Revised Environmental Assessment Statement

***This Revised EAS supersedes the Original EAS dated December 29, 2016 prepared in connection with the original ULURP application certified on January 3, 2017**

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* 74-04 Northern Boulevard

3. *Reference Numbers*

CEQR REFERENCE NUMBER (to be assigned by lead agency)	BSA REFERENCE NUMBER (if applicable)
17DCP072Q	
ULURP REFERENCE NUMBER (if applicable)	OTHER REFERENCE NUMBER(S) (if applicable) (*e.g.*, legislative intro, CAPA)
170162ZMQ; 170163ZRQ	

4a. *Lead Agency Information*			**4b. *Applicant Information***		
NAME OF LEAD AGENCY			NAME OF APPLICANT		
NYC Department of City Planning			H & M LLC		
NAME OF LEAD AGENCY CONTACT PERSON			NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON		
Robert Dobruskin			Hiram Rothkrug, EPDSCO, Inc.		
ADDRESS 120 Broadway, 31st Floor			ADDRESS 55 Water Mill Road		
CITY New York	STATE NY	ZIP 10271	CITY Great Neck	STATE NY	ZIP 11021
TELEPHONE 212-720-3423	EMAIL rdobrus@planning.nyc.gov		TELEPHONE 718-343-0026	EMAIL hrothkrug@epdsco.com	

5. *Project Description*

The applicant, H&M LLC, seeks a zoning map amendment from C8-1 to C4-3 for the northern portion of a single block (Block 1247, Lot 1) in the Jackson Heights section of Queens Community District 3. In addition, the proposed action would include a proposed text amendment to Appendix F of the Zoning Resolution (ZR) that would make the area applicable to the Mandatory Inclusionary Housing MIH) Program. The proposed actions will facilitate a proposal by the applicant to develop an eight-story mixed-use property (commercial-community facility) containing 122,880 gross square feet (gsf) of floor area and 219 accessory parking spaces.

Project Location

BOROUGH Queens	COMMUNITY DISTRICT(S) 3	STREET ADDRESS 74-04 Northern Boulevard
TAX BLOCK(S) AND LOT(S) Block 1247, Lot 1		ZIP CODE 11372
DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS Northen Boulevard between 74th and 75th Streets		
EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY M1-1		ZONING SECTIONAL MAP NUMBER 9d

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 Appendix F

***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:

*This revised EAS supersedes the Original EAS dated December 29, 2016 prepared in connection with the original ULURP application certified on January 3, 2017.
**Since Certification of the proposal on January 3, 2017, the Applicant has revised the analysis year to 2020, to better reflect the timing of the City Planning Commission approvals, as well as the anticipated construction period for the proposed project. Additionally, new visuals have been incorporated into the EAS, that represent a completely enclosed garage, that is mechanically ventilated. "

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.): 20,000

Waterbody area (sq. ft) and type:

Roads, buildings, and other paved surfaces (sq. ft.):

Other, describe (sq. ft.):

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): 122,880

NUMBER OF BUILDINGS: 1

GROSS FLOOR AREA OF EACH BUILDING (sq. ft.): 122,880

HEIGHT OF EACH BUILDING (ft.): 83'

NUMBER OF STORIES OF EACH BUILDING: 8

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: 260,000 cubic ft. (width x length x depth)

AREA OF PERMANENT DISTURBANCE: 20,000 sq. ft. (width x length)

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

	Residential	***Commercial***	***Community Facility***	***Industrial/Manufacturing***
Size (in gross sq. ft.)		104,480 or 18,600* (Retail only)	18,400	
Type (*e.g.,* retail, office, school)	53* units	Office & Retail	Medical Office	

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

If "yes," please specify: NUMBER OF ADDITIONAL RESIDENTS: 149* NUMBER OF ADDITIONAL WORKERS: 123

Provide a brief explanation of how these numbers were determined: One worker per 1,000 sf of floor area. *Under an alternative residential-commercial scenario that includes 53 dwelling units, assuming 2.8 persons/DU, approximately 149 new residents are generated by the proposed action.

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

Has a No-Action scenario been defined for this project that differs from the existing condition? ☐ YES ☒ NO

If "yes," see Chapter 2, "Establishing the Analysis Framework" and describe briefly:

9. *Analysis Year* CEQR Technical Manual Chapter 2

ANTICIPATED BUILD YEAR (date the project would be completed and operational): 2020

ANTICIPATED PERIOD OF CONSTRUCTION IN MONTHS: 12

WOULD THE PROJECT BE IMPLEMENTED IN A SINGLE PHASE? ☒ YES ☐ NO	IF MULTIPLE PHASES, HOW MANY?
BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE:	
10. *Predominant Land Use in the Vicinity of the Project* (check all that apply) ☒ RESIDENTIAL ☐ MANUFACTURING ☒ COMMERCIAL ☐ PARK/FOREST/OPEN SPACE ☐ OTHER, specify:	

Part II: TECHNICAL ANALYSIS

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

- If the proposed project can be demonstrated not to meet or exceed the threshold, check the "no" box.
- If the proposed project will meet or exceed the threshold, or if this cannot be determined, check the "yes" box.
- For each "yes" response, provide additional analyses (and, 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.		
(e) Is the project a large, publicly sponsored project?	☐	☒
○ If "yes," complete a PlaNYC assessment and attach.		
(f) Is any part of the directly affected area within the City's Waterfront Revitalization Program boundaries?	☐	☒
○ If "yes," complete the Consistency Assessment Form.		
2. *SOCIOECONOMIC CONDITIONS*: CEQR Technical Manual Chapter 5		
(a) Would the proposed project:		
○ Generate a net increase of 200 or more residential units?	☐	☒
○ Generate a net increase of 200,000 or more square feet of commercial space?	☐	☒
○ Directly displace more than 500 residents?	☐	☒
○ Directly displace more than 100 employees?	☐	☒
○ Affect conditions in a specific industry?	☐	☒
3. *COMMUNITY FACILITIES*: CEQR Technical Manual Chapter 6		
(a) Direct Effects		
○ Would the project directly eliminate, displace, or alter public or publicly funded community facilities such as educational facilities, libraries, hospitals and other health care facilities, day care centers, police stations, or fire stations?	☐	☒
(b) Indirect Effects		
○ **Child Care Centers:** Would the project result in 20 or more eligible children under age 6, based on the number of low or low/moderate income residential units? (See Table 6-1 in Chapter 6)	☐	☒
○ **Libraries:** Would the project result in a 5 percent or more increase in the ratio of residential units to library branches? (See Table 6-1 in Chapter 6)	☐	☒
○ **Public Schools:** Would the project result in 50 or more elementary or middle school students, or 150 or more high school students based on number of residential units? (See Table 6-1 in Chapter 6)	☐	☒
○ **Health Care Facilities and Fire/Police Protection:** Would the project result in the introduction of a sizeable new neighborhood?	☐	☒
4. *OPEN SPACE*: CEQR Technical Manual Chapter 7		
(a) Would the proposed project change or eliminate existing open space?	☐	☒
(b) Is the project located within an under-served area in the Bronx, Brooklyn, Manhattan, Queens, or Staten Island?	☒	☐
○ If "yes," would the proposed project generate more than 50 additional residents or 125 additional employees?	☒	☐
(c) Is the project located within a well-served area in the Bronx, Brooklyn, Manhattan, Queens, or Staten Island?	☐	☒
○ If "yes," would the proposed project generate more than 350 additional residents or 750 additional employees?	☐	☐
(d) If the project in located an area that is neither under-served nor well-served, would it generate more than 200 additional 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 attached.		
7. *URBAN DESIGN AND VISUAL RESOURCES*: CEQR Technical Manual Chapter 10		
(a) Would the proposed project introduce a new building, a new building height, or result in any substantial physical alteration to the streetscape or public space in the vicinity of the proposed project that is not currently allowed by existing zoning?	☒	☐
(b) Would the proposed project result in obstruction of publicly accessible views to visual resources not currently allowed by existing zoning?	☐	☒
8. *NATURAL RESOURCES*: CEQR Technical Manual Chapter 11		
(a) Does the proposed project site or a site adjacent to the project contain natural resources as defined in Section 100 of Chapter 11?	☐	☒
○ If "yes," list the resources and attach supporting information on whether the proposed project would affect any of these resources.		
(b) Is any part of the directly affected area within the Jamaica Bay Watershed?	☐	☒
○ If "yes," complete the Jamaica Bay Watershed Form, and submit according to its instructions.		
9. *HAZARDOUS MATERIALS*: CEQR Technical Manual Chapter 12		
(a) Would the proposed project allow commercial or residential uses in an area that is currently, or was historically, a manufacturing area that involved hazardous materials?	☐	☒
(b) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to hazardous materials that preclude the potential for significant adverse impacts?	☐	☒
(c) Would the project require soil disturbance in a manufacturing area or any development on or near a manufacturing area or existing/historic facilities listed in Appendix 1 (including nonconforming uses)?	☒	☐
(d) Would the project result in the development of a site where there is reason to suspect the presence of hazardous materials, contamination, illegal dumping or fill, or fill material of unknown origin?	☐	☒
(e) Would the project result in development on or near a site that has or had underground and/or aboveground storage tanks (*e.g.*, gas stations, oil storage facilities, heating oil storage)?	☒	☐
(f) Would the project result in renovation of interior existing space on a site with the potential for compromised air quality; vapor intrusion from either on-site or off-site sources; or the presence of asbestos, PCBs, mercury or lead-based paint?	☐	☒
(g) Would the project result in development on or near a site with potential hazardous materials issues such as government-listed voluntary cleanup/brownfield site, current or former power generation/transmission facilities, coal gasification or gas storage sites, railroad tracks or rights-of-way, or municipal incinerators?	☐	☒
(h) Has a Phase I Environmental Site Assessment been performed for the site?	☒	☐
○ If "yes," were Recognized Environmental Conditions (RECs) identified? Briefly identify: None identified	☐	☐
10. *WATER AND SEWER INFRASTRUCTURE*: CEQR Technical Manual Chapter 13		
(a) Would the project result in water demand of more than one million gallons per day?	☐	☒
(b) If the proposed project located in a combined sewer area, would it result in at least 1,000 residential units or 250,000 square feet or more of commercial space in Manhattan, or at least 400 residential units or 150,000 square feet or more of commercial space in the Bronx, Brooklyn, Staten Island, or Queens?	☐	☒
(c) If the proposed project located in a separately sewered area, would it result in the same or greater development than the amounts listed in Table 13-1 in Chapter 13?	☐	☒
(d) Would the proposed project involve development on a site that is 5 acres or larger where the amount of impervious surface would increase?	☐	☒
(e) If the project is located within the Jamaica Bay Watershed or in certain specific drainage areas, including Bronx River, Coney 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): 1,599		
○ 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): 26,578,944		
(b) Would the proposed project affect the transmission or generation of energy?	☐	☒
13. *TRANSPORTATION*: CEQR Technical Manual Chapter 16		
(a) Would the proposed project exceed any threshold identified in Table 16-1 in Chapter 16?	☒	☐
(b) If "yes," conduct the screening analyses, attach appropriate back up data as needed for each stage and answer the following questions:		
○ Would the proposed project result in 50 or more Passenger Car Equivalents (PCEs) per project peak hour?	☐	☒
If "yes," would the proposed project result in 50 or more vehicle trips per project peak hour at any given intersection? ***It should be noted that the lead agency may require further analysis of intersections of concern even when a project generates fewer than 50 vehicles in the peak hour. See Subsection 313 of Chapter 16 for more information.*	☐	☐
○ Would the proposed project result in more than 200 subway/rail or bus trips per project peak hour?	☐	☒
If "yes," would the proposed project result, per project peak hour, in 50 or more bus trips on a single line (in one direction) or 200 subway trips per station or line?	☐	☐
○ Would the proposed project result in more than 200 pedestrian trips per project peak hour?	☐	☒
If "yes," would the proposed project result in more than 200 pedestrian trips per project peak hour to any given pedestrian or transit element, crosswalk, subway stair, or bus stop?	☐	☐
14. *AIR QUALITY*: CEQR Technical Manual Chapter 17		
(a) *Mobile Sources*: Would the proposed project result in the conditions outlined in Section 210 in Chapter 17?	☐	☒
(b) *Stationary Sources*: Would the proposed project result in the conditions outlined in Section 220 in Chapter 17?	☒	☐
○ If "yes," would the proposed project exceed the thresholds in Figure 17-3, Stationary Source Screen Graph in Chapter 17? (Attach graph as needed) See attached.	☐	☐
(c) Does the proposed project involve multiple buildings on the project site?	☐	☒
(d) Does the proposed project require federal approvals, support, licensing, or permits subject to conformity requirements?	☐	☒
(e) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to air quality that preclude the potential for significant adverse impacts?	☐	☒
15. *GREENHOUSE GAS EMISSIONS*: CEQR Technical Manual Chapter 18		
(a) Is the proposed project a city capital project or a power generation plant?	☐	☒
(b) Would the proposed project fundamentally change the City's solid waste management system?	☐	☒
(c) If "yes" to any of the above, would the project require a GHG emissions assessment based on the guidance in Chapter 18?	☐	☒
16. *NOISE*: CEQR Technical Manual Chapter 19		
(a) Would the proposed project generate or reroute vehicular traffic?	☒	☐
(b) Would the proposed project introduce new or additional receptors (see Section 124 in Chapter 19) near heavily trafficked roadways, within one horizontal mile of an existing or proposed flight path, or within 1,500 feet of an existing or proposed rail line with a direct line of site to that rail line?	☒	☐
(c) Would the proposed project cause a stationary noise source to operate within 1,500 feet of a receptor with a direct line of sight to that receptor or introduce receptors into an area with high ambient stationary noise?	☐	☒
(d) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to noise that preclude the potential for significant adverse impacts?	☐	☒
17. *PUBLIC HEALTH*: CEQR Technical Manual Chapter 20		
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Air Quality; Hazardous Materials; Noise?	☐	☒
(b) If "yes," explain why an assessment of public health is or is not warranted based on the guidance in Chapter 20, "Public Health." Attach a		

	YES	NO
preliminary analysis, if necessary.		
18. *NEIGHBORHOOD CHARACTER*: CEQR Technical Manual Chapter 21		
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Land Use, Zoning, and Public Policy; Socioeconomic Conditions; Open Space; Historic and Cultural Resources; Urban Design and Visual Resources; Shadows; Transportation; Noise?	☐	☒
(b) If "yes," explain why an assessment of neighborhood character is or is not warranted based on the guidance in Chapter 21, "Neighborhood Character." Attach a preliminary analysis, if necessary.		
19. *CONSTRUCTION*: CEQR Technical Manual Chapter 22		
(a) Would the project's construction activities involve:		
○ Construction activities lasting longer than two years?	☐	☒
○ Construction activities within a Central Business District or along an arterial highway or major thoroughfare?	☐	☒
○ Closing, narrowing, or otherwise impeding traffic, transit, or pedestrian elements (roadways, parking spaces, bicycle routes, sidewalks, crosswalks, corners, *etc.*)?	☐	☒
○ Construction of multiple buildings where there is a potential for on-site receptors on buildings completed before the final build-out?	☐	☒
○ The operation of several pieces of diesel equipment in a single location at peak construction?	☐	☒
○ Closure of a community facility or disruption in its services?	☐	☒
○ Activities within 400 feet of a historic or cultural resource?	☐	☒
○ Disturbance of a site containing or adjacent to a site containing natural resources?	☐	☒
○ 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.		

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
Justin Jarboe, EPDSCO, Inc.	5/19/17

SIGNATURE Justin Jarboe

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

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

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

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

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

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

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

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

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

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

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

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

TITLE	LEAD AGENCY
Deputy Director, Environmental Assessment and Review Division	Department of City Planning
NAME	DATE
Olga Abinader	5/19/2017
SIGNATURE	

PROJECT DESCRIPTION

Introduction

The applicant, H & M LLC, seeks a zoning map amendment from C8-1 to C4-3 for the northern portion of a single block (Block 1247) in the Jackson Heights section of Queens Community District 3. In addition, the proposed action would include a proposed text amendment that would make the area applicable to the Mandatory Inclusionary Housing Program (MIH, together the "Proposed Actions"). The Proposed Actions intend to facilitate a proposal by the applicant to develop an eight-story mixed-use property (commercial-community facility) on Block 1247, Lot 1 (hereafter "the Development Site") containing 122,880 gross square feet (gsf) of floor area and 219 accessory parking spaces.

It is proposed to redevelop the Development Site with an eight-story mixed-use (commercial-community facility) building with 122,880 gsf of floor area (4.52 FAR). The building would rise to a height of 83 feet and would contain ground floor retail, second and third floor accessory parking containing 219 attended parking spaces (7,592 square feet of zoning floor area[1]), 18,400 square feet of community facility space on the fourth floor and commercial office space on the fifth through eighth floors. Approximately 104,480 gsf of the proposed development would consist of commercial use (Use Group 6), while 18,400 gsf would consist of community facility use (Use Group 4, medical office space). The development would contain two new curb cuts.

While the applicant intends to pursue the proposed commercial-community facility development described above (hereafter "Scenario 1"), an alternative residential-commercial scenario (hereafter "Scenario 2") is also analyzed to account for any potential impacts resulting from the Proposed Actions. Scenario 2 would consist of a six (6) story mixed-use (retail/residential) building with enclosed off-street parking within the cellar. The building would be set back at least 8 feet from the adjacent R5 District south of the site (Section 33-291 ZR). The combined floor area proposed is 72,250 gsf (3.6 FAR), which is the max floor area permitted. 18,600 gsf would consist of commercial retail space on the ground floor, while the remaining 53,650 gsf would consist of residential space and approximately 53 dwelling units. The set-backs of the building would be determined by set-back exposure-plane requirements for wide (2.7/1) and narrow (5.6/1) streets (Section 23-641 ZR). Since only six-stories would be feasible under 3.6 FAR, the maximum height would be achieved at 60 feet without a setback.

(See Figure 1 - Site Location, Figure 2 – Tax Map, Figure 3 – Land use Map, Figure 4 – Zoning Map, Figure 5 – Aerial Photograph; Figure 6 – Site Photographs; Figure 7 – Zoning Change Map)

[1] The second and third surface floors are located at a height below 23 feet and therefore a portion of this floor space is exempt from the building's zoning floor area. The third floor upper deck parking of the double-parking deck (8' x 13') with 73 decks will be included as floor area. However, this does not affect the overall gross square feet of the project.

Existing Conditions

The Development Site is located in the Jackson Heights section of Queens Community District #3 and consists of a single large tax and zoning lot on the northern portion of Block 1247 (Lot 1), which contains frontage along Northern Boulevard, 74th and 75th Streets. The entirety of the Development Site is within a C8-1 zoning district.

Block 1247, Lot 1 (74-04 Northern Boulevard) contains 20,000 square feet of lot area and approximately 200 feet of frontage along Northern Boulevard and approximately 100 feet of frontage along both 74th and 75th Streets. The lot is improved with a two-story car wash (Use Group 16 automotive service/laundry) with 10,066 square feet of floor area (0.5 FAR) where 1.0 FAR is permitted as-of-right within the underlying C8-1 zoning district. The building was constructed in 1965.

The subject block and surrounding area contain commercial retail, automotive, and residential uses. Residential properties ranging from one- and two-family houses and multi-family apartment buildings. Commercial uses are concentrated along Northern Boulevard, the surrounding area's main east-west commercial thoroughfare.

There is rail service within close proximity to the south, with the New York City Transit (NYCT) N and N trains at Broadway and 65th Street, as well as the 7 train at 74th Street. The area is also well served by NYCT bus service, with the Q66, which provides service along Northern Boulevard from Queens Plaza to Flushing Main Street.

Proposed Development

It is proposed to redevelop the Development Site with an eight-story mixed-use (commercial-community facility) building with 122,880 gsf of floor area (4.53 FAR). The building would rise to a height of 83 feet and would contain ground floor retail, second and third floor accessory parking containing 219 attended parking spaces, 18,400 square feet of community facility space on the fourth floor and commercial office space on the fifth through eighth floors. Approximately 104,480 gsf of the proposed development would consist of commercial use (Use Group 6), while 18,400 gsf would consist of community facility use (Use Group 4, medical office space). The development would contain two curb cuts.

Based on an estimated 12-month approval process and a 12-month construction period, the Build Year is assumed to be 2020.

Purpose and Need

In order to facilitate the mixed-use property on the Development Site, the applicant proposes a C4-3 zoning district, which would match an existing C4-3 district to the south of

the Project Area. The intention of the proposed zoning map amendment is to extend a mixed-use zoning district that more accurately reflects the mixed-use character of the surrounding area and would also serve to facilitate the proposed mixed-use building.

Required Approvals

The Applicant seeks a zoning map amendment and zoning text amendment to facilitate the proposed development. The zoning map amendment would affect a single parcel (block 1247, Lot 1) and would rezone the property from C8-1 to C4-3. In addition, the proposed action would include a proposed text amendment that would make the area applicable to the Mandatory Inclusionary Housing Area (MIHA, together the "Proposed Actions").

The granting of the zoning map amendment and zoning text amendment is a discretionary action that is subject to both the Uniform Land Use Review Procedure (ULURP) as well as the City Environmental Quality Review (CEQR). ULURP is a process that allows public review of the proposed action at four levels: the Community Board; the Borough President; the City Planning Commission; and, if applicable, the City Council. CEQR is a process by which agencies review discretionary actions for the purpose of identifying the effects those actions may have on the environment.

REASONABLE WORST CASE DEVELOPMENT SCENARIO

While the applicant intends to pursue the proposed commercial-community facility development described above ("Scenario 1"), an alternative residential-commercial scenario ("Scenario 2") is also analyzed to account for any potential impacts resulting from the Proposed Actions.

Future No-Action Scenario

Absent the proposed actions, the Development Site would remain in its current condition. The lot is improved with a two-story car wash (Use Group 16 automotive service/laundry) with 10,066 square feet of floor area (0.5 FAR) where 1.0 FAR is permitted as-of-right within the underlying C8-1 zoning district. The building was constructed in 1965.

Future With-Action Scenario

Scenario 1: Commercial-Community Facility Use

- In the future with the proposed actions, the Projected Development Site would be developed with an eight (8) story mixed-use (retail/office and community facility) building with enclosed off-street parking. The building would use the additional community facility floor area allowed in addition to the maximum 3.4 FAR for

office/retail space as per C4-3 zoning. However, due to floor-plate configuration – the building must be set back at least 8 feet from the adjacent R5 District south of the site (Section 33-291 ZR) and the total floor area for a mixed community facility development (1.4 FAR + 3.4 FAR 4.8 FAR) will not be achieved. The combined floor area proposed is 90,357 square feet (4.53 FAR) whereas per zoning 96,000 square feet (4.8 FAR) is allowed. Furthermore, the building is restricted to eight stories based on the Development Site's location within a designated flight path and its proximity to LaGuardia Airport.

- The proposal will use attended parking to meet the requirements of Section 36-21 ZR and would entail 219 spaces where 215 are required. These spaces will be enclosed and located on the two floor levels above the street retail space. In total, the development would contain 122,880 gsf (with the inclusion of parking area and mechanical space). The second and third surface floors are located at a height below 23 feet and therefore a portion of this floor space is exempt from the building's zoning floor area. The third floor upper deck parking of the double-parking deck (8' x 13') with 73 decks will be included as floor area for a total of 2,808 zoning square feet of commercial parking floor area and 4,784 zoning square feet of community facility parking floor area.
- The building's fourth floor will contain community facility uses (Use Group 4). The fifth through eighth floor will contain business offices (Use Group 6B) that will be set back related to the sky-exposure place requirements which are a ratio of 2.7 to 1 for a wide street and 5.6 to 1 on a wide street.
- The proposed development would contain two curb cuts—one 14-foot curb cut on 74th Street and one 14-foot curb cut on 75th Street.

Scenario 2: Residential-Commercial Use

- In the future with the proposed actions, the Projected Development Site would be developed with an six (6) story mixed-use (retail/residential) building with enclosed off-street parking within the cellar. The building would be set back at least 8 feet from the adjacent R5 District south of the site (Section 33-291 ZR). The combined floor area proposed is 72,000 square feet (3.6 FAR), which is the max permitted. 18,600 gsf would consist of commercial retail space on the ground floor, while the remaining 53,650 gsf would consist of residential space and approximately 53 dwelling units. The set-backs of the building would be determined by set-back exposure-plane requirements for wide (2.7/1) and narrow (5.6/1) streets (Section 23-641 ZR). Since only six-stories would be feasible under 3.6 FAR, the maximum height would be achieved at 60 feet without a setback. In total, the development would contain 72,250 gsf.
- The proposal will use cellar level parking to meet the requirements of ZR Section 25-23 and 25-251 for residential parking and ZR Section 36-21 require approximately 78 spaces based on the provision of affordable units at both 60% AMI and 80% AMI. The parking would be contained at the cellar level within approximately 15,600 square feet of

cellar space. The difference between the No-Action and With-Action development scenarios is available in the table below.

DESCRIPTION OF EXISTING AND PROPOSED CONDITIONS (RWCDS)
Scenario 1: Commercial-Community Facility Use

	EXISTING CONDITION	NO-ACTION CONDITION	WITH-ACTION CONDITION	INCREMENT
LAND USE				
Residential	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify the following:				
Describe type of residential structures				
No. of dwelling units				
No. of low- to moderate-income units				
Gross floor area (sq. ft.)				
Commercial	☒ YES ☐ NO	☒ YES ☐ NO	☒ YES ☐ NO	
If "yes," specify the following:				
Describe type (retail, office, other)	Car Wash	Car Wash	Retail/Office	
Gross floor area (sq. ft.)	10,066	10,066	67,680 (18,400 Retail) (49,280 Office)	+18,400 Retail +49,280 Office -10,066 Car Wash
Manufacturing/Industrial	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify the following:				
Type of use				
Gross floor area (sq. ft.)				
Open storage area (sq. ft.)				
If any unenclosed activities, specify:				
Community Facility	☐ YES ☒ NO	☐ YES ☒ NO	☒ YES ☐ NO	
If "yes," specify the following:				
Type			Medical	
Gross floor area (sq. ft.)			18,400	+18,400
Vacant Land	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," describe:				
Other Land Uses	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," describe:				
Garages	☐ YES ☒ NO	☐ YES ☒ NO	☒ YES ☐ NO	
If "yes," specify the following:				
No. of public spaces				
No. of accessory spaces			219	+219
Lots	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify the following:				
No. of public spaces				
No. of accessory spaces				
ZONING				
Zoning classification	C8-1	C8-1	C4-3	
Maximum amount of floor area that can be developed	1.00 FAR (Comm) 2.4 FAR (CF)	1.00 FAR (Comm) 2.4 FAR (CF)	3.4 FAR (Comm) 4.8 FAR (CF)	+2.4 FAR (Comm) +2.4 FAR (CF)
Predominant land use and zoning classifications within land use study area(s) or a 400 ft. radius of proposed project	Residential; Commercial; Community Facility	Residential; Commercial; Community Facility	Residential; Commercial; Community Facility	

DESCRIPTION OF EXISTING AND PROPOSED CONDITIONS (RWCDS)

Scenario 2: Residential-Commercial use

	EXISTING CONDITION	NO-ACTION CONDITION	WITH-ACTION CONDITION	INCREMENT
LAND USE				
Residential	☐ YES ☒ NO	☐ YES ☒ NO	☒ YES ☒ NO	
If "yes," specify the following:				
Describe type of residential structures			Multi-unit	
No. of dwelling units			53	+53
No. of low- to moderate-income units			13-16	+13-16
Gross floor area (sq. ft.)			53,650	+53,650
Commercial	☒ YES ☐ NO	☒ YES ☐ NO	☒ YES ☐ NO	
If "yes," specify the following:				
Describe type (retail, office, other)	Car Wash	Car Wash	Retail	
Gross floor area (sq. ft.)	10,066	10,066	18,600	+8,534
Manufacturing/Industrial	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify the following:				
Type of use				
Gross floor area (sq. ft.)				
Open storage area (sq. ft.)				
If any unenclosed activities, specify:				
Community Facility	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify the following:				
Type				
Gross floor area (sq. ft.)				
Vacant Land	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," describe:				
Other Land Uses	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," describe:				
Garages	☐ YES ☒ NO	☐ YES ☒ NO	☒ YES ☐ NO	
If "yes," specify the following:				
No. of public spaces				
No. of accessory spaces			78	+78
Lots	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify the following:				
No. of public spaces				
No. of accessory spaces				
ZONING				
Zoning classification	C8-1	C8-1	C4-3	
Maximum amount of floor area that can be developed	1.00 FAR (Comm) 2.4 FAR (CF)	1.00 FAR (Comm) 2.4 FAR (CF)	3.6 FAR (Res) 3.4 FAR (Comm) 4.8 FAR (CF)	+3.6 FAR (Res) +2.4 FAR (Comm) +2.4 FAR (CF)
Predominant land use and zoning classifications within land use study area(s) or a 400 ft. radius of proposed project	Residential; Commercial; Community Facility	Residential; Commercial; Community Facility	Residential; Commercial; Community Facility	

ILLUSTRATIVE PURPOSE ONLY



Project No.: 15011 04/25/2017

74-04 NORTHERN BOULEVARD
JACKSON HEIGHTS, NEW YORK

Block: 1247 Lot :1

FRONT PERSPECTIVE - NORTHWEST

CHRISTOPHERPAPA
ARCHITECT
22-02 STEINWAY STREET
ASTORIA, NY 11105
OFFICE718.777.5200
FAX718.777.5202
WWW.CVPARCHITECT.COM

ILLUSTRATIVE PURPOSE ONLY

Scenario 1 - Illustrative Rendering



Project No.: 15011 04/25/2017

74-04 NORTHERN BOULEVARD
JACKSON HEIGHTS, NEW YORK

Block: 1247 Lot :1

FRONT ELEVATION - NORTH

CHRISTOPHERPAPA
ARCHITECT

22-02 STEINWAY STREET
ASTORIA, NY 11105

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ILLUSTRATIVE PURPOSE ONLY

ZONE:	C4-3	74-04 NORTHERN BLVD
MAP:	9d	JACKSON HEIGHTS, NY
BLOCK:	1247	
LOT:	1	
FLOOD ZONE	X	
COMM. PAN. NO.	3604970094G	
PANEL	94 OF 457	
OCCUPANCY CLASS	B	M
USE GROUP	4	6
CONSTRUCTION CLASS	IIA	
LOT AREA	**20,000.00**	

	COMMERCIAL	COMMUNITY FACILITY	PARKING	COMBINED
MAX. FAR ALLOWED	**68,000.00**	**96,000.00**		**96,000.00**
ZR 33-122, 33-123	3.40	4.80		4.80
first floor	18,400.00			18,400.00
second floor			18,400.00	0.00
third floor			18,400.00	0.00
fourth floor		18,400.00		18,400.00
fifth floor	12,320.00			12,320.00
sixth floor	12,320.00			12,320.00
seventh floor	12,320.00			12,320.00
eigth floor	12,320.00			12,320.00
TOTAL	**67,680.00**	**18,400.00**	**36,800.00**	**86,080.00**

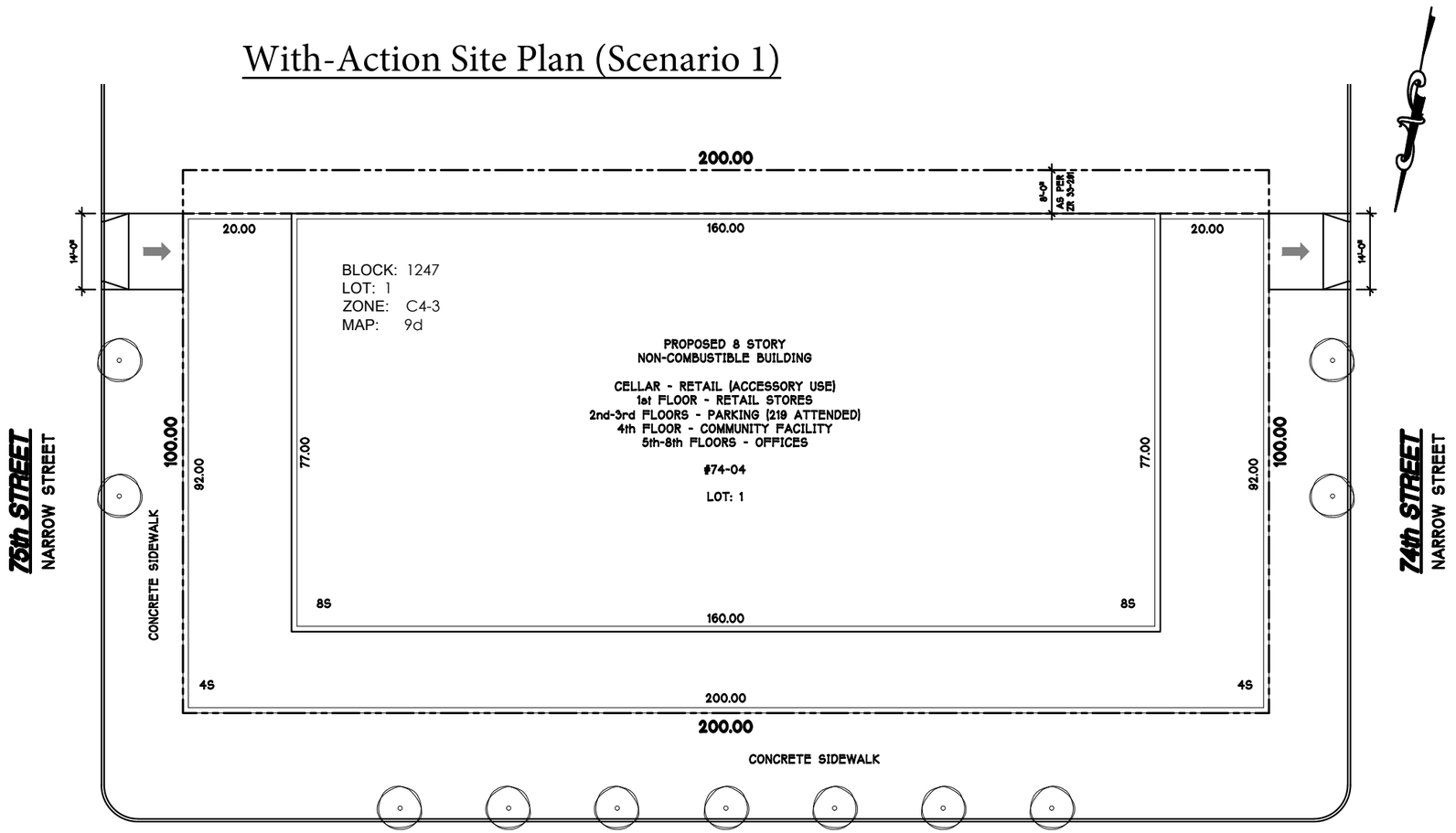
YARD REQ'MNTS:			
NO PROVISIONS	no front yard	req'd	
ZR 33-25	no side yard	req'd	8' MIN IF AN\ (MEAN WITH 5' MIN)
ZR 33-35	no rear yard	req'd	CORNER 33-303
ZR 33-291	district boundary	R5 - side	8' MIN

PARKING REQ'MNTS:	**215**	PRC-B	PRC-B1	COMM FAC
ZR 36-21	1 PER 400	1 PER 400	1 PER 400	1 PER 400

PARKING PROPOSED:		
2nd FLOOR	(ATTENDED PARKING)	= 1/200 SF = 14,720/200 = 73
3rd FLOOR	(ATTENDED PARKING)	= 1/200 SF = 14,720/200 = 73 x2 = 146
TOTAL		219

HEIGHTS & SETBACKS			
ZR 33-432	N	20'	INITIAL SETBACK DISTANCE
ZR 33-432	N	60' OR 4 STORIES	HEIGHT OF FRONT WALL WITHIN SETBACK, MAX.
ZR 33-432	N	60'	HEIGHT ABOVE STREET LINE MAX
ZR 33-432	N	2.7:1	SKY EXPOSURE PLANE
ZR 33-432	W	15'	INITIAL SETBACK DISTANCE
ZR 33-432	W	60' OR 4 STORIES	HEIGHT OF FRONT WALL WITHIN SETBACK, MAX.
ZR 33-432	W	60'	HEIGHT ABOVE STREET LINE MAX
ZR 33-432	W	5.6:1	SKY EXPOSURE PLANE

With-Action Site Plan (Scenario 1)



Project No.: 15011 02/09/2016

Sheet 2 of 16

74-04 NORTHERN BOULEVARD
JACKSON HEIGHTS, NEW YORK

Block: 1247 Lot :1

ZONING MAP, PROPOSED ZONING CALCULATIONS, SITE PLAN

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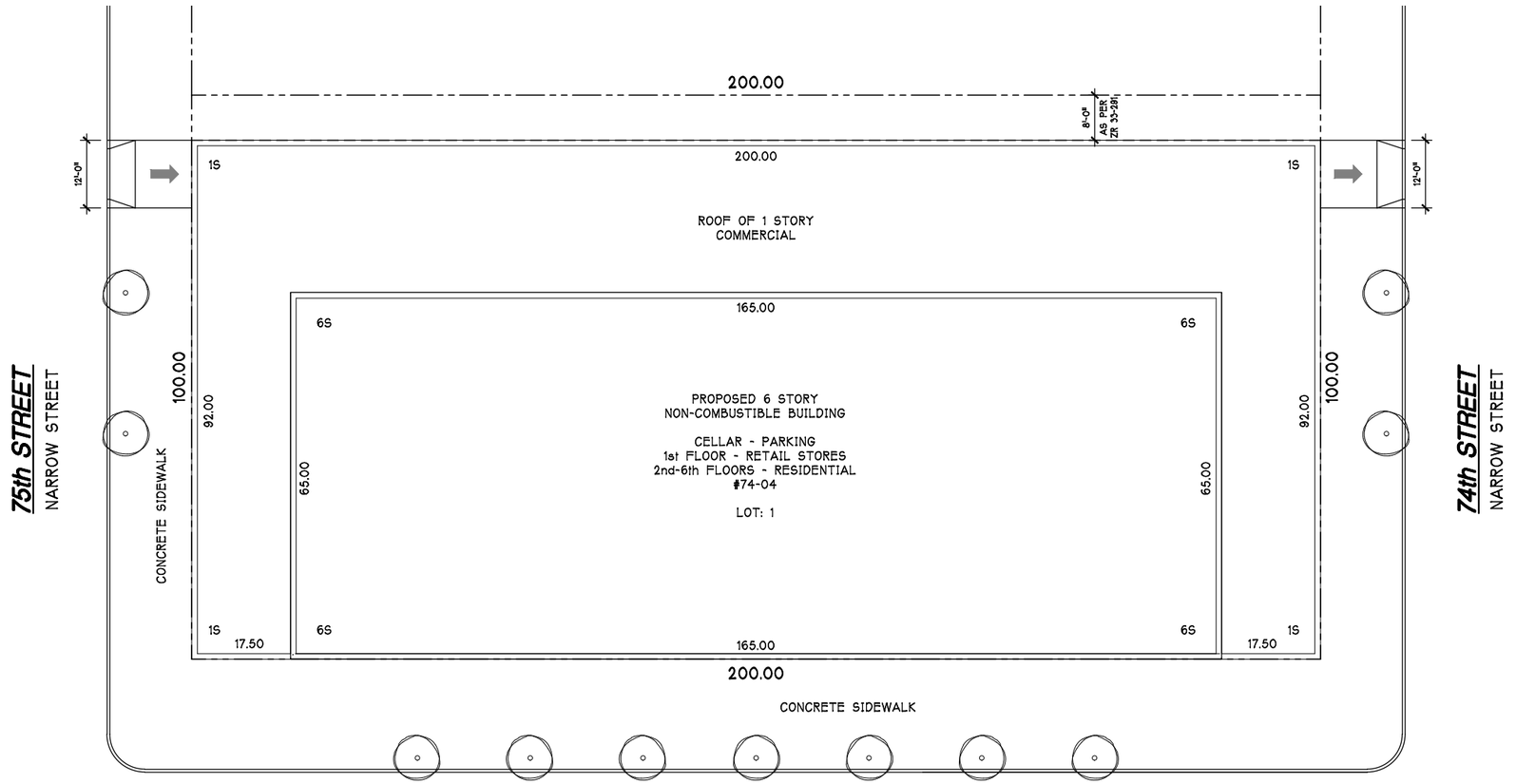
ILLUSTRATIVE PURPOSE ONLY

With-Action Site Plan (Scenario 2)



Project No.: 15011 08/30/2016

Sheet 1 of 1

74-04 NORTHERN BOULEVARD
JACKSON HEIGHTS, NEW YORK

Block: 1247 Lot :1

SITE PLAN

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Figure 1 - Site Location



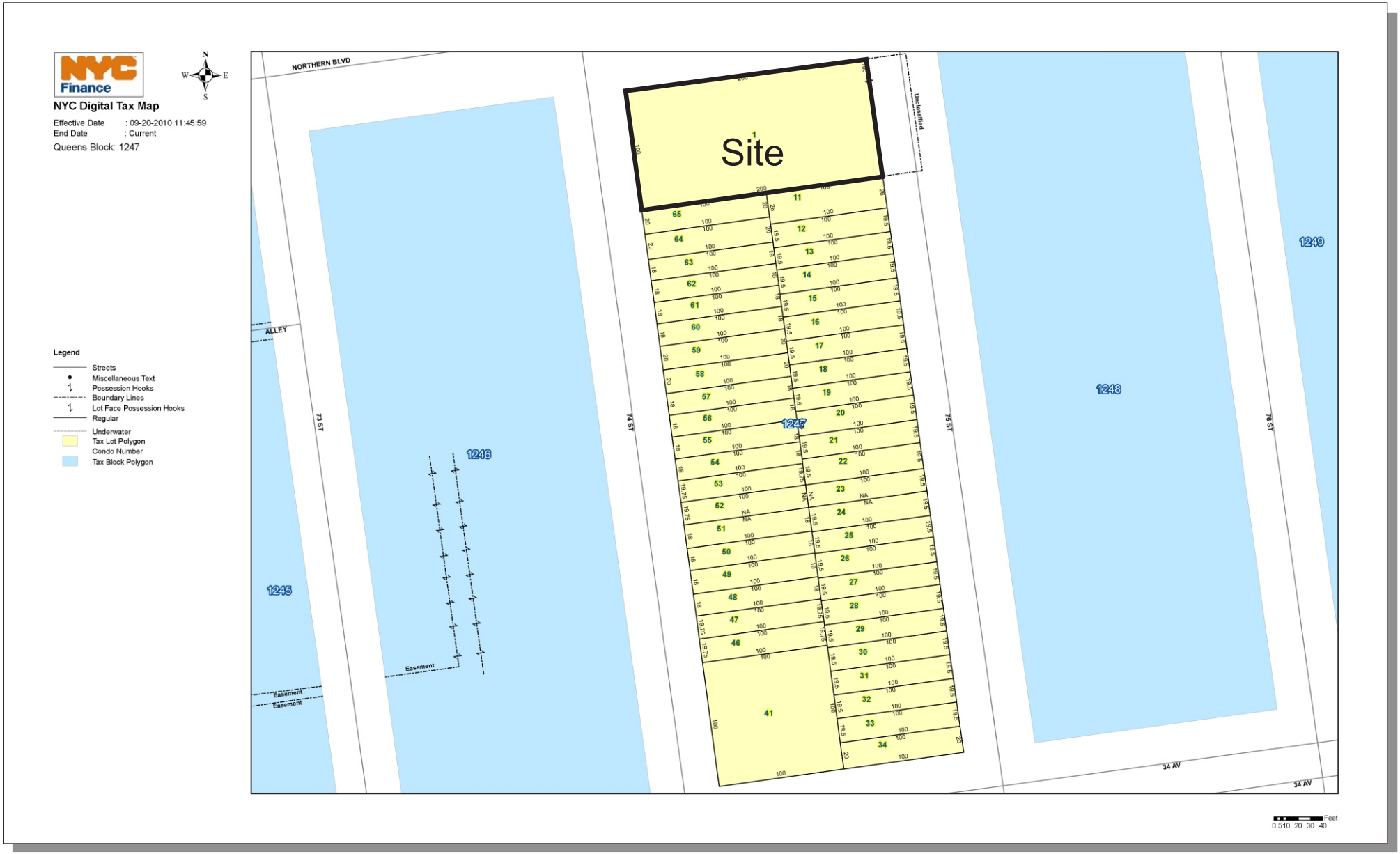
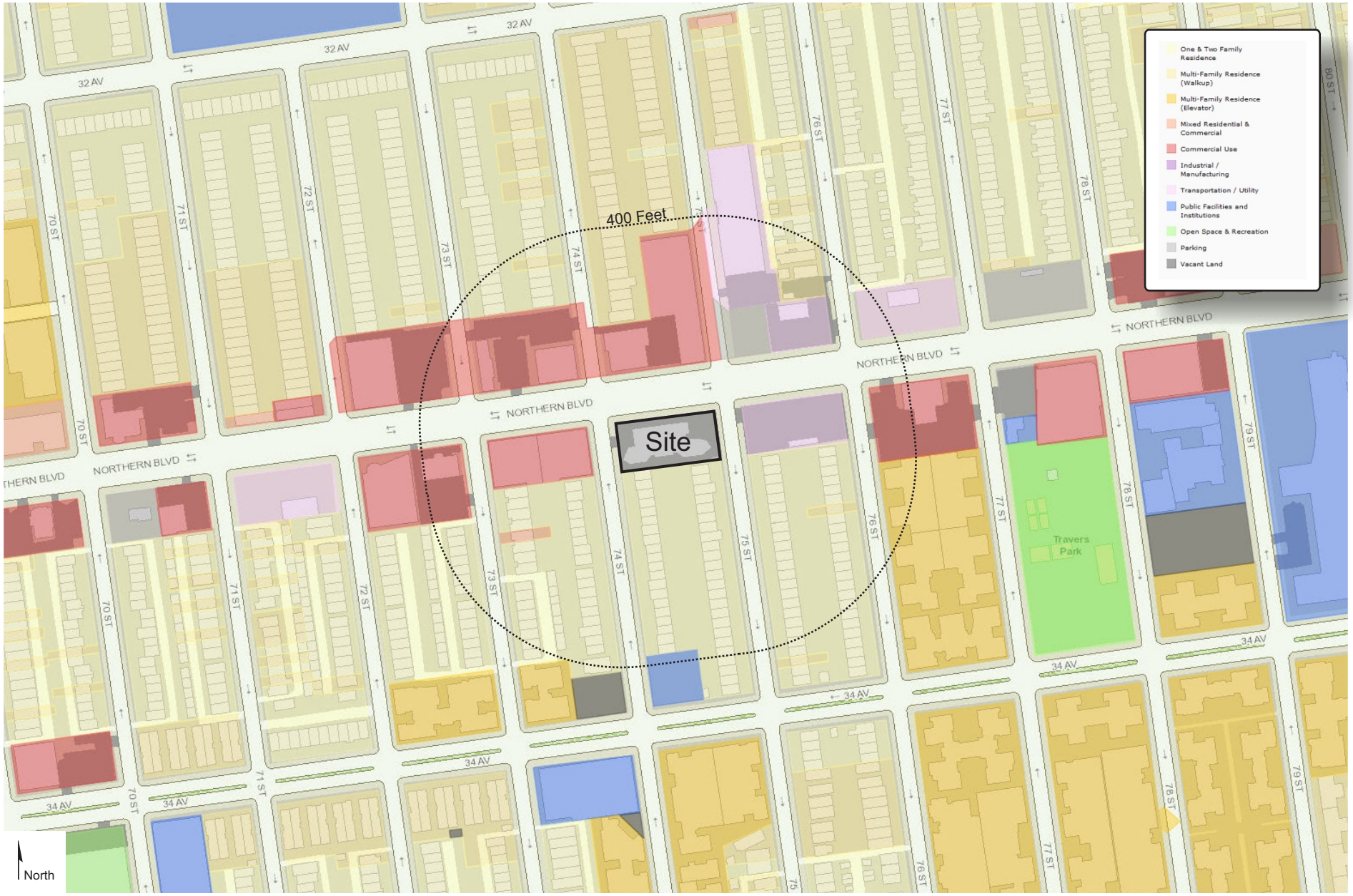
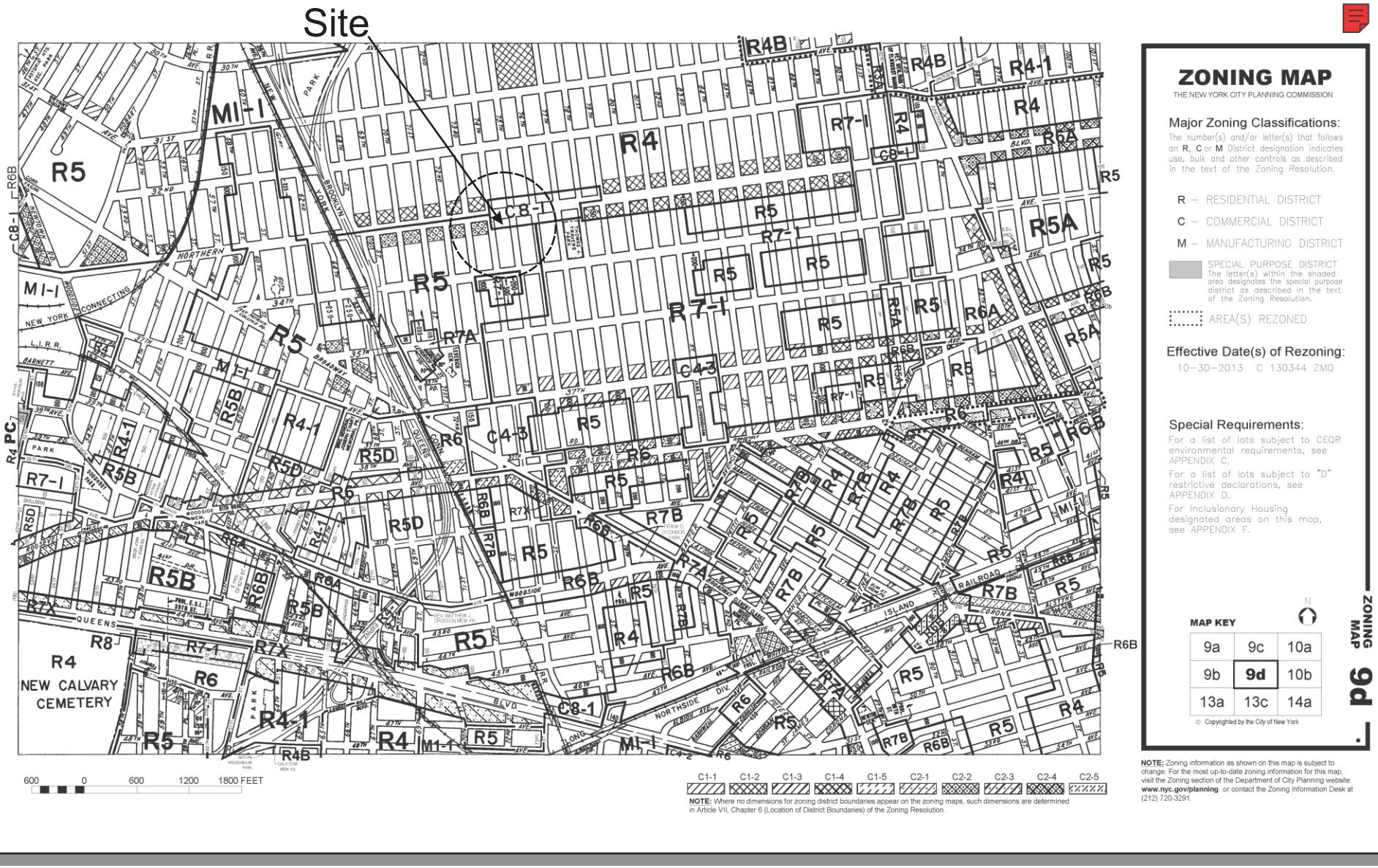
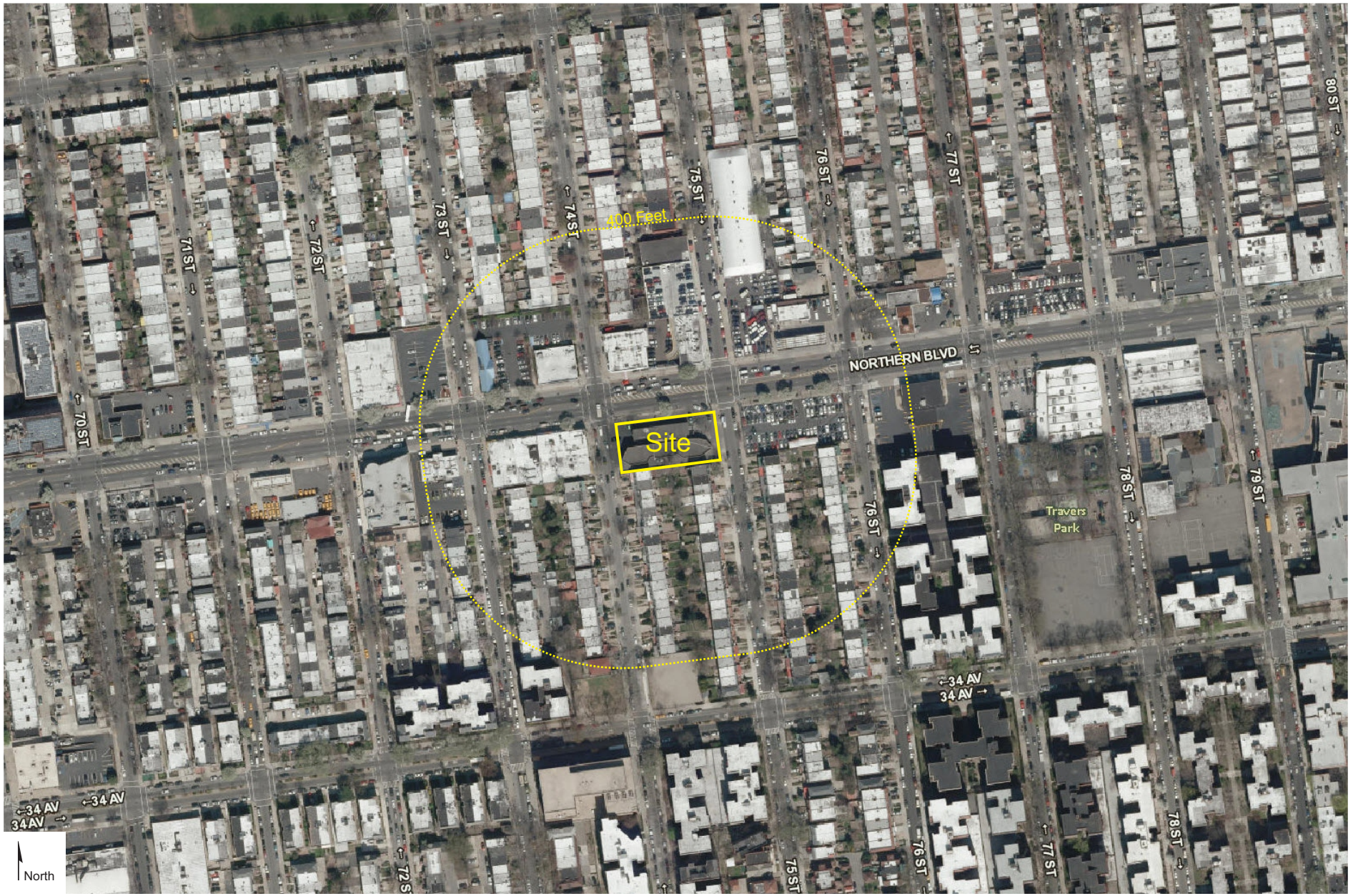

NYC Finance
NYC Digital Tax Map
Effective Date : 09-20-2010 11:45:59
End Date : Current
Queens Block: 1247
N
W
E
S
Legend
Streets
Miscellaneous Text
Possession Hooks
Boundary Lines
Lot Face Possession Hooks
Regular
Underwater
Tax Lot Polygon
Condo Number
Tax Block Polygon
NORTHERN BLVD
ALLEY
73 ST
74 ST
75 ST
76 ST
Unclassified
Site
1
1245
1246
1247
1248
1249
Easement
Easement
Easement
34 AV
34 AV
Feet
0 5 10 20 30 40

Figure 3 - Land Use Map




Site
ZONING MAP
THE NEW YORK CITY PLANNING COMMISSION
Major Zoning Classifications:
The number(s) and/or letter(s) that follows an R, C or M District designation indicates use, bulk and other controls as described in the text of the Zoning Resolution.
R – RESIDENTIAL DISTRICT
C – COMMERCIAL DISTRICT
M – MANUFACTURING DISTRICT
SPECIAL PURPOSE DISTRICT
The letter(s) within the shaded area designates the special purpose district as described in the text of the Zoning Resolution.
AREA(S) REZONED
Effective Date(s) of Rezoning:
10-30-2013 C 130344 ZMQ
Special Requirements:
For a list of lots subject to CEQR environmental requirements, see APPENDIX C.
For a list of lots subject to "D" restrictive declarations, see APPENDIX D.
For Inclusionary Housing designated areas on this map, see APPENDIX F.
MAP KEY
9a 9c 10a
9b 9d 10b
13a 13c 14a
© Copyrighted by the City of New York
ZONING MAP 9d
NOTE: Zoning information as shown on this map is subject to change. For the most up-to-date zoning information for this map, visit the Zoning section of the Department of City Planning website: www.nyc.gov/planning or contact the Zoning Information Desk at (212) 720-3291.
600 0 600 1200 1800 FEET
C1-1 C1-2 C1-3 C1-4 C1-5 C2-1 C2-2 C2-3 C2-4 C2-5
NOTE: Where no dimensions for zoning district boundaries appear on the zoning maps, such dimensions are determined in Article VII, Chapter 6 (Location of District Boundaries) of the Zoning Resolution.


400 Feet
Site
NORTHERN BLVD
Travers Park
70 ST
71 ST
72 ST
73 ST
74 ST
75 ST
76 ST
77 ST
78 ST
79 ST
80 ST
34 AV
North
0
200
400
600 Feet



1. View of the Site facing northeast from 74th Street.



2. View of 74th Street facing north (Site at right).



3. View of 74th Street facing south.



Figure 6 - Site Photographs



4. View of the west side of 74th Street facing southwest opposite from the Site.



5. View of the sidewalk along the east side of 74th Street facing north (Site at right).



6. View of the Site facing east from 74th Street.





7. View of the sidewalk along the east side of 74th Street facing south (Site at left).



8. View of the intersection of Northern Boulevard and 74th Street facing northwest from the Site.



9. View of the Site from the intersection of Northern Boulevard and 74th Street facing southeast.





10. View of Northern Boulevard facing east from 74th Street (Site at right).



11. View of Northern Boulevard facing west from 74th Street.



12. View of 74th Street facing south from Northern Boulevard (Site at left).





13. View of 74th Street facing north from Northern Boulevard.



14. View of the Site facing south from Northern Boulevard.



15. View of the sidewalk along the south side of Northern Boulevard facing east (Site at right).





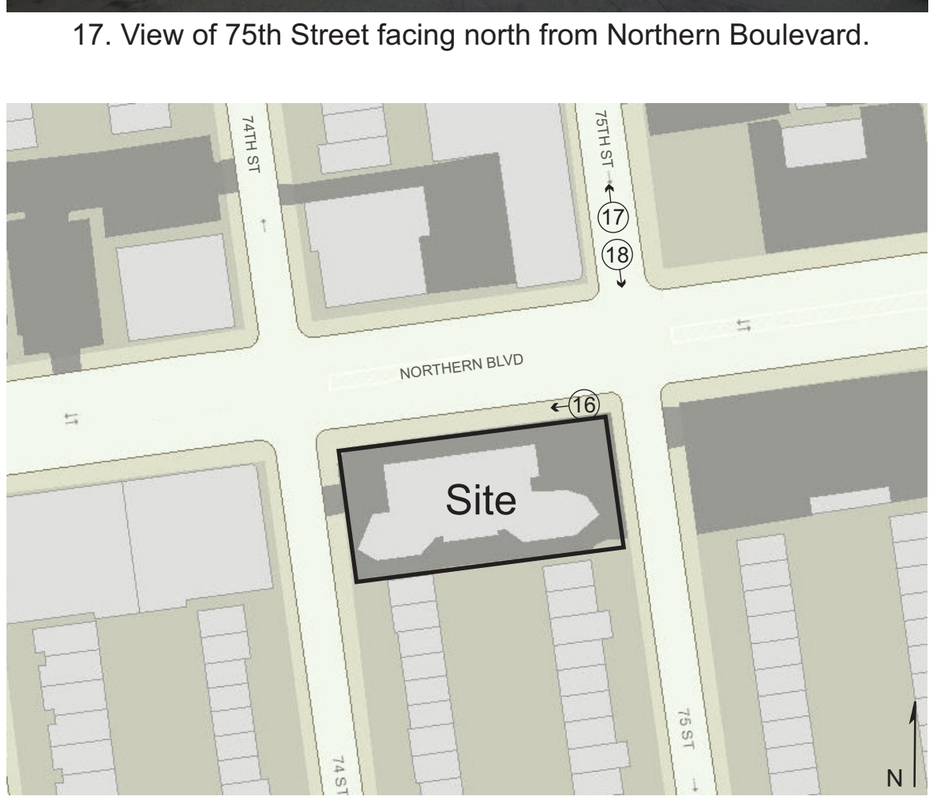
16. View of the sidewalk along the south side of Northern Boulevard facing west (Site at left).



18. View of 75th Street facing south from Northern Boulevard (Site at right).



17. View of 75th Street facing north from Northern Boulevard.





19. View of the Site from the intersection of Northern Boulevard and 75th Street facing southwest.



20. View of the intersection of Northern Boulevard and 75th Street facing northeast opposite from the Site.



21. View of Northern Boulevard facing west (Site at left).





22. View of Northern Boulevard facing east from 75th Street.



23. View of the sidewalk along the west side of 75th Street facing south (Site at right).



24. View of the Site facing west from 75th Street.





25. View of the sidewalk along the west side of 75th Street facing north (Site at left).



26. View of the east side of 75th Street facing southeast opposite from the Site.



27. View of the Site facing northwest from 75th Street.





28. View of 75th Street facing north (Site at left).



29. View of 75th Street facing south.



74-04 NORTHERN BOULEVARD, QUEENS

ENVIRONMENTAL ASSESSMENT STATEMENT (EAS)

INTRODUCTION

Based on the analysis and the screens contained in the Environmental Assessment Statement Short Form, the analysis areas that require further explanation include land use, zoning, and public policy; open space; shadows; historic and cultural resources; urban design and visual resources; hazardous materials; transportation; air quality; and noise

1. LAND USE, ZONING AND PUBLIC POLICY

I. INTRODUCTION

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

In order to assess the potential for project related impacts, the land use study area has been defined as the area located within a 400-foot radius of the site, which is an area within which the proposed project has the potential to affect land use or land use trends. The 400-foot radius study area is bounded by an area with 32nd Avenue to the north; 72nd Street to the west; 34th Avenue to the south; and 77th Street to the east (**See Figure 3 – Land Use Map**). Various sources have been used to prepare a comprehensive analysis of land use, zoning and public policy characteristics of the area, including field surveys, studies of the neighborhood, census data, and land use and zoning maps.

Land Use

Site Description

The Development Site (and Project Area, which are the same) is located in the Jackson Heights section of Queens Community District #3 and consists of a single large tax and zoning lot on the northern portion of Block 1247 (Lot 1), which contains frontage along Northern Boulevard, 74th and 75th Streets. The entirety of the Development Site is within a C8-1 zoning district.

Block 1247, Lot 1 (74-04 Northern Boulevard) contains 20,000 square feet of lot area and approximately 200 feet of frontage along Northern Boulevard and approximately 100 feet of frontage along both 74th and 75th Streets. The lot is improved with a two-story car wash (Use Group 16 automotive service/laundry) with 10,066 square feet of floor area (0.5 FAR) where 1.0 FAR is permitted as-of-right within the underlying C8-1 zoning district. The building was constructed in 1965.

Land Use Study Area

The subject block and surrounding 400 feet contain commercial/automotive, and residential uses. Residential properties are concentrated along side streets (74th through 77th Street) ranging from one- and two-family houses and multi-family apartment buildings, which are primarily concentrated to the east along 76th Street. Commercial uses are concentrated along Northern Boulevard, the surrounding area's principal east-west commercial thoroughfare and primarily consist of commercial uses related to automotive use. Notable examples are between 75th and 77nd Streets, where two fuel stations exist at 75-09 Northern Boulevard (Block 1171, Lot 36) and 76-19 Northern Boulevard (Block 1172, Lot 45). Immediately to the north across Northern Boulevard from the Development Site is an automobile dealership. Two remaining commercial properties along Northern Boulevard consist of commercial retail. The residential side streets to the north and south of the Development Site contain near continuous one and two-family residential houses.

Future No-Action Scenario

Absent the proposed action, the Development Site would remain in its existing condition, which consists of a car wash (automotive laundry). Use Groups 4-14 and 16 would continue to be permitted as-of-right.

The surrounding land uses within the immediate study area are expected to remain largely unchanged by the Projected Build Year of 2020. No new development is anticipated to occur within the 400-foot study area by 2020.

Future With-Action Scenario

In the future with the proposed action, a C4-3 district would be mapped, which could result in the development of a mixed-use building. The first scenario (Scenario 1) would result in a commercial-community facility building. Currently, commercial uses are permitted as-of-right within the underlying C8-1 zoning district and permitted community facility use as well would be compatible for this location along a principal thoroughfare and would be consistent with surrounding land uses, which consist of commercial, automotive and residential uses.

The second scenario (Scenario 2) would consist of a mixed-use building containing residential and commercial retail use. The proposed C4-3 district would permit use groups 1-6, 8-10 and 12. While commercial retail uses are currently permitted as-of-right, the proposed residential use is currently not permitted. However, a majority of the surrounding area is developed with residential houses, making this use as-of-right appropriate and consistent with the surrounding area.

The proposed C4-3 district would also no longer allow automotive uses (Use Groups 16-17) as-of-right. However, development trends within the surrounding area indicate the development of mixed-use buildings, compared to automotive uses, indicating the proposed mixed-use building would be the highest and best use for the Development Site, which is located along a principal thoroughfare populated by a mix of uses, including residential and commercial retail use. Therefore, the proposed mixed-use (residential-commercial) building would be appropriate.

Conclusion

The proposed actions are necessary to facilitate the proposed mixed-use development. The proposed development would contain uses (primarily residential and community facility) currently not permitted as-of-right and would be similar and compatible with the uses that surround the Project area.

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

Zoning

Existing Conditions

The Development Site contains 20,000 square feet of lot area and approximately 200 feet of frontage along Northern Boulevard and approximately 100 feet of frontage along both 74th and 75th Streets. The lot is improved with a two-story car wash (Use Group 16 automotive service/laundry) with 10,066 square feet of floor area (0.5 FAR) where 1.0 FAR is permitted as-of-right within the underlying C8-1 zoning district.

Within the surrounding area are R4, R5, R7-1 districts, as well as C1-2 and C2-2 commercial overlays.

The C8-1 is a general commercial district that permits a wide range of commercial uses not generally suitable within residential districts (Use Groups 4-14 & 16). The C8-1 district permits a commercial FAR of 1.0. Parking requirements vary by use, but automotive service facilities require one space per 600 square feet.

The R4 district is a general residence district that primarily permits contextual two- to three-story residential buildings at a maximum FAR of 0.75, with an attic allowance of 20%. Front yards of 10 feet and rear yards 30 feet are required, with side yards of at least 8 feet. The maximum building height is 35 feet and one parking space is required per dwelling unit.

The R5 district is a low-density general residence district that permits residential buildings up to 1.25 FAR and community facility buildings up to 2.0 FAR. The maximum height of buildings within R5 districts is 40 feet, with a maximum street wall height of 30 feet, as well as a 15-foot setback above the street wall. R5 districts require side yards of at least 8 feet and a 10-foot front yard. Parking is required for 85% of dwelling units.

R7-1 is a medium-density residential district. The maximum residential FAR is 3.44 or 4.0 (on wide streets using Quality Housing). Community facilities are permitted an FAR of 4.8. When utilizing height factor regulations, there are no fixed height limits and the sky exposure plane regulates building envelopes. Parking spaces are required for 60% of the dwelling units or 50% if Quality Housing provisions are used.

C1-2 and C2-2 are commercial overlays that allow 1.0 FAR within R4 and R5 districts and 1.0 in R7 districts. C1 districts permit limited local retail (Use Groups 5 & 6) while C2 districts permit a variety of commercial retail (Use Groups 1-9 & 14).

Future No-Action Scenario

Absent the proposed actions, the Development Site would remain in its current condition. The lot is improved with a two-story car wash (Use Group 16 automotive service/laundry) with 10,066 square feet of floor area (0.5 FAR) where 1.0 FAR is permitted as-of-right within the underlying C8-1 zoning district.

Future With-Action Scenario

In the future with the proposed zoning map amendment and zoning text amendment, a Development Site would be rezoned from C8-1 to C4-3. In addition, the proposed action would include a proposed text amendment that would make the area applicable to the Mandatory Inclusionary Housing Area, which would require a percentage of the newly created residential floor area to be reserved as affordable units. These actions could facilitate the following scenarios:

<u>Scenario 1: Commercial-Community Facility Use</u>

- In the future with the proposed actions, the Projected Development Site would be developed with an eight (8) story mixed-use (retail/office and community facility) building with enclosed off-street parking. The building would use the additional community facility floor area allowed in addition to the maximum 3.4 FAR for office/retail space as per C4-3 zoning. However, due to floor-plate configuration – the building must be set back at least 8 feet from the adjacent R5 District south of the

site (Section 33-291 ZR) and the total floor area for a mixed community facility development (1.4 FAR + 3.4 FAR 4.8 FAR) will not be achieved. The combined floor area proposed is 90,357 square feet (4.53 FAR) whereas per zoning 96,000 square feet (4.8 FAR) is allowed. Furthermore, the building is restricted to eight stories based on the Development Site's location within a designated flight path and its proximity to LaGuardia Airport.

- The proposal will use attended parking to meet the requirements of Section 36-21 ZR and would entail 219 spaces where 215 are required. These spaces will be enclosed and located on the two floor levels above the street retail space. In total, the development would contain 122,880 gsf (with the inclusion of parking area and mechanical space). The second and third surface floors are located at a height below 23 feet and therefore a portion of this floor space is exempt from the building's zoning floor area. The third floor upper deck parking of the double-parking deck (8' x 13') with 73 decks will be included as floor area for a total of 2,808 zoning square feet of commercial parking floor area and 4,784 zoning square feet of community facility parking floor area. The proposed development will provide 219 parking spaces of which 46 parking spaces are required for community facility use (18,400 sf/ 400 sf= 46) and 161 parking spaces are required for commercial use (64,365 sf/ 400 sf= 161) for a total of 207 required parking spaces.
- The building's fourth floor will contain community facility uses (Use Group 4). The fifth through eighth floor will contain business offices (Use Group 6B) that will be set back related to the sky-exposure place requirements which are a ratio of 2.7 to 1 for a wide street and 5.6 to 1 on a wide street.
- The proposed development would contain two curb cuts—one 14-foot curb cut on 74th Street and one 14-foot curb cut on 75th Street.

Scenario 2: Residential-Commercial Use

- In the future with the proposed actions, the Projected Development Site would be developed with an six (6) story mixed-use (retail/residential) building with enclosed off-street parking within the cellar. The building would be set back at least 8 feet from the adjacent R5 District south of the site (Section 33-291 ZR). The combined floor area proposed is 72,000 square feet (3.6 FAR), which is the max permitted. 18,600 gsf would consist of commercial retail space on the ground floor, while the remaining 53,650 gsf would consist of residential space and approximately 53 dwelling units. The set-backs of the building would be determined by set-back exposure-plane requirements for wide (2.7/1) and narrow (5.6/1) streets (Section 23-641 ZR). Since only six-stories would be feasible under 3.6 FAR, the maximum height would be achieved at 60 feet without a setback. In total, the development would contain 72,250 gsf.
- The proposal will use cellar level parking to meet the requirements of ZR Section 25-23 and 25-251 for residential parking and ZR Section 36-21 require approximately 78 spaces based on the provision of affordable units at both 60% AMI and 80% AMI. The parking would be contained at the cellar level within approximately 15,600 square feet of cellar space.

As outlined above, neither scenario would result in non-conforming uses or non-complying developments. As the proposed action only affects a single property, the underlying zoning districts in the surrounding area would be unaffected.

Therefore, the proposed action and any resulting potential development would not be expected to result in any significant adverse impacts or conflicts with the zoning in the study area.

Conclusion

No significant impacts to zoning patterns in the area would be expected. The proposed zoning map amendment would give the Applicant to flexibility to provide a development in context with surrounding development. The proposed building or any resulting development would adhere to the proposed C4-3 zoning district.

No significant adverse impacts related to zoning are expected to occur as a result of the proposed action, and a further assessment of zoning is not warranted.

Public Policy

Existing Conditions

The Jackson Heights neighborhood of Queens, which is located in Queens Community District 3, is a vibrant mixed-use neighborhood. According to the 2010 U.S. Census, the population of the neighborhood decreased by 4.6% between 2000 and 2010 from 113,327 people to 108,152 people.

The Development Site (or Project Area) is not located within the coastal zone and therefore is not subject to the City's Waterfront Revitalization Program. The Development Site is not controlled by or located in any designated Empire Zones or industrial business zones (IBZs). Additionally, the Development Site is not governed by a 197a Plan, nor does the proposed action involve the siting of any public facilities (Fair Share). The proposed action is also not subject to the New Housing Marketplace Plan. Finally, the Development Site is not located within a critical environmental area, a significant coastal fish and wildlife habitat, a wildlife refuge, or a special natural waterfront area.

Future No-Action Scenario

In the future without the proposed action, any new development on the Development Site would continue to be governed by the provisions of the underlying C8-1 zoning district. No other public policy initiatives would pertain to the Development Site or to the 400-foot study area around the property by the project build year of 2020. In addition, no changes are anticipated to the zoning districts and zoning regulations or to any public policy

documents related to the Development Site or the surrounding study area by the project build year.

Future With-Action Scenario

No impact to public policies would occur as a result of the proposed action. The proposed action would be in accordance with the underlying C4-3 zoning district and the Mandatory Inclusionary Housing (MIH) program. The project would be required to provide at least 25% to 30% of any new residential floor area to incomes 80% AMI and below, pursuant to MIH.

Conclusion

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

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

7 . OPEN SPACE

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

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

Direct Effects

There are no open space resources adjacent to the Development Site. Absent the proposed action, the Development Site would remain in its existing condition with an automotive use containing no residences. The proposed action could result in the development of a six-story mixed-use (residential-commercial) building with 53 dwelling units and 149 new residents. Therefore, there would be an in building height between the existing condition and the With-Action scenario. However, the increase in building height would not case significant adverse shadows on any nearby open space resource, as discussed in the Shadows analysis. Therefore, no direct shadows impacts would be anticipated.

INDIRECT EFFECTS

Introduction

On the basis of *CEQR Technical Manual* criteria, the proposed development could potentially result in indirect effects to open space resources within the project study area and must be further assessed to determine whether significant indirect effects would be expected to occur. For the subject Development Site, the *CEQR Technical Manual* requires that an open space assessment be conducted if that project would generate more than 50 residents in an area 'under-served' by open space.

Absent the proposed action, the Development Site would remain in its existing condition, with no residences.

Under Scenario 1 assumed in the RWCDS under the with-action, the proposed action would result in an eight-story mixed-use (commercial-community facility) building that would add no new additional residents but new 123 additional workers. This is less than the threshold for a preliminary analysis with less than 125 additional new workers. However, under Scenario 2 assumed in the RWCDS, the proposed action would result in the development of a six-story mixed-use (residential-commercial) building with 53 dwelling units and 149 new residents. Therefore, a net increase of 53 dwelling units is expected to generate approximately 149 residents based on the household size of 2.8 persons per household for Queens Community District 3, and a preliminary quantitative analysis of indirect open space impacts is required.

Preliminary Assessment
A full, detailed open space analysis is necessary if the project would displace a highly utilized open space (direct effect) or introduce a large population in an area underserved by open space (indirect effect). According to the 2014 CEQR Technical Manual, this area of Queens Community District 3 is an "under-served" area. The threshold for an open space analysis for such an area is the addition of 50 new residents or 125 new employees.

If the project exceeds these thresholds then a more detailed analysis may also be required. Based on the calculation of the ratio of publicly accessible open space acres to the study area population, a determination of the adequacy of open space resources in the study area was quantified. The resultant computation for the study area was then compared with the median ratio for New York City, which is 1.5 acres per 1,000 residents, and with the City's planning goal as expressed in the CEQR Technical Manual of 2.5 acres per 1,000 population.

The CEQR Technical Manual considers an action to result in significant impacts to open space resources if it would decrease the open space ratio substantially, thereby reducing the availability of open spaces for an area's population. A decrease in the open space ratio of 5 percent or more is generally considered to be a significant adverse impact on open space resources. The open space study area exhibits a low open space ratio of 0.0539 acres per 1,000 residents, (based on 2.68 acres of existing open space divided by the 2015 Census study area population estimate of 49,670/1,000 persons).

Under Scenario 2 assumed in the RWCDS, a net increase of 53 dwelling units from the proposed development is expected to generate approximately 149 new residents based on the average household size of 2.8 persons per household for Queens Community District 3, in which the Development Site is located. Adding these 149 residents to the future No-Action population of 49,670 residents (which is assumed to be the same as the existing conditions) would result in a total population of 49,819. No new publicly accessible open space and recreational resources are planned to be added to the study area by 2020 with the proposed action. Therefore, in 2020 with the proposed action, the project study area would

continue to contain approximately 2.68 acres of open space resources, the same as under currently existing condition.

The projected open space ratio in 2020 with the proposed action would be 0.0537 acres per 1,000 residents (based on 2.68 acres of open space and a study area population of 49,819 persons) compared with the projected ratio of 0.0539 acres in the study area under Existing conditions. This represents a decrease of approximately 0.002 acres or 0.37 percent in the open space ratio. Therefore, the community would continue to have low amount of open space compared to the City as a whole and would not meet DCP's open space planning goal. Table 7-3 shows the calculation of open space ratios for the Existing and Future With-Action conditions. The resulting decrease in the open space ratio would be well below the 5% threshold as a result of the proposed action. Additionally, the open space ratio would not decrease substantially relative to existing conditions where the open space ratio is already below average. Therefore, based on CEQR Technical Manual criteria, the proposed project would not result in a significant adverse impact on open space resources.

Due to the absence of significant direct impacts on any open space resource and the small decrease in the future with the action open space ratio, it is anticipated that the project would not have any potentially significant adverse open space impacts and further assessment is not warranted. No significant adverse impacts associated with open space would occur as a result of the proposed action.

Study Area Population

The study area population was estimated using data from the 2015 U. S. Census ACS Data (2010-2014)[2] for the census tracts located fully or at least 50 percent within the one-half mile study area. As shown in Table 7-1, in 2013 the study area contained a total of 49,670 residents within the 9 relevant census tracts.

Table 7-1 Study Area Population

Census Tract	Total Population (2014)
283	6,619
285	4,944
287	6,099
289	5,522
291	6,664
293	1,164
309.02	8,345
309.03	6,413
327	3,900
Study Area	**49,670**

Within the census tracts that are fully or at least 50 percent within this area, there are 3 publicly accessible facilities. **(See Figure 8 - Open Space Facilities and Census Tracts and Table 7-2, Inventory of Open Space Resources)** The 3 publicly owned and accessible facilities provide a total of 2.68 acres of open space resources, all of which are located within the ½ mile radius project study area.

Table 7-2: Inventory of Open Space Resources

Map Key	Open Space Resource Name	Block	Lot(s)	Total Size (Acres)
1	I.S. 230 Open Space	1246	29, 33	0.19
2	Travers Park	1250	14	1.92
3	Rory Staunton Field	1251	12	0.57
TOTAL				2.68

[2] DP05, ACS Demographic and Housing Data, American Community Survey 2010-2014

Figure 8: Open Space Facilities and Census Tracts



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

Table 7-3: Existing and Future With-Action Open Space Ratios

	Existing Conditions	**Future With-Action**
Publicly Accessible Open Space (Acreage)	2.68	2.68
Study Area Population	49,670	49,819
Open Space Ratio (Acres/1,000 Residents)	0.0539	0.0537 /0.37% decrease

Conclusion

A detailed open space assessment is not required as it has been determined that the project would not decrease the open space ratio by more than 5 percent.

Due to the absence of significant direct impacts on any open space resource and the small decrease in the future with the action open space ratio, it is anticipated that the project would not have any potentially significant adverse open space impacts and further assessment is not warranted. No significant adverse impacts associated with open space would occur as a result of the proposed action.

8. SHADOWS

Under CEQR, a shadow is defined as the circumstance in which a building or other built structure blocks the sun from the land. An adverse shadow impact is considered to occur when the shadow from a proposed project falls upon a publicly accessible open space, a historic landscape, or other historic resource if the features that make the resource significant depend on sunlight, or if the shadow falls on an important natural feature and adversely affects its uses or threatens the survival of important vegetation. An adverse impact would occur only if the shadow would fall on a location that would otherwise be in sunlight; the assessment therefore distinguishes between existing shadows and new shadows resulting from a proposed project. Finally, the determination of whether the impact of new shadows on an open space or a natural or historic resource would be significant is dependent on their extent and duration. In general, shadows on City streets and sidewalks or on other buildings are not considered significant under CEQR. In addition, shadows occurring within an hour and a half of sunrise or sunset generally are not considered significant under CEQR.

According to the *2014 CEQR Technical Manual*, a shadows assessment is not required unless the project would include a structure at least 50 feet tall or if it would contain shorter structures that might cast substantial new shadows on an adjacent park, historic resource, or an important natural resource. A shadow analysis is required for this project since the proposed action could facilitate an incremental height increase of over 50 feet.

The taller of the potential development scenarios (Scenario 1) would rise to a maximum height of 83' or over 50 feet taller than what is currently permitted as-of-right. Based on *CEQR Technical Manual* criteria, the longest shadow that any building would cast during the year (except within an hour and a half of sunrise or sunset which is not deemed to be of concern) is 4.3 times its height. Applying the 4.3 factor to the proposed maximum building height of 83' and a bulkhead of 91.2 would result in a maximum shadow distance of 392 feet (See **Figure 9**).

Preliminary Screening Assessment
Tier 1 Screening Assessment

There are no sunlight-sensitive open space resources that are located within the maximum 392-foot shadow distance from the Development Site. There are also no shadow sensitive historic resources located within the maximum shadows radius of the project.

Therefore, the proposed development would not result in significant adverse shadows impacts on any open space resources, historic resources, or important natural resources and further assessment is not required.

Figure 9 - Tier 1 Screening Assessment



9. HISTORIC AND CULTURAL RESOURCES

Archaeological

The proposed project would involve construction potentially resulting in ground disturbance of a site that has not previously experienced extensive excavation. However, according to correspondence with the New York City Landmarks Preservation Commission (LPC) the Development Sites contain no potential for archaeological resources (see attached letter from LPC dated 12/7/16, available in Appendix C). Therefore, further assessment of archeological resources is not required.

Architectural

The Project Area or Development Site does not contain any designated historic resources. However, the Project Area is directly adjacent to the Jackson Heights Historic District, which is listed on the National Register of Historic Places and therefore compliance with TPPN #10/88 is required, as the proposed building directly abuts the historic district. (see attached letter from LPC dated 12/7/17, available in Appendix C).

Subsequently, LPC approved construction procedures would be followed to protect historic structures in the area from damage from vibration, subsidence, dewatering, or falling objects. Construction procedures would comply with the NYC Department of Buildings memorandum Technical Policy and Procedure Notice # 10/88 and with the site safety requirements of the 2014 NYC Building Code, as amended, which stipulate that certain procedures be followed for the avoidance of damage to historic and other structures resulting from adjacent construction (See Appendix D). Therefore, further assessment of architectural resources would not be required.

Based on the above, no adverse impacts to historic and cultural resources from the proposed action would be expected as a result of the proposed action.

10. URBAN DESIGN AND VISUAL RESOURCES

Introduction

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

The proposed action would allow a taller building than what is permitted as-of-right within the C8-1 district (30' maximum street wall height). The taller of the potential development scenarios (Scenario 1) would rise to a maximum height of 83' or at least 50' taller than what is permitted as-of-right. Therefore, a preliminary assessment of urban design and visual resources is warranted.

The C8-1 is a general commercial district that permits a wide range of commercial uses not generally suitable within residential districts (Use Groups 4-14 & 16). The C8-1 district permits a commercial FAR of 1.0 with a maximum street wall height of 30 feet, with the overall maximum height controlled by a sky exposure plane of 1:1.

Urban Design

The Urban design characteristics of a neighborhood are composed of various components that define the character of the area: building bulk, use, type and arrangement, block form and street pattern, streetscape elements, street hierarchy, and natural features. These components are discussed below.

Building Bulk, Use, Type, and Arrangement

The Development Site (Block 1247, Lot 1) contains 20,000 square feet of lot area and approximately 200 feet of frontage along Northern Boulevard and approximately 100 feet of frontage along both 74th and 75th Streets. The lot is improved with a two-story car wash (Use Group 16 automotive service/laundry) with 10,066 square feet of floor area (0.5 FAR) where 1.0 FAR is permitted as-of-right within the underlying C8-1 zoning district. As noted above, the C8-1 zoning district primarily permits of commercial uses not suitable within residential districts, such as automotive service establishments. However, these districts are mapped next to residential districts, as these uses provide services in close proximity to residential uses.

The Development Site would be the only property to experience an increase in permitted height and will be the subject of this analysis.

The subject block and surrounding 400 feet contain commercial/automotive, and residential uses. Residential uses are concentrated along side streets (74th through 77th Street) ranging from one- and two-family houses and multi-family apartment buildings, which are primarily concentrated to the east along 76th Street. Commercial uses are concentrated along Northern Boulevard, the surrounding area's principal east-west commercial thoroughfare and primarily consist of commercial uses related to automotive use. Notable examples are between 75th and 77nd Streets, where two single-story fuel stations exist at 75-09 Northern Boulevard (Block 1171, Lot 36) and 76-19 Northern Boulevard (Block 1172, Lot 45). Immediately to the north across Northern Boulevard from the Development Site is an automobile dealership. Two remaining commercial properties along Northern Boulevard consist of commercial retail buildings constructed to a single-story, one of which contains a large accessory parking lot. . The residential side streets to the north and south of the Development Site contain near continuous one and two-family residential houses approximately two to three-stories in height (See Figure 6 – Site Photographs).

Block Form, Street Pattern, and Street Hierarchy

The area surrounding the Development Site is comprised of a typical New York street grid pattern, which leads to rectangular shaped blocks of similar size. The north-south streets are typically one way and consist of smaller residential side streets. The east-west streets in the 400-foot study area consist of Northern Boulevard and 34th Avenue, which are classified as 'wide' streets (more than 75 feet in width) and contain two-way traffic. Northern Boulevard is the study area's principal east-west corridor and is one of the major east-west corridors in Queens, running from the East River to Long Island. The blocks in the study area are uniform in size, with approximately 200 feet in width (east-west) and 600 feet in length (north-south)

Streetscape Elements

The Northern Boulevard section of the study area is commercial thoroughfare and typically contains sidewalks with a few typical street trees and fire hydrants. There is a bus stop along Northern Boulevard on both sides for the Q66 NYCT bus. Buildings along this frontage are typically pushed back from the street at least 10 feet. The residential side streets moving north and south (74th through 77th Street) contain residential properties, as noted above. Along these streets are a greater concentration of street trees and curb cuts, with most of the one and two-family uses containing driveways and curb cuts.

Natural Features

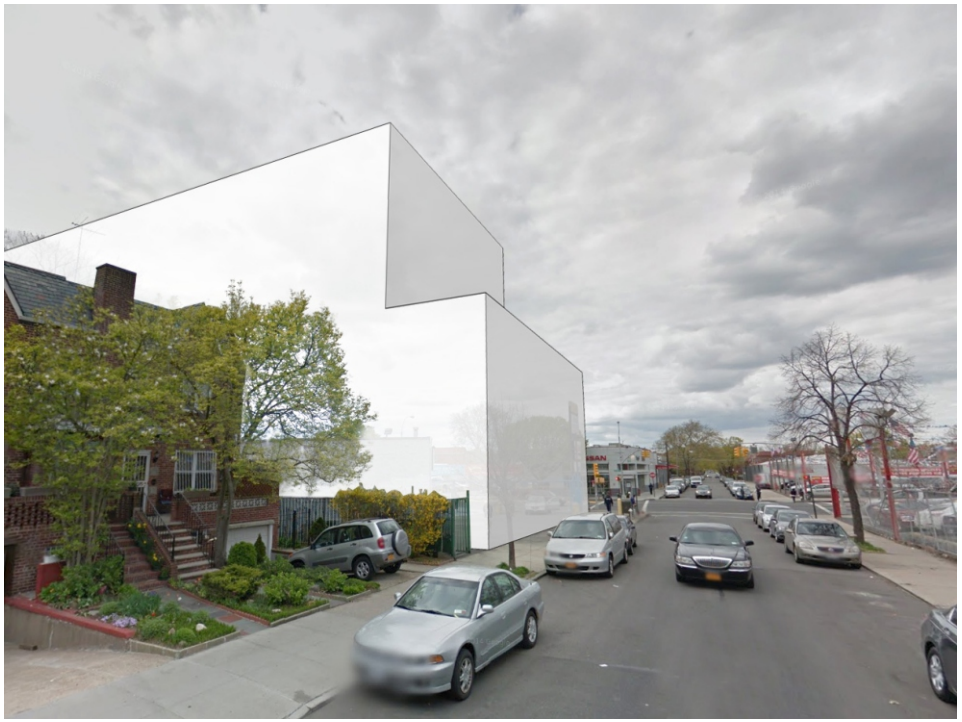
No major natural features are located in the vicinity of the Project Area.

75th Street facing north (Site at left)



No-Action Scenario

75th Street facing north (Site at left)



Scenario 1 - Commercial (Proposed)

Northern Boulevard facing east (Site at right)



No-Action Scenario

Northern Boulevard facing east (Site at right)



Scenario 2 - Mixed-use (Commercial and Residential)

75th Street facing north (Site at left)



No-Action Scenario

75th Street facing north (Site at left)



Scenario 2 - Mixed-use (Residential-Commercial)

Assessment

The proposed actions consist of a zoning map amendment and zoning text amendment to facilitate the proposed development. The zoning map amendment would affect a single parcel (Block 1247, Lot 1) and would rezone the property from C8-1 to C4-3. In addition, the proposed action would include a proposed text amendment that would make the area applicable to the Mandatory Inclusionary Housing Area.

The analysis framework for the proposed actions assumes two scenarios, the greater of which in terms of bulk and height would be a commercial-community facility scenario (Scenario 1), which would rise to a maximum height of 83 feet, where a street wall height 30 feet is currently permitted with the maximum overall height governed by the sky exposure plane. The incremental height difference would exceed 50 feet, so a shadow analysis was performed (see above). However, there are no sunlight sensitive or historic resources within proximity to the Development Site.

See **Figures 10-13** (Urban Design Diagrams) for further details on the difference in massing with and without the proposed action for both Scenario 1 and Scenario 2.

Overall, the proposed development would result in a building with greater bulk, size and scale than existing buildings in the immediate area. Historically, the immediate area surrounding the Development Site has been developed with automotive service uses, which generally do not exceed two-stories in height due to the types of structures require to accommodate automotive service. Furthermore, commercial retail buildings in the immediate vicinity generally consist of a single-story. However, Northern Boulevard is a principal commercial thoroughfare and one of the major commercial corridors of Queens and can support additional density and overall height. The parcels that front Northern Boulevard are typically 100 feet in depth and can support taller buildings without encroaching into or significantly impacting the residential character of side streets. However, two blocks to the east of the Development Site is an entire block containing six-story residential apartment buildings.

The Proposed Development would be taller than what is permitted as-of-right but would otherwise comply with the regulations of the underlying C4-3 zoning district in terms of FAR and permitted uses.

The proposed uses (commercial-community facility) are consistent with buildings in the surrounding area, which contain commercial retail, community facilities (schools) and residential uses. The proposed building would contribute to the eclectic mix of building types in the area and as discussed above, is a suitable location for greater density, given the busy commercial nature of the street.

Therefore, no significant adverse impacts to the urban design character of the study area are anticipated as a result of the proposed action.

Visual Resources

The proposed development would be located on a lot that is surrounded by structures. The adjacent properties to the east and west are predominantly one-story commercial buildings and to the rear (south) of the Development Site are two and three-story residential structures.

There are no natural resources or public view corridors to notable features or buildings in the immediate vicinity of the Development Site. Therefore, based on the criteria in the *CEQR Technical Manual,* the proposed development would not block a view corridor or views of a natural or built visual resource. In this context, the proposed development would not significantly alter views from streets. Therefore, no significant impacts related to visual resources are expected.

Conclusion

The proposed actions would create additional density and allow a greater maximum height for a site along a heavily trafficked commercial thoroughfare. The location and size of the affected area is appropriate, given the commercial nature of the Northern Boulevard and adequate depth of the Development Site that would not impact the residential character of the area to the south. Furthermore, the proposed actions would not affect any natural resources or public view corridors to notable features or buildings in the immediate vicinity of the Development Site. Accordingly, no impacts to the urban design and/or visual resources of the area are expected.

12. HAZARDOUS MATERIALS

ACT has performed a Phase I Environmental Site Assessment (ESA) in February of 2013 of the Development Site located at 74-04 Northern Boulevard, in the Borough of Queens, New York City, New York. This ESA was prepared in accordance with the ASTM Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (ASTM Designation E 1527-05).

The subject property consists of an expanded 1-story car wash and car maintenance shop with a partial basement. The building has a footprint of approximately 10,066 square feet and the property is approximately 20,000 square feet in area.

The purpose of this report is to assess the subject property for evidence of Recognized Environmental Conditions (RECs) in accordance with the provisions of ASTM Standard E 1527-05. As defined by the ASTM, the term recognized environmental condition means "the presence or likely presence of any hazardous substance or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or onto the ground, ground water, or surface water of the property." A material threat is "a physically observable or obvious threat which is reasonably likely to lead to a release that is threatening and might result in impact to public health or the environment." A REC may include hazardous substances or petroleum products even under conditions in compliance with laws.

The Phase I ESA includes a visual inspection of the subject property, improvements, and surrounding properties to identify potential recognized environmental conditions. The adjacent properties were viewed from the subject property and roadways to determine potential sources of contamination or environmental impacts that could migrate to the subject property. Research into historical uses of the property and surrounding land and a review of regulatory agency files and databases pertaining to the property and surrounding properties were performed. Interviews with property representatives regarding past and present conditions and interviews with local government officials were performed to determine if environmental issues exist at the subject property.

The Phase I ESA also contains non-ASTM items including a limited visual screening for suspect asbestos-containing materials and lead based paint, and review of regulatory agency documents regarding lead in drinking water and radon in the vicinity of the subject property.

In an effort to determine the potential impact from hazardous waste activities or petroleum products at the subject property, adjacent properties and surrounding area, a review of database information on waste sites within one mile of the subject property was conducted. The database report information was provided to ACT by Environmental Data Resources Incorporated, dated February 8, 2013.

The review included a search of the following Federal, United States Environmental Protection Agency (USEPA) and New York State Department of Environmental Conservation (NYSDEC) databases:

- § USEPA National Priorities List (NPL) and Delisted NPL Sites;
- § USEPA Comprehensive Environmental Response, Compensation, and Liability Act Information System (CERCLIS Non-NFRAP) and CERLIS No Further Remedial Action Planned (CERCLIS NFRAP) Sites;
- § NYSDEC listing of Inactive Hazardous Waste Disposal and Registry Qualifying Sites or State equivalent NPL and CERCLIS Sites;
- § USEPA and NYSDEC Resource Conservation and Recovery Act Information System (RCRIS) Hazardous Waste Treatment Storage and Disposal (TSD) facilities, RCRIS corrective action activity (CORRACTS) sites, and Hazardous Waste Generator/transporter facilities;
- § USEPA and NYSDEC Brownfield and Voluntary Cleanup Sites;
- § NYSDEC Solid Waste Management Facilities Database;
- § NYSDEC listing of Leaking Underground Storage Tanks and Spills List;
- § NYSDEC listing of Petroleum Bulk Storage Facilities, Major Oil Storage and Chemical Bulk Storage Facilities;
- § USEPA Emergency Response and Notification System (ERNS);
- § USEPA and NYSDEC Institutional Controls/Engineering Controls (IC/EC).

The NYSDEC Spills and Leaking Underground Storage Tank (LUST) lists were searched for all reported spills within ó mile of the subject property. The subject property is not identified in the Spill/LUST database. A total of 65 Spills or LUSTs have occurred within ó mile of the subject property. The closest active site, Mobil Oil Corp. Service Station, is located approximately 0.081 miles to the east-northeast of the subject property. Due to their distance and proximity, that site and the remaining sites should not impact the environmental quality of the subject property.

The NYSDEC listing of Petroleum Bulk Storage (PBS), Major Oil Storage (MOSF) and Chemical Bulk Storage (CBS) facilities were searched for any listings within ¼ mile of the subject property. The subject property is identified in the PBS database as Classic Lube (PBS No. 2-610908).

The subject property is listed as containing the following eight tanks:

- 1-275 gallon aboveground storage tank holding lube oil.
- 5-500 gallon aboveground storage tanks holding lube oil.
- 2-900 gallon aboveground storage tanks holding waste oil/used oil.
- 1-1,000 gallon aboveground storage tank holding lube oil.

No active petroleum spills have been reported for the subject property. The recent site inspection did not indicate that these tanks had impacted the environmental quality of the subject property.

The property is listed as having no open DOB or Environmental Control Board violations. The following six Certificates of Occupancy (C of O's) were identified for the subject property on the DOB website:

- C of O dated 1925 indicates that a dwelling is located at the property, but the address is not legible and may not apply to the subject property.
- C of O dated April 4, 1932 indicates that 6 2-story brick dwellings are located at the subject property.
- C of O dated May 13, 1957 indicates that a new and used car sales lot on the ground level is located a the subject property.
- C of O dated March 23, 1992 indicates that a 1-story auto laundry, auto lube and detail shop with lube pits in the cellar is located at the subject property.

A review of historical fire insurance maps indicate the subject property consisted of vacant land in 1930. As of 1951, the subject property was improved with a one-story shed and unimproved land. The subject property was improved with a one-story car wash prior to 1980. As of 2006, the subject property consisted of a one-story car wash, a one-story automobile repair building and a two-story automobile sales and service building.

A review of the historical fire insurance maps indicates that the adjacent properties consisted of vacant land prior to 1930. As of 1951, the adjacent properties consisted of a two-story automobile sales and service building, two-story dwellings, one-story stores and vacant land. As of 2006, the adjacent properties consisted of automobile sales and service buildings, two-story dwellings and a one-story commercial building. The immediate neighborhood consisted of automobile sales and service related buildings, residential dwellings, commercial buildings, a filling station, a health center and parking areas.

A visual inspection of the property was conducted for evidence of potential hazardous material contamination. A storage room in the southern portion of the building contains bulk containers of oil, antifreeze, soaps and Freon. These containers were observed to be in good condition. Approximately 40 55-gallon drums were identified at locations throughout the building. These drums contained wax, water-based soaps, waste oil sediment, anti-freeze or were empty. A gas was also observed in the rear storage room.
No areas of stressed vegetation or excavated areas were observed anywhere on the property. No indication of previous environmental investigations, such as groundwater

monitoring wells, was observed at the property or any adjoining properties. No pits, ponds, or lagoons indicative of hazardous waste disposal were identified at the property.

Based on the scope of work performed, it is ACT's professional opinion that there are no recognized environmental conditions present at the subject property or its immediate vicinity which could adversely impact upon its environmental quality or that would warrant further environmental study at this time.

No releases of chemicals were noted during the site inspection, nor were any documented releases identified in records maintained by any public agencies having jurisdiction over the subject property. After visually inspecting the subject property and surrounding land, it is also our opinion that the subject property will not be impacted by releases of chemicals in the foreseeable future.

To avoid any potential impacts associated with hazardous materials, NYC DEP has recommended an (E) designation for hazardous materials on the Development Site (see Appendix E for NYC DEP correspondence).

Block 1247, Lot 1

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

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

Task 1

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

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

Task 2

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

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

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

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

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

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

16. TRANSPORTATION

INTRODUCTION

In order to assess transportation for the proposed mixed-use development, trip generation analyses for both the Existing/Future No-Action and Future With-Action Scenarios were performed pursuant to the methodologies identified in the *2014 CEQR Technical Manual.* Based on the proposed project and below results of the trip generation analysis, it was determined that the proposed action would not result in any significant adverse impacts as is summarized below.

Project Description

Scenario 1

The subject action would result in the elimination of an existing carwash facility located at 74-04 Northern Boulevard (Block 1247, Lot #1), with an eight-story mixed-use commercial/community facility building (hereafter "the Development Site") containing a total of 122,880 gross square feet (4.53 FAR) and 219 accessory parking spaces. The building would rise to a height of 83 feet and would contain 18,400 gsf of ground floor retail space, second and third floor accessory parking space containing a total of 219 attended spaces (36,800 gsf), 18,400 square feet of community facility space (Professional Medical Office) located on the fourth floor, and 49,280 gsf of commercial office space to be located on the fifth through eighth floors. The development would contain two, 14-feet wide curb cuts, one accessing the site from 75th Street, and the other exiting the site from 74th Street.

Scenario 2

An alternative residential-commercial scenario (hereafter "Scenario 2") was also developed to analyze Transportation. Scenario 2 would consist of a six (6) story mixed-use (retail/residential) building with enclosed off-street parking within the cellar. The combined floor area proposed is 72,250 gsf (3.6 FAR), of which 18,600 gsf would consist of ground floor commercial retail space, with the remaining 53,650 gsf consisting of residential space, a total of 53 dwelling units. The cellar parking area (15,600 sq. ft.) would contain a total of 78 attended spaces. Access and egress to the parking would be provided by two 14-feet curb cuts, one along 75th Street and another along 74th Street.

Existing/No-Action Conditions

Project Development Site

Absent the proposed action, the projected Development Site would remain in its current condition, a two-story car wash (Use Group 16, Automotive Service/Laundry) with 10,066 gsf of floor area.

Analyzed Scenario

A person and vehicle trip generation comparison was made between Scenario 1 and Scenario 2 based on the trip generation analyses as shown in Tables 1 through 3 for Scenario 1 and Tables 4 through 6 for Scenario 2 (see Appendix A for transportation tables). Based on the results, it was determined that Scenario 1, the commercial/community facility mixed-use development, is the worst case development scenario for transportation as compared with the residential/commercial retail mixed use development (Scenario 2). Therefore, the transportation analysis is based on Scenario 1

Build Year

Based on an estimated 12-month approval process and 12-month construction period, the Build Year is assumed to be 2020.

Screening

Based on the CEQR TM (Table 16-1 Zone 4), and densities for both scenarios, a Level-One Screening (trip generation analysis) is required. A trip generation analysis is estimated for both scenarios and described in detail below.

TRIP GENERATION RATES, MODAL SPLIT DATA, AND SOURCES

Residential Development

Project generated person and vehicular trips, including truck trips are based upon the rates and percent peak hours temporal distribution provided in the *2014 CEQR Technical Manual,* Table 16-2 for the residential development. The modal split information and vehicle occupancy rates are both based on the latest 5-Year 2010-2014 ACS Journey-to-Work (JTW) information for Census tract numbers 265, 267, 287, 289, 291, 309.02 and 309.03 in Queens NY (see Appendix A).

The results found that approximately 23% would travel by car, 1% would travel by taxi, 7% would travel by bus, 62% would travel by subway, 5% would travel by foot and 2% by other mode of travel, such as bicycle.

Local Retail

Project generated person and vehicular trips, including truck trips are based upon the rates and percent peak hours temporal distribution provided in the *2014 CEQR Technical Manual, Table 16-2* for the local retail development. The modal split information and vehicle occupancy rates are based on the *Astoria Rezoning FEIS*.

The results found that approximately 2% would travel by car, 3% would travel by taxi, 10% would travel by bus, 10% would travel by subway and 75 % would travel by foot.

Professional Medical Office

Project generated person and vehicular trips are based upon the rates and percent peak hours temporal distribution provided by *NYCDOT*. The modal split information and vehicle occupancy rates are also based on the *NYCDOT* data. The *2014 CEQR Technical Manual, Table 16-2* is utilized to estimate truck trips for the office use.

The results found that approximately 30% would travel by car, 2% would travel by taxi, 18% would travel by bus, 33% would travel by subway and 17% would travel by foot and other mode of travel, such as bicycle.

Existing/No-Action Conditions

EPDSCO conducted a vehicular trip/vehicle occupancy rate survey on Thursday, June 16, 2016 between 7AM to 7PM, and on Saturday, June 18, 2016 between 9AM-7PM for the existing car wash/automotive service facility, which would be demolished under the proposed action scenario. As shown in Tables 1, 2 and 3, the existing car wash/automotive facility generates a total of 31, 44, 75 and 36 auto trip ends during the (8:00-9:00) AM, (1:00-2:00) MD, (5:00-6:00) PM and (1:00-2:00pm) Saturday Midday peak hour periods, respectively. An average vehicle occupancy rate of 1.5 was observed for both the Weekday and Saturday surveys.

The above trip generation information are summarized in Tables 1 and 4 for both Scenarios.

PERSON AND VEHICLE TRIPS-SCENARIO 1

Person Trips

The proposed action would generate a total of 285 person trip ends during the (8:00-9:00) AM peak hour time period, 928 person trip ends during the (1:00-2:00pm) Midday peak hour time period, 688 person trip ends during the (5:00-6:00) PM peak hour time period and 621 person trip ends during the (1:00-2:00pm) Saturday Midday peak hour time period, as summarized in Table 2.

Vehicle Trips

The proposed action would generate a total of 41 net vehicle trip ends during the (8:00-9:00) AM peak hour time period, 40 net vehicle trip ends during the (1:00-2:00) Midday peak hour time period, 47 net vehicle trip ends during the (5:00-6:00) PM peak hour time period and 42 net vehicle trip ends during the (1:00-2:00pm) Saturday Midday peak hour time period, as is summarized in Table 3.

The proposed action would generate less than 50 vehicle trip ends during each peak hour time period, and in accordance with the *CEQR Technical Manual* criteria, would not result in any conditions that would typically trigger the need for a detailed assessment of traffic and parking impacts.

Transit and Pedestrians-Scenario 1

Bus Trips

The proposed action would generate a total of 38 bus trip ends during the (8:00-9:00) AM peak hour time period, 107 bus trip ends during the (1:00-2:00) Midday peak hour time period, 94 bus trip ends during the (5:00-6:00) PM peak hour time period and 83 bus trip ends during the (1:00-2:00pm) Saturday Midday peak hour time period, as is summarized in Table 2.

The proposed action would generate less than 200 bus trip ends/and 50 bus trip ends per bus per direction during each peak hour time period (The study area includes three bus lines, the Q47 along 73rd and 74th Streets, Q66 and QM3 along Northern Blvd. for northbound and southbound, and eastbound and westbound, respectively in the vicinity of the project site), and in accordance with the *CEQR Technical Manual* criteria, would not result in any conditions that would typically trigger the need for a detailed assessment of bus impacts.

Subway Trips

The proposed action would generate a total of 69 subway trip ends during the (8:00-9:00) AM peak hour period, 165 subway trip ends during the (1:00-2:00) Midday peak hour time period, 156 subway trip ends during the (5:00-6:00) PM peak hour time period and 127 subway trip ends during the (1:00-2:00pm) Saturday Midday peak hour time period, as summarized in Table 2.

The proposed action would generate less than 200 subway trip ends during each peak hour time period (The study area includes two subway stations, one local/express, located on 74h Street and Broadway at Jackson Height, for subway lines of 7,E, F, M and R and another on 65th Street and Broadway for subway lines of E, M and R) and in accordance with the *CEQR Technical Manual* criteria, would not result in any conditions that would typically trigger the need for a detailed assessment of subway impacts.

Pedestrian Trips

The proposed action would generate a total of 157 net pedestrian (bus, subway, walk and other) trip ends during the (8:00-9:00) AM peak hour period, 746 net pedestrian trip ends during the (1:00-2:00) Midday peak hour time period, 416 net pedestrian trip ends during

the (5:00-6:00) PM peak hour time period and 454 net pedestrian trip ends during the (1:00-2:00pm) Saturday Midday peak hour time period, as is summarized in Table 2.

The proposed action would generate more than 200 pedestrian trip ends during Midday, PM and Saturday Midday peak hour periods. According to the proposed site plan, there are several pedestrian ingress and egress points, two along Northern Boulevard, one along 75th Street and one along 74th Street, therefore none of the pedestrian elements in the study area would experience more than 200 pedestrian trips during Midday, PM and Saturday Midday peak hour periods.

Therefore and in accordance with the *CEQR Technical Manual* criteria, the proposed action would not result in any conditions that would typically trigger the need for a detailed assessment of pedestrian impacts.

Conclusion

The project would not result in 200 or more transit trips or 200 or more pedestrian trips at any pedestrian elements in the study area during all peak hour periods. Therefore, and in accordance with the threshold guidelines as detailed in the 2014 *CEQR Technical Manual*, the proposed action is not expected to result in any significant adverse impacts related to transit or pedestrian conditions. Specifically, the proposed action is unlikely to have a significant effect on traffic flow, operating conditions, vehicular safety, transit provision, and pedestrian safety.

Pedestrians

The Proposed Action would generate an increment of approximately 285 walk/other trips in the weekday AM peak hour, 928 in the weekday midday, 688 in the weekday PM and 621 in the Saturday midday peak hour as summarized in Table 2 (Estimated Person Trips). Peak period pedestrian condition was evaluated for the Weekday Midday (Peak Hour Time Period) at a total of three (3) pedestrian elements (sidewalk) where new trips generated by projected developments are expected to be most concentrated.

The analysis of pedestrian conditions focuses on three (3) pedestrian elements where new trips generated by projected development is expected to be most concentrated. These three sidewalks are located on, i)- Northern Boulevard, South sidewalk between 74th and 75th Streets, ii)- 75th Street, West sidewalk between Northern Boulevard and 34th Avenue and iii)- 74th Street, East sidewalk between Northern Boulevard and 34th Avenue.

2016 Existing Conditions

EPDSCO has conducted pedestrian counts on Tuesday, December 20, 2016, during the Weekday (1:00PM-2:00PM) Midday peak hour for the three sidewalks. As shown in Figures 1, 2 and 3 (for Existing, No-Build and build conditions) analyzed sidewalks within the study area have 15 feet wide actual width. As shown in Figure 1, the existing hourly pedestrian volumes vary from 123 on 75th Street (west sidewalk), to up to 194 on Northern Boulevard (south sidewalk).

Table 1 shows the existing peak hour pedestrian volumes, average pedestrian space in square feet per pedestrian (sf/ped), and platoon-adjusted levels of service at analyzed sidewalks.

As shown in Table 2, all analyzed sidewalks currently operate at an uncongested LOS A in the (1:00pm-2:00) Weekday Midday Peak hour time period.

TABLE 1
Pedestrian Sidewalk Levels of Service Descriptions

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

Notes:

Based on average conditions for 15 minutes sf/ped – square feet of area per pedestrian

Source: *CEQR Technical Manual*

2020 No-Build Conditions

As described in Land Use Section, the surrounding land uses within the immediate study area are expected to remain largely unchanged by the Projected Build Year of 2020. No new development is anticipated to occur within the 400-foot study area by 2020.

To estimate 2020 no-build pedestrian volumes, a ½ percent per year for a total of 1 percent was added to the existing pedestrian volumes based upon the CEQR Technical Manual, Table 16-4, "Annual Background Growth Rates" for Queens (Other). As shown in Figure 2, the no-build pedestrian volumes would vary from 124 on 75th Street (west sidewalk), to up to 196 on Northern Boulevard (south sidewalk).

As shown in Table 2, all analyzed sidewalks would operate at an uncongested LOS A in the (1:00pm-2:00) Weekday Midday Peak hour time period.

2020 Build Conditions

In the future 2020, project would add approximately 928 pedestrian trips during the Weekday (1:00PM- 2:00PM) Midday peak hour time period. As shown in Figure 3, the

Table 16-2
Pedestrian Levels of Service analysis
Back up information

Sidewalk	movements	Voume Both Direction Vped p/hr	PHF	Actual Width W	Effective Width	Flow RATE PER Unit Width Vp=Vped/60*w*phf	Free Flow Walk Speed ft/sec. Spf	Adjusted Walk Speed Sp=(1-0.0078v*v)Sf	Avg Ped Space Ap=60*Sp/Vp	LOS	Platoon Adj LOS
						2016 Existing conditions					
Norhthern Blvd South sidewalk	3 and 4	194	0.88	15	10	0.37	4	3.99	647	A	A
75th Street West Sidewalk	5 and 6	123	0.885	15	10	0.23	4	3.99	1041	A	A
74TH street East Sidewalk	1 and 2	153	0.86	15	10	0.3	4	3.99	798	A	A
						2020 No-Build conditions					
Norhthern Blvd South sidewalk	3 and 4	196	0.88	15	10	0.37	4	3.99	647	A	A
75th Street West Sidewalk	5 and 6	124	0.885	15	10	0.23	4	3.99	1041	A	A
74TH street East Sidewalk	1 and 2	155	0.86	15	10	0.3	4	3.99	798	A	A
						2020 Build conditions					
Norhthern Blvd South sidewalk	3 and 4	596	0.88	15	10	1.13	4	3.99	212	A	B
75th Street West Sidewalk	5 and 6	374	0.885	15	10	0.71	4	3.99	337	A	B
74TH street East Sidewalk	1 and 2	405	0.86	15	10	0.79	4	3.99	303	A	B

build pedestrian volumes would vary from 374 on 75th Street (west sidewalk), to up to 596 on Northern Boulevard (south sidewalk).

As shown in Table 2, all analyzed sidewalks would operate at an uncongested LOS A or B in the (1:00pm-2:00) Weekday Midday Peak hour time period.

17. AIR QUALITY

Introduction

Under *CEQR*, two potential types of air quality impacts are examined. These are mobile and stationary source impacts. Potential mobile source impacts are those that could result from an increase in traffic in the area, resulting in greater congestion and higher levels of carbon monoxide. Potential stationary source impacts are those that could occur from stationary sources of air pollution, such as major industrial processes or heat and hot water boilers of major buildings in close proximity to the proposed project. Both the potential impacts of buildings surrounding the proposed project and potential impacts of the proposed project on surrounding buildings are considered in this assessment.

The proposal will use attended parking to meet the requirements of Section 36-21 ZR and would entail 219 spaces where 215 are required. These spaces will be enclosed and located on the two floor levels above the street retail space. In total, the development would contain 122,880 gsf (with the inclusion of parking area and mechanical space). The second and third surface floors are located at a height below 23 feet and therefore a portion of this floor space is exempt from the building's zoning floor area. The third floor upper deck parking of the double-parking deck (8' x 13') with 73 decks will be included as floor area for a total of 2,808 zoning square feet of commercial parking floor area and 4,784 zoning square feet of community facility parking floor area. The proposed development will provide 219 parking spaces of which 46 parking spaces are required for community facility use (18,400 sf/ 400 sf= 46) and 161 parking spaces are required for commercial use (64,365 sf/ 400 sf= 161) for a total of 207 required parking spaces. While the proposed development is not yet finalized, these parking spaces are expected to be enclosed and mechanically vented through garage stacks located at the highest tier of the proposed building (rooftop) or at least 83 feet above ground.

Mobile Source

Under guidelines contained in the *CEQR Technical Manual,* and in this area of New York City, projects generating fewer than 170 additional vehicle trips in any given hour are considered as unlikely to result in significant mobile source impacts, and do not warrant detailed mobile source air quality studies. Therefore, no detailed air quality mobile source analysis would be required per the *CEQR Technical Manual***,** and no significant mobile source air quality impacts would be generated by the proposed action.

Stationary Source

Air Toxics

According to a permit search conducted with the Department of Environmental Protection (see Appendix B) and land use records, there are no uses generating industrial

air toxics 400 feet of the Development Sites. There are no large-scale emissions sources within 1,000 feet of the Development Site.

Heating, Ventilation and Air Conditioning (HVAC)

A screening analysis was performed, using the methodology described in the CEQR Technical Manual, to determine if the heat and hot water systems of the proposed building would result in potential air quality impacts to another building in the area. This methodology determines the threshold of development size below which the action would not have a significant impact. The results of this analysis found that there would be no significant air quality impacts from the project's heating, ventilation, and air conditioning (HVAC) systems.

Proposed Project on Existing Development

Impacts from boiler emissions are a function of fuel type, stack height, minimum distance from the source to the nearest building of similar or greater height, and the square footage size of the building.

The larger of the proposed development scenarios (Scenario 1), and therefore the most conservative for HVAC analysis, would consist of an eight (8) story mixed-use (retail/office and community facility) building with enclosed off-street parking. Therefore, this scenario is utilized for the analysis compared to Scenario 2, which is smaller in height and contains less gross square footage. In total, the larger of the scenarios would contain 122,880 gsf. The closest building of similar height within close proximity is the 6-story apartment building located two blocks to the east at 33-22 77th Street (Block 1249, Lot 18).

The CEQR Technical Manual Stationary Source Screen graph Figure 17-3 was utilized for the analysis assuming an 360-foot distance (measured from the closest edge of the Development Site to the closest edge of Block 1249, Lot 18) and using the 100-foot stack height curve, since the proposed building would be less than 160 feet in height. As shown on the attached screen from the CEQR Technical Manual, the plotted point is below the curve (the approximately 122,880 square foot building would fall below the plotted point), and no stationary source impacts would be generated by the project.

There would be no significant air quality impacts from the proposed project's heat and hot water systems on surrounding uses, and the proposed development would not be adversely affect surrounding uses industrial emissions.

Parking Garage

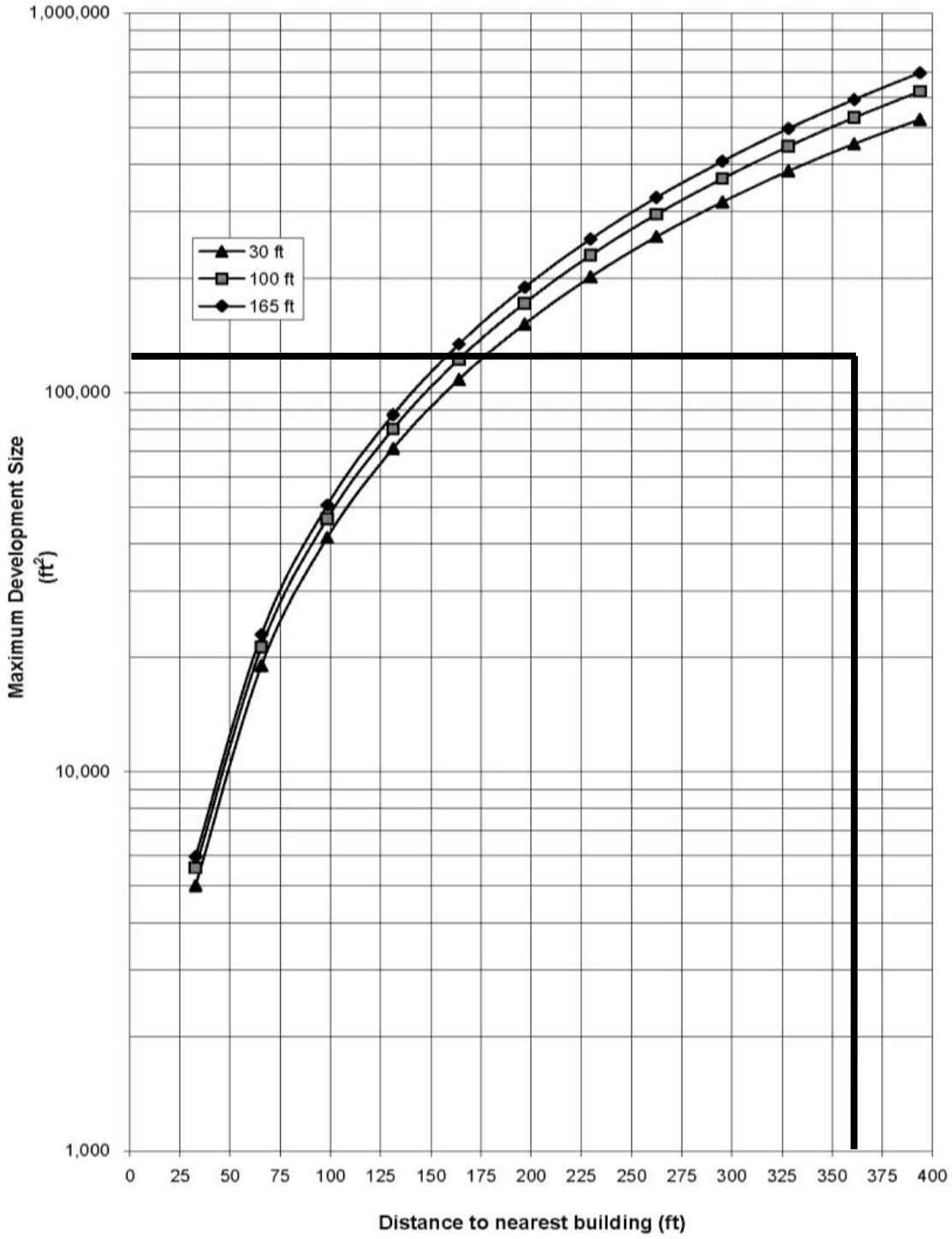
The larger of the proposed development scenarios (Scenario 1), and therefore the most conservative for parking garage air quality analysis, would consist of an eight (8) story mixed-use (retail/office and community facility) building with enclosed off-street parking.

Figure 14 - Roof Heights in the Surrounding Area (by feet)



Building heights from NYC DOF

Figure 17-3:
Stationary Source Screen



As described in the Project Description of this EAS, the applicant's intended development proposal (Scenario 1) includes attended parking on the second and third floors in order to meet the requirements of Section 36-21 ZR. The parking garage would include 219 spaces. While the proposed development is not yet finalized, these parking spaces are expected to be enclosed and mechanically vented through garage stacks located at the highest tier of the proposed building (rooftop) or at least 83 feet above ground. An E-designation is proposed to be assigned to the project site to avoid significant adverse impacts related to air quality. The E-designation (E-407) language is as follows:

Block 1247, Lot 1:

Any new residential, commercial and/or community facility development with parking facilities must provide a completely enclosed garage, that is mechanically ventilated. The parking garage stack must be located on the top of the building (at the highest tier) or at least 83 feet above ground in order to avoid any potential significant air quality impacts.

With the proposed E-designation, no significant adverse impacts related to air quality emissions from the proposed garage are expected to result from the proposed actions.

19. NOISE

Subject Site

The proposed action would allow for new commercial development of a property located at 74-04 Northern Boulevard in the Jackson Heights section of Queens, NY. Vehicular traffic is the predominant source of ambient noise, and therefore the proposed development warrants an assessment of the potential for adverse effects on project occupants from ambient noise. The proposed development of the building would not create a significant stationary noise generator. Additionally, project-generated traffic would not double vehicular traffic on nearby roadways, and therefore would not result in a perceptible increase in vehicular noise. This noise assessment is limited to an assessment of ambient noise that could adversely affect occupants of the development.

The project site is identified as Tax Block 1247, Lot 1 (74-04 Northern Boulevard) and occupies the southern block front of Northern Boulevard between 74th Street and 75th Street. Northern Boulevard is a major two-way eastbound and westbound street with the intersections controlled by streetlights. The area in which the subject property is located is primarily mixed residential and commercial. The subject property is currently a 1 story active car wash with a lot area of 20,000 square feet and an estimated gross floor area of 10,066 square feet.

Framework of Noise Analysis

Noise is defined as any unwanted sound, and sound is defined as any pressure variation that the human ear can detect. Humans can detect a large range of sound pressures, from 20 to 20 million micropascals, but only those air pressure variations occurring within a particular set of frequencies are experienced as sound. Air pressure changes that occur between 20 and 20,000 times a second, stated as units of Hertz (Hz), are registered as sound.

Because the human ear can detect such a wide range of sound pressures, sound pressure is converted to sound pressure level (SPL), which is measured in units called decibels (dB). The decibel is a relative measure of the sound pressure with respect to a standardized reference quantity. Because the dB scale is logarithmic, a relative increase of 10 dB represents a sound pressure that is 10 times higher. However, humans do not perceive a 10-dB increase as 10 times louder. Instead, they perceive it as twice as loud. The following table (Table 16-1) lists some noise levels for typical daily activities.

Table 19-1 Noise Levels of Common Sources	
Sound Source	**SPL (dB(A))**
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
Isolated Broadcast Studio	20
Audiometric (Hearing Testing) Booth	10
Threshold of Hearing	0

Notes: A change in 3dB(A) is a just noticeable change in SPL. A change in 10 dB(A) Is perceived as a doubling or halving in SPL.

Source: 2014 CEQR Technical Manual

Sound is often measured and described in terms of its overall energy, taking all frequencies into account. However, the human hearing process is not the same at all frequencies. Humans are less sensitive to low frequencies (less than 250 Hz) than mid-frequencies (500 Hz to 1,000 Hz) and are most sensitive to frequencies in the 1,000- to 5,000-Hz range. Therefore, noise measurements are often adjusted, or weighted, as a function of frequency to account for human perception and sensitivities. The most common weighting networks used are the A- and C-weighting networks. These weight scales were developed to allow sound level meters, which use filter networks to approximate the characteristic of the human hearing mechanism, to simulate the frequency sensitivity of human hearing. The A-weighted network is the most commonly used, and sound levels measured using this weighting are denoted as dBA. The letter "A" indicates that the sound has been filtered to reduce the strength of very low and very high frequency sounds, much as the human ear does. C-weighting gives nearly equal emphasis to sounds of most frequencies. Mid- range frequencies approximate the actual (unweighted) sound level, while the very low and very high frequency bands are significantly affected by C-weighting.

The following is typical of human response to relative changes in noise level:

- 3-dBA change is the threshold of change detectable by the human ear;
- 5-dBA change is readily noticeable; and
- 10-dBA change is perceived as a doubling or halving of the noise level.

The SPL that humans experience typically varies from moment to moment. Therefore, various descriptors are used to evaluate noise levels over time. Some typical descriptors are defined below.

- Leq is the continuous equivalent sound level. The sound energy from the fluctuating SPLs is averaged over time to create a single number to describe the mean energy, or intensity, level. High noise levels during a measurement period will have a greater effect on the Leq than low noise levels. Leq has an advantage over other descriptors because Leq values from various noise sources can be added and subtracted to determine cumulative noise levels.

- Leq(24) is the continuous equivalent sound level over a 24-hour time period.

The sound level exceeded during a given percentage of a measurement period is the percentile- exceeded sound level (LX). Examples include L10, L50, and L90. L10 is the A-weighted sound level that is exceeded 10% of the measurement period.

The decrease in sound level caused by the distance from any single noise source normally follows the inverse square law (i.e., the SPL changes in inverse proportion to the square of the distance from the sound source). In a large open area with no obstructive or reflective surfaces, it is a general rule that at distances greater than 50 feet, the SPL from a point source of noise drops off at a rate of 6 dB with each doubling of distance away from the source. For "line" sources, such as vehicles on a street, the SPL drops off at a rate of 3 dBA with each doubling of the distance from the source. Sound energy is absorbed in the air as a function of temperature, humidity, and the frequency of the sound. This attenuation can be up to 2 dB over 1,000 feet. The drop-off rate also will vary with both terrain conditions and the presence of obstructions in the sound propagation path.

Measurement Location and Equipment

Because the predominant noise source in the area of the proposed project is vehicular, noise monitoring was conducted during peak vehicular travel periods, 8:00-9:00 am, 12:00 pm-1:00 pm, and 5:00-6:00 pm. Pursuant to CEQR Technical Manual methodology, readings on the Northern Boulevard frontage were conducted for 20-minute periods during each peak hour at the western end of the site at the southeast corner of 74th Street and Northern Boulevard, and at the eastern end of the site at the southwest corner of 75th Street and Northern Boulevard. Noise monitoring was conducted using a Type 2 Larson-Davis LxT2 sound meter, with wind screen. The monitor was placed on a tripod at a height of approximately three feet above the ground, away from any other surfaces. The monitor was calibrated prior to and following each monitoring session. Vehicular traffic around the subject site constitutes a worst-case condition for noise at the project site.



Figure 19-1: Corner of Northern Boulevard and 74th Street monitoring location



Figure 19-2: Corner of Northern Boulevard and 75th Street monitoring location

Table 19-2
Noise Exposure Guidelines For Use in City Environmental Impact Review[1]

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	----------$L_{dn} \leq 60$ dBA----------		----------$60 < L_{dn} \leq 65$ dBA----------		(I) $65 < L_{dn} \leq 70$ dBA, (II) $70 \leq L_{dn}$		----------$L_{dn} \leq 75$ 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)		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)	
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	

Notes:

(i) In addition, any new activity shall not increase the ambient noise level by 3 dB(A) 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 as 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 nursing 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).

Sources: New York City Department of Environmental Protection (adopted policy 1983).

Table 19-3
Required Attenuation Values To Achieve Acceptable Interior Noise Levels

	Marginally Unacceptable				Clearly Unacceptable
Noise level with proposed project	$70<L_{10}\leq73$	$73<L_{10}\leq76$	$76<L_{10}\leq78$	$78<L_{10}\leq80$	$80<L_{10}$
Attenuation[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 and community facility development. Commercial office spaces and meeting rooms would be 5 dB(A) less in each category. All of 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

Measurement Conditions

Monitoring was conducted during typical midweek conditions, on Thursday, June 16, 2016 (see Figure 19-3 - Noise Location). The weather was dry and wind speeds were moderate during monitoring. Neighboring properties were not a significant source of ambient noise. Traffic volumes and vehicle classification were documented during the noise monitoring. The sound meter was calibrated before and after each monitoring session.

Existing Conditions

Based on the noise measurements taken at the project site, the predominant source of noise at the site is vehicular traffic. The volume of traffic, and its corresponding level of noise, is fairly heavy on Northern Boulevard. Table Noise 19-4 and Table 19-5 contains the results for the measurements taken at the subject site and Tables 19-6 through 19-8 contain the resulting vehicle volumes and classifications.

Table Noise-19-4: Noise Levels at Corner of Northern Boulevard and 75th Street

Thursday, June 16, 2016			
Time	08:52 – 9:12 am	12:01 - 12:23 pm	16:59 – 17:20 pm
Lmax	92.4	98.0	84.3
L5	78.0	76.9	77.7
L10	**75.8**	**75.0**	**76.6**
Leq	73.5	71.7	72.4
L50	69.6	70.0	69.6
L90	58.7	61.8	61.3
Lmin	53.6	56.8	57.8

Table Noise-19-5: Noise Levels at Corner of Northern Boulevard and 74th Street

Thursday, June 16, 2016

Time	09:17– 9:41 am	12:24 - 12:45 pm	17:21 – 17:42 pm
Lmax	93.7	90.5	84.0
L5	78.4	79.2	76.9
L10	**76.3**	**77.1**	**74.2**
Leq	73.4	74.6	71.1
L50	69.4	71.9	69.2
L90	62.6	66.5	60.9
Lmin	57.9	59.5	56.1

Table Noise 19-6 Morning Traffic Volumes and Vehicle Classifications (vehicle counts for duration of the morning monitoring session)

	74th Street and Northern Boulevard	**75th Street and Northern Boulevard**
Car/ Taxi	238	208
Van/ Light Truck/SUV	167	201
Medium Truck	61	56
Heavy Truck	32	36
Bus	19	22

Table Noise-19-7: Midday Traffic Volumes and Vehicle Classifications (vehicle counts for duration of the midday monitoring session)

	74th Street and Northern Boulevard	**75th Street and Northern Boulevard**
Car/ Taxi	189	186
Van/ Light Truck/SUV	209	199
Medium Truck	18	15
Heavy Truck	38	35
Bus	10	10

Table Noise-19-8: Evening Traffic Volumes and Vehicle Classifications (vehicle counts for duration of the evening monitoring session)

	74th Street and Northern Boulevard	**75th Street and Northen Boulevard**
Car/ Taxi	277	303
Van/ Light Truck/SUV	264	302
Medium Truck	45	61
Heavy Truck	20	20
Bus	11	12

Conclusion

The 2014 *CEQR Technical Manual* Table 19-2 contains noise exposure guidelines. For a residential use such as would occur under the proposed action, an L10 of between 65 and 70 dB(A) is identified as marginally acceptable general external exposure and an L10 of between 70 and 80 dB(A) is considered marginally unacceptable. The highest recorded L10 at the intersection of 74th Street and Northern Boulevard was 77.1 during the afternoon period, and 76.6 at the intersection of 75th Street and Northern Boulevard during the evening period. Therefore, window-wall noise attenuation would be required to ensure an acceptable indoor noise environment. Pursuant to table 19-3 of the 2014 CEQR Technical Manual, he required attenuation value to achieve acceptable interior noise levels is 33 dB(A) for residential or community facility use or 28 dB(A) for commercial use. With this level of attenuation incorporated into the project design, the proposed project would not result in adverse impacts related to noise. The text for the E-designation would be as follows:

"To ensure an acceptable interior noise environment, future development must provide a closed-window condition with a minimum of 33 dBA window/wall attenuation to maintain an interior noise level of 45 dBA. 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."

With this level of noise attenuation, the proposed project does not have the potential for adverse impacts related to noise.

APPENDIX A:

TRANSPORTATION TABLES

Exhibit C

Modal Split Information

2010-2014 ACS 5-YEAR Journey-to-Work (R JTW) for Census Tract numbers 265, 267, 287, 289, 291, 309.02 and 309.03 in Queens, NY

74-04 Northern Blvd. Queens New York

2010-2014 ACS 5-Year, Journey-to-Work:

Census Tract	Total Workers	Car or Van Drive-Alone	Carpool	Bus	Street Car	Subway	R.R.	Ferry	Taxi	Motor cycle	Bicycle	Walked	Other Means	Worked @ Home	Total
265	**2111**	**389**	**101**	**78**	**0**	**1371**	**24**	**0**	**3**	**0**	**0**	**90**	**0**	**55**	2,111
267	**3562**	**181**	**91**	**101**	**0**	**2660**	**109**	**0**	**0**	**0**	**20**	**262**	**24**	**114**	3,562
287	**3146**	**634**	**15**	**44**	**0**	**2287**	**0**	**0**	**12**	**0**	**13**	**114**	**0**	**27**	3,146
289	**3044**	**617**	**146**	**109**	**0**	**1936**	**78**	**0**	**9**	**0**	**0**	**149**	**0**	**0**	3,044
291	2,767	319	111	177	0	1,847	120	0	68	0	0	91	0	34	2,767
309.02	3,419	1,026	64	542	0	1,470	14	0	29	0	60	211	0	3	3,419
309.03	2,554	864	127	305	0	950	0	0	46	0	16	210	0	36	2,554
Total	20,603	4,030	655	1,356	0	12,521	345	0	167	0	109	1,127	24	269	20,603
		0.196	***0.032***	***0.066***	***0.00***	***0.608***	***0.017***	***0.00***	***0.01***	***0.00***	***0.01***	***0.055***	***0.00***	***0.013***	***1.00***

Exhibit D

Vehicle Occupancy Information

2006-2010 ACS 5-YEAR Reverse-Journey-to-Work (R JTW) for Census Tract numbers 265, 267, 287, 289, 291, 309.02 and 309.03 in Queens, NY

2006-2010 ACS-5 Year (RJTW), Vehicle Occupancy Rate:

Census Tract	Total	Drove alone	Total	carpool 2person	3 Person	4 Person	5 or 6 Person	7 or more Person	Total
265	490	389	101	101	0	0	0	0	101
267	272	181	91	47	0	13	31	0	91
287	649	634	15	0	15	0	0	0	15
289	763	617	146	121	12	0	13	0	146
291	430	319	111	111	0	0	0	0	111
309.02	1090	1026	64	64	0	0	0	0	64
309.03	991	864	127	90	0	30	7	0	127
	4,685	4,030		267	9	11	11	0	4,328
Vehicle Occupancy =			**1.08**						

Modal Split summary

Auto	**0.23**
Taxi	**0.01**
Bus	**0.07**
Subway	**0.62**
Walk	**0.05**
Other	**0.02**
Total	**1.00**

Exhibit A

Modal Split Information

2006-2010 ACS 5-YEAR Reverse-Journey-to-Work (R JTW) for Census Tract numbers 265, 267, 287, 289, 291, 309.02 and 309.03 in Queens, NY

74-04 Northern Blvd. Queens New York

2006-2010 ACS 5-Year, Reverse-Journey-to-Work:

Census Tract	Total Workers	Car or Van Drive-Alone	Carpool	Bus	Street Car	Subway	R.R.	Ferry	Taxi	Motor cycle	Bicycle	Walked	Other Means	Worked @ Home	Total
265	**1205**	**420**	**90**	**150**	**25**	**275**	**10**	**25**	**40**	**0**	**0**	**150**	**0**	**20**	1,205
267	**6145**	**1815**	**605**	**885**	**15**	**1915**	**235**	**0**	**15**	**0**	**0**	**600**	**0**	**60**	6,145
287	**1580**	**440**	**130**	**205**	**0**	**340**	**0**	**0**	**0**	**0**	**0**	**270**	**20**	**175**	1,580
289	**1870**	**575**	**195**	**180**	**10**	**470**	**20**	**0**	**0**	**0**	**10**	**330**	**0**	**80**	1,870
291	1,205	445	135	70	0	330	20	0	45	0	0	40	0	120	1,205
309.02	555	285	20	85	0	150	0	0	0	0	0	15	0	0	555
309.03	1,475	635	185	115	0	210	0	0	10	0	0	220	0	100	1,475
Total	14,035	4,615	1,360	1,690	50	3,690	285	25	110	0	10	1,625	20	555	14,035
		0.329	***0.097***	***0.120***	***0.00***	***0.263***	***0.020***	***0.00***	***0.01***	***0.00***	***0.00***	***0.116***	***0.00***	***0.040***	***1.00***

Exhibit B

Vehicle Occupancy Information

2006-2010 ACS 5-YEAR Reverse-Journey-to-Work (R JTW) for Census Tract numbers 265, 267, 287, 289, 291, 309.02 and 309.03 in Queens, NY

2006-2010 ACS-5 Year (RJTW), Vehicle Occupancy Rate:

Census Tract	Total	Drove alone	Total	carpool 2person	3 Person	4 Person	5 or 6 Person	7 or more Person	Total
265	510	420	90	55	35	0	0	0	90
267	2420	1815	605	495	65	25	0	20	605
287	570	440	130	130	0	0	0	0	130
289	770	575	195	135	60	0	0	0	195
291	580	445	135	75	0	0	60	0	135
309.02	305	285	20	20	0	0	0	0	20
309.03	820	635	185	115	70	0	0	0	185
	5,975	4,615		513	77	6	13	3	5,227
Vehicle Occupancy =			**1.14**						

Modal Split summary

Auto	**0.43**
Taxi	**0.01**
Bus	**0.12**
Subway	**0.28**
Walk	**0.12**
Other	**0.04**
Total	**1.00**

Table 1 : Transportation Planning Factors

74-04 Northern Boulevard, Queens NY

Scenario One

Land Use:	Office		Local Retail	Medical Office
	Space-sq.ft.		Space-sq.ft.	Space-sq.ft.
Size/Units:	49,280		18,400	18,400
	(1)		**(1)**	**(5)**
Trip Generation:				
Weekday	18		205	127
Saturday	3.9		240	127
	per 1,000 sq-ft		per 1,000 sq.ft.	per 1,000 sq.ft.
Linked-Trip:	0%		25%	0%
Temporal Distribution:	**(1)**		**(1)**	**(5)**
AM Peak Hour	12%		3%	4%
MD Peak Hour	15%		19%	11%
PM Peak Hour	14%		10%	12%
Saturday Midday Peak Hour	17%		10%	11%
	(2)		**(4)**	**(5)**
Modal Split :	AM/PM/Sat.Mid.	Mid	all periods	all periods
Auto	43%	2%	2%	30%
Taxi	1%	3%	3%	2%
Subway	28%	20%	10%	33%
Bus	12%	5%	10%	18%
Walk	12%	70%	75%	17%
Other	4%	0%	0%	0%
Total	100%	100%	100%	100%
	(3)		(3)	(5)
In/Out Splits:	In/Out		In/Out	In/Out
AM Peak Hour	96/4		50/50	89/11
MD Peak Hour	48/52		50/50	51/49
PM Peak Hour	5/95		50/50	48/52
Saturday Midday Peak Hour	47/43		55/45	41/59
Vehicle Occupancy:	**(2)**		(4)	(5)
Auto	1.14		2	1.5
Taxi	1.40		2	1.5
Truck Trip Generation:	**(1)**		**(1)**	**(1)**
Weekday	0.32		0.35	0.32
Saturday	0.01		0.04	0.01
	per 1,000 sqft		per 1,000 s.f.	per 1,000 s.f.
	(1)		**(1)**	**(1)**
AM Peak Hour	10%		8%	10%
MD Peak Hour	11%		11%	11%
PM Peak Hour	2%		2%	2%
Saturday Midday Peak Hour	11%		11%	11%
AM/MD/PM/Saturday Midday	50/50		50/50	50/50

Sources:

(1)-2014 CEQR Technical Manual, Table 16-2.

(2)-2006-2010 (ACS) Reverse-Journey-to-Work (RJTW)Census Tract #'s 265, 267, 287, 289, 291, 309.02 & 309.03 Queens N.Y.

(3)_P & Z

(4)-Astoria Rezoning FEIS.

(5)-NYCDOT, 2014

Table 2 : Estimated Person Trips

74-04 Northern Boulevard, Queens NY

Land Use:	Office	Local Retail	Medical Office	Total Net		
	sq-ft	sq.ft.	sq.ft.	Demand		
Size/Units:	49280	18,400	18,400			
Peak hour Trips						
AM Peak Hour	106	85	93	285		
Midday Peak Hour	133	538	257	928		
PM Peak Hour	124	283	280	688		
Saturday Midday Peak Hour	33	331	257	621		
Person Trips:						
AM Peak Hour						
Auto	46	2	28	76		
Taxi	1	3	2	5	Car Wash	
Subway	30	8	31	69		69
Bus	13	8	17	38		38
Walk	13	64	16	92	-47	45
Other	4	0	0	4		4
Total	106	85	93	285		157
Midday Peak Hour						
Auto	3	11	77	91		
Taxi	4	16	5	25		
Subway	27	54	85	165		165
Bus	7	54	46	107		107
Walk	93	403	44	540	-66	474
Other	0	0	0	0		0
Total	133	538	257	928		746
PM Peak Hour						
Auto	53	6	84	143		
Taxi	1	8	6	15		
Subway	35	28	93	156		156
Bus	15	28	50	94		94
Walk	15	212	48	275	-113	162
Other	5	0	0	5		5
Total	124	283	280	688	-113	416
Saturday Midday Peak Hour						
Auto	14	7	77	98		
Taxi	0	10	5	15		
Subway	9	33	85	127		127
Bus	4	33	46	83		83
Walk	4	248	44	296	-54	242
Other	1	0	0	1		1
Total	33	331	257	621	-54	454

Table 3 : Estimated Vehicular Trips

74-04 Northern Boulevard, Queens NY

Vehicular Trips	Residential	Local Retail	Medical Office	Total		
AM Peak Hour						
Auto (Total)	40	1	19	60		
Taxi	1	1	1	3		
Taxi (Balanced)	2	2	2	6		
Truck	2	1	1	3		
Truck(Balanced)	2	2	2	6		
Total	44	5	23	72	Car Wash	Net
In/Out (Total)	(40/4)	(3/2)	(19/4)	(62/10)=72	(17/14)=31	(45/-4)=**41**
Midday Peak Hour						
Auto (Total)	2	5	51	58		
Taxi	3	8	3	14		
Taxi (Balanced)	4	12	4	20		
Truck	2	1	1	3		
Truck(Balanced)	2	2	2	6		
Total	8	19	57	84		
In/Out (Total)	(4/4)	(9/10)	(29/28)	(42/42)=84	(23/21)=44	(19/21)=**40**
PM Peak Hour						
Auto (Total)	47	3	56	106		
Taxi	1	4	4	9		
Taxi (Balanced)	2	8	6	16		
Truck	0	0	0	0		
Truck(Balanced)	0	0	0	0		
Total	49	11	62	122		
In/Out (Total)	(4/45)	(5/6)	(30/32)	(39/83)=122	(39/36)=75	(0/47)=**47**
Saturday Midday Peak Hour						
Auto (Total)	12	3	51	66		
Taxi	0	5	3	9		
Taxi (Balanced)	0	8	4	12		
Truck	0	0	0	0		
Truck(Balanced)	0	0	0	0		
Total	12	11	55	**78**		
In/Out (Total)	(6/6)	(6/5)	(23/32)	(35/43)=78	(20/16)=36	(15/27)=**42**

Table 4 : Transportation Planning Factors

74-04 Northern Boulevard, Queens NY

Scenario Two

Land Use:	Residential	Local Retail	Medical Office
	d.u.	Space-sq.ft.	Space-sq.ft.
Size/Units:	53	18,600	0
	(1)	**(1)**	**(5)**
Trip Generation:			
Weekday	8.075	205	127
Saturday	9.6	240	127
	per 1,000 sq-ft	per 1,000 sq.ft.	per 1,000 sq.ft.
Linked-Trip:	0%	25%	0%
Temporal Distribution:	**(1)**	**(1)**	**(5)**
AM Peak Hour	10%	3%	4%
MD Peak Hour	5%	19%	11%
PM Peak Hour	11%	10%	12%
Saturday Midday Peak Hour	8%	10%	11%
	(2)	**(4)**	**(5)**
Modal Split :	all periods	all periods	all periods
Auto	23%	2%	30%
Taxi	1%	3%	2%
Subway	62%	10%	33%
Bus	7%	10%	18%
Walk	5%	75%	17%
Other	2%	0%	0%
Total	100%	100%	100%
	(3)	(3)	(5)
In/Out Splits:	In/Out	In/Out	In/Out
AM Peak Hour	15/85	50/50	89/11
MD Peak Hour	50/50	50/50	51/49
PM Peak Hour	70/30	50/50	48/52
Saturday Midday Peak Hour	50/50	55/45	41/59
Vehicle Occupancy:	**(2)**	(4)	(5)
Auto	1.08	2	1.5
Taxi	1.40	2	1.5
Truck Trip Generation:	**(1)**	**(1)**	**(1)**
Weekday	0.06	0.35	0.32
Saturday	0.02	0.04	0.01
	per 1,000 sqft	per 1,000 s.f.	per 1,000 s.f.
	(1)	**(1)**	**(1)**
AM Peak Hour	12%	8%	10%
MD Peak Hour	9%	11%	11%
PM Peak Hour	2%	2%	2%
Saturday Midday Peak Hour	9%	11%	11%
AM/MD/PM/Saturday Midday	50/50	50/50	50/50

Sources:

(1)-2014 CEQR Technical Manual, Table 16-2.

(2)-2010-2014 (ACS)-Journey-to-Work (JTW)Census Tract #'s 265, 267, 287, 289, 291,309.02 & 309.03 Queens N.Y.

(3)_P & Z

(4)-Astoria Rezoning FEIS.

(5)-NYCDOT, 2014

Table 5 : Estimated Person Trips

74-04 Northern Boulevard, Queens NY

Scenario Two

Land Use:	Residential	Local Retail	Medical Office	Total Net	
	d.u.	sq.ft.	sq.ft.	Demand	
Size/Units:	53	18,600	18,400		
Peak hour Trips					
AM Peak Hour	43	86	0	129	
Midday Peak Hour	21	543	0	565	
PM Peak Hour	47	286	0	333	
Saturday Midday Peak Hour	41	335	0	376	
Person Trips:					
AM Peak Hour					
Auto	10	2	0	12	
Taxi	0	3	0	3	Car Wash
Subway	27	9	0	35	
Bus	3	9	0	12	
Walk	2	64	0	66	-47
Other	1	0	0	1	
Total	43	86	0	129	
Midday Peak Hour					
Auto	5	11	0	16	
Taxi	0	16	0	17	
Subway	13	54	0	68	
Bus	1	54	0	56	
Walk	1	408	0	409	-66
Other	0	0	0	0	
Total	21	543	0	565	
PM Peak Hour					
Auto	11	6	0	17	
Taxi	0	9	0	9	
Subway	29	29	0	58	
Bus	3	29	0	32	
Walk	2	214	0	217	-113
Other	1	0	0	1	
Total	47	286	0	333	-113
Saturday Midday Peak Hour					
Auto	9	7	0	16	
Taxi	0	10	0	10	
Subway	25	33	0	59	
Bus	3	33	0	36	
Walk	2	251	0	253	-54
Other	1	0	0	1	
Total	41	335	0	376	-54

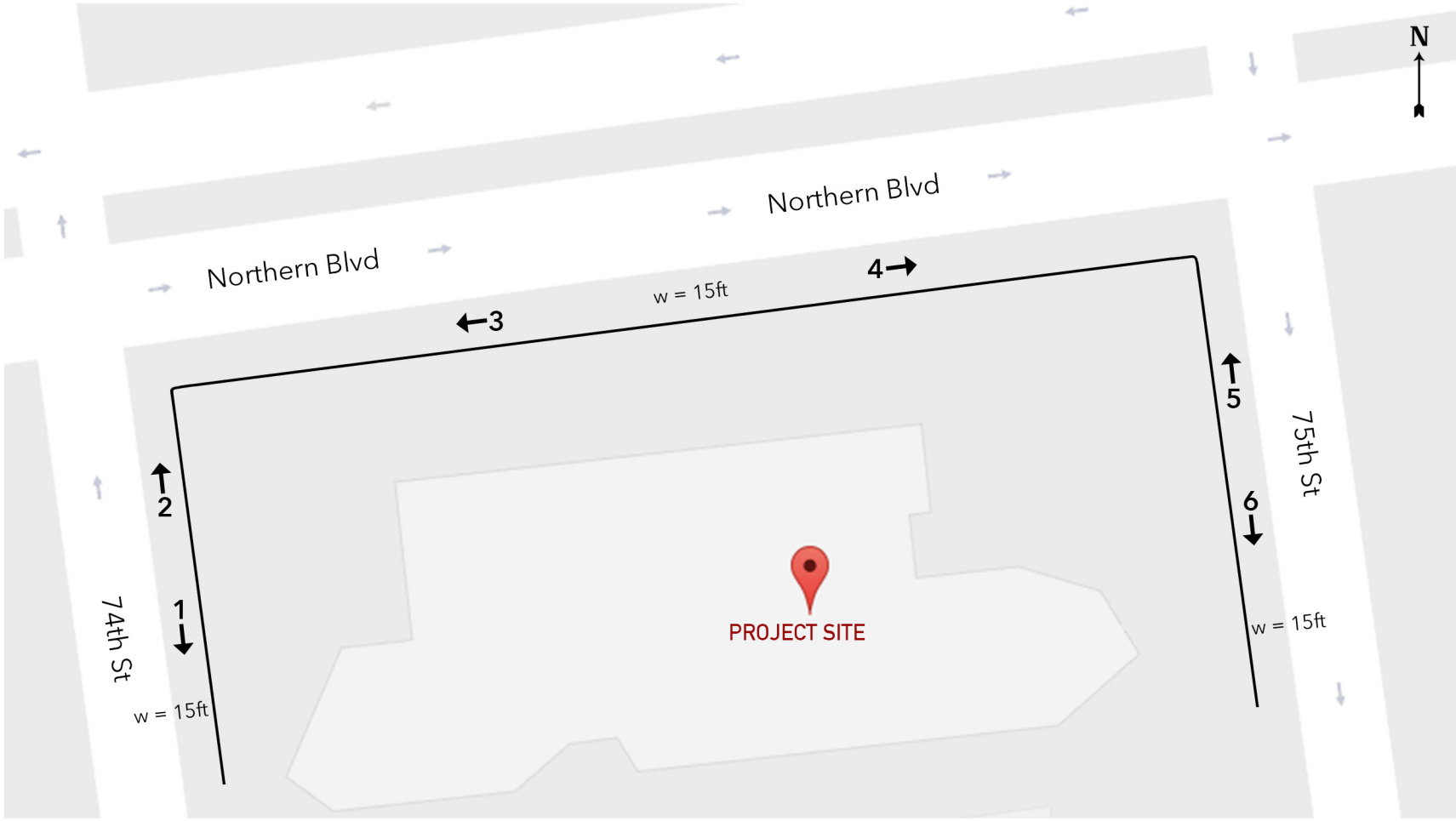
Table 6 : Estimated Vehicular Trips

74-04 Northern Boulevard, Queens NY

Scenario Two

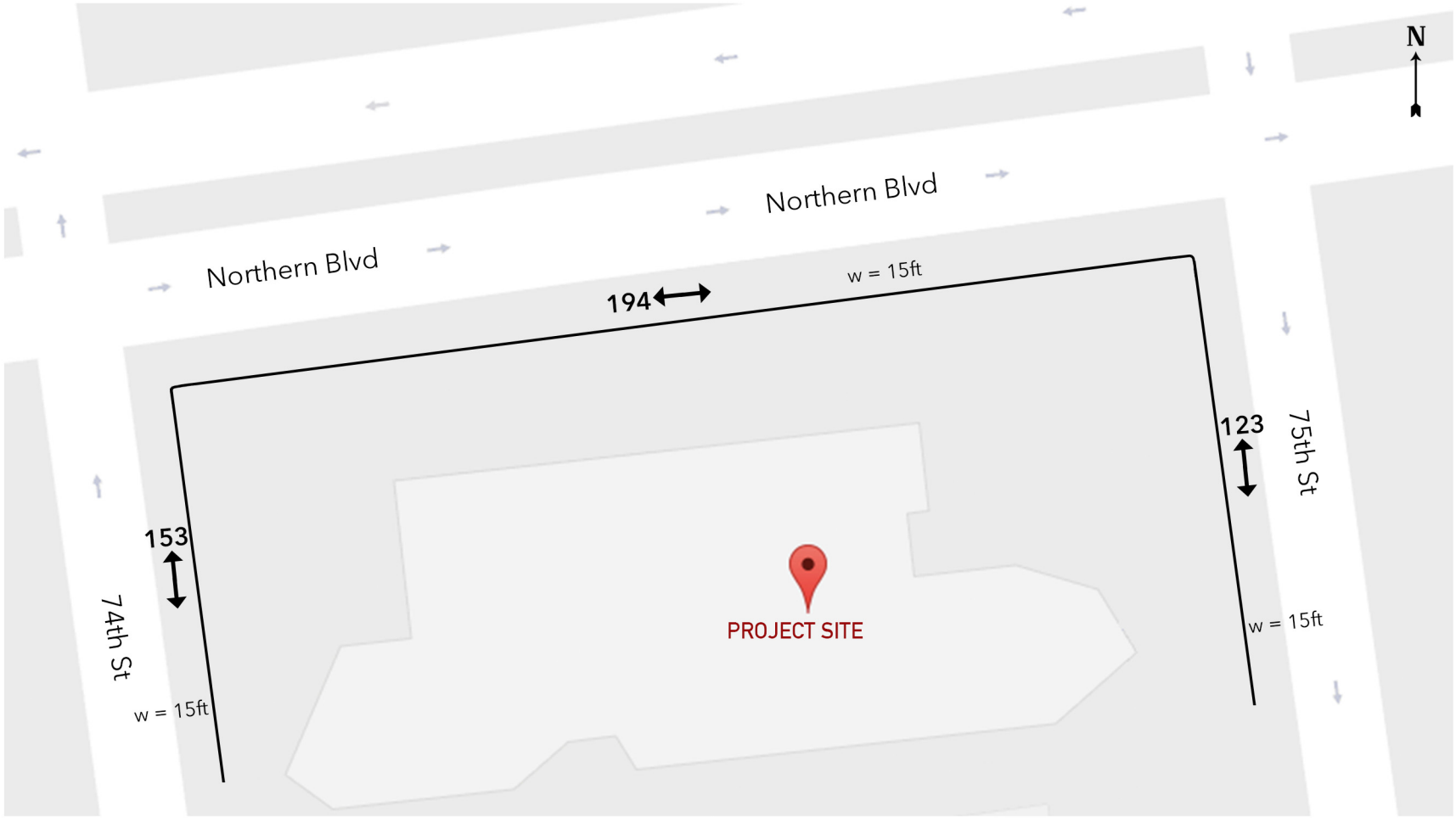
Vehicular Trips	Residential	Local Retail	Medical Office	Total
AM Peak Hour				
Auto (Total)	9	1	0	10
Taxi	0	1	0	1
Taxi (Balanced)	0	2	0	2
Truck	0	1	0	1
Truck(Balanced)	2	2	0	4
Total	11	5	0	16
Midday Peak Hour				
Auto (Total)	5	5	0	10
Taxi	0	8	0	8
Taxi (Balanced)	4	12	0	16
Truck	0	1	0	1
Truck(Balanced)	2	2	0	4
Total	11	19	0	30
PM Peak Hour				
Auto (Total)	10	3	0	13
Taxi	0	4	0	5
Taxi (Balanced)	2	8	0	10
Truck	0	0	0	0
Truck(Balanced)	0	0	0	0
Total	12	11	0	23
Saturday Midday Peak Hour				
Auto (Total)	9	3	0	12
Taxi	0	5	0	5
Taxi (Balanced)	0	8	0	8
Truck	0	0	0	0
Truck(Balanced)	0	0	0	0
Total	9	11	0	**20**

74-04 Northern Boulevard
Flushing, NY 11372
12-20-16
Re: Pedestrian Count



w = sidewalk width

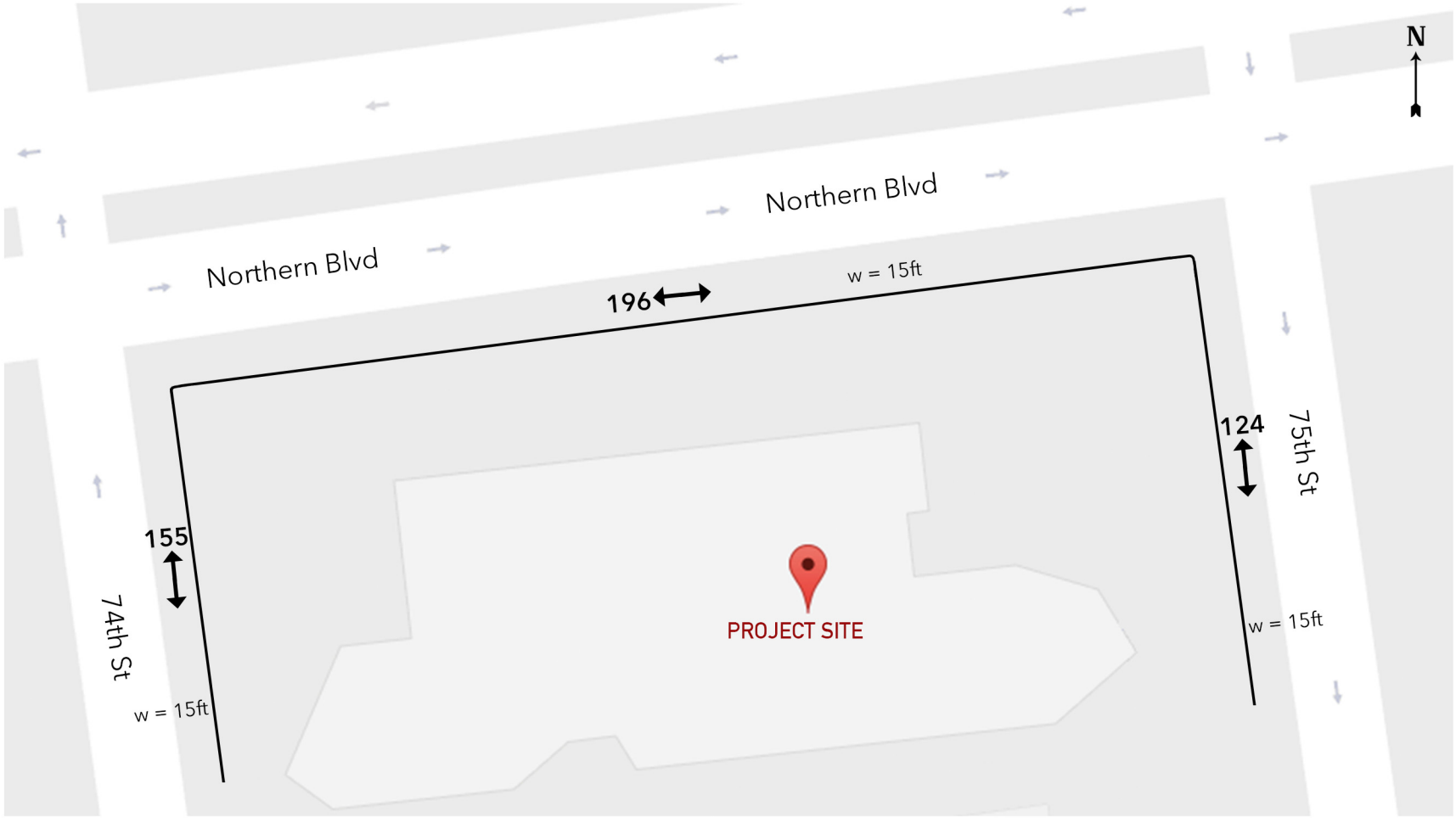
Pedestrian Movements	1	2	3	4	5	6
1:00 PM - 1:15 PM	15	17	20	21	12	11
1:15 PM - 1:30 PM	18	18	23	24	15	14
1:30 PM - 1:45 PM	20	21	23	28	17	18
1:45 PM - 2:00 PM	21	23	25	30	16	20
Total	**74**	**79**	**91**	**103**	**60**	**63**
PHF	**0.87**		**0.88**		**0.855**	



Project Site: 74-04 Northern Boulevard
Flushing, NY 11372

w = sidewalk width

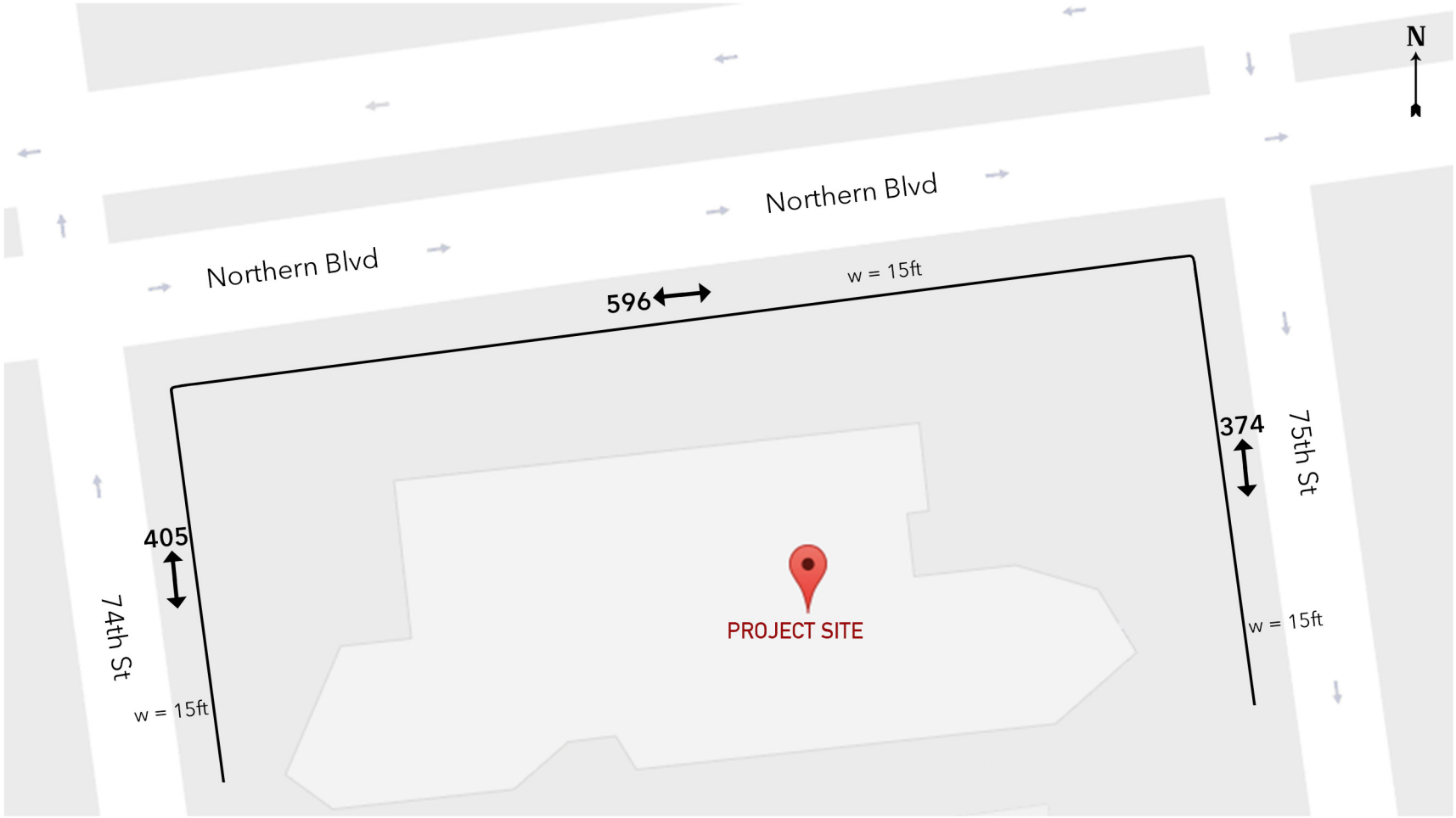
2016 Existing Pedestrian Volumes
(1:00 PM - 2:00 PM) Weekday Midday Peak Hour
Figure 1



Project Site: 74-04 Northern Boulevard
Flushing, NY 11372

w = sidewalk width

2018 No-Build Pedestrian Volumes
(1:00 PM - 2:00 PM) Weekday Midday Peak Hour
Figure 2



Project Site: 74-04 Northern Boulevard
Flushing, NY 11372

w = sidewalk width

2018 Build Pedestrian Volumes
(1:00 PM - 2:00 PM) Weekday Midday Peak Hour
Figure 3

APPENDIX B:

DEP AIR QUALITY PERMIT INQUIRY

74-04 Northern Boulevard - Air Permit Search Locations

Block	Lot(s)	Address
1172	45	76-19 NORTHERN BOULEVARD, QUEENS 11372
1171	36	75-09 NORTHERN BOULEVARD, QUEENS 11372
1171	41	75-01 NORTHERN BOULEVARD, QUEENS 11372
1170	38	74-15 NORTHERN BOULEVARD, QUEENS 11372
1170	47	74-05 NORTHERN BOULEVARD, QUEENS 11372
1248	5	75-20 NORTHERN BOULEVARD, QUEENS 11372
1248	1	75-10 NORTHERN BOULEVARD, QUEENS 11372
1247	1	74-04 NORTHERN BOULEVARD, QUEENS 11372
1246	6	73-22 NORTHERN BOULEVARD, QUEENS 11372
1246	6	73-14 NORTHERN BOULEVARD, QUEENS 11372

74-04 Northern Boulevard - Air Permit Search Locations

HOT LIST
-DRY CLEANERS
-AUTO BODY (COLLISION REPAIR) OR AUTOMOTIVE PAINTING
-MEDICAL OR CHEMICAL LAB
-CONCRETE BATCHING PLANT
-OTHER -- things that are obviously noxious that for some reason aren't purple on the land use map. Like, water treatment plants, garbage transfer stations, power plants, oil refinery, etc.,

Block	Lot(s)	Address	Use
1172	45	76-19 NORTHERN BOULEVARD, QUEENS 11372	Gas Station
1171	36	75-09 NORTHERN BOULEVARD, QUEENS 11372	Gas Station
1171	41	75-01 NORTHERN BOULEVARD, QUEENS 11372	Car Dealership
1170	38	74-15 NORTHERN BOULEVARD, QUEENS 11372	Car Dealership
1170	47	74-05 NORTHERN BOULEVARD, QUEENS 11372	Car Dealership
1248	5	75-20 NORTHERN BOULEVARD, QUEENS 11372	Car Dealership
1248	1	75-10 NORTHERN BOULEVARD, QUEENS 11372	Car Dealership
1247	1	74-04 NORTHERN BOULEVARD, QUEENS 11372	Car Wash
1246	6	73-22 NORTHERN BOULEVARD, QUEENS 11372	Planet Auto
1246	6	73-14 NORTHERN BOULEVARD, QUEENS 11372	Laundromat/Dry Cleaner

Gmail by Google

Cherisse Vickers <cher@urbancartographics.com>

Air Permit Search: 74-04 Northern Boulevard

Cofield, Brenda <BCofield@dep.nyc.gov> Tue, Apr 26, 2016 at 9:10 AM
To: "cher@urbancartographics.com" <cher@urbancartographics.com>
Cc: "Narvaez, Angel" <AngelN@dep.nyc.gov>

Hi Cher,

Below please find the search you requested on April 14 for and around the above mentioned area.

Sorry I'm just getting back to you on this one.

Enjoy your day.

74-04 Northern Boulevard - Queens 11372

BLOCK	LOT	Column1	ADDRESS	INDUSTRIAL INSTALLATION NUMBERS
1172	45		76-19 Northern Boulevard	PB007812, GB003009
1171	36		75-09 Northern Boulevard	GB003709
1171	41		75-01 Northern Boulevard	No Record
1170	38		74-15 Northern Boulevard	No Record
1170	47		74-05 Northern Boulevard	No Record
1248	5		75-20 Northern Boulevard	No Record
1248	1		75-10 Northern Boulevard	No Record
1247	1		74-04 Northern Boulevard	No Record
1246	6		73-22 Northern Boulevard	No Record
1246	6		73-14 Northern Boulevard	No Record

Brenda

From: Narvaez, Angel
Sent: Thursday, April 14, 2016 8:15 AM
To: Cofield, Brenda <BCofield@dep.nyc.gov>
Subject: FW: Air Permit Search: 74-04 Northern Boulevard

From: Cherisse Vickers [mailto:cher@urbancartographics.com]
Sent: Wednesday, April 13, 2016 6:56 PM
To: Narvaez, Angel <AngelN@dep.nyc.gov>; Cofield, Brenda <BCofield@dep.nyc.gov>
Subject: Air Permit Search: 74-04 Northern Boulevard

[Quoted text hidden]

NYC Environmental Protection

Carter H. Strickland Jr.
Commissioner

THE CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Environmental Compliance
59-17 Junction Boulevard, 9th Floor, Flushing, New York 11373
Records Control (718) 595-3855

PC 137 Rev 10/11

Michael Gilsenan
Assistant Commissioner
Environmental Compliance

Notice of Application Plans Approval
Work Permit

DISPLAY CERTIFICATE ON PREMISES NEAR EQUIPMENT
This Certificate is **NOT** Valid Without Official Seal

Application PB#	Date Mailed	Date Issued	Expiration Date	E.P. #	E.R.
PB 0078-12L	04/02/2012	03/19/12	09/19/12	11199	A

Professional Engineer:

KIT LIANG, P.E.
44 SOUTH BROADWAY, 15th FLOOR
WHITE PLAINS, N.Y. 10601
(914)641-2670

Owner:

EAST RIVER PETROLEUM REALTY
6920-B COMMERCIAL DRIVE
SPRINGFIELD, VA 22151

Premise Address: 76-11 NORTHERN BLVD - MOBILE SERVICE STATION #17-GFT

Floor: | Borough: Queens

Zip Code	Block	Lot
11370	1172	45

☐ We are pleased to advise you that your application for **legalization of the existing installation has been approved**. One set of the approved plans is returned herewith to the filer of the record. Note bottom paragraph.

☒ We are pleased to advise you that your application for **work permit for the new installation / alteration has been approved**. One set of the approved plans is returned herewith to the filer of the record. Note bottom paragraph.

Description of Installation:	Used: Hours / Day:	Days / Year:
SOIL REMIDIATION AIR EMISSIONS CONTROL UNIT - CATALYTIC OXIDIZER "FALCO 300."	24	365

Description of Equipment: AIR SPARGING is BEING APPLIED AT THIS SITE. AMBIENT AIR IS PUMPED UNDER THE SOIL SLAB INTO THE CONTAMINATED SOIL & ACTS AS AN EXTRACTOR AND TRANSPORTER FOR CONTAMINANTS UNDER THE SLAB. A BLOWER IS USED TO EXTRACT THE SATURATED AIR/VAPOR FROM WELLS & PULL IT THROUGH A MOISTURE SEPARATOR BEFORE BLOWING IT INTO THE CATALYTIC OXIDIZER.

Exhaust Equipment: THE STACK IS 4" INSIDE DIAMETER; 20' ABOVE GRADE ELEVATION & CONNECTED to the 5' high CATALYTIC OXIDIZER UNIT ("FALCO" 300); EXIT FLOW RATE of CATOX:375 acfm at 106F.

Control Equipment: CATALYTIC OXIDIZER " FALCO 300".

This permit is issued pursuant to a Certification by the professional engineer of record, acting as designated agent for the equipment owner, that all documents submitted in connection with this application are completed and fully comply with all applicable laws, codes, rules, regulations, and directives of the Department of Environmental Protection of the City of New York in effect at the time filed.

No person shall cause or permit the use or operation of equipment or apparatus for which an installation or alteration permit is required, without first obtaining an Operating Certificate. Any purported or attempted transfer of this permit automatically revokes the permit, pursuant to the New York City Air Pollution Control Code.

To obtain a Certificate of Operation, a written request for an inspection must be made to this Division on Form # AR365. This must be done within thirty (30) days after completion of a new or altered installation.

Special Conditions / Remarks

Installer:

TO BE NAMED

R. Radhakrishnan, P.E.
Director of Engineering / For the Commissioner

FOR GENERAL INFORMATION, QUESTIONS, AND INQUIRIES: Please visit our website at www.nyc.gov/dep or call 311

A.G. /E 047

ARCADIS
Infrastructure · Water · Environment · Buildings

ARCADIS-US
44 South Broadway
15th Floor
Box 751
White Plains
New York 10602-0751
Tel 914 694 2100
Fax 914 694 9286
www.arcadis-us.com

Environmental

Mr. Krish Radhakrishnan, P.E.,
Executive Director,
New York City Department of Environmental Protection (NYCDEP)
Bureau of Environmental Compliance (BEC)
96-05 Horace Harding Expressway
Corona, New York 11368-5107

Subject:
Mobile Service Station #17-GFT
76-11 Northern Boulevard
Jackson Heights, NY 11370
NYCDEP BEC Work Permit Application for the Site Number 11199

Date:
March 5, 2012

Contact:
Kit Liang

Phone:
914-641-2670

Email:
Kit.Liang@ARCADIS-US.com

Our ref:
B0085850.1199

Dear Mr. Radhakrishnan:

ARCADIS is pleased to provide this Work Permit Application package prepared for East River Petroleum Realty for the soil vapor remediation project at Site 11199 in Jackson Heights, Queens. The air emissions from the soil vapor extraction process are currently being controlled by a catalytic oxidizer system and vented through stack (EP 11199). At a meeting between NYCDEP BEC staff and the ARCADIS team on November 21, 2011, BEC recommended that ARCADIS submit an application for a work permit to BEC for their review for this emission point (EP 11199) at the site. The following documents have been included in this work permit application package:

- Check for $315 for Schedule C Engineering Fee (process system less than 5000 cfm)
- Professional Certification (in triplicate).
- Completed Environmental Rating Report for EP 11199 (in triplicate).
- New York State Department of Environmental Conservation (NYSDEC) Form 76-19-3 with table of emissions calculations attached (in triplicate).
- Project Description (in triplicate), including the following:
    - Site location map
    - Site plan (11"x17") showing the following:
        - identification of emission point,
        - property line,
        - building zone (i.e., Block and Lot Number), and

- north orientation arrow.

- Flow diagram (11"x17") showing the following:
  - location of vapor extraction wells,
  - air stream water removal system, and
  - catalytic oxidizer unit with stack.
- Appendix A: Manufacturer Specifications and Catalyst MSDS, and
- Appendix B: Sampling Analysis Summary and Air Guide-1 Analyses

If you have any questions or comments, please do not hesitate to contact me at (914) 641-2670.

Sincerely,

ARCADIS US, Inc.

Kit Liang

Kit Liang, P.E.
Principal Chemical Engineer
Board Certified Environmental Engineer

cc: Andrew Korik

NYC Environmental Protection

THE CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Environmental Compliance
59-17 Junction Boulevard, 9th Floor, Flushing, New York 11373
Records Control (718) 595-3855

Rev 01/11

Fee $ 315 Receipt No. 002823
District Clerk

PROFESSIONAL CERTIFICATION

YOU MUST FILL OUT THIS FORM COMPLETELY.
INCOMPLETE FORMS WILL NOT BE ACCEPTED

Date: 03/05/2012

ORIGINAL-KEEP IN FILE

Installation Number: PB007812 L

Premise Information:

Street Address	Name of Premise (if any)
76-11 Northern Boulevard	Mobile Service Station #17-GFT

Floor	Room No.	Borough	Zip Code	BIN	Block	Lot
		Queens	11370	4026661	1172	45

PROFESSIONAL CERTIFICATION

Being duly mindful of my responsibilities as a licensed Professional Engineer / Registered Architect in the State of New York and acting as designated agent for the applicant, I hereby certify that the application, plans, and all supplementary documents submitted in connection with this filing are complete and fully comply with all applicable laws, codes, rules, regulations, and directives of the Department of Environmental Protection, Bureau of Environmental Compliance of the City of New York in effect at the time filed.

DEP AIR PERMITTING, BEC
2012 MAR -9 A 11:11

N.Y.S. P.E. or R. A. Seal: STATE OF NEW YORK · LIANG KIT YING · 07286-1 · LICENSED PROFESSIONAL ENGINEER

N.Y.S. P.E. or R. A. Signature:

N.Y.S. P.E. or R. A. Name: Kit Liang, P.E.

N.Y.S. P.E. or R. A. License Number: 07286-1

INSTRUCTIONS: Pursuant to Engineering Directive Number 1-78, this certification must be submitted in triplicate with all APC 5-0, APC 5-R, and APC 5-PA applications and does not preclude the necessity to sign and seal the certification now contained on the application forms.

FOR GENERAL INFORMATION, QUESTIONS, AND INQUIRIES: Please visit our website at www.nyc.gov/dep or call 311

Rev 01/11

NYC Environmental Protection

THE CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Environmental Compliance
Industrial Processes Division
59-17 Junction Boulevard, 9th Floor, Flushing, New York 11373
Records Control (718) 595-3855

ENVIRONMENTAL RATING REPORT

ORIGINAL KEPT IN FILE

EN NUMBER: _____

YOU MUST FILL OUT THIS FORM COMPLETELY.
INCOMPLETE FORMS WILL NOT BE ACCEPTED

Premise Identification Number:

Company / Organization Information:

Company Name: East River Petroleum Realty

Telephone:

Premise Information: 76-11 Northern Boulevard (Street Address) — Mobile Service Station #17-GFT (Name of Premise (if any))

Floor	Room No.	Borough	Zip Code	BIN	Block	Lot
		Queens	11370	4026661	1172	45

Mailing Address if different from Premise Address:	City:	State:	Zip Code
	Jackson Heights	NY	11370

Person Preparing Report Information:

Name:	Telephone:
Kit Liang, P.E.	(914) 641-2670
Address: 44 South Broadway, 15th Floor	**Mailing Address:** 44 South Broadway, 15th Floor
City: White Plains — **State:** NY — **Zip Code:** 10601	**City:** White Plains — **State:** NY — **Zip Code** 10601

Summary of Points of Emission:

SEC.	LOT	BLOCK
	45	1172

EMISSION POINT NUMBER	OPERATION PRODUCING EMISSION	ENVIRONMENTAL RATING	
		PROPOSED	ASSIGNED BY BEC
11199	Soil Remidiation Air Emissions Control Unit - Catalytic Oxidizer	A	A

THIS REPORT IS: ☑ NEW ☐ REVISION ☐ ADDENDUM

SIGNATURE: Kit Liang TITLE: Principal Engineer DATE: 3/6/12

FOR GENERAL INFORMATION, QUESTIONS, AND INQUIRIES: Please visit our website at www.nyc.gov/dep or call 311

ORIGINAL-KEEP IN FILE

New York State
Department of Environmental Conservation
PROCESS, EXHAUST OR VENTILATON SYSTEM

OP LOCATION FACILITY EMISSION POINT

1

A Add
C Change
D Delete

READ INSTRUCTIONS CONTAINED IN FORM 7-11-13 BEFORE ANSWERING ANY QUESTIONS

APPLICATION FOR PERMIT TO CONSTRUCT OR CERTIFICATE TO OPERATE

SECTION A

1. Name of Owner/Firm: East River Petroleum Realty
2. Number and Street Address: 6920-B Commercial Drive
3. City, Town - Village: Springfield | 4. State: VA | 5. Zip: 22151
6. Owner Classification: A. X Commercial C. ☐ Utility F. ☐ Municipal I. ☐ Residential B. ☐ Industrial D. ☐ Federal G. ☐ Educ. Inst. J. ☐ Other E. ☐ State H. ☐ Hospital
7. Name & Title of Owners Representative: Megan Tingley, Environmental Analyst | 8. Telephone: (703) 750-6810 ext. 140

9. Name of Authorized Agent: ARCADIS | 10. Telephone: (914) 694-2100
11. Number and Street Address: 44 South Broadway, 15th floor
12. City, Town – Village: White Plains | 13. State: NY | 14. Zip: 10601
15. Name of PE or Architect Preparing Application: Kit Liang | 16. NYS PE or Architect | 17. Telephone: (914) 694-2100
18. Signature of Owner, Owner's representative or Agent when applying for a Permit to Construct

KIT LING WING — STATE OF NEW YORK — 072867 — LICENSED PROFESSIONAL ENGINEER

19. Facility Name (if different from Owner/Firm): Mobile Service Station #17-GFT
20. Facility Location (Number and Street Address): 76-11 Northern Boulevard
21. City, Town – Village: Jackson Heights (Queens), NY | 22. Zip: 11370
23. Building Name or Number: Car service station | 24. Floor Name or Number: Outdoor
25. Start Up Date: 3 / 2012 (MO / YR) | 26. Drawing Numbers of Plans Submitted: Site Plan, Air Flow Diagram
27. Permit to Construct: A. X New Source B. ☐ Modification | 28. Certificate to Operate: A. ☐ New Source C. ☐ Existing Source B. ☐ Modification

SEC. B

29. Emission Point Id.	30. Ground Elevation (ft)	31. Height Above Structure (ft)	32. Stack Height (ft)	33. Inside Dimensions (in)	34. Exit Temp (°F)	35. Exit Velocity (ft/sec)	36. Exit Flow Rate (acfm)
1 1 1 9 9	40	10	20	4	106	49	375

37. Source Code	38. Hrs / Day	39. Days / Yr	40. % Operation By Season: Winter	Spring	Summer	Fall
4103	24	365	25	25	25	25

SEC. C

41. Describe Process Or Unit

Air sparging is being applied at this site. Ambient air is pumped under the soil slab into the contaminated soil and acts as an extractor and transporter for contaminants under the slab. A blower is used to extract the saturated air/vapor from wells and pull it through a moisture separator before blowing it into the catalytic oxidizer. The air is treated by a FALCO 300 catalytic oxidizer (CatOx) to remove contaminants and it is cooled down by an internal chiller by 75% before being released into the atmosphere through a stack. The stack is 3 inches (in.) in diameter (inside diameter) and 20 feet (ft.) stack above grade elevation, and is directly connected to the 5 ft. high catalytic oxidizer unit. The stack top is equipped with a rain-cap. The CatOx unit is designed to handle maximum of 350 standard cubic feet per minute (scfm) which is 375 actual cubic feet per minute (acfm) at 106° F.

SEC. D

Emission Control Equipment ID	Control Type	Manufacturer's name and Model Number	Disposal Method	Date Installed Month / Year	Useful Life
42.	43.	44. Falmouth Products, Inc. – FALCO 300	45.	46. 6 /2004	47.
48.	49.	50.	51.	52. /	53.

SECTION E

Calculations

Benzene

Maximum Effluent Concentration = 1.0 mg/m³ **Maximum Flow Rate = 236 scfm (6.8 m³/min)** **Conversion Factor = 2.2046x10⁻⁶ lb/mg**

Actual Emission (lb/hr) = Concentration (mg/m³) x Flow Rate (m³/min) x Conversion Factor (lb/mg) x 60 (min/hr)

1.0 mg/m³ x 6.8 m³/min x 2.2046x10⁻⁶ lb/mg x 60 min/hr = 0.0009 lb/hr

SECTION F

Contaminant Name	CAS Number	Input or Production	Unit	Env. Rating	Emissions: Actual	Unit	How Det.	Permissible	% Control Effic'cy	Hourly Emissions (lbs/hr): ERP	Hourly Emissions (lbs/hr): Actual	Annual Emissions (lbs/yr): Actual	Annual Emissions (lbs/yr): 10%	Annual Emissions (lbs/yr): Permissible
54. **Benzene**	55. **00071-43-2**	56.	57. **1**	58. **A**	59. **0.00089**	60.	61.	62.	63. **50**	64. **0.00179**	65. **0.00089**	66. **7.825**	67. **00**	68.
69. **Toluene**	70. **00108-88-3**	70.	72. **1**	73. **C**	74. **0.00134**	75.	76.	77.	78. **44**	79. **0.00304**	80. **0.00134**	81. **1.174**	82. **01**	83.
84. **Ethylbenzene**	85. **00100-41-4**	86.	87. **1**	88. **B**	89. **0.00089**	90.	91.	92.	93. **50**	94. **0.00179**	95. **0.00089**	96. **7.825**	97. **00**	98.
99. **Xylene**	100. **1330-20-7**	101.	102. **1**	103. **B**	104. **0.00134**	105.	106.	107.	108. **50**	109. **0.00268**	110. **0.00134**	111. **1.174**	112. **01**	113.
114. **MTBE***	115. **01634-04-4**	116.	117. **1**	118. **A**	119. **0.00052**	120.	121.	122.	123. **42**	124. **0.00125**	125. **0.00052**	126. **4.583**	127. **00**	128.
129. **TPH***	130.	131.	132. **1**	133.	134. **0.41093**	135.	136.	137.	138. **46**	139. **0.88438**	140. **0.41093**	141. **3.600**	142. **03**	143.

***See Table A for Emissions**

SEC. G

Solid Fuel: Type	Tons / Yr	% S	Liquid Fuel: Type	Thousands of Gallons / Yr	% S	Gas: Type	Thousands of CF / Yr	BTU / CF
144.	145.	146.	147.	148.	149.	150.	151.	152.

Applicable Rule	Applicable Rule
153. 212	154.

Upon completion of construction sign the statement listed below and forward to the appropriate field representative.

THE PROCESS, EXHAUST OR VENTILATION SYSTEM HAS BEEN CONSTRUCTED AND WILL BE OPERATED IN ACCORDANCE WITH STATED SPECIFICATIONS AND IN CONFORMANCE WITH ALL PROVISIONS OF EXISTING REGULATIONS

155. Signature of Authorized Representative or Agent | Date

AGENCY USE ONLY

156. Location Code	157. Facility Id No.	158. U.T.M. (E)	159. U.T.M. (N)	160. SIC Number	161. Date Appl. Received	162. Date Appl. Reviewed	163. Reviewed By:
				1612	03 / 15 / 2012		Q. G.

PERMIT TO CONSTRUCT

164. Date Issued	165. Expiration Date	166. Signature of Approval	167. Fee
/ /	/ /		

168.
1. Deviation from approved application shall void this permit.
2. This is not a Certificate to Operate.
3. Tests and/or additional emission control equipment may be required prior to the issuance of a Certificate to Operate.

CERTIFICATE TO OPERATE

169. Date Issued	170. Expiration Date	171. Signature of Approval	172. Fee
/ /	/ /		

173.
1. ☐ Inspected by _____ Date _____
2. ☐ Inspection disclosed differences as built vs permit, changes indicated on form
3. ☐ Issue certificate to operate for source as built
4. ☐ Application for C O. denied _____ Date _____ Initialed

174. Special Condition

1. PB 0078-12L
2.
3.
4.
5.
6.
7.
8.

Table A
11199 - Total Emission Rates
76-11 Northern Boulevard
Jackson Heights, New York

CONTAMINANT					EMISSIONS[1,2]					HOURLY EMISSIONS (LBS/HR)		ANNUAL EMISSIONS (LBS/YR)		
NAME	CAS NUMBER	INPUT OR PRODUCTION	UNIT	ENV. RATING	ACTUAL	UNIT	HOW DET.	PERMISSIBLE	% CONTROL EFFICIENCY[3]	ERP	ACTUAL	ACTUAL	10^X	PERMISSIBLE
Benzene	00071-43-2		1	A	0.00089	1	1		50	0.00179	0.00089	7.825E+00	0	
Toluene	00108-88-3		1	C	0.00134	1	1		44	0.00304	0.00134	1.174E+01	0	
Ethylbenzene	00100-41-4		1	B	0.00089	1	1		50	0.00179	0.00089	7.825E+00	0	
Xylene	1330-20-7		1	B	0.00134	1	1		50	0.00268	0.00134	1.174E+01	0	
MTBE[4]	01634-04-4		1	A	0.00052	1	1		42	0.00125	0.00052	4.583E+00	0	
TPH[5]			1		0.41093	1	1		46	0.88438	0.41093	3.600E+03	0	

1. Hourly and annual BTEX emissions were developed using the monthly air sampling data and mass balance calculations.
2. The total emissions for the soil remediation site 11199 will be directed through one stack (EP# 11199).
3. % Control efficiancy based on effluent - influent values. Actual operational control efficiency may be significantly higher.
4. MTBE - methyl tertiary-butyl ether
5. Total petroleum hydrocarbon (TPH): may include hexane, benzene, toluene, xylenes, naphthalene, and fluorene, other constituents of gasoline, of jet fuels, of mineral oils, and of other petroleum products.

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East River Petroleum Realty

NYCDEP BEC Work Permit Application

Project Description

Site Number 11199

Mobile Service Station #17-GFT
76-11 Northern Boulevard
Jackson Heights, NY 11370

March 2012



3/6/2012

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Table of Contents

1.	**Project Site Description**	1
2.	**Soil Vapor Extraction/Air System**	1
3.	**Emission Rate Estimation**	2
4.	**Compliance with *Air Guide-1* Guideline Concentrations**	2
5.	**Project Schedule**	3

Appendices

Appendix A - Manufacturer Specifications and Catalyst MSDS

Appendix B - Laboratory Analysis Summary and Air Guide-1 Analyses

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Project Description for
Site Number 11199

1. Project Site Description

The Mobile Service Station #17-GFT is located at 76-11 Northern Boulevard, Jackson Heights (Queens), NY (see Figure 1). The remediation site is surrounded by commercial and residential buildings.

The remediation project, a soil vapor extraction/air system - SVE/AS, was activated in June 2007. The system was operating until February of 2011, when it was shut down due to technical issues. Influent and effluent samples of the SVE/AS system were collected on September 1, October 5, November 2, December 15, 2010, and January 18 and February 4, 2011. After evaluation of the air samples the system is planned to restart for a pilot test in April 2012. The system extracts vapors under vacuum from ten (10) SVE wells at the site. A catalytic oxidizer is used to control air emissions from the soil vapor extracted from the site wells prior to exhaust to the atmosphere via a single stack. Monthly air sampling of the SVE/AS system gases will be conducted. Each month, influent and effluent air samples are collected and analyzed by an outside laboratory (Lancaster Laboratories, Inc.) for benzene, toluene, ethylbenzene, and xylenes (i.e., BTEX compounds), along with methyl-tertiary-butyl ether (MTBE), and total petroleum hydrocarbon (TPH), which may include hexane, benzene, toluene, xylenes, naphthalene, fluorine, and other constituents of gasoline, jet fuels, mineral oils, and other petroleum products. Influent air is sampled prior to the catalytic oxidizer; the effluent air is sampled at the stack.

2. Soil Vapor Extraction/Air System

The SVE system at the site uses air sparging. Ambient air is pumped under the soil slab into the contaminated soil and acts as an extractor and transporter for contaminants under the slab. A blower is used to extract the saturated air/vapor from the ten (10) wells at the site and through a moisture separator before sending it into a FALCO 300 catalytic oxidizer (CatOx) system (see Appendix A for manufacturer specifications) to remove contaminants. Figure 2 is a site plan showing the location of the wells and the CatOx system. The CatOx unit is designed to handle a maximum of 350 standard cubic feet per minute (scfm) of air. A flow process diagram of the SVE/CatOx system is provided in Figure 3. The air from the CatOx unit is then passed through a heat exchanger (to recycle the heat) before being released into the atmosphere through a single stack. The stack top is equipped with a rain-cap (see Figure 4).

In the second stage of remediation, when the contaminants in the soil and ground water reach low levels the CatOx system will be replaced by a carbon system. Once

the air passes through a moisture separator it will than pass through a carbon vessel. The effluent air from the carbon vessel will be emitted through a single stack into the atmosphere (see Figure 5).

3. Emission Rate Estimation

The maximum effluent concentration reported in 2011 was used to estimate emissions from the operation of the remediation system. Appendix B provides the field notes and lab analysis summary for the 2011 sampling events, including influent and effluent concentrations (Tables B-1 and B-2) and mass emissions (Table B-3). In the event that the effluent concentration was below the method detection limit (MDL) for a contaminant during the entire year, that concentration was set to ½ the MDL. Otherwise, the maximum reportable concentration was used to estimate the emissions. The short-term emission rate was determined from the actual average system flow rate and the effluent concentration. The annual emission rate was determined based on the short-term emission rate assuming continuous operation of the CatOx system (i.e., 8760 hours per year).

4. Compliance with *Air Guide-1* Guideline Concentrations

New York State seeks to control the ambient levels of air toxics through the use of recommended guideline concentrations in the New York Code, Rules and Regulations (6 NYCRR Part 201). These "non-criteria pollutants" include carcinogens, as well as non-carcinogenic compounds and irritants. The New York State Department of Environmental Conservation (NYSDEC) provides 1-hour and annual average guideline concentrations called *Short-term Guideline Concentrations* (SGCs) and *Annual Guideline Concentrations* (AGCs) for these compounds. These guideline concentrations are discussed in NYSDEC's *DAR-1* (formerly *Air Guide-1*, NYSDEC, 1997) and current values are provided in *NYSDEC DAR-1 AGC/SGC Tables,* (NYSDEC, October 18, 2010).

An analysis was performed to determine the compliance of the air emissions from stack with the guideline concentrations, and using AG-1, NYSDEC's computerized dispersion model (available for download from the NYSDEC website). The analysis demonstrated that the emissions from EP 11199 from the operation of the SVE system at the site were well below both the SGCs and AGCs for the applicable contaminants. Tables B-4 and B-5 in Appendix B present the results of the analysis. Tables B-6a to

B-6e show the summary input and output tables from the AG-1 modeling analysis for EP11199.

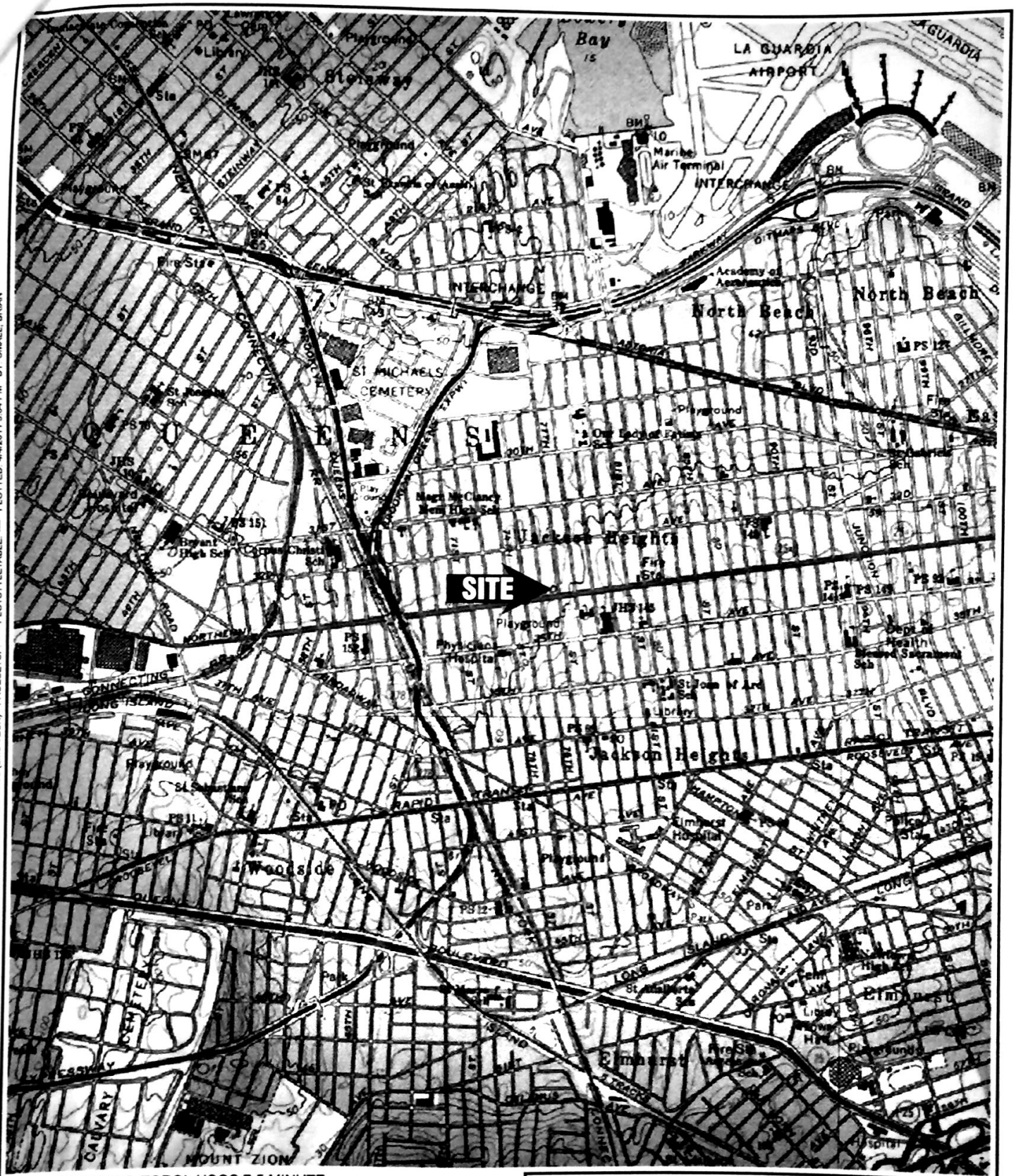
5. Project Schedule

The Site 11199 SVE remediation project was activated in April 2006 and it was shut off for maintenance in February 2011. The system will be brought back online in April 2012 for pilot testing and additional air sampling. Once it is determined that the contaminants found in the water and soil at the site meet acceptable levels the system will be switched from CatOx to carbon adsorption system. No definite date has been set for the termination of the project.

References

NYSDEC, 1997. *DAR-1 Guidelines for the Control of Toxic Ambient Air Contaminants.* New York State Department of Environmental Conservation, Division of Air Resources, Bureau of Stationary Sources. Issue date: November 12, 1997.

NYSDEC, 2010. *NYSDEC DAR-1 AGC/SGC Tables,* October 18, 2010.



REFERENCE: TOPO!, USGS 7.5 MINUTE
QUAD: CENTRAL PARK, NEW YORK
DATED: 1999

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0 2000' 4000'
GRAPHIC SCALE

MOBIL BRANDED SERVICE STATION
FORMER MOBIL #11199 (17-GFT)
76-11 NORTHERN BOULEVARD
JACKSON HEIGHTS, NEW YORK

SITE LOCATION MAP

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FIGURE 1

CITY: MANCHESTER, CT DIV/GROUP: ENVCAD DB: B. SMALL PM: E.CHOQUETTE
G:\ENVCAD\Manchester\ACT\B00858501\11990001\B00858501199.dwg LAYOUT: FIGURE 1 SAVED: 4/4/2011 11:34 AM ACADVER: 18.0S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: ---- PLOTTED: 4/4/2011 3:04 PM BY: SMALL, BRIAN
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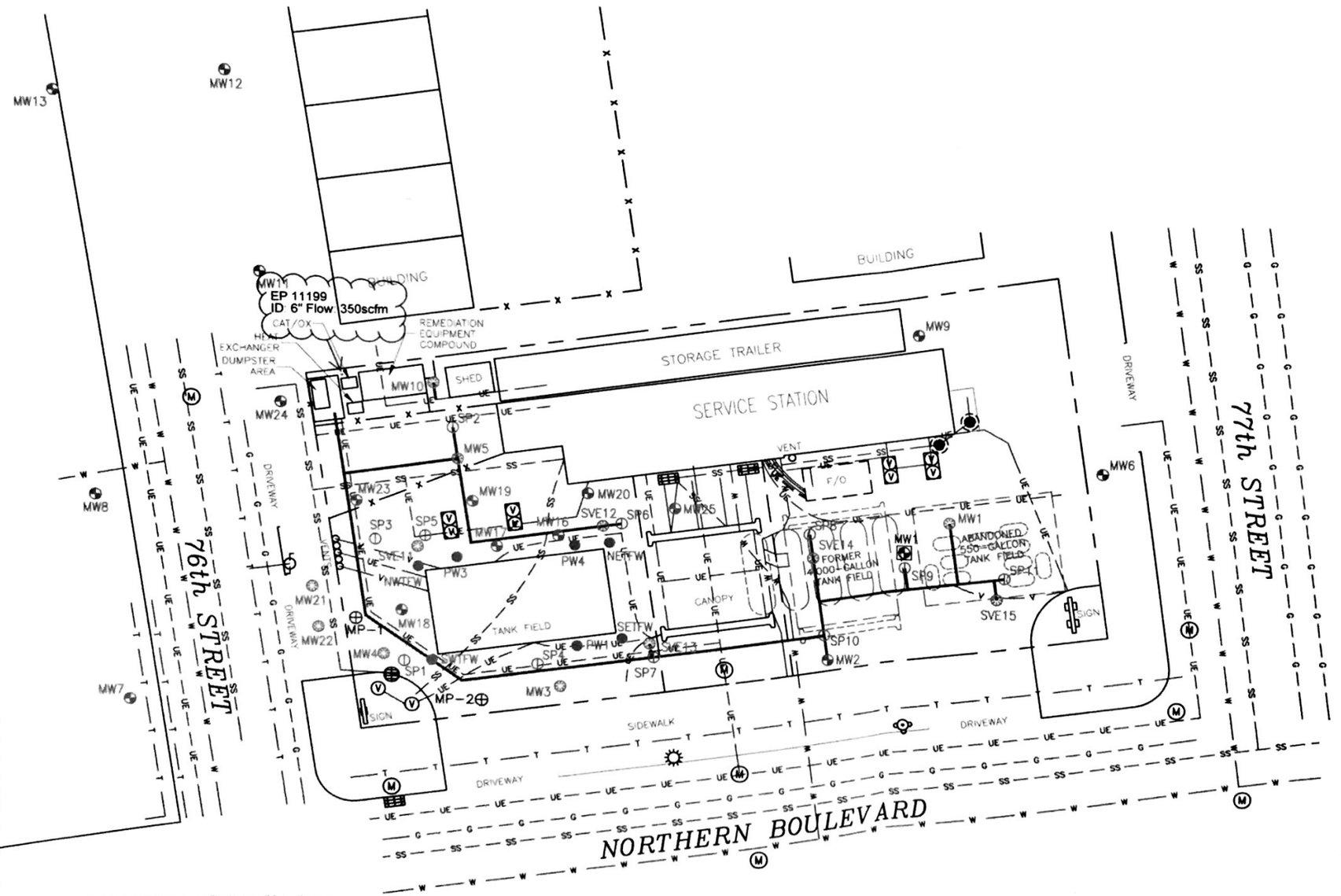

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LEGEND:

- PROPERTY LINE
- FENCE LINE
- UNDERGROUND SANITARY SEWER LINE
- UNDERGROUND TELEPHONE LINE
- UNDERGROUND ELECTRIC LINE
- UNDERGROUND WATER LINE
- UNDERGROUND GAS LINE
- ABANDONED VENT LINE
- REMEDIAL TRENCH LAYOUT
- MONITORING WELL
- MONITORING POINT
- TANK FIELD WELL
- DESTROYED MONITORING WELL
- SOIL VAPOR EXTRACTION WELL
- AIR SPARGE WELL
- F/O FUEL OIL TANK
- STORM DRAIN
- CATCH BASIN
- UTILITY MANHOLE
- FIRE HYDRANT
- LIGHT POLE
- UTILITY POLE

Block 1172
Lot 45

STATE OF NEW YORK
LIANG KIT YING
07286-1
LICENSED PROFESSIONAL ENGINEER
3/6/2012

NOTES:

1. THIS DRAWING IS REFERENCED FROM THE FOLLOWING:

A. "SITE MAP", BY: GES, DATED:10/05/10, SCALE: 1"=30'.

APPROVED for construction in accordance with Application, Amendment(s) and Work Permit No.
PB0078-12L
A. G.
Engineer
03/19/2012
Date

0 30' 60'
GRAPHIC SCALE

MOBIL BRANDED SERVICE STATION
FORMER MOBIL #11199 (17-GFT)
76-11 NORTHERN BOULEVARD
JACKSON HEIGHTS, NEW YORK

SITE PLAN

ARCADIS

FIGURE 2

CITY: MANCHESTER_CT DIV/GROUP: ENVCAD DB: B. SMALL PM: E.CHOQUETTE
G:\ENVCAD\Manchester\ACT\180058550\11199000018\00858501199.dwg LAYOUT: FIGURE 2 SAVED: 4/5/2011 5:13 PM ACADVER: 18.0S (LMS TECH) PAGESETUP: -- PLOTSTYLETABLE: -- PLOTTED: 4/6/2011 5:14 PM BY: SMALL, BRIAN

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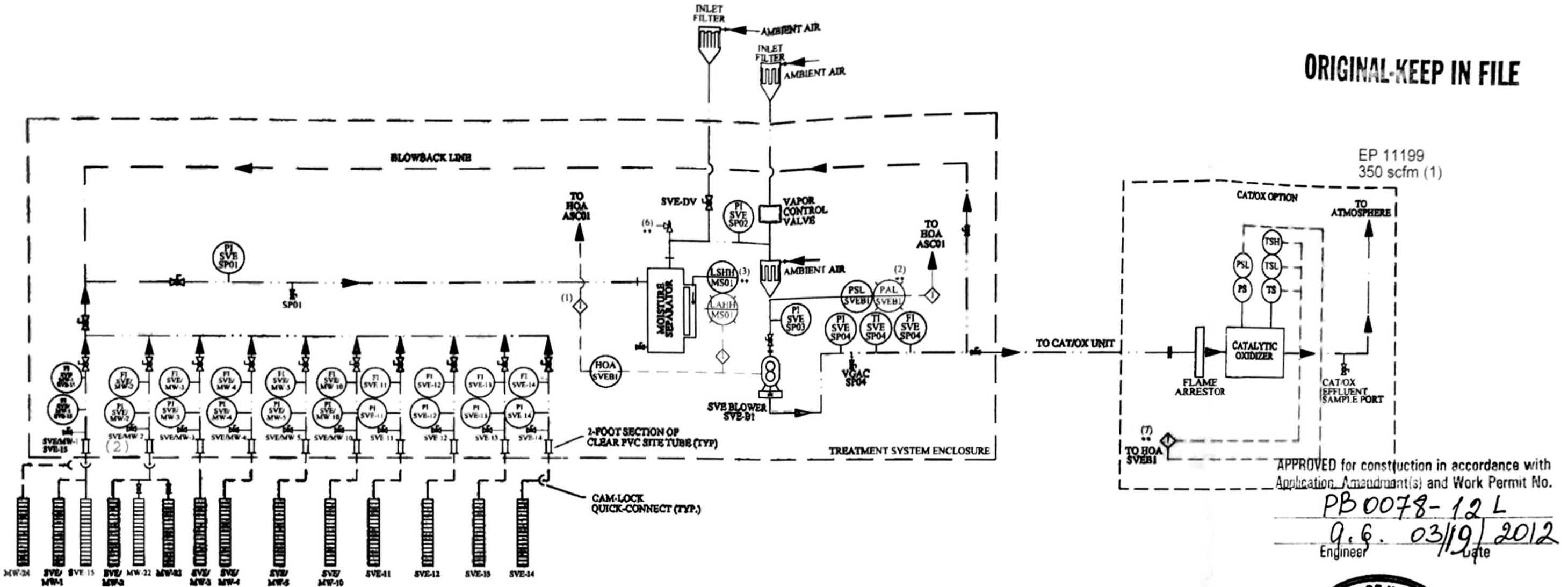
EP 11199
350 scfm (1)



SVE BLOWER			
POSITION	EXPECTED VACUUM	EXPECTED TEMP.	EXPECTED FLOW
PI-SVESP01	96 IWC		
TI-SVESP01		TBD	
FI-SVESP01			350 SCFM

VAPOR EXTRACTION WELLS & MANIFOLD						
POSITION	EXPECTED VACUUM	EXPECTED FLOW	CASING DIAMETER	TOTAL DEPTH	DEPTH TO WATER	SCREEN INTERVAL
SVE/MW-1	32 IWC	~55 SCFM	4-inch	25'	~14'-15'	~5'-25'
SVE/MW-2	32 IWC	~55 SCFM	4-inch	25'	~14'-15'	~5'-25'
SVE/MW-3	32 IWC	~55 SCFM	4-inch	25'	~14'-15'	~5'-25'
SVE/MW-4	32 IWC	~55 SCFM	4-inch	25'	~14'-15'	~5'-25'
SVE/MW-5	32 IWC	~55 SCFM	2-inch	25'	~14'-15'	~5'-25'
SVE/MW-10	32 IWC	~55 SCFM	2-inch	25'	~14'-15'	~5'-25'
SVE-11	32 IWC	~55 SCFM	4-inch	25'	~14'-15'	~5'-25'
SVE-12	32 IWC	~55 SCFM	4-inch	25'	~14'-15'	~5'-25'
SVE-13	32 IWC	~55 SCFM	4-inch	25'	~14'-15'	~5'-25'
SVE-14	32 IWC	~55 SCFM	4-inch	25'	~14'-15'	~5'-25'
SVE-15	32 IWC	~55 SCFM	4-inch	25'	~14'-15'	~5'-25'

** CRITICAL EQUIPMENT

CRITICAL EQUIPMENT SCHEDULE		
I.D.	DEVICE	FUNCTION
(1)	SVE/AS INTERLOCK	SPARGE COMPRESSOR IS SHUT DOWN WHEN SVE BLOWER IS NOT OPERATING
(2)	SVE LOW VACUUM SWITCH	DEACTIVATES SYSTEM IF SWITCH SENSES LOW VACUUM ON THE SVE MANIFOLD PIPING
(3)	MOISTURE SEPARATOR HIGH LEVEL SWITCH	HIGH-LEVEL ALARM SHUTS DOWN SVE BLOWER
(4)	AS HIGH TEMP	DEACTIVATES AS MOTOR IF HIGH TEMP IS SENSED IN AIR FLOW
(5)	AS PRESSURE RELIEF VALVE	ALLEVIATE EXCESSIVE PRESSURE IN SPARGE LEG IN THE EVENT OF BLOCKAGE
(6)	SVE VACUUM RELIEF VALVE	ALLEVIATE EXCESSIVE VACUUM IN THE EVENT OF BLOCKAGE
(7)	CAT/OX HIGH AND LOW TEMPERATURE FAILSAFE	SYSTEM IS SHUT DOWN WHEN CAT/OX TEMPERATURE IS OUT OF OPERATING RANGE

APPROVED for construction in accordance with Application, Amendment(s) and Work Permit No.
PB0078-12L
9.6. 03/19/2012
Engineer Date

STATE OF NEW YORK
LIANG KIT YING
07286-1
LICENSED PROFESSIONAL ENGINEER
3/16/2012

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NOTES:

(1). The flow rate of 350 standard cubic feet per minute (scfm) is the manufacturer's set maximum flow rate for the catalytic oxidizer system. Flow rate varies during regular operation.

(2) Several wells can be manifold in to one extraction point.

SOURCE:

DRAWN BY:	CW
REVISED BY:	ASD
CHECKED BY:	
DATE: 11/28/2007	APPROVED BY:

KLEINFELDER
ONE CORPORATE DRIVE, SUITE 201
BOHEMIA, NY 11716
PH. (631) 218-0612 FAX. (631) 218-0787
www.kleinfelder.com

SOIL VAPOR EXTRACTION PROCESS AND INSTRUMENTATION DIAGRAM

MOBIL SERVICE STATION No. 11199 (17-GFT)
78-11 NORTHERN BOULEVARD
JACKSON HEIGHTS, NEW YORK

FIGURE 3

L:\Projects\ExxonMobil\Queens\11199 17-GFT Jackson Heights\CADD-Figures\O&M MANUAL\2007\NOV\11199 17-GFT P&ID.dwg, ADIFalco

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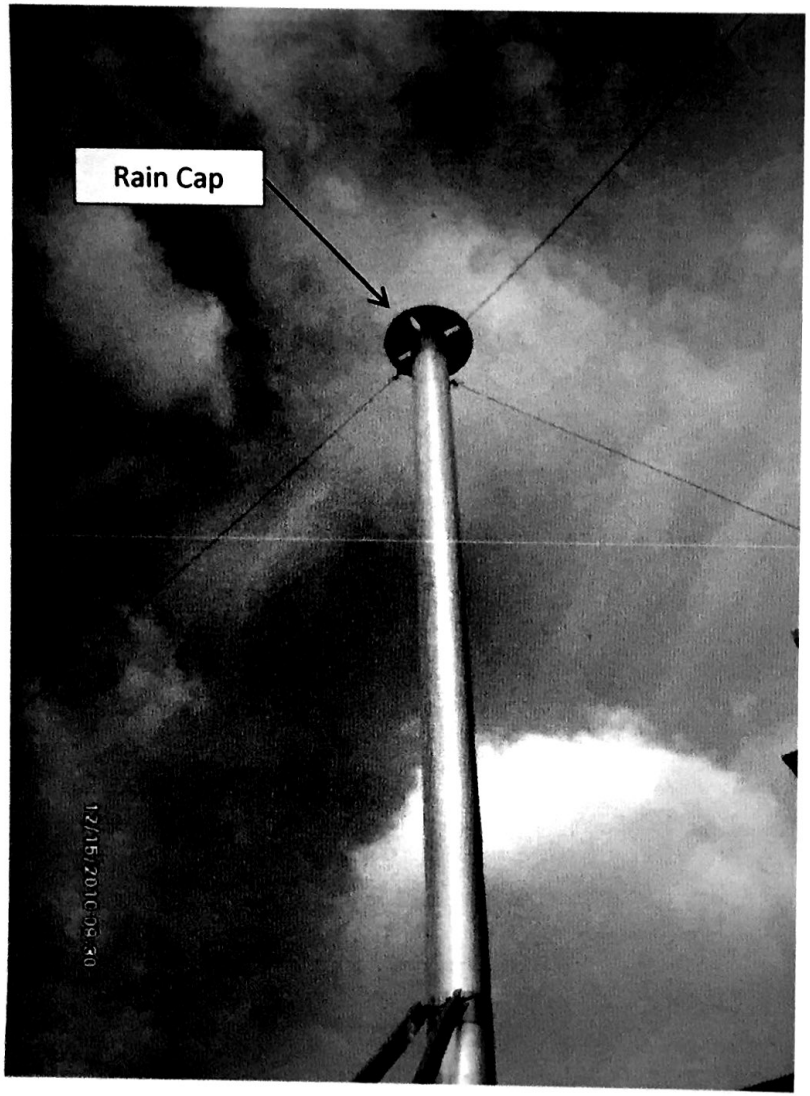

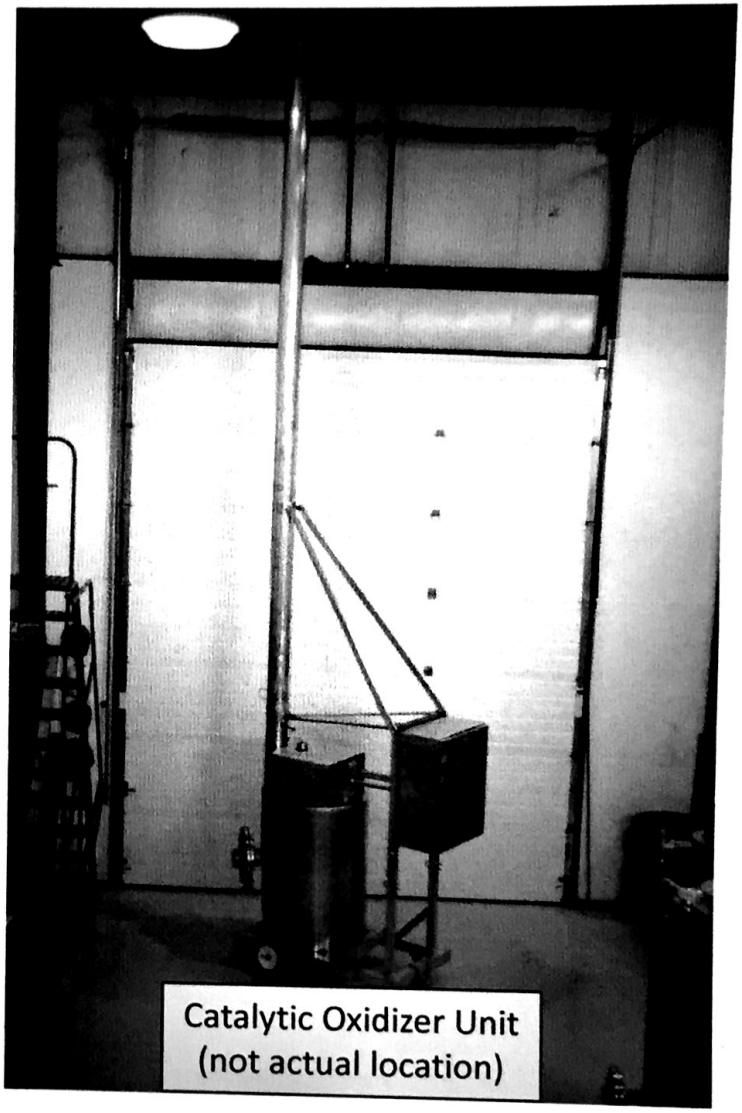

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Figure 4. Catalytic Oxidizer with Rain Cap

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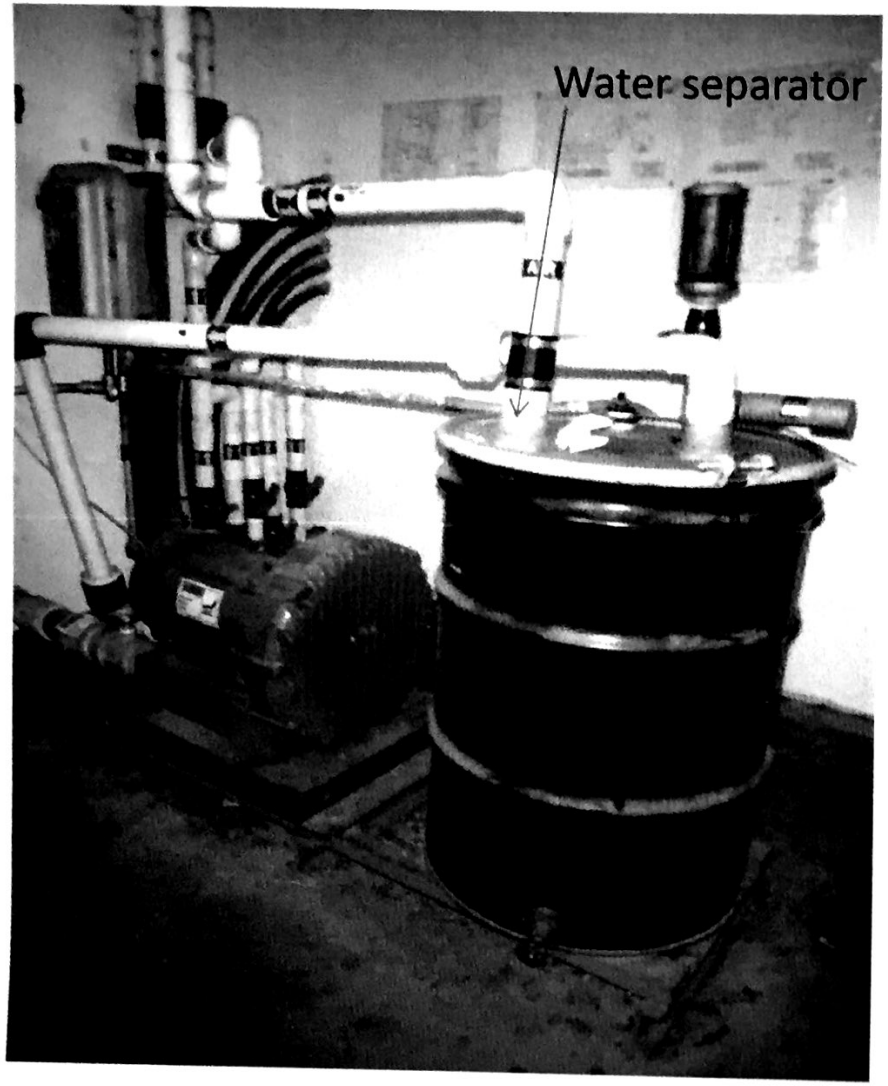



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Figure 5. Carbon System

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Appendix **A**

Manufacturer Specifications and Catalyst MSDS



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Fliteway Technologies, Inc.

Falco 300 Oxidizer

2129 East Birchwood Ave. Cudahy, WI 53110

(414) 483-5600 1-800-236-3580 FAX (414) 483-1957

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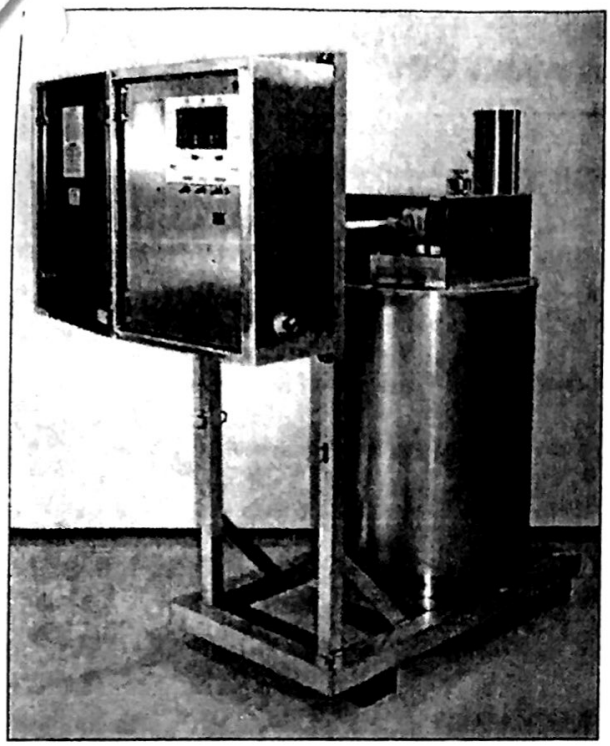
FALCO 300 SPECIFICATIONS



The FALCO 300 electric catalytic oxidizer treats air streams contaminated with volatile organic compounds. Startup is fully automatic. Controllers accurately regulate input loading and temperatures. The controls adjust a FALCO Vapor Control Valve (VCV) to maintain safe maximum input concentrations. Automatic shutdown results if temperatures exceed limits.

The FALCO 300 has an efficient heat exchanger. A bypass valve adjusts heat recovery. Low heat recovery enables operation at high vapor concentration. High heat recovery minimizes energy use during operation at low input vapor concentration. At 600 ppmv (Gasoline) and 300 scfm, sufficient heat is recovered to preheat the inflow without supplementary electric energy.

The FALCO 300 has a massive catalyst volume for its rated capacity, providing longer life and poison resistance than monolith type catalysts. If necessary, the catalyst can be replaced on site in one hour. New catalyst is poured in after the old catalyst is removed with a shop vacuum.

FM C US APPROVED

- **CAPACITY** — 100-350 CFM
- **MAXIMUM INPUT LOADING** — 250 lb/day petroleum hydrocarbons @ 350 cfm
- **DESTRUCTION EFFICIENCY** — Up to 99.5%
- **CATALYST TEMPERATURE RANGE** — 330-620°C (626-1148°F)
- **CATALYST** — Packed bed 2.5 cubic feet. Platinum on 1/8" ceramic beads is standard. Optional catalyst for chlorinated solvents
- **HEAT EXCHANGER** — Stainless steel spiral plate. 73% efficient at 300 scfm.
- **HEATER (Electric)** — 56 amp @ 208 volts (20.3 kW) or, 64.6 amp @ 240 volts (27 kW) Solid State Control.
- **WEIGHT** — 825 lb.
- **CONSTRUCTION** — Stainless steel and aluminum
- **DIMENSIONS** — 73" high (excluding 5' stack) X 70" long X 29" wide Fits in the back of a pick-up truck
- **POWER REQUIREMENTS** — 3 phase 208-240 Volt, optional 1 phase 240 Volt
- **APPROVALS** — System is Factory Mutual approved for use in hazardous locations. South Coast Air Quality Management District (SCAQMD) Certified Equipment Permit.

FALMOUTH PRODUCTS P.O. BOX 541 FALMOUTH, MA 02541 PHONE 508 548 6686 FAX 508 548 8144
www.falmouthproducts.com

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FALMOUTH PRODUCTS P.O. BOX 541 FALMOUTH, MA 02541 PHONE 508 548 6686 FAX 508 548 8144

FALMOUTH PRODUCTS VAPOR CONTROL VALVE (VCV)

INSTALLATION INSTRUCTIONS

The Vapor Control Valve (VCV) regulates input vapors to the FALCO oxidizer by mixing source vapors with dilution air.

The VCV is FM approved for use in Class I, Division 2, Group D Hazardous Locations.

Install the VCV in series in the vapor line **after** the water knockout with its dilution air filter vertical, vapor inlet horizontal, and the vapor discharge on the bottom of the valve. The VCV should be mounted so it can be accessed easily and removed for service. An in-line filter should be installed on the vacuum side of the blower.

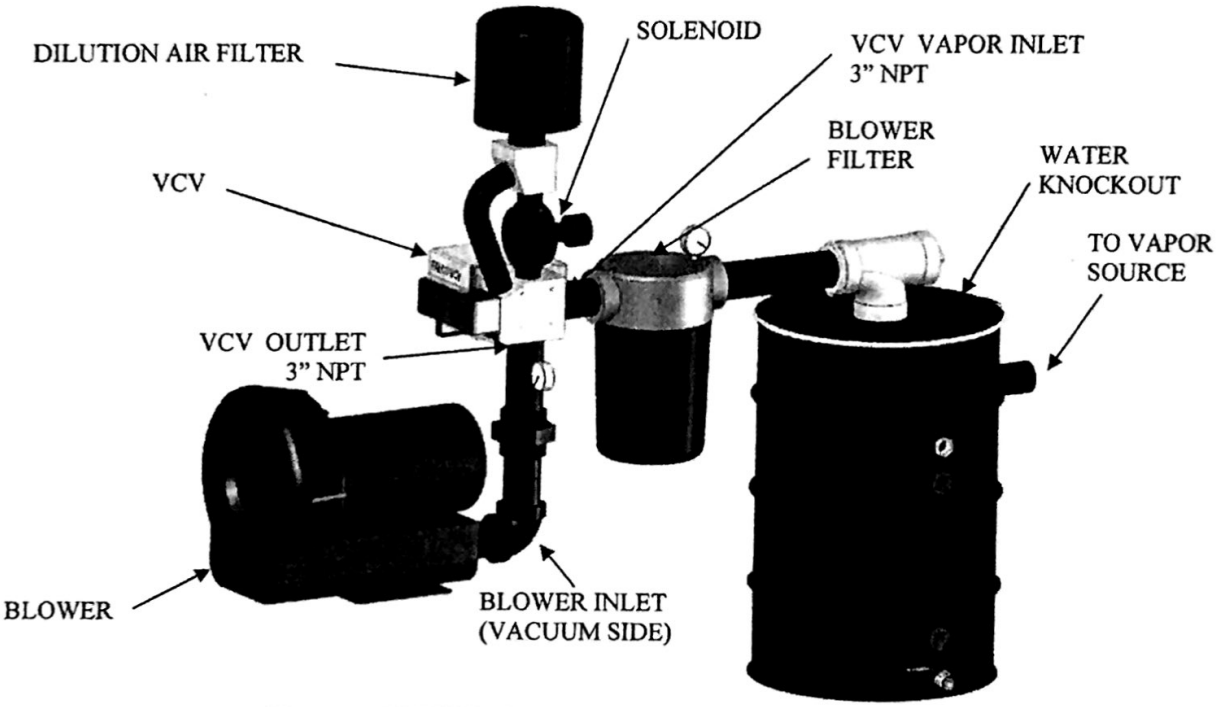

Figure 1 - PREFERRED INSTALLATION

***CAUTION**: If the VCV is installed inside a building or trailer with a ventilation system, the VCV Dilution Air Filter must be piped to the outside of the building to prevent the building ventilation system from pulling vapors out of the Dilution Air Filter and into the building when the S.V.E blower shuts down.*

If piping alone is not adequate to support the VCV, the included mounting bracket may be used to attach the VCV to a fence or wall (Figure 3).

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FALMOUTH PRODUCTS P.O. BOX 541 FALMOUTH, MA 02541 PHONE 508 548 6686 FAX 508 548 8144

FALCO 300 Specifications

CAPACITY	100-350 CFM
MAXIMUM INPUT LOADING	250 lb/day petroleum hydrocarbons @ 350 cfm
DESTRUCTION EFFICIENCY	Up to 99.5%
CATALYST TEMPERATURE RANGE	330-620°C (626-1148°F)
CATALYST	Packed bed 2.5 cubic feet. Platinum and palladium on 1/8" ceramic beads is standard. Other catalysts are available
HEAT EXCHANGER	304 stainless steel spiral plate. 73% efficient at 300 scfm. Manually adjusted heat exchanger bypass valve (hot side).
HEATER (Electric)	Nine 3,000 watt cartridge heaters arranged in Delta. 56 amp @ 208 volts (20.3 kW) or, 64.6 amp @ 240 volts (27 kW) Optional 32.5 amp @ 480 volts (27 kW)
HEATER CONTROL	Yokogawa UT32A temperature controller cycles 80 amp SCR power control All three legs switched. Zero cross. 80 amp semiconductor fuses. High limit control with contactor to break all three phases.
VAPOR CONTROL	Vapor Control Valve (VCV) is proportionally controlled by three temperature controllers. The VCV is installed in series on vacuum side of extraction blower and simultaneously controls both dilution air and vapors based on catalyst temperature. Solenoid valve for rapid introduction of dilution air.
CONTROLS	120 VAC. 3 amp max. Yokogawa series UT32A temperature controllers. Proportional control of SCR power control and Vapor Control Valve.
WEIGHT	850 lb. Without flame arrestor.
STACK	6" stainless steel tube. One five-foot length of 6" Type B Gas vent pipe is supplied.
CONSTRUCTION	Stainless steel and aluminum
APPROXIMATE PRESSURE DROP (HOT) (INCLUDING FLAME ARRESTOR)	26" H2O @ 300 scfm with heat exchanger bypass closed 23" H2O @ 300 scfm with heat exchanger bypass open
FLAME ARRESTOR PRESSURE DROP	2" H20
DIMENSIONS	73" high (excluding 5' stack) X 70" long X 29" wide
POWER REQUIREMENTS	3 phase 208-240 Volt standard, optional 3 phase 480 Volt Optional 1 phase 240 Volt
ELECTRICAL ENCLOSURE	Aluminum (NEMA 4X)
APPROVALS	**FM approved (US and Canada) for installation in Class I, Division 2, Group D, (Temp Code T2C) hazardous locations extending up to 41 inches from the bottom of the frame. Portions of the oxidizer located outside of this area are only suitable for unclassified / non-hazardous locations.**

FALMOUTH PRODUCTS P.O. BOX 541 FALMOUTH, MA. 02541 PHONE 508 548 6686 FAX 508 548 8144

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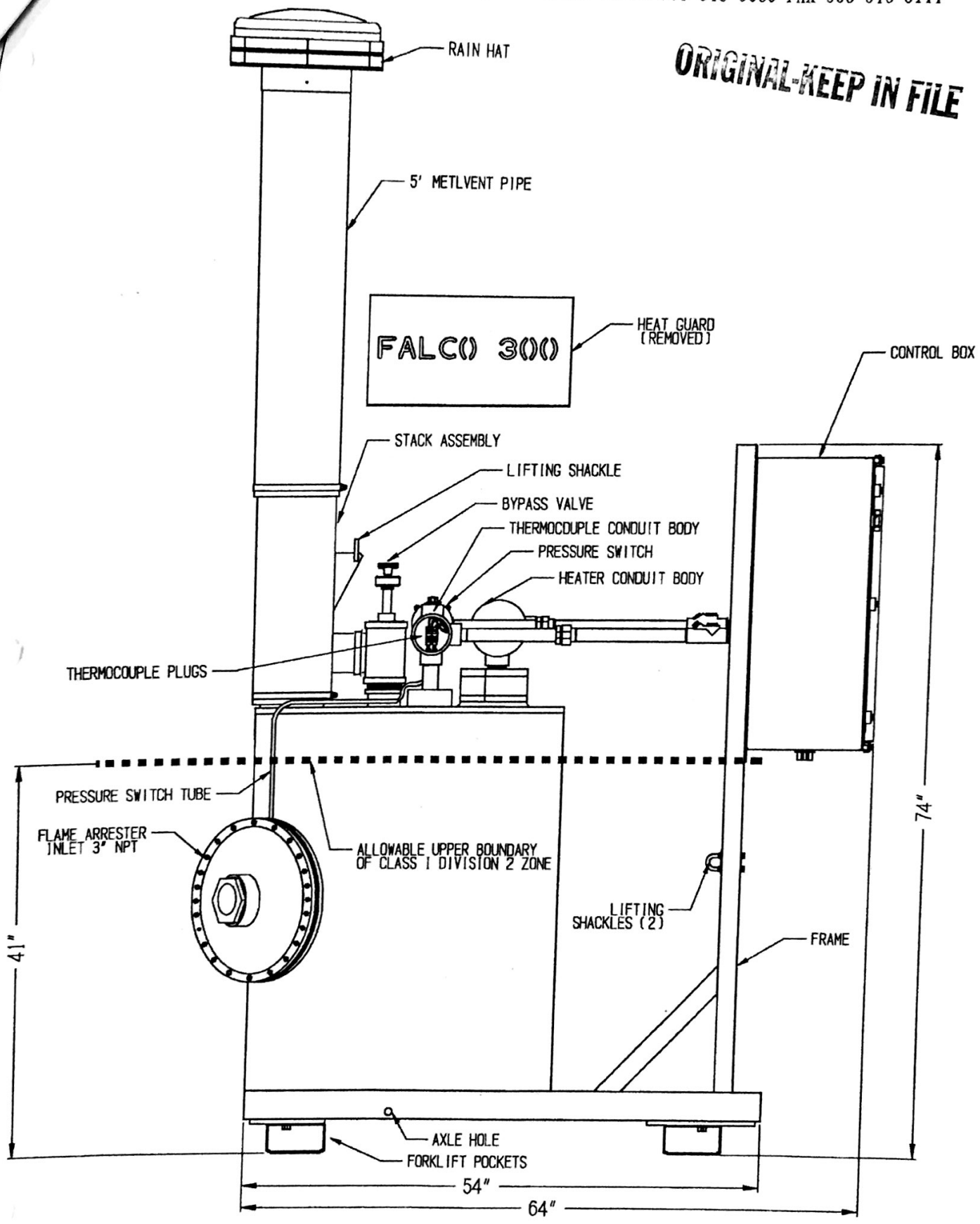

FIGURE 1
FALCO 300 MAJOR COMPONENTS - SIDE VIEW

LAST REVISON 5-24-10

FALMOUTH PRODUCTS P.O. BOX 541 FALMOUTH, MA. 02541 PHONE 508 548 6686 FAX 508 548 8144

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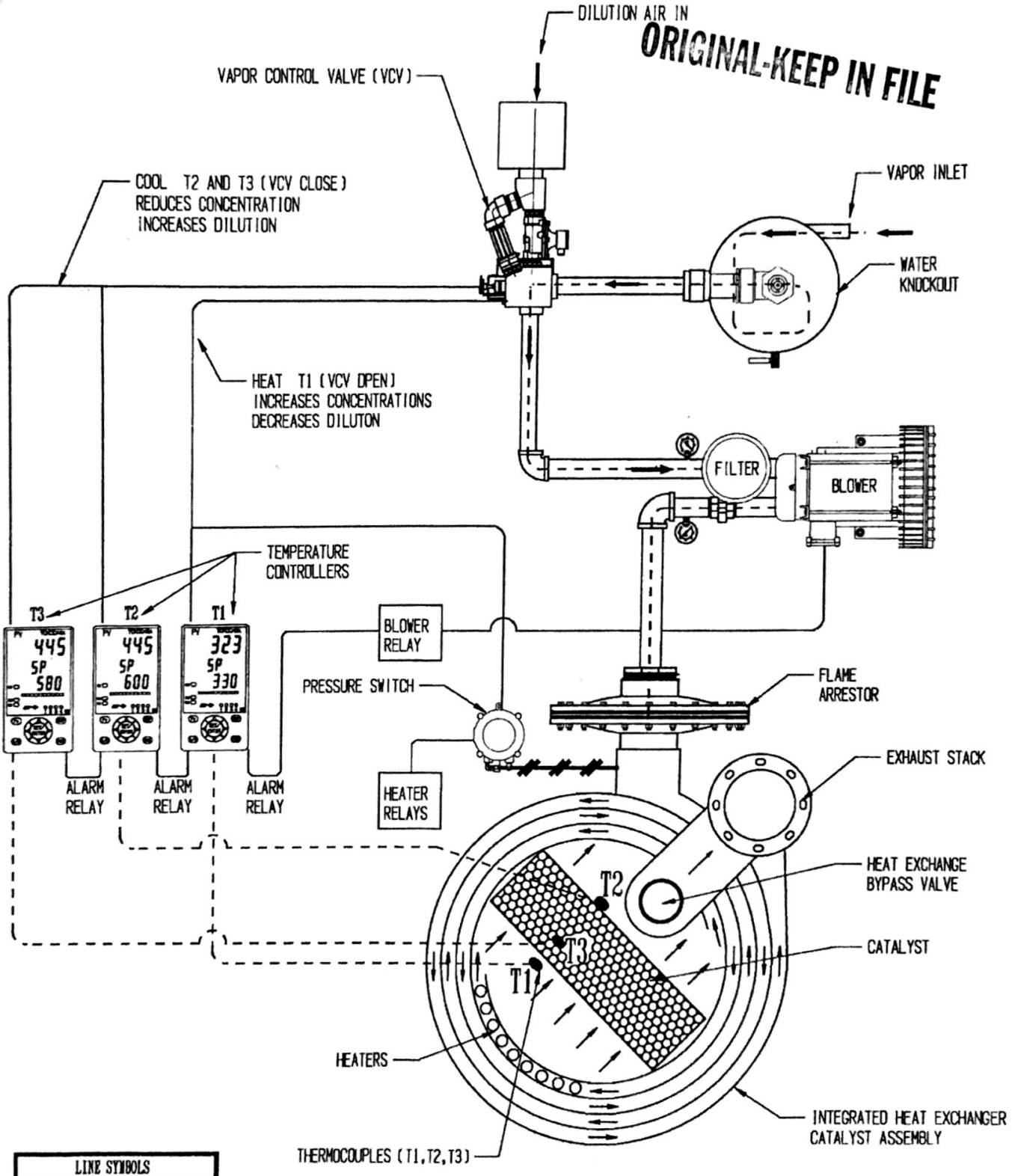

LINE SYMBOLS
DILUTION AIR
PROCESS PIPING
CONTROL OUTPUTS
THERMOCOUPLE CIRCUITS
PNEUMATIC SIGNAL

FIGURE 3 FALCO 300 FLOW AND CONTROL

ORIGINAL-KEEP IN F

SÜD-CHEMIE
Creating Performance Technology

AIR PURIFICATION CATALYSTS

SÜD CHEMIE INC.
32 Fremont Street
Needham, MA 02494
USA

Phone: (781)444-5188
FAX: (781)444-0130
www.scprototech.com

Envicat® 5200 Catalyst

Typical Chemical and Physical Properties

Catalyst	Envicat® 5200
Catalyst Form	Spheres
Size	Nominal $^1/_8$" and ¼" diameter
Description	Catalyst for the complete oxidation of volatile organic compounds (VOC's) and carbon monoxide (CO).
Application	Various stationary applications including chemical, printing, food, pharmaceutical, and other industries.

Chemical Composition	Weight %
Alumina	95%
Platinum	Proprietary
Palladium	Proprietary
Base Metal Mixture, Water	difference

Physical Properties	
Bulk Density, lb/ft^3	42 - 45
Surface Area, m^2/g	min. 180
LOI @ 1000°C, wt%	<5

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MATERIAL SAFETY DATA SHEET

SÜD-CHEMIE
Creating Performance Technology

Date Issued: 07/24/2003
MSDS No: 4136
Date-Revised: 06/29/2007
Revision No: 2

EnviCat®-VOC-5200-SPH-14

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: EnviCat®-VOC-5200-SPH-14
GENERAL USE: Environmental catalyst
ALTERNATE TRADE NAME(S): EnviCat®-VOC-5200-SPH-18

MANUFACTURER

Süd-Chemie Inc.
Environmental Catalysts
32 Fremont Street
Needham MA 02494
Service Number: (781) 444-5188

24 HR. EMERGENCY TELEPHONE NUMBERS

CHEMTREC : (800) 424 - 9300
Outside the U.S. Call Collect : 001 (703) 527-3887

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

PHYSICAL APPEARANCE: Brown or gray spheres.

IMMEDIATE CONCERNS: CAUTION! Contact may cause eye irritation. Prolonged or repeated contact may cause skin irritation. Prolonged or excessive inhalation may cause respiratory tract irritation.

POTENTIAL HEALTH EFFECTS

EYES: May cause mechanical irritation which can scratch the eye.

SKIN: Prolonged or repeated contact may cause skin irritation.

INGESTION: Non-toxic by ingestion.

INHALATION: Route of exposure unlikely. High dust concentrations may cause irritation.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

EYES: Redness, irritation, scratched cornea.

SKIN: Skin dryness or irritation.

INHALATION: Coughing, wheezing, or sneezing.

MEDICAL CONDITIONS AGGRAVATED: Breathing problems, skin problems.

ROUTES OF ENTRY: Ingestion, eyes, skin.

TARGET ORGAN STATEMENT: Respiratory system, lungs, skin, eyes, bone marrow, liver, kidneys, nerves.

SENSITIZATION: Hypersensitive individuals may develop an allergic reaction.

3. COMPOSITION / INFORMATION ON INGREDIENTS

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INGREDIENT(S)	CAS	% BY WEIGHT
Aluminum oxide	1344-28-1	>90
Platinum	7440-06-4	<1
Palladium	7440-05-3	<1
Confidential Metal Oxide	--	<1
Confidential Promoter	--	<1

See Section 8 for Exposure Limits

WHMIS CLASS: Does not meet classification criteria pursuant to the Canadian Hazardous Products Act.

COMMENTS: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200). The specific chemical composition of this material is being withheld as a trade secret. It will be provided in accordance with the provisions of 29 CFR 1910.1200(i).

4. FIRST AID MEASURES

EYES: Do not rub eyes. Flush with lukewarm, gently flowing water for 5 minutes or until the particle/dust is removed, while holding the eyelid(s) open. Obtain medical attention.

SKIN: Brush dry material from skin. Wash with soap and large amounts of water. Get medical attention if irritation or other symptoms develop or persist.

INGESTION: Non toxic by ingestion. If you feel unwell, seek medical attention.

INHALATION: Remove to fresh air. Seek medical attention if cough or other symptoms develop or persist.

5. FIRE FIGHTING MEASURES

FLASHPOINT AND METHOD: Material is not flammable

EXTINGUISHING MEDIA: Use extinguishing agent applicable to surrounding fire.

FIRE FIGHTING PROCEDURES: As in any fire, wear self-contained breathing apparatus operated in pressure-demand mode, (NIOSH approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: With shovel or scoop, place material into appropriate container.

LARGE SPILL: Vacuum or scoop up material and place in a dry container. Cover tightly. Minimize airborne particulates. Avoid inhalation of dusts. Observe precautions in Protective Equipment Section.

GENERAL PROCEDURES: Do not use compressed air for clean-up.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Minimize dust generation and accumulation. Avoid breathing dust. Use with adequate ventilation. Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Wash thoroughly after handling.

ORIGINAL-KEEP IN FILE

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)					
		EXPOSURE LIMITS			
		OSHA PEL		ACGIH TLV	
Chemical Name		**ppm**	**mg/m³**	**ppm**	**mg/m³**
Aluminum oxide	**TWA**	[1]	15 mg/m3 [1]		10 mg/m3
Platinum	**TWA**	[2]	[2]		1 mg/m3
Palladium	**TWA**	[2]	[2]	[2]	[2]
Confidential Metal Oxide	**TWA**	[3]	10 mg/m3 [3]	[4]	5 mg/m3 [4]
Confidential Promoter	**TWA**	[2]	[2]	[5]	[5]

OSHA TABLE COMMENTS:
1. 5 mg/m3 respirable
2. Exposure limits not established.
3. fume
4. respirable fraction
5. Not Established.

ENGINEERING CONTROLS: If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Follow facility guidelines in the absence of dusts. Snug-fitting goggles should be worn in dusty work environments.

SKIN: Use of proper hygiene practices in the workplace is recommended.

RESPIRATORY: Wear NIOSH approved particulate filtering respirator rated N, R, or P95 or 100 or equivalent in the absence of proper environmental control. Type of respirator depends on level of exposure.

COMMENTS: All inert or nuisance dusts, whether mineral, inorganic, or organic, not listed specifically by substance name are covered by the Particulates Not Otherwise Regulated (PNOR) limit which is 5 mg/m3 for respirable fraction and 15 mg/m3 for total dust.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Solid

ODOR: None

COLOR: Brown-black

pH: None

PERCENT VOLATILE: None

SOLUBILITY IN WATER: Insoluble

DENSITY: ~ 40-50 lb/ft3

10. STABILITY AND REACTIVITY

STABLE: Yes

HAZARDOUS POLYMERIZATION: No

ORIGINAL-KEEP IN FILE

11. TOXICOLOGICAL INFORMATION

ACUTE

Chemical Name	ORAL LD_{50} (rat)
Aluminum oxide	> 5000 mg/kg (rat)
Confidential Metal Oxide	> 10000 mg/kg(b.w.)
Confidential Promoter	1000 mg/kg (rat)

CARCINOGENICITY

Chemical Name	NTP Status	IARC Status	OSHA Status
Aluminum oxide	Not listed.	Group 3 - not classifiable	Not listed.
Platinum	Not listed.	Not listed.	Not listed.
Palladium	Not listed.	Not listed.	Not listed.
Confidential Metal Oxide	Not listed.	Group 3 - not classifiable	Not listed.
Confidential Promoter	Not listed.	Not listed.	Not listed.

SENSITIZATION: May cause skin sensitization, an allergic reaction which becomes evident on re-exposure to the material. Other symptoms of platinum allergy include runny nose, sneezing, itchy eyes, and wheezing.

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION: Aquatic Toxicity (Aluminum Oxide):

96-hr NOEC (Salmo trutta) > 100 mg/L (OECD Guideline 203)

48-hr NOEC (Daphnia magna) > 100 mg/L (OECD Guideline 202)

72-hr NOEC (Selenastrum capricornutum) > 100 mg/L (OECD Guideline 201)

CHEMICAL FATE INFORMATION: This material is of mineral origin. It is not biodegradable.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: This product, if discarded as sold, is not a Federal RCRA hazardous waste. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Catalyst products often offer postive recycle value. Contact SCI Safety, Health and Environment (502-634-7492) for more information regarding recycle options.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Not regulated

ORIGINAL-KEEP IN FILE

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

FIRE: No **PRESSURE GENERATING:** No **REACTIVITY:** No **ACUTE:** Yes **CHRONIC:** Yes

313 REPORTABLE INGREDIENTS: Not listed.

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

CERCLA REGULATORY: Not listed.

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA STATUS: All components are listed on the TSCA Inventory or are excluded or exempt.

REGULATIONS

STATE REGULATIONS California

CALIFORNIA PROPOSITION 65: This product does not contain chemical(s) known to the state of California to cause cancer, birth defects, or reproductive harm.

RCRA STATUS: This product, if discarded as sold, is not a Federal RCRA hazardous waste. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations.

CANADA

WHMIS (WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM): This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

WHMIS CLASS: Does not meet classification criteria pursuant to the Canadian Hazardous Products Act.

CANADA INGREDIENT DISCLOSURE LIST: Contains component(s) listed on the Canadian Hazardous Products Act Ingredient Disclosure List.

CANADIAN ENVIRONMENTAL PROTECTION ACT: All ingredients are listed on the Canadian Domestic Substances List inventory.

EXEMPTION REG. NO.: Chemical components not disclosed do not meet disclosure requirements pursuant to the Canadian Hazardous Products Act and an exemption from disclosure is not required.

16. OTHER INFORMATION

APPROVED BY: Prepared and approved by SHE Dept. Sud-Chemie Inc.

REVISION SUMMARY: Revision #: 2 This MSDS replaces the January 28, 2005 MSDS. Any changes in information are as follows: In Section 1 Prepared By In Section 2 Sensitization Physical Appearance Potential Heath Effects - Eyes Potential Health Effects - Skin Potential Health Effects - Inhalation Potential Health Effects - Ingestion Signs & Symptoms - Eyes Signs & Symptoms - Ingestion Signs & Symptoms - Skin Medical Conditions Aggravated Routes of Entry In Section 4 Firstaid - Eyes Firstaid - Ingestion Notes to Physician In Section 6 Small Spill Large Spill General Procedures In Section 7 General Procedures In Section 8 Skin Protection Eyes-Face Protection In Section 9 (Group Field) for pH (Group Field) for Percent Volatile In Section 11 Eye Effects IARC NTP OSHA Oral LD50 (Value) Oral LD50 (Unit) Oral LD50 (Operator) In Section 12 Environmental Data Ecotoxicological Information Chemical Fate Information In Section 13 Disposal In Section 15 Clean Water Act WHMIS Class WHMIS Exemption Number Clean Air Act 40 CFR

MANUFACTURER DISCLAIMER: The information presented herein is believed to be accurate but is not warranted. Recipients are advised to confirm in advance that the information is current, applicable and suitable to their circumstances.

ARCADIS

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Appendix **B**

Table B-1 - Influent Summary

Table B-2 - Effluent Summary

Table B-3 - Concentration and Mass Emission Summary

Table B-4 - Tier 1 In-Stack Concentration Comparison with AG-1 Guideline

Table B-5 - Tier 2 AG-1 Analysis

Table B-6 - AG-1 Model Output Summary Tables



Table B-1
11199 - INFLUENT
76-11 Northern Boulevard
Jackson Heights, New York

INFLUENT SAMPLE DATE	INFLUENT AIRFLOW	BENZENE		TOLUENE		ETHYLBENZENE		XYLENES		MTBE		TPH	
	scfm	mg/m^3	lb/hr	mg/m^3	lb/hr	mg/m^3	lb/hr	mg/m^3	lb/hr	mg/m^3	lb/hr	mg/m^3	lb/hr
1/18/2011	356	2	1.96E-03	*4*	3.93E-03	2	1.96E-03	3	2.94E-03	*2.2*	2.16E-03	*990*	9.72E-01
2/4/2011	110	2	1.96E-03	3	2.94E-03	2	1.96E-03	3	2.94E-03	1.4	1.37E-03	*27*	2.65E-02
3/8/2011	312	2	1.96E-03	3	2.94E-03	2	1.96E-03	3	2.94E-03	1.4	1.37E-03	*39*	3.83E-02
6/7/2011	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
7/21/2011	NS	2	1.96E-03	3	2.94E-03	2	1.96E-03	3	2.94E-03	1	9.81E-04	*90*	8.83E-02
8/18/2011	270	2	1.96E-03	*4*	3.93E-03	2	1.96E-03	3	2.94E-03	1	9.81E-04	*100*	9.81E-02
9/12/2011	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Maximum	**356**	**2**	**1.96E-03**	**4**	**3.93E-03**	**2**	**1.96E-03**	**3**	**2.94E-03**	**2.2**	**2.16E-03**	**990**	**9.72E-01**
Average	**262**	**2**	**1.96E-03**	**3**	**3.34E-03**	**2.0**	**1.96E-03**	**3**	**2.94E-03**	**1.4**	**1.37E-03**	**249**	**2.45E-01**

Notes:

1. Analytical concentrations from Laboratory Analytical Reports - 'Influent Air' are used for the summary.
2. The italic values are the reportable values in 2011 for the site 11199; all other values are MDLs.
3. MTBE (methyl tertiary-butyl ether) - the method detection limit (MDL) for MTBE was changed in June 2011 from 1.4 mg/m3 to 1.0 mg/m3.
4. NS - Not Sampled
5. Total petroleum hydrocarbon (TPH): may include hexane, benzene, toluene, xylenes, naphthalene, and fluorene, other constituents of gasoline, of jet fuels, of mineral oils, and of other petroleum products.

Compound	Cas Number	MDL
Benzene	00071-43-2	2
Toluene	00108-88-3	3
Ethylbenzene	00100-41-4	2
Xylene	1330-20-7	3
MTBE	01634-04-4	1



3/6/2012

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Table B-2
11199 - EFFLUENT
76-11 Northern Boulevard
Jackson Heights, New York

EFFLUENT SAMPLE DATE	EFFLUENT AIRFLOW	EFFLUENT Temp	BENZENE		TOLUENE		ETHYLBENZENE		XYLENES		MTBE		TPH	
	scfm	F	mg/m^3	lb/hr	mg/m^3	lb/hr	mg/m^3	lb/hr	mg/m^3	lb/hr	mg/m^3	lb/hr	mg/m^3	lb/hr
1/18/2011	262	90	2	1.79E-03	3	2.68E-03	2	1.79E-03	3	2.68E-03	1.4	1.25E-03	*460*	4.11E-01
2/4/2011	110	110	2	1.79E-03	3	2.68E-03	2	1.79E-03	3	2.68E-03	1.4	1.25E-03	*7*	6.25E-03
3/8/2011	312	60	2	1.79E-03	3	2.68E-03	2	1.79E-03	3	2.68E-03	1.4	1.25E-03	*35*	3.13E-02
6/7/2011	NS	NS	2	1.79E-03	3	2.68E-03	2	1.79E-03	3	2.68E-03	1	8.93E-04	*30*	2.68E-02
7/21/2011	NS	150	2	1.79E-03	3	2.68E-03	2	1.79E-03	3	2.68E-03	1	8.93E-04	*30*	2.68E-02
8/18/2011	270	125	2	1.79E-03	3	2.68E-03	2	1.79E-03	3	2.68E-03	1	8.93E-04	*100*	8.93E-02
9/12/2011	NS	100	2	1.79E-03	3	2.68E-03	2	1.79E-03	3	2.68E-03	1	8.93E-04	*20*	1.79E-02
Maximum	**312**	**150**	**2**	**1.79E-03**	**3**	**2.68E-03**	**2**	**1.79E-03**	**3**	**2.68E-03**	**1.4**	**1.25E-03**	**460**	**4.11E-01**
Average	**239**	**106**	**2**	**1.79E-03**	**3**	**2.68E-03**	**2**	**1.79E-03**	**3**	**2.68E-03**	**1.2**	**1.05E-03**	**97**	**8.70E-02**

Notes:

1. Analytical concentrations from Laboratory Analytical Reports - 'Effluent Air' are used for the summary.
2. The italic values are the reportable values in 2011 for the site 11199; all other values are MDLs.
3. MTBE (methyl tertiary-butyl ether) - the method detection limit (MDL) for MTBE was lowered in June 2011 from 1.4 mg/m3 to 1.0 mg/m3.
4. For AG-1 analysis, 1/2 MDL value was used when all effluent data were at MDL.
5. NS - Not Sampled
6. Total petroleum hydrocarbon (TPH): may include hexane, benzene, toluene, xylenes, naphthalene, and fluorene, other constituents of gasoline, of jet fuels, of mineral oils, and of other petroleum products.

Compound	Cas Number	MDL
Benzene	00071-43-2	2
Toluene	00108-88-3	3
Ethylbenzene	00100-41-4	2
Xylene	1330-20-7	3
MTBE	01634-04-4	1



3/6/2012

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NYCDEP BEC Work Permit
Backup Information for Emission Point 11199

ORIGINAL-KEEP IN FILE

Service Station Brand (Mobil, BP, etc.)	#17 - GFT
Former Service Station #	11199
Street address	76-11 Northern Boulevard
City, State, Zip	Jackson Heights, New York
NYSDEC Spill No.:	86-07968
PBS No.:	02-156663

Operational System Information:*

Parameter	Effluent Value
Effluent Temp, F	106
Effluent Temp, R	566
Flow Rate, scfm	239
Flow Rate, acfm	256.1
Flow Rate, m^3/min	6.8
Stack Diameter, inches	4
Area of Emission Point, ft^2	0.087
Velocity, ft/min	2934
Velocity, ft/sec	49
Operating Hours per Year	8760
Expected duration of SVE operation, months	24

Control System Location Data:

Ground Elevation, ft	46
Structure Height, ft	10
Stack height above structure roof, ft	10
Structure length, ft	12
Structure width, ft	7
Control Type	Catox
Manufacturer Guaranteed Control Efficiency	99.5%



Project Schedule:

Construction Start Date	1996
System Startup Date	Apr-06

Table B-3. Concentration and Mass Emission Summary

			Influent			Effluent		
Compound	Cas Number	MDL	Concentration[1] (mg/m^3)	Short Term Mass Emission[4], lbs/hr	Annual Mass Emission[4], lbs/yr	Concentration[1] (mg/m^3)	Short Term Mass Emission[4], lbs/hr	Annual Mass Emission[4], lbs/yr
Benzene	00071-43-2	2	2.0	0.0018	15.7	1.0	0.0009	7.8
Toluene	00108-88-3	3	3.4	0.0030	26.6	1.5	0.0013	11.7
Ethylbenzene	00100-41-4	2	2.0	0.0018	15.7	1.0	0.0009	7.8
Xylene	1330-20-7	3	3.0	0.0027	23.5	1.5	0.0013	11.7
MTBE[2]	01634-04-4	1	1.4	0.0013	11.0	0.6	0.0005	4.6
TPH[3]			990.0	0.8844	7747.1	460	0.4109	3599.7

Notes:

1. Data were taken from the 2011 monthly laboratory data with influent and effluent. If the in-stack concentrations (i.e., effluent data) was below the method detection limit (<MDL), 1/2 the MDL was used as the in-stack concentration.

2. MTBE - methyl tertiary-butyl ether

3. Total petroleum hydrocarbon (TPH): may include hexane, benzene, toluene, xylenes, naphthalene, and fluorene, other constituents of gasoline, of jet fuels, of mineral oils, and of other petroleum products.

4. Short term and annual emissions were calculated conservatively using the maximum annual concentration.

* Data provided is used for emissions calculations only.

ORIGINAL-KEEP IN FILE

Site 11199 Air Guide-1 Analysis

NYSDEC's Air Guide-1 was used to evaluate the downwind impact of the emissions from the stack of the SVE system at Site 11199. There are five (5) compounds emitted by the SVE system stack with listed guideline concentrations (see table below).

Air Guide-1 SGCs and AGCs for Pollutants of Concern at Site 11199

Pollutant	CAS Number	SGC* ($\mu g/m^3$)	AGC*($\mu g/m^3$)
Benzene	00071-43-2	1,300	0.13
Toluene	00108-88-3	37,000	5,000
Ethylbenzene	00100-41-4	54,000	1,000
Xylenes (m, p and p mix)	01330-20-7	4,300	100
MTBE	01634-04-4	None	3,000

**NYSDEC DAR-1 AGC/SGC Tables, October 18, 2010*

The Air Guide-1 analysis for the stack exhaust (EP11199) from the SVE system at Site # 11199 was performed using a tiered approach. In Tier 1, the pollutant-specific effluent concentrations were converted to units of micrograms per cubic meter ($\mu g/m^3$), representative of the in-stack concentration, and compared directly to the Air Guide-1 short-term and annual guideline concentrations (SGCs and AGCs, respectively). For comparison to the AGCs, the pollutant-specific effluent concentration was multiplied by a 0.1 conversion factor (a regulatory factor used to convert short-term to annual concentrations), then compared to the applicable AGC. This Tier 1 approach is extremely conservative since there will be significant dispersion of the contaminants as the stack exhaust travels downwind resulting in much lower concentrations than values measured at the stack.

For any pollutant that exceeded either an SGC or AGC in Tier 1, that pollutant was evaluated using NYSDEC's computerized AG-1 model (available for download from the NYSDEC website). This model includes both screening level algorithms, and more refined and site-specific modeling algorithms that account for the exhaust characteristics, receptor location, and in the refined mode, representative meteorology.

As shown in Table B-4, using the conservative Tier 1 approach, the in-stack concentrations of benzene and xylenes exceeded their respective AGCs; therefore, a Tier 2 analysis was performed for benzene and xylenes using the screening mode of the AG-1 computer model (version 3.6). Note that in the AG-1 modeling analysis, an exhaust velocity of 0.01 feet per second (ft/sec) was used to account for the rain cap on the stack. Maximum mass emission rates based on the 2011 maximum sampled concentrations were used to evaluate a worst-case scenario. As noted previously, for the compounds with effluent concentrations reported at levels below MDL levels, ½ of the MDL was used as the in-stack concentration for estimating the emission rate

Table B-5 (Appendix B) presents the results from the AG-1 model run. The summary of results shows that the emissions from the SVE process at Site 11199 are well below the guideline concentrations and will have no significant impacts on the surrounding community and environment. Tables B-6a through B-6e present the input and output summary screens from the AG-1 modeling file for this Tier 2 analysis.

NYCDEP BEC Work Permit Application
Air Guide - 1 Analysis - Emission Point 11199

Service Station Brand (Mobil, BP, etc.)	**#17 - GFT**
Former Service Station #	**11199**
Street address	**76-11 Northern Boulevard**
City, State, Zip	**Jackson Heights, New York**
NYSDEC Spill No.:	**86-07968**
PBS No.:	**02-156663**

Table B-4. Tier 1 In-Stack Concentration Comparison with AG-1 Guideline Concentration

Pollutant	CAS No.	SGC* ug/m^3	Short-term In-stack Concentration ug/m^3	% of SGC	AGC* ug/m^3	Annual In-stack Concentration [(1)] ug/m^3	% of AGC
Benzene	00071-43-2	1300	1000.0	77	1.30E-01	100.0	76923
Toluene	00108-88-3	37000	1500.0	4	5000	150.0	3
Ethylbenzene	00100-41-4	54000	1000.0	2	1000	100.0	10
Xylenes (m, p and p mix))	01330-20-7	4300	1500.0	35	100	150.0	150
MTBE	01634-04-4	none	585.7	---	3000	58.6	2

** NYSDEC DAR-1 AGC/SGC Tables, October 18, 2010.*

Notes:

(1) Annual in-stack concentration is based on short-term in-stack concentration multiplied by 0.1 conversion factor to estimate annual impact from short-term impact.

(2) MTBE - methyl tertiary-butyl ether

Table B-5. Tier 2 AG-1 Screening Level Analysis

Pollutant	CAS No.	SGC* ug/m^3	Max. Hourly Impact [(1)] ug/m^3	% of SGC	AGC* ug/m^3	Max Annual Impact [(1)] ug/m^3	% of AGC
Benzene	00071-43-2	1300	1.767	0.1	1.30E-01	0.04	31.9
Toluene	00108-88-3	37000	2.552	0.0	5000	0.06	0.0
Ethylbenzene	00100-41-4	54000	1.767	0.0	1000	0.04	0.0
Xylenes (m, o and p mix)	01330-20-7	4300	3	0.1	100	0.06	0.1
MTBE	01634-04-4	none	1	---	3000	0.02	0.0

** NYSDEC DAR-1 AGC/SGC Tables, October 18, 2010.*

Notes:

(1) The model was setup to take in account the rain cap on the stack. Therefore the velocity was set to 0.01 ft/sec.

See Table B-6 for AG-1 model output.

ORIGINAL-KEEP IN FILE

ORIGINAL-KEEP IN FILE

Table B-6a

11199 FILENAME: 11199 DATE: 2/16/12 PAGE NUMBER: 1

********** DAR-1 ANALYSIS **********

********** INPUT DATA **********

LOC	FAC	E.P.	CAS #	SOURCE TYPE	HA, or h(AREA) FEET	hs FEET	D IN.	T F	V FPS	Q ACFM	EMISSIONS #/HOUR	EMISSIONS #/YEAR	DPL, or D(AREA) FT	BW, or S(AREA) FT	BL FT
Facility Name & Address: 11199 76-11 Northern Blvd Jackson Heights Application: p															
SIC Code: 0 Source Code: UTME: 0. UTMN: 0. ZONE: 0 BL FACING DIRECTION: 0.0 %CONTROL: 0.0000															
	11199		00071-43-2	POINT	10.	20.	4.	106.	0.01	0.05	0.00090	8.	1.	7.	12.
Facility Name & Address: 11199 76-11 Northern Blvd Jackson Heights Application: p															
SIC Code: 0 Source Code: UTME: 0. UTMN: 0. ZONE: 0 BL FACING DIRECTION: 0.0 %CONTROL: 0.0000															
	11199		00108-88-3	POINT	10.	20.	4.	106.	0.01	0.05	0.00130	12.	1.	7.	12.
Facility Name & Address: 11199 76-11 Northern Blvd Jackson Heights Application: p															
SIC Code: 0 Source Code: UTME: 0. UTMN: 0. ZONE: 0 BL FACING DIRECTION: 0.0 %CONTROL: 0.0000															
	11199		00100-41-4	POINT	10.	20.	4.	106.	0.01	0.05	0.00090	8.	1.	7.	12.
Facility Name & Address: 11199 76-11 Northern Blvd Jackson Heights Application: p															
SIC Code: 0 Source Code: UTME: 0. UTMN: 0. ZONE: 0 BL FACING DIRECTION: 0.0 %CONTROL: 0.0000															
	11199		1330-20-7	POINT	10.	20.	4.	106.	0.01	0.05	0.00130	12.	1.	7.	12.
Facility Name & Address: 11199 76-11 Northern Blvd Jackson Heights Application: p															
SIC Code: 0 Source Code: UTME: 0. UTMN: 0. ZONE: 0 BL FACING DIRECTION: 0.0 %CONTROL: 0.0000															
	11199		01634-04-4	POINT	10.	20.	4.	106.	0.01	0.05	0.00050	5.	1.	7.	12.

ORIGINAL-KEEP IN FILE

Table B-6b

CONTAMINANT TOXICITY PROFILE FOR DAR-1 ANALYSIS

CONTAMINANT NAME	CAS NUMBER	SGC ug/m3	HOW SGC ASSIGNED	AGC ug/m3	HOW AGC ASSIGNED	DAR TOXICITY	COMMENTS
BENZENE	00071-43-2	1300.00000	NYSDEC	0.130000000	EPA	HIGH	A,H,U
ETHYL BENZENE	00100-41-4	54000.00000	ACGIH STEL	1000.000000000	EPA	MODERATE	H,I
TOLUENE	00108-88-3	37000.00000	NYSDEC	5000.000000000	EPA	LOW	H,I
METHYLTERTBUTYLETHER	01634-04-4	0.00000	NO SGC EXISTS	3000.000000000	EPA	MODERATE	H,I
xylene	1330-20-7	0.00000	NO SGC EXISTS	100.000000000	you assigned		

COMMENTS :

(A) ACGIH Human Carcinogen.

(H) HAP identified by 1990 CAAA.

(I) Refer to ACGIH Handbook.

(U) AGC equivalent to "one in a million risk".

ORIGINAL-KEEP IN FILE

Table B-6c

CONTAMINANT EMISSIONS SUMMARY FOR DAR-1 ANALYSIS

CAS NUMBER	CONTAMINANT NAME	# OF EMISSIONS POINTS PER CONTAMINANT	EMISSIONS (lbs/hour)	EMISSIONS (lbs/year)
00071-43-2	BENZENE	1	0.00090000	7.80000
00100-41-4	ETHYL BENZENE	1	0.00090000	7.80000
00108-88-3	TOLUENE	1	0.00130000	11.70000
01634-04-4	METHYLTERTBUTYLETHER	1	0.00050000	4.60000
1330-20-7	xylene	1	0.00130000	11.70000
	SUMMARY TOTALS		0.00490000	43.600000

Table B-6d

ORIGINAL-KEEP IN FILE

EMISSION POINT AND CONTAMINANT IMPACT SUMMARY OF DAR-1 ANALYSIS

							SHORT-TERM IMPACT	CAVITY IMPACT	POINT or AREA SOURCE IMPACT	
LOC	FAC	E.P.	CAS NUMBER	EMISSIONS #/HOUR	EMISSIONS #/YEAR	ANNUAL EMISSIONS #/HOUR	MAXIMUM (Cav,Pt,Area) ug/m3	ACTUAL ANNUAL ug/m3	POTENTIAL ANNUAL ug/m3	ACTUAL ANNUAL ug/m3
		11199	00071-43-2	0.000900	7.8000	0.000890	1.766822	0.000000	0.041823	0.041425
		11199	00108-88-3	0.001300	11.7000	0.001336	2.552076	0.000000	0.060411	0.062137
		11199	00100-41-4	0.000900	7.8000	0.000890	1.766822	0.000000	0.041823	0.041425
		11199	1330-20-7	0.001300	11.7000	0.001336	2.552076	0.000000	0.060411	0.062137
		11199	01634-04-4	0.000500	4.6000	0.000525	0.981568	0.000000	0.023235	0.024430
SUMMARY TOTALS				0.004900	43.6000	0.004977	9.619363	0.000000	0.227703	0.231554

EMISSION POINT AND CONTAMINANT ASSESSMENT OF DAR-1 ANALYSIS

						SHORT-TERM IMPACT	CAVITY IMPACT	POINT or AREA SOURCE IMPACT	
LOC	FAC	E.P.	CAS NUMBER	AGC ug/m3	SGC ug/m3	MAXIMUM (Cav,Pt,Area) % OF SGC	ACTUAL ANNUAL % OF AGC	POTENTIAL ANNUAL % OF AGC	ACTUAL ANNUAL % OF AGC
		11199	00071-43-2	0.130000000	1300.0000	0.1359	0.0000	32.1716	31.8652
		11199	00108-88-3	5000.000000000	37000.0000	0.0069	0.0000	0.0012	0.0012
		11199	00100-41-4	1000.000000000	54000.0000	0.0033	0.0000	0.0042	0.0041
		11199	1330-20-7	100.000000000	0.0000	0.0000	0.0000	0.0604	0.0621
		11199	01634-04-4	3000.000000000	0.0000	0.0000	0.0000	0.0008	0.0008
SUMMARY TOTALS						0.1461	0.0000	32.2382	31.9335

Table B-6e

ORIGINAL-KEEP IN FILE

11199

FILENAME: 11199 DATE: 2/16/12 PAGE NUMBER: 5

CONTAMINANT IMPACT SUMMARY OF DAR-1 ANALYSIS

CAS NUMBER	EMISSIONS #/HOUR	EMISSIONS #/YEAR	ANNUAL EMISSIONS #/HOUR	SUMMATION OF SHORT-TERM IMPACTS, MAXIMUM (Cav,Pt,Area) ug/m3	SUMMATION OF CAVITY IMPACTS ACTUAL ANNUAL ug/m3	SUMMATION OF POINT or AREA SOURCE IMPACTS POTENTIAL ANNUAL ug/m3	SUMMATION OF POINT or AREA SOURCE IMPACTS ACTUAL ANNUAL ug/m3
00071-43-2	0.000900	7.8000	0.000890	1.766822	0.000000	0.041823	0.041425
00100-41-4	0.000900	7.8000	0.000890	1.766822	0.000000	0.041823	0.041425
00108-88-3	0.001300	11.7000	0.001336	2.552076	0.000000	0.060411	0.062137
01634-04-4	0.000500	4.6000	0.000525	0.981568	0.000000	0.023235	0.024430
1330-20-7	0.001300	11.7000	0.001336	2.552076	0.000000	0.060411	0.062137
SUMMARY TOTALS	0.004900	43.6000	0.004977	9.619363	0.000000	0.227703	0.231554

CONTAMINANT ASSESSMENT SUMMARY OF DAR-1 ANALYSIS

CAS NUMBER	AGC ug/m3	SGC ug/m3	SUMMATION OF SHORT-TERM IMPACTS, MAXIMUM (Cav,Pt,Area) % OF SGC	SUMMATION OF CAVITY IMPACTS ACTUAL ANNUAL % OF AGC	SUMMATION OF POINT or AREA SOURCE IMPACTS POTENTIAL ANNUAL % OF AGC	SUMMATION OF POINT or AREA SOURCE IMPACTS ACTUAL ANNUAL % OF AGC
00071-43-2	0.130000000	1300.0000	0.1359	0.0000	32.1716	31.8652
00100-41-4	1000.000000000	54000.0000	0.0033	0.0000	0.0042	0.0041
00108-88-3	5000.000000000	37000.0000	0.0069	0.0000	0.0012	0.0012
01634-04-4	3000.000000000	0.0000	0.0000	0.0000	0.0008	0.0008
1330-20-7	100.000000000	0.0000	0.0000	0.0000	0.0604	0.0621
SUMMARY TOTALS			0.1461	0.0000	32.2382	31.9335

NYC Environmental Protection

THE CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Environmental Compliance
59-17 Junction Boulevard, 9th Floor, Flushing, New York 11373
Records Control (718) 595-3855

Rev 01/11

PROFESSIONAL CERTIFICATION

YOU MUST FILL OUT THIS FORM COMPLETELY.
INCOMPLETE FORMS WILL NOT BE ACCEPTED

INSPECTION SET

Date: 03/05/2012

Installation Number: PB0078-12L

Premise Information:

76-11 Northern Boulevard	Mobile Service Station #17-GFT
Street Address	Name of Premise (if any)

Floor	Room No.	Borough	Zip Code	BIN	Block	Lot
		Queens	11370	4026661	1172	45

PROFESSIONAL CERTIFICATION

Being duly mindful of my responsibilities as a licensed Professional Engineer / Registered Architect in the State of New York and acting as designated agent for the applicant, I hereby certify that the application, plans, and all supplementary documents submitted in connection with this filing are complete and fully comply with all applicable laws, codes, rules, regulations, and directives of the Department of Environmental Protection, Bureau of Environmental Compliance of the City of New York in effect at the time filed.

N.Y.S. P.E. or R. A. Seal: STATE OF NEW YORK · LIANG KIT YING · 07286-1 · LICENSED PROFESSIONAL ENGINEER

N.Y.S. P.E. or R. A. Signature:

N.Y.S. P.E. or R. A. Name: Kit Liang, P.E.

N.Y.S. P.E. or R. A. License Number: 07286-1

INSTRUCTIONS: Pursuant to Engineering Directive Number 1-78, this certification must be submitted in triplicate with all APC 5-0, APC 5-R, and APC 5-PA applications and does not preclude the necessity to sign and seal the certification now contained on the application forms.

FOR GENERAL INFORMATION, QUESTIONS, AND INQUIRIES: Please visit our website at www.nyc.gov/dep or call 311

NYC Environmental Protection

THE CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Environmental Compliance
Industrial Processes Division
59-17 Junction Boulevard, 9th Floor, Flushing, New York 11373
Records Control (718) 595-3855

Rev 01/11

ENVIRONMENTAL RATING REPORT

INSPECTION SET

INSPECTION SET

EN NUMBER: _____

YOU MUST FILL OUT THIS FORM COMPLETELY.
INCOMPLETE FORMS WILL NOT BE ACCEPTED

Premise Identification Number:

Company / Organization Information:

Company Name: East River Petroleum Realty

Telephone:

Premise Information: 76-11 Northern Boulevard (Street Address) | Mobile Service Station #17-GFT (Name of Premise (if any))

Floor	Room No.	Borough	Zip Code	BIN	Block	Lot
		Queens	11370	4026661	1172	45

Mailing Address if different from Premise Address:	City:	State:	Zip Code
	Jackson Heights	NY	11370

Person Preparing Report Information:

Name:	Telephone:
Kit Liang, P.E.	(914) 641-2670
Address: 44 South Broadway, 15th Floor	**Mailing Address:** 44 South Broadway, 15th Floor

City:	State:	Zip Code:	City:	State:	Zip Code
White Plains	NY	10601	White Plains	NY	10601

Summary of Points of Emission:

SEC.	LOT	BLOCK
	45	1172

EMISSION POINT NUMBER	OPERATION PRODUCING EMISSION	ENVIRONMENTAL RATING	
		PROPOSED	ASSIGNED BY BEC
11199	Soil Remidiation Air Emissions Control Unit - Catalytic Oxidizer	A	A

THIS REPORT IS: ☑ NEW ☐ REVISION ☐ ADDENDUM

SIGNATURE: Kit Liang TITLE: Principal Engineer DATE: 3/6/2012

FOR GENERAL INFORMATION, QUESTIONS, AND INQUIRIES: Please visit our website at www.nyc.gov/dep or call 311

New York State
Department of Environmental Conservation
PROCESS, EXHAUST OR VENTILATON SYSTEM

OP | LOCATION | FACILITY | EMISSION POINT
1

Δ Add
C Change
D Delete

READ INSTRUCTIONS CONTAINED IN FORM 76-11-12 BEFORE ANSWERING ANY QUESTIONS

INSPECTION SET

APPLICATION FOR PERMIT TO CONSTRUCT OR CERTIFICATE TO OPERATE

SECTION A

1. Name of Owner/Firm East River Petroleum Realty		9. Name of Authorized Agent **ARCADIS**	10. Telephone **(914) 694-2100**	19. Facility Name (if different from Owner/Firm) Mobile Service Station #17-GFT	
2. Number and Street Address 6920-B Commercial Drive		11. Number and Street Address **44 South Broadway, 15th floor**		20. Facility Location (Number and Street Address) 76-11 Northern Boulevard	
3. City, Town - Village Springfield	4. State VA / 5. Zip **22151**	12. City, Town – Village **White Plains**	13. State **NY** / 14. Zip **10601**	21. City, Town – Village Jackson Heights (Queens), NY	22. Zip **11370**
6. Owner Classification A. X Commercial C. ☐ Utility F. ☐ Municipal I. ☐ Residential B. ☐ Industrial D. ☐ Federal G. ☐ Educ. Inst. J. ☐ Other E. ☐ State H. ☐ Hospital		15. Name of PE or Architect Preparing Application **Kit Liang**	16. NYS PE or Architect License No. 17. Telephone **(914) 694-2100**	23. Building Name or Number **Car service station**	24. Floor Name or Number Outdoor
7. Name & Title of Owners Representative Megan Tingley Environmental Analyst	8. Telephone (703) 750-6810 ext. 140	18. Signature of Owner's Representative or Agent when applying for a Permit to Construct		25. Start Up Date __3___ / ____2012__ MO YR	26. Drawing Numbers of Plans Submitted **Site Plan, Air Flow Diagram**
				27. Permit to Construct A. X New Source B. ☐ Modification	28. Certificate to Operate A. ☐ New Source C. ☐ Existing Source B. ☐ Modification

STATE OF NEW YORK · LING KIT NG · 07286-1 · LICENSED PROFESSIONAL ENGINEER

SEC. B

29. Emission Point Id.	30. Ground Elevation (ft)	31. Height Above Structure (ft)	32. Stack Height (ft)	33. Inside Dimensions (in)	34. Exit Temp (°F)	35. Exit Velocity (ft/sec)	36. Exit Flow Rate (acfm)
1 1 1 9 9	**40**	**10**	**20**	**4**	**106**	**49**	**375**

37. Source Code	38. Hrs / Day	39. Days / Yr	40. % Operation By Season Winter	Spring	Summer	Fall
9103	24	365	2 5	2 5	2 5	2 5

SEC. C

41. Describe Process Or Unit

Air sparging is being applied at this site. Ambient air is pumped under the soil slab into the contaminated soil and acts as an extractor and transporter for contaminants under the slab. A blower is used to extract the saturated air/vapor from wells and pull it through a moisture separator before blowing it into the catalytic oxidizer. The air is treated by a FALCO 300 catalytic oxidizer (CatOx) to remove contaminants and it is cooled down by an internal chiller by 75% before being released into the atmosphere through a stack. The stack is 3 inches (in.) in diameter (inside diameter) and 20 feet (ft.) stack above grade elevation, and is directly connected to the 5 ft. high catalytic oxidizer unit. The stack top is equipped with a rain-cap. The CatOx unit is designed to handle maximum of 350 standard cubic feet per minute (scfm) which is 375 actual cubic feet per minute (acfm) at 106° F.

SEC. D

Emission Control Equipment ID	Control Type	Manufacturer's name and Model Number	Disposal Method	Date Installed Month / Year	Useful Life
42.	43.	44. Falmouth Products, Inc. – FALCO 300	45.	46. **6 /2004**	47.
48.	49.	50.	51.	52. /	53.

SECTION E

Calculations

Benzene

Maximum Effluent Concentration = 1.0 mg/m³ Maximum Flow Rate = 236 scfm (6.8 m³/min) Conversion Factor = 2.2046x10⁻⁶ lb/mg

Actual Emission (lb/hr) = Concentration (mg/m³) x Flow Rate (m³/min) x Conversion Factor (lb/mg) x 60 (min/hr)

1.0 mg/m³ x 6.8 m³/min x 2.2046x10⁻⁶ lb/mg x 60 min/hr = 0.0009 lb/hr

SECTION F

Contaminant Name	CAS Number	Input or Production	Unit	Env. Rating	Emissions Actual	Unit	How Det.	Permissible	% Control Effic'cy	Hourly Emissions (lbs/hr) ERP	Actual	Annual Emissions (lbs/yr) Actual	10^X	Permissible
54. **Benzene**	55. **00071-43-2**	56.	57. **1**	58. **A**	59. **0.00089**	60.	61.	62.	63. **50**	64. **0.00179**	65. **0.00089**	66. **7.825**	67. **00**	68.
69. **Toluene**	70. **00108-88-3**	70.	72. **1**	73 **C**	74. **0.00134**	75.	76.	77.	78. **44**	79. **0.00304**	80. **0.00134**	81. **1.174**	82. **01**	83.
84. **Ethylbenzene**	85. **00100-41-4**	86.	87 **1**	88. **B**	89. **0.00089**	90.	91.	92.	93. **50**	94. **0.00179**	95. **0.00089**	96. **7.825**	97. **00**	98.
99. **Xylene**	100. **1330-20-7**	101.	102. **1**	103. **B**	104. **0.00134**	105.	106.	107.	108. **50**	109. **0.00268**	110. **0.00134**	111. **1.174**	112. **01**	113.
114. **MTBE***	115. **01634-04-4**	116.	117. **1**	118. **A**	119. **0.00052**	120.	121.	122.	123. **42**	124. **0.00125**	125. **0.00052**	126. **4.583**	127. **00**	128.
129. **TPH***	130.	131.	132. **1**	133.	134. **0.41093**	135.	136.	137.	138. **46**	139. **0.88438**	140. **0.41093**	141. **3.600**	142. **03**	143.

***See Table A for Emissions**

SEC. G

Solid Fuel Type	Tons / Yr	% S	Liquid Fuel Type	Thousands of Gallons / Yr	% S	Gas Type	Thousands of CF / Yr	BTU / CF
144.	145.	146.	147.	148.	149.	150.	151.	152.

Applicable Rule	Applicable Rule
153. 212	154.

Upon completion of construction sign the statement listed below and forward to the appropriate field representative
THE PROCESS, EXHAUST OR VENTILATION SYSTEM HAS BEEN CONSTRUCTED AND WILL BE OPERATED IN ACCORDANCE WITH STATED SPECIFICATIONS AND IN CONFORMANCE WITH ALL PROVISIONS OF EXISTING REGULATIONS

155. Signature of Authorized Representative or Agent | Date

AGENCY USE ONLY

156. Location Code	157. Facility Id No.	158. U.T.M. (E)	159. U.T.M. (N)	160. SIC Number	161. Date Appl. Received	162. Date Appl. Reviewed	163. Reviewed By:
				1629		03/19/2012	9.9.

PERMIT TO CONSTRUCT

164. Date Issued	165. Expiration Date	166. Signature of Approval	167. Fee
/ /	/ /		

168.
1. Deviation from approved application shall void this permit.
2. This is not a Certificate to Operate.
3. Tests and/or additional emission control equipment may be required prior to the issuance of a Certificate to Operate.

CERTIFICATE TO OPERATE

169. Date Issued	170. Expiration Date	171. Signature of Approval	172. Fee
/ /	/ /		

173.
1. ☐ Inspected by _____ Date _____
2. ☐ Inspection disclosed differences as built vs permit, changes indicated on form
3. ☐ Issue certificate to operate for source as built
4. ☐ Application for C.O. denied _____ _____ Date Initialed

174. Special Conditions
1. PB 0078-12L
2.
3.
4.
5.
6.
7.
8.

AGENCY USE ONLY

Table A
11199 - Total Emission Rates
76-11 Northern Boulevard
Jackson Heights, New York

INSPECTION SET

CONTAMINANT		INPUT OR PRODUCTION	UNIT	ENV. RATING	EMISSIONS[1,2]				% CONTROL EFFICIENCY[3]	HOURLY EMISSIONS (LBS/HR)		ANNUAL EMISSIONS (LBS/YR)		
NAME	CAS NUMBER				ACTUAL	UNIT	HOW DET.	PERMISSIBLE		ERP	ACTUAL	ACTUAL	10^X	PERMISSIBLE
Benzene	00071-43-2		1	A	0.00089	1	1		50	0.00179	0.00089	7.825E+00	0	
Toluene	00108-88-3		1	C	0.00134	1	1		44	0.00304	0.00134	1.174E+01	0	
Ethylbenzene	00100-41-4		1	B	0.00089	1	1		50	0.00179	0.00089	7.825E+00	0	
Xylene	1330-20-7		1	B	0.00134	1	1		50	0.00268	0.00134	1.174E+01	0	
MTBE[4]	01634-04-4		1	A	0.00052	1	1		42	0.00125	0.00052	4.583E+00	0	
TPH[5]			1		0.41093	1	1		46	0.88438	0.41093	3.600E+03	0	

1. Hourly and annual BTEX emissions were developed using the monthly air sampling data and mass balance calculations.
2. The total emissions for the soil remediation site 11199 will be directed through one stack (EP# 11199).
3. % Control efficiancy based on effluent - influent values. Actual operational control efficiency may be significantly higher.
4. MTBE - methyl tertiary-butyl ether
5. Total petroleum hydrocarbon (TPH): may include hexane, benzene, toluene, xylenes, naphthalene, and fluorene, other constituents of gasoline, of jet fuels, of mineral oils, and of other petroleum products.



3/6/2012

ARCADIS

Infrastructure · Water · Environment · Buildings

Imagine the result

INSPECTION SET

East River Petroleum Realty

NYCDEP BEC Work Permit Application

Project Description

Site Number 11199

Mobile Service Station #17-GFT
76-11 Northern Boulevard
Jackson Heights, NY 11370

March 2012



1.	**Project Site Description**	1
2.	**Soil Vapor Extraction/Air System**	1
3.	**Emission Rate Estimation**	2
4.	**Compliance with *Air Guide-1* Guideline Concentrations**	2
5.	**Project Schedule**	3

Appendices

Appendix A - Manufacturer Specifications and Catalyst MSDS

Appendix B - Laboratory Analysis Summary and Air Guide-1 Analyses

ARCADIS

Project Description for
Site Number 11199

INSPECTION SET

1. Project Site Description

The Mobile Service Station #17-GFT is located at 76-11 Northern Boulevard, Jackson Heights (Queens), NY (see Figure 1). The remediation site is surrounded by commercial and residential buildings.

The remediation project, a soil vapor extraction/air system - SVE/AS, was activated in June 2007. The system was operating until February of 2011, when it was shut down due to technical issues. Influent and effluent samples of the SVE/AS system were collected on September 1, October 5, November 2, December 15, 2010, and January 18 and February 4, 2011. After evaluation of the air samples the system is planned to restart for a pilot test in April 2012. The system extracts vapors under vacuum from ten (10) SVE wells at the site. A catalytic oxidizer is used to control air emissions from the soil vapor extracted from the site wells prior to exhaust to the atmosphere via a single stack. Monthly air sampling of the SVE/AS system gases will be conducted. Each month, influent and effluent air samples are collected and analyzed by an outside laboratory (Lancaster Laboratories, Inc.) for benzene, toluene, ethylbenzene, and xylenes (i.e., BTEX compounds), along with methyl-tertiary-butyl ether (MTBE), and total petroleum hydrocarbon (TPH), which may include hexane, benzene, toluene, xylenes, naphthalene, fluorine, and other constituents of gasoline, jet fuels, mineral oils, and other petroleum products. Influent air is sampled prior to the catalytic oxidizer; the effluent air is sampled at the stack.

2. Soil Vapor Extraction/Air System

The SVE system at the site uses air sparging. Ambient air is pumped under the soil slab into the contaminated soil and acts as an extractor and transporter for contaminants under the slab. A blower is used to extract the saturated air/vapor from the ten (10) wells at the site and through a moisture separator before sending it into a FALCO 300 catalytic oxidizer (CatOx) system (see Appendix A for manufacturer specifications) to remove contaminants. Figure 2 is a site plan showing the location of the wells and the CatOx system. The CatOx unit is designed to handle a maximum of 350 standard cubic feet per minute (scfm) of air. A flow process diagram of the SVE/CatOx system is provided in Figure 3. The air from the CatOx unit is then passed through a heat exchanger (to recycle the heat) before being released into the atmosphere through a single stack. The stack top is equipped with a rain-cap (see Figure 4).

In the second stage of remediation, when the contaminants in the soil and ground water reach low levels the CatOx system will be replaced by a carbon system. Once

INSPECTION SET

the air passes through a moisture separator it will than pass through a carbon vessel. The effluent air from the carbon vessel will be emitted through a single stack into the atmosphere (see Figure 5).

3. Emission Rate Estimation

The maximum effluent concentration reported in 2011 was used to estimate emissions from the operation of the remediation system. Appendix B provides the field notes and lab analysis summary for the 2011 sampling events, including influent and effluent concentrations (Tables B-1 and B-2) and mass emissions (Table B-3). In the event that the effluent concentration was below the method detection limit (MDL) for a contaminant during the entire year, that concentration was set to ½ the MDL. Otherwise, the maximum reportable concentration was used to estimate the emissions. The short-term emission rate was determined from the actual average system flow rate and the effluent concentration. The annual emission rate was determined based on the short-term emission rate assuming continuous operation of the CatOx system (i.e., 8760 hours per year).

4. Compliance with *Air Guide-1* Guideline Concentrations

New York State seeks to control the ambient levels of air toxics through the use of recommended guideline concentrations in the New York Code, Rules and Regulations (6 NYCRR Part 201). These "non-criteria pollutants" include carcinogens, as well as non-carcinogenic compounds and irritants. The New York State Department of Environmental Conservation (NYSDEC) provides 1-hour and annual average guideline concentrations called *Short-term Guideline Concentrations* (SGCs) and *Annual Guideline Concentrations* (AGCs) for these compounds. These guideline concentrations are discussed in NYSDEC's *DAR-1* (formerly *Air Guide-1*, NYSDEC, 1997) and current values are provided in *NYSDEC DAR-1 AGC/SGC Tables,* (NYSDEC, October 18, 2010).

An analysis was performed to determine the compliance of the air emissions from stack with the guideline concentrations, and using AG-1, NYSDEC's computerized dispersion model (available for download from the NYSDEC website). The analysis demonstrated that the emissions from EP 11199 from the operation of the SVE system at the site were well below both the SGCs and AGCs for the applicable contaminants. Tables B-4 and B-5 in Appendix B present the results of the analysis. Tables B-6a to

INSPECTION SET

B-6e show the summary input and output tables from the AG-1 modeling analysis for EP11199.

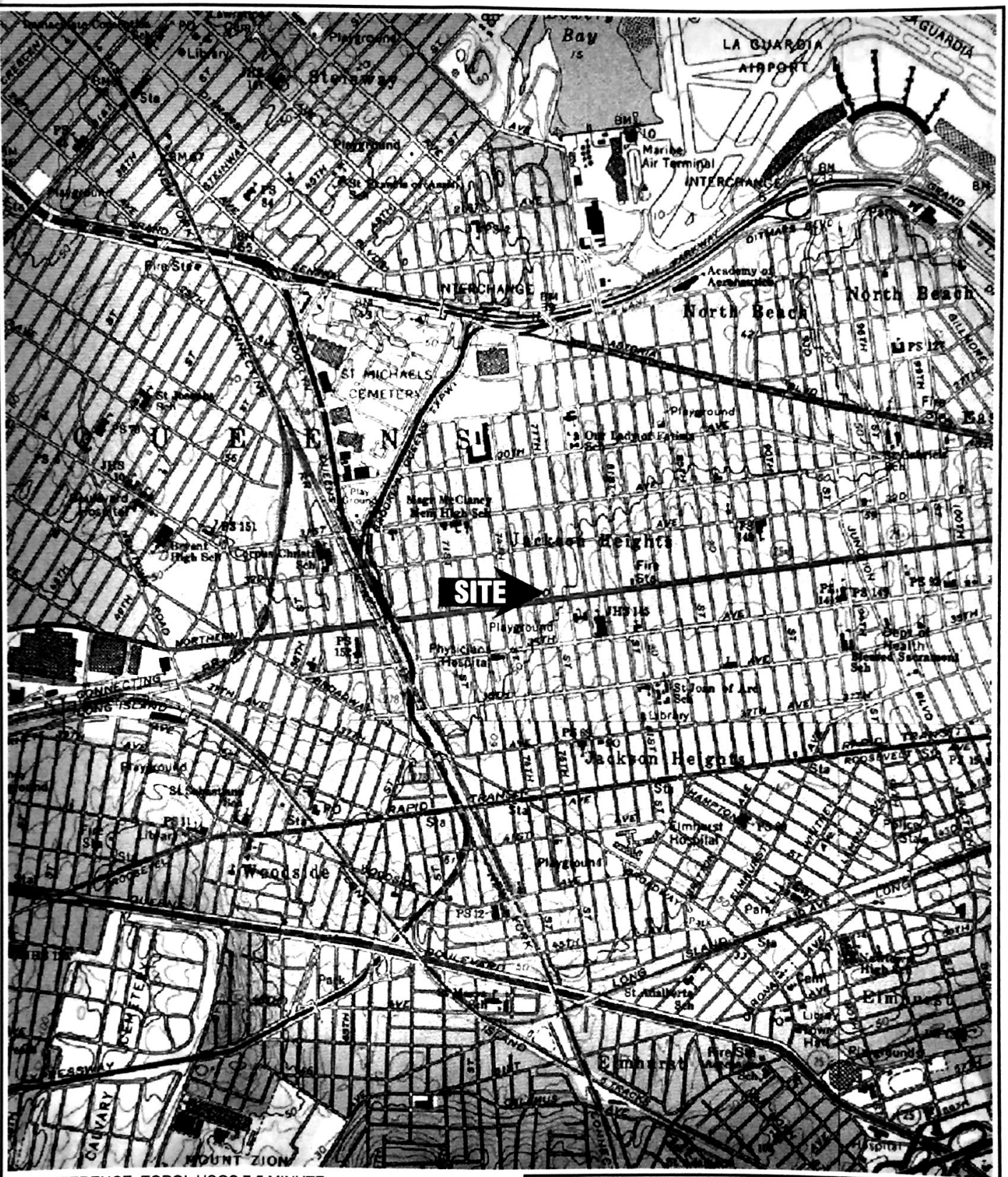
5. Project Schedule

The Site 11199 SVE remediation project was activated in April 2006 and it was shut off for maintenance in February 2011. The system will be brought back online in April 2012 for pilot testing and additional air sampling. Once it is determined that the contaminants found in the water and soil at the site meet acceptable levels the system will be switched from CatOx to carbon adsorption system. No definite date has been set for the termination of the project.

References

NYSDEC, 1997. *DAR-1 Guidelines for the Control of Toxic Ambient Air Contaminants.* New York State Department of Environmental Conservation, Division of Air Resources, Bureau of Stationary Sources. Issue date: November 12, 1997.

NYSDEC, 2010. *NYSDEC DAR-1 AGC/SGC Tables,* October 18, 2010.



REFERENCE: TOPO!, USGS 7.5 MINUTE
QUAD: CENTRAL PARK, NEW YORK
DATED: 1999

INSPECTION SET

0 2000' 4000'

GRAPHIC SCALE

MOBIL BRANDED SERVICE STATION
FORMER MOBIL #11199 (17-GFT)
76-11 NORTHERN BOULEVARD
JACKSON HEIGHTS, NEW YORK

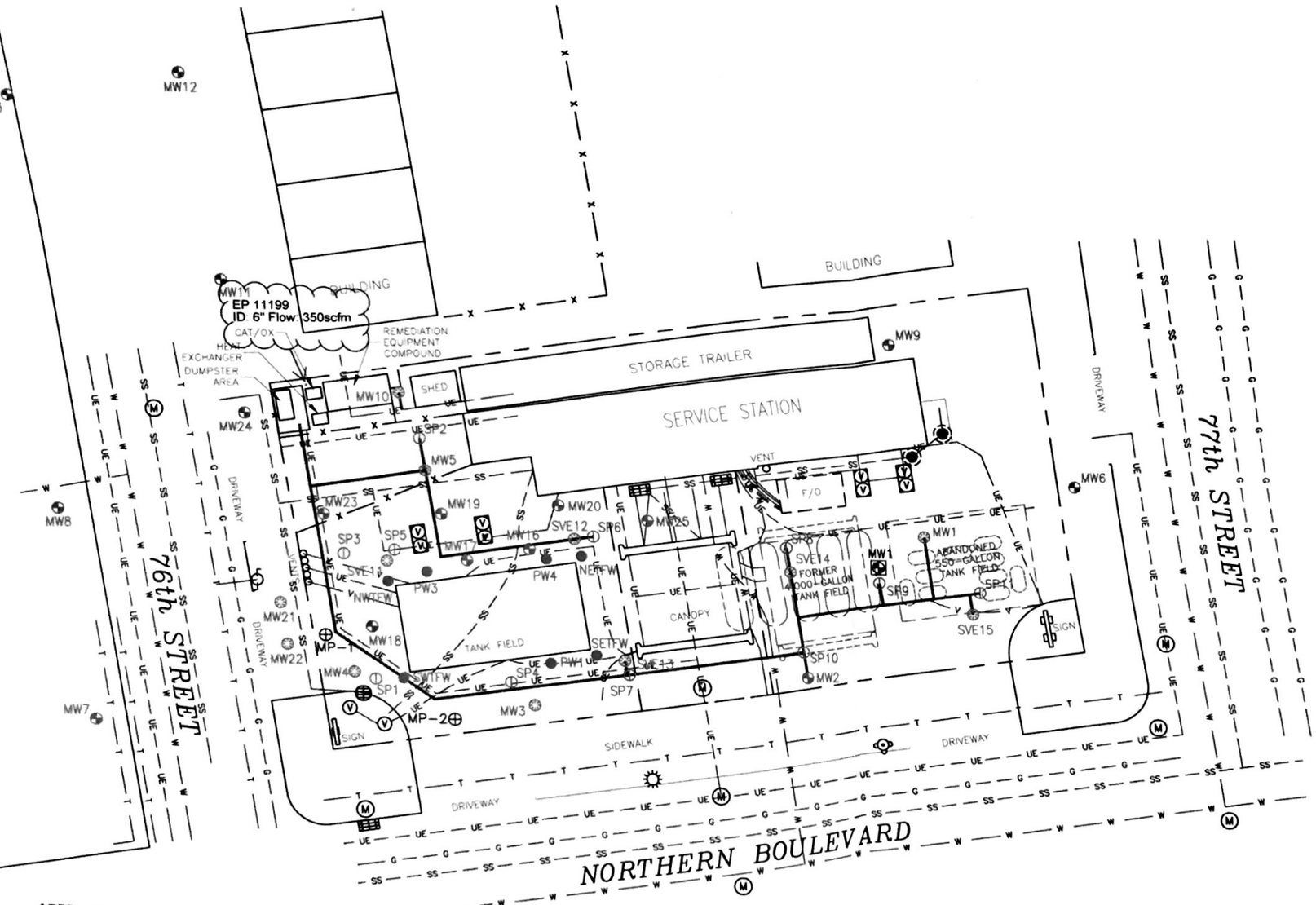
SITE LOCATION MAP

ARCADIS

FIGURE 1

CITY: MANCHESTER, CT DIV/GROUP: ENVCAD DB: B. SMALL PM: E.CHOQUETTE
G:\ENVCAD\ManchesterACT\B0085850\11990000\11B0085850119 9.dwg LAYOUT: FIGURE 1 SAVED: 4/4/2011 11:34 AM ACADVER: 18.0S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: ---- PLOTTED: 4/4/2011 3:04 PM BY: SMALL, BRIAN
XREFS: IMAGES: PROJECTNAME: ----
TOPOImap.JPG

INSPECTION SET



LEGEND:

- PROPERTY LINE
- FENCE LINE
- UNDERGROUND SANITARY SEWER LINE
- UNDERGROUND TELEPHONE LINE
- UNDERGROUND ELECTRIC LINE
- UNDERGROUND WATER LINE
- UNDERGROUND GAS LINE
- ABANDONED VENT LINE
- REMEDIAL TRENCH LAYOUT
- MONITORING WELL
- MONITORING POINT
- TANK FIELD WELL
- DESTROYED MONITORING WELL
- SOIL VAPOR EXTRACTION WELL
- AIR SPARGE WELL
- F/O FUEL OIL TANK
- STORM DRAIN
- CATCH BASIN
- UTILITY MANHOLE
- FIRE HYDRANT
- LIGHT POLE
- UTILITY POLE

Block 1172
Lot 45

NOTES:

1. THIS DRAWING IS REFERENCED FROM THE FOLLOWING:
   A. "SITE [illegible]", DATED:10/05/10, SCALE: 1"=30'.

STATE OF NEW YORK
LIANG KIT YING
07286-1
LICENSED PROFESSIONAL ENGINEER
3/6/2012

0 30' 60'
GRAPHIC SCALE

APPROVED for construction in accordance with Application, Amendment(s) and Work Permit No.
PB 0078-12L
Q.G. 03/19/2012
Engineer Date

For Air Permitting Purpose Only

MOBIL BRANDED SERVICE STATION
FORMER MOBIL #11199 (17-GFT)
76-11 NORTHERN BOULEVARD
JACKSON HEIGHTS, NEW YORK

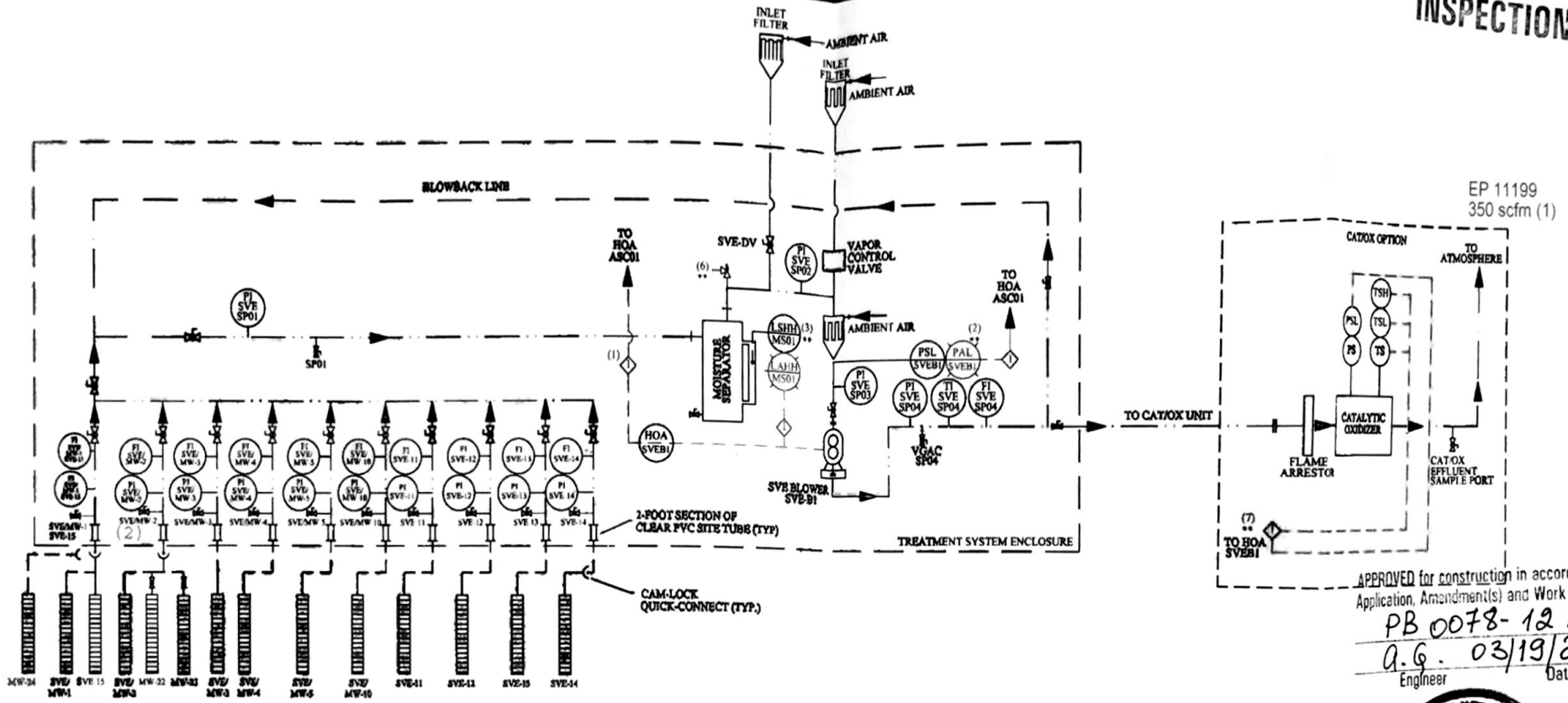
SITE PLAN

ARCADIS

FIGURE 2

CITY: MANCHESTER_CT DIV/GROUP: ENVCAD DB: B SMALL PM: E.CHOQUETTE
G:\ENVCAD\Manchester\ACT\B0085850\11990000\180085850\11199 0000 dwg LAYOUT: FIGURE 2 SAVED: 4/5/2011 5:13 PM ACADVER: 18.0S (LMS TECH) PAGESETUP: --- PLOTSTYLETABLE: --- PLOTTED: 4/5/2011 5:14 PM BY: SMALL, BRIAN

INSPECTION SET



APPROVED for construction in accordance with Application, Amendment(s) and Work Permit No.

PB 0078-12 L

A.G. 03/19/2012

Engineer Date

STATE OF NEW YORK LIANG KIT YING 072861 LICENSED PROFESSIONAL ENGINEER

3/6/2012

SVE BLOWER			
POSITION	EXPECTED VACUUM	EXPECTED TEMP.	EXPECTED FLOW
PI-SVESP01	94 IWC		
TI-SVESP01		TBD	
FI-SVESP01			350 SCFM

VAPOR EXTRACTION WELLS & MANIFOLD						
POSITION	EXPECTED VACUUM	EXPECTED FLOW	CASING DIAMETER	TOTAL DEPTH	DEPTH TO WATER	SCREEN INTERVAL
SVE/MW-1	32 IWC	~55 SCFM	4-inch	25'	~14'-18'	~5'-25'
SVE/MW-2	32 IWC	~55 SCFM	4-inch	25'	~14'-18'	~5'-25'
SVE/MW-3	32 IWC	~55 SCFM	4-inch	25'	~14'-18'	~5'-25'
SVE/MW-4	32 IWC	~55 SCFM	4-inch	25'	~14'-18'	~5'-25'
SVE/MW-5	32 IWC	~55 SCFM	2-inch	25'	~14'-18'	~5'-25'
SVE/MW-10	32 IWC	~55 SCFM	2-inch	25'	~14'-18'	~5'-25'
SVE-11	32 IWC	~55 SCFM	4-inch	25'	~14'-18'	~5'-25'
SVE-12	32 IWC	~55 SCFM	4-inch	25'	~14'-18'	~5'-25'
SVE-13	32 IWC	~55 SCFM	4-inch	25'	~14'-18'	~5'-25'
SVE-14	32 IWC	~55 SCFM	4-inch	25'	~14'-18'	~5'-25'
SVE-15	32 IWC	~55 SCFM	4-inch	25'	~14'-18'	~5'-25'

** CRITICAL EQUIPMENT

CRITICAL EQUIPMENT SCHEDULE		
I.D.	DEVICE	FUNCTION
(1)	SVE/AS INTERLOCK	SPARGE COMPRESSOR IS SHUT DOWN WHEN SVE BLOWER IS NOT OPERATING
(2)	SVE LOW VACUUM SWITCH	DEACTIVATES SYSTEM IF SWITCH SENSES LOW VACUUM ON THE SVE MANIFOLD PIPING
(3)	MOISTURE SEPARATOR HIGH LEVEL SWITCH	HIGH LEVEL ALARM SHUTS DOWN SVE BLOWER
(4)	AS HIGH TEMP	DEACTIVATES AS MOTOR IF HIGH TEMP IS SENSED IN AIR FLOW
(5)	AS PRESSURE RELIEF VALVE	ALLEVIATE EXCESSIVE PRESSURE IN SPARGE LEG IN THE EVENT OF BLOCKAGE
(6)	SVE VACUUM RELIEF VALVE	ALLEVIATE EXCESSIVE VACUUM IN THE EVENT OF BLOCKAGE
(7)	CAT/OX HIGH AND LOW TEMPERATURE FAILSAFE	SYSTEM IS SHUT DOWN WHEN CAT/OX TEMPERATURE IS OUT OF OPERATING RANGE

For Air Permitting Purpose Only

NOTES:

(1). The flow rate of 350 standard cubic feet per minute (scfm) is the manufacturer's set maximum flow rate for the catalytic oxidizer system. Flow rate varies during regular operation.

(2) Several wells can be manifold in to one extraction point.

SOURCE:

DRAWN BY:	CW
REVISED BY:	ASD
CHECKED BY:	
DATE: 11/28/2007	APPROVED BY:

KLEINFELDER
ONE CORPORATE DRIVE, SUITE 201
BOHEMIA, NY 11716
PH. (631) 218-0612 FAX. (631) 218-0787
www.kleinfelder.com

SOIL VAPOR EXTRACTION PROCESS AND INSTRUMENTATION DIAGRAM

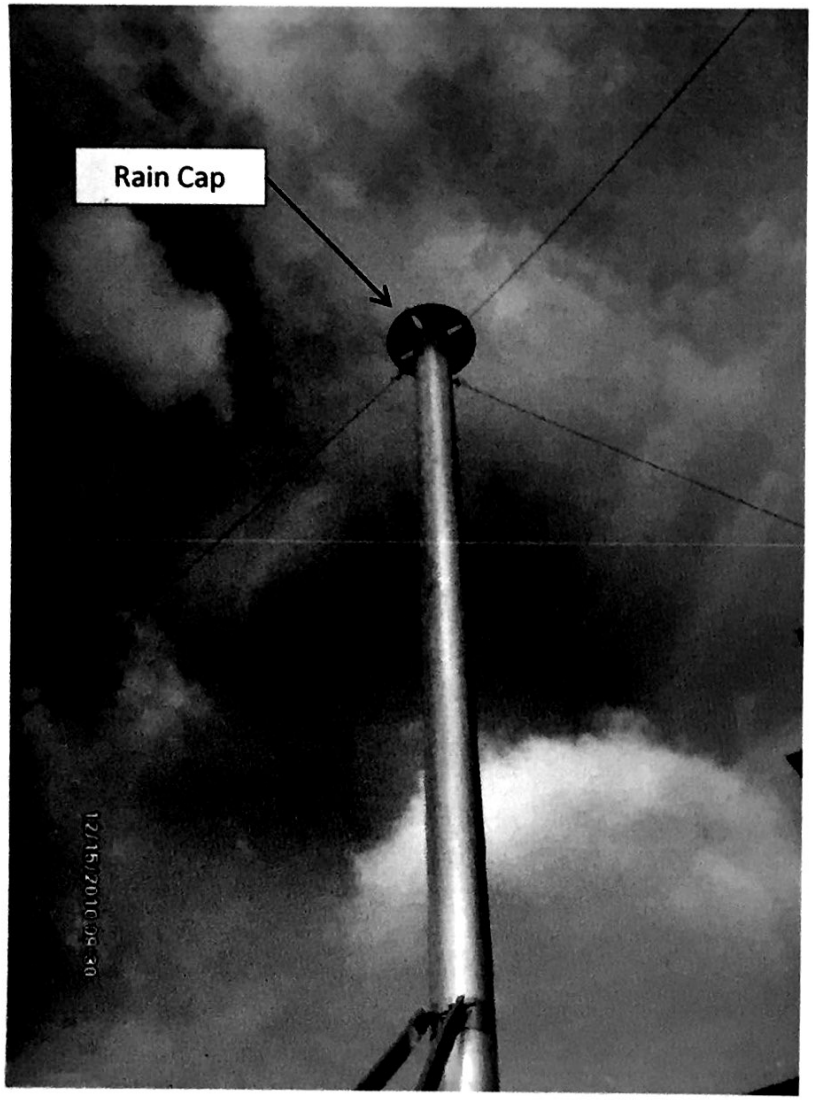
MOBIL SERVICE STATION No. 11199 (17-GFT)
76-11 NORTHERN BOULEVARD
JACKSON HEIGHTS, NEW YORK

FIGURE 3

L:\Projects\ExxonMobil\Queens\11199 17-GFT Jackson Heights\CADD-Figures\O&M MANUAL\2007\NOV\11199 17-GFT P&ID.dwg, ADIFalco

ARCADIS

Infrastructure · Water · Environment · Buildings



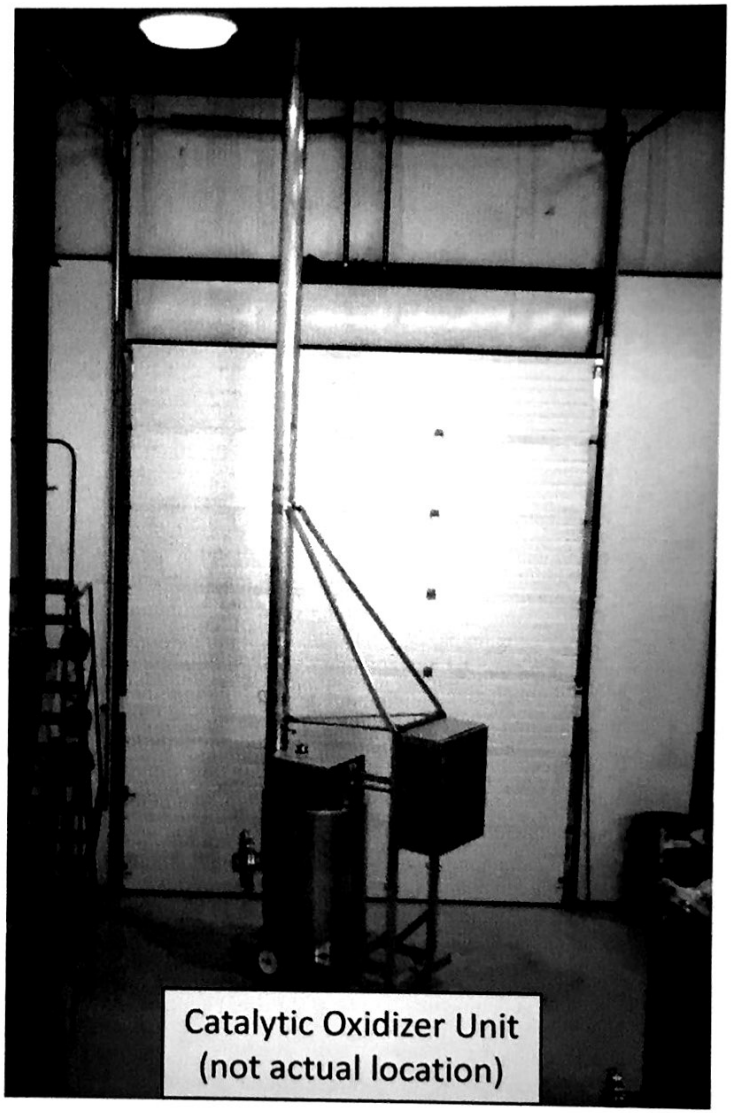


Figure 4. Catalytic Oxidizer with Rain Cap

INSPECTION SET

ARCADIS

Infrastructure · Water · Environment · Buildings





Figure 5. Carbon System

ARCADIS

INSPECTION SET

Appendix A

Manufacturer Specifications and Catalyst MSDS



3/6/2012



Fliteway Technologies, Inc.

INSPECTION SET

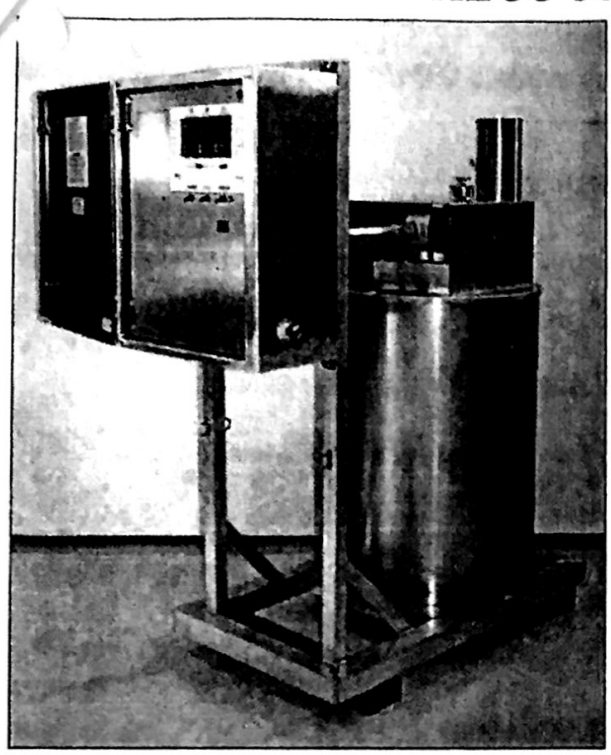
Falco 300 Oxidizer

2129 East Birchwood Ave. Cudahy, WI 53110

(414) 483-5600 1-800-236-3580 FAX (414) 483-1957

INSPECTION SET

FALCO 300 SPECIFICATIONS



The FALCO 300 electric catalytic oxidizer treats air streams contaminated with volatile organic compounds. Startup is fully automatic. Controllers accurately regulate input loading and temperatures. The controls adjust a FALCO Vapor Control Valve (VCV) to maintain safe maximum input concentrations. Automatic shutdown results if temperatures exceed limits.

The FALCO 300 has an efficient heat exchanger. A bypass valve adjusts heat recovery. Low heat recovery enables operation at high vapor concentration. High heat recovery minimizes energy use during operation at low input vapor concentration. At 600 ppmv (Gasoline) and 300 scfm, sufficient heat is recovered to preheat the inflow without supplementary electric energy.

The FALCO 300 has a massive catalyst volume for its rated capacity, providing longer life and poison resistance than monolith type catalysts. If necessary, the catalyst can be replaced on site in one hour. New catalyst is poured in after the old catalyst is removed with a shop vacuum.

FM C US APPROVED

• **CAPACITY**	100-350 CFM
• **MAXIMUM INPUT LOADING**	250 lb/day petroleum hydrocarbons @ 350 cfm
• **DESTRUCTION EFFICIENCY**	Up to 99.5%
• **CATALYST TEMPERATURE RANGE**	330-620°C (626-1148°F)
• **CATALYST**	Packed bed 2.5 cubic feet. Platinum on 1/8" ceramic beads is standard. Optional catalyst for chlorinated solvents
• **HEAT EXCHANGER**	Stainless steel spiral plate. 73% efficient at 300 scfm.
• **HEATER (Electric)**	56 amp @ 208 volts (20.3 kW) or, 64.6 amp @ 240 volts (27 kW) Solid State Control.
• **WEIGHT**	825 lb.
• **CONSTRUCTION**	Stainless steel and aluminum
• **DIMENSIONS**	73" high (excluding 5' stack) X 70" long X 29" wide Fits in the back of a pick-up truck
• **POWER REQUIREMENTS**	3 phase 208-240 Volt, optional 1 phase 240 Volt
• **APPROVALS**	System is Factory Mutual approved for use in hazardous locations. South Coast Air Quality Management District (SCAQMD) Certified Equipment Permit.

FALMOUTH PRODUCTS P.O. BOX 541 FALMOUTH, MA 02541 PHONE 508 548 6686 FAX 508 548 8144
www.falmouthproducts.com

INSPECTION SET

FALMOUTH PRODUCTS P.O. BOX 541 FALMOUTH, MA 02541 PHONE 508 548 6686 FAX 508 548 8144

FALMOUTH PRODUCTS VAPOR CONTROL VALVE (VCV)

INSTALLATION INSTRUCTIONS

The Vapor Control Valve (VCV) regulates input vapors to the FALCO oxidizer by mixing source vapors with dilution air.

The VCV is FM approved for use in Class I, Division 2, Group D Hazardous Locations.

Install the VCV in series in the vapor line **after** the water knockout with its dilution air filter vertical, vapor inlet horizontal, and the vapor discharge on the bottom of the valve. The VCV should be mounted so it can be accessed easily and removed for service. An in-line filter should be installed on the vacuum side of the blower.

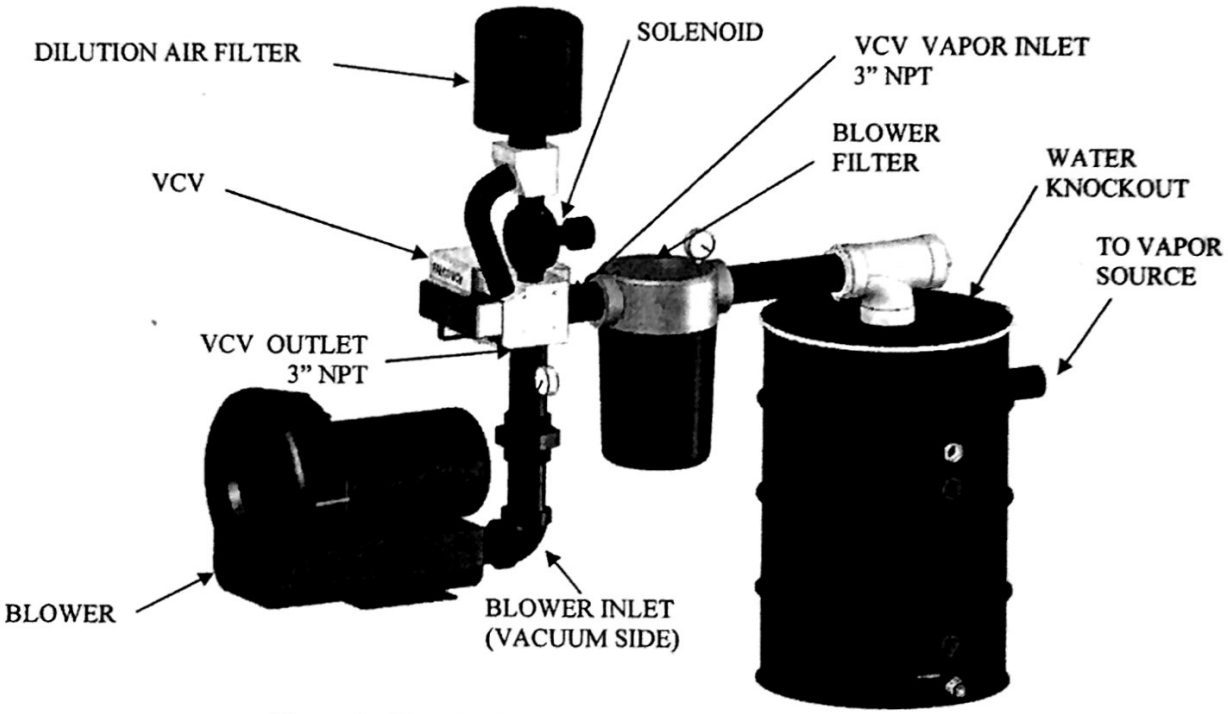


Figure 1 - PREFERRED INSTALLATION

***CAUTION**: If the VCV is installed inside a building or trailer with a ventilation system, the VCV Dilution Air Filter must be piped to the outside of the building to prevent the building ventilation system from pulling vapors out of the Dilution Air Filter and into the building when the S.V.E blower shuts down.*

If piping alone is not adequate to support the VCV, the included mounting bracket may be used to attach the VCV to a fence or wall (Figure 3).

INSPECTION SET

FALMOUTH PRODUCTS P.O. BOX 541 FALMOUTH, MA 02541 PHONE 508 548 6686 FAX 508 548 8144

FALCO 300 Specifications

CAPACITY	100-350 CFM
MAXIMUM INPUT LOADING	250 lb/day petroleum hydrocarbons @ 350 cfm
DESTRUCTION EFFICIENCY	Up to 99.5%
CATALYST TEMPERATURE RANGE	330-620°C (626-1148°F)
CATALYST	Packed bed 2.5 cubic feet. Platinum and palladium on 1/8" ceramic beads is standard. Other catalysts are available
HEAT EXCHANGER	304 stainless steel spiral plate. 73% efficient at 300 scfm. Manually adjusted heat exchanger bypass valve (hot side).
HEATER (Electric)	Nine 3,000 watt cartridge heaters arranged in Delta. 56 amp @ 208 volts (20.3 kW) or, 64.6 amp @ 240 volts (27 kW) Optional 32.5 amp @ 480 volts (27 kW)
HEATER CONTROL	Yokogawa UT32A temperature controller cycles 80 amp SCR power control All three legs switched. Zero cross. 80 amp semiconductor fuses. High limit control with contactor to break all three phases.
VAPOR CONTROL	Vapor Control Valve (VCV) is proportionally controlled by three temperature controllers. The VCV is installed in series on vacuum side of extraction blower and simultaneously controls both dilution air and vapors based on catalyst temperature. Solenoid valve for rapid introduction of dilution air.
CONTROLS	120 VAC. 3 amp max. Yokogawa series UT32A temperature controllers. Proportional control of SCR power control and Vapor Control Valve.
WEIGHT	850 lb. Without flame arrestor.
STACK	6" stainless steel tube. One five-foot length of 6" Type B Gas vent pipe is supplied.
CONSTRUCTION	Stainless steel and aluminum
APPROXIMATE PRESSURE DROP (HOT) (INCLUDING FLAME ARRESTOR)	26" H2O @ 300 scfm with heat exchanger bypass closed 23" H2O @ 300 scfm with heat exchanger bypass open
FLAME ARRESTOR PRESSURE DROP	2" H20
DIMENSIONS	73" high (excluding 5' stack) X 70" long X 29" wide
POWER REQUIREMENTS	3 phase 208-240 Volt standard, optional 3 phase 480 Volt Optional 1 phase 240 Volt
ELECTRICAL ENCLOSURE	Aluminum (NEMA 4X)
APPROVALS	**FM approved (US and Canada) for installation in Class I, Division 2, Group D, (Temp Code T2C) hazardous locations extending up to 41 inches from the bottom of the frame. Portions of the oxidizer located outside of this area are only suitable for unclassified / non-hazardous locations.**

FALMOUTH PRODUCTS P.O. BOX 541 FALMOUTH, MA. 02541 PHONE 508 548 6686 FAX 508 548 8144

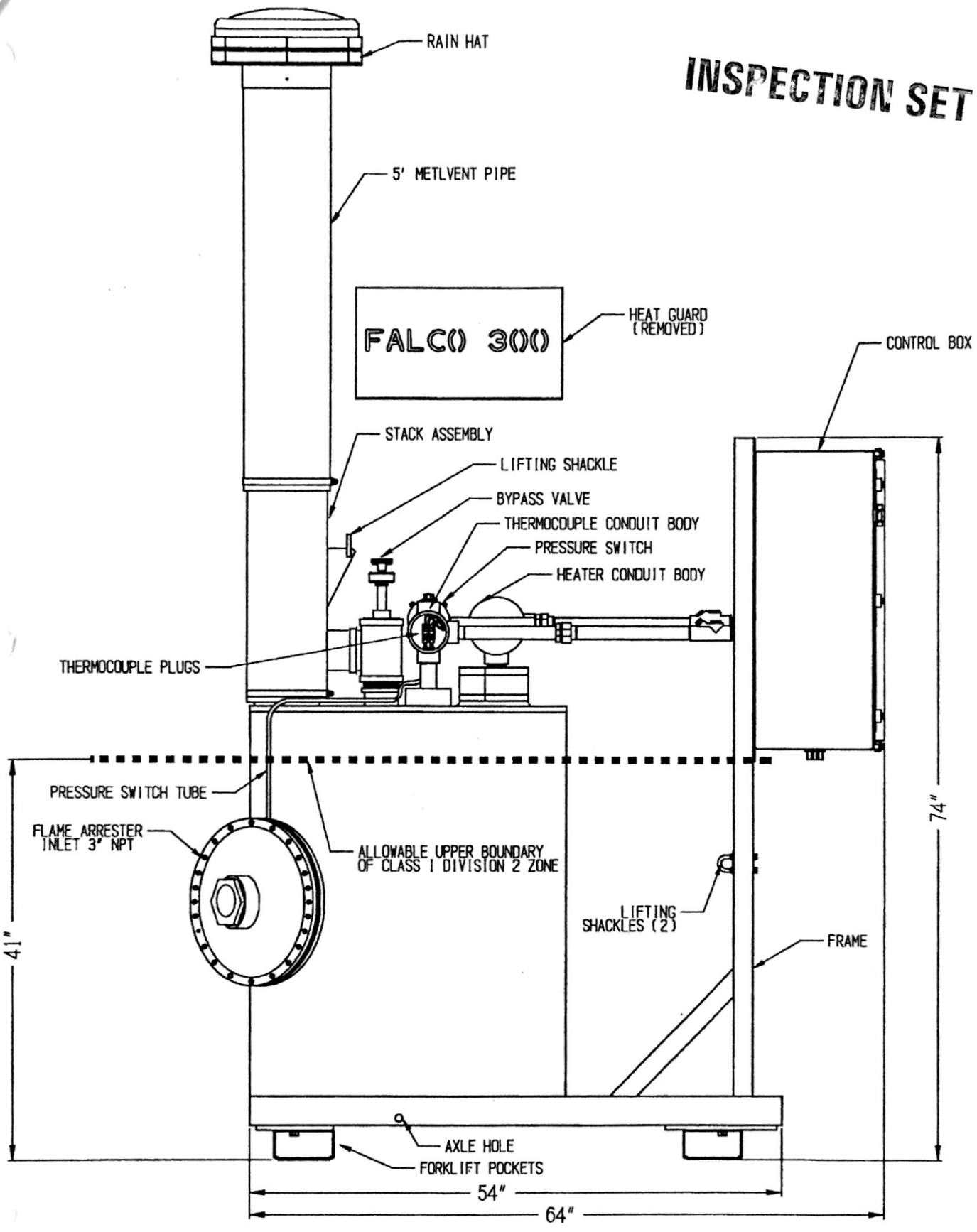


FIGURE 1
FALCO 300 MAJOR COMPONENTS - SIDE VIEW

LAST REVISON 5-24-10

FALMOUTH PRODUCTS P.O. BOX 541 FALMOUTH, MA. 02541 PHONE 508 548 6686 FAX 508 548 8144

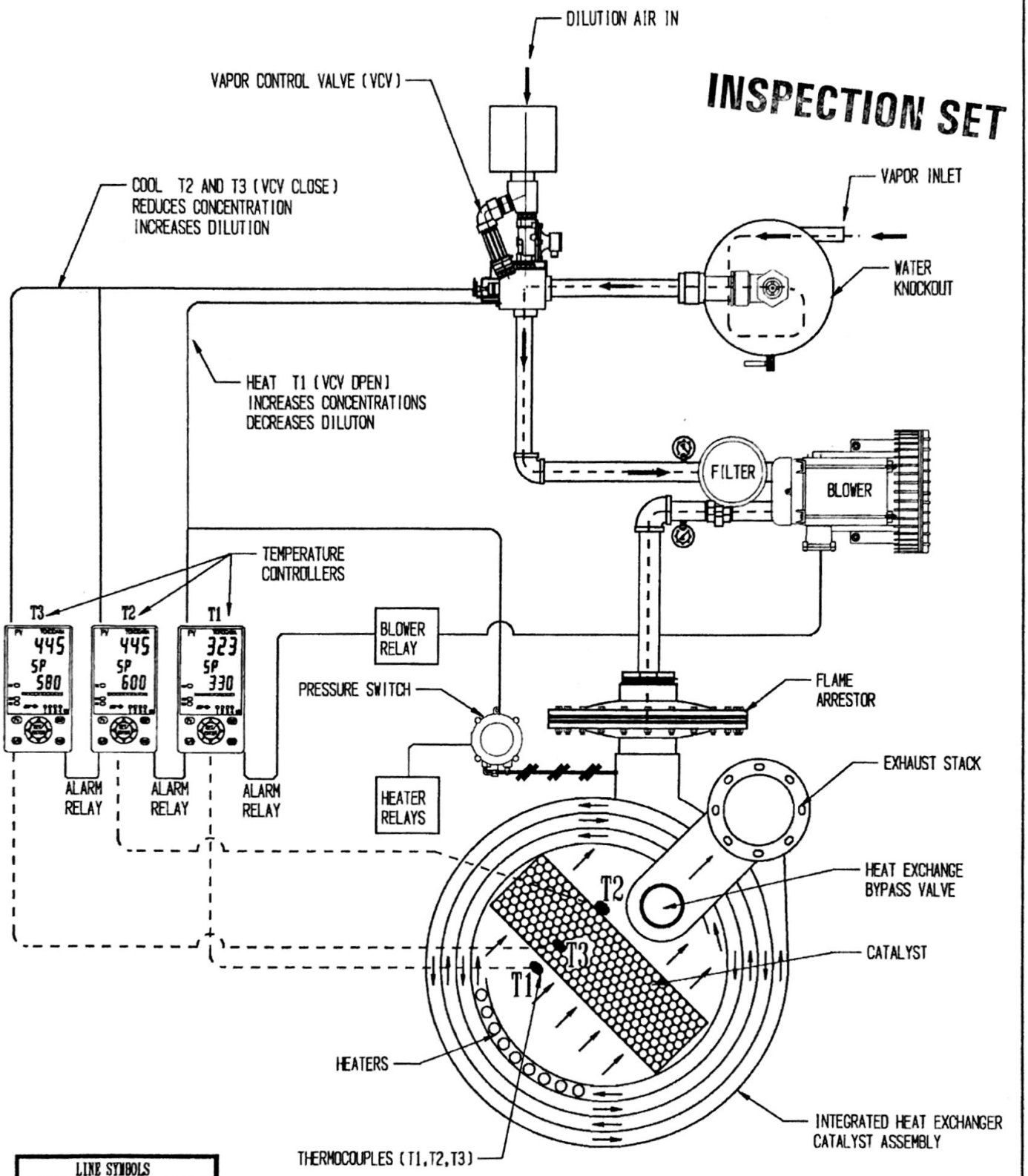


FIGURE 3 FALCO 300 FLOW AND CONTROL

SÜD-CHEMIE
Creating Performance Technology

AIR PURIFICATION CATALYSTS

SÜD CHEMIE INC.
32 Fremont Street
Needham, MA 02494
USA

Phone: (781)444-5188
FAX: (781)444-0130
www.scprototech.com

INSPECTION SET

Envicat® 5200 Catalyst

Typical Chemical and Physical Properties

Catalyst	Envicat® 5200
Catalyst Form	Spheres
Size	Nominal $^1/_8$" and ¼" diameter
Description	Catalyst for the complete oxidation of volatile organic compounds (VOC's) and carbon monoxide (CO).
Application	Various stationary applications including chemical, printing, food, pharmaceutical, and other industries.

Chemical Composition	Weight %
Alumina	95%
Platinum	Proprietary
Palladium	Proprietary
Base Metal Mixture, Water	difference

Physical Properties	
Bulk Density, lb/ft^3	42 - 45
Surface Area, m^2/g	min. 180
LOI @ 1000°C, wt%	<5

INSPECTION SET

MATERIAL SAFETY DATA SHEET

SÜD-CHEMIE
Creating Performance Technology

Date Issued: 07/24/2003
MSDS No: 4136
Date-Revised: 06/29/2007
Revision No: 2

EnviCat®-VOC-5200-SPH-14

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: EnviCat®-VOC-5200-SPH-14
GENERAL USE: Environmental catalyst
ALTERNATE TRADE NAME(S): EnviCat®-VOC-5200-SPH-18

MANUFACTURER

Süd-Chemie Inc.
Environmental Catalysts
32 Fremont Street
Needham MA 02494
Service Number: (781) 444-5188

24 HR. EMERGENCY TELEPHONE NUMBERS

CHEMTREC : (800) 424 - 9300
Outside the U.S. Call Collect : 001 (703) 527-3887

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

PHYSICAL APPEARANCE: Brown or gray spheres.

IMMEDIATE CONCERNS: CAUTION! Contact may cause eye irritation. Prolonged or repeated contact may cause skin irritation. Prolonged or excessive inhalation may cause respiratory tract irritation.

POTENTIAL HEALTH EFFECTS

EYES: May cause mechanical irritation which can scratch the eye.

SKIN: Prolonged or repeated contact may cause skin irritation.

INGESTION: Non-toxic by ingestion.

INHALATION: Route of exposure unlikely. High dust concentrations may cause irritation.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

EYES: Redness, irritation, scratched cornea.

SKIN: Skin dryness or irritation.

INHALATION: Coughing, wheezing, or sneezing.

MEDICAL CONDITIONS AGGRAVATED: Breathing problems, skin problems.

ROUTES OF ENTRY: Ingestion, eyes, skin.

TARGET ORGAN STATEMENT: Respiratory system, lungs, skin, eyes, bone marrow, liver, kidneys, nerves.

SENSITIZATION: Hypersensitive individuals may develop an allergic reaction.

3. COMPOSITION / INFORMATION ON INGREDIENTS

INGREDIENT(S)	CAS	% BY WEIGHT
Aluminum oxide	1344-28-1	>90
Platinum	7440-06-4	<1
Palladium	7440-05-3	<1
Confidential Metal Oxide	--	<1
Confidential Promoter	--	<1

See Section 8 for Exposure Limits

WHMIS CLASS: Does not meet classification criteria pursuant to the Canadian Hazardous Products Act.

COMMENTS: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200). The specific chemical composition of this material is being withheld as a trade secret. It will be provided in accordance with the provisions of 29 CFR 1910.1200(i).

4. FIRST AID MEASURES

EYES: Do not rub eyes. Flush with lukewarm, gently flowing water for 5 minutes or until the particle/dust is removed, while holding the eyelid(s) open. Obtain medical attention.

SKIN: Brush dry material from skin. Wash with soap and large amounts of water. Get medical attention if irritation or other symptoms develop or persist.

INGESTION: Non toxic by ingestion. If you feel unwell, seek medical attention.

INHALATION: Remove to fresh air. Seek medical attention if cough or other symptoms develop or persist.

5. FIRE FIGHTING MEASURES

FLASHPOINT AND METHOD: Material is not flammable

EXTINGUISHING MEDIA: Use extinguishing agent applicable to surrounding fire.

FIRE FIGHTING PROCEDURES: As in any fire, wear self-contained breathing apparatus operated in pressure-demand mode, (NIOSH approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: With shovel or scoop, place material into appropriate container.

LARGE SPILL: Vacuum or scoop up material and place in a dry container. Cover tightly. Minimize airborne particulates. Avoid inhalation of dusts. Observe precautions in Protective Equipment Section.

GENERAL PROCEDURES: Do not use compressed air for clean-up.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Minimize dust generation and accumulation. Avoid breathing dust. Use with adequate ventilation. Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Wash thoroughly after handling.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)					
		EXPOSURE LIMITS			
		OSHA PEL		ACGIH TLV	
Chemical Name		**ppm**	**mg/m³**	**ppm**	**mg/m³**
Aluminum oxide	**TWA**	[1]	15 mg/m3 [1]		10 mg/m3
Platinum	**TWA**	[2]	[2]		1 mg/m3
Palladium	**TWA**	[2]	[2]	[2]	[2]
Confidential Metal Oxide	**TWA**	[3]	10 mg/m3 [3]	[4]	5 mg/m3 [4]
Confidential Promoter	**TWA**	[2]	[2]	[5]	[5]

OSHA TABLE COMMENTS:
1. 5 mg/m3 respirable
2. Exposure limits not established.
3. fume
4. respirable fraction
5. Not Established.

ENGINEERING CONTROLS: If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Follow facility guidelines in the absence of dusts. Snug-fitting goggles should be worn in dusty work environments.

SKIN: Use of proper hygiene practices in the workplace is recommended.

RESPIRATORY: Wear NIOSH approved particulate filtering respirator rated N, R, or P95 or 100 or equivalent in the absence of proper environmental control. Type of respirator depends on level of exposure.

COMMENTS: All inert or nuisance dusts, whether mineral, inorganic, or organic, not listed specifically by substance name are covered by the Particulates Not Otherwise Regulated (PNOR) limit which is 5 mg/m3 for respirable fraction and 15 mg/m3 for total dust.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Solid

ODOR: None

COLOR: Brown-black

pH: None

PERCENT VOLATILE: None

SOLUBILITY IN WATER: Insoluble

DENSITY: ~ 40-50 lb/ft3

10. STABILITY AND REACTIVITY

STABLE: Yes

HAZARDOUS POLYMERIZATION: No

INSPECTION SET

11. TOXICOLOGICAL INFORMATION

ACUTE

Chemical Name	ORAL LD_{50} (rat)
Aluminum oxide	> 5000 mg/kg (rat)
Confidential Metal Oxide	> 10000 mg/kg(b.w.)
Confidential Promoter	1000 mg/kg (rat)

CARCINOGENICITY

Chemical Name	NTP Status	IARC Status	OSHA Status
Aluminum oxide	Not listed.	Group 3 - not classifiable	Not listed.
Platinum	Not listed.	Not listed.	Not listed.
Palladium	Not listed.	Not listed.	Not listed.
Confidential Metal Oxide	Not listed.	Group 3 - not classifiable	Not listed.
Confidential Promoter	Not listed.	Not listed.	Not listed.

SENSITIZATION: May cause skin sensitization, an allergic reaction which becomes evident on re-exposure to the material. Other symptoms of platinum allergy include runny nose, sneezing, itchy eyes, and wheezing.

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION: Aquatic Toxicity (Aluminum Oxide):

96-hr NOEC (Salmo trutta) > 100 mg/L (OECD Guideline 203)

48-hr NOEC (Daphnia magna) > 100 mg/L (OECD Guideline 202)

72-hr NOEC (Selenastrum capricornutum) > 100 mg/L (OECD Guideline 201)

CHEMICAL FATE INFORMATION: This material is of mineral origin. It is not biodegradable.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: This product, if discarded as sold, is not a Federal RCRA hazardous waste. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Catalyst products often offer postive recycle value. Contact SCI Safety, Health and Environment (502-634-7492) for more information regarding recycle options.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

FIRE: No **PRESSURE GENERATING:** No **REACTIVITY:** No **ACUTE:** Yes **CHRONIC:** Yes

313 REPORTABLE INGREDIENTS: Not listed.

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

CERCLA REGULATORY: Not listed.

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA STATUS: All components are listed on the TSCA Inventory or are excluded or exempt.

REGULATIONS

STATE REGULATIONS California

CALIFORNIA PROPOSITION 65: This product does not contain chemical(s) known to the state of California to cause cancer, birth defects, or reproductive harm.

RCRA STATUS: This product, if discarded as sold, is not a Federal RCRA hazardous waste. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations.

CANADA

WHMIS (WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM): This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

WHMIS CLASS: Does not meet classification criteria pursuant to the Canadian Hazardous Products Act.

CANADA INGREDIENT DISCLOSURE LIST: Contains component(s) listed on the Canadian Hazardous Products Act Ingredient Disclosure List.

CANADIAN ENVIRONMENTAL PROTECTION ACT: All ingredients are listed on the Canadian Domestic Substances List inventory.

EXEMPTION REG. NO.: Chemical components not disclosed do not meet disclosure requirements pursuant to the Canadian Hazardous Products Act and an exemption from disclosure is not required.

16. OTHER INFORMATION

APPROVED BY: Prepared and approved by SHE Dept. Sud-Chemie Inc.

REVISION SUMMARY: Revision #: 2 This MSDS replaces the January 28, 2005 MSDS. Any changes in information are as follows: In Section 1 Prepared By In Section 2 Sensitization Physical Appearance Potential Heath Effects - Eyes Potential Health Effects - Skin Potential Health Effects - Inhalation Potential Health Effects - Ingestion Signs & Symptoms - Eyes Signs & Symptoms - Ingestion Signs & Symptoms - Skin Medical Conditions Aggravated Routes of Entry In Section 4 Firstaid - Eyes Firstaid - Ingestion Notes to Physician In Section 6 Small Spill Large Spill General Procedures In Section 7 General Procedures In Section 8 Skin Protection Eyes-Face Protection In Section 9 (Group Field) for pH (Group Field) for Percent Volatile In Section 11 Eye Effects IARC NTP OSHA Oral LD50 (Value) Oral LD50 (Unit) Oral LD50 (Operator) In Section 12 Environmental Data Ecotoxicological Information Chemical Fate Information In Section 13 Disposal In Section 15 Clean Water Act WHMIS Class WHMIS Exemption Number Clean Air Act 40 CFR

MANUFACTURER DISCLAIMER: The information presented herein is believed to be accurate but is not warranted. Recipients are advised to confirm in advance that the information is current, applicable and suitable to their circumstances.

ARCADIS

INSPECTION SET

Appendix **B**

Table B-1 - Influent Summary

Table B-2 - Effluent Summary

Table B-3 - Concentration and Mass Emission Summary

Table B-4 - Tier 1 In-Stack Concentration Comparison with AG-1 Guideline

Table B-5 - Tier 2 AG-1 Analysis

Table B-6 - AG-1 Model Output Summary Tables



3/6/2012

Table B-1
11199 - INFLUENT
76-11 Northern Boulevard
Jackson Heights, New York

INFLUENT SAMPLE DATE	INFLUENT AIRFLOW	BENZENE		TOLUENE		ETHYLBENZENE		XYLENES		MTBE		TPH	
	scfm	mg/m^3	lb/hr	mg/m^3	lb/hr	mg/m^3	lb/hr	mg/m^3	lb/hr	mg/m^3	lb/hr	mg/m^3	lb/hr
1/18/2011	356	2	1.96E-03	*4*	3.93E-03	2	1.96E-03	3	2.94E-03	*2.2*	2.16E-03	*990*	9.72E-01
2/4/2011	110	2	1.96E-03	3	2.94E-03	2	1.96E-03	3	2.94E-03	1.4	1.37E-03	*27*	2.65E-02
3/8/2011	312	2	1.96E-03	3	2.94E-03	2	1.96E-03	3	2.94E-03	1.4	1.37E-03	*39*	3.83E-02
6/7/2011	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
7/21/2011	NS	2	1.96E-03	3	2.94E-03	2	1.96E-03	3	2.94E-03	1	9.81E-04	*90*	8.83E-02
8/18/2011	270	2	1.96E-03	*4*	3.93E-03	2	1.96E-03	3	2.94E-03	1	9.81E-04	*100*	9.81E-02
9/12/2011	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Maximum	**356**	**2**	**1.96E-03**	**4**	**3.93E-03**	**2**	**1.96E-03**	**3**	**2.94E-03**	**2.2**	**2.16E-03**	**990**	**9.72E-01**
Average	**262**	**2**	**1.96E-03**	**3**	**3.34E-03**	**2.0**	**1.96E-03**	**3**	**2.94E-03**	**1.4**	**1.37E-03**	**249**	**2.45E-01**

Notes:

1. Analytical concentrations from Laboratory Analytical Reports - 'Influent Air' are used for the summary.
2. The italic values are the reportable values in 2011 for the site 11199; all other values are MDLs.
3. MTBE (methyl tertiary-butyl ether) - the method detection limit (MDL) for MTBE was changed in June 2011 from 1.4 mg/m3 to 1.0 mg/m3.
4. NS - Not Sampled
5. Total petroleum hydrocarbon (TPH): may include hexane, benzene, toluene, xylenes, naphthalene, and fluorene, other constituents of gasoline, of jet fuels, of mineral oils, and of other petroleum products.

Compound	Cas Number	MDL
Benzene	00071-43-2	2
Toluene	00108-88-3	3
Ethylbenzene	00100-41-4	2
Xylene	1330-20-7	3
MTBE	01634-04-4	1



3/6/2012

INSPECTION SET

Table B-2
11199 - EFFLUENT
76-11 Northern Boulevard
Jackson Heights, New York

EFFLUENT SAMPLE DATE	EFFLUENT AIRFLOW	EFFLUENT Temp	BENZENE		TOLUENE		ETHYLBENZENE		XYLENES		MTBE		TPH	
	scfm	F	mg/m^3	lb/hr	mg/m^3	lb/hr	mg/m^3	lb/hr	mg/m^3	lb/hr	mg/m^3	lb/hr	mg/m^3	lb/hr
1/18/2011	262	90	2	1.79E-03	3	2.68E-03	2	1.79E-03	3	2.68E-03	1.4	1.25E-03	*460*	4.11E-01
2/4/2011	110	110	2	1.79E-03	3	2.68E-03	2	1.79E-03	3	2.68E-03	1.4	1.25E-03	*7*	6.25E-03
3/8/2011	312	60	2	1.79E-03	3	2.68E-03	2	1.79E-03	3	2.68E-03	1.4	1.25E-03	*35*	3.13E-02
6/7/2011	NS	NS	2	1.79E-03	3	2.68E-03	2	1.79E-03	3	2.68E-03	1	8.93E-04	*30*	2.68E-02
7/21/2011	NS	150	2	1.79E-03	3	2.68E-03	2	1.79E-03	3	2.68E-03	1	8.93E-04	*30*	2.68E-02
8/18/2011	270	125	2	1.79E-03	3	2.68E-03	2	1.79E-03	3	2.68E-03	1	8.93E-04	*100*	8.93E-02
9/12/2011	NS	100	2	1.79E-03	3	2.68E-03	2	1.79E-03	3	2.68E-03	1	8.93E-04	*20*	1.79E-02
Maximum	**312**	**150**	**2**	**1.79E-03**	**3**	**2.68E-03**	**2**	**1.79E-03**	**3**	**2.68E-03**	**1.4**	**1.25E-03**	**460**	**4.11E-01**
Average	**239**	**106**	**2**	**1.79E-03**	**3**	**2.68E-03**	**2**	**1.79E-03**	**3**	**2.68E-03**	**1.2**	**1.05E-03**	**97**	**8.70E-02**

Notes:

1. Analytical concentrations from Laboratory Analytical Reports - 'Effluent Air' are used for the summary.
2. The italic values are the reportable values in 2011 for the site 11199; all other values are MDLs.
3. MTBE (methyl tertiary-butyl ether) - the method detection limit (MDL) for MTBE was lowered in June 2011 from 1.4 mg/m3 to 1.0 mg/m3.
4. For AG-1 analysis, 1/2 MDL value was used when all effluent data were at MDL.
5. NS - Not Sampled
6. Total petroleum hydrocarbon (TPH): may include hexane, benzene, toluene, xylenes, naphthalene, and fluorene, other constituents of gasoline, of jet fuels, of mineral oils, and of other petroleum products.

Compound	Cas Number	MDL
Benzene	00071-43-2	2
Toluene	00108-88-3	3
Ethylbenzene	00100-41-4	2
Xylene	1330-20-7	3
MTBE	01634-04-4	1



3/6/2012

INSPECTION SET

NYCDEP BEC Work Permit
Backup Information for Emission Point 11199

INSPECTION SET

Service Station Brand (Mobil, BP, etc.)	#17 - GFT
Former Service Station #	11199
Street address	76-11 Northern Boulevard
City, State, Zip	Jackson Heights, New York
NYSDEC Spill No.:	86-07968
PBS No.:	02-156663

Operational System Information:*

Parameter	Effluent Value
Effluent Temp, F	106
Effluent Temp, R	566
Flow Rate, scfm	239
Flow Rate, acfm	256.1
Flow Rate, m^3/min	6.8
Stack Diameter, inches	4
Area of Emission Point, ft^2	0.087
Velocity, ft/min	2934
Velocity, ft/sec	49
Operating Hours per Year	8760
Expected duration of SVE operation, months	24

Control System Location Data:

Ground Elevation, ft	46
Structure Height, ft	10
Stack height above structure roof, ft	10
Structure length, ft	12
Structure width, ft	7
Control Type	Catox
Manufacturer Guaranteed Control Efficiency	99.5%



Project Schedule:

Construction Start Date	1996
System Startup Date	Apr-06

Table B-3. Concentration and Mass Emission Summary

			Influent			Effluent		
Compound	Cas Number	MDL	Concentration[1] (mg/m^3)	Short Term Mass Emission[4], lbs/hr	Annual Mass Emission[4], lbs/yr	Concentration[1] (mg/m^3)	Short Term Mass Emission[4], lbs/hr	Annual Mass Emission[4], lbs/yr
Benzene	00071-43-2	2	2.0	0.0018	15.7	1.0	0.0009	7.8
Toluene	00108-88-3	3	3.4	0.0030	26.6	1.5	0.0013	11.7
Ethylbenzene	00100-41-4	2	2.0	0.0018	15.7	1.0	0.0009	7.8
Xylene	1330-20-7	3	3.0	0.0027	23.5	1.5	0.0013	11.7
MTBE[2]	01634-04-4	1	1.4	0.0013	11.0	0.6	0.0005	4.6
TPH[3]			990.0	0.8844	7747.1	460	0.4109	3599.7

Notes:

1. Data were taken from the 2011 monthly laboratory data with influent and effluent. If the in-stack concentrations (i.e., effluent data) was below the method detection limit (<MDL), 1/2 the MDL was used as the in-stack concentration.

2. MTBE - methyl tertiary-butyl ether

3. Total petroleum hydrocarbon (TPH): may include hexane, benzene, toluene, xylenes, naphthalene, and fluorene, other constituents of gasoline, of jet fuels, of mineral oils, and of other petroleum products.

4. Short term and annual emissions were calculated conservatively using the maximum annual concentration.

* Data provided is used for emissions calculations only.

INSPECTION SET

Site 11199 Air Guide-1 Analysis

NYSDEC's Air Guide-1 was used to evaluate the downwind impact of the emissions from the stack of the SVE system at Site 11199. There are five (5) compounds emitted by the SVE system stack with listed guideline concentrations (see table below).

Air Guide-1 SGCs and AGCs for Pollutants of Concern at Site 11199

Pollutant	CAS Number	SGC* ($\mu g/m^3$)	AGC*($\mu g/m^3$)
Benzene	00071-43-2	1,300	0.13
Toluene	00108-88-3	37,000	5,000
Ethylbenzene	00100-41-4	54,000	1,000
Xylenes (m, p and p mix)	01330-20-7	4,300	100
MTBE	01634-04-4	None	3,000

**NYSDEC DAR-1 AGC/SGC Tables, October 18, 2010*

The Air Guide-1 analysis for the stack exhaust (EP11199) from the SVE system at Site # 11199 was performed using a tiered approach. In Tier 1, the pollutant-specific effluent concentrations were converted to units of micrograms per cubic meter ($\mu g/m^3$), representative of the in-stack concentration, and compared directly to the Air Guide-1 short-term and annual guideline concentrations (SGCs and AGCs, respectively). For comparison to the AGCs, the pollutant-specific effluent concentration was multiplied by a 0.1 conversion factor (a regulatory factor used to convert short-term to annual concentrations), then compared to the applicable AGC. This Tier 1 approach is extremely conservative since there will be significant dispersion of the contaminants as the stack exhaust travels downwind resulting in much lower concentrations than values measured at the stack.

For any pollutant that exceeded either an SGC or AGC in Tier 1, that pollutant was evaluated using NYSDEC's computerized AG-1 model (available for download from the NYSDEC website). This model includes both screening level algorithms, and more refined and site-specific modeling algorithms that account for the exhaust characteristics, receptor location, and in the refined mode, representative meteorology.

As shown in Table B-4, using the conservative Tier 1 approach, the in-stack concentrations of benzene and xylenes exceeded their respective AGCs; therefore, a Tier 2 analysis was performed for benzene and xylenes using the screening mode of the AG-1 computer model (version 3.6). Note that in the AG-1 modeling analysis, an exhaust velocity of 0.01 feet per second (ft/sec) was used to account for the rain cap on the stack. Maximum mass emission rates based on the 2011 maximum sampled concentrations were used to evaluate a worst-case scenario. As noted previously, for the compounds with effluent concentrations reported at levels below MDL levels, ½ of the MDL was used as the in-stack concentration for estimating the emission rate

Table B-5 (Appendix B) presents the results from the AG-1 model run. The summary of results shows that the emissions from the SVE process at Site 11199 are well below the guideline concentrations and will have no significant impacts on the surrounding community and environment. Tables B-6a through B-6e present the input and output summary screens from the AG-1 modeling file for this Tier 2 analysis.

NYCDEP BEC Work Permit Application
Air Guide - 1 Analysis - Emission Point 11199

Service Station Brand (Mobil, BP, etc.)	**#17 - GFT**
Former Service Station #	**11199**
Street address	**76-11 Northern Boulevard**
City, State, Zip	**Jackson Heights, New York**
NYSDEC Spill No.:	**86-07968**
PBS No.:	**02-156663**

Table B-4. Tier 1 In-Stack Concentration Comparison with AG-1 Guideline Concentration

Pollutant	CAS No.	SGC* ug/m^3	Short-term In-stack Concentration ug/m^3	% of SGC	AGC* ug/m^3	Annual In-stack Concentration [(1)] ug/m^3	% of AGC
Benzene	00071-43-2	1300	1000.0	77	1.30E-01	100.0	76923
Toluene	00108-88-3	37000	1500.0	4	5000	150.0	3
Ethylbenzene	00100-41-4	54000	1000.0	2	1000	100.0	10
Xylenes (m, p and p mix))	01330-20-7	4300	1500.0	35	100	150.0	150
MTBE	01634-04-4	none	585.7	---	3000	58.6	2

** NYSDEC DAR-1 AGC/SGC Tables, October 18, 2010.*

Notes:

(1) Annual in-stack concentration is based on short-term in-stack concentration multiplied by 0.1 conversion factor to estimate annual impact from short-term impact.

(2) MTBE - methyl tertiary-butyl ether

Table B-5. Tier 2 AG-1 Screening Level Analysis

Pollutant	CAS No.	SGC* ug/m^3	Max. Hourly Impact [(1)] ug/m^3	% of SGC	AGC* ug/m^3	Max Annual Impact [(1)] ug/m^3	% of AGC
Benzene	00071-43-2	1300	1.767	0.1	1.30E-01	0.04	31.9
Toluene	00108-88-3	37000	2.552	0.0	5000	0.06	0.0
Ethylbenzene	00100-41-4	54000	1.767	0.0	1000	0.04	0.0
Xylenes (m, o and p mix)	01330-20-7	4300	3	0.1	100	0.06	0.1
MTBE	01634-04-4	none	1	---	3000	0.02	0.0

** NYSDEC DAR-1 AGC/SGC Tables, October 18, 2010.*

Notes:

(1) The model was setup to take in account the rain cap on the stack. Therefore the velocity was set to 0.01 ft/sec.

See Table B-6 for AG-1 model output.

INSPECTION SET

Table B-6a

INSPECTION SET

11199 FILENAME: 11199 DATE: 2/16/12 PAGE NUMBER: 1

********** DAR-1 ANALYSIS **********

********** INPUT DATA **********

LOC	FAC	E.P.	CAS #	SOURCE TYPE	HA, or h(AREA) FEET	hs FEET	D IN.	T F	V FPS	Q ACFM	EMISSIONS #/HOUR	EMISSIONS #/YEAR	DPL, or D(AREA) FT	BW, or S(AREA) FT	BL FT
Facility Name & Address: 11199								76-11 Northern Blvd				Jackson Heights		Application: p	
SIC Code: 0		Source Code:		UTME:	0.		UTMN:	0.	ZONE: 0	BL	FACING DIRECTION:	0.0	%CONTROL:	0.0000	
	11199	00071-43-2	POINT	10.	20.	4.	106.	0.01	0.05		0.00090	8.	1.	7.	12.
Facility Name & Address: 11199								76-11 Northern Blvd				Jackson Heights		Application: p	
SIC Code: 0		Source Code:		UTME:	0.		UTMN:	0.	ZONE: 0	BL	FACING DIRECTION:	0.0	%CONTROL:	0.0000	
	11199	00108-88-3	POINT	10.	20.	4.	106.	0.01	0.05		0.00130	12.	1.	7.	12.
Facility Name & Address: 11199								76-11 Northern Blvd				Jackson Heights		Application: p	
SIC Code: 0		Source Code:		UTME:	0.		UTMN:	0.	ZONE: 0	BL	FACING DIRECTION:	0.0	%CONTROL:	0.0000	
	11199	00100-41-4	POINT	10.	20.	4.	106.	0.01	0.05		0.00090	8.	1.	7.	12.
Facility Name & Address: 11199								76-11 Northern Blvd				Jackson Heights		Application: p	
SIC Code: 0		Source Code:		UTME:	0.		UTMN:	0.	ZONE: 0	BL	FACING DIRECTION:	0.0	%CONTROL:	0.0000	
	11199	1330-20-7	POINT	10.	20.	4.	106.	0.01	0.05		0.00130	12.	1.	7.	12.
Facility Name & Address: 11199								76-11 Northern Blvd				Jackson Heights		Application: p	
SIC Code: 0		Source Code:		UTME:	0.		UTMN:	0.	ZONE: 0	BL	FACING DIRECTION:	0.0	%CONTROL:	0.0000	
	11199	01634-04-4	POINT	10.	20.	4.	106.	0.01	0.05		0.00050	5.	1.	7.	12.

Table B-6b

INSPECTION SET

CONTAMINANT TOXICITY PROFILE FOR DAR-1 ANALYSIS

CONTAMINANT NAME	CAS NUMBER	SGC ug/m3	HOW SGC ASSIGNED	AGC ug/m3	HOW AGC ASSIGNED	DAR TOXICITY	COMMENTS
BENZENE	00071-43-2	1300.00000	NYSDEC	0.130000000	EPA	HIGH	A,H,U
ETHYL BENZENE	00100-41-4	54000.00000	ACGIH STEL	1000.000000000	EPA	MODERATE	H,I
TOLUENE	00108-88-3	37000.00000	NYSDEC	5000.000000000	EPA	LOW	H,I
METHYLTERTBUTYLETHER	01634-04-4	0.00000	NO SGC EXISTS	3000.000000000	EPA	MODERATE	H,I
xylene	1330-20-7	0.00000	NO SGC EXISTS	100.000000000	you assigned		

COMMENTS :

(A) ACGIH Human Carcinogen.

(H) HAP identified by 1990 CAAA.

(I) Refer to ACGIH Handbook.

(U) AGC equivalent to "one in a million risk".

Table B-6c

INSPECTION SET

CONTAMINANT EMISSIONS SUMMARY FOR DAR-1 ANALYSIS

CAS NUMBER	CONTAMINANT NAME	# OF EMISSIONS POINTS PER CONTAMINANT	EMISSIONS (lbs/hour)	EMISSIONS (lbs/year)
00071-43-2	BENZENE	1	0.00090000	7.80000
00100-41-4	ETHYL BENZENE	1	0.00090000	7.80000
00108-88-3	TOLUENE	1	0.00130000	11.70000
01634-04-4	METHYLTERTBUTYLETHER	1	0.00050000	4.60000
1330-20-7	xylene	1	0.00130000	11.70000
	SUMMARY TOTALS		0.00490000	43.600000

Table B-6d

INSPECTION SET

EMISSION POINT AND CONTAMINANT IMPACT SUMMARY OF DAR-1 ANALYSIS

							SHORT-TERM IMPACT	CAVITY IMPACT	POINT or AREA SOURCE IMPACT	
LOC	FAC	E.P.	CAS NUMBER	EMISSIONS #/HOUR	EMISSIONS #/YEAR	ANNUAL EMISSIONS #/HOUR	MAXIMUM (Cav,Pt,Area) ug/m3	ACTUAL ANNUAL ug/m3	POTENTIAL ANNUAL ug/m3	ACTUAL ANNUAL ug/m3
		11199	00071-43-2	0.000900	7.8000	0.000890	1.766822	0.000000	0.041823	0.041425
		11199	00108-88-3	0.001300	11.7000	0.001336	2.552076	0.000000	0.060411	0.062137
		11199	00100-41-4	0.000900	7.8000	0.000890	1.766822	0.000000	0.041823	0.041425
		11199	1330-20-7	0.001300	11.7000	0.001336	2.552076	0.000000	0.060411	0.062137
		11199	01634-04-4	0.000500	4.6000	0.000525	0.981568	0.000000	0.023235	0.024430
SUMMARY TOTALS				0.004900	43.6000	0.004977	9.619363	0.000000	0.227703	0.231554

EMISSION POINT AND CONTAMINANT ASSESSMENT OF DAR-1 ANALYSIS

						SHORT-TERM IMPACT	CAVITY IMPACT	POINT or AREA SOURCE IMPACT	
LOC	FAC	E.P.	CAS NUMBER	AGC ug/m3	SGC ug/m3	MAXIMUM (Cav,Pt,Area) % OF SGC	ACTUAL ANNUAL % OF AGC	POTENTIAL ANNUAL % OF AGC	ACTUAL ANNUAL % OF AGC
		11199	00071-43-2	0.130000000	1300.0000	0.1359	0.0000	32.1716	31.8652
		11199	00108-88-3	5000.000000000	37000.0000	0.0069	0.0000	0.0012	0.0012
		11199	00100-41-4	1000.000000000	54000.0000	0.0033	0.0000	0.0042	0.0041
		11199	1330-20-7	100.000000000	0.0000	0.0000	0.0000	0.0604	0.0621
		11199	01634-04-4	3000.000000000	0.0000	0.0000	0.0000	0.0008	0.0008
SUMMARY TOTALS						0.1461	0.0000	32.2382	31.9335

Table B-6e

INSPECTION SET

CONTAMINANT IMPACT SUMMARY OF DAR-1 ANALYSIS

CAS NUMBER	EMISSIONS #/HOUR	EMISSIONS #/YEAR	ANNUAL EMISSIONS #/HOUR	SUMMATION OF SHORT-TERM IMPACTS, MAXIMUM (Cav,Pt,Area) ug/m3	SUMMATION OF CAVITY IMPACTS ACTUAL ANNUAL ug/m3	SUMMATION OF POINT or AREA SOURCE IMPACTS POTENTIAL ANNUAL ug/m3	SUMMATION OF POINT or AREA SOURCE IMPACTS ACTUAL ANNUAL ug/m3
00071-43-2	0.000900	7.8000	0.000890	1.766822	0.000000	0.041823	0.041425
00100-41-4	0.000900	7.8000	0.000890	1.766822	0.000000	0.041823	0.041425
00108-88-3	0.001300	11.7000	0.001336	2.552076	0.000000	0.060411	0.062137
01634-04-4	0.000500	4.6000	0.000525	0.981568	0.000000	0.023235	0.024430
1330-20-7	0.001300	11.7000	0.001336	2.552076	0.000000	0.060411	0.062137
SUMMARY TOTALS	0.004900	43.6000	0.004977	9.619363	0.000000	0.227703	0.231554

CONTAMINANT ASSESSMENT SUMMARY OF DAR-1 ANALYSIS

CAS NUMBER	AGC ug/m3	SGC ug/m3	SUMMATION OF SHORT-TERM IMPACTS, MAXIMUM (Cav,Pt,Area) % OF SGC	SUMMATION OF CAVITY IMPACTS ACTUAL ANNUAL % OF AGC	SUMMATION OF POINT or AREA SOURCE IMPACTS POTENTIAL ANNUAL % OF AGC	SUMMATION OF POINT or AREA SOURCE IMPACTS ACTUAL ANNUAL % OF AGC
00071-43-2	0.130000000	1300.0000	0.1359	0.0000	32.1716	31.8652
00100-41-4	1000.000000000	54000.0000	0.0033	0.0000	0.0042	0.0041
00108-88-3	5000.000000000	37000.0000	0.0069	0.0000	0.0012	0.0012
01634-04-4	3000.000000000	0.0000	0.0000	0.0000	0.0008	0.0008
1330-20-7	100.000000000	0.0000	0.0000	0.0000	0.0604	0.0621
SUMMARY TOTALS			0.1461	0.0000	32.2382	31.9335

THE CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Environmental Compliance
59-17 Junction Boulevard, 9th Floor, Flushing, New York 11373-5108
Records Control (718) 595-3855

DH 1/5/10 HW

Steven W. Lawitts,
Acting Commissioner

Robert C. Avaltroni,
Deputy Commissioner

APPLICATION FOR REGISTRATION OF GASOLINE DISPENSING SITES

POST COPY ON SITE

(1) OWNER'S NAME: Raphy BENAIM	(9) FACILITY OPERATOR'S NAME: ABID ZULFIQAR
(2) ADDRESS NUMBER & STREET: P.O. Box 660042	(10) FACILITY NAME (IF ANY): Northern Blvd. Auto Service
(3) TOWN OR BOROUGH: Flushing (4) STATE: N.Y. (5) ZIP: 11366	(11) FACILITY ADDRESS: 75-15 Northern Blvd.
(6) OWNER'S TELEPHONE: (917) 299-9366 (7) REP'S TELEPHONE:	(12) BOROUGH CODE (13) BOROUGH: Queens (14) BLOCK (15)
(8) OWNER'S REPRESENTATIVE NAME & TITLE:	(16) APPLICATION(S) TO BE SUPERSEDED/AMENDED BY THIS APPLICATION

(17) TANK #	(18) DATE INSTALLED (MO/YR)	(19) DIESEL LEADED/UNLEADED	(20) TANK CAPACITY (GALLONS)	(21) ANNUAL THROUGHPUT (GALLONS)	(22) SUBM (FILL) (Yes/No)	(23) VAPOR BALANCE SYSTEM (Yes/No)	(24) INTER CONNECTIONS
1		REG. Unleaded	10,000	477,821	No	Yes	one
2		Supper Unleaded	10,000	477,820	No	Yes	one
3		Diesel	10,000	42,691	No	Yes	one

(25) TOTAL ANNUAL THROUGHPUT: LEADED: — UNLEADED: 955,641 DIESEL: 42,691

(26) NUMBER OF NOZZLES: < 9 > (27) NYS SALES TAX ID:

"I HEREBY AFFIRM UNDER PENALTY OF PERJURY THAT THE INFORMATION PROVIDED ON THIS FORM IS TRUE TO THE BEST OF MY KNOWLEDGE AND BELIEF AND THAT THE EQUIPMENT WILL BE OPERATED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AIR POLLUTION CONTROL CODE, CHAPTER 1 OF TITLE 24, NEW YORK CITY ADMINISTRATIVE CODE, AND APPROPRIATE REQUIREMENTS OF OTHER AGENCIES. I RECOGNIZE THAT FALSE STATEMENTS ARE PUNISHABLE AS A MISDEMEANOR PURSUANT TO SECTION 24-190 OF THE AIR POLLUTION CONTROL CODE AND SECTION 210.45 OF THE PENAL LAW."

(28) OWNER/REPRESENTATIVE SIGNATURE | TITLE | DATE

DEPARTMENT USE ONLY

INSTALLATION # GB 37-09 L

CASHIER'S USE ONLY

FEE PAID:

DATE:

CASHIER'S INITIALS:

ENGINEER'S USE ONLY

[X] APPROVED [ ] DISAPPROVED

[ ] CONDITIONAL

REVIEW DATE: 09/08/2009

ID & INITIALS: A.G. / E 047

ISSUANCE DATE:

EXPIRATION DATE: 09/08/2012

REMARKS:

AR 522

(Revised 03/08/06)

THE CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Environmental Compliance
59-17 Junction Boulevard, 9th Floor, Flushing, New York 11373-5108
Records Control (718) 595-3855

Steven W. Lawitts, Acting Commissioner

Robert C. Avaltroni, Deputy Commissioner

APPLICATION FOR REGISTRATION OF GASOLINE DISPENSING SITES

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(28) OWNER/REPRESENTATIVE SIGNATURE _____ TITLE _____ DATE _____

DEPARTMENT USE ONLY

INSTALLATION # GB 37-09 L

CASHIER'S USE ONLY

FEE PAID: _____

DATE: _____

CASHIER'S INITIALS: _____

ENGINEER'S USE ONLY

[X] APPROVED [ ] DISAPPROVED

[ ] CONDITIONAL

REVIEW DATE: 09/08/2009

ID & INITIALS: A.G. /E 047

ISSUANCE DATE: _____

EXPIRATION DATE: 09/08/2012

REMARKS: _____

AR 522 (Revised 03/08/06)

THE CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Environmental Compliance
59-17 Junction Boulevard, 9th Floor, Flushing, New York 11373-5108
Records Control (718) 595-3855

Steven W. Lawitts, Acting Commissioner

Robert C. Avaltroni, Deputy Commissioner

APPLICATION FOR REGISTRATION OF GASOLINE DISPENSING SITES

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(17) TANK #	(18) DATE INSTALLED (MO/YR)	(19) DIESEL LEADED/UNLEADED	(20) TANK CAPACITY (GALLONS)	(21) ANNUAL THROUGHPUT (GALLONS)	(22) SUBM (FILL) (Yes/No)	(23) VAPOR BALANCE SYSTEM (Yes/No)	(24) INTER CONNECTIONS
1		REG. Unleaded	10,000	477,821	No	Yes	one
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(25) TOTAL ANNUAL THROUGHPUT: LEADED: — UNLEADED: 955,641 DIESEL: 42,691

(26) NUMBER OF NOZZLES: < 9 > (27) NYS SALES TAX ID:

"I HEREBY AFFIRM UNDER PENALTY OF PERJURY THAT THE INFORMATION PROVIDED ON THIS FORM IS TRUE TO THE BEST OF MY KNOWLEDGE AND BELIEF AND THAT THE EQUIPMENT WILL BE OPERATED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AIR POLLUTION CONTROL CODE, CHAPTER 1 OF TITLE 24, NEW YORK CITY ADMINISTRATIVE CODE, AND APPROPRIATE REQUIREMENTS OF OTHER AGENCIES. I RECOGNIZE THAT FALSE STATEMENTS ARE PUNISHABLE AS A MISDEMEANOR PURSUANT TO SECTION 24-190 OF THE AIR POLLUTION CONTROL CODE AND SECTION 210.45 OF THE PENAL LAW."

(28) OWNER/REPRESENTATIVE SIGNATURE | TITLE | DATE

DEPARTMENT USE ONLY

INSTALLATION # GB 37-09 L

CASHIER'S USE ONLY

FEE PAID:

DATE:

CASHIER'S INITIALS:

ENGINEER'S USE ONLY

[X] APPROVED [ ] DISAPPROVED

[ ] CONDITIONAL

REVIEW DATE: 09/08/2009

ID & INITIALS: A.G. / E 047

ISSUANCE DATE:

EXPIRATION DATE: 09/08/2012

REMARKS:

AR 522

(Revised 03/08/06)

V3154/
16988

THE CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Environmental Compliance
59-17 Junction Boulevard, 9th Floor, Flushing, New York 11373-5108
Records Control (718) 595-3855

Emily Lloyd, Commissioner

Robert C. Avaltroni, Deputy Commissioner

APPLICATION FOR REGISTRATION OF GASOLINE DISPENSING SITES

POST COPY ON SITE

DEP AIR PERMITTING
2009 SEP -2 P 3:27

(1) OWNER'S NAME	(9) FACILITY OPERATOR'S NAME
RAPHY BENAIM	ABID ZULFIQAR
(2) ADDRESS NUMBER & STREET	(10) FACILITY NAME (IF ANY)
PO BOX 66 0042	NORTHERN BLVD Auto SERVICE
(3) TOWN OR BORO (4) STATE (5) ZIP	(11) FACILITY ADDRESS
FLUSHING NY 11366	75-15 NORTHERN BLVD QUEENS
(6) OWNER'S TELEPHONE (7) REP'S TELEPHONE	(12) BORO CODE (13) BORO (14) BLOCK (15) LOT
917-299-9366	
(8) OWNER'S REPRESENTATIVE NAME & TITLE	(16) APPLICATION(S) TO BE SUPERSEDED/AMENDED BY THIS APPLICATION

(17) TANK NO	(18) DATE INSTALLED (MO/YR)	(19) DIESEL / GASOLINE LEADED/UNLEADED	(20) TANK CAPACITY (GALS)	(21) ANNUAL THROUGHPUT (GALS)	(22) SUBM (FILL)	(23) VAPOR BALANCE SYSTEM	(24) INTER CONNECTIONS
1	1	REG UNLEADED	10 000		NO	yes	ONE
2	1	SUPER UNLEADED	10 000		NO	yes	ONE
3	1	DIESEL	10 000		NO	yes	ONE
	1						
	1						
	1						

(25) TOTAL ANNUAL THROUGHPUT: LEADED: _____ UNLEADED: 955641 DIESEL/~~GASOLINE~~: 42691

(26) NUMBER OF NOZZLES: 9 (27) NYS SALES TAX ID: 260456035

"I hereby affirm under penalty of perjury that the information provided on this form is true to the best of my knowledge and belief and that the equipment will be operated in accordance with the requirements of the N.Y.C. Air Pollution Control Code. I hereby acknowledge that any alterations of the equipment will be done in accordance with the N.Y.C. Air Pollution Control Code and appropriate requirements of other agencies. I recognize that false statements are punishable as a Class A misdemeanor pursuant to Section 24-190 of the N.Y.C. Air Pollution Control Code Section 210.45 of the Penal Law."

OWNER/REPRESENTATIVE SIGNATURE — TITLE — DATE: Aug 4, 09

AGENCY USE ONLY	
INSTALLATION NO.:	GB003709 L
CASHIER'S USE ONLY	
FEE PAID:	
CASHIER'S INITIALS:	
DATE:	
REMARKS	

ENGINEER'S USE ONLY	
APPROVED/ DISAPPROVED/CONDITIONAL:	
REVIEW DATE:	
ID & INITIALS:	
ISSUANCE DATE:	
EXPIRATION DATE:	

Raphael A. Hodge, P.E.,
Director of Engineering

AR 522 - (REV. 8/02)

SEE REVERSED SIDE FOR INSTRUCTIONS

NYC Environmental Protection

Emily Lloyd
Commissioner

THE CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Environmental Compliance
59-17 Junction Boulevard, 9th Floor, Flushing, New York 11373
Records Control (718) 595-3855

Michael Gilsenan
Assistant Commissioner
Environmental Compliance

REGISTRATION
GASOLINE DISPENSING SITES AR-522

DISPLAY REGISTRATION ON PREMISES NEAR EQUIPMENT

OWNER	AGENT / REPRESENTATIVE
Heron Real Estate Corp.	Global Montello Group Corp. C/o ECS Eclipse
1525 Bedford Avenue, 2nd Fl.	705-A Lakeview Plaza Blvd.
Brooklyn, NY 11216	Worthington, OH 43085
	Attn: Wendy Morgan

FACILITY INFORMATION
(Location where gasoline dispensing site is located)

STREET ADDRESS:	NAME OF PREMISE [IF ANY]:			
7611 Northern Boulevard	Global Montello Group # 1714			
BOROUGH	**ZIP**	**BLOCK**	**LOT**	**BIN**
Queens	10458			

17. TANK #	18. DATE INSTALLED (MO/YR)	19. DIESEL GASOLINE UNLEADED	20. TANK CAPACITY (GALLONS)	21. ANNUAL THROUGHPUT (GALLONS)	22. SUBM (FILL) (Yes/No)	23. VAPOR BALANCE SYSTEM (Yes/No)	24. INTER CONNECTIONS
1	12/88	UNL	4,000	352,783	YES	YES	YES
2	12/88	UNL	4,000	352,783	YES	YES	YES
3	12/88	UNL	4,000	352,783	YES	YES	NO
4	12/88	UNL	4,000	352,783	YES	YES	YES
5	12/88	UNL	4,000	352,783	YES	YES	YES

25. TOTAL ANNUAL THROUGHPUT: GASOLINE UNLEADED: 1,763,919 DIESEL: -

26. NUMBER OF NOZZLES: <24> 27. NYS SALES TAX ID:

The holder of this Registration is responsible for the use of the equipment in accordance with all applicable requirements and provisions of the New York City Air Pollution Control Code. The Commissioner may suspend or revoke this Registration for willful or continued violation of the Air Code. Any purported or attempted transfer of a Registration from one location to another or from one piece of equipment to another automatically revokes the Registration. Section 24-135 NYC Air Pollution Code.

FOR DEPARTMENT USE ONLY

Application #: ☐ GA ☒ GB 0030-09Y

ENGINEER'S USE ONLY

Review Date: 08/05/2015	ID & Initials: MA
Issuance Date: 08/05/2015	Exp. Date: 06/05/2018
Remarks:	

R. Radhakrishnan, P.E.
Director of Engineering / For the Commissioner

FOR INFORMATION, QUESTIONS, AND INQUIRIES: Please visit our website at www.nyc.gov/dep or call 311

NYC Environmental Protection

Carter H. Strickland Jr.
Commissioner

THE CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Bureau of Environmental Compliance
59-17 Junction Boulevard, 9th Floor, Flushing, New York 11373
Records Control (718) 595–3855

Form 314C – Rev. 09/11

Fee $ 190 Receipt No. 407

Michael Gilsenan
Assistant Commissioner
Environmental Compliance

APPLICATION TO RENEW

JUL 17 2015

☑ Registration ☐ Operating Certificate

IF YOU INSTALLED A DIFFERENT BOILER / BURNER / HEATER YOU MUST FILE A NEW APPLICATION

Date:	Fee Enclosed:	Installation:
06/16/2015	$190.00	# GB 0030-09

Make checks or money orders payable to NYC Department of Environmental Protection
Please fill out this form completely and submit it to **DEP WITH ORIGINAL SIGNATURE**

Premise Address:

Street Address	Name of Premise (if any)	Floor	Room No.	Borough	Zip Code	BIN	Block	Lot
7611 Northern Boulevard	Global Montello Group #1714			Queens	10458			

Information of authorized agent who can be contacted to schedule an inspection, provide access and operate equipment to demonstrate compliance.	Name of Contractor / Agent / Superintendent:	Telephone:	Fax:
	ECS Eclipse	(614) 433-0170	(614) 433-0217
	Address: 705-A Lakeview Plaza Blvd.	Apt #:	Borough: Worthington, OH	Zip Code: 43085

I request renewal of the Operating Certificate / Registration for the equipment which is the subject of the above referenced installation number and which has been inspected by the owner / owner's agent and is ready for inspection by the New York City, Department of Environmental Protection, Bureau of Environmental Compliance.

I am aware that if there is exposed friable asbestos in a damaged or deteriorated condition in the room / area where the equipment is located the inspection will not be completed and a Notice of Disapproval will be issued.

"I hereby affirm under penalty of perjury that the information provided on this form is true to the best of my knowledge and belief and that the equipment will be operated in accordance with the requirements of the Air Pollution Control Code, Chapter 1 of Title 24, New York City Administrative Code, and appropriate requirements of other agencies. I recognize that false statements are punishable as a misdemeanor pursuant to Sec 24-190 of the Air Pollution Control Code and Sec 210.45 of the Penal Law."

BUSINESS

Applications must be made by the **owner of the equipment**. If the applicant is a partnership or group other than a corporation, the application must be made by one individual who is a member of the group. If the applicant is a corporation, the application must be made by an officer of the corporation

☐ Owner / ☑ Representative Signature: Wendy Morgan

Owner's Name: Global Montello Group Corp

Representative's Name: Wendy Morgan

Select type of ownership

☐ Sole Proprietorship ☐ Partnership ☐ LLC ☑ Corporation ☐ Other: _____

Title:
☐ Owner ☐ President ☐ Secretary
☐ Partner ☐ Treasurer ☐ Other: _____

Date: 06/16/2015

Owner's Telephone: (781) 674-7780

Owner's Address: P.O. Box 549290, 800 South St- Suite 500

Borough: Waltham, MA

Zip Code: 02454

*Only if **Business** owner is different from **Premise** owner.*

PREMISE

☐ **Please check here if ownership has changed since last filing**

Owner's Name	Owner's Telephone	Date
Heron Real Estate Corp.		06/16/2015
Owner's Address	**Borough**	**Zip Code**
2nd Floor, 1525 Bedford Avenue	Brooklyn, NY	11216

FOR GENERAL INFORMATION, QUESTIONS, AND INQUIRIES: Please visit our website at www.nyc.gov/dep or call 311

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Environmental Compliance
59-17 Junction Boulevard, 9th Floor, Flushing, New York 11373-5108
Records Control (718) 595-3855 DM 8/18/09 SM

Steven W. Lawitts, *Acting Commissioner*

Robert C. Avaltroni, *Deputy Commissioner*

APPLICATION FOR REGISTRATION OF GASOLINE DISPENSING SITES
POST COPY ON SITE

(1) OWNER'S NAME: ExxonMobil Oil Corp. c/o Gilbarco Veeder-Root	(9) FACILITY OPERATOR'S NAME: Station Dealer
(2) ADDRESS NUMBER & STREET: 7300 W. Friendly Ave. MSF-76	(10) FACILITY NAME (IF ANY): Mobil R/S # 11199
(3) TOWN OR BOROUGH: Greensboro (4) STATE: NC (5) ZIP: 27420	(11) FACILITY ADDRESS: 7611 Northern Blvd.
(6) OWNER'S TELEPHONE: 800-253-8054 (7) REP'S TELEPHONE:	(12) BOROUGH CODE (13) BOROUGH: Queens (14) BLOCK (15)
(8) OWNER'S REPRESENTATIVE NAME & TITLE: Compliance Analyst	(16) APPLICATION(S) TO BE SUPERSEDED/AMENDED BY THIS APPLICATION: GA0155-88R

(17) TANK #	(18) DATE INSTALLED (MO/YR)	(19) DIESEL LEADED/UNLEADED	(20) TANK CAPACITY (GALLONS)	(21) ANNUAL THROUGHPUT (GALLONS)	(22) SUBM (FILL) (Yes/No)	(23) VAPOR BALANCE SYSTEM (Yes/No)	(24) INTER CONNECTIONS
1	12/88	UNL	4,000	352,783	Y	Y	Y
2	12/88	UNL	4,000	352,783	Y	Y	Y
3	12/88	UNL	4,000	352,783	Y	Y	N
4	12/88	UNL	4,000	352,783	Y	Y	Y
5	12/88	UNL	4,000	352,783	Y	Y	Y

(25) TOTAL ANNUAL THROUGHPUT: LEADED: — UNLEADED: 1,763,919 DIESEL: —

(26) NUMBER OF NOZZLES: < 24 > (27) NYS SALES TAX ID:

"I HEREBY AFFIRM UNDER PENALTY OF PERJURY THAT THE INFORMATION PROVIDED ON THIS FORM IS TRUE TO THE BEST OF MY KNOWLEDGE AND BELIEF AND THAT THE EQUIPMENT WILL BE OPERATED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AIR POLLUTION CONTROL CODE, CHAPTER 1 OF TITLE 24, NEW YORK CITY ADMINISTRATIVE CODE, AND APPROPRIATE REQUIREMENTS OF OTHER AGENCIES. I RECOGNIZE THAT FALSE STATEMENTS ARE PUNISHABLE AS A MISDEMEANOR PURSUANT TO SECTION 24-190 OF THE AIR POLLUTION CONTROL CODE AND SECTION 210.45 OF THE PENAL LAW."

(28) OWNER/REPRESENTATIVE SIGNATURE TITLE DATE

DEPARTMENT USE ONLY

INSTALLATION # GB0030-09Y

CASHIER'S USE ONLY

FEE PAID:

DATE:

CASHIER'S INITIALS:

ENGINEER'S USE ONLY

☑ APPROVED ☐ DISAPPROVED

☐ CONDITIONAL

REVIEW DATE: 06/05/09

ID & INITIALS: E093

ISSUANCE DATE: 06/05/09

EXPIRATION DATE: 06/05/012

REMARKS:

AR 522

(Revised 03/08/06)

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Environmental Compliance
59-17 Junction Boulevard, 9th Floor, Flushing, New York 11373-5108
Records Control (718) 595-3855

Steven W. Lawitts,
Acting Commissioner

Robert C. Avaltroni,
Deputy Commissioner

APPLICATION FOR REGISTRATION OF GASOLINE DISPENSING SITES

POST COPY ON SITE

(1) OWNER'S NAME ExxonMobil Oil Corp. c/o Gilbarco Veeder-Root.	(9) FACILITY OPERATOR'S NAME Station Dealer
(2) ADDRESS NUMBER & STREET 7300 W. Friendly Ave. MSF-76	(10) FACILITY NAME (IF ANY) Mobil R/S #11199
(3) TOWN OR BOROUGH (4) STATE (5) ZIP Greensboro NC 27420	(11) FACILITY ADDRESS 7611 Northern Blvd.
(6) OWNER'S TELEPHONE (7) REP'S TELEPHONE 800-253-8054	(12) BOROUGH CODE (13) BOROUGH (14) BLOCK (15) Queens
(8) OWNER'S REPRESENTATIVE NAME & TITLE Compliance Analyst	(16) APPLICATION(S) TO BE SUPERSEDED/AMENDED BY THIS APPLICATION GA0155-88R

(17) TANK #	(18) DATE INSTALLED (MO/YR)	(19) DIESEL LEADED/UNLEADED	(20) TANK CAPACITY (GALLONS)	(21) ANNUAL THROUGHPUT (GALLONS)	(22) SUBM (FILL) (Yes/No)	(23) VAPOR BALANCE SYSTEM (Yes/No)	(24) INTER CONNECTIONS
1	12/88	UNL	4,000	352,783	Y	Y	Y
2	12/88	UNL	4,000	352,783	Y	Y	Y
3	12/88	UNL	4,000	352,783	Y	Y	N
4	12/88	UNL	4,000	352,783	Y	Y	Y
5	12/88	UNL	4,000	352,783	Y	Y	Y

(25) TOTAL ANNUAL THROUGHPUT: LEADED: — UNLEADED: 1,763,919 DIESEL: —

(26) NUMBER OF NOZZLES: < 24 > (27) NYS SALES TAX ID:

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(28) OWNER/REPRESENTATIVE SIGNATURE TITLE DATE

DEPARTMENT USE ONLY

INSTALLATION # GB0030-09Y

CASHIER'S USE ONLY

FEE PAID:

DATE:

CASHIER'S INITIALS:

ENGINEER'S USE ONLY

☑ APPROVED ☐ DISAPPROVED

☐ CONDITIONAL

REVIEW DATE: 06/05/09

ID & INITIALS: E093

ISSUANCE DATE: 06/05/09

EXPIRATION DATE: 06/05/012

REMARKS:

AR 522

(Revised 03/08/06)

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Environmental Compliance
59-17 Junction Boulevard, 9th Floor, Flushing, New York 11373-5108
Records Control (718) 595-3855

Steven W. Lawitts, Acting Commissioner

Robert C. Avaltroni, Deputy Commissioner

APPLICATION FOR REGISTRATION OF GASOLINE DISPENSING SITES
POST COPY ON SITE

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(2) ADDRESS NUMBER & STREET: 7300 W. Friendly Ave. MSF-76	(10) FACILITY NAME (IF ANY): Mobil R/S # 11199
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(6) OWNER'S TELEPHONE: 800-253-8054 (7) REP'S TELEPHONE:	(12) BOROUGH CODE (13) BOROUGH: Queens (14) BLOCK (15)
(8) OWNER'S REPRESENTATIVE NAME & TITLE: Compliance Analyst	(16) APPLICATION(S) TO BE SUPERSEDED/AMENDED BY THIS APPLICATION: GA0155-88R

(17) TANK #	(18) DATE INSTALLED (MO/YR)	(19) DIESEL LEADED/UNLEADED	(20) TANK CAPACITY (GALLONS)	(21) ANNUAL THROUGHPUT (GALLONS)	(22) SUBM (FILL) (Yes/No)	(23) VAPOR BALANCE SYSTEM (Yes/No)	(24) INTER CONNECTIONS
1	12/88	UNL	4,000	352,783	Y	Y	Y
2	12/88	UNL	4,000	352,783	Y	Y	Y
3	12/88	UNL	4,000	352,783	Y	Y	N
4	12/88	UNL	4,000	352,783	Y	Y	Y
5	12/88	UNL	4,000	352,783	Y	Y	Y

(25) TOTAL ANNUAL THROUGHPUT: LEADED: — UNLEADED: 1,763,919 DIESEL: —

(26) NUMBER OF NOZZLES: < 24 > (27) NYS SALES TAX ID:

"I HEREBY AFFIRM UNDER PENALTY OF PERJURY THAT THE INFORMATION PROVIDED ON THIS FORM IS TRUE TO THE BEST OF MY KNOWLEDGE AND BELIEF AND THAT THE EQUIPMENT WILL BE OPERATED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AIR POLLUTION CONTROL CODE, CHAPTER 1 OF TITLE 24, NEW YORK CITY ADMINISTRATIVE CODE, AND APPROPRIATE REQUIREMENTS OF OTHER AGENCIES. I RECOGNIZE THAT FALSE STATEMENTS ARE PUNISHABLE AS A MISDEMEANOR PURSUANT TO SECTION 24-190 OF THE AIR POLLUTION CONTROL CODE AND SECTION 210.45 OF THE PENAL LAW."

(28) OWNER/REPRESENTATIVE SIGNATURE TITLE DATE

DEPARTMENT USE ONLY

INSTALLATION # GB0030-09Y

CASHIER'S USE ONLY

FEE PAID:

DATE:

CASHIER'S INITIALS:

ENGINEER'S USE ONLY

☑ APPROVED ☐ DISAPPROVED

☐ CONDITIONAL

REVIEW DATE: 06/05/09

ID & INITIALS: E093

ISSUANCE DATE: 06/05/09

EXPIRATION DATE: 06/05/012

REMARKS:

AR 522

(Revised 03/08/06)

11199-128759-45524

THE CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Environmental Compliance
59-17 Junction Boulevard, 9th Floor, Flushing, New York 11373-5108
Records Control (718) 595-3855

DEP

Emily Lloyd, Commissioner

Robert C. Avaltroni, Deputy Commissioner

Receipt No. 12886

B.E.C. Clerk

X7YG

APPLICATION FOR REGISTRATION OF GASOLINE DISPENSING SITES

DEP AIR PERMITTING

2009 MAY 28 A 1:16

GA015588R

POST COPY ON SITE

(1) OWNER'S NAME	(9) FACILITY OPERATOR'S NAME
ExxonMobil Oil Corp. % Gilbarco Verder-Boost	Station Dealer
(2) ADDRESS NUMBER & STREET	(10) FACILITY NAME (IF ANY)
7300 W. Friendly Ave. MSF-76	Mobil Rks # 11199
(3) TOWN OR BORO (4) STATE (5) ZIP	(11) FACILITY ADDRESS
Greensboro NC 27420	7611 Northern Blvd.
(6) OWNER'S TELEPHONE (7) REP'S TELEPHONE	(12) BORO CODE (13) BORO (14) BLOCK (15) LOT
800-253-8054	Queens
(8) OWNER'S REPRESENTATIVE NAME & TITLE	(16) APPLICATION(S) TO BE SUPERSEDED/AMENDED BY THIS APPLICATION
Compliance Analyst	

(17) TANK NO.	(18) DATE INSTALLED (MO/YR)	(19) DIESEL / GASOLINE LEADED/UNLEADED	(20) TANK CAPACITY (GALS)	(21) ANNUAL THROUGHPUT (GALS)	(22) SUBM (FILL)	(23) VAPOR BALANCE SYSTEM	(24) INTER CONNECTIONS
1	12/88	4,000 UnL	4,000	352,783	Y	Y	Y
2	12/88	4,000 UnL	4,000	352,783	Y	Y	Y
3	12/88	4,000 UnL	4,000	352,783	Y	Y	N
4	12/88	4,000 UnL	4,000	352,783	Y	Y	Y
5	12/88	4,000 UnL	4,000	352,783	Y	Y	Y

(25) TOTAL ANNUAL THROUGHPUT: LEADED: ——— UNLEADED: 1,763,919 DIESEL/GASOLINE: ———

(26) NUMBER OF NOZZLES: 24 (27) NYS SALES TAX ID: ———

"I hereby affirm under penalty of perjury that the information provided on this form is true to the best of my knowledge and belief and that the equipment will be operated in accordance with the requirements of the N.Y.C. Air Pollution Control Code. I hereby acknowledge that any alterations of the equipment will be done in accordance with the N.Y.C. Air Pollution Control Code and appropriate requirements of other agencies. I recognize that false statements are punishable as a Class A misdemeanor pursuant to Section 24-190 of the N.Y.C. Air Pollution Control Code Section 210-45 of the Penal Law."

Kathrin Bayer — OWNER/REPRESENTATIVE SIGNATURE

Owner's Authorized Agent — TITLE

4/27/2009 — DATE

AGENCY USE ONLY	
INSTALLATION NO.:	GB003009 Y
CASHIER'S USE ONLY	
FEE PAID:	
CASHIER'S INITIALS:	
DATE:	
REMARKS	

ENGINEER'S USE ONLY	
APPROVED/ DISAPPROVED/CONDITIONAL:	
REVIEW DATE:	
ID & INITIALS:	
ISSUANCE DATE:	
EXPIRATION DATE:	

Raphael A. Hodge, P.E.,
Director of Engineering

AR 522 - (REV. 8/02)

SEE REVERSED SIDE FOR INSTRUCTIONS

APPENDIX C:

LPC CORRESPONDENCE

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 / 17DCP072Q
Project:
Address: 74-04 NORTHERN BOULEVARD, **BBL:** 4012470001
Date Received: 11/23/2016

[X**] No architectural significance**

[X**] No archaeological significance**

[ ] Designated New York City Landmark or Within Designated Historic District

[x] directly adjacent to Jackson Heights HD, which is Listed on National Register of Historic Places

[ ] Appears to be eligible for National Register Listing and/or New York City Landmark Designation

[ ] May be archaeologically significant; requesting additional materials

Compliance with TPPN #10/88 is required, as the new building directly abuts the S/NR listed historic district.

Gina Santucci 12/7/16

SIGNATURE DATE
Gina Santucci, Environmental Review Coordinator

File Name: 31954_FSO_DNP_11292016.doc

APPENDIX D:

NYC DEPARTMENT OF BUILDINGS MEMORANDUM TECHNICAL POLICY AND PROCEDURE NOTICE # 10/88

The City of New York

DEPARTMENT OF BUILDINGS

EXECUTIVE OFFICES
60 HUDSON STREET, NEW YORK, NY 10013

CHARLES M. SMITH, Jr., R.A., Commissioner
312-8100

Issuance #109

TECHNICAL
POLICY AND PROCEDURE NOTICE # 10/88

TO: Borough Superintendents

FROM: Irving Polsky, P.E., Executive Engineer

DATE: June 6, 1988

SUBJECT: Procedures for the Avoidance of Damage to Historic Structures Resulting from Adjacent Construction When Subject to Controlled Inspection by Section 27-724 and for Any Existing Structure Designated by the Commissioner.

BACKGROUND: Approval of the Landmarks Preservation Commission is required before any changes may be made to protected features of any individually designated landmark or properties within historic districts. A listing of these was furnished to each Borough. Building Code Section 27-166 (C26-112.4) serves to protect historic structures by requiring that all lots, buildings and service facilities adjacent to foundation and earthwork areas shall be protected and supported in accordance with the requirements of Building Construction Subchapter 7 (Article) and Building Code Subchapters 11 and 19 (Article). The intent of these procedures is to supplement the latter and require a 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 be changed.

It is also intended that these procedures shall be used to safeguard any existing structure in accordance with Section 27-127 (C26-105.1) if deemed necessary by the Commissioner.

DEFINITION: ADJACENT HISTORIC STRUCTURE. A structure which is a designated New York City Landmark or located within an historic district, or listed on the National Register of Historic Places and is contiguous to or within a lateral distance of ninety feet from a lot under development or alteration.

SUPPLEMENTARY PROCEDURES: The architect or engineer designated for Controlled Inspection of Construction Required for or Affecting the Support of Adjacent Properties or Buildings required by Section 27-724 (C26-1112.6) shall institute a monitoring program for adjacent historic structures and for any existing structure designated by the Commissioner. The following supplementary procedures shall be considered and adhered to:

1.0. Subsurface conditions and effects that might influence performance of structures.

Subsurface Conditions		Effect that Might Influence Performance of Structures
1.1.	Large obstructions in the fill	Vibrations during excavating and pile driving operations
1.2.	Shallow water table	Drawdown of water table and loss of ground during excavation operations
1.3.	Previous layers within and under the hardpan stratum	Loss of ground during excavation operations
1.4.	Dense nature of hardpan	Vibrations during excavating and pile driving operations
1.5.	Boulders	Vibrations during pile driving and/or blasting operations
1.6.	Bedrock	Vibrations during pile driving and/or blasting operations

2.0. Construction vehicular traffic and construction equipment movement which might increase existent vibration levels.

3.0. Establishment of a peak particle velocity design criteria during the driving of sheeting or blasting operations.

3.1. The maximum permissible peak particle velocity shall be 0.5 in./sec. (13mm/sec.) with no distance criterion.

3.2. The maximum permissible peak velocity shall be reduced if movements or cracking is detected.

3.3. Maintaining accurate records, including the location of the blast, total explosive weight in the blast, maximum explosive weight per delay (or the explosive weight in each blast hole and the designation of the delay cap used in each hole).

4.0. Establishment of criteria for any temporary retaining wall structure.

4.1. The maximum permissible horizontal and vertical movement of the temporary retaining wall system shall be designed in accordance with generally accepted engineering practice.

5.0. Establishment of movement criteria for the historic building.

5.1. The maximum permissible vertical and horizontal movement shall be ½in. (6mm.).

6.0. Establishment of criteria for ground water.

6.1. The lowest water level shall be determined by periodic ground water monitoring at observation wells, seasonably adjusted and designated as the "low datum" prior to the start of excavation operations.

6.2. Limitation on water drawdown shall be considered in the criteria for the retaining system.

7.0. Establishment of a monitoring program.

8.1. A licensed surveyor shall be retained to monitor movements and tilting of the historic buildings and the temporary retaining system.

8.1.1. Settlements of the street and of selected points on the ground are to be monitored.

8.1.2. Survey measurements shall be made a minimum of two times per week.

8.1.3. Optical survey readings shall be taken to an accuracy of ±0.01 ft. (3mm.).

8.2. "Telltales" shall be installed across existing cracks and in other sensitive areas to permit changes in crack width to be measured.

8.2.1. A micrometer sensitive to 0.001 in. (0.003mm.) shall be used to monitor crack widths at least once a day.

8.3. Water levels in observation wells are to be monitored at least twice a day for the period that active dewatering is in progress.

8.4. Requirements for seismographic test data. -

8.4.1. Obtain seismographic test data showing the vibration transmission characteristics of the area around the blasting site.

8.4.2. Vibrations from the driving of sheet piles, from excavating and blasting, shall be monitored with a portable seismograph placed adjacent to or within the historic structure closest to the vibration source.

8.5. Requirements for photographs. -

8.5.1. Photographs of the affected historic buildings of sufficient clarity to view the "telltales" shall be taken weekly during construction.

8.5.2. The photographs shall be identified on the back with the building address, direction, date, time and photographer.

9.0. Controlled Inspection Report. -

9.1. Records of the monitoring program shall be retained.

9.2. Controlled inspection reports as to the monitoring program shall be submitted to the department per amendment on B Form 10E within thirty days of completion of the excavation.

9.2.1. The report shall include a set of photographs taken pursuant to Item 8.8.

REFERENCES: "The Avoidance of Damage to Historic Structures Resulting from Adjacent Construction", Melvin I. Esrig and Andrew J. Ciancia, American Society of Civil Engineers, Preprint 81-052; "Effects of Blasting Vibrations on Buildings and People", John F. Wiss, P.E., Civil Engineering-ASCE - July 1968.

IP/gt
cc: Distribution

APPENDIX E:

NYC DEPARTMENT OF ENVIRONMENTAL PROTECTION CORRESPONDENCE

NYC Environmental Protection

Vincent Sapienza, P.E.
Acting Commissioner

Angela Licata
Deputy Commissioner of Sustainability

59-17 Junction Blvd.
Flushing, NY 11373

Tel. (718) 595-4398
Fax (718) 595-4479
alicata@dep.nyc.gov

December 20, 2016

Robert Dobruskin
Director, Environmental Assessment and Review Division
New York City Department of City Planning
120 Broadway, 31st Floor
New York, NY 10271

Re: 74-04 Northern Boulevard
Block 1247, Lot 1
CEQR # 17DCP072Q
Queens, NY

Dear Mr. Dobruskin:

The New York City Department of Environmental Protection, Bureau of Sustainability (DEP) has reviewed the November 2016 Environmental Assessment Statement (EAS) prepared by EPDSCO, Inc. and the February 2013 Phase I Environmental Site Assessment Report (Phase I) prepared by Advanced Cleanup Technologies, Inc. on behalf of H & M LLC (applicant) for the above referenced project. It is our understanding that the applicant is seeking a zoning map amendment from the New York City Department of City Planning (DCP) from C8-1 to C4-3 for the northern portion of Block 1247. In addition, the proposed action would include a proposed text amendment that would make the area applicable to the Mandatory Inclusionary Housing Program ("Proposed Actions"). The Proposed Actions intend to facilitate a proposal by the applicant to develop an eight-story mixed-use property (commercial-community facility) with 122,880 gross square feet (gsf) of floor area consisting of ground floor retail, second and third floor accessory parking containing 219 attended parking spaces, 18,400 square feet (sf) of community facility space on the fourth floor and commercial office space on the fifth through eighth floors. The 20,000 sf development site is located on Northern Boulevard between 74th and 75th Streets and is improved with an expanded 1-story car wash and car maintenance shop with a partial basement and building foot print of 10,066 sf in the Jackson Heights neighborhood of Queens Community District 3.

The February 2013 Phase I report revealed that historical on-site and surrounding area land uses consisted of a variety of residential and commercial uses including a car wash, vacant land, a shed, stores, commercial buildings, an automobile storage yard, an automobile repair building, automobile sales and service buildings, a car sales yard, residential dwellings, a filling station, a health center, and parking areas. Based on the age of the subject building, asbestos containing materials and lead based paints could be present in the on-site structure. A storage room in the southern portion of the on-site building contains bulk containers of oil, anti-freeze, soaps and Freon. Eight aboveground

storage tanks containing lube oil and waste oils are located in the partial basement. The New York State Department of Environmental Conservation database identified 65 NY Spills and Leaking Underground Storage Tanks within half a mile and 67 Petroleum Bulk Storage, Major Oil Storage and Chemical Bulk Storage facilities within a quarter mile of the subject property.

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

- Based on prior on-site and/or surrounding area land uses which could result in environmental contamination, DEP concurs with the EAS recommendation that an "E" designation for hazardous materials should be placed on the zoning map pursuant to Section 11-15 of the New York City Zoning Resolution for the subject property. The "E" designation will ensure that testing and mitigation will be provided as necessary before any future development and/or soil disturbance. Further hazardous materials assessments should be coordinated through the Mayor's Office of Environmental Remediation.

Future correspondence and submittals related to this project should include the following CEQR number **17DCP072Q**. If you have any questions, you may contact Mohammad Khaja-Moinuddin at (718) 595-4445.

Sincerely,

Wei Yu

Wei Yu
Acting Deputy Director, Hazardous Materials

c: R. Weissbard
M. Khaja-Moinuddin
T. Estesen
M. Wimbish
S. Shellooe – DCP
R. Ghosh – DCP
O. Abinader – DCP
M. Bertini – OER