Chapter 10: Hazardous Materials

A. INTRODUCTION

As described in the 2021 *City Environmental Quality Review (CEQR) Technical Manual*, a hazardous material is defined as any substance that poses a threat to human health or to the environment. Such substances include but are not limited to: metals; volatile organic compounds (VOCs), commonly found in petroleum products and solvents; semi-volatile organic compounds (SVOCs), typically associated with fuel oil, coal, and ash; and polychlorinated biphenyls (PCBs), usually associated with transformers and utilities. Hazardous materials also include substances used in building materials and fixtures, such as asbestos-containing materials (ACM), lead-based paint (LBP), and mercury.

The presence of hazardous or contaminated materials does not necessarily indicate a threat to human health or the environment; a means of an exposure pathway, the presence of a receptor, and an unacceptable dose must also be present to cause a threat. During construction on development sites, hazardous materials could be disturbed through excavation of soil and bedrock, extraction of groundwater, or the demolition or renovation of existing structures. The most likely routes of human exposure from the hazardous materials evaluated are the inhalation of VOCs, the ingestion of particulate matter containing SVOCs or metals, or dermal (skin) contact with hazardous materials that can be released during soil-disturbing activities.

Based on the above, this chapter assesses the potential for the presence of hazardous or contaminated materials in soil, groundwater, or soil gas at all projected and potential development sites identified in the Reasonable Worst-Case Development Scenario (RWCDS), i.e., properties where ground disturbance, new waterfront open space, renovation/conversion and enlargements of existing structures and/or construction of new buildings for residential, commercial community facility and/or industrial purposes may result from the Proposed Actions.

PRINCIPAL CONCLUSIONS

Based on the findings of this assessment, potential concerns as they relate to hazardous and contaminated materials were identified for all evaluated projected and potential sites. The potential for significant adverse impacts associated with hazardous materials resulting from the Proposed Actions would be precluded through compliance with existing regulatory requirements and the placement of an (E) Designation on all projected and potential development sites. These measures are recommended to avoid or reduce exposure to future occupants and workers at projected and potential development sites as it relates to hazardous and contaminated materials. The (E) Designation for hazardous materials requires that prior to change of use or redevelopment requiring ground disturbance, the owner of the property conduct a Phase I Environmental Site Assessment (ESA) and subsurface testing and remediation, where appropriate, to the satisfaction of the New York City Mayor's Office of Environmental Remediation (OER). New York City

Department of Buildings (DOB) permits associated with such actions cannot be issued without OER approval. Additionally, as described below, certain development sites are subject to an existing (E) Designation or restrictive declaration. These existing controls and the proposed (E) Designation included as part of the Proposed Actions would ensure protection of human health and the environment from known or suspected hazardous materials. With the above measures in place, the Proposed Actions would avoid the potential for significant adverse impacts related to hazardous materials.

B. METHODOLOGY

As described in the *CEQR Technical Manual*, the purpose of a hazardous materials assessment is to determine whether a proposed action could lead to potential increased human exposure to hazardous materials and whether the increased exposure could lead to significant public health impacts or environmental impacts. The objective of this analysis is to determine which, if any, of the projected and potential development sites identified as part of the RWCDS may have been adversely affected by current or historical uses on-site, adjacent to, or within 400 feet of the sites.

Hazardous materials, as defined in the *CEQR Technical Manual*, are substances that pose a threat to human health and the environment including, but not limited to, heavy metals, VOCs, SVOCs, methane, PCBs, pesticides, and hazardous wastes. Historic building materials, such as ACM and LBP, are also considered in the hazardous materials assessment.

For assessments such as area-wide zonings, certain elements of a typical ESA scope, such as site inspections, may not be possible. The Proposed Actions include an area-wide rezoning, and nearly all of the identified projected and potential development sites are not under City ownership. Each of the sites was evaluated for potential impacts due to hazardous materials by: (1) reviewing existing information sources such as Sanborn Fire Insurance Maps and City directories for the projected and potential development sites and the surrounding area; and (2) reviewing relevant existing data, including updated regulatory database listings for the for the projected and potential development sites and neighboring properties. See **Appendix FE** for the Hazardous Materials Database, Sanborn and City directory reports.

SANBORN FIRE INSURANCE MAP REVIEW

Historic and recent Sanborn maps were reviewed to assess site and nearby activities and operations listed in *Hazardous Materials Appendix 1* of the *CEQR Technical Manual* from circa 1898 through 2006. The review included identifying automotive uses (fueling operations, garages with gasoline tanks, auto repair shops, etc.), petroleum uses (oil companies and oil terminals), and/or manufacturing and industrial uses (various manufacturing, smelters, chemical laboratories, metal works, printing facilities, contractor yards, etc.).

DATABASE REVIEW

A set of standard federal and state regulatory databases (per ASTM E1527-21) indicating the potential for hazardous materials was reviewed including:

- The New York State Spills database, which lists sites where petroleum or chemical releases have been reported to the New York State Department of Environmental Conservation (DEC) since April 1, 1986.
- The DEC chemical bulk storage (CBS) database that contains registered (since July 15, 1998) facilities that store (non-petroleum) hazardous substances—as defined by 6 New York Codes, Rules and Regulations (NYCRR) Part 597—in aboveground tanks (ASTs) with capacity equal to or greater than 185 gallons and/or in underground tanks (USTs) of any size.
- The DEC Petroleum Bulk Storage (PBS) database, which keeps track of properties that store petroleum products of greater than 1,100 gallons in aggregate.
- The DEC Leaking Storage Tank Incident Reports (LTANKS), which records leaking AST or UST incidents reported after April 1, 1986. The causes of releases may be tank test failures, tank failures, or tank overfills.
- The Hazardous Waste Generators database, which uses both the DEC manifest system for hazardous waste handlers and the U.S. Environmental Protection Agency (EPA) records pursuant to the Resource Conservation and Recovery Act (RCRA), also referred to as the Resource Conservation and Recovery Information System (RCRIS) database, and includes information on sites that generate, transport, store, treat, and/or dispose of hazardous waste as defined by RCRA.
- An air discharge facility database (AIRS) for air pollutant sources that are permitted with EPA, DEC, or OER.
- New York State Brownfield Cleanup Program (BCP) Sites for sites on record with DEC as abandoned, idle, or under-used industrial and commercial sites where redevelopment is being contemplated under the DEC BCP.
- Solid Waste Facilities (SWF) sites, which are included in a DEC database with certain landfills, incinerators, transfer stations, recycling centers, and other sites that manage or managed solid waste.
- State Inactive Hazardous Waste Disposal Site Registry (SHWS), which is a program (also known as State Superfund) listing information regarding a variety of sites likely requiring cleanup.
- An inventory of historical and current registered dry-cleaning facilities compiled by Environmental Data Resources, Inc. (EDR) of Shelton, Connecticut.

C. EXISTING CONDITIONS

TOPOGRAPHY AND HYDROGEOLOGY

Based on reports compiled by the U.S. Geological Survey (USGS), the elevation of the study area ranges from barely above sea level (the western portion, along the East River) to approximately 25 feet above mean sea level. Groundwater is expected to be encountered at just below grade to approximately 20 feet below grade (generally a few feet above sea level). Groundwater is expected to flow in a generally westerly and/or northwesterly direction towards the East River and is likely tidally influenced near the East River and Anable Basin. However, actual groundwater flow and depth may be affected by other factors, such as bulkheads, utilities, and other factors.

REGULATORY DATABASE RECORDS

The regulatory database records indicated certain facilities listed within or adjacent to the study area with some potential to have affected environmental conditions within the Project Area, including listings on the DEC Spills database, PBS facilities, Hazardous Waste Generators, BCP Sites, and LTANKS sites.

OVERVIEW OF HISTORICAL USES

The Project Area is generally bounded by Queens Plaza South and the midblock between 39th and 40th Avenues between 21st and 23rd Streets to the north; the East River, Anable Basin, and 5th Street to the west; 46th and 47th Avenues, 46th Road, and the midblock between 44th Drive and 45th Avenue to the south; and 11th, 23rd and 24th Streets and the midblock between 24th and Crescent Streets to the east. The Project Area is directly west of Long Island City's central business district, with most of the Project Area located south of Queens Plaza South and west of Jackson Avenue, with its southern and eastern boundaries following irregular patterns along the streets through midblocks (see Figures 1-1 and 1-2 in Chapter 1, "Project Description").

Oil refineries, manufacturing, and industrial uses were present within the western portion of the Project Area, along the East River, with light commercial and residential use in other portions of the Project Area by 1898. Manufacturing, industrial, and commercial use was more prevalent throughout the Project Area by 1936, and dense development continued through the 1970s, including iron works companies, machine shops, chemical manufacturing plants, paint and varnish facilities, printing companies, electric manufacturing companies, beverage companies, contractor yards, gasoline service stations, automotive repair facilities, and warehouses and distribution buildings. Light residential and mixed-use development was also present.

Currently, the Project Area is densely developed and is composed of a mix of land uses, including residential, commercial, manufacturing, industrial, and infrastructure (transportation and utility) uses.

Based on the age of most of the structures on the projected and potential development sites, building materials are likely to include ACM, LBP, and/or PCBs. At currently vacant sites, such materials and/or buried petroleum storage tanks may also remain from the debris of former structures in the subsurface.

Historical uses potentially of environmental concern (see **Table 10-1**) are principally associated with the following uses and activities in the study area:

- Oil refineries and oil terminals;
- Manufacturing and industrial uses on the development site or an adjacent site;
- Automotive-related, transportation, or utility uses on the development site or an adjacent site (e.g., garage, gasoline filling station and/or automotive repair);
- USTs or leaking USTs on the development site or an adjacent site;
- Spills of petroleum or chemicals on the development site or an adjacent site;
- Identified contamination on the development site or an adjacent site, including BCP sites; and
- Aboveground storage tanks on the development site or an adjacent site.

Table 10-1
Assessment of Projected and Potential Development Sites

Site ID	Group	Block	Lot	Address	Existing Zoning	Proposed Zoning	Sanborns or City Directories	Notable On-site Database listings	Concerns within 400-foot Radius	On-Site Concerns	E-Designation	Rationale
1	Projected	27	23	5-01 46th Road	R6A/C1-5, M1-4/R6A, M1-4	M1-5A/R8, M1-3A/R7A	X	Yes, BCP	Historic manufacturing and industrial use	Historic manufacturing, contamination associated with BCP Site No. C241175	Yes	On-site and off-site concerns
1	Projected	27	2	46-16 Vernon Boulevard	R6A/C1-5, M1-4/R6A, M1-4	M1-5A/R8, M1-3A/R7A	X	Yes, BCP, RCRA Non-Gen, ECHO, FINDS, Manifest	Historic manufacturing and industrial use	Historic chemical ASTs, contamination associated with BCP Site No. C241175	Yes	On-site and off-site concerns
1	Projected	27	3	46-14 Vernon Boulevard	R6A/C1-5, M1-4/R6A, M1-4	M1-5A/R8, M1-3A/R7A		Yes, Spills	Adjacent BCP (Site No. C241175), historic manufacturing and industrial use	Minimal	Yes	Off-site concerns
1	Projected	27	4	46-12 Vernon Boulevard	R6A/C1-5, M1-4/R6A, M1-4	M1-5A/R8, M1-3A/R7A		Yes, BCP, Spills	Historic manufacturing and industrial use	Contamination associated with BCP Site No. C241175 and open Spill number	Yes	On-site and off-site concerns
1	Projected	27	5	5-35 46th Road	R6A/C1-5, M1-4/R6A, M1-4	M1-5A/R8, M1-3A/R7A	X	Yes, BCP	Historic manufacturing and industrial use	Historic manufacturing and industrial use, contamination associated with BCP Site No. C241175	Yes	On-site and off-site concerns
1	Projected	27	25	46-01 5th Street	R6A/C1-5, M1-4/R6A, M1-4	M1-5A/R8, M1-3A/R7A	X	Yes, BCP	Historic manufacturing and industrial use	Historic industrial use, contamination associated with BCP Site No. C241175	Yes	On-site and off-site concerns

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1	Projected	27	15	5-21 46th Road	R6A/C1-5, M1-4/R6A, M1-4	M1-5A/R8, M1-3A/R7A	X	Yes, BCP	Historic manufacturing and industrial use	Historic industrial use, contamination associated with BCP Site No. C241175	Yes	On-site and off-site concerns
1	Projected	27	17	5-17 46th Road	R6A/C1-5, M1-4/R6A, M1-4	M1-5A/R8, M1-3A/R7A	X	Yes, BCP	Historic manufacturing and industrial use	Historic industrial and manufacturing use, contamination associated with BCP Site No. C241175	Yes	On-site and off-site concerns
1	Projected	27	37	5-38 46th Avenue	R6A/C1-5, M1-4/R6A, M1-4	M1-5A/R8, M1-3A/R7A	X	Yes, BCP	Historic manufacturing and industrial use	Historic industrial and manufacturing use, contamination associated with BCP Site No. C241175	Yes	On-site and off-site concerns
2	Projected	28	9	5-35 47th Avenue	M1-4	M1-3A/R7X	X	Yes, CBS UST, CBS AST, UST, AST,Manifest, RCRA-NonGen, FINDS, ECHO, AIRS, Spills	Historic manufacturing and industrial use to the north and west, BCP sites to the northwest/west (Site No. C241098) and north (Site No. C241175)	Historic industrial and manufacturing use, historic tanks	Yes	On-site and off-site concerns
2	Projected	28	10	47th Avenue	M1-4	M1-3A/R7X	X	Yes, CBS UST, CBS AST, Manifest, RCRA-NonGen, FINDS, ECHO	Historic manufacturing and industrial use to the north and west, BCP sites to the northwest/west (Site No. C241098) and north (Site No. C241175)	Historic industrial and manufacturing use, historic tanks	Yes	On-site and off-site concerns

Table 10-1
Assessment of Projected and Potential Development Sites

Site ID	Group	Block	Lot	Address	Existing Zoning	Proposed Zoning	Sanborns or City Directories	Notable On-site Database listings	Concerns within 400-foot Radius	On-Site Concerns	E-Designation	Rationale
2	Projected	28	11	47th Avenue	M1-4	M1-3A/R7X	X	Yes, CBS UST, CBS AST, Manifest, RCRA-NonGen, FINDS, ECHO	Historic manufacturing and industrial use to the north and west, BCP sites to the northwest/west (Site No. C241098, which includes Lot 121) and north (Site No. C241175)	Historic industrial and manufacturing use, historic tanks	Yes	On-site and off-site concerns
3	Projected	28	12	47th Avenue	M1-4	M1-3A/R7X	X	No	Historic manufacturing and industrial use, BCP site to the north and west (Site No. including Lot 121)	Historic industrial use	Existing RD (R-167)	
3	Projected	28	15	5-23 47th Avenue	M1-4	M1-3A/R7X	X	No	Historic manufacturing and industrial use, BCP site to the north and west (Site No. C241098, including Lot 121)	Historic industrial use	Existing RD (R-167)	
3	Projected	28	17	5-19 47th Avenue	M1-4	M1-3A/R7X	X	No	Historic manufacturing and industrial use, BCP site to the north and west (including Lot 121)	Historic industrial and manufacturing use	Existing RD (R-167)	
3	Projected	28	18	5-13 47th Avenue	M1-4	M1-3A/R7X	X	No	Historic manufacturing and industrial use, BCP site to the north and west (Site No. C241098, including Lot 121)	Historic industrial and manufacturing use	Existing RD (R-167)	

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Site ID	Group	Block	Lot	Address	Existing Zoning	Proposed Zoning	Sanborns or City Directories	Notable On-site Database listings	Concerns within 400-foot Radius	On-Site Concerns	E-Designation	Rationale
3	Projected	28	121	47th Avenue	M1-4	M1-3A/R7X	X	Yes, CORRACTS, BCP, ENG CONTOLS, INST CONTROLS, UST, RCRA-LQG, RCRA-NonGen, RAATS, ICIS, Spills, AIRS, Manifest, Hist Cleaner	Historic manufacturing and industrial use, BCP site to the north (Site No. C241175)	Historic industrial and manufacturing use, multiple database listings, lot is included within the boundaries of BCP Site No. C241098 which is being managed under a Site Management Plan	Existing RD (R-167)	
4	Projected	48	37	10-26 46th Avenue	M1-4	M1-2A/R6A	X	No	Industrial and manufacturing use, BCP sites to the west (Site No. C241175) and northwest (Site No. C241108)	Historic manufacturing, industrial and automotive use	Yes	On-site and off-site concerns
4	Projected	48	40	10-20 46th Avenue	M1-4	M1-2A/R6A	X	No	Industrial and manufacturing use, BCP sites to the west (Site No. C241175) and northwest (Site No. C241108)	Historic industrial and manufacturing use	Yes	On-site and off-site concerns
4	Projected	48	43	10-10 46th Avenue	M1-4	M1-2A/R6A	X	No	Industrial and manufacturing use, BCP sites to the west (Site No. C241175) and northwest (Site No. C241108)	Historic industrial and automotive use	Yes	On-site and off-site concerns
4	Projected	48	5	10-11 46th Road	M1-4	M1-2A/R6A		No	Industrial and manufacturing use, BCP sites to the west (Site No. C241175) and northwest (Site No. C241108)	Minimal	Yes	Off-site concerns

Table 10-1
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Site ID	Group	Block	Lot	Address	Existing Zoning	Proposed Zoning	Sanborns or City Directories	Notable On-site Database listings	Concerns within 400-foot Radius	On-Site Concerns	E-Designation	Rationale
4	Projected	48	8	10-19 46th Road	M1-4	M1-2A/R6A	X	No	Industrial and manufacturing use, BCP sites to the west (Site No. C241175) and northwest (Site No. C241108)	Historic industrial use	Yes	On-site and off-site concerns
5	Projected	48	12	10-31 46th Road	M1-4	M1-2A/R6A	X	Yes, AST, Hist Auto	Historical industrial and manufacturing use to the north, east and west	Historical automotive repair and historic tanks	Yes	On-site and off-site concerns
7	Projected	49	1	10-01 46th Avenue	R6A/C1-5, M1-4	M1-3A/R7A, M1-2A/R6A	X	No	Historic industrial and manufacturing use, BCP sites to the west (Site No. C241108) and southwest (Site No. C241175)	Historic manufacturing use	Yes	On-site and off-site concerns
7	Projected	49	5	10-11 46th Avenue	R6A/C1-5, M1-4	M1-3A/R7A, M1-2A/R6A	X	No	Historic industrial and manufacturing use, BCP sites to the west (Site No. C241108) and southwest (Site No. C241175)	Historic manufacturing, automotive and chemical storage use	Yes	On-site and off-site concerns
7	Projected	49	44	45th Road	R6A/C1-5, M1-4	M1-3A/R7A, M1-2A/R6A	X	No	Historic industrial and manufacturing use, BCP sites to the west (Site No. C241108) and southwest (Site No. C241175)	Historic manufacturing use and gasoline station	Yes	On-site and off-site concerns
9	Projected	49	35	10-38 45th Road	M1-4	M1-2A/R6A	X	No	Historic industrial and manufacturing use, BCP site to the east (Site No. C241172)	Historic iron works	Yes	On-site and off-site concerns
9	Projected	49	37	10-34 45th Road	M1-4	M1-2A/R6A	X	No	Historic industrial and manufacturing use, BCP site to the east (Site No. C241172)	Historic solvent manufacturing and iron works	Yes	On-site and off-site concerns

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Site ID	Group	Block	Lot	Address	Existing Zoning	Proposed Zoning	Sanborns or City Directories	Notable On-site Database listings	Concerns within 400-foot Radius	On-Site Concerns	E-Designation	Rationale
10	Projected	50	1	10-01 45th Road	M1-4	M1-2A/R6A, M1-3A/R7X	X	RCRA-SQG, Manifest, UST	Historic industrial and manufacturing use, BCP site to the southeast (Site No. C241172) and southwest (Site No. C241108)	Historic industrial and automotive repair use	Yes	On-site and off-site concerns
12	Projected	51	1	10-01 45th Avenue	M1-4	M1-4A/R8A	X	RCRA-NonGen, Manifest, Spills	Historic industrial and manufacturing use	Historic industrial, manufacturing and automotive use	Yes	On-site and off-site concerns
13	Projected	51	11	10-27 45th Avenue	M1-4	M1-2A/R6A, M1-4A/R8A		No	Historic industrial and manufacturing use	Minimal	Yes	Off-site concerns
13	Projected	51	33	10-30 44th Drive	M1-4	M1-2A/R6A, M1-4A/R8A		No	Historic industrial and manufacturing use	Minimal	Yes	Off-site concerns
13	Projected	51	38	10-16 44th Drive	M1-4	M1-2A/R6A, M1-4A/R8A	X	No	Historic industrial and manufacturing use	Historic industrial use	Yes	On-site and off-site concerns
13	Projected	51	6	10-15 45th Avenue	M1-4	M1-2A/R6A, M1-4A/R8A		No	Historic industrial and manufacturing use	Minimal	Yes	Off-site concerns
13	Projected	51	28	10-34 44th Drive	M1-4	M1-2A/R6A, M1-4A/R8A	X	No	Historic industrial and manufacturing use	Historic industrial, manufacturing and automotive use	Yes	On-site and off-site concerns
13	Projected	51	36	10-06 44th Drive	M1-4	M1-2A/R6A, M1-4A/R8A	X	No	Historic industrial and manufacturing use	Historic industrial, manufacturing and automotive use	Yes	On-site and off-site concerns

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Site ID	Group	Block	Lot	Address	Existing Zoning	Proposed Zoning	Sanborns or City Directories	Notable On-site Database listings	Concerns within 400-foot Radius	On-Site Concerns	E-Designation	Rationale
13	Projected	51	42	10-02 44th Drive	M1-4	M1-2A/R6A, M1-4A/R8A	X	Yes, UST	Historic industrial and manufacturing use	Historic industrial and manufacturing use, historic tanks	Yes	On-site and off-site concerns
14	Projected	51	13	10-35 45th Avenue	M1-4	M1-2A/R6A	X	No	Historic industrial and manufacturing use	Historic manufacturing use	Yes	On-site and off-site concerns
15	Projected	51	15	10-37 45th Avenue	M1-4	M1-2A/R6A	X	No	Historic industrial and manufacturing use	Historic manufacturing and industrial use	Yes	On-site and off-site concerns
15	Projected	51	16	10-41 45th Avenue	M1-4	M1-2A/R6A	X	No	Historic industrial and manufacturing use	Historic industrial and automotive use	Yes	On-site and off-site concerns
16	Projected	78	54	21-02 44th Drive	M1-4/R7A	M1-4A/R8A		No	Historic industrial, manufacturing and automotive use to the north, west and east, VCP site to the north (Site No. V00366)	Minimal	Yes	Off-site concerns
17	Projected	411	12	41-50 21st Street	M1-5	M1-6A/R10		No	BCP site adjacent to the southeast (Site No. C241246), historic industrial/manufacturing use to the southwest and southeast	Minimal	Yes	Off-site concerns
17	Projected	411	31	41-02 22nd Street	M1-5	M1-6A/R10	X	No	BCP site adjacent to the southeast (Site No. C241246), former manufacturing use to the north and northeast	Historic printing manufacturer	Yes	On-site and off-site concerns

Table 10-1
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Site ID	Group	Block	Lot	Address	Existing Zoning	Proposed Zoning	Sanborns or City Directories	Notable On-site Database listings	Concerns within 400-foot Radius	On-Site Concerns	E-Designation	Rationale
18	Projected	411	18	21st Street	M1-5	M1-6A/R10		No	BCP site to the southeast (Site No. C241246), historic gasoline station and automotive repair adjacent to the northeast, manufacturing use south and east	Minimal	Yes	Off-site concerns
19	Projected	412	1	22-09 Queens Plaza North	M1-5	M1-6A/R10	X	Yes, BCP	Former manufacturing and automotive use	Contamination associated with active BCP (Site No. C241246), historic manufacturing, industrial and automotive use	Yes	On-site and off-site concerns
19	Projected	412	25	22-09 41th Avenue	M1-5	M1-6A/R10	X	Yes, BCP	Former manufacturing and automotive use	Contamination associated with active BCP (Site No. 241246), historic manufacturing, industrial and automotive use	Yes	On-site and off-site concerns
20	Projected	424	1	24-02 Queens Plaza South	M1-5/R9	M1-6, R9	X	Yes, RCRA-VSQG, Manifest, UST	Historic manufacturing use and automotive repair facilities	Current and former manufacturing, historic gasoline filling station and automotive use	Yes	On-site and off-site concerns

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21	Projected	428	1	42-50 24th Street	M1-5/R9	M1-6/R10	X	Yes, BCP, LTANKS, Spills, AST, UST, RCRA-NonGen, Manifest	Historic manufacturing use and automotive repair facilities	Contamination associated with BCP (Site No. C241190), historic industrial and automotive repair	Existing E-Designation (E-104)	
22	Projected	429	16	42-37 24th Street	M1-5/R9	M1-6/R10	X	No	Historic manufacturing use and automotive repair facilities	Historic manufacturing use, historic automotive wreckage yard	Yes	On-site and off-site concerns
25	Projected	447	40	11-50 44th Road	M1-4/R7A, M1-4	M1-4A/R8A, M1-6A, M1-4A	X	Yes, AIRS	Historic industrial and manufacturing use, VCP site to the east (Site No. V00366)	Historic industrial and automotive repair use	Existing E-Designation (E-129)	
26	Projected	448	1	44-40 11th Street	M1-4/R7A, M1-4	M1-4A/R8A, M1-4A	X	Yes, RCRA-NonGen, FINDS, ECHO, Manifest	Historic manufacturing and industrial use	Historic industrial and manufacturing use	Yes	On-site and off-site concerns
27	Projected	448	6	10-39 44th Drive	M1-4	M1-4A/R8A	X	Yes, RCRA-NonGen, FINDS, ECHO	Historic manufacturing, industrial and automotive use	Historic manufacturing use	Yes	On-site and off-site concerns
28	Projected	448	24	10-20 44th Road	M1-4	M1-4A/R8A, M1-4A		No	Historic manufacturing, industrial and automotive use, BCP site to the northwest (Site No. C241154)	Historic automotive garage, truck rental and contractor equipment storage use	Yes	On-site and off-site concerns
29	Projected	392	5	39-31 21st Street	M1-3	M1-5A	X	No	Former automotive repair adjacent to the northeast, historic filling station to the northeast	Historic manufacturing use	Yes	On-site concerns

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Site ID	Group	Block	Lot	Address	Existing Zoning	Proposed Zoning	Sanborns or City Directories	Notable On-site Database listings	Concerns within 400-foot Radius	On-Site Concerns	E-Designation	Rationale
29	Projected	392	1	39-47 21st Street	M1-3	M1-5A	X	No	Former automotive repair and historic filling station to the northeast	Historic manufacturing use	Yes	On-site concerns
29	Projected	392	43	21-07 40th Avenue	M1-3	M1-5A	X	No	Former automotive repair and historic filling station to the northeast	Historic manufacturing use	Yes	On-site concerns
30	Projected	392	40	40th Avenue	M1-3	M1-5A		No	Former automotive repair and historic filling station to the north, historic manufacturing use to the northeast	Minimal	Yes	Off-site concerns
30	Projected	392	41	21-19 40th Avenue	M1-3	M1-5A		No	Former automotive repair and historic filling station to the northeast	Minimal	Yes	Off-site concerns
30	Projected	392	38	39-40 22nd Street	M1-3	M1-5A	X	No	Former automotive repair and historic filling station to the northeast	Historic manufacturing use	Yes	On-site concerns
30	Projected	392	39	39-42 22nd Street	M1-3	M1-5A	X	No	Former automotive repair and historic filling station to the northeast	Historic manufacturing use	Yes	On-site concerns
31	Projected	393	27	39-26 23rd Street	M1-3	M1-5A, M1-4A		No	Historic automotive repair to the northwest and historic industrial use	Minimal	Yes	Off-site concerns
31	Projected	393	1	39-25 22nd Street	M1-3	M1-5A, M1-4A	X	No	Historic industrial use	Automotive repair	Yes	On-site concerns
32	Projected	393	34	40th Avenue	M1-3	M1-5A, M1-4A	X	No	Historic automotive repair to the northeast, industrial use	Minimal	Yes	Off-site concerns
38	Projected	444	12	43-11 11th Street	M1-4	M1-4A	X	No	Historic industrial and manufacturing use	Historic manufacturing use	Yes	On-site and off-site concerns

Table 10-1
Assessment of Projected and Potential Development Sites

Site ID	Group	Block	Lot	Address	Existing Zoning	Proposed Zoning	Sanborns or City Directories	Notable On-site Database listings	Concerns within 400-foot Radius	On-Site Concerns	E-Designation	Rationale
38	Projected	444	14	43-02 12th Street	M1-4	M1-4A	X	No	Historic industrial, manufacturing and automotive use	Historic construction equipment storage and equipment repairs with tanks depicted on the Sanborn Maps	Yes	On-site and off-site concerns
39	Projected	445	1	11-20 43rd Road	M1-4	M1-4A	X	Yes, RCRA-NonGen, LTANKS, FINDS, ECHO, UST	Historic industrial and manufacturing use	Historic industrial use	Yes	On-site and off-site concerns
39	Projected	445	12	11-02 43rd Road	M1-4	M1-4A		No	Historic industrial and manufacturing use	Minimal	Yes	Off-site concerns
40	Projected	453	1	43-58 11th Street	M1-4	M1-4A	X	No	Historic industrial and manufacturing use, BCP site to the southwest (Site No. C241154)	Historic use as a chemical manufacturing company	Yes	On-site and off-site concerns
42	Projected	457	144	13-15 43rd Avenue	M1-4	M1-6A		No	BCP/SHWS site to the southeast (Site No. 241143), historic gasoline station adjacent to the southeast (Lot 143), historic industrial and manufacturing use	Minimal	Yes	Off-site concerns
42	Projected	457	149	13-05 43rd Avenue	M1-4	M1-6A	X	Yes, UST	BCP/SHWS site to the southeast (Site No. 241143), historic gasoline station to the southeast (Lot 143), historic industrial and manufacturing use	Historic industrial and automotive use	Yes	On-site and off-site concerns

Table 10-1
Assessment of Projected and Potential Development Sites

Site ID	Group	Block	Lot	Address	Existing Zoning	Proposed Zoning	Sanborns or City Directories	Notable On-site Database listings	Concerns within 400-foot Radius	On-Site Concerns	E-Designation	Rationale
42	Projected	457	143	42-56 21st Street	M1-4	M1-6A	X	Yes, AST, Spills	BCP/SHWS site adjacent to the southeast (Site No. 241143), historic industrial and manufacturing use	Historic gasoline filling station and automotive repair	Yes	On-site and off-site concerns
43	Projected	457	169	13-06 Queens Plaza South	M1-4	M1-6A		No	Historic industrial, manufacturing and automotive use, historic gasoline station adjacent to the southeast (Potential Site K)	Minimal	Yes	Off-site concerns
45	Projected	458	129	42-38 13th Street	M1-4	M1-5A	X	Yes, UST	Historic industrial and automotive use, historic drycleaner to the northwest	Historic industrial and manufacturing use	Yes	On-site and off-site concerns
45	Projected	458	87	42-33 12th Street	M1-4	M1-5A	X	Yes, Spills, UST, AST	Historic industrial and automotive use, historic drycleaner to the northwest	Historic industrial and automotive use	Yes	On-site and off-site concerns
46	Projected	458	101	42-05 12th Street	M1-4	M1-5A	X	Yes, AST	Historic industrial and automotive use, historic drycleaner to the southwest	Historic manufacturing use	Yes	On-site and off-site concerns
46	Projected	458	98	42-12 13th Street	M1-4	M1-5A	X	No	Historic industrial and automotive use, historic drycleaner to the southwest	Historic manufacturing and industrial use	Yes	On-site and off-site concerns
46	Projected	458	94	42-20 13th Street	M1-4	M1-5A	X	Yes, UST	Historic industrial and automotive use, historic drycleaner to the southwest	Historic manufacturing and industrial use	Yes	On-site and off-site concerns

Table 10-1
Assessment of Projected and Potential Development Sites

Site ID	Group	Block	Lot	Address	Existing Zoning	Proposed Zoning	Sanborns or City Directories	Notable On-site Database listings	Concerns within 400-foot Radius	On-Site Concerns	E-Designation	Rationale
49	Projected	459	23	11-02 Queens Plaza South	M1-4	M1-5A	X	Yes, UST, RCRA-NonGen, Manifest, ECHO, FINDS	Historic manufacturing, industrial and automotive use, historic drycleaner to the south (Lot 64)	Historic industrial use	Yes	On-site and off-site concerns
49	Projected	459	64	42-20 12th Street	M1-4	M1-5A	X	Yes, Drycleaner, Hist Cleaners, RCRA-NonGen, Manifest, ICIS, US AIRS, ECHO	Historic manufacturing, industrial and automotive use	Historic automotive and drycleaner	Yes	On-site and off-site concerns
50	Projected	459	65	42-36 12th Street	M1-4	M1-5A	X	Yes, UST, AST	Historic manufacturing, industrial and automotive use, historic drycleaner to the north (Lot 64)	Historic industrial and automotive use	Yes	On-site and off-site concerns
51	Projected	460	10	42-35 10th Street	M1-4	M1-5A		No	Adjacent BCP site northwest (Site No. C241237), historic manufacturing and industrial use	Minimal	Yes	Off-site concerns
51	Projected	460	16	42-16 10th Street	M1-4	M1-5A	X	Yes, UST, Spills, RCRA-NonGen, Manifest	Adjacent BCP site northwest (Site No. C241237), historic manufacturing, industrial and automotive use	Historic industrial use	Yes	On-site and off-site concerns
51	Projected	460	30	42-02 11th Street	M1-4	M1-5A	X	Yes, AST	BCP site northwest (Site No. 241237), historic manufacturing, industrial and automotive use	Historic industrial use	Yes	On-site and off-site concerns

Table 10-1
Assessment of Projected and Potential Development Sites

Site ID	Group	Block	Lot	Address	Existing Zoning	Proposed Zoning	Sanborns or City Directories	Notable On-site Database listings	Concerns within 400-foot Radius	On-Site Concerns	E-Designation	Rationale
51	Projected	460	40	42-12 11th Street	M1-4	M1-5A		No	BCP site northwest (Site No. C241237), historic manufacturing, industrial and automotive use	Minimal	Yes	Off-site concerns
52	Projected	461	12	42-29 9th Street	M1-4	M1-5A	X	No	BCP site northeast (Site No. C241237), historic manufacturing and industrial use	Historic industrial use	Yes	On-site and off-site concerns
52	Projected	461	47	42-40 10th Street	M1-4	M1-5A		No	BCP site northeast (Site No. C241237), historic manufacturing and industrial use	Historic automotive use	Yes	On-site and off-site concerns
52	Projected	461	13	42-25 9th Street	M1-4	M1-5A	X	Yes, RCRA-NonGen, ECHO, FINDS, Manifest	Adjacent BCP site to the northeast (Site No. C241237), historic industrial and manufacturing uses	Historic manufacturing and industrial use	Yes	On-site and off-site concerns
54	Projected	429	3	42-61 24th Street	M1-5/R9, M1-5/R7-3	M1-6/R10	X	Yes, AST	Adjacent BCP site (Site No. C241190), industrial and automotive facilities	Historic industrial use	Yes	On-site and off-site concerns
57	Projected	439	8	21-21 44th Road	M1-4	M1-5A	X	Yes, Spills, LTANKS, UST	BCP/SHWS sites to the north-northwest (Site No. C241107 and Site No. C241144), VCP site to the south (Site No. V00366), historic industrial use	Historic manufacturing and automotive use	Yes	On-site and off-site concerns
59	Projected	454	22	43-43 9th Street	M1-4	M1-4A	X	No	Historic industrial and manufacturing use	Historic industrial use	Yes	On-site and off-site concerns
59	Projected	454	39	43-46 10th Street	M1-4	M1-4A	X	Yes, RCRA-NonGen, ECHO, Manifest	Historic industrial and manufacturing use	Historic industrial use	Yes	On-site and off-site concerns

Table 10-1
Assessment of Projected and Potential Development Sites

Site ID	Group	Block	Lot	Address	Existing Zoning	Proposed Zoning	Sanborns or City Directories	Notable On-site Database listings	Concerns within 400-foot Radius	On-Site Concerns	E-Designation	Rationale
59	Projected	454	21	43-45 9th Street	M1-4	M1-4A	X	Yes, RCRA-SQG, Manifest	Historic industrial and manufacturing use	Historic industrial use	Yes	On-site and off-site concerns
59	Projected	454	25	43-37 9th Street	M1-4	M1-4A	X	Yes, RCRA-NonGen, Manifest	Historic industrial and manufacturing use	Historic industrial use	Yes	On-site and off-site concerns
59	Projected	454	26	43-31 9th Street	M1-4	M1-4A	X	Yes, Hist Cleaner	Historic industrial and manufacturing use	Historic industrial use, potential drycleaner	Yes	On-site and off-site concerns
61	Projected	486	5	44th Avenue	M1-4	M1-5A	X	No	Con Edison facility to the west, BCP site to the southeast (Site No. C241154), historic industrial and automotive facilities	Historic manufacturing use	Yes	On-site and off-site concerns
61	Projected	486	1	8-11 44th Avenue	M1-4	M1-5A	X	No	Con Edison facility to the west, BCP site to the southeast (Site No. C241154), historic industrial and automotive facilities	Historic manufacturing and automotive use	Yes	On-site and off-site concerns
61	Projected	486	13	43-77 Vernon Boulevard	M1-4	M1-5A	X	Yes, RCRA-NonGen, FINDS, ECHO, Manifest	Con Edison facility to the west, BCP site to the southeast (Site No. 241154), historic industrial and automotive facilities	Historic manufacturing use	Yes	On-site and off-site concerns
62	Projected	486	24	43-27 Vernon Boulevard	M1-4	M1-5A	X	Yes, UST, AST, Manifest	Historic industrial use, BCP site to the north (Site No. C241109), Con Edison facility to the west	Historic manufacturing use	Yes	On-site and off-site concerns

Table 10-1
Assessment of Projected and Potential Development Sites

Site ID	Group	Block	Lot	Address	Existing Zoning	Proposed Zoning	Sanborns or City Directories	Notable On-site Database listings	Concerns within 400-foot Radius	On-Site Concerns	E-Designation	Rationale
63	Projected	25	15	44-68 5th Street	M1-4	M1-6A/R9	X	Yes, BCP, RCRA-SQG, UST, Manifest, Spills	Historic industrial, manufacturing and petroleum use	Active BCP (Site No. C241173) with LNAPL and documented contamination, historic manufacturing and industrial use, historic use as oil company/oil terminal/fuel corporation	Yes	On-site and off-site concerns
64	Projected	26	17	5-37 46th Avenue	M1-4	M1-6A/R9	X	Yes, BCP, Spills, Manifest	BCP and VCP sites (Site No. V00505, Site No. C241095, Site No. C241096, Site No. C241175, Site No. C241108) historic manufacturing, industrial and petroleum use	Active BCP (Site No. C241174) with LNAPL and documented contamination, historic manufacturing use, industrial use and use as oil company/oil terminal/fuel corporation	Yes	On-site and off-site concerns

Table 10-1
Assessment of Projected and Potential Development Sites

Site ID	Group	Block	Lot	Address	Existing Zoning	Proposed Zoning	Sanborns or City Directories	Notable On-site Database listings	Concerns within 400-foot Radius	On-Site Concerns	E-Designation	Rationale
64	Projected	26	21	5-29 46th Avenue	M1-4	M1-6A/R9	X	Yes, BCP, Spills, Manifest	BCP and VCP sites (Site No. V00505, Site No. C241095, Site No. C241096, Site No. C241175, Site No. C241108) historic manufacturing, industrial and petroleum use	Active BCP (Site No. C24174) with LNAPL and documented contamination, historic manufacturing, industrial use and use as oil company/oil terminal/fuel corporation	Yes	On-site and off-site concerns
65	Projected	25	1	45-10 Vernon Boulevard	M1-4	M1-6A/R9	X	Yes, UST, AST, RCRA-NonGen, AIRS, Manifest, LTANKS, Spills, FINDS, ECHO	BCP and VCP sites south (Site No. C241108), southwest (Site No. C241174) and northwest (Site No. C241173), historic manufacturing, industrial and petroleum use	Historic industrial, manufacturing, gasoline service station and automotive repair use	Yes	On-site and off-site concerns
65	Projected	26	10	45-24 Vernon Boulevard	M1-4	M1-6A/R9	X	No	BCP and VCP sites south (Site No. C241108), southwest (Site No. C241174) and northwest (Site No. C241173), historic manufacturing, industrial and petroleum use	Historic industrial and manufacturing use	Yes	On-site and off-site concerns
66	Projected	24	1	44-64 45th Avenue	M1-4	M1-5A/R8	X	No	BCP site southwest (Site No. C241173), historic manufacturing, industrial and petroleum use	Historic industrial and manufacturing use	Yes	On-site and off-site concerns

Table 10-1
Assessment of Projected and Potential Development Sites

Site ID	Group	Block	Lot	Address	Existing Zoning	Proposed Zoning	Sanborns or City Directories	Notable On-site Database listings	Concerns within 400-foot Radius	On-Site Concerns	E-Designation	Rationale
67	Projected	488	11	5-41 44th Drive	M1-4, M1-4/R9	M1-5A/R8	X	Yes,RCRA-NonGen, FINDS, ECHO, UST, AST	BCP sites south (Site No. C241173) and northeast (Site No. C241154), historic petroleum plant to the north	Historic industrial use, use by City of New York Department of Public Works and City of New York Department of Education / Department of Public Works, historic tanks	Yes	On-site and off-site concerns
67	Projected	488	15	44th Road	M1-4, M1-4/R9	M1-5A/R8		No	BCP sites south (Site No. C241173) and northeast (Site No. C241154), historic petroleum plant to the north	Minimal	Yes	Off-site concerns
67	Projected	489	23	4-99 44th Drive	M1-4, M1-4/R9	M1-5A/R8	X	No	BCP sites south (Site No. C241173) and northeast (Site No. C241154), historic petroleum plant to the north	Historic machine shop, use as docks along East River	Yes	On-site and off-site concerns

Table 10-1
Assessment of Projected and Potential Development Sites

Site ID	Group	Block	Lot	Address	Existing Zoning	Proposed Zoning	Sanborns or City Directories	Notable On-site Database listings	Concerns within 400-foot Radius	On-Site Concerns	E-Designation	Rationale
67	Projected	489	1	44-36 44th Drive	M1-4, M1-4/R9	M1-5A/R8	X	Yes, UST, AST, Spills, LTANKS, RCRA-VSQG, FINDS, ECHO, Manifest	BCP sites south (Site No. C241173) and northeast (Site No. C241154), historic petroleum plant to the north	Residual LNAPL and contamination may be present in association with a closed Spill incident, historic use by City of New York Department of Public Works and City of New York Department of Education / Department of Public Works, historic tanks	Yes	On-site and off-site concerns
68	Projected	24	7	44-59 45th Avenue	M1-4	M1-5A/R8	X	Yes, UST, LTANKS, Spills, Manifest, RCRA-VSQG	BCP site south (Site No. C241173), historic manufacturing, industrial and petroleum use	Residual contamination associated with historic Spill incidents, use by NYC Department of Sewers and Highways	Yes	On-site and off-site concerns
69	Projected	488	1	44-02 Vernon Boulevard	R9/R7A	M1-6A/R9	X	Yes, Spills	Historic industrial use, existing Con Edison facility adjacent to the north	Historic industrial use and petroleum plant, historic tanks, active Spill associated with petroleum contamination	Yes	On-site and off-site concerns

Table 10-1
Assessment of Projected and Potential Development Sites

Site ID	Group	Block	Lot	Address	Existing Zoning	Proposed Zoning	Sanborns or City Directories	Notable On-site Database listings	Concerns within 400-foot Radius	On-Site Concerns	E-Designation	Rationale
69	Projected	488	3	44-02 Vernon Boulevard	R9/R7A	M1-6A/R9	X	Yes, LTANKS, Spills, UST	Historic industrial use, existing Con Edison facility to the north	Historic industrial use, automotive garage and petroleum plant, active Spill associated with petroleum contamination	Yes	On-site and off-site concerns
70	Projected	480	1	46-17 Vernon Boulevard	R6A/C1-5	M1-3A/R7A	X	Yes, AST	Historical industrial and manufacturing use to the north, east and west, BCP sites to the west (Site No. C241175) and northwest (Site No. C241108)	Historic industrial, manufacturing and automotive use	Yes	On-site and off-site concerns
70	Projected	480	45	46-01 Vernon Boulevard	R6A/C1-5	M1-3A/R7A	X	No	Historical industrial and manufacturing use to the north, east and west, BCP sites to the west (Site No. C241175) and northwest (Site No. C241108)	Historic automotive repair facility	Yes	On-site and off-site concerns
70	Projected	480	46	46-05 Vernon Boulevard	R6A/C1-5	M1-3A/R7A	X	No	Historical industrial and manufacturing use to the north, east and west, BCP sites to the west (Site No. C241175) and northwest (Site No. C241108)	Historic industrial use and automotive repair facility	Yes	On-site and off-site concerns

Table 10-1
Assessment of Projected and Potential Development Sites

Site ID	Group	Block	Lot	Address	Existing Zoning	Proposed Zoning	Sanborns or City Directories	Notable On-site Database listings	Concerns within 400-foot Radius	On-Site Concerns	E-Designation	Rationale
70	Projected	480	47	46-07 Vernon Boulevard	R6A/C1-5	M1-3A/R7A	X	No	Historical industrial and manufacturing use to the north, east and west, BCP sites to the west (Site No. C241175) and northwest (Site No. C241108)	Minimal	Yes	Off-site concerns
70	Projected	480	48	46-09 Vernon Boulevard	R6A/C1-5	M1-3A/R7A	X	No	Historical industrial and manufacturing use to the north, east and west, BCP sites to the west (Site No. C241175) and northwest (Site No. C241108)	Minimal	Yes	Off-site concerns
71	Projected	26	Former Lot 8	45-28 Vernon Boulevard	M1-4	M1-6A/R9	X	Yes, Hist Auto	BCP and VCP sites (Site No. C241108, Site No. C241174, Site No. C241095, Site No. V00505), historic manufacturing, industrial and petroleum use	Historic industrial and automotive use	Yes	On-site and off-site concerns
71	Projected	26	4	45-40 Vernon Boulevard	M1-4	M1-6A/R9	X	Yes, BCP, CBS-AST, AST, UST, INST CONTROL, ENG CONTROL, Manifest, RCRA-LQG, FTTS, Hist FTTS, PFAS ECHO	BCP and VCP sites (Site No. C241174, Site No. C241095, Site No. V00505), historic manufacturing, industrial and petroleum use	BCP site (Site No. C241108) with residual contamination managed under a Site Management Plan, historic industrial and manufacturing use	Yes	On-site and off-site concerns

Table 10-1
Assessment of Projected and Potential Development Sites

Site ID	Group	Block	Lot	Address	Existing Zoning	Proposed Zoning	Sanborns or City Directories	Notable On-site Database listings	Concerns within 400-foot Radius	On-Site Concerns	E-Designation	Rationale
A	Potential	48	35	10-30 46th Avenue	M1-4	M1-2A/R6A	X	No	Historic industrial and manufacturing use, BCP site to the northeast (Site No. C241172)	Historic iron works company	Yes	On-site and off-site concerns
A	Potential	48	30	10-46 46th Avenue	M1-4	M1-2A/R6A	X	No	Historic industrial and manufacturing use, BCP site to the northeast (Site No. C241172)	Historic iron works company	Yes	On-site and off-site concerns
A	Potential	48	31	10-40 46th Avenue	M1-4	M1-2A/R6A	X	Yes. AST	Historic industrial and manufacturing use, BCP site to the northeast (Site No. C241172)	Historic iron works company	Yes	On-site and off-site concerns
B	Potential	49	15	10-37 46th Avenue	M1-4	M1-2A/R6A	X	Yes, RCRA-LQG, Manifest, PFAS ECHO	Historic industrial and manufacturing use, BCP site to the east (Site No. C241172)	Historic iron works company	Yes	On-site and off-site concerns
C	Potential	50	17	10-41 45th Road	M1-4	M1-2A/R6A	X	Yes, LTANKS, AST, UST	Historic industrial and manufacturing use, BCP site to the southeast (Site No. C241172)	Historic automotive repair and industrial use	Yes	On-site and off-site concerns
D	Potential	438	7502	21-21 44th Drive	M1-4/R7A	M1-4A/R8A	X	Yes, AST	Historic industrial and manufacturing use, VCP site adjacent to the north (Site No. V00366)	Historic industrial use	Yes	On-site and off-site concerns
E	Potential	447	13	11-11 44th Drive	M1-4/R7A	M1-4A/R8A	X	No	Historic industrial and manufacturing use	Historic industrial and manufacturing use	Yes	On-site and off-site concerns
F	Potential	409	21	22-02 40th Avenue	M1-3	M1-5A	X	No	Historic industrial use	Historic industrial use, historic automotive repair facility	Yes	On-site and off-site concerns

Table 10-1
Assessment of Projected and Potential Development Sites

Site ID	Group	Block	Lot	Address	Existing Zoning	Proposed Zoning	Sanborns or City Directories	Notable On-site Database listings	Concerns within 400-foot Radius	On-Site Concerns	E-Designation	Rationale
G	Potential	427	11	21-23 43rd Avenue	M1-5	M1-6A	X	Yes, UST	BCP/SHWS site adjacent to the southwest (Site No. C241143), historic industrial, manufacturing and automotive use	Historic garage and automotive repair facility, historic manufacturing use	Yes	On-site and off-site concerns
H	Potential	442	5	13-06 43rd Avenue	M1-4	M1-6A	X	Yes, UST	BCP/SHWS sites to the east (Site No. C241143/241143, Site No. C241144/241144), historic industrial, manufacturing and automotive use	Historic industrial use	Yes	On-site and off-site concerns
I	Potential	442	18	43-10 21st Street	M1-4	M1-6A	X	Yes, RCRA-VSQG, Manifest, AIRS, PFAS ECHO	BCP/SHWS sites adjacent to the east (Site No. C241143/241143, Site No. C241144/241144), historic gasoline filling station and automotive repair adjacent to the north, historic industrial and manufacturing use	Historic manufacturing and industrial use	Yes	On-site and off-site concerns
J	Potential	453	29	43-35 10th Street	M1-4	M1-4A	X	Yes, RCRA-NonGen, Manifest, FINDS, PFAS ECHO	Historic industrial use	Historic industrial use and historic tanks (shown on Sanborn Maps)	Yes	On-site and off-site concerns
K	Potential	457	175	4202 21st Street	M1-4	M1-6A	X	Yes, UST, RCRA-NonGen, US AIRS, Manifest, Hist Auto	Historic industrial use	Historic gasoline filling station and automotive repair	Yes	On-site and off-site concerns

Table 10-1
Assessment of Projected and Potential Development Sites

Site ID	Group	Block	Lot	Address	Existing Zoning	Proposed Zoning	Sanborns or City Directories	Notable On-site Database listings	Concerns within 400-foot Radius	On-Site Concerns	E-Designation	Rationale
L	Potential	438	45	21-44 44th Road	M1-4	M1-5A, M1-6A	X	Yes, UST	Historic industrial, manufacturing and automotive uses, VCP site to the west (Site No. V00366), BCP site to the northeast (Site No. C241189)	Historic chemical storage warehouse	Yes	On-site and off-site concerns
M	Potential	439	2	21-30 44th Road	M1-4	M1-5A	X	Yes, UST, AST, Hist Cleaner, Manifest	BCP/SHWS site to the northwest (Site No. C241143/241143, Site No. C241144/241144), BCP site to the east (Site No. C241189), VCP site to the south (Site No. V00366), historic industrial and manufacturing use	Historic industrial, potential historic drycleaner	Yes	On-site and off-site concerns
N	Potential	446	9	21st Street	M1-4	M1-6A, M1-4A		No	Historic industrial and manufacturing use, VCP site to the southeast (Site No. V00366)	Minimal	Yes	Off-site concerns
N	Potential	446	10	11-49 44th Road	M1-4	M1-6A, M1-4A	X	Yes, Spills	Historic industrial and manufacturing use, VCP site to the southeast (Site No. V00366)	Historic industrial use, closed Spill reported residual soil contamination	Yes	On-site and off-site concerns
O	Potential	454	1	9-09 44th Avenue	M1-4	M1-4A	X	Yes, RCRA-NonGen, FINDS, ECHO, Manifest	Historic industrial and manufacturing use, BCP site to the south (Site No. C241154)	Historic manufacturing use	Yes	On-site and off-site concerns
O	Potential	454	17	43-63 9th Street	M1-4	M1-4A		No	Historic industrial and manufacturing use, BCP site to the south (Site No. C241154)	Minimal	Yes	Off-site concerns

Table 10-1
Assessment of Projected and Potential Development Sites

Site ID	Group	Block	Lot	Address	Existing Zoning	Proposed Zoning	Sanborns or City Directories	Notable On-site Database listings	Concerns within 400-foot Radius	On-Site Concerns	E-Designation	Rationale
Notes: X = On-Site concerns identified in Sanborn Maps or City directories ERD = Environmental Restrictive Declaration Database Listings: CBS=Chemical Bulk Storage, PBS=Petroleum Bulk Storage, UST=Underground Storage Tank, AST=Aboveground Storage Tank, LTANKS=Leaking USTs, RCRA=Resource Conservation and Recovery Act, AIRS=Aerometric Information Retrieval System, SHWS=State Hazardous Waste Site, ECHO=Enforcement and Compliance History Information, FINDS=Facility Index System, CORRACTS=Corrective Action Report, ENG CONTROL=Engineering Control, INST CONTROL=Institutional Control, ICIS=Integrated Compliance Information System, FTTS=FIFRA/TSCA Tracking System												

Projected Development Sites 21 (Block 428, Lot 1) and 25 (Block 447, Lot 40) have existing (E) Designations for hazardous materials. Projected Development Site 3 (Block 28, Lots 12,15, 17, 18, and 121) is the subject of an existing restrictive declaration. A restrictive declaration, similar to an (E) Designation, requires current and future site owners / developers to undertake required testing and remediation to the satisfaction of OER as part of proposed development.

Development of certain sites, such as those enrolled in the BCP may require additional coordination with DEC and/or the U.S. Environmental Protection Agency (EPA).

D. THE FUTURE WITHOUT THE PROPOSED ACTIONS (NO ACTION CONDITION)

In the future absent the Proposed Actions (No Action condition), the development sites are assumed to either remain unchanged from existing conditions or be redeveloped, enlarged, or undergo conversion to a new use. These changes would occur as-of-right under existing zoning. Any construction involving soil disturbance could potentially increase pathways for human exposure to any subsurface hazardous materials present. As such, except for the sites with existing controls such as (E) Designations or restrictive declarations, and/or sites enrolled in a program requiring oversight by DEC and/or EPA, soil disturbance would likely not be conducted in accordance with all of the procedures described in the following section (e.g., for conducting testing before commencing excavation and implementation of health and safety plans during construction). Soil, groundwater and soil vapor conditions would likely not be required to be investigated, and potential related impacts may not be mitigated in a manner to adequately protect future occupants. However, should petroleum tanks and/or petroleum spills be identified (e.g., during excavation for new foundations), legal requirements (including those of DEC) would need to be followed, as would applicable regulatory requirements prior to demolition relating to ACM, PCBs, and disturbance and handling of suspect LBP. Off-site disposal of excess soil/fill would also need to be conducted in accordance with federal and state requirements. Overall, in the No Action condition, the amount of soil disturbance would likely be less than in the future with the Proposed Actions, but the controls on its performance would not be as stringent as under the Proposed Actions, as described below.

E. THE FUTURE WITH THE PROPOSED ACTIONS (WITH ACTION CONDITION)

The Proposed Actions would allow new uses and facilitate development at higher densities on the projected and potential development sites. In the future with the Proposed Actions (the With Action condition), the zoning changes are expected to result in a net increase of approximately 14,699 dwelling units, approximately 3,427,450 square feet of commercial space, approximately 291,784 square feet of community facility space, and a decrease of approximately 526,527 square feet of industrial space.

In the With Action condition, activities associated with development at the projected and potential development sites could result in demolition and construction activities that could increase pathways for human exposure. **Table 10-1** summarizes the findings of the hazardous materials evaluation for each of the sites. In evaluating whether the placement

of an (E) Designation for hazardous materials is necessary, current site conditions and previous on-site uses were prioritized, followed by the adjacent site use or history, and finally the conditions within a 400-foot radius. The table notes the sites with existing (E) Designations and restrictive declarations, and includes the recommendation concerning the placement of a hazardous materials (E) Designation, based on the conclusion that all of these sites have the potential to have been adversely affected by current or historical uses at, adjacent to, or within 400 feet of the development site.

As noted above, construction-related activities anticipated for the With Action condition could increase pathways for exposure to hazardous materials. However, the possibility of impacts to the health and safety of workers, the community, and future occupants would be reduced by performing demolition and construction in accordance with the measures identified below:

- Prior to construction, further investigation would be performed on each site. This would start with preparation of a Phase I ESA in accordance with American Society of Testing Materials (ASTM) Standard E1527-21, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Practice*. The findings would be used to prepare a subsurface investigation protocol for agency review [OER for sites with an (E) Designation or restrictive declaration, or DEC for BCP sites]. Upon approval of the protocol, the investigation (typically including laboratory analysis of soil, groundwater, and soil vapor samples from the site) would be implemented and a report of the findings submitted to the agency along with the proposed remediation plan (i.e., measures to be implemented prior to or as part of construction to avoid impacts to the health and safety of workers, the community, and future occupants), which would include a construction health and safety plan to protect workers and the surrounding community during development activities.
- Any renovation or demolition activities with the potential to disturb LBP would be performed in accordance with the applicable Occupational Safety and Health Administration (OSHA) regulation (OSHA 29 CRF 1926.62 – *Lead Exposure in Construction*).
- Prior to any renovation or demolition activities with the potential to disturb suspect ACMs, an asbestos survey would be conducted to determine whether these materials are ACM. If these materials prove to contain asbestos, they would be properly removed and disposed of in accordance with all state and federal regulations.
- Unless there is labeling or test data that indicates that florescent lights, other electrical equipment, and hydraulic fluid are not mercury- and/or PCB-containing, if disposal is required, it would be performed in accordance with applicable federal, state, and local regulations and guidelines.
- All excavated soil requiring off-site disposal would be managed in accordance with applicable regulatory requirements. All soil and any other materials intended for off-site disposal would be tested in accordance with the requirements of the intended receiving facility. Transportation of material leaving the site for off-site disposal would be in accordance with federal, state, and local requirements covering licensing of haulers and trucks, placarding, truck routes, manifesting, etc. All on-site petroleum storage tanks (and any unforeseen tanks encountered during redevelopment) would be properly closed and removed in accordance with applicable requirements.

- If dewatering is required for construction, testing would be performed to ensure compliance with New York City Department of Environmental Protection (DEP) sewer discharge permit/approval requirements and, if necessary, pre-treatment world be conducted prior to discharge to the sewer.

As noted above, to ensure the measures above are implemented, an (E) Designation (E-848) for hazardous materials would be placed on all privately-owned projected and potential development sites, where (E) Designations or restrictive declarations have not already been assigned, as identified in **Table 10-1** as part of the Proposed Actions. The (E) Designation would require that, prior to redevelopment, the property owner conduct: a Phase I ESA in accordance with the ASTM E1527-21; and implement a soil, soil vapor, and groundwater testing protocol, and remediation where appropriate, to the satisfaction of OER before issuance of construction-related DOB permits (pursuant to Section 11-15 of the Zoning Resolution—Environmental Requirements). The (E) Designation also mandates construction-related health and safety plans, which must be approved by OER. The text of the (E) Designation to be placed on the sites identified on **Table 10-1** would be as follows:

> ***Task 1****—The applicant submits to OER, for review and approval, a Phase I ESA of the site along with a soil, groundwater and soil vapor testing protocol, including a description of methods and a site map with all sampling locations clearly and precisely represented. If site sampling is necessary, no sampling should begin until written approval of a protocol is received from OER. The number and location of sample sites should be selected to adequately characterize the site, the specific source of suspected contamination (i.e., petroleum-based contamination and non-petroleum-based contamination), and the remainder of the site's condition. The characterization should be complete enough to determine what remediation strategy (if any) is necessary after review of sampling data. Guidelines and criteria for selecting sampling locations and collecting samples are provided by OER upon request.*
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> ***Task 2****—A written report with findings and a summary of the data must be submitted to OER after completion of the testing phase and laboratory analysis for review and approval. After receiving such results, a determination is made by OER if the results indicate that remediation is necessary.*
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> ***Task 3*** *– If OER determines that no remediation is necessary, written notice shall be given by OER.*
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> ***Task 4*** *– If remediation is indicated from the test results, a proposed remediation plan must be submitted to OER for review and approval. The applicant must complete such remediation as determined necessary by OER. The applicant should then provide proper documentation that the work has been satisfactorily completed.*

F. CONCLUSION

Existing (E) Designations are recorded for Projected Development Sites 21 and 25, and an existing restrictive declaration is recorded for Projected Development Site 3, which requires the implementation of the preventative and remedial measures outlined above. As shown in **Table 10-1**, the Proposed Actions would include the placement of a hazardous materials (E) Designation for all remaining projected and potential development sites, which would ensure these preventative and remedial measures are

followed. Additional investigation, remediation and coordination with DEC and/or EPA may be required for the projected and potential development sites enrolled in programs such as the BCP which require oversight of these agencies.

The implementation of these measures would preclude the potential for significant adverse impacts associated with the Proposed Actions. ✷