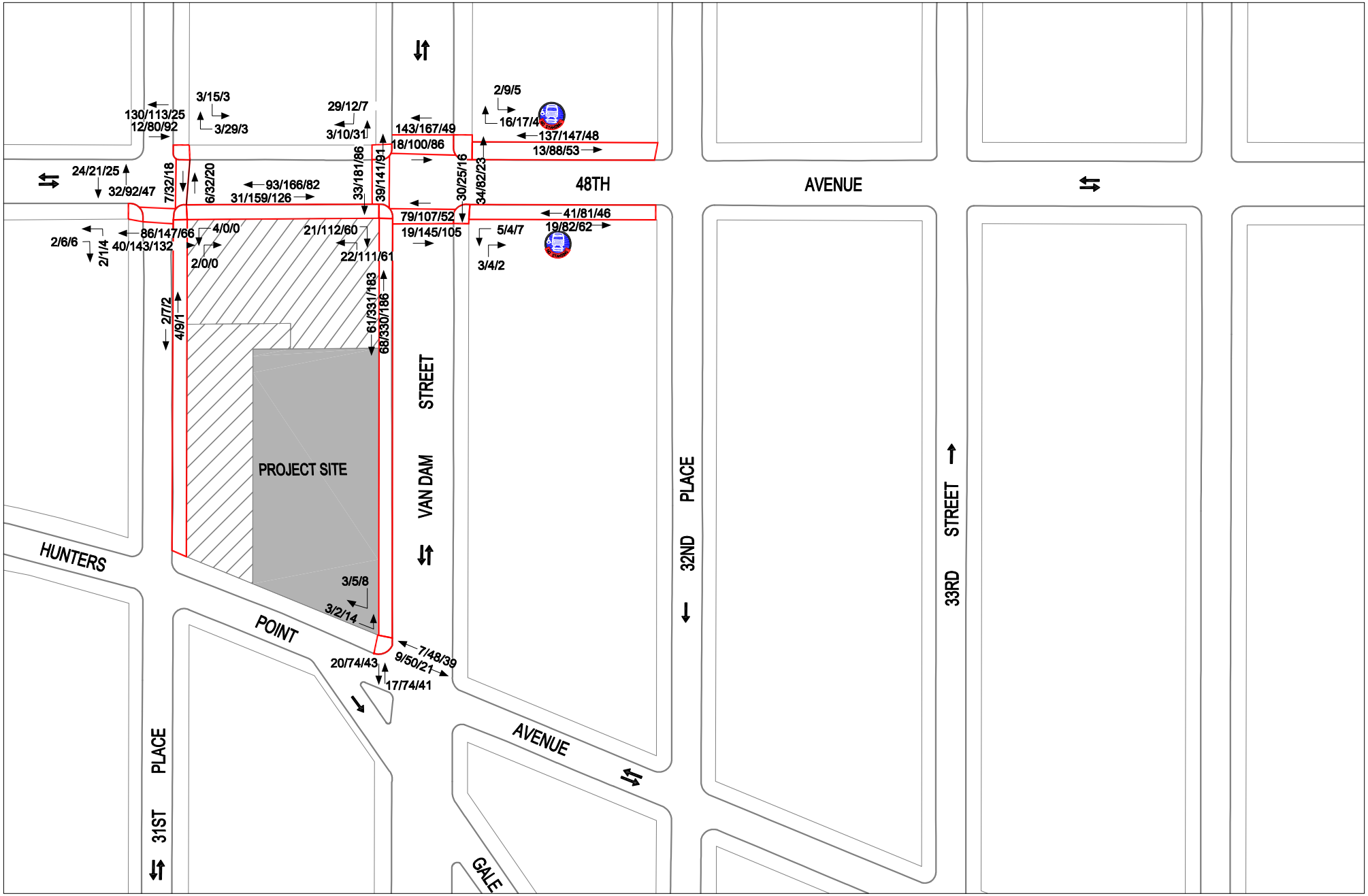
Table H-24 shows the peak hour volumes, average pedestrian space, and LOS at analyzed corner areas in the No-Action condition. As shown in Table H-24, in the future without the proposed action, all analyzed corner areas are expected to continue to operate at an uncongested LOS A in all peak hours.

Crosswalks

Table H-25 shows the peak hour volumes, average pedestrian space, and LOS at analyzed crosswalks in the No-Action condition. As shown in Table H-25, all analyzed crosswalks would operate at LOS A or B in all peak hours.

No-Action Pedestrian Volumes

MTA Bus Stop | Analysis Location | Projected Development Site




20/9/6 - Weekday AM/MD/PM Pedestrian Volumes

## Table H-23
## Sidewalk Analysis – No-Action Condition

| | Location | Sidewalk | Total Width | Effective Width | Peak Hour Volume | | | Average Pedestrian Space (ft2/ped) | | | Platoon-Adjusted Level of Service | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | AM | MD | PM | AM | MD | PM | AM | MD | PM |
| S1 | Van Dam St btwn 48th Ave & Hunters Point Ave | West | 20.0 | 5.5 | 129 | 661 | 369 | 239.3 | 47.1 | 86.6 | B | C | C |
| S2 | 48th Ave btwn Van Dam St & 32nd Pl | North | 19.8 | 11.6 | 150 | 235 | 101 | 676.5 | 266.5 | 818.6 | A | B | A |
| S3 | 48th Ave btwn Van Dam St & 32nd Pl | South | 18.7 | 7.5 | 60 | 163 | 108 | 702.0 | 243.4 | 404.9 | A | B | B |
| S4 | 48th Ave btwn 31st Pl & Van Dam Street | South | 17.5 | 6.5 | 124 | 325 | 208 | 418.9 | 99.1 | 178.7 | B | B | B |
| S5 | 31st Pl btwn 48th Ave & Hunters Point Ave | East | 15.0 | 11.0 | 6 | 16 | 3 | 12,870.0 | 2,821.5 | 9,900.0 | A | A | A |

## Table H-24
## Corner Area Analysis – No-Action Condition

| | Location | Corner | Peak Hour Volume | | | Average Pedestrian Space (ft2/ped) | | | Level of Service | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | AM | MD | PM | AM | MD | PM | AM | MD | PM |
| C1 | 48th Ave & Van Dam Street | NE | 18 | 26 | 9 | 733.5 | 286.0 | 882.8 | A | A | A |
| C2 | | SE | 8 | 8 | 9 | 982.5 | 348.3 | 698.8 | A | A | A |
| C3 | | SW | 43 | 223 | 121 | 580.0 | 107.3 | 182.4 | A | A | A |
| C4 | | NW | 32 | 22 | 38 | 489.0 | 144.1 | 293.5 | A | A | A |
| C5 | 48th Ave & 31st Place | NE | 6 | 44 | 6 | 482.6 | 232.7 | 467.8 | A | A | A |
| C6 | | SE | 6 | 0 | 0 | 575.8 | 206.6 | 403.8 | A | A | A |
| C7 | | SW | 4 | 7 | 10 | 585.7 | 221.9 | 384.2 | A | A | A |
| C8 | Hunters Point Ave & Van Dam Street | NW | 6 | 7 | 22 | 718.9 | 197.3 | 317.6 | A | A | A |

## Table H-25
## Crosswalk Analysis – No-Action Condition

| | Location | Crosswalk | Peak Hour Volume | | | Average Pedestrian Space (ft2/ped) | | | Level of Service | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | AM | MD | PM | AM | MD | PM | AM | MD | PM |
| X1 | 48th Ave & Van Dam Street | North | 161 | 267 | 135 | 156.8 | 53.1 | 182.5 | A | B | A |
| X2 | | South | 98 | 252 | 157 | 220.5 | 66.9 | 123.4 | A | A | A |
| X3 | | West | 72 | 322 | 177 | 619.3 | 108.7 | 187.6 | A | A | A |
| X4 | 48th Ave & 31st Place | South | 126 | 290 | 198 | 185.6 | 60.6 | 135.4 | A | A | A |
| X5 | | East | 13 | 64 | 38 | 605.1 | 236.5 | 274.9 | A | A | A |

**The Future With the Proposed Action (With-Action)**

As shown in Table H-2, the proposed action is expected to generate a net total of 522, 1,440, and 837 pedestrian trips (including walk-only, subway and public bus trips) during the weekday AM, midday, and PM peak hours, respectively. Figure H-12 shows the total weekday AM, midday, and PM peak hour pedestrian volumes at analyzed pedestrian elements in the 2023 future with the proposed action. The volumes shown in Figure H-12 are the combination of the net incremental pedestrian volumes generated by the proposed action (Figure H-4) and the No-Action pedestrian volumes (Figure H-11).

As discussed previously, under With-Action conditions it is anticipated that Lot 14 would be redeveloped with office and local retail uses, and that the existing commercial vehicle storage use would be displaced. The analysis of With-Action pedestrian conditions therefore conservatively assumes that with the new development, the unbuilt section of the east sidewalk on 31st Place south of 48th Avenue would be built-out at a width of 15 feet, consistent with the existing sidewalk on the remainder of the block. The With-Action analysis also reflects the elimination of the perpendicular parking currently obstructing the south sidewalk on 48th Avenue adjacent to the commercial vehicle storage facility on Lot 14. Lastly, the analyses of corner area and crosswalk conditions reflect the minor signal timing changes recommended to improve traffic flow and summarized in Table H-12.

Sidewalks

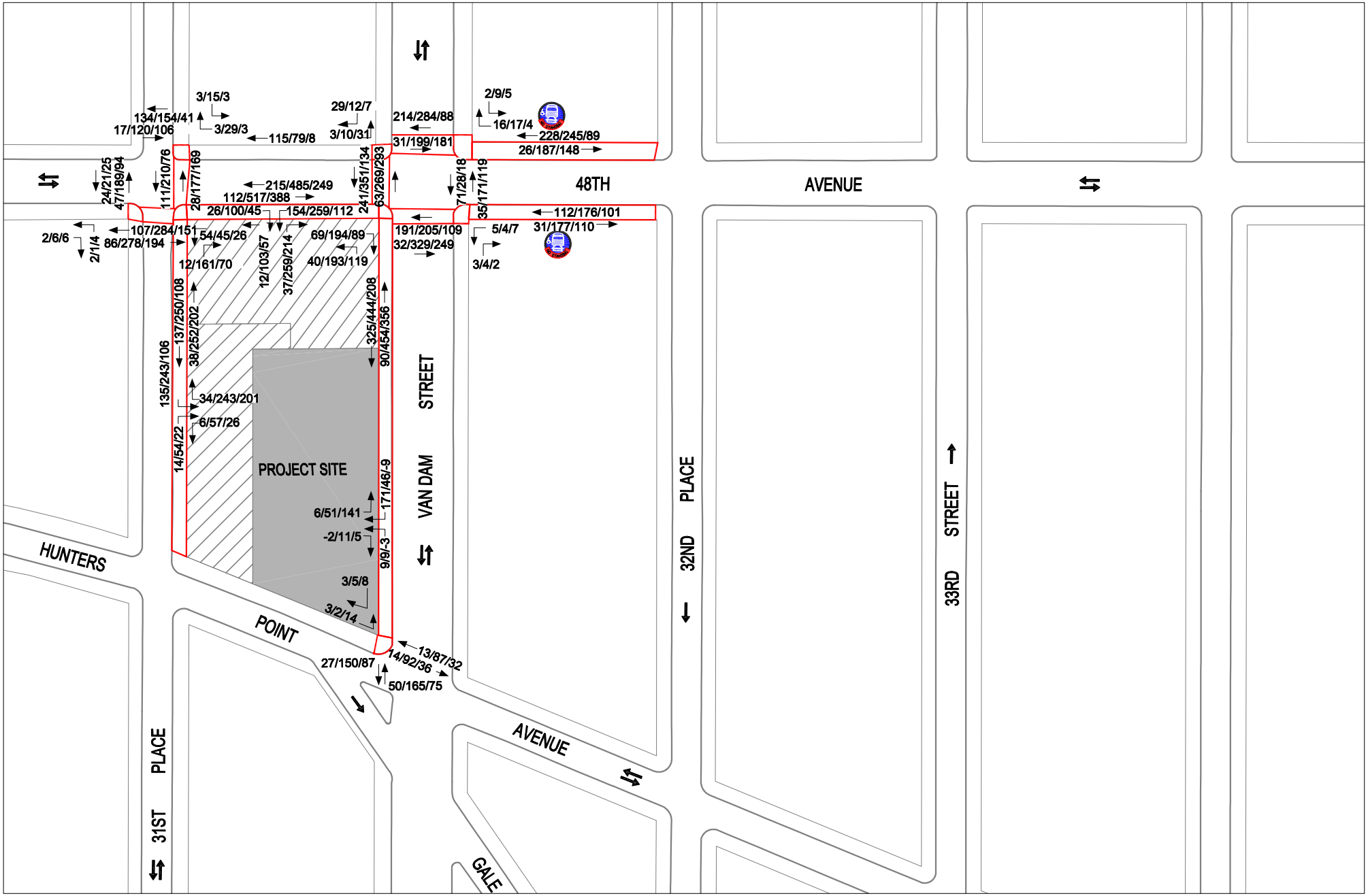
Table H-26 shows the incremental change in peak hour pedestrian volumes attributable to the proposed action and the total With-Action pedestrian volumes, average pedestrian space, and platoon-adjusted LOS at analyzed sidewalks. As shown in Table H-26, in the With-Action condition, all analyzed sidewalks would operate at an uncongested LOS C or better in all peak hours with the exception of the west sidewalk on Van Dam Street between 48th Avenue and Hunters Point Avenue which would operate at LOS D in the midday and LOS B and C in the AM and PM, respectively. As the LOS D condition in the midday would not be considered a significant adverse impact based on the *CEQR Technical Manual* impact criteria discussed above in Section F, "Transportation Analyses Methodologies," the proposed action would not result in any significant adverse sidewalk impacts.

Corner Areas

Table H-27 shows the total With-Action pedestrian volumes, average pedestrian space, and LOS at analyzed corner areas. As shown in Table H-27, in the With-Action condition all analyzed corner areas would continue to operate at an uncongested LOS A or B in all peak. Therefore, the proposed action would not result in any significant adverse corner area impacts based on the *CEQR Technical Manual* impact criteria discussed above in Section F, "Transportation Analyses Methodologies."

With-Action Pedestrian Volumes

MTA Bus Stop | Analysis Location | Projected Development Site




20/9/6 - Weekday AM/MD/PM Pedestrian Volumes

Crosswalks

Table H-28 shows the With-Action peak hour volumes, average pedestrian space, and LOS at analyzed crosswalks. As shown in Table H-28, all analyzed crosswalks would operate at an acceptable LOS C or better in all peak hours in the future with the proposed action. Therefore, based on *CEQR Technical Manual* criteria, no analyzed crosswalk would be significantly adversely impacted. Consequently the proposed action is not expected to result in any significant adverse pedestrian crosswalk impacts in any analyzed peak hour.

**Table H-26**
**Sidewalk Analysis – With-Action Condition**

| | Location | Sidewalk | Total Width | Effective Width | Project Increment | | | Peak Hour Volume | | | Average Pedestrian Space (ft2/ped) | | | Platoon-Adjusted Level of Service | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | AM | MD | PM | AM | MD | PM | AM | MD | PM | AM | MD | PM |
| S1 | Van Dam St btwn 48th Ave & Hunters Point Ave | West | 20.0 | 5.5 | 202 | 231 | 195 | 331 | 892 | 564 | 93.0 | 34.6 | 56.4 | B | D | C |
| S2 | 48th Ave btwn Van Dam St & 32nd Pl | North | 19.8 | 11.6 | 104 | 197 | 136 | 254 | 432 | 237 | 399.5 | 144.8 | 348.8 | B | B | B |
| S3 | 48th Ave btwn Van Dam St & 32nd Pl | South | 18.7 | 7.5 | 83 | 190 | 103 | 143 | 353 | 211 | 294.5 | 112.2 | 207.2 | B | B | B |
| S4 | 48th Ave btwn 31st Pl & Van Dam Street | South | 17.5 | 14.5 | 287 | 677 | 428 | 411 | 1,002 | 636 | 281.9 | 71.5 | 130.1 | B | C | B |
| S5 | 31st Pl btwn 48th Ave & Hunters Point Ave | East | 15.0 | 11.0 | 169 | 486 | 307 | 175 | 502 | 310 | 441.2 | 89.6 | 95.5 | B | C | B |

**Table H-27**
**Corner Area Analysis – With-Action Condition**

| | Location | Corner | Project Increment | | | Peak Hour Volume | | | Average Pedestrian Space (ft2/ped) | | | Level of Service | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | AM | MD | PM | AM | MD | PM | AM | MD | PM | AM | MD | PM |
| C1 | 48th Ave & Van Dam Street | NE | 0 | 0 | 0 | 18 | 26 | 9 | 476.2 | 153.8 | 388.0 | A | A | A |
| C2 | | SE | 0 | 0 | 0 | 8 | 8 | 9 | 474.6 | 164.4 | 278.2 | A | A | A |
| C3 | | SW | 66 | 164 | 87 | 109 | 387 | 208 | 197.8 | 52.5 | 76.7 | A | B | A |
| C4 | | NW | 0 | 0 | 0 | 32 | 22 | 38 | 213.1 | 74.8 | 126.7 | A | A | A |
| C5 | 48th Ave & 31st Place | NE | 0 | 0 | 0 | 6 | 44 | 6 | 273.1 | 90.7 | 209.7 | A | A | A |
| C6 | | SE | 60 | 206 | 96 | 66 | 206 | 96 | 206.6 | 50.5 | 112.7 | A | B | A |
| C7 | | SW | 0 | 0 | 0 | 4 | 7 | 10 | 374.3 | 112.8 | 224.9 | A | A | A |
| C8 | Hunters Point Ave & Van Dam Street | NW | 0 | 0 | 0 | 6 | 7 | 22 | 381.2 | 94.6 | 175.5 | A | A | A |

**Table H-28**
**Crosswalk Analysis – With-Action Condition**

| | Location | Crosswalk | Project Increment | | | Peak Hour Volume | | | Average Pedestrian Space (ft2/ped) | | | Level of Service | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | AM | MD | PM | AM | MD | PM | AM | MD | PM | AM | MD | PM |
| X1 | 48th Ave & Van Dam Street | North | 84 | 216 | 134 | 245 | 483 | 269 | 118.2 | 28.5 | 102.5 | A | C | A |
| X2 | | South | 125 | 282 | 201 | 223 | 534 | 358 | 103.4 | 30.5 | 56.4 | A | C | B |
| X3 | | West | 232 | 298 | 250 | 304 | 620 | 427 | 136.6 | 54.0 | 66.0 | A | B | A |
| X4 | 48th Ave & 31st Place | South | 67 | 272 | 147 | 193 | 562 | 345 | 109.3 | 28.9 | 74.2 | A | C | A |
| X5 | | East | 126 | 323 | 207 | 139 | 387 | 245 | 76.0 | 35.4 | 43.9 | A | C | B |

## J. VEHICULAR AND PEDESTRIAN SAFETY EVALUATION

### Study Area High Crash Locations

Under *CEQR Technical Manual* guidance, an evaluation of pedestrian and vehicular safety is typically needed for locations within the traffic and pedestrian study areas that have been identified as high crash locations. These locations are defined as locations where 48 or more total reportable and non-reportable crashes or five or more pedestrian/bicyclist injury crashes have occurred in any consecutive twelve months of the most recent three-year period for which data are available. Reportable crashes are defined as those involving injuries, fatalities, and/or $1,000 or more in property damage.

Table H-30 shows summary crash data for the three-year reporting period between January 1, 2015 and December 31, 2017 that were obtained from DOT. This is the most recent three-year period for which data are available. The table shows the total number of crashes each year and the number of crashes each year involving pedestrians and cyclists at intersections in proximity to the project area where the majority of new vehicular and pedestrian trips would be concentrated.

**Table H-30**
**Crash Data Summary 2015 – 2017**

| Intersection | | Pedestrian Injury Crashes | | | | Bicyclist Injury Crashes | | | | Total Pedestrian/Bicycle Accidents | | | | Total Reportable Accidents | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 2015 | 2016 | 2017 | Total | 2015 | 2016 | 2017 | Total | 2015 | 2016 | 2017 | Total | 2015 | 2016 | 2017 |
| 31st Place | Hunters Point Ave | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 1 | 8 |
| | 48th Ave | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 2 |
| Van Dam Street | Borden Ave (EB) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 5 |
| | Borden Ave (WB) | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 | 1 | 1 | 0 | 2 | 4 | 12 | 15 |
| | Gale Ave | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 |
| | Hunters Point Ave | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 | 7 | 13 |
| | 48th Ave | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 12 | 8 |
| | 47th Ave | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 2 | 0 | 0 | 3 | 3 | 6 | 13 | 14 |

**Source:** New York State Department of Motor Vehicles (NYSDMV) / NYCDOT

As shown in Table H-30, during the three-year reporting period, a total of 136 crashes and nine pedestrian/bicyclist-related injury crashes occurred at analyzed study area intersections. None of these crashes involved fatalities. No intersections were found to have experienced a total of 48 or more crashes in any one year, nor were any intersections found to have experienced five or more pedestrian/bicyclist injury crashes in one year; therefore, none of the intersections are considered high crash locations.

## K. PARKING

### Existing Conditions

Off-Street Parking

Off-street public parking facilities were inventoried during January 2018 and four public parking facilities were identified within one quarter-mile of the project area. Figure H-5 shows the locations of these off-street public parking facilities and Table H-31 provides a summary of their names, addresses, license numbers, capacities, and estimated weekday midday utilization. Available on-line data and field surveys were used to determine the utilization levels of each parking facility during the weekday AM (7:00 a.m. to 9:00 a.m.) and midday (noon to 2:00 p.m.) periods on a typical weekday. The parking demand forecast focuses on the weekday midday period when commercial parking demand is typically greatest. As some action-generated auto trips have been assigned to off-site public parking facilities, the weekday AM commuter period is also analyzed to document available capacity during this period. As shown in Table H-31, the four parking facilities have a combined licensed capacity of 424 spaces. During the weekday AM period, approximately 13 percent of spaces are currently utilized, leaving a residual supply of 369 spaces, while during the weekday midday period, approximately 96 percent of spaces are utilized, leaving a residual supply of approximately 16 available parking spaces.

On-Street Parking

An inventory of existing parking regulations within one quarter-mile of the project area was compiled from field surveys and on-line sources. In this study area, curbside regulations typically permit on-street parking except at locations where additional traffic flow capacity is needed. At these locations, more restrictive no parking or no standing regulations are enforced, typically during daytime hours or select peak periods. Metered parking is present along some blocks, primarily to the north of the project area along Van Dam Street and 48$^{th}$ Avenue. Based on existing curbside parking regulations, and taking into account curb space obstructed by curb cuts, fire hydrants, and other impediments, there are approximately 1,487 legal curbside parking spaces in the weekday AM period and 1,495 spaces in the weekday midday within one quarter-mile of the project area.

Based on data collected during field surveys conducted in January 2018, on-street parking within the parking study area is approximately 80 percent utilized in the weekday AM and 79 percent utilized in the weekday midday. Approximately 304 and 308 on-street parking spaces are currently available within the study area during these periods, respectively.

**Table H-31**
**Existing Off-Street Public Parking Utilization**

| Map No.* | Facility Operator | Address | Type | License No. | Hours/Days of Operation | Licensed Capacity | Weekday AM | | | Weekday Midday | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Estimated Utilization | | Available Capacity | Estimated Utilization | | Available Capacity |
| | | | | | | | Vehicles | Percent | | Vehicles | Percent | |
| 1 | Central Parking Systems of New York, Inc. | 3020 Thomson Avenue | Lot | 1206736 | 7a-6p M-F, Closed Sa+Su | 212 | 22 | 10% | 190 | 206 | 97% | 6 |
| 2 | LIC Operating 49 | 3015 48th Avenue | Lot | 1247511 | 6a-10p M-F, Closed Sa+Su | 30 | 2 | 5% | 28 | 24 | 80% | 6 |
| 3 | 47 Operating LLC | 3102 47th Avenue | Garage | 2006032 | 6a-7p M-F, Closed Sa+Su | 135 | 21 | 15% | 114 | 135 | 100% | 0 |
| 4 | Vandam Parking Inc | 4711 Van Dam Street | Garage | 0955802 | 6:30a-6:30p M-Sa, Closed Su | 47 | 10 | 20% | 37 | 43 | 90% | 4 |
| | | | | | **Total** | **424** | **55** | **13%** | **369** | **408** | **96%** | **16** |

* Refer to Figure H-5.
Source: January 2018 PHA field surveys.

## The Future Without the Proposed Action (No-Action Condition)

By 2023, it is expected that transportation demands in the vicinity of the project area will increase due to long-term background growth, leasing of the 22,267 gsf of retail space on the project site (Lot 1) that was vacant during the data collection program, and other planned developments unrelated to the proposed action. As new accessory spaces would not be provided on the project site in the No-Action condition, parking demand generated by the retail use on the site is expected to utilize some of the nine spaces of existing accessory parking on the site, nearby off-street public parking facilities, or park on-street.

The forecast of future No-Action parking conditions also considers the potential for new demand from two developments in the vicinity of the project area—approximately 319,737 gsf of office space available for lease in the recently renovated Factory Building located at 30-30 47th Avenue, and 13,412 gsf of new retail space, 58,857 gsf of office space, and 69,167 gsf of manufacturing space at The Bindery, a former warehouse located at 30-02 48th Avenue. While the Factory Building development is not expected to have accessory parking, approximately 26 spaces of on-site accessory parking are expected to be provided at The Bindery building. Auto trip forecasts were used to estimate the parking demands from these two developments. In addition, the forecast of future No-Action parking conditions incorporates an annual background growth rate of 0.25 percent per year for the 2018 through 2023 period. This background growth rate, recommended in the *CEQR Technical Manual* for projects in Long Island City, is applied to account for smaller projects and as-of-right developments, and general increases in parking demand not attributable to specific development projects.

Off-Street Parking

As shown in Table H-32, based on the increased demand under the No-Action condition, off-street public parking demand within the parking study area is expected to total approximately 73 percent of capacity with a residual supply of 111 spaces in the weekday AM period, and 197 percent of capacity with a deficit of 404 spaces in the weekday midday.

**Table H-32**
**No-Action Off-Street Public Parking Capacity, Demand and Utilization**

| | AM | Midday |
|---|---|---|
| **Capacity** | | |
| Existing Capacity[1,5] | 416 | 416 |
| Net Change in Capacity[6] | 0 | 0 |
| Total No-Action Capacity | 416 | 416 |
| **Demand** | | |
| Existing Demand[1] | 55 | 408 |
| Demand From Background Growth[2] | 1 | 5 |
| Incremental Demand from No-Action Uses on the Project Site[4] | 2 | 10 |
| Incremental Demand from Off-Site No-Action Developments[3] | 247 | 397 |
| Total No-Action Demand | 305 | 820 |
| **Utilization** | | |
| No-Action Utilization | 73% | 197% |
| No-Action Off-Street Parking Surplus/(Deficit) | 111 | (404) |

**Notes:**
[1] Based on online data and data from January 2018 field surveys and operator interviews.
[2] Reflects an annual background growth rate of 0.25 percent/year for the 2018 through 2023 period.
[3] Demand from developments in proximity to the project area not accommodated by accessory parking.
[4] Demand from the leasing of the retail space on Lot 1 in the No-Action condition.
[5] Analysis conservatively assumes that facilities are fully utilized at 98 percent of licensed capacity.
[6] No changes to existing public parking facilities are expected in the No-Action condition.

On-Street Parking

After accounting for background growth, new retail demand on the project site, and demand from No-Action land uses in the surrounding area not otherwise accommodated by accessory parking, the demand for on-street parking within the study area is expected to increase to 1,198 spaces in the weekday AM period and 1,606 in the weekday midday. Table H-33 shows that in the future without the proposed action, on-street parking within one quarter-mile of the project area is expected to be operating at approximately 81 percent of capacity with a residual supply of 289 spaces in the AM, and at 107 percent of capacity with a deficit of 111 spaces in the midday. This is compared to utilization rates of 80 percent with 304 residual spaces in the AM and 79 percent with 308 residual spaces in the midday under Existing conditions.

Overall, in the future without the proposed action, the combined supply of on-street and public off-street parking capacity within one quarter-mile of the project area would be sufficient to accommodate demand during the weekday AM period, but would experience a shortfall of 111 spaces in the weekday midday.

**Table H-33**
**No-Action On-Street Parking Capacity, Demand and Utilization**

| | AM | Midday |
|---|---|---|
| **Capacity** | | |
| Existing Capacity[1] | 1,487 | 1,495 |
| Net Change in Capacity[2] | 0 | 0 |
| Total No-Action Capacity | 1,487 | 1,495 |
| **Demand** | | |
| Existing Demand[3] | 1,183 | 1,187 |
| Demand From Background Growth[4] | 15 | 15 |
| No-Action Off-Street Public Parking Deficit | 0 | 404 |
| Total No-Action Demand | 1,198 | 1,606 |
| **Utilization** | | |
| No-Action Utilization | 81% | 107% |
| No-Action On-Street Parking Surplus/(Deficit) | 289 | (111) |

**Notes:**
[1] Existing capacity based on current parking regulations. Excludes authorized vehicle parking.
[2] No changes to existing on-street capacity anticipated in the No-Action condition.
[3] Based on January 2018 field surveys.
[4] Reflects an annual background growth rate of 0.25 percent/year for the 2018 through 2023 period.

## The Future With the Proposed Action (With-Action Condition)

The proposed action would not result in the displacement of any existing off-street public parking capacity. However, as discussed previously, traffic improvements implemented in conjunction with the proposed action would include a new parking restriction that would displace four on-street parking spaces on Van Dam Street.

It is anticipated that a total of 207 accessory parking spaces would be provided in the project area compared to nine spaces (all on the project site) in the No-Action condition. There would be 49 spaces on the project site (Lot 1), 72 spaces on Lot 6 and 86 spaces on Lot 14. Table H-34 shows a forecast of the total hourly parking demand that would be generated in the project area on a weekday under the proposed action. (As the proposed project is commercial in nature, there is expected to be substantially less parking demand on weekends than on weekdays.) The parking forecast was derived from the forecast of daily auto trips from the proposed uses on the project site and Lots 6 and 14. As shown in Table H-34, weekday parking demand generated by the office and retail uses that would be present in the project area with the proposed action would total approximately 184 spaces in the weekday AM period and 315 spaces in the midday, and would peak at approximately 343 spaces during the 2-3 PM period. (These totals include demand from

# Table H-34
# Total Weekday Parking Accumulation with the Proposed Action

| Lot 1 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Local Retail | | | Office | | | Total Demand | | |
| | 22,267 gsf | | | 134,485 gsf | | | | | |
| | 302 auto trips/day | | | 440 auto trips/day | | | | | |
| | #In | #Out | Accum. | #In | #Out | Accum. | #In | #Out | Accum. |
| 12-1 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1-2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2-3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3-4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4-5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5-6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6-7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7-8 | 4 | 1 | 3 | 6 | 1 | 5 | 10 | 2 | 8 |
| 8-9 | 5 | 5 | 3 | 79 | 4 | 80 | 84 | 9 | 83 |
| 9-10 | 10 | 7 | 6 | 66 | 11 | 135 | 76 | 18 | 141 |
| 10-11 | 10 | 5 | 11 | 11 | 8 | 138 | 21 | 13 | 149 |
| 11-12 | 10 | 8 | 13 | 5 | 13 | 130 | 15 | 21 | 143 |
| 12-1 PM | 11 | 12 | 12 | 2 | 2 | 130 | 13 | 14 | 142 |
| 1-2 | 29 | 29 | 12 | 2 | 2 | 130 | 31 | 31 | 142 |
| 2-3 | 12 | 13 | 11 | 25 | 12 | 143 | 37 | 25 | 154 |
| 3-4 | 12 | 13 | 10 | 9 | 18 | 134 | 21 | 31 | 144 |
| 4-5 | 12 | 14 | 8 | 8 | 58 | 84 | 20 | 72 | 92 |
| 5-6 | 15 | 15 | 8 | 3 | 72 | 15 | 18 | 87 | 23 |
| 6-7 | 10 | 11 | 7 | 3 | 16 | 2 | 13 | 27 | 9 |
| 7-8 | 6 | 9 | 4 | 1 | 3 | 0 | 7 | 12 | 4 |
| 8-9 | 4 | 6 | 2 | 0 | 0 | 0 | 4 | 6 | 2 |
| 9-10 | 1 | 3 | 0 | 0 | 0 | 0 | 1 | 3 | 0 |
| 10-11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11-12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 151 | 151 | | 220 | 220 | | 371 | 371 | |

| Lot 6 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Local Retail | | | Office | | | Total Demand | | |
| | 14,804 gsf | | | 72,279 gsf | | | | | |
| | 202 auto trips/day | | | 238 auto trips/day | | | | | |
| | #In | #Out | Accum. | #In | #Out | Accum. | #In | #Out | Accum. |
| 12-1 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1-2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2-3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3-4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4-5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5-6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6-7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7-8 | 2 | 1 | 1 | 4 | 0 | 4 | 6 | 1 | 5 |
| 8-9 | 2 | 2 | 1 | 43 | 1 | 46 | 45 | 3 | 47 |
| 9-10 | 6 | 5 | 2 | 36 | 6 | 76 | 42 | 11 | 78 |
| 10-11 | 7 | 4 | 5 | 6 | 4 | 78 | 13 | 8 | 83 |
| 11-12 | 7 | 5 | 7 | 2 | 7 | 73 | 9 | 12 | 80 |
| 12-1 PM | 8 | 8 | 7 | 1 | 1 | 73 | 9 | 9 | 80 |
| 1-2 | 19 | 19 | 7 | 1 | 1 | 73 | 20 | 20 | 80 |
| 2-3 | 8 | 8 | 7 | 13 | 6 | 80 | 21 | 14 | 87 |
| 3-4 | 8 | 8 | 7 | 5 | 10 | 75 | 13 | 18 | 82 |
| 4-5 | 9 | 10 | 6 | 4 | 33 | 46 | 13 | 43 | 52 |
| 5-6 | 10 | 10 | 6 | 2 | 40 | 8 | 12 | 50 | 14 |
| 6-7 | 7 | 8 | 5 | 2 | 9 | 1 | 9 | 17 | 6 |
| 7-8 | 4 | 7 | 2 | 0 | 1 | 0 | 4 | 8 | 2 |
| 8-9 | 3 | 4 | 1 | 0 | 0 | 0 | 3 | 4 | 1 |
| 9-10 | 1 | 2 | 0 | 0 | 0 | 0 | 1 | 2 | 0 |
| 10-11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11-12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 101 | 101 | | 119 | 119 | | 220 | 220 | |

| Lot 14 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Local Retail | | | Office | | | Total Demand | | |
| | 17,897 gsf | | | 87,378 gsf | | | | | |
| | 244 auto trips/day | | | 286 auto trips/day | | | | | |
| | #In | #Out | Accum. | #In | #Out | Accum. | #In | #Out | Accum. |
| 12-1 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1-2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2-3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3-4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4-5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5-6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6-7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7-8 | 2 | 1 | 1 | 4 | 0 | 4 | 6 | 1 | 5 |
| 8-9 | 4 | 4 | 1 | 51 | 2 | 53 | 55 | 6 | 54 |
| 9-10 | 8 | 5 | 4 | 43 | 7 | 89 | 51 | 12 | 93 |
| 10-11 | 8 | 4 | 8 | 7 | 5 | 91 | 15 | 9 | 99 |
| 11-12 | 8 | 7 | 9 | 3 | 9 | 85 | 11 | 16 | 94 |
| 12-1 PM | 9 | 10 | 8 | 2 | 2 | 85 | 11 | 12 | 93 |
| 1-2 | 23 | 23 | 8 | 2 | 2 | 85 | 25 | 25 | 93 |
| 2-3 | 11 | 10 | 9 | 16 | 8 | 93 | 27 | 18 | 102 |
| 3-4 | 10 | 10 | 9 | 5 | 12 | 86 | 15 | 22 | 95 |
| 4-5 | 10 | 11 | 8 | 5 | 37 | 54 | 15 | 48 | 62 |
| 5-6 | 12 | 12 | 8 | 3 | 47 | 10 | 15 | 59 | 18 |
| 6-7 | 8 | 10 | 6 | 2 | 10 | 2 | 10 | 20 | 8 |
| 7-8 | 5 | 7 | 4 | 0 | 2 | 0 | 5 | 9 | 4 |
| 8-9 | 3 | 5 | 2 | 0 | 0 | 0 | 3 | 5 | 2 |
| 9-10 | 1 | 3 | 0 | 0 | 0 | 0 | 1 | 3 | 0 |
| 10-11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11-12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 122 | 122 | | 143 | 143 | | 265 | 265 | |

| Total | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Local Retail | | | Office | | | Total Demand | | |
| | 54,968 gsf | | | 294,142 gsf | | | | | |
| | 748 auto trips/day | | | 964 auto trips/day | | | | | |
| | #In | #Out | Accum. | #In | #Out | Accum. | #In | #Out | Accum. |
| 12-1 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1-2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2-3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3-4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4-5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5-6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6-7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7-8 | 8 | 3 | 5 | 14 | 1 | 13 | 22 | 4 | 18 |
| 8-9 | 11 | 11 | 5 | 173 | 7 | 179 | 184 | 18 | 184 |
| 9-10 | 24 | 17 | 12 | 145 | 24 | 300 | 169 | 41 | 312 |
| 10-11 | 25 | 13 | 24 | 24 | 17 | 307 | 49 | 30 | 331 |
| 11-12 | 25 | 20 | 29 | 10 | 29 | 288 | 35 | 49 | 317 |
| 12-1 PM | 28 | 30 | 27 | 5 | 5 | 288 | 33 | 35 | 315 |
| 1-2 | 71 | 71 | 27 | 5 | 5 | 288 | 76 | 76 | 315 |
| 2-3 | 31 | 31 | 27 | 54 | 26 | 316 | 85 | 57 | 343 |
| 3-4 | 30 | 31 | 26 | 19 | 40 | 295 | 49 | 71 | 321 |
| 4-5 | 31 | 35 | 22 | 17 | 128 | 184 | 48 | 163 | 206 |
| 5-6 | 37 | 37 | 22 | 8 | 159 | 33 | 45 | 196 | 55 |
| 6-7 | 25 | 29 | 18 | 7 | 35 | 5 | 32 | 64 | 23 |
| 7-8 | 15 | 23 | 10 | 1 | 6 | 0 | 16 | 29 | 10 |
| 8-9 | 10 | 15 | 5 | 0 | 0 | 0 | 10 | 15 | 5 |
| 9-10 | 3 | 8 | 0 | 0 | 0 | 0 | 3 | 8 | 0 |
| 10-11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11-12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 374 | 374 | | 482 | 482 | | 856 | 856 | |

No-Action office and local retail uses that would remain on the development site under the proposed action.) As development in the project area would consist of office and retail uses, there would be relatively little demand overnight. As not all of the parking demand generated in the With-Action condition could be accommodated in the 207 spaces of accessory parking provided in the project area, some of this demand would utilize nearby off-street and on-street parking.

Off-Street Parking

A comparison of estimated No-Action and With-Action parking demand and capacity at study area off-street public parking facilities is provided in Table H-35. As shown in Table H-35, the proposed action would generate a net incremental parking demand of approximately eight spaces in the weekday AM peak hour and 61 spaces in the midday when compared to the No-Action condition. (These numbers represent demand not accommodated by on-site accessory parking.) With this incremental demand, off-street public parking in proximity to the project area would be operating at a 75 percent utilization rate with 103 available spaces (compared to 73 percent utilization and 111 spaces available in the No-Action). In the weekday midday, the off-street public parking supply would be operating over capacity with a shortfall of 465 spaces (compared to a shortfall of 404 spaces in the No-Action).

The ability of the on-street parking supply to accommodate the 61 spaces of demand generated by the proposed action in the weekday midday period is assessed below.

**Table H-35**
**With-Action Off-Street Public Parking Capacity, Demand and Utilization**

| | AM | Midday |
|---|---|---|
| **Capacity** | | |
| Total With-Action Capacity[1] | 416 | 416 |
| **Demand** | | |
| No-Action Demand | 305 | 820 |
| Net Incremental Demand from the Proposed Action[2,3] | 8 | 61 |
| Total With-Action Demand | 313 | 881 |
| **Utilization** | | |
| No-Action Utilization | 73% | 197% |
| No-Action Off-Street Parking Surplus/(Deficit) | 111 | (404) |
| | | |
| With-Action Utilization | 75% | 212% |
| With-Action Off-Street Parking Surplus/(Deficit) | 103 | (465) |

**Notes:**
[1] No changes to off-street public parking capacity are expected to result from the proposed action.
[2] Demand from With-Action land uses in the project area not accommodated by accessory parking.
[3] Net increment includes the elimination of three spaces of demand in each period from the existing warehouse use on Lot 6 displaced under the proposed action.

On-Street Parking

As shown in Table H-36, compared to the No-Action condition, the proposed action would result in a net increase in study area on-street parking demand of approximately 61 spaces in the weekday midday period. On-street parking demand within one quarter-mile of the project area would therefore total approximately 1,667 spaces in the weekday midday, and utilization would increase from 107 percent of capacity in the No-Action condition to 112 percent with the proposed action. There would be a deficit of approximately 172 on-street parking spaces within the study area in the midday period compared to 111 spaces in the No-Action.

**Table H-36**
**With-Action On-Street Parking Capacity, Demand and Utilization**

| | AM | Midday |
|---|---|---|
| **Capacity** | | |
| No-Action Capacity | 1,487 | 1,495 |
| Net Change in Capacity under the Proposed Action | 0 | 0 |
| Total With-Action Capacity | 1,487 | 1,495 |
| **Demand** | | |
| No-Action Demand | 1,198 | 1,606 |
| Incremental Demand from the Proposed Action | 0 [1] | 61 |
| Total With-Action Demand | 1,198 | 1,667 |
| **Utilization** | | |
| No-Action Utilization | 81% | 107% |
| No-Action On-Street Parking Surplus/(Deficit) | 289 | (111) |
| | | |
| With-Action Utilization | 81% | 112% |
| With-Action On-Street Parking Surplus/(Deficit) | 289 | (172) |

**Notes:**
[1] Sufficient off-street public parking capacity would be available in the weekday AM period to accommodate project-generated demand.

On-Street Parking – Expanded Study Area

As there would be an on-street parking deficit within one quarter-mile of the project area in the midday period in the With-Action condition, on-street parking conditions within an expanded study area extending one half-mile are also assessed, consistent with *CEQR Technical Manual* guidance. (No additional off-street public parking facilities were identified within this expanded study area.) Based on existing curbside parking regulations, and taking into account curb space obstructed by curb cuts, fire hydrants, and other impediments, there are a total of approximately 3,804 legal curbside parking spaces in the weekday midday within the expanded study area. Based on data collected during field surveys conducted in January 2018 and November 2020, on-street parking within this area is approximately 84 percent utilized in the weekday midday period. Approximately 622 on-street parking spaces are currently available within the expanded study area during this period.

After accounting for background growth, new retail demand on the project site, and demand from No-Action land uses not otherwise accommodated by accessory parking, the demand for on-street parking within the expanded study area is expected to increase to 3,626 spaces in the weekday midday period. Table H-37 shows that in the future without the proposed action, on-street parking within one half-mile of the project area is expected to be operating at approximately 95 percent of capacity with 178 spaces available in the midday. This is compared to a utilization rate of 84 percent with 622 available spaces in the midday under Existing conditions.

**Table H-37**
**No-Action Midday On-Street Parking Capacity, Demand and Utilization Within 0.5-Mile of the Project Area**

| | Midday |
|---|---|
| **Capacity** | |
| Existing Capacity[1] | 3,804 |
| Net Change in Capacity[2] | 0 |
| Total No-Action Capacity | 3,804 |
| **Demand** | |
| Existing Demand[3] | 3,182 |
| Demand From Background Growth[4] | 40 |
| No-Action Off-Street Public Parking Deficit | 404 |
| Total No-Action Demand | 3,626 |
| **Utilization** | |
| No-Action Utilization | 95% |
| No-Action On-Street Parking Surplus/(Deficit) | 178 |

**Notes:**
[1] Existing capacity based on current parking regulations. Excludes authorized vehicle parking.
[2] No changes to existing on-street capacity anticipated in the No-Action condition.
[3] Based on January 2018 and November 2020 field surveys.
[4] Reflects an annual background growth rate of 0.25 percent/year for the 2018 through 2023 period.

As shown in Table H-38, compared to the No-Action condition, the proposed action would result in a net increase in study area on-street parking demand of approximately 61 spaces in the weekday midday period. On-street parking demand within one half-mile of the project area would therefore total approximately 3,687 spaces in the weekday midday, and utilization would increase from 95 percent of capacity in the No-Action condition to 97 percent with the proposed action. There would be approximately 117 on-street parking spaces within the expanded study area in the midday period compared to 178 spaces in the No-Action.

As discussed in Section F, "Transportation Analysis Methodologies," although much of the area within one quarter-mile of the project area is located within CEQR Parking Zone 2, (within which a parking shortfall from a proposed action would not be considered significant), the project area itself is located just outside of Zone 2. Therefore, the inability of the proposed action and the surrounding area to accommodate future parking demands in the weekday midday period could potentially be considered significant if the parking shortfall exceeds more than half the available on-street and off-street parking spaces within one quarter-mile of the site.

As discussed above, the proposed action would provide a substantial amount of on-site accessory parking (207 spaces), sufficient to accommodate the majority (approximately 66 percent) of the total parking demand generated within the project area in the midday peak period. The incremental off-site demand attributable to the proposed action (61 autos) would only amount to approximately three percent of the total on-street and off-street public parking capacity within one quarter-mile of the project area, and less than two percent within one half-mile.

**Table H-38**
**With-Action Midday On-Street Parking Capacity, Demand and Utilization Within 0.5-mile of the Project Area**

| | Midday |
|---|---|
| **Capacity** | |
| No-Action Capacity | 3,804 |
| Net Change in Capacity under the Proposed Action | 0 |
| Total With-Action Capacity | 3,804 |
| **Demand** | |
| No-Action Demand | 3,626 |
| Incremental Demand from the Proposed Action | 61 |
| Total With-Action Demand | 3,687 |
| **Utilization** | |
| No-Action Utilization | 95% |
| No-Action On-Street Parking Surplus/(Deficit) | 178 |
| | |
| With-Action Utilization | 97% |
| With-Action On-Street Parking Surplus/(Deficit) | 117 |

Furthermore, under *CEQR Technical Manual* guidance, one of the factors to be considered in determining significance is the availability of alternative modes of transportation. As discussed previously, four local bus routes operate within one quarter-mile of the project area, including the Q32 operated by NYCT and the Q39, Q60 and Q67 operated by MTA Bus Company. In addition, the 33rd Street – Rawson Street subway station, served by No. 7 local trains operating on the Flushing Line, is located a seven-minute walk to the north of the project area. Furthermore, the Q39 bus route, which has stops on 48th Avenue at Van Dam Street, cater-corner from the project area, provides a direct connection to E, M and G train services at the Court Square subway station, a five-minute ride to the west. Therefore, the project area is well served by the subway and bus transit modes.

While some drivers destined for the project area would potentially have to travel a greater distance (e.g., up to one-half mile) to find available parking, the shortfall in on-street and off-street public parking spaces within one quarter-mile of the project area during the weekday midday period under the proposed action would not be considered a significant adverse parking impact given the availability of alternative modes of transportation, the magnitude of the shortfall (approximately three percent of study area capacity), and the fact the majority of project demand would be accommodated on-site.

**ATTACHMENT I:**
**AIR QUALITY**

## INTRODUCTION

Air quality, which is a general term used to describe pollutant levels in the atmosphere, would be affected by changes associated with the proposed Van Dam development.

The proposed action, under its Reasonable Worst-Case Development Scenario (RWCDS), would facilitate a new development at 48-18 Van Dam Street in Long Island City, Queens ("the proposed development"). In addition to the proposed development under the RWCDS, the project area also includes two other sites -- Projected Development Site 1 and Projected Development Site 2 -- that are not owned or controlled by the applicant but would be redeveloped as result of the proposed action.

The development sites under the proposed action are as follows:

- Proposed Development Site, which is located at 48-18 Van Dam Street (Block 284, Lot 1), would contain 156,752 gross square feet (gsf) of commercial area, excluding parking;
- Projected Development Site 1, which is located at 31-56 48th Avenue (Block 284 Lot 14), would contain 105,257 gsf, excluding parking; and
- Projected Development Site 2, which is located at 48-29 31st Place (Block 284 Lot 6), would contain 87,083 gsf, excluding parking.

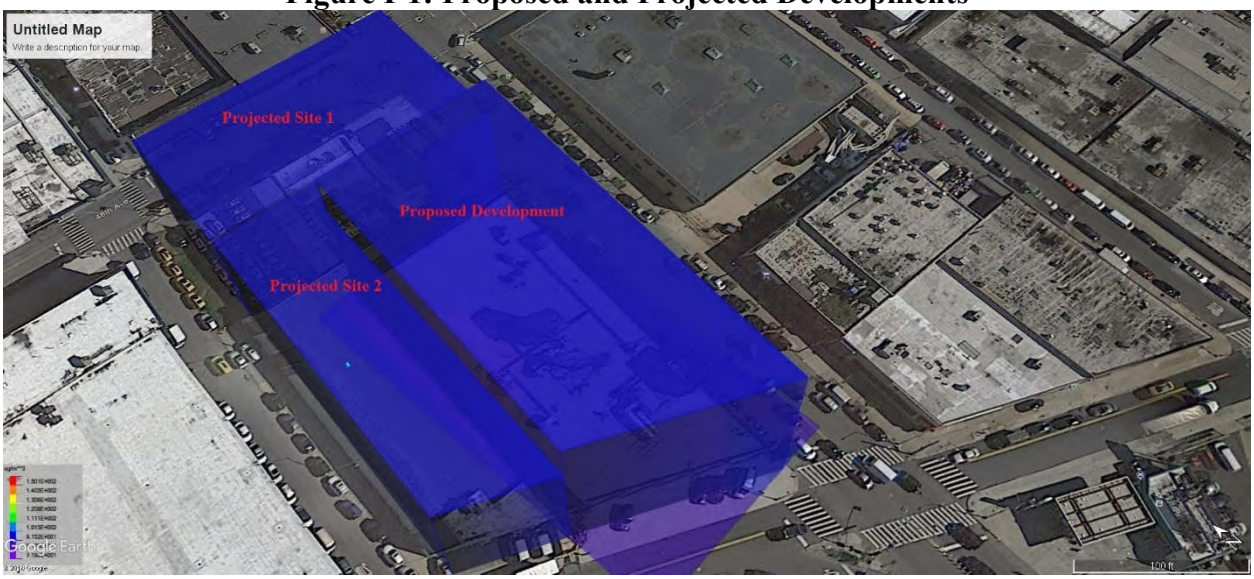
The Proposed Development would be an 8-story (111.3 foot-tall) building while the Projected Developments 1 and 2 would each be a 6-story (83.5 foot-tall) building. These sites, which are adjacent to each other, are shown on Figure I-1.

In accordance with the 2020 *New York City Environmental Quality Review Technical Manual (CEQR Technical Manual*), the following analyses were conducted:

- Project-on Project HVAC Analysis. Emissions released from the heating, ventilation, and air conditioning (HVAC) systems of each of the proposed/projected building could potentially impact the other buildings. As the two Projected Developments would be shorter than and adjacent to the Proposed Development, the HVAC emissions from these shorter buildings could impact the Proposed Development. In addition, the two Projected Development buildings are the same height and, as such, could impact each other. Therefore, a project-on-project analysis was conducted to determine whether the potential impacts of the HVAC emissions of these buildings would be significant.
- Project-on-Existing HVAC Analysis. A review of existing land uses using the NYC Oasis interactive mapping application and Google aerial photos shows that there is one existing building located within 400 feet of the project area that is taller than the proposed developments. This is a 10-story (approximately 120-foot tall) existing building on Block 282, Lot 1. As such, an analysis was conducted to determine whether the potential impacts

of the HVAC emissions of the proposed developments on this existing building would be significant.

**Figure I-1: Proposed and Projected Developments**




- Major Source Analysis. A review of the New York State Department of Environmental Conservation (NYSDEC) permit database identified the Fiorello LaGuardia CUNY College located at 31-10 Thomson Avenue as a large combustion emission source (having a State Facility Permit) located within approximately 800 feet of proposed/projected development sites. In accordance with *CEQR* guidance, "All major or large emission sources within the 1,000-foot study area that may not be properly accounted for in the background concentrations should be identified along with their stack parameters and emission calculations (*CEQR Technical Manual* Page 17-39 Cumulative Analysis). As such, analysis of the emissions from this large existing source on the proposed developments was conducted.
- Industrial Source (Air Toxics) Analysis: In accordance with Section 220 (Stationary Sources) of the *CEQR Technical Manual*, "projects that would result in new uses (particularly schools, hospitals, and residences) located within 400 feet of manufacturing or processing facilities" may result in potentially significant impacts, and therefore require stationary source analyses. As several industrial facilities are located within 400 feet of the project area where the Applicant-owned building and two projected buildings are located, an analysis was conducted to determine whether the potential impacts of the air toxic emissions released from these facilities would significantly impact the proposed and projected development sites.

The potential air quality impacts associated with each of these analyses were estimated following the procedures and methodologies prescribed in the *CEQR Technical Manual*.

## PROJECT-ON-PROJECT HVAC ANALYSIS

### Relevant Air Pollutants

The EPA has identified several pollutants, which are known as criteria pollutants, as being of concern nationwide. As the proposed developments' HVAC systems would use natural gas, the two critical criteria pollutants associated with natural gas combustion – nitrogen dioxide ($NO_2$) and particulate matter smaller than 2.5 microns ($PM_{2.5}$) – would be the primary concern. For the major source analysis. which uses both natural gas and fuel oil number 2, particulate matter smaller than 10 microns ($PM_{10}$) and sulfur dioxide ($SO_2$), in addition to $NO_2$ and $PM_{2.5}$, also need to be considered.

### Applicable Air Quality Standards and Significant Impact Criteria

As required by the Clean Air Act, National Ambient Air Quality Standards (NAAQS) have been established for the criteria pollutants by EPA. The NAAQS are concentrations set for each of the criteria pollutants to protect public health and the nation's welfare, and New York has adopted the NAAQS as the State ambient air quality standards. This analysis addressed compliance of the potential impacts with the 1-hour and annual $NO_2$ NAAQS.

In addition to the NAAQS, the *CEQR Technical Manual* requires that projects subject to CEQR apply a $PM_{2.5}$ significant impact criteria (based on concentration increments) developed by the New York City Department of Environmental Protection (DEP) to determine whether potential adverse $PM_{2.5}$ impacts would be significant. If the estimated impacts of a proposed project are less than these increments, the impacts are not considered to be significant.

This analysis addressed compliance of the potential impacts with the 24-hour and annual $PM_{2.5}$ *CEQR* significant incremental impact criteria. The current standards and *CEQR* significant impact criteria that were applied to this analysis, together with their health-related averaging periods, are provided in Table I-1.

*$NO_2$ NAAQS*

Nitrogen oxide (NOx) emissions from gas combustion consist predominantly of nitric oxide (NO) at the source. The NOx in these emissions are then gradually converted to $NO_2$, which is the pollutant of concern, in the atmosphere (in the presence of ozone and sunlight as these emissions travel downwind of a source).

The 1-hour $NO_2$ NAAQS of 0.100 ppm (188 $\mu g/m^3$) is the 3-year average of the 98th percentile of daily maximum 1-hour average concentrations in a year. For determining compliance with this standard, the EPA has developed a modeling approach for estimating 1-hour $NO_2$ concentrations that is comprised of 3 tiers: Tier 1, the most conservative approach, assumes a full (100 percent) conversion of NOx to $NO_2$; Tier 2 applies a conservative ambient NOx/$NO_2$ ratio of 80 percent to the NOx estimated concentrations; and Tier 3, which is the most precise approach, employs AERMOD's Plume Volume Molar Ratio Method (PVMRM) module. The PVMRM accounts for the chemical transformation of NO emitted from the stack to $NO_2$ within the source plume using hourly ozone background concentrations. With Tier 3, the AERMOD-generated 8$^{th}$ highest daily

maximum 1-hour $NO_2$ concentration with added $NO_2$ hourly background concentration could be compared directly to the 1-hour $NO_2$ NAAQS standard.

**Table I-1, Applicable National Ambient Air Quality Standards and CEQR Threshold Values**

| Pollutant | Averaging Period | NAAQS | CEQR |
|---|---|---|---|
| $NO_2$ | 1 Hour | 0.10 ppm (188 µg/m$^3$) | -- |
| | Annual | .053 ppm (100 µg/m$^3$) | -- |
| $PM_{2.5}$ | 24 Hour | 35 µg/m$^3$ | 8.6 |
| | Annual | 12 µg/m$^3$ | 0.3 |
| $PM_{10}$ | 24 Hour | 150 µg/m$^3$ | -- |
| $SO_2$ | 1 Hour | 0.75 ppb (196 µg/m$^3$) | -- |

The 1-hour $NO_2$ procedure with PVMRM module consist of a 3-steps methodology:

1. At each receptor, the model selects the highest-concentration hour from each day, and the other 23 hours from each day are discarded;
2. From this pool of 365 1-hour values (one from each day), the highest values are discarded such that the 8$^{th}$ highest $NO_2$ value from each year is selected, leaving one value per year; and
3. These 5 values, one from each year of a 5-year period, are averaged together to produce the final number that can be compared to the 1-hour $NO_2$ NAAQS value.

Based on New York City Department of Planning (DCP) guidance, Tier 1, as the most conservative approach, should initially be applied as a preliminary screening tool to determine whether violations of the NAAQS are likely to occur. If exceedances of the 1-hour $NO_2$ NAAQS were estimated, the less conservative Tier 3 approach should be applied.

The annual $NO_2$ standard is 0.053 parts per million (ppm or 100 µg/m$^3$). In order to conservatively estimate annual $NO_2$ impacts, a $NO_2$ to NOx ratio of 0.75 percent, which is recommended by the NYCDEP for an annual $NO_2$ analysis, was applied.

*$PM_{2.5}$ CEQR Significant Impact Criteria*

*CEQR Technical Manual* guidance includes the following criteria for evaluating significant adverse $PM_{2.5}$ incremental impacts:

> *Predicted 24-hour maximum $PM_{2.5}$ concentration increase of more than half the difference between the 24-hour $PM_{2.5}$ background concentration and the 24-hour standard.*

A 24-hour $PM_{2.5}$ background concentration of 17.8 $\mu g/m^3$ was obtained from the Queens College 2 monitoring station as the average of the 98th percentile for the latest 3 years of monitoring data collected by the NYSDEC for 2017-2019 (2017=17.3 ug/m3, 2018=19.2 ug/m3, and 2019=17.0 ug/m3). As the applicable background value is 17.8 $\mu g/m^3$, half of the difference between the 24-hour $PM_{2.5}$ NAAQS and this background value is 8.6 $\mu g/m^3$. As such, a significant impact criterion of 8.6 $\mu g/m^3$ was used for determining whether the potential 24-hour $PM_{2.5}$ impacts of the proposed development are considered to be significant.

For an annual average adverse $PM_{2.5}$ incremental impact, according to *CEQR* guidance:

> *Predicted annual average $PM_{2.5}$ concentration increments greater than 0.3 $\mu g/m^3$ at any receptor location for stationary sources.*

The above 24-hour and annual significant impact criteria were used to evaluate the significance of predicted $PM_{2.5}$ impacts.

**HVAC Screening Analysis**

Based on *CEQR* guidance, a preliminary screening analysis needs to be conducted as a first step to predict whether the potential impacts of the HVAC emissions would be significant and if this step determines a potential for significant impacts, a detailed analysis would be required. The *CEQR* screening procedure, however, is only applicable to single buildings that are more than 30 feet apart from the nearest building of similar or greater height. Therefore, for the proposed development and projected sites, which are adjacent to each other, the screening procedure is not applicable, and detailed project-on-project analyses need to be conducted.

The screening procedure, however, could be applied to the project-on-existing analysis as the each of development sites could potentially impact the existing nearby taller 10-story building. In addition, based on Department of City Planning (DCP) comment, the combined impact of the two projected sites on existing building was also evaluated. The total square footage of the proposed development and each of projected sites were used, and the conservative generic nomograph shown on Figure 17-3 of the *CEQR Technical Manual* "Stationary Source Screen," for a corresponding stack height, was applied. This nomograph depicts the size of a development versus the distance below which a potential impact could occur and provides a threshold distance.

As required by the *CEQR* screening procedure, for analyses of two projected sites, the 30-foot curve in Figure 17-3 was applied as the 30-foot curve height is closest to but not higher than the stack heights of the projected sites (with are based on building heights and an assumed stack height of 3 feet). For the proposed development, the 100-foot curve in Figure 17-3 was applied -- as the 100-foot curve height is closest to but not higher than the stack height of the proposed development (114 feet).

If the actual distance between a building with an HVAC stack and an affected building is greater than the threshold distance for a building size, then that building passes the screening analysis (and no significant impact is predicted). However, if the actual distance is less than the threshold distance for a building, then there is a potential for a significant impact, and a detailed analysis

would be required. Results of the screening analysis for project-on-existing are provided in Table I-2.

**Table I-2: Results of the Project-on-Existing Screening Analysis**

| Site | Block/ Lot | Floor Area | Stack Height | Nearest Building | Distance Between Buildings | Threshold Distance CEQR Figure 17-3 | CEQR Figure 17-3 Results | |
|---|---|---|---|---|---|---|---|---|
| | | sq. ft. | feet | feet | feet | feet | Pass | Fail |
| **Proposed Development** | 284/1 | 156,752 | 114.3 | Existing 10-story Building on 282/1 | 400 | 178 | Pass | |
| **Projected Site 1** | 284/6 | 105,275 | 86.5 | | 366 | 160 | Pass | |
| **Projected Site 2** | 284/14 | 87,083 | 86.5 | | 330 | 148 | Pass | |
| **Site 1 and 2 Combined** | | 192,358 | 86.5 each | | 330 | 210 | Pass | |

The result of the project-on-existing screening analysis is that all of development sites passed the screening analysis because the actual distances between development buildings and existing building are greater than the threshold distances determined using *CEQR* Figure 17-3, indicating that no further (detailed) analysis is required.

**Detailed Project-on-Project HVAC Analysis**

A dispersion modeling analysis was conducted to estimate the potential impacts from the HVAC emissions of each of the proposed/projected buildings using the latest version of EPA's AERMOD dispersion model (EPA version 19191). In accordance with *CEQR* guidance, this analysis was conducted assuming stack tip downwash, urban dispersion surface roughness length, and elimination of calms. AERMOD's Plume Volume Molar Ratio Method (PVMRM) module was utilized for the 1-hour $NO_2$ analysis -- to account for NOx to $NO_2$ conversion. Analyses were conducted with and without the effects of wind flow around the proposed/projected buildings (i.e., with and without downwash) utilizing the AERMOD Building Profile Input Program (BPIP) algorithm, and both results are reported.

Emission rates for HVAC analysis were estimated as follows:

- As the proposed buildings would be heated by natural gas, emission rates of NOx and $PM_{2.5}$ were calculated based on annual natural gas usage corresponding to the gross floor area (gsf) of each building and EPA AP-42 emission factors for firing natural gas in small boilers.
- The $PM_{2.5}$ emission factors from natural gas combustion of 7.6 pounds per million cubic feet accounted for both filterable and condensable particulates was used (AP-42, Table 1.4-2).

- NOx emission rates were estimated assuming the use of low-NOx burners in the projected development buildings. This would preclude potentially significant $NO_2$ impacts and the need for more severe mitigation measures (e.g., multiple exhaust stacks for Projected Site 1 and/or excessive stack set-back requirements for Projected Site 2).
- NOx emission rates were also estimated using AP-42 NOx uncontrolled emission factors (AP-42 Table 1.4-1) when applicable.
- Short-term $NO_2$ and $PM_{2.5}$ emission rates were estimated by accounting for seasonal variation in heat and hot water demand. Based on recent Department of City Planning (DCP) guidance, a seasonal emission factor was set as 1 for the winter season and 0.5 for each of the three other seasons of the year.

A natural gas fuel usage factor of 45.2 cubic foot per square foot per year was obtained from *CEQR* Table C25 (p. 40), Natural Gas Consumption and Conditional Energy Intensity by Census Region for Non-Mall Buildings, 2003.

Table I-3 provides the estimated $PM_{2.5}$ and $NO_2$ short-term (e.g., 24-hour and 1-hour) and annual emission rates for each development site. The diameter of the stacks and the exhaust's exit velocities were estimated based on values obtained from NYCDEP "CA Permit" database for the corresponding boiler sizes (i.e., rated heat input or million BTUs per hour). Boiler sizes were estimated based on assumption that all fuel would be consumed during the 100-day (or 2,400 hour) heating season. A stack exit temperature of 300ºF (423ºK), which is appropriate for boilers, was assumed for all boilers.

*Meteorological Data*

All analyses were conducted using the latest five consecutive years of meteorological data (2015 through 2019). Surface data were obtained from La Guardia Airport and upper air data were obtained from the Brookhaven New York station. These data were processed by Trinity Consultants, Inc. using current EPA AERMET and procedures. These meteorological data provide hour-by-hour wind speeds and directions, stability states, and temperature inversion elevations over the 5-year period.

Five years of meteorological data were combined into a single multiyear file to conduct $PM_{2.5}$ and $NO_2$ modeling. The $PM_{2.5}$ special procedure, which is incorporated into AERMOD, calculates concentrations at each receptor for each year modeled, averages those concentrations across the number of years of data, and then selects the highest values across all receptors of the 5-year averaged highest values.

*Background Concentrations*

In order to conduct the 1-hour $NO_2$ Tier 3 analysis, hourly ozone and $NO_2$ background concentrations were developed from monitoring data collected at the Queens College 2 station for the 5 consecutive years (2015-2019) and compiled into AERMOD's required hourly emission ($NO_2$) and concentration (ozone) data format.

The maximum 1-hour $NO_2$ background concentration from Queens College 2 monitoring station is 55.2 ppb or 104.2 $\mu g/m^3$, which is the 3-year average of the $98^{th}$ percentile of daily maximum 1-hour concentrations, and the annual $NO_2$ background concentration of 15.1 ppb or 28.4 $\mu g/m^3$

is the maximum annual average for 2017 through 2019. The maximum annual average $PM_{2.5}$ background concentration from Queens College 2 monitoring station for 2017-2019 is 7.4 $\mu g/m^3$.

**Table I-3: Estimated Pollutant Short-term and Annual Emission Rates**

| | | Stack Height | Total Floor Area | $PM_{2.5}$ Development Sites Rate (1) | | $NO_2$ Block/Lot Rate (2) | |
|---|---|---|---|---|---|---|---|
| | | feet | $ft^2$ | g/sec | g/sec | g/sec | g/sec |
| | | | | 24-hr | Annual | 1-hr | Annual |
| **Projected Site 1** | 284/14 | 86.5 | 105,257 | 1.90E-03 | 5.20E-04 | 9.08E-03 | 2.49E-03 |
| **Projected Site 2** | 284/6 | 86.5 | 87,083 | 1.57E-03 | 4.30E-04 | 7.51E-03 | 2.06E-03 |

**Notes:**

1. $PM_{2.5}$ emission factor for natural gas combustion of 7.6 lb/$10^6$ cubic feet (which includes filterable and condensable particulate matter), AP-42 Table 1.4-2.
2. NOx emission factor for natural gas of 0.036 lb/MMBtu for low-NOx boilers is based on a 30 ppm NOx concentration limits in exhaust gas (at a specified reference temperature and pressure) corrected to 3 volume percent $O_2$ in the dry gas.

*Stack and Receptor Locations for the HVAC Analysis*

It was initially assumed that emissions from the Projected Development Sites would be released through single stacks located on the roof of each building. Stack heights were assumed to be 3 feet above the height on each building's roof. It was also initially assumed that the stacks would be placed at the minimum distance (as per NYC Building Code provision) from the adjacent Proposed Development. If exceedances of the *CEQR* significant threshold values or NAAQS were predicted, the stacks would be gradually set back further from the impacted buildings until no exceedances of the *CEQR* thresholds or NAAQS were predicted.

Receptors were placed around all faces of the Proposed Development and each of the Projected Developments (where they impact each other) in 10-foot increments on all floor levels, starting 10 feet above the ground and extending up to the level of the upper windows (which were assumed to be 5 feet below roof level).

Modeling parameters used in the analysis are provided in Table I-4.

*Downwash*

According to *CEQR* guidance, dispersion analyses should be conducted both with downwash (if exhaust from the stack is affected by nearby structures) and without downwash. Building downwash occurs as wind flows over and around buildings, and impacts the dispersion of pollution from the exhaust stack. The presence of buildings can substantially affect the initial dispersion of pollutants within the atmosphere. Turbulent zones can be created around these buildings that change the trajectory of the plume instead of allowing it to flow freely within the atmosphere.

Under the proposed configuration (i.e., with all of buildings being immediately attached to each other and both Projected Sites being shorter than Proposed Development), downwash would be a critical factor affecting the results of this analysis. The difference in the heights of the buildings

(i.e., the impacted building would be taller than the buildings where the emission sources are located) and the close proximity of the buildings to each other create conditions for substantial downwash effects. Predicted maximum pollutant concentrations with and without downwash are therefore considerably different.

**Table I-4: Modeling Parameters for HVAC Analysis**

| | |
|---|---|
| **Model** | AERMOD v.8 (EPA Version 19191) |
| **Source Type** | Point Source |
| **Number of emission points (stacks)** | One or two on each building |
| **Surface Characteristic** | Urban Area Option |
| **Urban Surface Roughness Length** | 1 |
| **Downwash effect** | BPIP Program |
| **Meteorological Data** | Preprocessed by the AERMET meteorological preprocessor program by Trinity Consultants, Inc. Yearly meteorological data for 2015-2019 concatenated into single multiyear file for $PM_{2.5}$ modeling, as EPA recommended |
| **Surface Meteorological Data** | LaGuardia 2015-2019 |
| **Profile Meteorological Data** | Brookhaven Station 2015-2019 |
| **Pollutant Background Concentrations** | Queens College 2 monitoring stations data for 2017-2019 |
| **$PM_{2.5}$ Analysis** | Special procedure incorporated into AERMOD where model calculates concentration at each receptor for each year modeled, averages those concentrations across the number of years of data, and then selects the highest across all receptors of the 5-year averaged highest values |

In addition, results without downwash are not relevant to the actual proposed project. The analysis without downwash assumes that both the projected buildings (as emission sources) and the Proposed Project building (as receptor sites) would not exist. As such, results without downwash are presented for informational purposes only – to conform with *CEQR* requirements.

Results with downwash comply with all applicable guidelines (i.e., *CEQR* significant thresholds and the NAAQS) with stack setbacks, while the initial results without downwash exceed both *CEQR* guidelines and the NAAQS, and require more severe mitigation measures (such as the need low-NOx burners, significant stack setbacks, and the need two stacks on Projected Site 2).

*$PM_{2.5}$ Results with Downwash*

Site 1

With the stack on Projected Site 1 located at the minimum distance allowable by the New York City Building Code (10 feet) from the Proposed Development (as a taller building), the maximum estimated potential $PM_{2.5}$ impact is 1.73 ug/$m^3$, which is less than the *CEQR* significant threshold limit of 8.6 ug/$m^3$, and the maximum total estimated concentration, with the added background value of 17.8 ug/$m^3$, is less than the 24-hr $PM_{2.5}$ NAAQS of 35 ug/$m^3$. The annual $PM_{2.5}$ impact and the total annual average concentration (with added annual background value of 7.4 ug/$m^3$) is

less than the *CEQR* significant annual threshold value of 0.3 ug/$m^3$ and the annual $PM_{2.5}$ NAAQS of 12 ug/$m^3$ (Table I-5).

In addition, because the maximum estimated impact with No. 2 fuel oil, is also less than the *CEQR* significant threshold limit of 8.6 ug/$m^3$, any type of fuel could be used in the HVAC system and no restriction on either stack location or fuel is warranted for Projected Site 1. The E-designation for this building will only state that the stack on Projected Site 1 should be as tall as that evaluated in the analysis.

Site 2

To eliminate potentially significant impacts on the Proposed Development from Site 2, it was determined, through an iterative analysis, that the stack should be setback at least 43 feet from the building line facing the Proposed Development, which translates to about 20 feet from 31st Place. The maximum estimated 24-hr $PM_{2.5}$ impact at this distance is 8.0 ug/$m^3$, which is less than the *CEQR* threshold of 8.6 ug/$m^3$, and the maximum total 24-hr $PM_{2.5}$ concentration is less than 24-hr $PM_{2.5}$ NAAQS. The maximum annual $PM_{2.5}$ impact and the total annual average concentration (with added annual background value of 7.4 ug/$m^3$) are less than the *CEQR* significant annual threshold value of 0.3 ug/$m^3$ and annual $PM_{2.5}$ NAAQS of 12 ug/$m^3$, respectively (Table I-5).

E-designation would be required for Projected Site 2 to restrict the stack location and the fuel use exclusively to natural gas (as exceedances were estimated with fuel oil).

Cumulative Impacts

Maximum impacts of the $PM_{2.5}$ emissions from Sites 1 and 2 combined is estimated to be 1.76 ug/$m^3$, which is less than both the *CEQR* significant impact threshold and the NAAQS.

Summary of Results with Downwash

The results of analysis with downwash is that neither the *CEQR* significant impact threshold, the 24-hr/annual $PM_{2.5}$ NAAQS, or the 1-hour/annual $NO_2$ NAAQS would be exceeded using one single stack on Projected Site 2 (with the required stack setback).

**Table I-5: $PM_{2.5}$ Analysis Results (with Downwash)**

| Building ID | Receptor Building | Maximum 24-hour Impact | Maximum Annual Impact | *CEQR* Significant Impact Criteria | |
|---|---|---|---|---|---|
| | | | | 24-hour | Annual |
| | | ug/$m^3$ | ug/$m^3$ | ug/$m^3$ | ug/$m^3$ |
| Site 1 | Proposed Development | 1.7 | <0.1 | 8.6 | 0.3 |
| Site 2 | | 8.0 (3) | 0.1 | | |
| | | 24-hour Average Conc. (1) | Annual Average Conc. (2) | NAAQS | |
| | | | | 24-hour | Annual |
| | | µg/$m^3$ | µg/$m^3$ | µg/$m^3$ | µg/$m^3$ |
| Site 1 | Proposed Development | 18.7 | 7.4 | 35 | 12 |
| Site 2 | | 25.8 | 7.5 | | |

**Note:**

1. Includes 24-hr $PM_{2.5}$ background concentrations of 17.8 ug/$m^3$.
2. Includes annual $PM_{2.5}$ background concentrations of 7.4 ug/$m^3$.
3. With stack setback 20 feet from 31 Place

*$PM_{2.5}$ Results Without Downwash*

Results without downwash are provided for information purposes following *CEQR* requirements (Table I-6). The results of this analysis, which assumed that no physical buildings would exist and one stack would be located at the maximum possible distance from the Proposed Development, is that both the *CEQR* significant impact thresholds and the applicable NAAQS, particularly for Projected Site 2, would be substantially exceeded.

**Table I-6: $PM_{2.5}$ Analysis Results (without Downwash)**

| Building ID | Receptor Building | Maximum 24-hour Impact | Maximum Annual Impact | *CEQR* Significant Impact Criteria | |
|---|---|---|---|---|---|
| | | | | 24-hour | Annual |
| | | ug/m³ | ug/m³ | ug/m³ | ug/m³ |
| Site 1 | Proposed Development | 7.92 (1) | 0.15 | 8.6 | 0.3 |
| Site 2 | | 7.3 (2) | 0.26 (2) | | |
| | | 24-hour Average Conc. (3) | Annual Average Conc. (4) | NAAQS | |
| | | | | 24-hour | Annual |
| | | µg/m³ | µg/m³ | µg/m³ | µg/m³ |
| Site 1 | Proposed Development | 23.3 | 7.6 | 35 | 12 |
| Site 2 | | 23.6 (2) | 7.6 | | |

**Note:**
1. With stack setback 65 feet from 48th Ave
2. With two stacks and lower exit velocity
3. Includes 24-hr $PM_{2.5}$ background concentrations of 17.8 ug/m³.
4. Includes annual $PM_{2.5}$ background concentrations of 7.4 ug/m³.

Site 1

To eliminate potentially significant impacts for Site 1 and comply with both *CEQR* thresholds and the NAAQS, the stack should be setback at least 65 feet from the building line facing the Proposed Development (63 feet from the 48th Avenue). The estimated 24-hr $PM_{2.5}$ impact at this setback distance is 7.92 ug/m³, which is approximately 92% of 24-hr $PM_{2.5}$ threshold. The estimated annual average $PM_{2.5}$ concentration is 0.15 ug/m³, which is less than the *CEQR* significant impact threshold of 0.3 ug/m³ and the NAAQS of 12 ug/m³.

Without downwash, an E-designation for Projected Site 1 would include a restriction on the stack location and the exclusive use of natural gas.

Site 2

With one stack on Projected Site 2 placed at the maximum possible distance from the Proposed Development, the potential impact of the $PM_{2.5}$ is more than double the *CEQR* 24-hr $PM_{2.5}$ significant threshold limit. As such, emissions were split into two stacks (with half of emissions released from each stack), and the results with two stacks are that the maximum 24-hr $PM_{2.5}$ impact is 8.1 ug/m³, which is just less than the CEQR threshold. The maximum estimated annual average $PM_{2.5}$ concentration is 0.2 ug/m³, which is less than the CEQR significant impact threshold of 0.3 ug/m³ and the NAAQS of 12 ug/m³.

Without downwash, an E-designation on Projected Site 2 would require two HVAC exhaust stacks, setbacks for these stacks, and the exclusive use of natural gas.

Cumulative Impact

Cumulative impact of Sites 1 and 2 combined, with two stacks on Site 2, is estimated to be 8.1 ug/$m^3$, which is almost the same as impact of Site 2 alone. This indicated that Site 2 emissions are the main contributor to the cumulative impact without downwash.

*$NO_2$ Results with Downwash*

Site 1

With a single stack at the same location as for $PM_{2.5}$ analysis (i.e., the minimum allowable 10 feet distance from the Proposed Development), a Tier 1 analysis was sufficient to demonstrate compliance with the NAAQS even with the use of AP-42 uncontrolled emission factors. Under the Tier 1 analysis, $NO_2$ background concentrations are added to the maximum estimated impact, and the total concentration is compared to the 1-hour $NO_2$ NAAQS. The maximum total $NO_2$ concentration with uncontrolled emission factors is estimated to be 155.1 ug/$m^3$ (i.e., an impact of 50.9 ug/m3 plus a background value of 104.2 ug/$m^3$), which is less than the 1-hour $NO_2$ NAAQS of 188 ugm3. The maximum total annual average $NO_2$ concentration, which include impacts and the $NO_2$ annual background concentration, is less than the annual $NO_2$ NAAQS of 100 µg/$m^3$.

Based on these results, compliance with the 1-hr $NO_2$ could be achieved using uncontrolled NOx emission rates, and no E-designation restrictions on stack location would be required.

Site 2

A single stack was located at the same location as in $PM_{2.5}$ analysis (i.e., 43 feet from the building line facing the Proposed Development) for the $NO_2$ analysis. Emission rates were estimated based on low-NOx burner emission factors because the use of uncontrolled emission factors resulted in exceedances. A Tier 1 analysis was not sufficient for to demonstrate compliance and a Tier 3 analysis was therefore conducted. Under the Tier 3 analysis, $NO_2$ background concentrations are added to the estimated impact internally within the model, and the total maximum 8$^{th}$ highest maximum daily concentration averaged over 5-years is compared to the 1-hour $NO_2$ NAAQS. The total $NO_2$ concentration is estimated to be 154.9 ug/$m^3$, is less than the 1-hour $NO_2$ NAAQS of 188 ugm3. The estimated annual average $NO_2$ total concentration, which include impacts and the $NO_2$ annual background concentration, is less than the annual $NO_2$ NAAQS of 100 µg/$m^3$.

With downwash effects included, the E-designation for Projected Site 2 would restrict the location of one single stack (as in analysis of the $PM_{2.5}$ emissions) and the exclusive use of natural gas.

A summary of the results of the $NO_2$ analysis is provided in Table I-7.

Site 1

With the stack at the same location as in $PM_{2.5}$ analysis (i.e., 65 feet from the building line facing the Proposed Development or 63 feet from the 48$^{th}$ Avenue), the maximum estimated 1-hr $NO_2$ total concentrations (with low-NOx emission rates and Tier 1) is 160.4 ug/$m^3$ (impact of 56.2 ug/m3 plus a background value of 104.2 ug/$m^3$), which is less than the 1-hr $NO_2$ NAAQS.

**Table I-7: $NO_2$ Analysis Results (With Downwash)**

| Development Sites | Receptor Buildings | 1-hr $NO_2$ Total Conc. | Annual $NO_2$ Total Conc.(3) | NAAQS 1-hr/Annual |
|---|---|---|---|---|
| | | µg/m³ | µg/m³ | µg/m³ |
| **Projected Site 1** | **Proposed Development** | 122.7 (1) | 28.5 | 188/100 |
| **Projected Site 2** | | 154.9 (2) | 28.4 | 188/100 |

**Notes:**
(1) Tier 1 Analysis is based on low-NOx emission rates and include 1-hour $NO_2$ background value of 104.2 µg/m³.
(2) Tier 3 analysis
(3) Total annual $NO_2$ concentrations include background value of 28.4 µg/m³.

*$NO_2$ Results Without Downwash*

Results without downwash are provided in Table I-8.

**Table I-8: $NO_2$ Analysis Results (Without Downwash)**

| Development Sites | Receptor Buildings | 1-hr $NO_2$ Total Conc. | Annual $NO_2$ Total Conc.(3) | NAAQS 1-hr/Annual |
|---|---|---|---|---|
| | | µg/m³ | µg/m³ | µg/m³ |
| **Projected Site 1** | **Proposed Development** | 160.4 (1) | 28.9 | 188/100 |
| **Projected Site 2** | | 162.2 (2) | 29.2 | 188/100 |

**Notes:**
1. Tier 1 Analysis is based on low-NOx emission rates and include 1-hour $NO_2$ background value of 104.2 µg/m³.
2. Tier 3 analysis
3. Total annual $NO_2$ concentrations include background value of 28.4 µg/m³.

Site 2

With two stacks with split emissions, as in $PM_{2.5}$ analysis, the estimated 1-hr $NO_2$ total concentrations (with low-NOx emission rates and a Tier 1 analysis) is estimated to be 162.2 ug/m³ (impact of 58 ug/m³ plus a background value of 104.2 ug/m³), which is less than the 1-hr $NO_2$ NAAQS. The total annual average $NO_2$ concentration is estimated to be less than the annual $NO_2$ NAAQS of 100 ug/m³.

*Projected Sites on Each Other*

Site 1 on Site 2 and Site 2 on Site 1

Results of the Site 1 on Site 2 and Site 2 on Site 1 $PM_{2.5}$ emission analyses are provided in Tables I-7 and I-8, with and without downwash.

**Table I-7: Projected Sites on Each Other $PM_{2.5}$ Analysis Results (With Downwash)**

| Development Sites | Receptor Buildings | 24-hr $PM_{2.5}$ Total Conc. (1) | Annual $PM_{2.5}$ Total Conc.(2) | NAAQS 24-hr/Annual |
|---|---|---|---|---|
| | | µg/m³ | µg/m³ | µg/m³ |
| **Projected Site 1** | **Projected Site 2** | 18.0 | 7.4 | 35/12 |
| **Projected Site 2 (3)** | **Projected Site 1** | 18.0 | 7.4 | 35/12 |

**Table I-8: Projected Sites on Each Other $PM_{2.5}$ Analysis Results (Without Downwash)**

| Development Sites | Receptor Buildings | 24-hr $PM_{2.5}$ Total Conc.(1) | Annual $PM_{2.5}$ Total Conc.(2) | NAAQS 24-hr/Annual |
|---|---|---|---|---|
| | | $\mu g/m^3$ | $\mu g/m^3$ | $\mu g/m^3$ |
| **Projected Site 1** | **Projected Site 2** | 18.2 | 7.4 | 35/12 |
| **Projected Site 2 (3)** | **Projected Site 1** | 18.0 | 7.4 | 35/12 |

1. Includes 24-hr $PM_{2.5}$ background concentrations of 17.8 ug/$m^3$.
2. Includes annual $PM_{2.5}$ background concentrations of 7.4 ug/$m^3$.
3. Two stacks are assumed

Results of the Site 1 on Site 2 and Site 2 on Site 1 $NO_2$ emission analyses are provided in Tables I-9 and I-10.

**Table I-9: Projected Sites on Each Other $NO_2$ Analysis Results (With Downwash)**

| Development Sites | Receptor Buildings | 1-hr $NO_2$ Total Conc. (1) | Annual $NO_2$ Total Conc.(2) | NAAQS 1-hr/Annual |
|---|---|---|---|---|
| | | $\mu g/m^3$ | $\mu g/m^3$ | $\mu g/m^3$ |
| **Projected Site 1** | **Projected Site 2** | 108.0 (1) | 28.4 | 188/100 |
| **Projected Site 2** | **Projected Site 1** | 107.0 (1) | 28.4 | 188/100 |

1. Tier 1 Analysis include 1-hour $NO_2$ background value of 104.2 $\mu g/m^3$.
2. Total annual $NO_2$ concentrations include background value of 28.4 $\mu g/m^3$.

**Table I-10: Projected Sites on Each Other $NO_2$ Analysis Results (Without Downwash)**

| Development Sites | Receptor Buildings | 1-hr $NO_2$ Total Conc. (1) | Annual $NO_2$ Total Conc.(2) | NAAQS 1-hr/Annual |
|---|---|---|---|---|
| | | $\mu g/m^3$ | $\mu g/m^3$ | $\mu g/m^3$ |
| **Projected Site 1** | **Projected Site 2** | 116.0 (1) | 28.5 | 188/100 |
| **Projected Site 2 (3)** | **Projected Site 1** | 106.1 (1) | 28.4 | 188/100 |

1. Tier 1 Analysis include 1-hour $NO_2$ background value of 104.2 $\mu g/m^3$.
2. Total annual $NO_2$ concentrations include background value of 28.4 $\mu g/m^3$.
3. Two stacks are assumed

With the stack located as in the $PM_{2.5}$ analysis, compliance with the *CEQR* significant impact thresholds and NAAQS for $PM_{2.5}$ and the 1-hour/annual $NO_2$ NAAQS is achieved for Projected Sites 1 and 2 as they impact each other -- with or without downwash. Therefore, no significant impacts are estimated with the E-designations already specified.

**E-Designations**

To avoid any potential impacts associated with air quality on the project area (Block 284, Lots 1, 6, and 14), as part of the proposed action, an (E) designation for air quality would be recorded against the property. The text for the (E) designation, E-608, will be as follows:

*Proposed Development, Block 284 Lot 1*

Any new commercial development on the above-referenced property must ensure that the heating, ventilating, and air conditioning (HVAC) and hot water stack is located at the height at least 111 feet above grade to avoid any potential significant adverse air quality impacts.

*Projected Site 1, Block 284, Lot 14*

Any new commercial development on the above-referenced property must use exclusively natural gas as the type of fuel for heating, ventilating, and air conditioning (HVAC) and hot water equipment and ensure that the HVAC stack is located at **no more than** 63 feet from the lot line facing 48th Avenue, at the height at least 86.5 feet above grade to avoid any potential significant adverse air quality impacts.

*Projected Site 2 Block 284, Lot 6*

Any new commercial development on the above-referenced property must use exclusively natural gas as the type of fuel for heating, ventilating, and air conditioning (HVAC) and hot water equipment, ensure that the heating and hot water system exhaust be routed to two roof-top stacks with equal emissions, and the two stacks be located at least 60 feet apart and **at no more** than 20 feet from the lot line facing 31 Place and **no more than** 110 feet from the lot line facing Hunter Point Avenue, at the height at least 86.5 feet above ground to avoid any potential significant adverse air quality impacts.

These (E) designations would assure that no significant adverse air quality impacts would occur from the proposed/projected developments' HVAC emissions.

**Conclusion of HVAC Analysis**

The conclusions of dispersion analysis of the HVAC emissions are as following:

1. Downwash effects are critical in determining the potential impacts of the HVAC emissions from the two Projected Sites on the Proposed Applicant-owned Development Building;
2. With downwash effects incorporated into the analysis, the potential air quality impact from the each of the Projected Sites (alone or combined together) are not significant with stacks located at minimum distances from the Proposed Building;
3. Without downwash included in the dispersion analysis, compliance with the applicable standards and *CEQR* significant impact thresholds could only be achieved with two stacks on Projected Site 2 and the use of low-NOx burners;
4. With downwash effects incorporated into the analysis, single stacks with no setback requirements are sufficient on Projected Site 2, no stack setback are required for Projected Site 1, and compliance is achieved with use of both fuel No. 2 and natural gas; without downwash, E-designations for a stack set-back would need to be imposed on Projected Site 1 more than one stack would be required on Projected Site 2, and both building would be limited to the exclusive use of natural gas.

## MAJOR COMBUSTION EMISSION SOURCE ANALYSIS

LaGuardia Community College (LCC) is an academic institution within the City University of New York (CUNY). LCC has a State Facility NYSDEC permit (#2-6304-01503/00004), effective from 05/23/2013 to 05/22/2023. This State Facility permit capped the facility's annual heating plant NOx emissions to 24.9 tons per year, which is below the Title V major source permit applicability requirement (and as such the facility does not require a federal permit).

The LCC heating plant operates combustion installations consisting of boilers that provide heat and hot water to the campus. Three new boilers with a design capacity 14.5 million BTUs per hour

(MMBtu/hr) each are firing natural gas only. The other boilers at the facility consist of one Number 4 fuel oil-fired unit with a design capacity of 10.5 MMBtu/hr located in Main Building and two 14.6 MMBtu/hr dual-fuel fired boilers located in E-Building. The Dual-fuel boilers in E-Building use natural gas as the primary fuel and fuel oil Number 2 as a backup fuel. Fuel Number 4 contains up to 0.3 percent sulfur and fuel oil Number 2 contains 15 ppm [0.0015 percent] sulfur).

According to the permit, emissions from the Main Building and E-Building three boilers are released through two stacks – a 105-foot tall (76-inch diameter) stack located in Main Building and a 100-foot tall (20-inch diameter) stack located in E-Building. Emissions from the three new boiler stacks are released through a 157-foot tall (48-inch diameter) common stack located in the C3 Building.

According to the permit, all boiler stacks have the same UTM coordinates – 589.6 E km and 4510.7 km N. However, if the boilers were in different buildings, the coordinates should be different. One of the reasons for that is that unit of measurement for the coordinates listed in the permit is kilometers – not in meters so the maximum deviation between points could be as big as 99 meters (e.g., 589.6 km could be 589,699 m) therefore, the exact stack location based on permit data could not be determined for any LCC building with the necessary precision. In addition, the 3-D view of LCC in Google maps shows only one tall stack located on the campus buildings. Rough measurements show that this stack is taller than 140 feet with a diameter about 70 inches and coordinates within the range mentioned above. The height of this stack is higher than height of each stack from boilers listed in the permit located on Main and E-buildings (100-105 feet) but lower than the height of the stack from new boilers (157 feet). Its diameter (70 inches) is greater than the diameter of the stack from new boilers (48 inches) but less than dimeter of the stacks from boilers on Main and E-buildings. Due to these uncertainties and for conservative purposes, it was assumed that emissions from all boilers (old and new) would be routed into a single common stack that is 157-foot tall (maximum) with diameter of 70 inches (see Figure I-2).

**Figure I-2: 3-D Google View of the Common Stack on LCC Building**



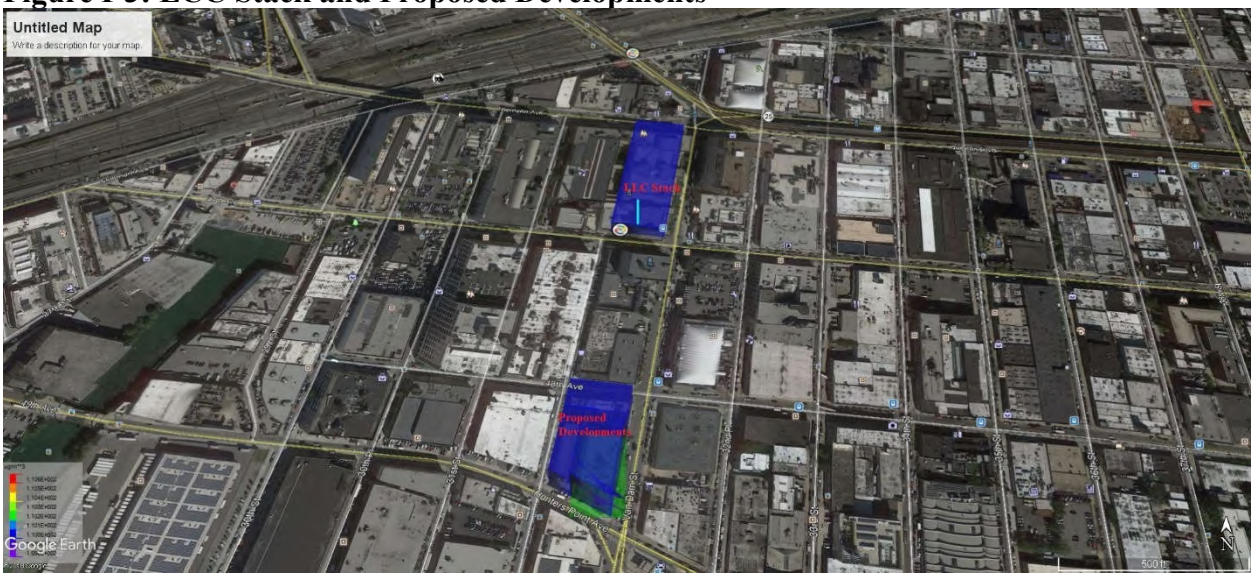
The permit regulates only annual NOx emissions rate at 24.9 tons/year to be within the State Facility permit limit but does not contain emission factors neither for $NO_2$ or any other applicable pollutants that will be released due to firing residual or distillate oil ($PM_{10}$/$PM_{2.5}$ or $SO_2$) and need to be considered in the analysis. Therefore, emission factors for NOx, $SO_2$, $PM_{10}$, and $PM_{2.5}$ were obtained from the EPA AP-42 Document for small industrial boilers with heat input less than 100 MMBtu/hr. Even though the LCC heating plant uses a combination of natural gas and fuel oil, the highest emission factors from burning fuel oil Number 4 were applied.

The emissions from the LCC combustion installations (boilers) could potentially impact all the proposed/projected development buildings. Therefore, an analysis was conducted to estimate whether the potential impact of these emissions would be significant.

**Dispersion Analysis**

The same AERMOD model and dispersion modeling options as for HVAC analysis were used for the LCC emissions dispersion analysis. The stack was located on NYCDCP PLUTO shapefile (which was used as a base map for the AERMOD) approximately 10 feet from the south lot line -- at approximately 760 feet from the front façade of Projected Site 2 (Figure I-3).

**Figure I-3: LCC Stack and Proposed Developments**




*Emission Rates*

The emission factors used in this analysis (see Table I-8) are as follows:

- $PM_{2.5}$ – combined emission factor for fuel oil firing in small boilers is 2.2E-02 lb/MMBtu, which includes 1.1E-02 lb/MMBtu (1.5 lb/$10^3$ gal) emission factor for condensable particles less than 1 micron in diameter (Condensable Particulate Matter for Fuel Oil Combustion, AP-42, Table 1.3-2) and 1.08E-02 lb/MMBtu (1.92A (where

A=0.84) lb/$10^3$ gal) for particles with a size of 2.5 microns from "Cumulative Particle Size Distribution and Size-Specific Emission Factors for Uncontrolled Commercial Boilers Burning Residual or Distillate Oil, AP-42, Table 1.3-7);

- $NO_2$ - emission factor for fuel oil number 4 firing in small boilers is 1.43E-01 lb/MMBtu (20 lb/$10^3$ gal) "Criteria Pollutant Emission Factors for Fuel Oil Combustion AP-42, Table 1.3-1".
- $SO_2$ - emission factor for fuel oil number 4 firing in small boilers is 3.2E-01 lb/MMBtu (45 lb/$10^3$ gal) being estimated from equation $SO_2$=150S, where S = sulfur content in fuel oil Number 4 (0.3 percent), "Criteria Pollutant Emission Factors for Fuel Oil Combustion AP-42, Table 1.3-1".
- $PM_{10}$ – emission factor for filterable PM is 5.0E-02 lb/MMBtu/hr (7 lb/$10^3$ gal), "Criteria Pollutant Emission Factors for Fuel Oil Combustion AP-42, Table 1.3-1".

**Table I-8: Estimated Pollutant Emission Rates with Fuel Oil No. 4 Under State Facility Permit #2-6304-01503**

| Emission Factors | Boiler Combined Heat Input | Peak Short-term Emission Rates | | Annual Emission Rates | |
|---|---|---|---|---|---|
| lb/MMBtu | MMBtu/hr | lb/hr | g/sec | lb/year | g/sec |
| Permit # 2-6304-01503 | | $PM_{2.5}$ Emission Rates | | | |
| | | lb/hr | g/sec | lb/year | g/sec |
| 2.2E-02 | 83.3 | 1.85E+00 | 2.33E-01 | 16,208 | 2.33E-01 |
| Permit # 2-6304-01503 | | $PM_{10}$ Emission Rates | | | |
| | | lb/hr | g/sec | lb/year | g/sec |
| 4.2E-02 | 83.3 | 3.48E+00 | 4.38E-01 | 30,400 | 4.38E-01 |
| Permit # 2-6304-01503 | | NOx Emission Rates | | | |
| | | lb/hr | g/sec | lb/year | g/sec |
| 1.4E-01 | 83.3 | 1.19E+01 | 1.50E+00 | 49,731 | 7.15E-01 |
| Permit # 2-6304-01503 | | $SO_2$ Emission Rates | | | |
| | | lb/hr | g/sec | lb/year | g/sec |
| 3.2E-01 | 83.3 | 2.68E+01 | 3.37E+00 | 116,956 | 1.68E+00 |

Heat input is the combined heat input from three boilers at 14.5 MMBtu/hr each, two boilers at 14.64 MMBtu/hr each, and one boiler at 10.5 MMBtu/hr

As described above, the stack height and diameters were adjusted based on permit information. The stack exit velocity, which is not listed in the permit, was estimated based on values obtained from NYCDEP "CA Permit" database for the corresponding boiler sizes (i.e., rated heat input in million BTUs per hour). The stack exit temperature was assumed to be 300ºF (423ºK), which is appropriate for boilers. Stack parameters data used in this analysis are provided in Table I-9.

**Table I-9: LCC Stack Parameters**

| State Facility Permit | Total Boilers Capacity | Stack Height | | Diameter | | Temp. | Velocity |
|---|---|---|---|---|---|---|---|
| | MMBtu/hr | feet | meters | feet | meters | deg K | m/sec |
| #2-6304-01503 | 83.3 | 157 | 47.85 | 5.83 | 1.78 | 423 | 6.4 |

*Receptor Locations*
Receptors, which, for this analysis, are the operable windows of the proposed development and projected sites, were placed around all faces of these buildings -- in 10-foot increments on all floor levels starting at 10 feet above the ground and extending up to the upper windows level (106 feet for proposed development and 78.5 feet for projected sites 1 and 2). More than 1,700 receptors were considered for the analysis to ensure that the maximum impacts are estimated.

**Results**

Potential impacts of the $PM_{2.5}$, $PM_{10,}$ $NO_2$, and $SO_{2,}$ emissions from the LCC's emissions heating plant on the proposed and projected development sites were estimated and compared with the 24-hour/annual $PM_{2.5}$ *CEQR* significant impact criteria, and the 1-hour/annual $NO_2$, 1-hour $SO_2$, and 24-hour $PM_{10}$ NAAQS.

The result of the dispersion analysis is that all impacts are lower than both the applicable standards and the *CEQR* significant threshold values. This is primarily because the difference between plume centerline of 157-foot tall LCC stack and the upper level (windows) receptors (i.e., where the highest impacts are likely to occur) on the (tallest) proposed Site is more than 50 feet.

*$PM_{2.5}$*

The results of the $PM_{2.5}$ analysis is that the maximum 24-hour impact is estimated to be 2.2 $\mu g/m^3$– which is less than the *CEQR* significant impact criteria. The maximum annual average impact is estimated to be (rounded off) 0.1 $\mu g/m^3$– which is less than the *CEQR* annual significant impact criteria. Therefore, $PM_{25}$ emissions from the LCC would not cause a significant air quality impact on commercial uses of the proposed development site or the two projected sites.

*1-Hour $NO_2$*

Because the preliminary Tier 1 $NO_2$ analysis resulted in exceedances of the 1-hour $NO_2$ NAAQS, a Tier 3 analysis was utilized. Analysis with PVMRM module was conducted using DEP recommendation that the in-stack $NO_2$/NOx concentration ratio should be 0.5, as the EPA default value, and missing ozone background concentration as a full single value should be 0.04 ppm. Under the Tier 3 analysis, hourly $NO_2$ background concentrations are added internally by the model and resulting total 1-hour $NO_2$ concentration could be directly compared to the 1-hour $NO_2$ NAAQS. The result of the 1-hour $NO_2$ Tier 3 analysis is that the $8^{th}$ highest daily 1-hour $NO_2$ concentration is 110.7 $\mu g/m^3$. The maximum average annual $NO_2$ total concentration is estimated to be 31.5$\mu g/m^3$ (with a maximum impact of 0.2 $\mu g/m^3$ and background value of 31.3 $\mu g/m^3$). Both the 1-hour and annual $NO_2$ concentrations are less than the 1-hour and annual $NO_2$ NAAQS of 188 $\mu g/m^3$ and 100 $\mu g/m^3$, respectively. Therefore, 1-hour and annual $NO_2$ emissions from the LCC would not cause a significant air quality impact on the commercial uses of the proposed development site or the two projected sites.

*1-Hour $SO_2$*

The results of the 1-hour $SO_2$ analysis is that the maximum 1-hour $SO_2$ impact is estimated to be 49.8 µg/m$^3$ and the total 1-hour $SO_2$ 4$^{th}$ highest daily 1-hour averaged concentration (including a background value of 24.7 µg/m$^3$) is estimated to be 74.1 µg/m$^3$, which is less than the 1-hour $SO_2$ NAAQS of 196 µg/m$^3$. Therefore, 1-hour $SO_2$ emissions from the LCC would not cause a significant air quality impact on the commercial uses of the proposed development site or the two projected sites.

*24-Hour $PM_{10}$*

The result of the 24-hour $PM_{10}$ analysis is that the maximum 24-hour $PM_{10}$ impact is 4.1 µg/m$^3$. The maximum total 24-hour $PM_{10}$ concentration, including a background value of 44 µg/m$^3$, is estimated to be 48.1 µg/m$^3$, which is less than the 24-hour $PM_{10}$ NAAQS of 150 µg/m$^3$. Therefore, the 24-hour $PM_{10}$ emissions from the LCC would not cause a significant air quality impact on the commercial uses of the proposed development site or the two projected sites.

A summary of the results for all averaging time periods, with and without downwash affects, are presented in Table I-10.

**Table I-10: Summary of Results of Large Emission Source Analysis**

| Pollutant | Modeled Concentration [(1)] | Background Conc. | Total Conc. | Evaluation Criteria |
|---|---|---|---|---|
| | µg/m$^3$ | µg/m$^3$ | µg/m$^3$ | µg/m$^3$ |
| **$PM_{2.5}$** | | | | |
| 24-hr $PM_{2.5}$ | 2.2/0.8 | - | 2.2 | 7.65 (*CEQR Criteria)* |
| Annual $PM_{2.5}$ | 0.1/<0.1 | - | 0.1 | 0.3 (*CEQR Criteria*) |
| **$NO_2$** | | | | |
| 1-hr $NO_2$[(2)] | 110.7/109.4 | | 110.7 | 188 (NAQQS) |
| Annual $NO_2$ | 0.2<0.1 | 31.3 | 31.5 | 100 (NAAQS |
| **$SO_2$** | | | | |
| 1-hr $SO_2$ | 49.8/.3 | 24.7 | 74.1 | 196 (NAQQS) |
| **$PM_{10}$** | | | | |
| 24-hr $PM_{10}$ | 4.1/1.5 | 44 | 48.1 | 150 (NAQQS) |

**Notes:**
[(1)] Modeled concentrations with/without downwash effects.
[(2)] Results with Tier 3 analysis.

As shown, no exceedances of the *CEQR* significant impact criteria for $PM_{2.5}$ or the respective NAAQS for all pollutants on the proposed developments from LCC emissions are predicted.

## INDUSTRIAL SOURCE (AIR TOXICS) ANALYSIS

### Emissions

The first step in this analysis, which is to determine the types and amounts of emissions generated by the nearby industrial facilities, was to obtain emission data for these industrial facilities that are permitted by the New York City Department of Environmental Protection (DEP).

A formal request for this information, with block and lot numbers, was submitted to the DEP, and, based on the information received, a number of industrial facilities within 400 feet of the project area were identified. In addition, based on a comprehensive field survey, five (5) industrial facilities were identified as currently operating in the area. These are Art Automotive LLC, Quality Casting Inc, GM Printing, Dura Engraving Corp, and Marbren Tire -- with four of them being permitted facilities, and one (Marbren Tire) not permitted. Of the permitted facilities, one – DURA Engraving Corp. -- has no permit on file with DEP.

DEP's database lists several other industrial facilities in the area as permitted facilities, including Factory Owner LLC Atlas at 47-44 31 Street; Tom Millilo and Jacmel Jewelry at 47-44 31 Street; Contemporary Ceiling Corp at 31-30 49 Ave; and 49-33 31 Place; and several other industrial sources. However, a field survey found that these facilities have ceased operations and were therefore eliminated from further consideration.

The following industrial facilities were considered for this analysis:

- Art Automotive LLC, Permit No. PB037805R, which changed its name to Master Teck Collision, is located at 47-31 31st Place, LIC (Block 280 Lot 5) and is involved in auto painting using spray booths;
- Quality Casting Inc., Permit No. PB024809X, is located at 31-00 47th Avenue (Block 281, Lot 1), Queens and is involved in jewelry manufacturing;
- GM Printing, Permit No. PB010209, is located at 31-16 Hunters Point Avenue (Block 289, Lot 40) and involved with printing processes;
- Dura Engraving Corp., Permit No. PB032907, is located at 48-15 32 Place (Block 258, Lot 21) and is makes architectural signs and is involved with graphical art; and
- Marbren Tire, a non-permitted facility, is located at 32-16 Hunters Point Avenue (Block 262, Lot 1) and is involved in vehicle maintenance, inspection, and testing.

The DEP permits were reviewed to determine the type(s) of operations and pollutant emission rates. This information, together with data from prototypical facilities and engineering calculations where permits were not available, served as the basis of the emission data for this analysis.

### Facilities Considered

Facility types, addresses, block and lot numbers, permit numbers, and pollutants emitted from the facilities considered are provided in Table I-11.

## Permits and Pollutants

Master Teck Collision (Permit PB03780R) is involved in car painting operations via spray booths. The permit for this facility lists two pollutants – solids (CAS No. NY075-00-0), which is particulate matter, and solvents (CAS No. NY998-00-0), which is group of volatile organic compounds (VOCs) of different toxicities with no CAS number listed in the New York State Department of Environmental Conservation's (NYSDEC) DAR-1 database. Therefore, this group was substituted by individual compounds that have short-term and annual guideline values provided in DAR-1.

**Table I-11: Existing Toxic Facilities Permit Information**

| No. | Facility Name | Block/ Lot | Address | Permit No. | Facility Type | Pollutant | CAS No. | Pollutant Emission Rates | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | lb/hr | lb/year |
| 1 | **Master Teck Collision** | 280/5 | 47-31 31st Place, Queens | PB037805 R | Spray Booth Operations | Solids | NY075-00-0 | 0.008 | 6.5 |
| | | | | | | Solvents | NY998-00-0 | 0.775 | 620 |
| 2 | **Quality Casting, Inc** | 281/1 | 31-00 47th Ave, Queens | PB024809 X | Jewelry Manufacturing | Hydrofluoric Acid | 07664-39-3 | 0.001 | 2.0 |
| | | | | | | Hydrochloric Acid | 07647-01-0 | 0.001 | 2.0 |
| 3 | **GM Printing** | 289/40 | 31-16 Hunters Point Ave, Queens | PB010209 | Printing | Isopropyl Alcohol | 67-63-0 | 0.07 | 140 |
| | | | | | | Butoxyethanol | 111-76-2 | 0.14 | 280 |
| | | | | | | Ethylene Glycol | 107-21-1 | 0.7 | 1,400 |
| | | | | | | Xylene | 1330-20-7 | 0.11 | 220 |
| | | | | | | Isopropylbenzene | 98-82-8 | 0.2 | 400 |
| 4 | **Dura Engraving Corp** | 258/21 | 48-15 32 Place, Queens | PB032907 (not on DEP file) | Engraving and Printing | Stoddard Solvents | 8052-41-3 | 2.17 | 19,050 |
| | | | | | | Toluene | 108-88-3 | 2.17 | 19,050 |
| | | | | | | Xylene | 1330-20-7 | 2.17 | 19,050 |
| 5 | **Marbren Tire Co.** | 262/1 | 32-16 Hunters Point Ave, LIC | Non-permitted | Vehicle Maintenance, Testing | Hydrocarbons (HC) | NY495-00-0 | 0.003 | 5.2 |
| | | | | | | Carbon Monoxide (CO) | 630-08-0 | 0.013 | 26 |
| | | | | | | Nitrogen Oxide (NOx) | 10102-44-0 | 0.003 | 5.2 |

Quality Casting (Permit PB024809X) is involved in jewelry manufacturing and emits fumes of two pollutants – hydrofluoric and hydrochloric acids.

GM Printing (Permit PB010209) is involved in printing process and includes six printing presses (Heidelberg, Hamada, Ryobi, and other color printers). The printing process emits six pollutants – isopropyl alcohol, butoxyethanol, ethylene glycol, xylene, and isopropylbenzene (cumene).

Dura Engraving Corp has permit (PB032907) but it is not listed in the DEP database and no other information on this facility is available. Therefore, it was analyzed based on type of facility it is and on engineering calculations. Dura Engraving Corp, which was traditionally involved in architectural signage, recently expanded its operations in the graphical art industry. Presumably, this includes printing and graphic process such as lithography, gravure, and screen printing. This

industry utilizes printing inks that contain large fractions of VOC, and uses variety of control measures (such as carbon absorption, catalytic oxidation, etc.) to reduce the amounts of VOC emitted into the atmosphere. The group of solvents contained in these inks include a variety of compounds such as toluene, xylene, heptane, mineral spirits, naphtha, hexane, acetone, methyl ethyl ketone, isopropanol, etc. These solvents are usually used in combinations. Presently, two basic types of solvents, toluene and toluene-xylene-naphtha mixture, are used. The total amounts of VOCs emitted from a typical facility with gravure printing operations, which includes ink, dilution solvents, cleaning solutions, and coating operations were obtained from the EPA document, "Preferred and Alternative Methods for Estimating Air Emissions from the Printing and Graphic Arts Industry", Volume II, Chapter 15, which is based on material balance calculations as 19,050 lb/year. For individual solvent calculations and due to absence of weight percentage data of each compounds in total VOC, it was conservatively assumed that the content of each of three compounds (toluene, xylene, and naphtha) in the total VOC would be 100 percent.

Marbren Tire Co. is non-permitted facility and was analyzed as prototypical facility. As a prototype for Marbren Tire Co, the facility analyzed in the Final Environmental Impact Statement for 606 W. 57th Street, which has a large number of bays serving cars and for which permitted emission data were accepted by the NYC Department of City Planning (DCP), was selected. Air emissions from such types of facilities could occur from the servicing of vehicles as well as the operation of the vehicles within the facility. Vehicles undergoing engine testing and maintenance could emit tailpipe pollutants which would be mechanically ventilated to the outside air. According to the permit for this prototypical facility, the pollutants of concern are hydrocarbons (HCs), carbon monoxide (CO), and nitrogen oxides (NOx). Because the group of hydrocarbons is a mixture of different compounds that have no guideline values in the DAR-1 database, by isopropyl alcohol was substituted.

The toxic facilities near the project site are shown on **Figure I-4.**

*Figure I-4: Toxic Facilities near the Project Site*



## Toxic Assessment Methodology

While no federal standards have been promulgated for toxic air pollutants, the NYSDEC has issued guidance (DAR-1) that establish acceptable ambient levels for these pollutants. Short-term (and annual) impacts of toxic pollutants should be evaluated on 1-hour and annual bases, and compared to 1-hour and annual guideline values provided in DAR-1. The DAR-1 guideline values are short-term ambient guideline concentrations (SGCs) and the ambient annual-average-based guideline concentrations (AGCs) that are the maximum allowable concentrations below which there should be no health-related adverse effects. If no exceedances of the SGCs or AGCs are found using DAR-1 screening procedures, no adverse health effects would occur. If the concentration of any pollutant exceeds its applicable guideline value (either SGC or AGC), a more detailed analysis would be required.

The current (August 2016) edition of the DAR-1 no longer includes guideline values (SGC and AGC) for $PM_{2.5}$ and $PM_{10}$. As such, National Ambient Air Quality standards (NAAQS) for these pollutants are used instead. The NAAQS for $PM_{2.5}$ is 35 $\mu g/m^3$ for 24-hours and 12 $\mu g/m^3$ for an annual time period, and 150 $\mu g/m^3$ for 24-hours for $PM_{10}$. As presented in DAR-1, federal standards for $PM_{2.5}$/$PM_{10}$ are not SGC or AGC values; and are only included in the DAR-1 to facilitate screening or regulatory analysis. Because the NAAQS as well as the *CEQR* significant incremental impact criteria established for $PM_{2.5}$ are based on 24-hour or annual averaging time periods, analyses of $PM_{2.5}$ require the use of the USEPA AERMOD dispersion model, which contains a special procedure for this analysis.

## Methodology for Spray Booth Emission Calculations

Based on general DEP recommendations related to the analysis of spray both emissions, the following methodologies and assumptions were applied to the analysis of Master Teck Collison:

1. If a permit does not have data on volatile solvents (which is a group of volatile organic compounds [VOCs]) and/or if Material Safety Data Sheets (MSDSs) for the paint being used are not available, paint ingredients provided in Table 3 of the report entitled, "Air Toxic Analysis of Auto Repair Spray Paint Booth Near Solo Centers" (i.e., the "Solo Report"), dated March 2010, should be used.
2. Unless there is information specifying the amounts of paint ingredients that remain on the painted cars and how much goes into the atmosphere during spray painting operations, it should be conservatively assumed that 100% of the paint ingredients, regardless of volatility, would be evaporated and released into the atmosphere.
3. It should be assumed that all particulates (solids) specified in the permits would also be emitted into the atmosphere.
4. Instead of using the solids (total particulate matter) emission rates that are specified in permits for spray booth operations, solids should be considered as fractions of $PM_{2.5}$ and $PM_{10}$ particles, and the percentages of $PM_{2.5}$ and $PM_{10}$ in total mass of particulate matter should be estimated using the cumulative particle size distribution for surface coating operations via spray booths.
5. Separate analyses for $PM_{2.5}$ and $PM_{10}$ from spray booth facility operations should be conducted, and estimated concentrations should be compared with *CEQR* significant impact criteria (for $PM_{2.5}$) and, with added background concentrations, to applicable NAAQS (i.e., for $PM_{2.5}$ and $PM_{10}$).

6. For detailed dispersion analyses, exhaust stacks should be located according to roof plan drawings. If drawings are not available and a field survey could not determine stack locations, stacks should be placed at minimum distances from the impacted building.

## Solvent Emission Rates

As described above, emission rates for solvents were calculated by multiplying hourly and annual paint usage rates, in pounds per hour or pounds per year (lb/hr, lb/year), by the weight percentage of each solvent in the paint. This approach conservatively assumed that 100% of all solvents would be released into the atmosphere. The content of each solvent (weight percentages) in the paint was obtained from Table 3 of the Solo Report, and are provided in Table I-12. Estimated hourly and annual emission rates of the solvents are provided in Tables I-12 and I-13.

**Table I-12: Composition of the Paint Used in the Spray Booth Analysis**
(As shown in Table 3 of the Solo Report)

| Chemical Name | CAS No. | Maximum % by wt. |
|---|---|---|
| Acetone | 67-64-1 | 43 |
| Aromatic Petroleum Distillate (1) | 64742-94-5 | 10 |
| Butane | 106-97-8 | 11 |
| Ethanol | 64-17-5 | 2 |
| EER (2) | 763-69-9 | 9 |
| Ethylbenzene | 100-41-4 | 5 |
| Methyl Ethyl Ketone (3) | 78-93-3 | 8 |
| N-Butyl Acetate | 123-86-4 | 5 |
| Propane | 74-98-6 | 11 |
| Stoddard Solvents | 8052-41-3 | 10 |
| Toluene | 108-88-3 | 10 |
| Xylene | 1330-20-7 | 10 |

(1) APD = Aromatic Petroleum Distillate; (2) EER = Ethyl 3-Ethoxypropionate; and (3) MEK = Methyl Ethyl Ketone

**Table I-13: Estimated Hourly and Annual Emission Rates for Solvents from Spray Booth Operations at Master Teck Collision**

| Pollutant | Hourly Emission Rate | | Annual Emission Rate | |
|---|---|---|---|---|
| | lb/hr | g/sec | lb/year | g/sec |
| Acetone | 0.3333 | 0.0420 | 266.6 | 0.0038 |
| APD (1) | 0.0775 | 0.0098 | 62.0 | 0.0009 |
| Butane | 0.0853 | 0.0107 | 68.2 | 0.0010 |
| Ethanol | 0.0233 | 0.0029 | 18.6 | 0.0003 |
| EER (2) | 0.0698 | 0.0088 | 55.8 | 0.0008 |
| Ethylbenzene | 0.0388 | 0.0049 | 31.0 | 0.0004 |
| MEK (3) | 0.0620 | 0.0078 | 49.6 | 0.0007 |
| N-Butyl Acetate | 0.0388 | 0.0049 | 31.0 | 0.0004 |
| Propane | 0.0853 | 0.0107 | 68.2 | 0.0010 |
| Stoddard Solvents | 0.0775 | 0.0098 | 62.0 | 0.0009 |
| Toluene | 0.0775 | 0.0098 | 62.0 | 0.0009 |
| Xylene | 0.0775 | 0.0098 | 62.0 | 0.0009 |

(1) APD = Aromatic Petroleum Distillate; (2) EER = Ethyl 3-Ethoxypropionate; and (3) MEK = Methyl Ethyl Ketone

## Particulate Emission Rates

As mentioned above, DEP currently requires particulate matter released from spray booth operations be analyzed as $PM_{2.5}/PM_{10}$ emissions based on the $PM_{2.5}/PM_{10}$ fraction content in the total mass of particulate matter. The USEPA data on cumulative particle size distribution for surface coating operations via spray booths shows that 28.6 percent of the total mass of particulate matter are $PM_{2.5}$ particles and 46.7 percent of the total mass of particulate matter are $PM_{10}$ particles (EPA-42, Appendix B1, Page B.1-12, Particle Size Distribution Data and Sized Emission Factors for selected Sources, Table 4.2.2.8 Automobile and Light-Duty Track Surface Coating Operations, Automobile Spray Booths). Therefore, factors of 0.286 and 0.467 were applied for solid content listed in the permit to estimate $PM_{2.5}$ and $PM_{10}$ emission rates (see Table I-14).

**Table I-14: $PM_{2.5}/PM_{10}$ Estimated Emission Rates from Spray Booth Operations at Master Teck Collision**

| Facility | $PM_{10}$/ $PM_{2.5}$ | Permitted Emission Rate | | Fraction of $PM_{10}/PM_{2.5}$ in total Solids | Estimated Emission Rates | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | Hourly | | Annual | |
| | | lb/hr | lb/year | % | lb/hr | g/sec | lb/year | g/sec |
| Master Teck Collision | $PM_{10}$ | 0.008 | 6.5 | 46.7% | 0.004 | 0.0005 | 3.04 | 0.00004 |
| | $PM_{2.5}$ | 0.008 | 6.5 | 28.6% | 0.002 | 0.0003 | 1.86 | 0.00003 |

## CEQR Screening Analysis

For estimating potential impacts, the *CEQR Technical Manual* recommends using a screening procedure for industrial emission sources with toxic air pollutants as a first step in an analysis. This procedure uses pre-tabulated pollutant concentration values based on a generic emission rate of 1 gram per second from Table 17-3, "Industrial Source Screen," of the *CEQR Technical Manual* for the applicable averaging time periods. This approach, which can be used to estimate maximum short-term and annual average concentration values at various distances (from 30 to 400 feet) from an emission source, was used to assess the potential impacts of the emissions from the existing permitted and non-permitted facilities.

The minimum distance from the lot line of the Master Teck Collision on Block 280 Lot 5 to the lot line of the closest projected development (Site 2, which is not owned by Applicant) is approximately 75 feet. For conservative purposes, a distance of 65 feet was used for this analysis. At this distance, based on a 1 gram per second emission rate (using Table 17-3), the maximum 1-hour and annual concentrations were estimated to be 27,787 $\mu g/m^3$ and 1,368 $\mu g/m^3$, respectively. The minimum distance from the lot line of the Quality Casting Inc. to the lot line of the closest projected development site (Site 2) is approximately 93 feet. For conservative purposes, the distance of 65 feet was again used. At this distance, based on a 1 gram per second emission rate (using Table 17-3), the maximum 1-hour and annual concentrations were estimated to be 27,787 $\mu g/m^3$ and 1,368 $\mu g/m^3$, respectively.

The minimum distance from the lot line of the GM Printing to the lot line of the closest proposed projected development site (Site 1) is approximately 73 feet. For conservative purposes, the distance of 65 feet was used. At this distance, based on a 1 gram per second emission rate (using Table 17-3), the maximum 1-hour and annual concentrations were estimated to be 27,787 $\mu g/m^3$ and 1,368 $\mu g/m^3$, respectively.

The minimum distance from the lot line of the Dura Engraving Corp. to the lot line of the closest proposed development site is approximately 330 feet. For conservative purposes, a distance of 300 feet was used. At this distance, based on a 1 gram per second emission rate (using Table 17-3), the maximum 1-hour and annual concentrations were estimated to be 1,891 $\mu g/m^3$ and 84 $\mu g/m^3$, respectively.

The minimum distance from the lot line of the Marbren Tire to the lot line of the closest proposed development site is approximately 243 feet. For conservative purposes, a distance of 230 feet was used. At this distance, based on a 1 gram per second emission rate (using Table 17-3), the maximum 1-hour and annual concentrations were estimated to be 2,657 $\mu g/m^3$ and 131 $\mu g/m^3$, respectively.

All values obtained from Table 17-3 of the *CEQR Technical Manual* for an emission rate of 1 gram per second were then multiplied by the actual emission rates of each pollutant under its permit to estimate actual pollutant concentrations. These values were then compared to the DAR-1 short-term (SGC) and annual (AGC) guideline concentrations.

Estimated hourly and annual emission rates for all pollutants and concentrations, with comparison to the applicable DAR-1 SGCs and AGCs, are provided in Tables I-15 through I-22.

**Table I-15: Estimated 1-Hour Solvent Concentrations from Master Teck Collision**

| Chemical Name | CAS No. | Max Estimated 1-hour Concentration | SGC | Exceed Yes/No |
|---|---|---|---|---|
| | | $\mu g/m^3$ | $\mu g/m^3$ | |
| Acetone | 67-64-1 | 1166.7 | 180,000 | No |
| APD | 64742-94-5 | 271.3 | - | - |
| Butane | 106-97-8 | 298.5 | 238,000 | No |
| Ethanol | 64-17-5 | 81.4 | - | - |
| EER | 763-69-9 | **244.2** | **140** | Yes |
| Ethyl Benzene | 100-41-4 | 135.7 | - | - |
| Methyl Ethyl Ketone | 78-93-3 | 217.1 | 13,000 | No |
| N-Butyl Acetate | 123-86-4 | 135.7 | 95,000 | No |
| Propane | 74-98-6 | 298.5 | - | - |
| Stoddard Solvents | 8052-41-3 | 271.3 | - | - |
| Toluene | 108-88-3 | 271.3 | 37,000 | No |
| Xylene | 1330-20-7 | 271.3 | 22,000 | No |

**Red color** for EER marks the exceedance

**Table I-16: Estimated Annual Solvent Concentrations for Master Teck Collision**

| Chemical Name | CAS No. | Max Estimated Annual Concentration | AGC | Exceed Yes/No |
|---|---|---|---|---|
| | | µg/m³ | µg/m³ | |
| Acetone | 67-64-1 | 5.25 | 30,000 | No |
| APD | 64742-94-5 | 1.22 | 100 | No |
| Butane | 106-97-8 | 1.34 | - | - |
| Ethanol | 64-17-5 | 0.37 | 45,000 | No |
| EER | 763-69-9 | 1.10 | 64 | No |
| Ethyl Benzene | 100-41-4 | 0.61 | 1,000 | No |
| Methyl Ethyl Ketone | 78-93-3 | 0.98 | 5,000 | No |
| N-Butyl Acetate | 123-86-4 | 0.61 | 17,000 | No |
| Propane | 74-98-6 | 1.34 | 43,000 | No |
| Stoddard Solvents | 8052-41-3 | 1.22 | 900 | No |
| Toluene | 108-88-3 | 1.22 | 5,000 | No |
| Xylene | 1330-20-7 | 1.22 | 100 | No |

**Notes:**

- **Master Teck Collision:** The maximum 1-hour and annual concentrations were estimated based on actual emission rate (Table 3) and pre-tabulated concentration of 1 gram per second concentration obtained from CEQR Table 17-3 of 27,787 µg/m³ and 1,368 µg/m³, respectively.
- APD, Ethanol, Ethyl Benzene, Propane, and Stoddard Solvents have no SGC values and butane has no AGC value.
- Butane has no AGC value.

**Table I-17: Estimated Pollutant Emission Rates Under PB024809R**

| Pollutant Emission Rates | | | | | | Conc. for 1g/sec | | Actual Conc. | |
|---|---|---|---|---|---|---|---|---|---|
| Pollutant | CAS No. | Hourly | Annual | Hourly | Annual | Hourly | Annual | Hourly | Annual |
| | | lb/hr | lb/year | g/s | g/s | µg/m³ | µg/m³ | µg/m³ | µg/m³ |
| Hydrofluoric Acid | 07664-39-3 | 0.001 | 2.0 | 0.00013 | 0.0003 | 27,787 | 1,368 | 5.6 | 0.07 |
| Hydrochloric Acid | 07647-01-0 | 0.001 | 2.0 | 0.00013 | 0.0003 | | | 2,100 | 20 |

**Table I-18: Estimated Pollutant Emission Rates Under PB010209**

| Pollutant Emission Rates | | | | | | Conc. for 1g/sec | | Actual Conc. | |
|---|---|---|---|---|---|---|---|---|---|
| Pollutant | CAS No. | Hourly | Annual | Hourly | Annual | Hourly | Annual | Hourly | Annual |
| | | lb/hr | lb/year | g/s | g/s | µg/m³ | µg/m³ | µg/m³ | µg/m³ |
| Isopropyl Alcohol | 67-63-0 | 0.07 | 140 | 0.009 | 0.00201 | 27,787 | 1,368 | 245.1 | 2.75 |
| Butoxyethanol | 111-76-2 | 0.14 | 280 | 0.009 | 0.00403 | | | 245.1 | 5.51 |
| Ethylene Glycol | 107-21-1 | 0.7 | 1400 | 0.088 | 0.02014 | | | 2451 | 27.5 |
| Xylene | 1330-20-7 | 0.11 | 220 | 0.014 | 0.00316 | | | 385.1 | 4.33 |
| Isopropylbenzene | 98-82-8 | 0.2 | 400 | 0.025 | 0.00575 | | | 700.2 | 7.87 |

**Table I-19: Estimated Pollutant Emission Rates for Dura Engraving Corp**

| Pollutant Emission Rates | | | | | | Conc. for 1g/sec | | Actual Conc. | |
|---|---|---|---|---|---|---|---|---|---|
| Pollutant | CAS No. | Hourly lb/hr | Annual lb/year | Hourly g/s | Annual g/s | Hourly µg/m³ | Annual µg/m³ | Hourly µg/m³ | Annual µg/m³ |
| Naphtha | 64742-95-6 | 2.1747 | 19,050 | 0.2740 | 0.2740 | 1,891 | 84 | 518.1 | 23.02 |
| Toluene | 108-88-3 | 2.1747 | 19,050 | 0.2740 | 0.2740 | | | 518.1 | 23.02 |
| Xylene | 1330-20-7 | 2.1747 | 19,050 | 0.2740 | 0.2740 | | | 518.1 | 23.02 |

**Table I-20: Estimated Pollutant Emission Rates for Marbren Tire Co.**

| Pollutant Emission Rates | | | | | | Conc. for 1g/sec | | Actual Conc. | |
|---|---|---|---|---|---|---|---|---|---|
| Pollutant | CAS No. | Hourly lb/hr | Annual lb/year | Hourly g/s | Annual g/s | Hourly µg/m³ | Annual µg/m³ | Hourly µg/m³ | Annual µg/m³ |
| Isopropyl Alcohol | 67-63-0 | 0.0026 | 5.2 | 0.0003 | 0.00007 | 2,657 | 131 | 0.9 | 0.010 |
| Carbon Monoxide | 630-08-0 | 0.013 | 26 | 0.0003 | 0.00037 | | | 0.9 | 0.049 |
| Nitrogen Oxide | 10102-44-0 | 0.0026 | 5.2 | 0.0016 | 0.00007 | | | 4.4 | 0.010 |

## Results of the CEQR Screening Analysis

With the exception of EER, estimated short-term and annual concentrations of solvents, hydrofluoric and hydrochloric acids, carbon monoxide and nitrogen oxides are all less than applicable SGC and AGC values, indicating that these pollutants passed the screening analysis. Therefore, no further analysis of all pollutants, except for EER, for which 1-hour concentration exceeds its SGC, is required.

## Detailed Analysis

A detailed dispersion analysis was therefore conducted for EER (for 1-hour values) as well as for $PM_{10}/PM_{2.5}$ from Master Teck Collision using the latest version of the USEPA AERMOD model (version 18081), the latest set of available meteorological data (i.e., for 2014 through 2018), the latest $PM_{2.5}$ background concentration for the 2014-2018 time period, and the current CEQR significant threshold value for $PM_{2.5}$.

As the 24-hour $PM_{2.5}$ background concentration, collected by the NYSDEC for 2016-2018 from the Queens College 2 monitoring station is currently 17.7 µg/m$^3$, half the difference between the 24-hour $PM_{2.5}$ NAAQS and this background value is 8.7 µg/m$^3$. As such, a significant impact criterion of 8.7 µg/m$^3$ was used for determining whether potential 24-hour $PM_{2.5}$ impacts are significant. The CEQR threshold value for annual incremental impact of 0.3 µg/m$^3$ was also applied.

*Stack Parameters and Location*
The spray booth exhaust is far from the proposed applicant-owned site and two projected buildings located. Therefore, for conservative purposes, the stack was assumed to be located on the roof of

this building at the minimum distance (10 feet) from the lot line facing 47th Avenue. The stack parameters for the spray booth exhaust were obtained from drawings and fan characteristics as follows: the exhaust duct is 24" x 30" (with an equivalent diameter of 2.44 feet), the exit velocity is 11,700 cfm, and the exit temperature is 110 deg F. It was assumed that stack height would be 3 feet above roof of facility building (i.e., at 27 feet).

**Table I-21: Estimated 1-Hour Concentration Under All Permits**

| Chemical Name | CAS No. | Max Estimated 1-hour Concentration µg/m³ | SGC µg/m³ | Exceed Yes/No |
|---|---|---|---|---|
| **PB024809R** | | | | |
| Hydrofluoric Acid | 07664-39-3 | 3.5 | 5.6 | No |
| Hydrochloric Acid | 07647-01-0 | 3.5 | 2,100 | No |
| **PB010209** | | | | |
| Isopropyl Alcohol | 67-63-0 | 245.1 | 98,000 | No |
| Butoxyethanol | 111-76-2 | 245.1 | 14,000 | No |
| Ethylene Glycol | 107-21-1 | 2,451 | 10,000 | No |
| Xylene | 1330-20-7 | 385.1 | 22,000 | No |
| Isopropylbenzene | 98-82-8 | 700.2 | - | - |
| **Dura Engraving (Non-permitted)** | | | | |
| Naphtha | 64742-95-6 | 518.1 | - | |
| Toluene | 108-88-3 | 518.1 | 37,000 | No |
| Xylene | 1330-20-7 | 518.1 | 22,000 | No |
| **Marbren Tire (Non-permitted)** | | | | |
| Isopropyl Alcohol | 67-63-0 | 0.9 | 98,000 | No |
| Carbon Monoxide | 630-08-0 | 0.9 | 10,000 | No |
| Nitrogen Dioxide (NOx) | 10102-44-0 | 4.4 | 100 | No |

**Note:**
The maximum 1-hour concentrations were estimated based on actual emission rates and pre-tabulated concentration of 1 gram per second obtained from CEQR Table 17-3, as following:

Quality Casting, GM Printing 27,787 µg/m³
DURA Engraving Corp. 1.891 µg/m³
Marbren Tire 2,657 µg/m³
Isopropylbenzene has no SGC value

*Receptor Locations*
Receptors were placed around all faces of each building in 10-foot increments on all floor levels, starting 10 feet above the ground and extending up to the level of the upper windows (which were assumed to be 5 feet below roof level). More than 1,500 receptors were placed on the three project buildings.

**Results of the Detailed Analysis**

The results of the EER analysis are provided in Table I-23.

As shown, no exceedances of the EER DAR-1 SGC value of 140 µg/m$^3$ are predicted. Results of $PM_{2.5}/PM_{10}$ analysis from are provided in Table I-24.

**Table I-22: Estimated Annual Concentration Under All Permits**

| Chemical Name | CAS No. | Max Estimated Annual Concentration µg/m$^3$ | AGC µg/m$^3$ | Exceed Yes/No |
|---|---|---|---|---|
| **PB024809R** | | | | |
| Hydrofluoric Acid | 07664-39-3 | 0.039 | 0.07 | No |
| Hydrochloric Acid | 07647-01-0 | 0.039 | 20 | No |
| **PB010209** | | | | |
| Isopropyl Alcohol | 67-63-0 | 2.75 | 7,000 | No |
| Butoxyethanol | 111-76-2 | 5.51 | 1,600 | No |
| Ethylene Glycol | 107-21-1 | 27.5 | 400 | No |
| Xylene | 1330-20-7 | 4.33 | 100 | No |
| Isopropylbenzene | 98-82-8 | 7.87 | 400 | No |
| **Dura Engraving (Engineering Calculations)** | | | | |
| Naphtha | 64742-95-6 | 23.02 | 100 | No |
| Toluene | 108-88-3 | 23.02 | 5,000 | No |
| Xylene | 1330-20-7 | 23.02 | 100 | No |
| **Marbren Tire (Non-permitted)** | | | | |
| Isopropyl Alcohol | 67-63-0<br>67-63-0 | 0.9 | 98,000 | No |
| Carbon Monoxide | 630-08-0 | 0.9 | 10,000 | No |
| Nitrogen Dioxide (NOx) | 10102-44-0 | 4.4 | 100 | No |

**Note:**
The maximum annual concentrations were estimated based on actual emission rates and pre-tabulated concentration of 1 gram per second obtained from CEQR Table 17-3 as following:

Quality Casting, GM Printing 1,368 µg/m$^3$
DURA Engraving Corp. 84 µg/m$^3$
Marbren Tire Co. 131 µg/m$^3$

**Table I-23: AERMOD-estimated 1-hour EER Concentration**

| Chemical Name | CAS No. | Max Estimated 1-hour Concentration | SGC | Exceed Yes/No |
|---|---|---|---|---|
| | | µg/m$^3$ | µg/m$^3$ | |
| EER | 763-69-9 | 41.5 | 140 | No |

The 3-year average of the 24-hour $PM_{2.5}$ background concentration (17.7 µg/m$^3$) was added to the maximum estimated 24-hour impact of 0.6 µg/m$^3$, and the impact and total estimated concentration were compared to the CEQR significant impact criteria of 8.7 µg/m$^3$ and the 24-hour $PM_{2.5}$ NAAQS of 35 µg/m$^3$. The 3-year average of annual $PM_{2.5}$ background concentration of 7.0 µg/m$^3$ was added to the estimated annual impact, and the total estimated concentration was compared to

the CEQR annual significant impact criteria of 0.3 μg/m$^3$ and the annual $PM_{2.5}$ NAAQS of 12 μg/m$^3$. The 24-hour $PM_{10}$ background concentration was added to the maximum estimated impact (1.1 μg/m$^3$), and the total $PM_{10}$ concentration was compared to the 24-hour NAAQS of 150 μg/m$^3$. The result of the analysis is that no exceedances of the 24-hour/annual CEQR significant impact criteria for $PM_{2.5}$ or the 24-hour $PM_{2.5}/PM_{10}$ NAAQS are predicted.

**Table I-24: AERMOD-estimated 24-hour/Annual $PM_{2.5}$ and PM10 Concentrations**

| Pollutant | Impact | Background Conc. (1,2) | Total Conc. | CEQR Significant Impact Criteria | NAAQS |
|---|---|---|---|---|---|
| | μg/m$^3$ | μg/m$^3$ | μg/m$^3$ | μg/m$^3$ | μg/m$^3$ |
| **$PM_{2.5}$ 24-hour** | 0.6 | 17.7 | 18.3 | 8.7 | 35 |
| **$PM_{2.5}$ Annual** | <0.1 | 7.0 | 7.0 | 0.3 | 12 |
| **$PM_{10}$ 24-hour** | 1.1 | 38 | 39.1 | - | 150 |

**Notes:**
(1) 24-hr $PM_{2.5}$ background concentration is 17.7 μg/m$^3$, which is the average of the 98th percentiles for the last 3 years from NYS Monitoring Report for Queens College 2 station; the annual $PM_{2.5}$ concentration is 7.0 μg/m$^3$, which is the 3-year (2016-2018) average value.
2. The 24-hour $PM_{10}$ background concentrations from Queens College 2 monitor is 38 μg/m$^3$.

## Summary

The result of this analysis of toxic air emissions that have the potential to be released from existing permitted and non-permitted industrial sources currently operating within 400 feet from the proposed developments is that no exceedances of the applicable CEQR significant impact criteria and respective NAAQS for $PM_{2.5}/PM_{10}$ or DAR-1 SGC and AGC values for other toxic pollutants are predicted. As such, the emissions released from the nearby existing industrial sources are not predicted to significantly impact the proposed developments.

## CONCLUSION

The result of the air quality analysis is that the potential air quality impacts of the proposed and projected developments are not considered to be significant.

**ATTACHMENT J:**
**NOISE**

## A. INTRODUCTION

This attachment assesses the potential for the proposed action to result in significant adverse noise impacts. The Applicant, 48-18 Van Dam Property Holdings, LLC, is seeking a zoning map amendment to facilitate development on a 28,783-square-foot (sf) trapezoidal lot on the northwest corner of Van Dam Street and Hunters Point Avenue in Long Island City. The new development would involve the expansion of the existing two-story, approximately 56,632 gsf (53,800 zsf) building on proposed development site, by adding six stories and approximately 127,510 gsf which would house the headquarters of the International Brotherhood of Teamsters Local 813 and related functions (the "proposed project"). There also would be 877 sf of on-site private open space.

The rezoning area consists of one block (Block 284), shown in Figure J-1, changing the zoning district from M2-1 to M1-5. In addition to the proposed development site, under the reasonable worst case development scenario (RWCDS), the project area also includes two other sites that are not owned or controlled by the applicant but which are considered likely to be redeveloped as a result of the proposed action. These include Block 284, Lot 6, and Block 284, Lot 14 (the "projected development sites").

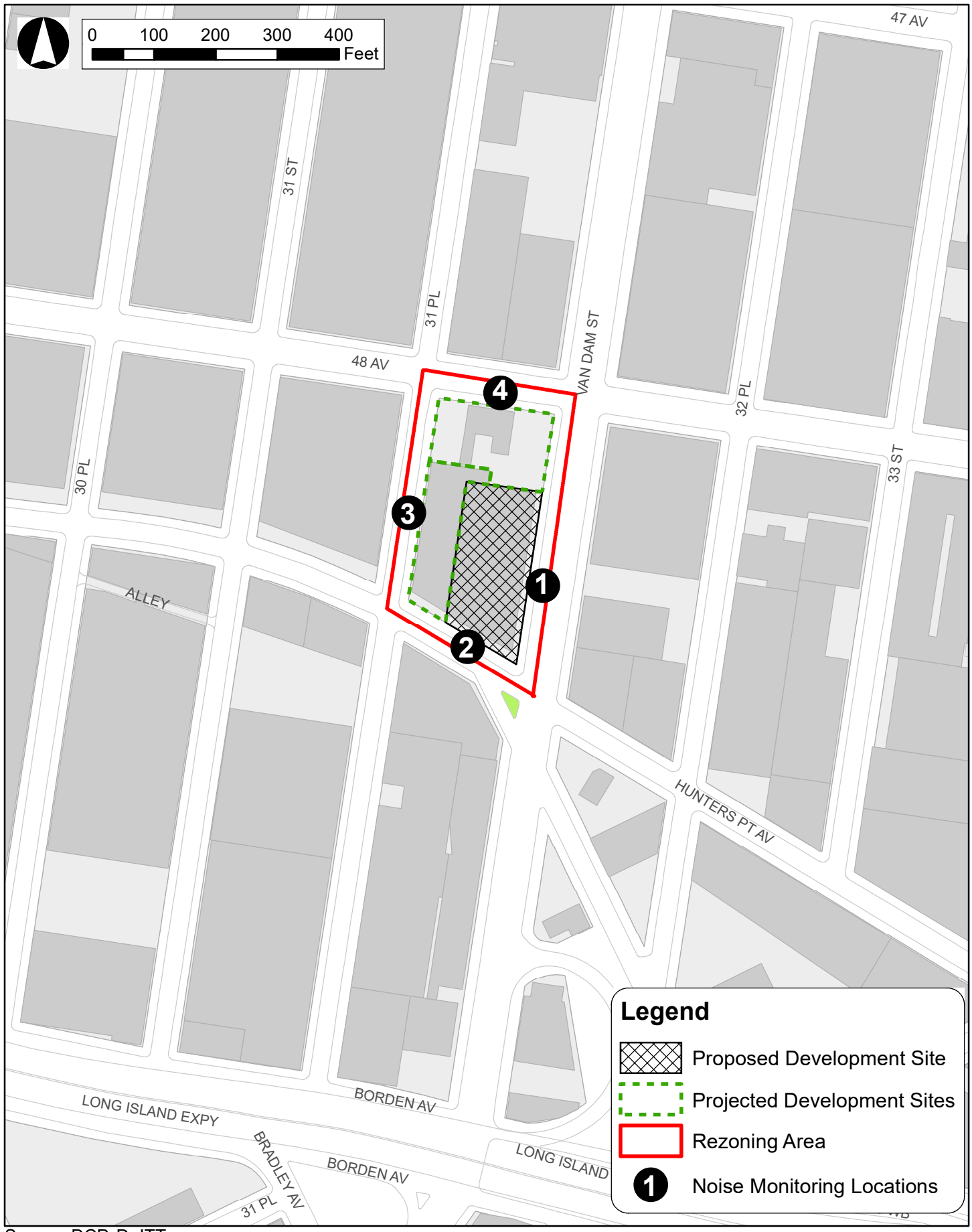
As discussed in Attachment H, "Transportation," the proposed action is expected to change traffic volumes in the general vicinity of the project area. As such, a mobile source noise analysis was conducted to determine whether there are any noise-sensitive locations where project-generated traffic would have the potential to result in significant adverse noise impacts. Additionally, as the proposed action would create new noise-sensitive uses within the project area, an analysis was conducted in order to determine the level of building attenuation required to ensure that future interior noise levels would satisfy applicable noise criteria. Based on a field survey of land uses in the area, it was determined that no stationary noise sources contribute significantly to noise levels in the area, and a stationary noise source analysis was not warranted.

## B. PRINCIPAL CONCLUSIONS

Noise from the increased traffic volumes generated by the proposed action would not cause significant adverse noise impacts as the relative increases in noise levels would fall below the applicable 2020 *City Environmental Quality Review (CEQR) Technical Manual* significant adverse impact threshold (3.0 dBA).

To ensure acceptable interior noise levels for the proposed project, noise attenuation specifications would be mandated through the assignment of an (E) designation (E-608) assigned to the tax lots that are expected to be redeveloped as a result of the proposed action. The requirements of the (E) designation resulting from the noise analysis, outlined in Section H of this attachment, state that

**Figure J-1**
**Noise Monitoring Locations**




Source: DCP, DoITT

the building facades of future commercial office uses must provide up to 28 dBA of window/wall attenuation for all future building facades facing 48th Avenue, and future building facades facing 31st Place and Van Dam Street within 50 feet of 48th Avenue, and up to 26 dBA of window/wall attenuation for all future building facades facing Hunters Point Avenue, future building facades facing 31st Street within 50 feet of Hunters Point Avenue, and future building facades facing Van Dam Street beyond 50 feet from 48th Avenue.

With implementation of the attenuation levels required pursuant to the (E) designation, the proposed project would provide sufficient attenuation to achieve the 2020 *CEQR Technical Manual* interior noise level guidance of 50 dBA or lower for commercial office uses. Therefore, the proposed action would not result in any significant adverse noise impacts related to building attenuation requirements.

## C. NOISE FUNDAMENTALS

Quantitative information on the effects of airborne noise on people is well documented. If sufficiently loud, noise may adversely affect people in several ways. For example, noise may interfere with human activities such as sleep, speech communication, and tasks requiring concentration or coordination. It may also cause annoyance, hearing damage, and other physiological problems. Although it is possible to study these effects on people on an average or statistical basis, it must be remembered that all the stated effects of noise on people vary greatly with the individual. Several noise scales and rating methods are used to quantify the effects of noise on people. These scales and methods consider factors such as loudness, duration, time of occurrence, and changes in noise level with time.

### *"A"-Weighted Sound Level (dBA)*

Noise is typically measured in units called decibels (dB), which are ten times the logarithm of the ratio of the sound pressure squared to a standard reference pressure squared. Because loudness is important in the assessment of the effects of noise on people, the dependence of loudness on frequency must be taken into account in the noise scale used in environmental assessments. Frequency is the rate at which sound pressures fluctuate in a cycle over a given quantity of time, and is measured in Hertz (Hz), where 1 Hz equals 1 cycle per second. Frequency defines sound in terms of pitch components. In the measurement system, one of the simplified scales that accounts for the dependence of perceived loudness on frequency is the use of a weighting network - known as A-weighting - that simulates the response of the human ear. For most noise assessments, the A-weighted sound pressure level in units of dBA is used due to its widespread recognition and its close correlation to perception. In this analysis, all measured noise levels are reported in dBA or A-weighted decibels. Common noise levels in dBA are shown in Table J-1.

**Table J-1, Common Noise Levels**

| Sound Source | (dBA) |
|---|---|
| Air Raid Siren at 50 feet | 120 |
| Maximum Levels at Rock Concerts (Rear Seats) | 110 |
| On Platform by Passing Subway Train | 100 |
| On Sidewalk by Passing Heavy Truck or Bus | 90 |
| On Sidewalk by Typical Highway | 80 |
| On Sidewalk by Passing Automobiles with Mufflers | 70 |
| Typical Urban Area | 60-70 |
| Typical Suburban Area | 50-60 |
| Quiet Suburban Area at Night | 40-50 |
| Typical Rural Area at Night | 30-40 |
| Soft Whisper at 5 meters | 30 |
| Isolated Broadcast Studio | 20 |
| Audiometric (Hearing Testing) Booth | 10 |
| Threshold of Hearing | 0 |

**Source:** *2020 CEQR Technical Manual* / Cowan, James P. Handbook of Environmental Acoustics. Van Nostrand Reinhold, New York, 1994. Egan, M. David, Architectural Acoustics. McGraw-Hill Book Company, 1988.
**Note:** A 10 dBA increase appears to double the loudness, and a 10 dBA decrease appears to halve the apparent loudness.

### *Community Response to Changes in Noise Levels*

Table J-2 shows the average ability of an individual to perceive changes in noise. Generally, changes in noise levels less than 3 dBA are barely perceptible to most listeners. However, as illustrated in Table J-2, 5 dBA changes are readily noticeable. 10 dBA changes are normally perceived as doublings (or halvings) of noise levels. These guidelines permit direct estimation of an individual's probable perception of changes in noise levels.

**Table J-2, Average Ability to Perceive Changes in Noise Levels**

| Change (dBA) | Human Perception of Sound |
|---|---|
| 2-3 | Barely perceptible |
| 5 | Readily noticeable |
| 10 | A doubling or halving of the loudness of sound |
| 20 | A dramatic change |
| 40 | Difference between a faintly audible sound and a very loud sound |

**Source**: Bolt Beranek and Neuman, Inc., Fundamentals and Abatement of Highway Traffic Noise, Report No. PB-222-703. Prepared for Federal Highway Administration, June 1973.

### *Noise Descriptors Used In Impact Assessment*

Because the sound pressure level unit, dBA, describes a noise level at just one moment, and very few noises are constant, other ways of describing noise over extended periods have been developed. One way of describing fluctuating sound is to describe the fluctuating noise heard over a specific time period as if it had been a steady, unchanging sound. For this condition, a descriptor called the "equivalent sound level", $L_{eq}$, can be computed. $L_{eq}$ is the constant sound level that, in a given situation and time period (e.g., 1 hour, denoted by $L_{eq(1)}$, or 24 hours, denoted as $L_{eq(24)}$), conveys the same sound-energy as the actual time-varying sound. Statistical sound level

descriptors such as $L_1$, $L_{10}$, $L_{50}$, $L_{90}$, and $L_x$, are sometimes used to indicate noise levels that are exceeded 1, 10, 50, 90 and x percent of the time, respectively. Discrete event peak levels are given as $L_1$ levels. $L_{eq}$ is used in the prediction of future noise levels, by adding the contributions from new sources of noise (i.e., increases in traffic volumes) to the existing levels and in relating annoyance to increases in noise levels.

The one-hour equivalent continuous noise level ($L_{eq\,(1h)}$ in dBA), the tenth percentile level $L_{10}$ and the day-night average sound level $L_{dn}$ were selected as the noise descriptors for the purposes of this analysis. Hourly statistical noise levels (particularly $L_{10}$ and $L_{eq}$ levels) were used to characterize the relevant noise sources and their relative importance at each receptor location.

### Applicable Noise Codes and Impact Criteria

#### *New York City Noise Code*

The New York City Noise Control Code, amended in December 2005, contains prohibitions regarding unreasonable noise and specific noise standards, including plainly audible criteria for specific noise sources. In addition, the amended code specifies that no sound source operating in connection with any commercial or business enterprise may exceed the decibel levels in the designated octave bands at specified receiving properties. The New York City Department of Environmental Protection (DEP) has set external noise exposure standards. These standards are shown on the following page in Table J-3.

Noise Exposure is classified into four categories: acceptable, marginally acceptable, marginally unacceptable, and clearly unacceptable. The standards shown are based on maintaining an interior noise level for the worst-case hour $L_{10}$ of less than or equal to 45 dBA. Attenuation requirements are shown on the following page in Table J-4.

## D. NOISE PREDICTION METHODOLOGY

### Proportional Modeling

Proportional modeling was used to determine No-Build and Build noise levels at four receptor locations adjacent to the project area, as discussed in more detail below. Proportional modeling is one of the techniques recommended in the *CEQR Technical Manual* for mobile source analysis.

Using this technique, the prediction of future noise levels (where traffic is the dominant noise source) is based on a calculation using measured existing noise levels and predicted changes in traffic volumes to determine No-Build and Build noise levels. Vehicular traffic volumes (counted during the noise recording), are converted into PCE values, for which one medium-duty truck (having a gross weight between 9,900 and 26,400 pounds) is assumed to generate the noise equivalent of thirteen cars, one heavy-duty truck (having a gross weight of more than 26,400 pounds) is assumed to generate the noise equivalent of 47 cars, and one bus (vehicles designed to carry more than nine passengers) is assumed to generate the noise equivalent of eighteen cars. Future noise levels are calculated using the following equation:

**Table J-3, Noise Exposure Guidance for Use in City Environmental Impact Review**

| Receptor Type | Time Period | Acceptable General External Exposure | Airport[3] Exposure | Marginally Acceptable General External Exposure | Airport[3] Exposure | Marginally Unacceptable General External Exposure | Airport[3] Exposure | Clearly Unacceptable General External Exposure | Airport[3] Exposure |
|---|---|---|---|---|---|---|---|---|---|
| 1. Outdoor area requiring serenity and quiet[2] | | $L_{10} \leq 55$ dBA | -------- Ldn ≤ 60 dBA -------- | | | | | | |
| 2. Hospital, Nursing Home | | $L_{10} \leq 55$ dBA | | 55 < $L_{10} \leq 65$ dBA | | 65 < $L_{10} \leq 80$ dBA | | $L_{10} > 80$ dBA | |
| 3. Residence, residential hotel or motel | 7 AM to 10 PM | $L_{10} \leq 65$ dBA | | 65 < $L_{10} \leq 70$ dBA | | 70 < $L_{10} \leq 80$ dBA | | $L_{10} > 80$ dBA | |
| | 10 PM to 7 AM | $L_{10} \leq 55$ dBA | | 55 < $L_{10} \leq 70$ dBA | | 70 < $L_{10} \leq 80$ dBA | | $L_{10} > 80$ dBA | |
| 4. School, museum, library, court, house of worship, transient hotel or motel, public meeting room, auditorium, out-patient public health facility | | Same as Residential Day (7 AM-10 PM) | | Same as Residential Day (7 AM-10 PM) | -------- 60 < Ldn ≤ 65 dBA -------- | Same as Residential Day (7 AM-10 PM) | (1) 65 < Ldn ≤ 70 dBA, (II) 70 ≤ Ldn | Same as Residential Day (7 AM-10 PM) | -------- Ldn ≤ 75 dBA -------- |
| 5. Commercial or office | | Same as Residential Day (7 AM-10 PM) | | Same as Residential Day (7 AM-10 PM) | | Same as Residential Day (7 AM-10 PM) | | Same as Residential Day (7 AM-10 PM) | |
| 6. Industrial, public areas only[4] | Note 4 | Note 4 | | Note 4 | | Note 4 | | Note 4 | |

**Source:** New York City Department of Environmental Protection (adopted policy 1983).

**Notes:** (i) In addition, any new activity shall not increase the ambient noise level by 3 dBA or more;

[1] Measurements and projections of noise exposures are to be made at appropriate heights above site boundaries as given by American National Standards Institute (ANSI) Standards; all values are for the worst hour in the time period.

[2] Tracts of land where serenity and quiet are extraordinarily important and serve an important public need and where the preservation of these qualities is essential for the area to serve its intended purpose. Such areas could include amphitheaters, particular parks or portions of parks or open spaces dedicated or recognized by appropriate local officials for activities requiring special qualities of serenity and quiet. Examples are grounds for ambulatory hospital patients and patients and residents of sanitariums and old-age homes.

[3] One may use the FAA-approved $L_{dn}$ contours supplied by the Port Authority, or the noise contours may be computed from the federally approved INM Computer Model using flight data supplied by the Port Authority of New York and New Jersey.

[4] External Noise Exposure standards for industrial areas of sounds produced by industrial operations other than operating motor vehicles or other transportation facilities are spelled out in the New York City Zoning Resolution, Sections 42-20 and 42-21. The referenced standards apply to M1, M2, and M3 manufacturing districts and to adjoining residence districts (performance standards are octave band standards).

**Table J-4, Required Attenuation Values to Achieve Acceptable Interior Noise Levels**

| | Marginally Acceptable | Marginally Unacceptable | | | | Clearly Unacceptable |
|---|---|---|---|---|---|---|
| Noise level with proposed project | 65<$L_{10}$≤70 | 70<$L_{10}$≤73 | 73<$L_{10}$≤76 | 76<$L_{10}$≤78 | 78<$L_{10}$≤80 | 80<$L_{10}$ |
| Attenuation[A] | 25 dB(A) | (I) 28 dB(A) | (II) 31 dB(A) | (III) 33 dB(A) | (IV) 35 dB(A) | 36 + ($L_{10}$ - 80)[B] dB(A) |

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

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

**Source:** New York City Department of Environmental Protection / 2020 *CEQR Technical Manual*

FNA NL =10 log (NA PCE/E PCE) + E NL

where:

FNA NL = Future No-Action Noise Level
NA PCE = No-Action PCEs
E PCE = Existing PCEs
E NL = Existing Noise Level

Sound levels are measured in decibels and therefore increase logarithmically with sound source strength. In this case, the sound source is traffic volumes measured in PCEs. For example, assume that traffic is the dominant noise source at a particular location. If the existing traffic volume on a street is 100 PCEs and if the future traffic volumes were increased by 50 PCEs to a total of 150 PCEs, the noise level would increase by 1.8 dBA. Similarly, if the future traffic were increased by 100 PCEs, or doubled to a total of 200 PCEs, the noise level would increase by 3.0 dBA.

To calculate the No-Action noise levels, an annual background growth rate of 0.25 percent for the 2023 Build Year and traffic generated by No-Build developments anticipated by the 2023 Build Year within the study area were applied to the PCE noise values based on counted vehicles.[1] In order to obtain the necessary With-Action PCE values to calculate the With-Action noise levels, a trip generation was prepared based on the proposed/projected amount of incremental local retail use (29,191 gsf) and incremental commercial office use (259,777 gsf) generated by the 2023 With-Action development, utilizing existing modal split data for the census tract within which the rezoning area is located.[2] As presented in Attachment H, "Transportation," a project generated trip assignment was also prepared, and the 2023 With-Action traffic increment assignments found in this attachment were converted into PCE values and added to the calculated No-Action PCE values for the weekday AM and PM peak hours.[3]

## E. EXISTING CONDITIONS

As shown in Figure J-1, Van Dam Street is located immediately east of the proposed/projected development sites. Van Dam Street is a two-way street with four-lanes carrying traffic north and south with a parking lane on both sides. Hunters Point Avenue, south of the proposed/projected development sites, is a two-way street with one lane in each direction and no parking. Both 31st Place and 48th Avenue are two-way streets that include parking on either side of the street.

The surrounding area is served by a number of transit options. The MTA New York City Transit 7 subway line (Flushing Local/Express Lines) travel on above ground tracks along Queens

[1] The background growth rate is based on information provided in Table 16-4 of the 2020 *CEQR Technical Manual.*
[2] Based on AASHTO CTPP Peak Hour Reverse Journey to Work 5-Year data for Queens county census tracts 19.
[3] Trip assignments provided in Attachment H, "Transportation" only include vehicle volumes for the weekday AM and PM peak periods, and do not include weekday midday peak volumes. For the purpose of trip assignment, it was conservatively assumed that all project generated weekday midday peak hour trips would be analyzed along all four adjacent thoroughfares: Van Dam Street, Hunters Point Avenue, 31st Place, and 48th Avenue.

Boulevard with a station at 33rd Street. The project area does have an unobstructed direct line of sight to the tracks but is over 1,500 feet away from the elevated tracks along Queens Boulevard. The MTA Q39 bus provides additional service southbound along Van Dam Street before turning east on 48th Avenue at the northwest corner of Block 284. Additionally, the Long Island Expressway (I-495) is located less than a quarter of a mile south of the project area.

### Selection of Noise Receptor Locations

As discussed above, local traffic is the dominant source of noise in the vicinity of the project area. The noise receptor locations were selected to be along the perimeter of the future buildings under the proposed action. The assumption was made that all windows on all frontages of the buildings would be operable. The four selected receptor locations around the project area are presented in Table J-5 and shown in Figure J-1.

**Table J-5, Noise Receptor Locations**

| Receptor Location / Map ID[1] | Monitoring Location |
|---|---|
| 1 | Midpoint of the proposed development site, Van Dam Street frontage, between 48th Avenue and Hunters Point Avenue |
| 2 | Midpoint of Hunters Point Avenue between 31st Place and Van Dam Street |
| 3 | Midpoint of 31st Place between 48th Avenue and Hunters Point Avenue |
| 4 | Midpoint of 48th Avenue between 31st Place and Van Dam Street |

**Notes:** [1] Refer to Figure J-1 for noise receptor locations.

### Noise Monitoring

At the receptor locations 1, 2, and 3, 20-minute spot measurements of existing noise levels were performed for each of the three noise analysis time periods - weekday AM peak hour (8:00AM to 9:00AM), weekday midday peak hour (12:00PM to 1:00PM), and weekday PM peak hour (5:00PM to 6:00PM). At location 4, a 1-hour spot measurement of existing noise levels was performed during each of the above mentioned noise analysis time periods. Noise monitoring was performed on Thursday, January 25th, Tuesday January 30th, and Wednesday January 31st. On January 25th the weather was mostly sunny with scattered clouds; on January 30th the weather was cloudy; and on January 31st the weather was partly cloudy. On each of these days, the temperatures were in the mid-30s ºF.

### Equipment Used During Noise Monitoring

The instrumentation used for the measurements was a Brüel & Kjær Type 4189 ½-inch microphone connected to a Brüel & Kjær Model 2250 Type 1 (as defined by the American National Standards Institute) sound level meter. This assembly was mounted at a height of 5 feet above the ground surface on a tripod and at least 6 feet away from any sound-reflecting surfaces to avoid major interference with source sound level that is being measured. The meter was calibrated before and after readings with a Brüel & Kjær Type 4231 sound-level calibrator using the appropriate adaptor. Measurements at the receptor location were made on the A-scale (dBA). The data were digitally recorded by the sound level meter and displayed at the end of the measurement period in

units of dBA. Measured quantities included $L_{eq}$, $L_1$, $L_{10}$, $L_{50}$, and $L_{90}$. A windscreen was used during all sound measurements except for calibration. Only traffic-related noise was measured; noise from other sources (e.g., emergency sirens, aircraft flyovers, etc.) was excluded from the measured noise levels. Weather conditions were noted to ensure a true reading as follows: wind speed under 12 mph; relative humidity under 90 percent; and temperature above 14°F and below 122°F (pursuant to ANSI Standard S1.13-2005).

## Existing Noise Levels at the Noise Receptor Locations

### *Measured Noise Levels*

The noise monitoring results are shown on the following page in Table J-6. Area traffic was the dominant source of noise at the receptor locations. The existing noise levels reflect the moderate level of vehicular activity on the roadways adjacent to the project area, with the highest existing noise levels observed at receptor location 1, which is along the relatively more heavily-trafficked Van Dam Street leading to the Long Island Expressway (I-495).

As shown in Table J-6, the highest $L_{10}$ value was recorded in the PM peak hour at receptor location 1 (74.7 dBA), placing this receptor location in the "Marginally Unacceptable (II)" Noise Exposure category pursuant to the guidance of the *CEQR Technical Manual*. The highest $L_{10}$ noise values at receptor locations 2 and 4 were 73.8 dBA and 74.5, respectively, placing these locations in the "Marginally Unacceptable (II)" CEQR Noise Exposure category as well. Receptor location 3 had a peak $L_{10}$ value of 65.6 dBA during the PM analysis period, placing it in the "Marginally Acceptable" CEQR Noise Exposure category.

**Table J-6, Existing Noise Levels (in dBA) at the Monitoring Locations**

| Receptor Location | Time | $L_{eq}$ | $L_{max}$ | $L_{min}$ | $L_1$ | $L_{10}$[2] | $L_{50}$ | $L_{90}$ | CEQR Noise Exposure Category |
|---|---|---|---|---|---|---|---|---|---|
| 1 | AM | 70.4 | 86.1 | 54.6 | 79.2 | 74.0 | 67.1 | 59.1 | Marginally Unacceptable (II) |
| | MD | 74.3 | 100.5 | 57.7 | 84.0 | 74.1 | 67.7 | 62,5 | |
| | PM | 71.9 | 87.1 | 55.5 | 80.6 | **74.7** | 70.3 | 63.1 | |
| 2 | AM | 73.2 | 97.7 | 56.3 | 84.5 | **73.8** | 67.6 | 61.8 | Marginally Unacceptable (II) |
| | MD | 68,3 | 94.7 | 56.2 | 77.5 | 69.6 | 64.1 | 60.1 | |
| | PM | 68.9 | 85.4 | 58.1 | 77.7 | 71.5 | 66.6 | 62.5 | |
| 3 | AM | 61.8 | 84.2 | 52.0 | 71.6 | 64.2 | 58.4 | 55.6 | Marginally Acceptable |
| | MD | 61.9 | 80.9 | 53.2 | 71.6 | 64.7 | 58.4 | 55.5 | |
| | PM | 62.6 | 93.2 | 49.4 | 71.9 | **65.6** | 56.3 | 52.4 | |
| 4 | AM | 74.3 | 105 | 55.6 | 80.2 | **74.5** | 68.7 | 63 | Marginally Unacceptable (II) |
| | MD | 71.2 | 94.6 | 57.2 | 80.9 | 74.0 | 67.8 | 63.3 | |
| | PM | 70.6 | 92.6 | 56.6 | 80.5 | 73.2 | 67.4 | 61.7 | |

**Notes:** Field measurements were performed by Philip Habib & Associates on January 25th, 30th, and 31st, 2018.
[1] Refer to Figure J-1 for noise monitoring receptor location.
[2] The highest $L_{10}$ noise levels at each monitoring location are shown in **bold**.

## F. FUTURE WITHOUT THE PROPOSED ACTION (NO-ACTION)

Using the methodology described in Section D, future noise levels in the No-Action condition were calculated for the three analysis periods for the 2023 Build year. Table J-7 shows the measured existing noise levels, as well as the No-Action PCE values and the No-Action noise levels at each of the receptor locations.

**Table J-7, Future No-Build Noise Levels and total PCE Values at Receptor Locations (in dBA)**

| Noise Receptor Location | Time | Existing PCEs | No-Action PCEs | Existing $L_{eq}$ | No-Action $L_{eq}$ | Change[1] | No-Action $L_{10}$[2] | CEQR Noise Exposure Category |
|---|---|---|---|---|---|---|---|---|
| 1 | AM | 2668.4 | 2685.4 | 70.4 | 70.4 | 0.03 | 74.0 | Marginally Unacceptable (II) |
| | MD | 3711.0 | 3826.3 | 74.3 | 74.4 | 0.13 | 74.2 | |
| | PM | 3360.8 | 3464.2 | 71.9 | 72.1 | 0.13 | **74.8** | |
| 2 | AM | 1606.1 | 1748.3 | 73.2 | 73.6 | 0.37 | **74.1** | Marginally Unacceptable (II) |
| | MD | 987.0 | 1097.9 | 68.3 | 68.7 | 0.46 | 70.0 | |
| | PM | 1164.6 | 1271.1 | 68.9 | 69.3 | 0.38 | 71.9 | |
| 3 | AM | 236.6 | 567.9 | 61.8 | 65.6 | 3.80 | **68.0** | Marginally Acceptable |
| | MD | 330.0 | 527.7 | 61.9 | 63.9 | 2.04 | 66.7 | |
| | PM | 75.0 | 111.0 | 62.6 | 64.3 | 1.70 | 67.3 | |
| 4 | AM | 692.9 | 735.1 | 74.3 | 74.6 | 0.26 | **74.7** | Marginally Unacceptable (II) |
| | MD | 504.0 | 532.9 | 71.2 | 71.4 | 0.24 | 74.3 | |
| | PM | 504.8 | 528.6 | 70.6 | 70.8 | 0.20 | 73.4 | |

**Notes:** All PCE and noise value are shown for a weekday.
[1] No-Action Leq - Existing Leq
[2] The highest $L_{10}$ noise levels at each monitoring location are shown in **bold**.
[3] As the transportation analysis in Attachment H, "Transportation," did not perform a detailed traffic analysis during the midday peak hour, in addition to background growth, the higher No-Action vehicle increment between the AM and PM peak hours were conservatively added to the midday peak hour to accommodate for traffic generated by No-Build developments anticipated by the 2023 Build Year.

Comparing future No-Action noise levels with existing noise levels, the increases in $L_{eq}$ noise level would range from approximately 0.03 dBA to 3.80 dBA at the receptor locations. Increases of this magnitude would be barely perceptible, and based upon the *CEQR Technical Manual* impact criteria, would not be significant. The projected No-Action $L_{10}$ noise levels at the four receptor locations would range from 66.7 dBA to 74.8 dBA, and noise levels at all of the receptor locations would remain in their same respective CEQR Noise Exposure categories as under existing conditions.

## G. FUTURE WITH THE PROPOSED ACTION (WITH-ACTION)

Using the methodology described in Section D, future noise levels in the With-Action condition were calculated for the three analysis periods for the 2023 Build year. As shown in Table J-8, after accounting for additional traffic introduced by the proposed action, the maximum projected $L_{10}$ noise level in the With-Action condition would be 76.5 dBA during the AM peak hour at receptor location 4. Therefore, receptor location 4 would now fall in the "Marginally Unacceptable (III)" CEQR Noise Exposure category. The maximum projected $L_{10}$ noise levels in the With-Action condition at receptor locations 1 and 2 would be 74.9 dBA and 74.6 dBA, respectively, and each

would remain in the "Marginally Unacceptable II" CEQR Noise Exposure category as well. The maximum projected $L_{10}$ noise levels in the With-Action condition at receptor locations 3 would be 69.1 dBA and would remain in the "Marginally Acceptable" CEQR Noise Exposure category.

Comparing the future With-Action noise levels with No-Action noise levels, increases in noise levels would vary at the four receptor locations, ranging from 0.06 to 1.75 dBA. However, increases of these magnitudes would not be perceptible as they are less than 3.0 dBA, and based upon CEQR impact criteria would not be significant. As the noise levels at all receptor locations would experience changes of less than 3.0 dBA in all peak hours, the overall changes to noise levels as a result of the proposed action would not result in any significant adverse impacts.

**Table J-8, Future Build Noise Levels and total PCE Values at Receptor Locations (in dBA)**

| Receptor Location | Time | With-Action PCEs | No-Action $L_{eq}$ | With-Action $L_{eq}$ | Change[1] | With-Action $L_{10}$[2] | CEQR Noise Exposure Category |
|---|---|---|---|---|---|---|---|
| 1 | AM | 2871.4 | 70.4 | 70.7 | 0.29 | 74.3 | Marginally Unacceptable (II) |
| | MD | 3905.3 | 74.4 | 74.5 | 0.09 | 74.3 | |
| | PM | 3515.2 | 72.1 | 72.1 | 0.06 | **74.9** | |
| 2 | AM | 1944.3 | 73.6 | 74.1 | 0.46 | **74.6** | Marginally Unacceptable (II) |
| | MD | 1188.9 | 68.7 | 69.1 | 0.35 | 70.4 | |
| | PM | 1323.1 | 69.3 | 69.4 | 0.17 | 72.1 | |
| 3 | AM | 735.9 | 65.6 | 66.7 | 1.13 | **69.1** | Marginally Acceptable |
| | MD | 570.7 | 63.9 | 64.3 | 0.34 | 67.0 | |
| | PM | 139.0 | 64.3 | 65.3 | 0.98 | 68.2 | |
| 4 | AM | 1101.1 | 74.6 | 76.4 | 1.75 | **76.5** | Marginally Unacceptable (III) |
| | MD | 635.9 | 71.4 | 72.2 | 0.77 | 75.0 | |
| | PM | 599.6 | 70.8 | 71.4 | 0.55 | 73.9 | |

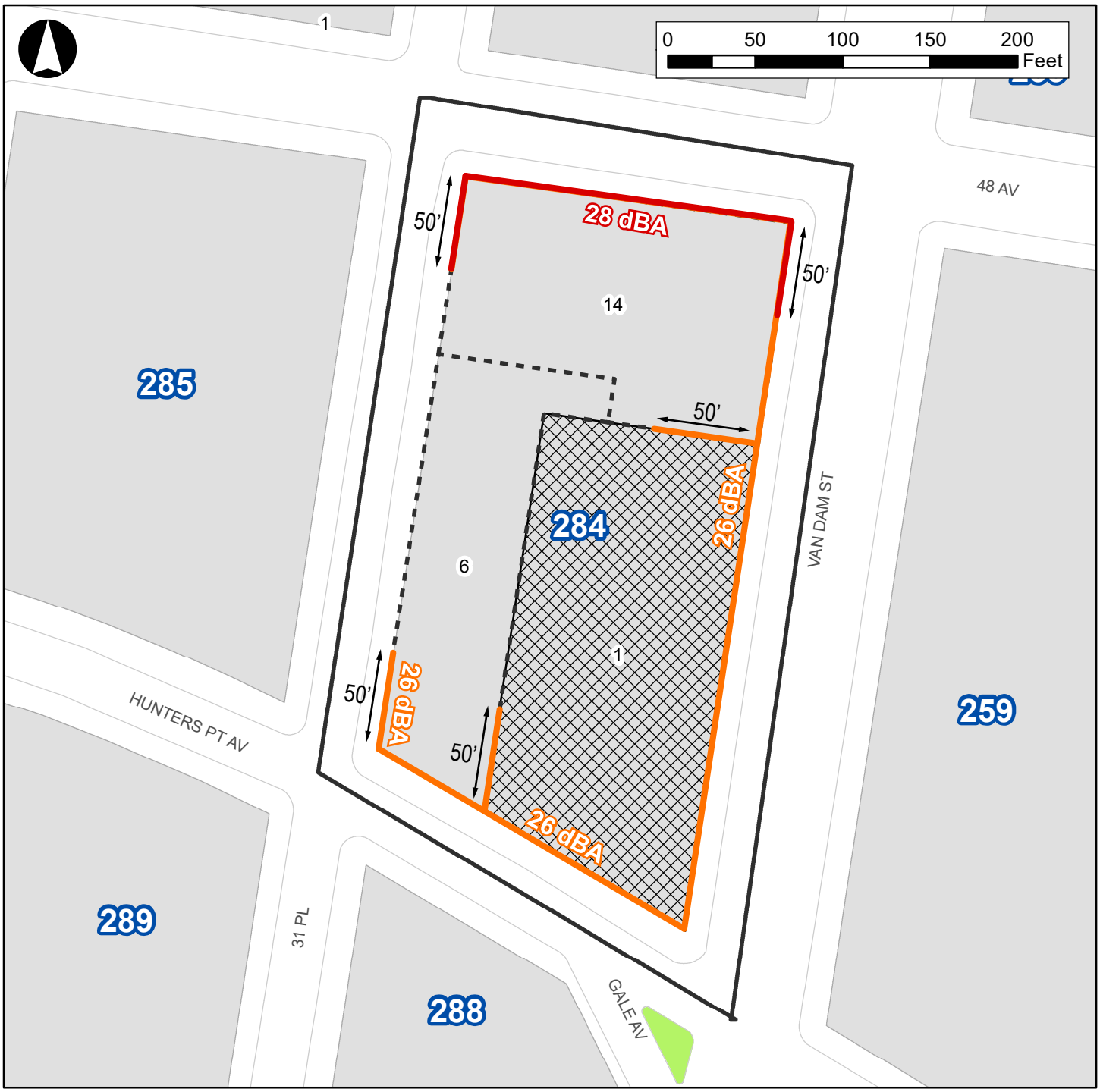
**Notes:** All PCE and noise value are shown for a weekday.
[1] With-Action Leq – No-Action Leq
[2] The highest $L_{10}$ noise levels at each monitoring location are shown in **bold**.
[3] Trip assignments provided in Attachment H, "Transportation" only include vehicle volumes for the weekday AM and PM peak periods, and do not include weekday midday peak volumes. As discuss above in Section D, for the purpose of trip assignment, it was conservatively assumed that all project generated weekday midday peak hour trips would be analyzed along all four adjacent thoroughfares: Van Dam Street, Hunters Point Avenue, 31st Place, and 48th Avenue

## H. ATTENUATION REQUIREMENTS

As shown above in Table J-4, the *CEQR Technical Manual* has set noise attenuation requirements for buildings based on exterior noise levels. Recommended noise attenuation values for buildings are designed to maintain a maximum interior noise level of 45 dBA or lower for residential and community facility uses and 50 dBA or lower for commercial office uses, and are determined based on exterior $L_{10}$ noise levels. As noted in Table J-4, additional attenuation measures would be required at the site wherever exterior noise levels exceed 70 dBA. The results of the building attenuation analysis for the proposed project are summarized in Table J-9 below and shown in Figure J-2.

As presented in Table J-9 and shown in Figure J-2, future building facades facing 48th Avenue, as well as portions of 31st Place and Van Dam Street within 50 feet of 48th Avenue, would require a

**Figure J-2**
**Noise Attenuation**




## Legend

- Proposed Development Site
- Projected Development Sites
- Rezoning Area
- 284 Block Number
- 1 Lot Number

**CEQR Window/Wall Attenuation Requirements For Commercial Office Uses** (refer to Table J-9)

- 26 dBA
- 28 dBA

Source: DCP, DoITT

minimum composite Outdoor-Indoor Transmission Class (OITC) rating of 28 dBA building attenuation for future commercial office uses, and future building facades facing Van Dam Street, and Hunters Point Avenue, as well as portions of 31st Place within 50 feet of Hunters Point Avenue, would require a minimum composite OITC)rating of 26.0 dBA of building attenuation for future commercial office uses in order to achieve an interior noise level of 50 dBA or lower for commercial office uses.

**Table J-9, Proposed Development Attenuation Requirements**

| Corresponding Monitoring Location | With-Action Maximum $L_{10}$ (dBA) | Attenuation Required for Commercial Office Uses (dBA)[1] |
|---|---|---|
| 1 | 74.9 | 26.0 |
| 2 | 74.6 | 26.0 |
| 3 | 69.1 | N/A |
| 4 | 76.5 | 28.0 |

**Notes:**

[1] The specified attenuation level required would maintain interior noise levels of 50 dBA or lower for proposed commercial office uses on the project area.

## (E) Designation

An (E) designation for noise provides a notice of the presence of an environmental requirement pertaining to high ambient noise levels on a particular tax lot. If an area is proposed to be rezoned, and the accompanying environmental analysis indicates that development on a property may be adversely affected by noise, then an (E) designation for window/wall attenuation and alternate means of ventilation may be placed on the property by the lead agency in order to address such issues in conjunction with any new development or new use of the property. For new developments, enlargements of existing buildings, or changes in use, the NYC Department of Buildings will not issue a building permit until the environmental requirements of the (E) designation are satisfied. The Office of Environmental Remediation (OER) administers the (E) Designation Environmental Review Program

To avoid any potential impacts associated with noise on the project area (Block 284, Lots 1, 6, and 14), as part of the proposed action, an (E) designation for noise would be recorded against the property. The text for the (E) designation, E-608, will be as follows:

**Block: 284, Lot 1 (Proposed Development Site)**

**In order to ensure an acceptable interior noise environment, future commercial office uses must provide a closed-window condition with a minimum of 26 dBA of window/wall attenuation on all facades facing Van Dam Street and all facades facing Hunters Point Avenue and the façades facing 48th Avenue within 50 feet of Van Dam Street and the facades facing 31st Place within 50 feet of Hunters Point Avenue to maintain an interior noise level not greater than 50 dBA for commercial office uses as illustrated in the EAS. To maintain a closed-window condition, an alternate means of**

**ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning.**

**Block: 284, Lot 14 (Projected Development Site 1)**

**In order to ensure an acceptable interior noise environment, future commercial office uses must provide a closed-window condition with a minimum of 28 dBA of window/wall attenuation on all facades facing 48th Avenue and the facades facing 31st Place within 50 feet of 48th Avenue and the facades facing Van Dam Street within 50 feet of 48th Avenue, and a minimum of 26 dBA of window/wall attenuation on all remaining facades facing Van Dam Street beyond 50 feet from 48th Avenue and the facades facing Hunters Point Avenue within 50 feet of Van Dam Street to maintain an interior noise level not greater than 50 dBA for commercial office uses as illustrated in the EAS. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning.**

**Block: 284, Lot 6 (Projected Development Site 2)**

**In order to ensure an acceptable interior noise environment, future commercial office uses must provide a closed-window condition with a minimum of 26 dBA of window/wall attenuation on all facades facing Hunters Point Avenue and the façades facing Van Dam Street within 50 feet of Hunters Point Avenue and the facades facing 31st Place within 50 feet of Hunters Point Avenue to maintain an interior noise level not greater than 50 dBA for commercial office uses as illustrated in the EAS. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning.**

Per the (E) designation requirements, in order to receive a Certificate of Occupancy from the NYC Department of Buildings (DOB) the proposed action must comply with these required composite window/wall attenuation values in order to maintain proper interior noise levels. With this institutional control in place, the proposed project would not result in any significant adverse noise impacts related to building attenuation and no further analysis is necessary.

## I. OTHER NOISE CONCERNS

### Mechanical Equipment

No detailed designs of the building's mechanical systems (i.e., heating, ventilation, and air conditioning systems) are available at this time. However, those systems will be designed to meet all applicable noise regulations and requirements and would be designed to produce noise levels that would not result in any significant increase in ambient noise levels. In addition, the building

mechanical systems would be designed with enclosures where necessary to meet all applicable noise regulations (i.e., Subchapter 5 §24-227 of the New York City Noise Control Code and the NYC DOB Building Code) and to avoid producing levels that would result in any significant increase in ambient noise levels.

**Aircraft Noise**

An initial aircraft noise impact screening analysis would be warranted if the new receptor would be located within one mile of an existing flight path, or cause aircraft to fly through existing or new flight paths over or within one mile of a receptor. Since the project area is not within one mile of an existing flight path, no initial aircraft noise impact screening analysis is warranted.

**Train Noise**

According to the *CEQR Technical Manual*, if a proposed development would be within 1,500 feet of existing rail activity and have a direct line of sight to that activity, a more detailed analysis would be appropriate. An elevated subway track running the 7 (Flushing Main and Flushing Express) line is located approximately 1,500 feet north of Block 284 along Queens Boulevard. Any train-associated noise that could reach the site is already accounted for in the existing noise levels recorded around the site. Therefore, a detailed train noise analysis related to rail operations is not warranted.

**APPENDIX A:**
**AGENCY CORRESPONDENCE**

Environmental Protection

**Vincent Sapienza P.E.**
*Commissioner*

**Angela Licata**
*Deputy Commissioner of Sustainability*

59-17 Junction Blvd.
Flushing, NY 11373

# MEMORANDUM

To: Katherine Glass
NYC Department of City Planning

From: Rasheed Lucas
Bureau of Environmental Planning & Analysis

Subject: CEQR # 20DCP096Q
48-18 Van Dam Street
Borough of Queens

Date: April 9, 2020

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This is in reference to the Environmental Assessment Statement (CEQR # 20DCP069Q) received by BWSO on January 15th, 2020 via e-mail. The current zoning is M2-1 for this approximately 56,632 square feet (sf) (1.3 acres) building. The applicant is seeking to change the zoning to M1-5.

Please be advised of the following comments:

**Sewer System:**

- Sanitary Sewer:

DEP has reviewed the revised Water and Sewer Chapter for the EAS draft and additional documents. Based on the submitted analysis, the proposed actions would likely result in an increase of 230% (0.445 cfs) in the sanitary flow of the adjacent sewers. The existing infrastructure would be expected to accommodate this additional flow, therefore the project is not expected to result in an adverse impact to Water and Sewer Infrastructure. However, because the proposed project includes a change to the zoning, a hydraulic analysis of the existing sewer system will likely be required prior to the submittal of the Site Connection Proposal Application (SCP) to determine whether the existing sewer system is capable of supporting higher density development and related increase in wastewater flow, or whether there will be a need to upgrade the existing sewer system. In addition, there might be a need to amend the existing drainage plan based on the hydraulic analysis calculations.

- Storm Sewer:

The project site is situated in a region that is served by combined sewer infrastructure. The design of detention tanks, green roofs, and/or other chosen stormwater control BMPs, would achieve an overall release rate of 0.25 cfs, or ten percent of DEP's allowable flow rate (whichever is greater) from the proposed and projected development sites.

**Water System:**

The water main servicing the site should be capable to handle the estimated increase in water demand.

C: Jannine McColgan, P.E., Director, Engineering
Mark Safari, P.E., Director, Connections and Permitting
Frank Kulcsar, P.E., Section Chief, Capital Planning and Budget
Frank Loncar, P.E., Director, Collections and Resource Recovery Operations
Sham Hemraj, P.E., Chief of Distribution Engineering
Steve Carrea, P.E., Chief, Drainage and Modeling
Kenneth Craft, Jr., P.E., Section Chief, Drainage Review and Modeling
Guo Zhan Wu, P.E., Chief, Regulatory Review
Selim Andrawis, P.E., Chief, Review and Permitting
Ketki Patel, P.E., Deputy Chief, Site Connection and EARU
John Bazik, Review Engineer, Drainage Review Section
Rose Temple; Record # 50470
File; JB;jb

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 / 77DCP503Q
**Project:** Van Dam Street Rezoning
**Date received:** 11/17/2017

**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.

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**Properties with no Architectural or Archaeological significance:**

1) ADDRESS: 4804 31 PLACE, BBL: 4002840014
2) ADDRESS: 48-29 HUNTERS POINT AVENUE, BBL: 4002840006
3) ADDRESS: 48-18 VAN DAM STREET, BBL: 4002840001

**Properties with Architectural and No Archaeological significance:**

1) ADDRESS: 31-02 47 AVENUE, BBL: 4002810001, LPC FINDINGS: NO INTEREST, STATE/NATIONAL REGISTER FINDINGS: ELIGIBLE NR HISTORIC DISTRICT, COMMENTS: DEGNON TERMINAL HD.
2) ADDRESS: 47-07 30 PLACE, BBL: 4002820001, LPC FINDINGS: NO INTEREST, STATE/NATIONAL REGISTER FINDINGS: ELIGIBLE NR HISTORIC DISTRICT, COMMENTS: DEGNON TERMINAL HD.

Gina Santucci 12/12/2017

SIGNATURE DATE
Gina Santucci, Environmental Review Coordinator

**File Name:** 32931_FSO_GS_12122017.doc

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 / 77DCP503Q
**Project:** Van Dam Street Rezoning
**Date received:** 1/18/2018

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The LPC is in receipt of Tier I and Tier II Shadow Studies for the above cited project. The S/NR eligible Degnon Terminal Historic District in the study area, does not appear to have any sun-sensitive resources as defined in the CEQR Technical Manual: 2014. There are no concerns.

Gina Santucci 1/19/2018

SIGNATURE DATE
Gina Santucci, Environmental Review Coordinator

**File Name:** 32931_FSO_GS_01192018.doc

**APPENDIX B:**
**TRANSPORTATION PLANNING FACTORS MEMO**

Philip Habib & Associates
Engineers and Planners • 102 Madison Avenue • New York, NY 10016 • 212 929 5656 • 212 929 5605 (fax)

# TECHNICAL MEMORANDUM

**TO:** New York City Department of City Planning

**FROM:** Philip Habib & Associates

**DATE:** April 1, 2021

**PROJECT:** 48-18 Van Dam Street Rezoning (PHA No. 1773)

**RE:** Transportation Planning Factors and Travel Demand Forecast

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This memorandum summarizes the transportation planning factors to be used for the 48-18 Van Dam Street Rezoning environmental assessment statement (EAS) transportation analyses. The proposed project is a commercial development located at 48-18 Van Dam Street in the Long Island City neighborhood of Queens Community District (CD) 2. Provided below are estimates of the proposed project's peak incremental travel demand, along with a discussion of trip assignment methodologies and study area definitions.

## THE PROPOSED ACTION

The applicant, 48-18 Van Dam Property Holdings, LLC, is seeking zoning map and text amendments from the New York City Planning Commission (CPC) to facilitate the rezoning of Block 284 in Queens Community District 2 (the "rezoning area") as well as the redevelopment of 48-18 Van Dam Street (Block 284, Lot 1; the applicant-owned proposed development site) with an approximately 184,142 gross square foot (gsf) building. The proposed development is an expansion of an existing building to house the headquarters of Local 813 of the International Teamsters Union, including related trust funds, and space for other labor unions. Functions would include offices and accessory meeting spaces. As shown in **Figure 1**, the proposed rezoning area encompasses the area bound by 48$^{th}$ Avenue to the north, Van Dam Street to the east, Hunters Point Avenue to the south, and 31$^{st}$ Place to the west.

The applicant-owned development site is a 29,783-square foot (sf) trapezoidal lot that occupies the northwest corner of Van Dam Street and Hunters Point Avenue in Long Island City. It has approximately 280 feet of frontage along Van Dam Street, approximately 126 feet of frontage on Hunters Point Avenue, and is approximately 116 feet deep (measured perpendicularly from Van Dam Street). The site is occupied by a recently constructed two-story approximately 56,632 sf commercial building with approximately 34,365 gsf of tenanted office space and approximately 22,267 gsf of vacant ground-floor retail space. The other two properties on Block 284 include 48-02 Van Dam Street (Lot 14), a 20,002-sf rectangular property containing




Source: DCP, DOT

an automobile sales, leasing, and repair business and a commercial vehicle storage lot with adjoining one-story building, for a total floor area of 3,510 gsf; and 48-29 31st Place (Lot 6), a 16,546-sf irregular-shaped property containing a two-story warehouse building with 16,800 gsf of floor area (refer to **Figure 2**). These other two properties have been identified as projected development sites under the proposed action.

The intent of the proposed action is to facilitate the applicant's proposal for an expansion of the 2-story building, which would enable the Local 813 of the International Teamsters Union and other union offices to be consolidated in one building. The proposed action would also adopt a zoning designation that is more appropriate for Block 284 and would provide an impetus for the redevelopment of the two remaining, underutilized sites on Block 284.

## REASONABLE WORST-CASE DEVELOPMENT SCENARIO (RWCDS)

In order to assess the potential effects of the proposed action, a reasonable worst-case development scenario (RWCDS) for both the future without the proposed action (the "No-Action" condition) and the future with the proposed action (the "With-Action" condition) will be forecasted for an analysis year, or Build year, of 2023. To develop a reasonable estimate of future growth, the two remaining tax Lots on Block 284 were identified as projected development sites and are considered for the purposes of the transportation analyses. The No-Action condition represents the baseline against which the effects of the proposed action will be compared in the EAS. The effect of the proposed action, therefore, represents the incremental effect on conditions that would result from the net change in development between the No-Action and With-Action conditions (i.e., the "project increment"). **Table 1** below shows a summary of the No-Action conditions, With-Action conditions, and the project increment for the applicant-owned site and the two projected development sites.

### The Future Without the Proposed Action (No-Action Condition)

In the future without the proposed action, it is projected that the existing approximately 56,632 sf applicant-owned two-story building would remain. The ground-floor space would be occupied with approximately 22,267 gsf of new local retail uses, with the remainder of the building continuing to be occupied with approximately 34,365 gsf of office uses. As for the projected development sites, Block 284, Lot 6 would continue to be occupied by the 16,800 sf building with general warehouse use and Block 284, Lot 14 would continue to be occupied by an automobile repair, sales and leasing business and commercial vehicle storage lot with adjoining one-story Millennium Taxi Meter Shop.

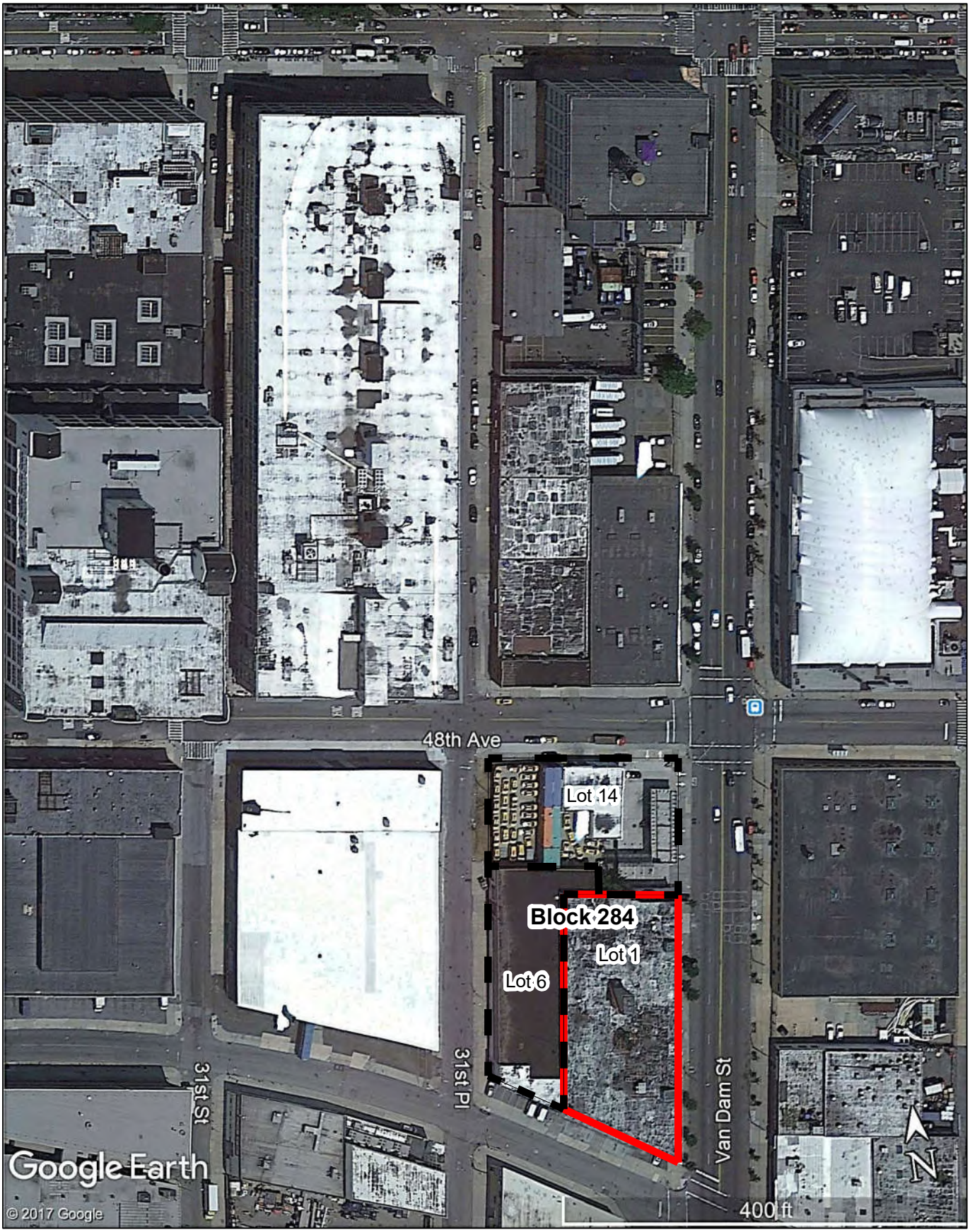
### The Future With the Proposed Action (With-Action Condition)

By 2023 under the With-Action condition, it is expected that the applicant would complete the proposed development, which would be facilitated by the proposed action, as previously stated. The proposed development would consist of an additional 100,120 gsf of office space to be constructed above the existing second floor for an approximate 184,142 gsf commercial building. The proposed development would include approximately 22,267 gsf of ground floor local retail, 134,485 gsf of office space, and approximately 27,390 gsf of parking area (49 accessory parking spaces located on the second floor). It is anticipated that the two projected development sites also on Block 284 would be redeveloped with office space and ground floor local retail containing the maximum permitted commercial space. Lot 6 would be redeveloped with an approximately 87,083 gsf commercial building consisting of 14,804 gsf of local retail, 72,279 gsf of office space, and 72 below-grade accessory parking spaces, while Lot 14 would be redeveloped with an approximately 105,275 gsf commercial building consisting of 17,897 gsf of ground floor local retail, 87,378

**Figure 2**

**Project Aerial**

Project Site [ ] Proposed Development Sites



gsf of office space, and 21,600 gsf of parking area for 86 below-grade accessory parking spaces. In total, the proposed action would result in a net increase of 259,778 gsf of commercial office floor area, 32,701 gsf of ground floor local retail, and 207 accessory parking spaces, as well as a net reduction of 16,800 gsf of warehouse space and 3,510 gsf of auto-related uses.

**Table 1: Project Increment Summary**

| | Address | Block | Lot | Existing | No-Action | With-Action (RWCDS) | Difference between No-Action and With-Action (Project Increment) |
|---|---|---|---|---|---|---|---|
| Applicant-Owned Development Site | 48-18 Van Dam Street | 284 | 1 | 56,632 gsf commercial (22,267 gsf vacant retail; 34,365 gsf office) | 56,632 gsf commercial (22,267 gsf retail; 34,365 gsf office) | 156,752 gsf commercial (22,267 gsf retail; 134,485 gsf office); 49 accessory parking spaces (27,390 sf) | +100,120 gsf commercial; 49 parking spaces (27,390 sf) |
| Projected Development Site | 48-29 31st Place | 284 | 6 | 16,800 gsf warehouse | 16,800 gsf warehouse | 87,083 gsf commercial (14,804 gsf retail; 72,279 gsf office); 72 accessory parking spaces (21,600 sf) | +87,083 gsf commercial; 72 parking spaces (21,600 sf)<br>-16,800 sf warehouse |
| Projected Development Site | 48-02 Van Dam Street | 284 | 14 | 3,510 gsf gas station & vehicle storage | 3,510 gsf auto repair/related & vehicle storage | 105,275 gsf commercial (17,897 gsf retail; 87,378 gsf office); 86 accessory parking spaces (25,800 sf) | +105,275 gsf commercial; 86 parking spaces (25,800 sf)<br>-3,150 sf auto repair/related & vehicle storage |
| **Total Project Increment** | | | | | | | **+292,479 gsf commercial space (32,701 gsf retail; 259,778 gsf office)**<br>**+207 parking spaces (74,790 sf)**<br>**-16,800 gsf warehouse**<br>**-3,510 gsf auto repair/related & vehicle storage** |

## TRANSPORTATION PLANNING FACTORS

The transportation planning factors used to forecast travel demand for the RWCDS land uses are summarized in **Table 2** and discussed below. **Table 2** provides the daily trip generation rates, temporal and directional distributions, mode choice factors, vehicle occupancies, and truck trip factors for the land uses discussed above. Factors are shown for the weekday AM and PM peak hours (typical peak periods for commuter travel demand) and the weekday midday and Saturday peak hours (typical peak periods for retail demand).

### Local Retail

The trip generation and temporal distribution rates for the local retail components of the proposed project were based on those cited in the 2020 *CEQR Technical Manual*. Modal splits for the weekday AM, midday, and PM peak periods and the Saturday period were based on a NYCDOT mode choice survey for local retail uses in Queens Transit Zones. Directional in/out splits and auto and taxi vehicle occupancies for all periods were based on data from the 2019 *Special Flushing Waterfront District EAS*. Truck trip generation rates, temporal distributions, and in/out splits were based on those cited in the 2020 *CEQR Technical Manual*. As it is likely that there will be overlay between office users with retail, a 10 percent linked-trip credit is assumed for local retail uses in the With-Action condition in accordance with NYCDOT guidance. No credit is assumed for local retail uses in the No-Action condition.

## Table 2: Transportation Planning Factors

| Land Use: | Local Retail | | Office | | Warehouse | | Auto Repair/Related | |
|---|---|---|---|---|---|---|---|---|
| **Size/Units:** | 54,968 gsf | | 294,142 gsf | | 16,800 gsf | | 3,510 **gsf** | |
| **Trip Generation:** | (1) | | (1) | | (5) | | (6) | |
| Weekday | 205 | | 18.0 | | 2.36 | | 19.42 | |
| Saturday | 240 | | 3.9 | | 0.2 | | 19.42 | |
| | per 1,000 sf | | per 1,000 sf | | per 1,000 sf | | per 1,000 sf | |
| **Temporal Distribution:** | (1) | | (8) | | (5)(8) | | (6) | |
| AM | 3.0% | | 12.0% | | 10.0% | | 13.2% | |
| MD | 19.0% | | 11.0% | | 9.0% | | 11.0% | |
| PM | 10.0% | | 11.0% | | 11.0% | | 14.2% | |
| Saturday | 10.0% | | 13.0% | | 33.0% | | 10.7% | |
| | (2) | | (3) | (4) | (7) | | (6) | |
| **Modal Splits:** | AM/MD/PM | SAT | AM/PM /SAT | MD | All Periods | | All Periods | |
| Auto | 11.0% | 8.0% | 32.0% | 2.0% | 38.0% | | 85.0% | |
| Taxi | 0.0% | 0.0% | 1.0% | 1.0% | 1.0% | | 5.0% | |
| Subway | 4.0% | 7.0% | 53.0% | 7.0% | 47.0% | | 1.0% | |
| Bus | 3.0% | 4.0% | 10.0% | 7.0% | 10.0% | | 1.0% | |
| Walk/Other | 82.0% | 81.0% | 4.0% | 83.0% | 4.0% | | 8.0% | |
| | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | | 100.0% | |
| | (4) | | (4) | | (5)(8) | | (6) | |
| **In/Out Splits:** | In | Out | In | Out | In | Out | In | Out |
| AM | 50% | 50.0% | 96.0% | 4.0% | 77% | 23.0% | 65% | 35% |
| MD | 50% | 50.0% | 48.0% | 52.0% | 53% | 47.0% | 50% | 50% |
| PM | 50% | 50.0% | 5.0% | 95.0% | 27% | 73.0% | 50% | 50% |
| Saturday | 50% | 50.0% | 60.0% | 40.0% | 64% | 36.0% | 50% | 50% |
| **Vehicle Occupancy:** | (4) | | (3)(4) | | (6)(7) | | (6) | |
| | AM/MD/PM | SAT | All Periods | | All Periods | | All Periods | |
| Auto | 1.50 | 1.60 | 1.12 | | 1.10 | | 1.30 | |
| Taxi | 1.50 | 1.60 | 1.13 | | 1.30 | | 1.30 | |
| **Truck Trip Generation:** | (1) | | (1) | | (5) | | (6) | |
| Weekday | 0.35 | | 0.32 | | 0.91 | | 0.89 | |
| Saturday | 0.04 | | 0.01 | | 0.08 | | 0.89 | |
| | per 1,000 sf | | per 1,000 sf | | per 1,000 sf | | per 1,000 sf | |
| | (1) | | (1) | | (5)(8) | | (6) | |
| AM | 8.0% | | 10.0% | | 9.9% | | 14.0% | |
| MD | 11.0% | | 11.0% | | 8.0% | | 9.0% | |
| PM | 2.0% | | 2.0% | | 7.0% | | 1.0% | |
| Saturday | 11.0% | | 11.0% | | 28.0% | | 0.0% | |
| | In | Out | In | Out | In | Out | In | Out |
| All Periods | 50.0% | 50.0% | 50.0% | 50.0% | n/a | n/a | 50.0% | 50.0% |
| AM | | | | | 67.0% | 33.0% | | |
| MD | | | | | 57.0% | 43.0% | | |
| PM | | | | | 60.0% | 40.0% | | |
| Saturday | | | | | 42.0% | 58.0% | | |

**Notes :**

(1) *2020 City Environmental Quality Review (CEQR) Technical Manual.*

(2) NYCDOT Local Retail Mode Choice Study, Queens - Transit Zone.

(3) 2012-2016 AASHTO CTTP reverse journey-to-work (7AM-10AM) data for Queens census tracts 1, 19, 179, 187, 189, and 199.

(4) *Special Flushing Waterfront District EAS*, 2019.

(5) *ITE Trip Generation Handbook, 10th Edition,* Land Use Code 150 (Warehousing); Trip generation rate includes a 1.51 adjustment factor per NYCDOT trip generation survey.

(6) *East New York Rezoning FEIS*, 2016.

(7) 2012-2016 AASHTO CTTP reverse journey-to-work data for Queens census tracts 1, 19, 179, 187, 189, and 199.

(8) Based on data provided by NYCDOT.

**Office**

The weekday and Saturday trip generation rates and truck trip generation rates for office uses were based on those cited in the 2020 *CEQR Technical Manual,* while the temporal distribution was based on data provided by NYCDOT. The modal splits for the weekday AM and PM, and Saturday periods were based on AASHTO CTPP peak-hour reverse-journey-to-work data. The weekday midday modal splits and the directional in/out splits were based on data from the 2019 *Special Flushing Waterfront District EAS*. The auto and taxi vehicle occupancies were based on AASHTO CTPP peak-hour reverse-journey-to-work data and data from the 2019 *Special Flushing Waterfront District EAS*.

**Warehouse**

The weekday and Saturday trip generation rates for the warehouse use were based on data from the *ITE Trip Generation Handbook, 10th Edition* for Land Use Code 150 (Warehousing). Temporal distributions were also based on data from *ITE Trip Generation Handbook, 10th Edition* along with data provided by NYCDOT. Modal splits and vehicle occupancies were based on AASHTO CTPP 2012-2016 reverse-journey-to-work data for Queens County tracts 1, 19, 179, 187, 189, and 199 along with data from the 2016 *East New York Rezoning FEIS*. Truck trip generation rates and temporal distributions were based on data from the *ITE Trip Generation Handbook, 10th Edition* along with data provided by NYCDOT.

**Auto Repair/Related Uses**

The trip generation rate, temporal distributions, modal split, in/out splits, vehicle occupancies and truck trip generation rates for auto repair and related uses were based on data from the 2016 *East New York Rezoning FEIS.*

## TRIP GENERATION

**Table 3** shows an estimate of the incremental peak hour person and vehicle trips that would occur in the 2023 future with the proposed action based on the transportation planning factors shown in **Table 2** and the RWCDS. The estimated person, vehicle, transit, and pedestrian trips generated by the proposed action are discussed below.

As shown in **Table 3**, under the RWCDS, the proposed action would generate a net increase of approximately 712 person trips (in + out combined) in the weekday AM peak hour, 1,562 in the weekday midday peak hour, 1,058 in the weekday PM peak hour, and 776 in the Saturday peak hour. Peak hour vehicle trips (including auto, taxi and truck trips) would increase by a net total of approximately 177, 92, 180, and 69 (in + out combined) in the weekday AM, midday, and PM, and Saturday peak hours, respectively. Peak hour subway trips would increase by 300, 78, 291, and 113 during these periods, respectively, while bus trips would increase

## Table 3: Travel Demand Forecast

| | | With-Action | | | | | | No-Action | | | | | | | | | | Net Increment | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Land Use:** | | **Local Retail** | | **Office** | | **Total** | | **Local Retail** | | **Office** | | **Warehouse** | | **Auto Repair/ Related** | | **Comm. Vehicle Storage** | **Total** | | | *(With-Action - No-Action)* |
| **Size/Units:** | | **54,968** | **gsf** | **294,142** | **gsf** | | | **22,267** | **gsf** | **34,365** | **gsf** | **16,800** | **gsf** | **3,510** | **gsf** | | | | | |
| **Peak Hour Trips:** | | (1) | | | | | | (1) | | | | | | | | (See Note 2) | | | | |
| | **AM** | 304 | | 636 | | **940** | | 138 | | 76 | | 4 | | 10 | | | **228** | | | *712* |
| | **MD** | 1,928 | | 584 | | **2,512** | | 868 | | 70 | | 4 | | 8 | | | **950** | | | *1,562* |
| | **PM** | 1,014 | | 584 | | **1,598** | | 456 | | 70 | | 4 | | 10 | | | **540** | | | *1,058* |
| | **SAT** | 1,188 | | 150 | | **1,338** | | 534 | | 18 | | 2 | | 8 | | | **562** | | | *776* |
| **Person Trips:** | | | | | | | | | | | | | | | | | | | | |
| | | In | Out | In | Out | **In** | **Out** | In | Out | In | Out | In | Out | In | Out | | **In** | **Out** | ***In*** | ***Out*** | ***Total*** |
| **AM** | **Auto** | 17 | 17 | 195 | 8 | **212** | **25** | 8 | 8 | 23 | 1 | 2 | 0 | 7 | 3 | | **40** | **12** | *172* | *13* | *185* |
| | **Taxi** | 0 | 0 | 6 | 0 | **6** | **0** | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | | **1** | **0** | *5* | *0* | *5* |
| | **Subway** | 6 | 6 | 324 | 13 | **330** | **19** | 3 | 3 | 39 | 2 | 2 | 0 | 0 | 0 | | **44** | **5** | *286* | *14* | *300* |
| | **Bus** | 5 | 5 | 61 | 3 | **66** | **8** | 2 | 2 | 7 | 0 | 0 | 0 | 0 | 0 | | **9** | **2** | *57* | *6* | *63* |
| | **Walk/Other** | 124 | 124 | 25 | 1 | **149** | **125** | 56 | 56 | 3 | 0 | 0 | 0 | 0 | 0 | | **59** | **56** | *90* | *69* | *159* |
| | **Total** | 152 | 152 | 611 | 25 | **763** | **177** | 69 | 69 | 73 | 3 | 4 | 0 | 7 | 3 | | **153** | **75** | *610* | *102* | *712* |
| | | In | Out | In | Out | **In** | **Out** | In | Out | In | Out | In | Out | In | Out | | **In** | **Out** | ***In*** | ***Out*** | ***Total*** |
| **MD** | **Auto** | 106 | 106 | 6 | 6 | **112** | **112** | 48 | 48 | 1 | 1 | 1 | 1 | 4 | 4 | | **54** | **54** | *58* | *58* | *116* |
| | **Taxi** | 0 | 0 | 3 | 3 | **3** | **3** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | **0** | **0** | *3* | *3* | *6* |
| | **Subway** | 39 | 39 | 20 | 21 | **59** | **60** | 17 | 17 | 2 | 3 | 1 | 1 | 0 | 0 | | **20** | **21** | *39* | *39* | *78* |
| | **Bus** | 29 | 29 | 20 | 21 | **49** | **50** | 13 | 13 | 2 | 3 | 0 | 0 | 0 | 0 | | **15** | **16** | *34* | *34* | *68* |
| | **Walk/Other** | 790 | 790 | 233 | 251 | **1,023** | **1,041** | 356 | 356 | 28 | 30 | 0 | 0 | 0 | 0 | | **384** | **386** | *639* | *655* | *1,294* |
| | **Total** | 964 | 964 | 282 | 302 | **1,246** | **1,266** | 434 | 434 | 33 | 37 | 2 | 2 | 4 | 4 | | **473** | **477** | *773* | *789* | *1,562* |
| | | In | Out | In | Out | **In** | **Out** | In | Out | In | Out | In | Out | In | Out | | **In** | **Out** | ***In*** | ***Out*** | ***Total*** |
| **PM** | **Auto** | 56 | 56 | 9 | 178 | **65** | **234** | 25 | 25 | 1 | 21 | 0 | 1 | 5 | 5 | | **31** | **52** | *34* | *182* | *216* |
| | **Taxi** | 0 | 0 | 0 | 6 | **0** | **6** | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | | **0** | **1** | *0* | *5* | *5* |
| | **Subway** | 20 | 20 | 15 | 294 | **35** | **314** | 9 | 9 | 2 | 35 | 2 | 1 | 0 | 0 | | **13** | **45** | *22* | *269* | *291* |
| | **Bus** | 15 | 15 | 4 | 55 | **19** | **70** | 7 | 7 | 0 | 7 | 0 | 0 | 0 | 0 | | **7** | **14** | *12* | *56* | *68* |
| | **Walk/Other** | 416 | 416 | 1 | 22 | **417** | **438** | 187 | 187 | 0 | 3 | 0 | 0 | 0 | 0 | | **187** | **190** | *230* | *248* | *478* |
| | **Total** | 507 | 507 | 29 | 555 | **536** | **1,062** | 228 | 228 | 3 | 67 | 2 | 2 | 5 | 5 | | **238** | **302** | *298* | *760* | *1,058* |
| | | In | Out | In | Out | **In** | **Out** | In | Out | In | Out | In | Out | In | Out | | **In** | **Out** | ***In*** | ***Out*** | ***Total*** |
| **SAT** | **Auto** | 48 | 48 | 29 | 19 | **77** | **67** | 21 | 21 | 3 | 2 | 1 | 0 | 4 | 4 | | **29** | **27** | *48* | *40* | *88* |
| | **Taxi** | 0 | 0 | 1 | 1 | **1** | **1** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | **0** | **0** | *1* | *1* | *2* |
| | **Subway** | 42 | 42 | 47 | 32 | **89** | **74** | 19 | 19 | 7 | 4 | 1 | 0 | 0 | 0 | | **27** | **23** | *62* | *51* | *113* |
| | **Bus** | 24 | 24 | 9 | 6 | **33** | **30** | 11 | 11 | 1 | 1 | 0 | 0 | 0 | 0 | | **12** | **12** | *21* | *18* | *39* |
| | **Walk/Other** | 480 | 480 | 4 | 2 | **484** | **482** | 216 | 216 | 0 | 0 | 0 | 0 | 0 | 0 | | **216** | **216** | *268* | *266* | *534* |
| | **Total** | 594 | 594 | 90 | 60 | **684** | **654** | 267 | 267 | 11 | 7 | 2 | 0 | 4 | 4 | | **284** | **278** | *400* | *376* | *776* |

## Table 3: Travel Demand Forecast (cont.)

| | | With-Action | | | | | | No-Action | | | | | | | | | | | | Net Increment (With-Action - No-Action) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Land Use:** | | **Local Retail** | | **Office** | | **Total** | | **Local Retail** | | **Office** | | **Warehouse** | | **Auto Repair/ Related** | | **Comm. Vehicle Storage** | | **Total** | | | | |
| **Vehicle Trips :** | | | | | | | | | | | | | | | | | | | | | | |
| | | In | Out | In | Out | **In** | **Out** | In | Out | In | Out | In | Out | In | Out | In | Out | **In** | **Out** | ***In*** | ***Out*** | ***Total*** |
| **AM** | **Auto (Total)** | 11 | 11 | 174 | 7 | **185** | **18** | 5 | 5 | 21 | 1 | 2 | 0 | 5 | 2 | 0 | 2 | **33** | **10** | ***152*** | ***8*** | ***160*** |
| | **Taxi** | 0 | 0 | 5 | 0 | **5** | **0** | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **1** | **0** | ***4*** | ***0*** | ***4*** |
| | **Taxi Balanced** | 0 | 0 | 5 | 5 | **5** | **5** | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | **1** | **1** | ***4*** | ***4*** | ***8*** |
| | **Truck** | 1 | 1 | 5 | 5 | **6** | **6** | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | **2** | **1** | ***4*** | ***5*** | ***9*** |
| | **Total** | 12 | 12 | 184 | 17 | **196** | **29** | 5 | 5 | 23 | 3 | 3 | 0 | 5 | 2 | 0 | 2 | **36** | **12** | ***160*** | ***17*** | ***177*** |
| | | In | Out | In | Out | **In** | **Out** | In | Out | In | Out | In | Out | In | Out | In | Out | **In** | **Out** | ***In*** | ***Out*** | ***Total*** |
| **MD** | **Auto (Total)** | 71 | 71 | 5 | 5 | **76** | **76** | 32 | 32 | 1 | 1 | 1 | 1 | 3 | 3 | 0 | 6 | **37** | **43** | ***39*** | ***33*** | ***72*** |
| | **Taxi** | 0 | 0 | 3 | 3 | **3** | **3** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **0** | **0** | ***3*** | ***3*** | ***6*** |
| | **Taxi Balanced** | 0 | 0 | 6 | 6 | **6** | **6** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **0** | **0** | ***6*** | ***6*** | ***12*** |
| | **Truck** | 1 | 1 | 5 | 5 | **6** | **6** | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | **2** | **2** | ***4*** | ***4*** | ***8*** |
| | **Total** | 72 | 72 | 16 | 16 | **88** | **88** | 32 | 32 | 2 | 2 | 2 | 2 | 3 | 3 | 0 | 6 | **39** | **45** | ***49*** | ***43*** | ***92*** |
| | | In | Out | In | Out | **In** | **Out** | In | Out | In | Out | In | Out | In | Out | In | Out | **In** | **Out** | ***In*** | ***Out*** | ***Total*** |
| **PM** | **Auto (Total)** | 37 | 37 | 8 | 159 | **45** | **196** | 17 | 17 | 1 | 19 | 0 | 1 | 4 | 4 | 0 | 3 | **22** | **44** | ***23*** | ***152*** | ***175*** |
| | **Taxi** | 0 | 0 | 0 | 5 | **0** | **5** | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | **0** | **1** | ***0*** | ***4*** | ***4*** |
| | **Taxi Balanced** | 0 | 0 | 5 | 5 | **5** | **5** | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | **1** | **1** | ***4*** | ***4*** | ***8*** |
| | **Truck** | 0 | 0 | 1 | 1 | **1** | **1** | 0 | 0 | 0 | 0 | 3 | 2 | 0 | 0 | 0 | 0 | **3** | **2** | ***-2*** | ***-1*** | ***-3*** |
| | **Total** | 37 | 37 | 14 | 165 | **51** | **202** | 17 | 17 | 2 | 20 | 3 | 3 | 4 | 4 | 0 | 3 | **26** | **47** | ***25*** | ***155*** | ***180*** |
| | | In | Out | In | Out | **In** | **Out** | In | Out | In | Out | In | Out | In | Out | In | Out | **In** | **Out** | ***In*** | ***Out*** | ***Total*** |
| **SAT** | **Auto (Total)** | 30 | 30 | 26 | 17 | **56** | **47** | 13 | 13 | 3 | 2 | 1 | 0 | 3 | 3 | 0 | 0 | **20** | **18** | ***36*** | ***29*** | ***65*** |
| | **Taxi** | 0 | 0 | 1 | 1 | **1** | **1** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **0** | **0** | ***1*** | ***1*** | ***2*** |
| | **Taxi Balanced** | 0 | 0 | 2 | 2 | **2** | **2** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **0** | **0** | ***2*** | ***2*** | ***4*** |
| | **Truck** | 0 | 0 | 0 | 0 | **0** | **0** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **0** | **0** | ***0*** | ***0*** | ***0*** |
| | **Total** | 30 | 30 | 28 | 19 | **58** | **49** | 13 | 13 | 3 | 2 | 1 | 0 | 3 | 3 | 0 | 0 | **20** | **18** | ***38*** | ***31*** | ***69*** |

**Notes:**

(1) 0% linked-trip credit applied to No-Action local retail uses.

(2) 10% linked-trip credit applied to With-Action local retail uses.

(3) Commercial vehicle storage gsf included in total for auto repair/related uses. Vehicle trips based on 2017 PHA field counts.

by approximately 63, 68, 68, and 39, respectively. Lastly, the proposed action would generate 159, 1,294, 478, and 534 trips made entirely on foot (walk-only trips) during the weekday AM, midday, and PM, and Saturday peak hours, respectively, while total pedestrian trips (including walk-only, subway, and bus trips) would increase by 522, 1,440, 837, and 686 in the weekday AM, midday and PM, and Saturday peak periods, respectively. The following section further discusses the modal distribution and assignment patterns for travel demand generated under the RWCDS.

## LEVEL 1 SCREENING ASSESSMENT

The *CEQR Technical Manual* describes a two-level screening procedure for the preparation of a "preliminary analysis" to determine if quantified operational analyses of transportation conditions are warranted. As discussed in the following sections, the preliminary analysis begins with a trip generation (Level 1) analysis to estimate the numbers of person and vehicle trips attributable to the proposed action. According to the *CEQR Technical Manual*, if a proposed action is expected to result in fewer than 50 peak hour vehicle trips and fewer than 200 peak hour transit or pedestrian trips, further quantified analyses are not warranted. When these thresholds are exceeded, detailed trip assignments (a Level 2 assessment) are to be performed to estimate the incremental trips that could occur at specific transportation elements and to identify potential locations for further analysis. If the trip assignments show that the proposed action would generate 50 or more peak hour vehicle trips at an intersection, 200 or more peak hour subway trips at a station, 50 or more peak hour bus trips in one direction along a bus route, or 200 or more peak hour pedestrian trips traversing a sidewalk, corner area or crosswalk, then further quantified operational analyses may be warranted to assess the potential for significant adverse impacts on traffic, transit, pedestrians, vehicular and pedestrian safety, and parking.

### Traffic

Under 2020 *CEQR Technical Manual* criteria, if a proposed action would generate 50 or more peak hour vehicle trips ends, there is likely a need for further analysis. As shown in **Table 3**, the proposed action would result in a net increase of 177, 92, 180, and 69 vehicle trips in the weekday AM, weekday midday, weekday PM, and Saturday peak periods, respectively. As the number of incremental peak hour trips would exceed the *CEQR Technical Manual* analysis threshold for vehicular traffic during in all peak hours, a Level 2 screening assessment was undertaken to identify specific intersections that may require additional detailed analyses.

### Transit

*Subway*

According to the general thresholds used by the Metropolitan Transportation Authority (MTA) and specified in the 2020 *CEQR Technical Manual*, a detailed subway analysis is generally not required if the project-generated increase in passengers is fewer than 200 person trips by subway. Based on the travel demand forecast, the project would generate approximately 300 and 291 incremental person trips by subway in the weekday AM and PM commuter peak hours, respectively. As the proposed project would generate more than 200 incremental subway trips (the *CEQR Technical Manual* Level 1 Screening threshold) in the weekday AM and PM peak hours, a Level 2 screening analysis is warranted to determine which subway stations and routes may require quantified analysis.

*Bus*

According to the general thresholds used by the MTA and specified in the 2020 *CEQR Technical Manual*, a detailed bus-line haul analysis is generally not required if the project generated increase in person trips by bus is fewer than 200 peak hour passengers.

Four local bus routes operate within one quarter-mile of the project area, including the Q32 operated by New York City Transit (NYCT) and the Q39, Q60 and Q67 operated by MTA Bus Company. As shown in Table 3, the proposed action would generate a net increase of 63 and 68 person trips by bus during the weekday AM and PM commuter peak hours, respectively. As these trips would be distributed among the four routes serving the project area, it is unlikely that any one route would experience 50 or more trips in one direction in either peak hour. Significant adverse impacts to bus service are therefore considered unlikely to occur based on *CEQR Technical Manual* criteria, and a detailed analysis of local bus conditions is not warranted.

**Pedestrians**

Many action-generated trips include a walk component using local sidewalks, street corners, and crosswalks to access the project area. Based on the preliminary travel demand forecast shown in **Table 3** the proposed action would generate a net total of 522, 1,440, 837, and 686 pedestrian trips (walk-only trips and pedestrians en route to/from bus stops and the subway) during the weekday AM, midday and PM, and Saturday peak hours, respectively. As the number of project generated pedestrian trips would exceed the 200-trip *CEQR Technical Manual* analysis threshold during each peak hour, a Level 2 screening assessment is provided for the weekday peak hours. As project increment pedestrian trips during the Saturday peak hour would generally have assignment patterns similar to those of the weekday midday but with lower overall volumes, significant adverse impacts over and above any identified for the weekday midday are considered unlikely. The Saturday peak hour is therefore not included for further analysis.

## LEVEL 2 SCREENING ASSESSMENT

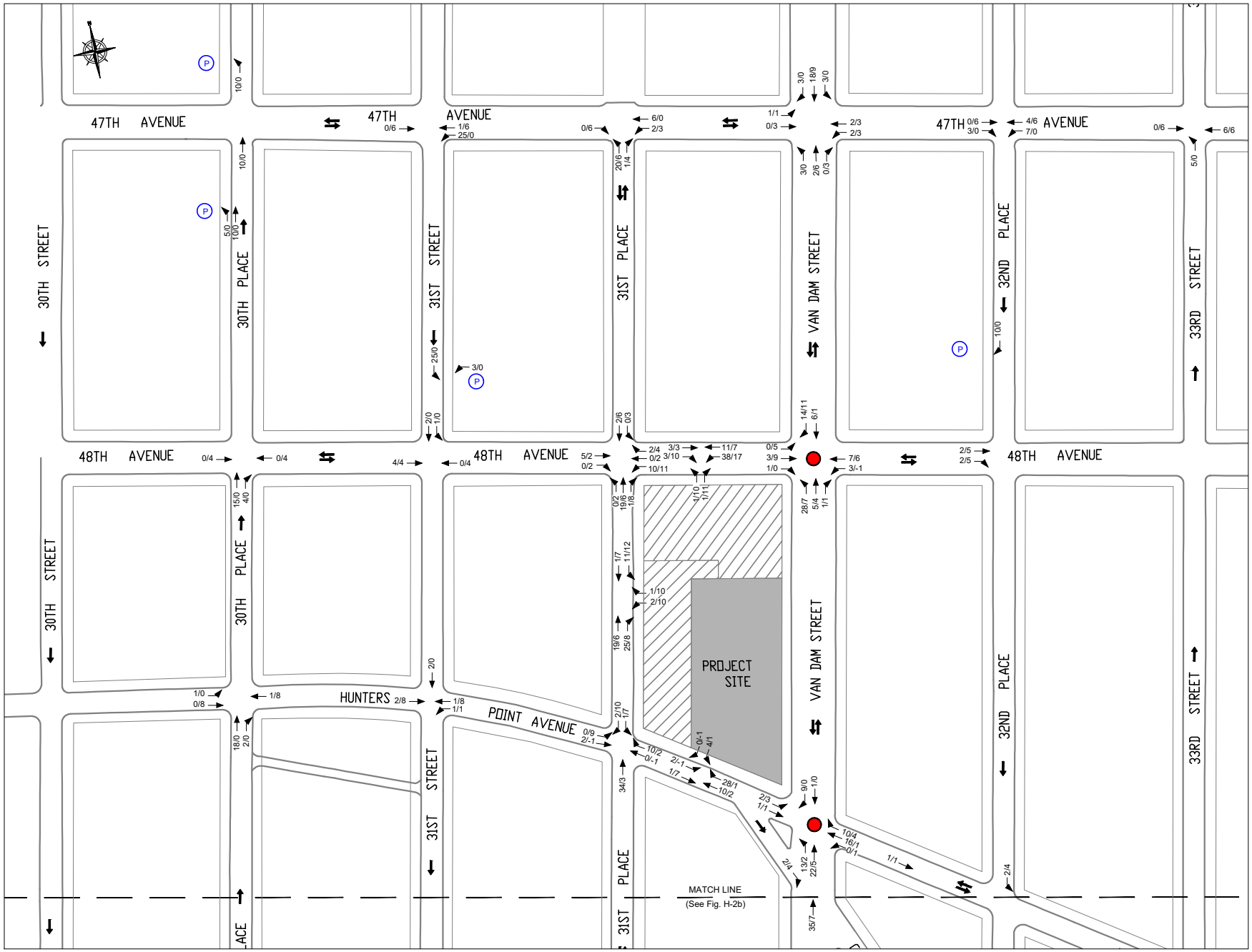
A Level 2 screening assessment involves the assignment of action-generated trips to the study area street network, transit facilities, and pedestrian elements, and the identification of specific locations where the incremental increase in demand may potentially exceed *CEQR Technical Manual* analysis thresholds and therefore require a quantitative analysis. These assignments are discussed below for each mode.

**Traffic**

The origins and destinations of project increment auto and taxi trips were estimated based on 2012-2016 AASHTO CTPP reverse-journey-to-work data for Queens census tracts 1, 19, 179, 187, 189, and 199 in the vicinity of the project area. Autos and taxis were first assigned to the most likely routes between these origins/destinations and the project area. Auto trips were then assigned to/from the proposed project's parking garage entrance on Hunters Point Avenue and parking garage entrances for the projected development sites, assumed to be located on 48th Avenue and 31st Place. As it is anticipated that not all project demand would be accommodated on-site, some autos were also assigned to nearby off-street public parking facilities. Taxis were assigned to the street frontages of each site. **Figures 3** and **4** show the incremental assignment of vehicle trips generated by the proposed action during the weekday AM, midday and PM, and Saturday peak hours. As shown in **Figures 3 and 4**, incremental trips at a total of five signalized intersections along Van Dam Street are expected to exceed the 50-trip *CEQR Technical Manual* analysis threshold in the weekday AM and/or PM commuter peak hours, and these intersections have therefore been

Analyzed Intersection
Projected Development Site
Public Parking Facility
20/6 - Weekday AM/Midday Vehicle Volumes

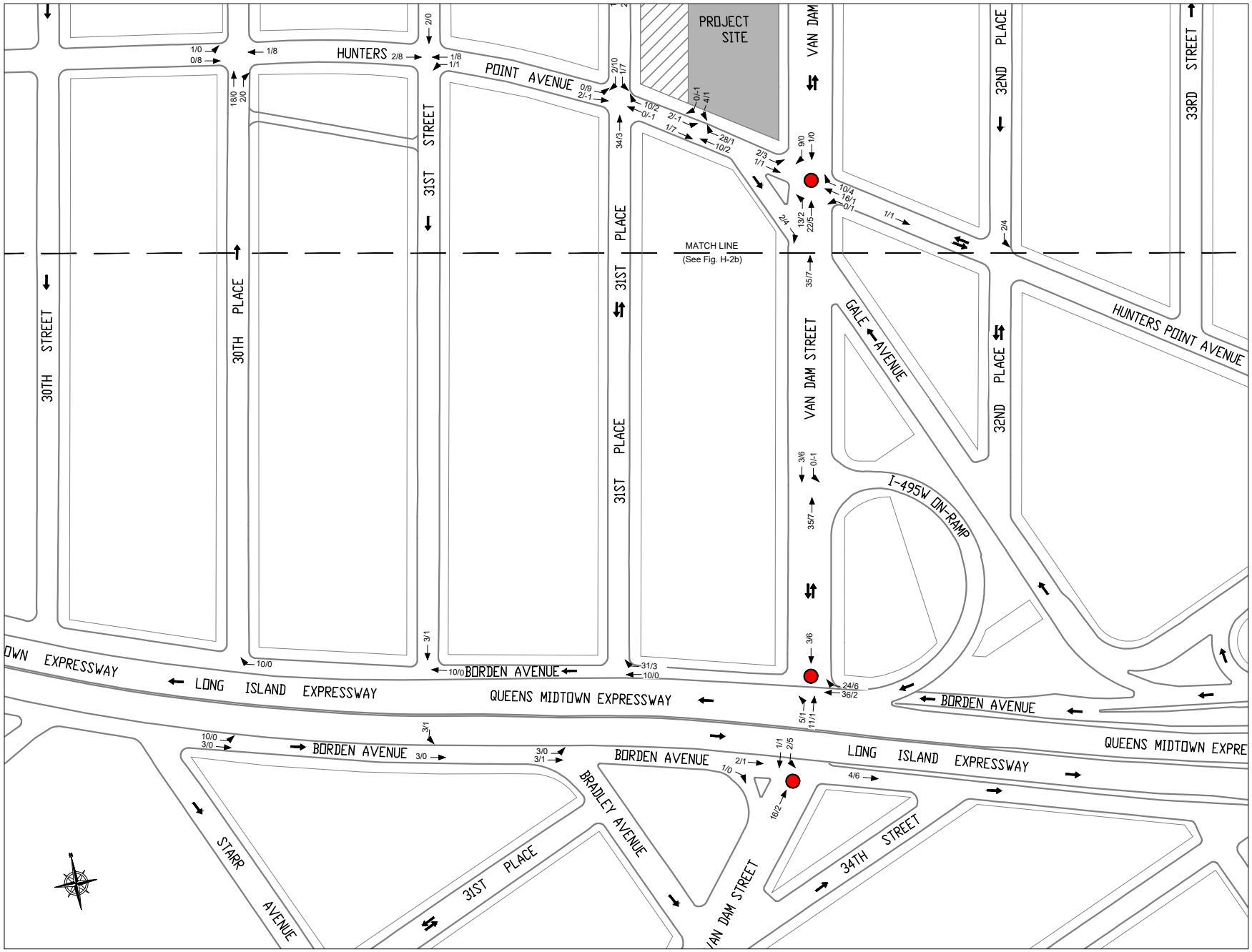
# Incremental Vehicle Volumes - AM/Midday



Analyzed Intersection

Projected Development Site 20/6 - Weekday AM/Midday Vehicle Volumes

# Incremental Vehicle Volumes - AM/Midday



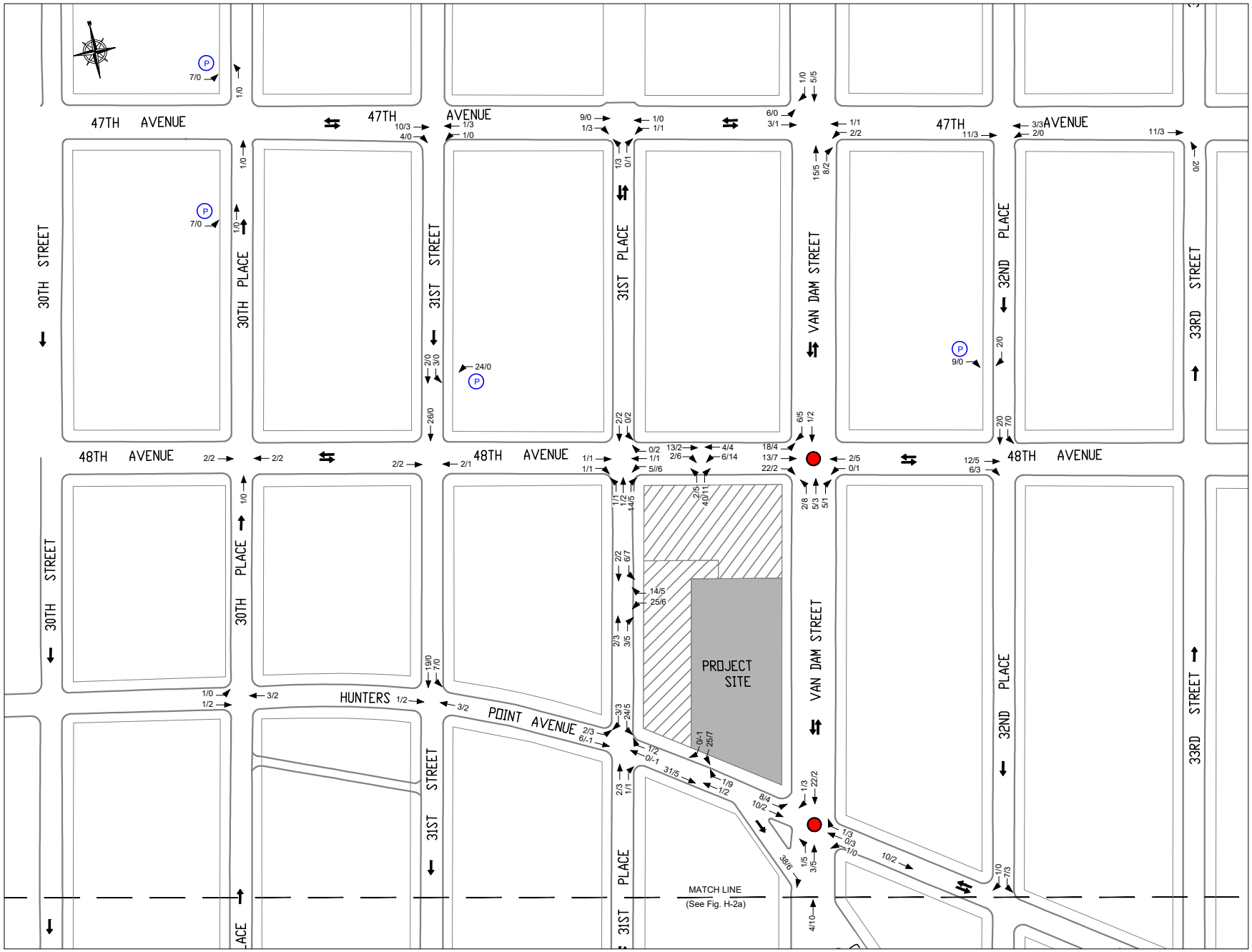
Analyzed Intersection

Public Parking Facility

Projected Development Site

10/3 - Weekday PM/Saturday Vehicle Volumes

# Incremental Vehicle Volumes - PM/Saturday



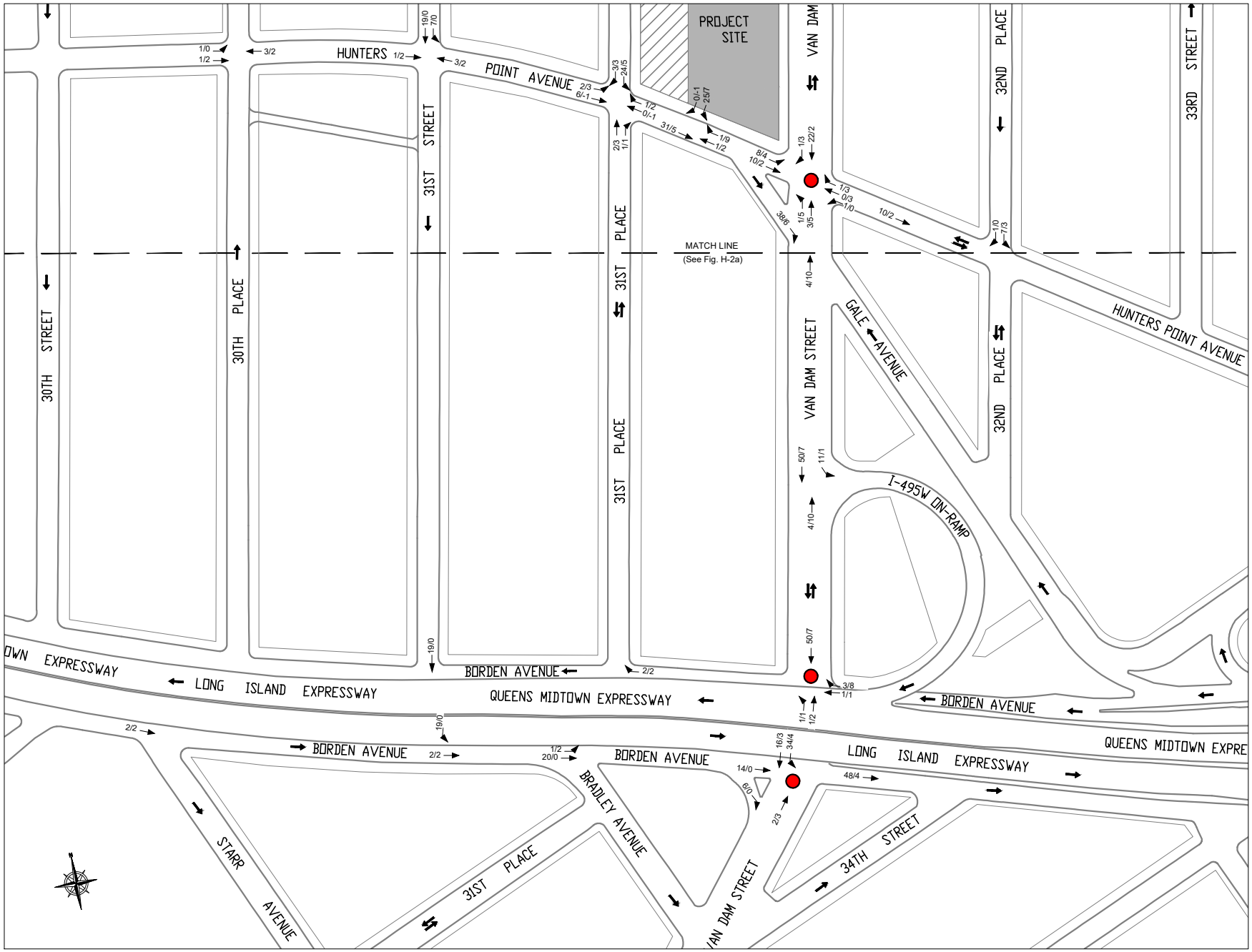

20/6 - Weekday PM/Saturday Vehicular Volumes

Analyzed Intersection

Projected Development Site

10/3 - Weekday PM/Saturday Vehicle Volumes

# Incremental Vehicle Volumes - PM/Saturday




20/6 - Weekday PM/Saturday Vehicular Volumes

selected for detailed analysis focusing on the weekday AM and PM periods. These analyzed intersections include:

1. Van Dam Street at 48th Avenue;
2. Van Dam Street at Hunters Point Avenue;
3. Van Dam Street at Gale Avenue;
4. Van Dam Street at Borden Avenue (eastbound); and
5. Van Dam Street at Borden Avenue (westbound).

**Transit**

*Subway Stations*

As shown in **Table 2**, the proposed action is expected to generate a net total of 300 and 291 subway trips (in and out combined) in the weekday AM and PM commuter peak hours, respectively. These trips are expected to use the 33rd Street – Rawson Street subway station, which is located 0.4-mile to the north of the project area (see **Figure 1**) and is served by No. 7 local trains operating on the Flushing Line. As the number of project-generated trips at this station would exceed the 200-trip *CEQR Technical Manual* analysis threshold in the weekday PM peak hour, this station is included for detailed analysis. Key circulation elements (e.g., stairs and fare arrays) expected to be used by concentrations of project-generated trips will be analyzed.

*Subway Line Haul*

Line haul is the volume of transit riders passing a defined point on a given transit route. Subway line haul is typically analyzed in the peak direction of travel at the maximum load point on a route (the point where the trains carry the maximum number of passengers in the peak hour). For trains traveling between Manhattan and Queens, such as the No. 7 train, this is typically at or near the East River crossing, and the peak direction of travel is Manhattan-bound (southbound) in the AM and Queens-bound (northbound) in the PM.

As discussed above, the proposed action is expected to generate a net total of 300 and 291 subway trips (in and out combined) on Flushing Line No. 7 local trains in the weekday AM and PM commuter peak hours, respectively. As the proposed project is commercial in nature, project-generated subway trips would be predominantly inbound to the project area in the AM peak hour and outbound in the PM peak hour. Given the location of the project area in Long Island City, few if any project-generated trips are expected to travel into Manhattan in the AM peak hour and from Manhattan to Queens in the PM peak hour. Consequently, the proposed action is not expected to generate 200 or more peak direction trips (the *CEQR Technical Manual* analysis threshold) through the maximum load point for No. 7 trains in either period. Therefore, significant adverse subway line haul impacts are not anticipated and further analysis is not warranted.

**Pedestrians**

As discussed above, the proposed action would generate a total of 522, 1,440, and 837 incremental pedestrian trips (including walk-only, subway, and bus trips) during the weekday AM, midday, and PM peak hours, respectively. As the number of project generated pedestrian trips would exceed the 200-trip *CEQR Technical Manual* analysis threshold during each of these periods, a Level 2 screening assessment is warranted.

**Figure 5** shows the assignment of action-generated pedestrian trips to pedestrian elements (sidewalks, corner areas, and crosswalks) in the vicinity of the project area. Subway and bus walk trips were assigned to the most direct path between the project area and the 33rd Street – Rawson Street (7) subway station or nearby bus stops. Walk-only trips were dispersed along sidewalks throughout the study area. Based on these assignments, **Figure 5** also shows 18 pedestrian elements (five sidewalks, eight corner areas and five crosswalks) in the vicinity of the project area where project-generated trips would exceed the 200-trip *CEQR Technical Manual* analysis threshold and therefore require a detailed analysis for the weekday AM, midday and PM peak hours. These pedestrian elements include:

*Sidewalks*

1. West sidewalk on Van Dam Street between 48th Avenue and Hunters Point Avenue.
2. North sidewalk on 48th Avenue between Van Dam Street and 32nd Place.
3. South sidewalk on 48th Avenue between Van Dam Street and 32nd Place.
4. South sidewalk on 48th Avenue between 31st Place and Van Dam Street.
5. East sidewalk on 31st Place between 48th Avenue and Hunters Point Avenue.

*Corner Areas*

6. Northeast corner of the 48th Avenue and Van Dam Street intersection.
7. Southeast corner of the 48th Avenue and Van Dam Street intersection.
8. Southwest corner of the 48th Avenue and Van Dam Street intersection.
9. Northwest corner of the 48th Avenue and Van Dam Street intersection.
10. Northeast corner of the 48th Avenue and 31st Place intersection.
11. Southeast corner of the 48th Avenue and 31st Place intersection.
12. Southwest corner of the 48th Avenue and 31st Place intersection.
13. Northwest corner of the Hunters Point Avenue and Van Dam Street intersection.

*Crosswalks*

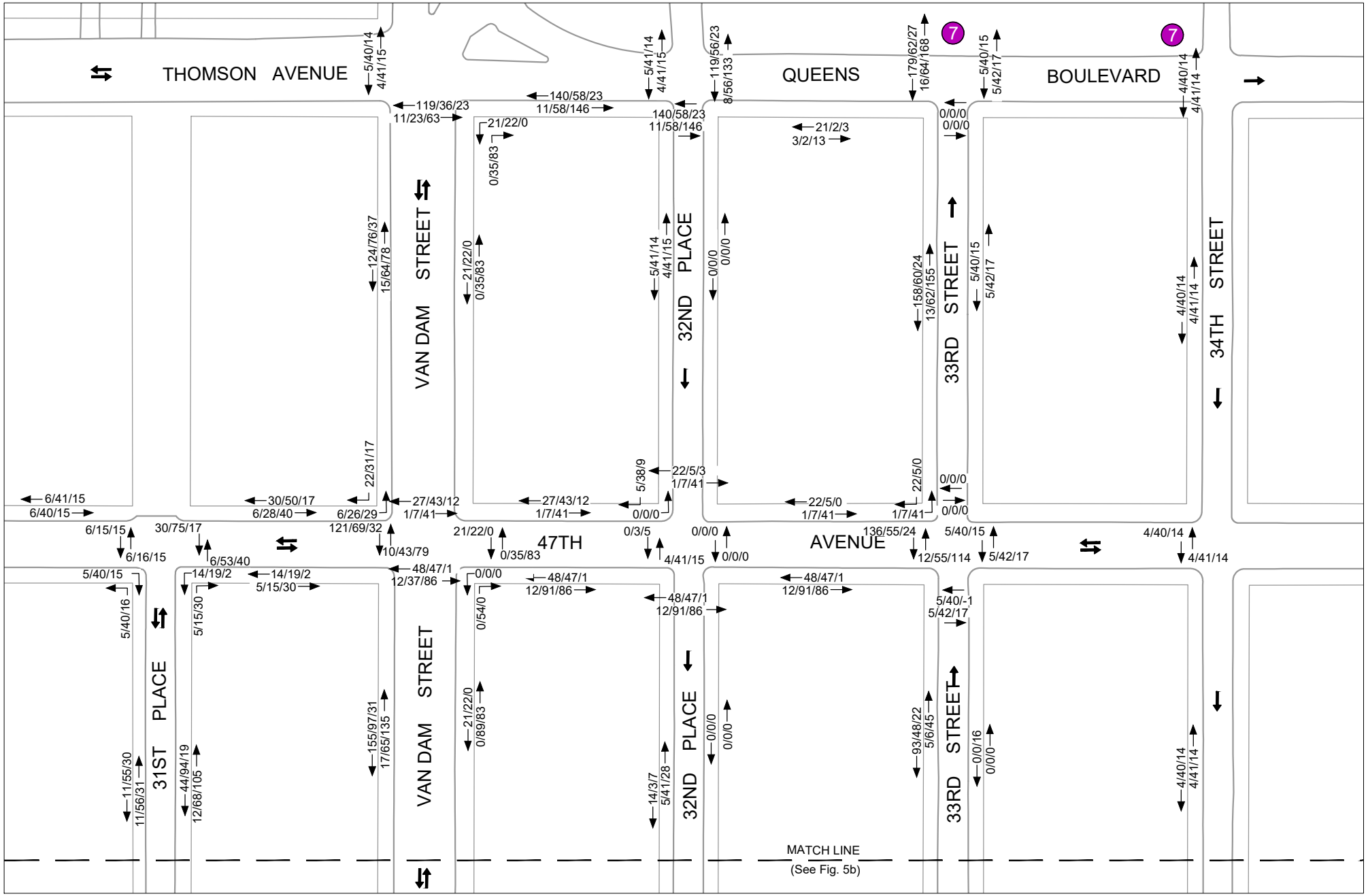
14. North crosswalk on Van Dam Street at 48th Avenue.
15. South crosswalk on Van Dam Street at 48th Avenue.
16. West crosswalk on 48th Avenue at Van Dam Street.
17. South crosswalk on 31st Place at 48th Avenue.
18. East crosswalk on 48th Avenue at 31st Place

**Parking**

Parking demand from commercial and retail uses typically peaks in the weekday midday period and declines during the afternoon and evening. A parking demand forecast will be prepared to determine if the proposed 207 spaces of on-site accessory parking would be sufficient to accommodate all of the projected demand generated by the proposed action. If it is determined that the on-site accessory parking supply would be insufficient to accommodate projected peak demand, a detailed analysis of parking conditions within ¼-mile of the project area will be prepared. Existing on-street and off-street parking inventories will be provided to document the existing supply and demand during the weekday midday period (when commercial parking demand is typically greatest). As some action-generated auto trips have been assigned to off-site public parking facilities, the weekday AM commuter period will also be analyzed to document available capacity during this period. Changes in the parking supply and utilization under both No-Action and With-Action conditions will be forecasted.

Pedestrian Volumes - Increment

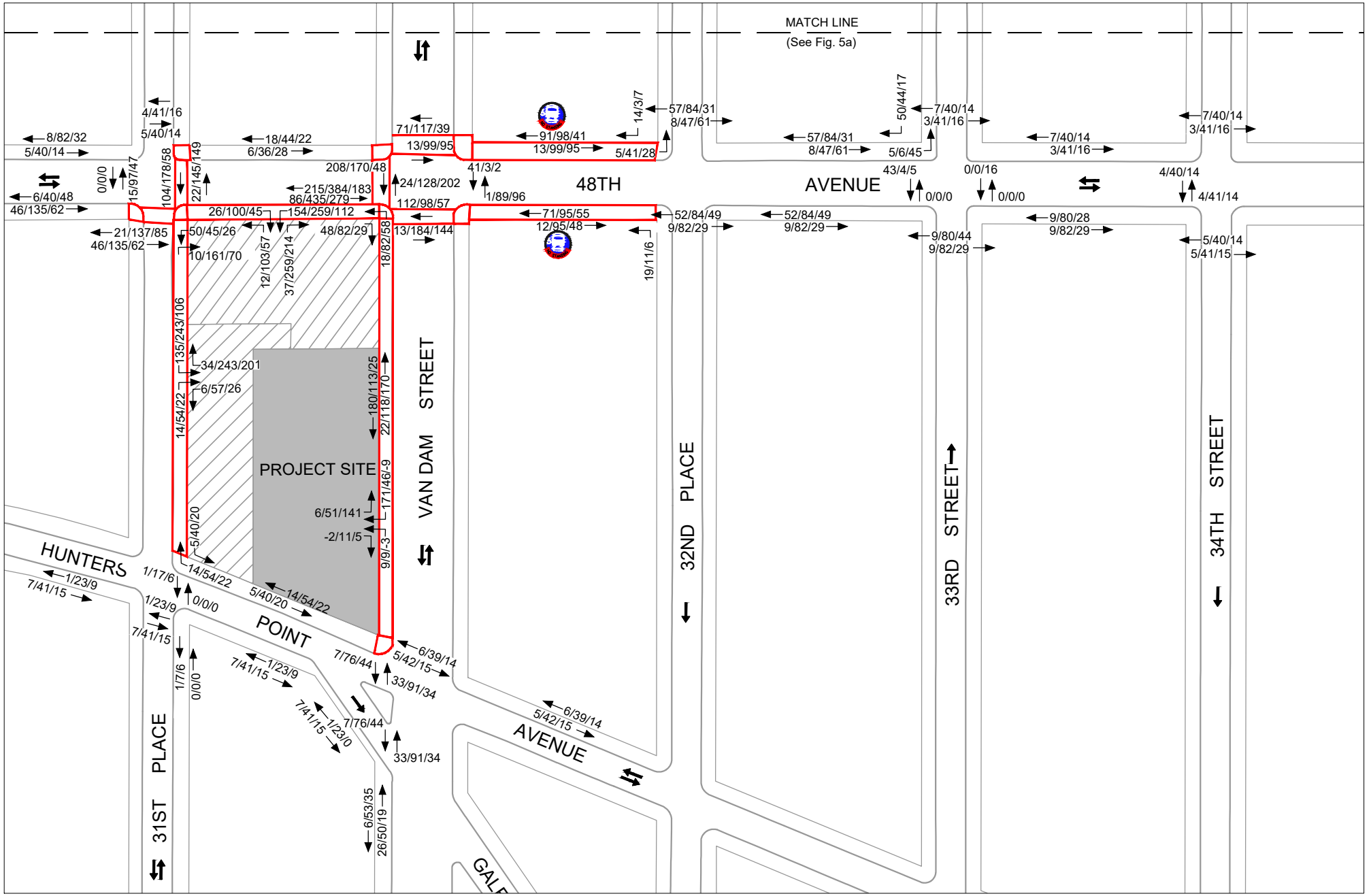
7 MTA Subway Station  MTA Bus Stop  Proposed Analysis Location  Projected Development Site




20/9/6 - Weekday AM/MD/PM Pedestrian Volumes

# Pedestrian Volumes - Increment

7 MTA Subway Station | MTA Bus Stop | Proposed Analysis Location | Projected Development Site




20/9/6 - Weekday AM/MD/PM Pedestrian Volumes