Chapter 9: Hazardous Materials

A. INTRODUCTION

As described in the ~~2020~~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 the following: heavy metals; volatile organic compounds (VOCs), commonly found in petroleum products and solvents; semi-volatile organic compounds (SVOCs), typically associated with fuel oil, and coal ash; and polychlorinated biphenyls (PCBs), usually associated with electrical transformers. Hazardous materials also include substances used (historically) 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; rather 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 hazardous materials 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.

As described in Chapter 1, "Project Description," the Applicant (a joint venture between Kaufman Astoria Studios, BedRock Real Estate Partners, and Silverstein Properties) is seeking a series of land use actions, including zoning map amendments, zoning text amendments, and special permits (the "Proposed Actions") to facilitate the Applicant's intended development and programming. The area subject to the Proposed Actions is five city blocks bounded by 35th Avenue to the north, 43rd Street/Northern Boulevard to the east, 36th Avenue to the south and 37th Street to the west (the "Project Area") in the Astoria neighborhood of Queens. The Project Area (Blocks 641, 668, 669, 670, and 671) contains 43 lots, of which 21 are controlled by the Applicant while the remaining lots are controlled by others. With the Proposed Actions, the Applicant-controlled lots would be controlled by a Large-Scale General Development (LSGD) Special Permit and would contain the Proposed Development (referred to as the "Development Site"). The 22 lots outside of the Development Site that are not controlled by the Applicant would be rezoned with approval of the Proposed Actions (referred to as the "Additional Affected Area").

The Proposed Development (branded as the Innovation QNS project), would redevelop the Development Site with a series of mixed-use buildings and publicly accessible open spaces. The Innovation QNS project is intended create a series of arts and cultural venues including a multi-purpose arts and culture center, a re-envisioned multiplex movie theater that would provide a state-of-the-art cinematic experience, galleries, artists' workshops and tech and general office space. In addition to art and cultural venues, the project would include eating and drinking establishments, a grocery store and world market and other local retail, service and community facility uses. In addition to the Proposed Development with approximately 2.9 million gsf of space, the Proposed

Actions would facilitate the redevelopment of several projected development sites in the Additional Affected Area that are not controlled by the Applicant. These additional developments would include approximately 800,000 gsf of residential and commercial space, similar to the Proposed Development. Therefore, the Proposed Actions would facilitate the development of a total of approximately 3.7 million gsf in the Project Area.

Based on the above, this chapter assesses the potential for the presence of hazardous materials in soil, groundwater, or soil gas at all lots included in the Development Site and the Additional Affected Area identified in the Reasonable Worst Case Development Scenario (RWCDS), i.e., properties where ground disturbance and/or renovation/conversion of existing structures may result from the Proposed Actions or potential future redevelopment.

PRINCIPAL CONCLUSIONS

An assessment of the potential presence of hazardous materials, petroleum products, and/or other environmental concerns in the Project Area determined that, with the incorporation of recommended measures to avoid or reduce exposure to construction workers during subsurface disturbance required for the project and future occupants, the Proposed Actions would avoid the potential for significant adverse impacts related to hazardous materials. Based on this assessment, potential concerns as it relates to hazardous materials were identified at all 43 lots included in the Development Site and Additional Affected Area. The Applicant controls 21 of these lots which make up the Innovation QNS Large Scale General Development (LSGD). The remaining 22 lots are under different ownership and not under the control of the Applicant. The Applicant-controlled lots are primarily occupied by existing businesses and active uses such as the Regal Cinemas, P.C. Richard & Son, Harley Davidson and other retail and automotive uses. Subsurface testing on these lots would be disruptive to these ongoing active businesses. The 22 non-Applicant-controlled lots are also occupied by existing business and active uses and testing would be equally disruptive.

In the absence of such testing, the recommended measures would be implemented in accordance with an (E) Designation (E-675) that would be incorporated into to the Proposed Actions for all ~~43~~ 21 lots included in the Development Site and the 12 of the 22 lots in the Additional Affected Area where future development would be projected (the 10 lots in the Additional Affected Area which would not receive an (E) Designation are Block 668, Lots 36, 38, 40, 42, 43, 44, 45, 46, and 143, and Block 669, Lot 20). This (E) Designation requires, prior to change of use or redevelopment requiring ground disturbance, that the owner of the property conduct a Phase I Environmental Site Assessment (ESA), subsurface testing and, where appropriate, remediation 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. The OER review 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 lots included in the Development Site and Additional Affected Area identified as part of the

RWCDS have or 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 regulatorily defined hazardous wastes. Historical building materials, such as ACM and LBP, are also considered in the hazardous materials assessment.

Each of the lots was evaluated for potential impacts due to hazardous materials by: (1) reviewing historical Sanborn fire insurance maps; (2) reviewing any available previous environmental reports and an environmental regulatory database summary for the lot and nearby properties; and (3) conducting a reconnaissance (from streets and public rights-of-way, as interior access was not available) to determine current occupants/use and any indications of historical or current hazardous materials use or storage (e.g., underground storage tank fill caps). See Appendix C for the Hazardous Materials Database and Sanborn reports.

SANBORN FIRE INSURANCE MAP REVIEW

Historical Sanborn maps were reviewed to assess on-site and nearby facilities, activities, or conditions requiring assessment ~~activities and operations~~ listed in the *Hazardous Materials Appendix 1* ~~1~~ of the *CEQR Technical Manual* from circa 1898 through 2006. The review included identifying historical vehicle-related uses (fueling operations, garages with gasoline tanks, auto repair shops, etc.) and/or industrial uses (manufacturing, machine and metal works, motor freight stations, etc.).

PREVIOUS REPORTS REVIEW

A review of available previous environmental reports for lots within the Development Site was completed. The reports consisted of the following Phase I Environmental Site Assessments (ESAs):

- *Phase 1 ESA, 35-30 38th Street, Astoria, New York,* dated May 2016, prepared by EBI Consulting (Block 641, Lots 4, 9, and 51)
- *Phase 1 ESA, 35-30 Steinway Street, Queens, New York*, dated September 2017, prepared by EBI Consulting (Block 668, Lot 5)
- *Phase 1 ESA, 35-19 Steinway Street, 35-25 Steinway Street, and 35-42 41st Street, Queens, New York*, dated November 2018, prepared by Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. (Langan) (Block 669, Lots 13, 16, and 36)
- *Phase 1 ESA, 35-33 41st Street, 35-25 41st Street, 35-06 42nd Street, 35-22 42nd Street, 35-28 42nd Street, and 35-57 41st Street, Queens, New York*, dated December 2018, prepared by Langan (Block 670, Lots 4, 8, 20, 27, 30, and 47)
- *Phase 1 ESA, 42-01 Northern Boulevard, 35-13 42nd Street, 35-01 42nd Street, 35-10 43rd Street, and 35-18 43rd Street, Queens, New York*, dated December 2018, prepared by Langan (Block 671, Lots 1, 8, 12, 20, and 23)

These Phase I ESAs were performed in conformance with ASTM Standard E1527-13, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Practice* to identify "Recognized Environmental Conditions" (RECs) in connection with the sites. The term REC means the presence or likely presence of any hazardous substances or petroleum products in,

on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment.

DATABASE REVIEW

A set of standard federal and state regulatory databases (per ASTM E1527-13 and compliant with the recently revised ASTM E1527-21 standard) 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 (ADF) for air pollutant sources that are permitted with EPA, DEC, or OER.
- New York State Brownfield Cleanup 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 Brownfield Cleanup Program.
- 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.

SITE RECONNAISSANCE

Each lot and nearby properties were observed in an effort to verify and potentially supplement the database records, and to identify any existing environmental conditions and note any potential evidence of historical conditions. Because the interiors of the sites were generally not accessible

for this effort, the reconnaissance was performed from publicly accessible areas, generally streets and sidewalks.

Typical observations included the nature of visible business operations; evidence of petroleum bulk storage tanks from either signs, fill ports, and/or vent pipes; roof or sidewall vents where air discharges might occur; electrical transformers or large capacitors; sheens, discoloration, or staining of surfaces; topographical disturbances, including excavation and filling; stressed vegetation; and solid waste disposal practices.

C. EXISTING CONDITIONS

TOPOGRAPHY AND HYDROGEOLOGY

Based on reports compiled by the U.S. Geological Survey (USGS), the neighborhood is approximately 35 to 40 feet above mean sea level. Groundwater is expected to be encountered at approximately 16 to 20 feet below grade, based on topography and a limited subsurface study summarized in the Phase I ESA completed for Block 668, Lot 5. Groundwater is expected to flow in a generally westerly to southwesterly direction towards the East River. However, actual local groundwater flow and depth may be affected by other factors, such as the nearby subway tunnels, underground utilities, and basements.

REGULATORY DATABASE RECORDS

The regulatory database records indicated certain facilities listed within or adjacent to the Development Site and Additional Affected Area with some potential to have affected environmental conditions within the Project Area, including several listings on the DEC SPILLS database, Petroleum Bulk Storage (PBS) facilities, Hazardous Waste Generators, Air Discharge Facilities, and LTANKS sites.

OVERVIEW OF HISTORICAL USES

The Development Site comprises five blocks (Blocks 641, 668, 669, 670, and 671) bounded by 35th Avenue to the north, 43rd Street/Northern Boulevard to the east, 36th Avenue to the south and 37th Street to the west (see Figures 1-1 and 1-2 in Chapter 1, “Project Description”).

The Development Site (and surrounding neighborhood) was primarily undeveloped in the 1890s and contained sparse residential structures and the Bordens Farm milk depot (on the northern portion of Lot 668) by 1915 and included garages and truck parking by the mid-1940s. By 1936, the Development Site was predominantly industrial and automotive, with some interspersed residential and commercial structures west of Steinway Street. A rug finishing facility and dye works were present on Block 641, which later became occupied by an auto repair facility with fueling prior to the construction of the current Regal Cinemas complex in 2000. The Development Site blocks east of Steinway Street were mainly industrial and automotive in nature since the mid-1930s, (i.e., prior to modern environmental regulations), with numerous auto and tire repair facilities and garages with gasoline tanks, plastics manufacturing, metal works, a tin shop, a bus garage, plumbing fixtures manufacturing, warehouses, filling stations and a bottling plant with various garages associated with the Queensboro Farm Products dairy. This portion of the study area has remained primarily automotive and industrial, with additional warehouses, manufacturers and auto body repair shops present in the 1970s and 1980s.

Currently, the Development Site includes primarily industrial/warehouse and automotive repair facilities and some interspersed commercial and office uses on the blocks east of Steinway Street (Blocks 669 through 671), with several auto retail centers including a Harley Davidson sales and service shop and a Koeppel Subaru sales and service center on the eastern extent of the Development Site along Northern Boulevard, as well as a private auto sales center on the northern portion of this block (Block 671) along 35th Avenue. The Mayer Malbin pipe valves fittings and industrial plumbing fixtures distribution warehouses and associated offices occupy several warehouse buildings along 41st Street (Lots 669 and 670) and an outdoor used car lot with two sales office trailers is located on the northern portion of Lot 669.

Mixed-use commercial and residential structures are located west of Steinway Street, including the P.C. Richard & Son appliance/electronics store and associated parking lot on the northern and central portions of Block 668 (the former Bordens Farm milk depot location, with former cola bottling and vehicle fueling operations), and the Regal Cinemas movie theater complex occupying the majority of Block 641, with several dwellings, a millwork warehouse and a restaurant along 36th Avenue, immediately south of the cinema.

The Additional Affected Area on the blocks east of Steinway Street are generally comprised of mixed-use commercial, industrial, and automotive facilities. This includes several auto repair and auto body shops, a tile shop, and an industrial plumbing supply and pipe warehouse on Block 669; an auto repair and collision shop and assorted warehouses on Block 670; and an auto repair shop and several miscellaneous contractor warehouses on Block 671. The Additional Affected Area to the west of Steinway Street (located on Block 668 immediately south of the P.C, Richard & Son store) includes apartment buildings and single-family homes, with mixed-use residential and commercial uses along 36th Avenue, including a meat market, a salon, and a restaurant.

Based on the construction date (pre-1960s) of most of the structures within the Development Site and the Additional Affected Area, building materials are likely to include ACM, LBP, and/or PCBs. At currently undeveloped sites (primarily parking lots), such materials and/or buried petroleum storage tanks may be present in the subsurface from the debris of former structures. Given the long history of automotive and industrial uses which predated current environmental regulations (such as those relating to petroleum tank registration and handling, storage and disposal of chemicals, solvents, and automotive fluids), undocumented contamination and/or buried petroleum and gasoline tanks may be present beneath the Development Site and Additional Affected Area, particularly on sites with historical automotive and manufacturing uses.

Phase I ESAs for the Development Site indicated that the Development Site and adjoining properties had a history of industrial uses, including gasoline filling stations with tanks, truck/vehicle garages, lumber storage, manufacturing facilities, auto repair shops, and warehouses, with petroleum bulk storage (i.e., fuel oil, diesel and gasoline) tanks noted within the Project Area. A limited subsurface study performed in 1997 for Block 668, Lot 5 (the current P.C. Richard & Son store and adjoining parking lot) indicated limited contamination with polycyclic aromatic hydrocarbons (PAHs) and metals in soil and low concentrations of certain metals and PAHs in groundwater, but these findings were attributed to fill materials and there was no evidence of a site release noted in investigation.

Historical uses potentially of environmental concern (see **Table 9-1**) are principally associated with the following uses and activities in the study area:

- Auto-related, transportation, industrial or utility uses on or adjacent to a particular lot (e.g., garage, filling station, auto repair, manufacturing, substation and other uses noted in *Hazardous Materials Appendix 1* of the *CEQR Technical Manual*);

- USTs or leaking USTs on or adjacent to a particular lot;
- Spills of petroleum or chemicals on or adjacent to a particular lot; and
- Aboveground storage tanks on or adjacent to a particular lot.

Table 9-1
Hazardous Materials Assessment - Project Area Lots

Block	Lot	Address	Lot Area (sf)	Existing Use	Owner	Sanborn or Directories	On-site database listings	Concerns within 400-foot radius	On-site Concerns (abridged)	Site Visit	E-designation	Rationale
Development Site*												
641	1	35-43 37th Street	11,554	Eating Establishment/Salon; Residential	Jered Realty	X	RCRA haz waste	Automotive and Industrial, jewel waterproofing, rug finishing	Former Dye Works, Jewel waterproofing		Yes	On- and Off-Site Concerns
	4	35-50 38th Street	38,000	Theater (Regal Cinemas)	Kaufman BedRock Astoria I LLC	X		Automotive and Industrial, jewel waterproofing	Rug Finishing, Cocoa Cola bottling & garage, Auto repair with gasoline tanks		Yes	On- and Off-Site Concerns
	9	35-01 37th Street	58,118			X		Automotive and Industrial, jewel waterproofing, rug finishing	Parking and Warehouse		Yes	On- and Off-Site Concerns
	51	35-30 38th Street	3,010			X		Automotive and Industrial, jewel waterproofing, rug finishing	Former auto repair and paint shop		Yes	On- and Off-Site Concerns
	52	37-11 36th Avenue	3,813	Multi Family Residential	Sultan Bacchus		NY Spills (Closed Spill No.0708745)	Automotive and Industrial, jewel waterproofing, rug finishing	Minimal, minor spill		Yes	Off-Site Concerns
	56	37-09 36th Avenue	1,900	Factory	Bigfoot Realty, LLC			Automotive and Industrial, jewel waterproofing, rug finishing	Minimal		Yes	Off-site concerns
668	5	35-30 Steinway Street	75,335	Retail (P.C. Richard & Son)	35-18 Steinway Street LLC	X		Automotive and Industrial	Former milk depot with garages and pasteurizing and historical auto repair shop with gasoline tanks		Yes	On- and Off-Site Concerns
669	13	35-25 Steinway Street	17,932	Retail	Wilbee Corp	X	AIRS	Automotive and Industrial	Former auto and tire repairs		Yes	On- and Off-Site Concerns
	16	35-19 Steinway Street	28,500	Parking	Queensboro Farm Products Inc	X		Automotive and Industrial	Former truck parking		Yes	On- and Off-Site Concerns
	36	35-42 41st Street	13,216	Warehouse	Mayer Malbin Realty I, LLC	X		Automotive and Industrial	Former tin shop and auto repair		Yes	On- and Off-Site Concerns

Table 9-1 (cont'd)
Hazardous Materials Assessment - Project Area Lots

Block	Lot	Address	Lot Area (sf)	Existing Use	Owner	Sanborn or Directories	On-site database listings	Concerns within 400-foot radius	On-site Concerns (abridged)	Site Visit	E-designation	Rationale
Development Site (continued)*												
670	4	35-33 41st Street	10,020	Warehouse	Mayer Malbin Realty I, LLC			Automotive and Industrial	Minimal		Yes	Off-site concerns
	8	35-13 41st Street	40,000	Warehouse	Queensboro Farm Products Inc	X	PBS (Closed spill No.8906276)	Automotive and Industrial	Former Metals Warehouse and Truck Garage with gasoline tank	FP	Yes	On- and Off-Site Concerns
	20	35-02 42nd Street	10,000	Factory/ Warehouse	Queens Farm Products Inc	X		Automotive and Industrial	Historical garage with gasoline tank, car detailing		Yes	On- and Off-Site Concerns
	27	35-22 42nd Street	6,000	Warehouse	Queensboro Farm Products Inc	X	PBS	Automotive and Industrial	Historical garage and auto repair	FP	Yes	On- and Off-Site Concerns
	30	35-28 42nd Street	6,000	Warehouse	Queensboro Farm Products Inc	X		Automotive and Industrial	Former chemical gases facility, filling station and manufacturing use		Yes	On- and Off-Site Concerns
	47	35-45 41st Street	15,767	Warehouse	Mayer Malbin Realty, LLC	X	PBS	Automotive and Industrial	Historical auto repair shop with gasoline tanks, plastics manufacturing/warehousing, machine shop	FP	Yes	On- and Off-Site Concerns
671	1	42-07 Northern Boulevard	24,387	Retail	42-11 Northern LLC	X		Automotive and Industrial	Historical auto repair shop with gasoline tank, plastics manufacturer, auto sales and service		Yes	On- and Off-Site Concerns
	8	35-17 42nd Street	10,000	Parking	Queensboro Farm Products Inc	X	PBS	Automotive and Industrial	Historical truck garage, auto repair	FP	Yes	On- and Off-Site Concerns
	12	42-08 35th Avenue	9,000	Car Showroom	Queensboro Farm Products Inc	X	PBS	Automotive and Industrial	Historical auto repair shops with gasoline tank		Yes	On- and Off-Site Concerns
	20	35-10 43rd Street	6,000	Warehouse	Alfess Realty	X		Automotive and Industrial	Historical garage and auto repair, bus garage		Yes	On- and Off-Site Concerns
	23	35-18 43rd Street	4,000	Warehouse	Alfess Realty	X		Automotive and Industrial	Historical auto spring and auto repair		Yes	On- and Off-Site Concerns

Table 9-1 (cont'd)
Hazardous Materials Assessment - Project Area Lots

Block	Lot	Address	Lot Area (sf)	Existing Use	Owner	Sanborn or Directories	On-site database listings	Concerns within 400-foot radius	On-site Concerns (abridged)	Site Visit	E-designation	Rationale
Additional Affected Area												
668	1	35-47 38th Street	1,908	Multifamily Residential	Maryann, Terrero			Automotive and Industrial, Residential	Minimal		Yes	Off-Site Concerns
	2	35-43 38th Street	5,779	Parking	Standard Motor Products Inc			Automotive and Industrial, Residential	Minimal/parking lot		Yes	Off-Site Concerns
	36	35-44 Steinway Street	4,500	Residential / Retail	3544 Steinway Street, LLC		PBS	Automotive and Industrial, Residential	Minimal	FP	~~Yes~~No	Not Projected for Future Development~~Off-Site Concerns~~
	38	35-48 Steinway Street	4,500	Multifamily Residential	Eera Properties, LLC		PBS	Automotive and Industrial, Residential	Minimal	FP	No~~Yes~~	Not Projected for Future Development~~Off-Site Concerns~~
	40	35-52 Steinway Street	4,500	Multifamily Residential	Dimitrios Pistikos		PBS	Automotive and Industrial, Residential	Minimal	FP	No~~Yes~~	Not Projected for Future Development~~Off-Site Concerns~~
	42	35-54 Steinway Street	2,250	Retail	Steven Rigogiannis			Automotive and Industrial, Residential	Minimal		No~~Yes~~	Not Projected for Future Development~~Off-Site Concerns~~
	43	35-57 38th Street	1,906	Residential / Retail	Nava, Eliseo			Automotive and Industrial, Residential	Minimal		No~~Yes~~	Not Projected for Future Development~~Off-Site Concerns~~
	143	35-55 38th Street	1,907	Multifamily Residential	Kemal Dervisevic			Automotive and Industrial, Residential	Minimal		No~~Yes~~	Not Projected for Future Development~~Off-Site Concerns~~
	44	35-53 38th Street	1,907	Multifamily Residential	Rahman Realty Corp.			Automotive and Industrial, Residential	Minimal		No~~Yes~~	Not Projected for Future Development~~Off-Site Concerns~~
	45	35-51 38th Street	1,908	Multifamily Residential	Quijano, Genaro			Automotive and Industrial, Residential	Minimal		No~~Yes~~	Not Projected for Future Development~~Off-Site Concerns~~
	46	35-49 38th Street	1,908	Multifamily Residential	Pooran Sookpaul			Automotive and Industrial, Residential	Minimal		No~~Yes~~	Not Projected for Future Development~~Off-Site Concerns~~

Table 9-1 (cont'd)
Hazardous Materials Assessment - Project Area Lots

Block	Lot	Address	Lot Area (sf)	Existing Use	Owner	Sanborn or Directories	On-site database listings	Concerns within 400-foot radius	On-site Concerns (abridged)	Site Visit	E-designation	Rationale
Additional Affected Area (continued)												
669	1	35-53 Steinway Street	4,750	Warehouse	HHB 53, LLC	X		Automotive and Industrial	Historical auto & tire repair shop with gasoline tanks, manufacturing,		Yes	On- and Off-Site Concerns
	3	35-49 Steinway Street	9,500	Auto Repair Shop	HHB 49, LLC	X		Automotive and Industrial	Historical garage with gasoline tanks, carpet cutting, auto body repair		Yes	On- and Off-Site Concerns
	7	35-41 Steinway Street	3,515	Auto Repair Shop	Sydney Taylor Properties, LLC	X		Automotive and Industrial	Historical sheet metal works and auto repair		Yes	On- and Off-Site Concerns
	8	35-31 Steinway Street	9,618	Eating & Drinking Establishment / Auto Repair Shop	HHB 35, LLC	X		Automotive and Industrial	Historical garage with gasoline tanks, auto body repair, apron manufacturer		Yes	On- and Off-Site Concerns
	20	35-01 Steinway Street	9,500	Park	NYC Department of Environmental Protection			Automotive and Industrial	Minimal		No~~Yes~~	Not Projected for Future Development~~Off-Site Concerns~~
	41	35-48 41st Street	14,250	Warehouse	Doris Hinsch Lezny, Member	X		Automotive and Industrial	Plumbing Supply factory, warehouse, pipe storage, food service truck storage		Yes	On- and Off-Site Concerns
670	33	35-34 42nd Street	6,000	Auto Repair Shop	HHB 34, LLC	X	PBS	Automotive and Industrial	Garage, auto repair	FP	Yes	On- and Off-Site Concerns
	36	35-42 42nd Street	5,967	Auto Repair Shop	HHB 42, LLC	X	PBS	Automotive and Industrial	Electric Welding, Private Garage	FP	Yes	On- and Off-Site Concerns
	39	41-15 Northern Boulevard	13,769	Auto Repair Shop	TT & R Realty LLC	X	PBS, AIRS	Automotive and Industrial	Historic gasoline filling station, auto repair		Yes	On- and Off-Site Concerns
671	16	42-12 35th Avenue	5,000	Contractor Shop	42-12 35th Ave LLC	X		Automotive and Industrial	Historical Rubber mitt manufacturer, motor freight station, auto repair, print and ink manufacturer		Yes	On- and Off-Site Concerns
	18	35-06 43rd Street	6,000	Auto Repair Shop	Gardella, Gracene	X		Automotive and Industrial	Auto spring repair and welding		Yes	On- and Off-Site Concerns

Notes: X=On-Site Concerns identified in Sanborn Maps or City Directories (historical and/or current automotive or industrial uses), RCRA=Resource Conservation & Recovery Act, BCP=NYSDEC Brownfield Cleanup Program, FP/VP=Suspect Fuel Oil Fill Port/Vent Pipe

D. THE FUTURE WITHOUT THE PROPOSED ACTIONS

In the Future without the Proposed Actions (the No Action condition), the Development Site and Additional Affected Area are assumed to either remain generally unchanged from existing conditions or be redeveloped with uses that are as-of-right under existing zoning (see Chapter 1, "Project Description"). Redevelopment of the active commercial and auto-related facilities on the majority of the properties in the Development Site would not occur under existing zoning. Although the Development Site and Additional Affected Area do not currently present a hazard to people or the environment, any construction involving soil disturbance could potentially increase pathways for human exposure to any subsurface hazardous materials present. As such, absent the Proposed Actions, any soil disturbance associated with the No Action condition would likely not be conducted in accordance with all of the procedures (e.g., conducting testing before commencing excavation, and implementation of health and safety plans during construction) described in the following section. However, should petroleum tanks and/or petroleum spills be identified (e.g., during excavation for new foundations), legal requirements (notably those of DEC) would need to be followed, as would applicable regulatory requirements prior to demolition relating to ACM and disturbance and handling of known or suspected LBP. Off-site disposal of excess soil/fill would also need to be conducted in accordance with applicable federal and state requirements. Overall, in the No Action condition, the amount of soil disturbance would likely be significantly less than in the Future with the Proposed Actions, but the controls on its performance would not be as stringent as those under the Proposed Actions (as described below); specifically, the additional investigations and protective measures that would be required by (E) Designations and overseen by OER on the Development Site and 12 lots of the Additional Affected Area ~~and overseen by OER~~ would not be undertaken.

E. THE FUTURE WITH THE PROPOSED ACTIONS

In the future with the Proposed Actions (With Action condition), activities associated with the development on the ~~43~~ 21 lots within the Development Site and 12 of the 22 lots within the Additional Affected Area could result in demolition and construction activities that could increase pathways for human exposure. **Table 9-1** summarizes the findings of the hazardous materials evaluation for each of the lots. The Applicant controls 21 of these lots which make up the Innovation QNS LSGD. The remaining 22 lots are under different ownership and not under the control of the Applicant. The Applicant-controlled lots are primarily occupied by existing businesses and active uses such as the Regal Cinemas, P.C. Richard & Son, Harley Davidson and other retail and automotive uses. Subsurface testing on these lots would be disruptive to these ongoing active businesses. The 22 non-Applicant-controlled lots are also occupied by existing residential, business and active uses and testing would be equally disruptive. In the absence of results from testing data, the penultimate column shows the recommendation for the placement of a hazardous materials (E) Designation (E-675) for all lots within the Development Site and 12 of the 22 lots within the Additional Affected Area as they could have been adversely affected by current or historical uses at, adjacent to, or within 400 feet of the lot, and these lots are projected for future development. The remaining 9 lots of the Additional Affected Area (Block 668, Lots 36, 38, 40, 42, 43, 44, 45, 46, and 143, and Block 669, Lot 20) are not projected for future development, so (E) Designations would not be placed on these lots. In evaluating whether the placement of an (E) Designation for hazardous materials was necessary at a lot where future development is projected, current conditions and previous on-site uses were prioritized, followed by the adjacent use or history, and finally other conditions within 400 feet. The DEP (E)

Designation regulations for hazardous materials appear at Chapter 24 of Title 15 of the Rules of the City of New York (15 RCNY § 24)

As noted above, construction-related activities anticipated for the With Action condition could increase pathways for exposure to hazardous materials. However, the potential for significant adverse impacts to the health and safety of workers, the community, and future occupants would be avoided by performing demolition and subsequent new construction in accordance with the measures identified below, which would be incorporated into the Proposed Actions:

- Prior to construction, further investigation would be performed on each lot where redevelopment would occur. This would start with preparation of a Phase I ESA (OER may require updated reports for certain lots) in accordance with American Society for Testing and Materials (ASTM) Standard E1527-13 (and the recently updated ASTM E1527-21, as required), *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. The findings would be used to prepare a Phase II ~~subsurface~~ investigation protocol for agency review. Upon approval of the protocol, the Phase II investigation (typically including laboratory analysis of soil, groundwater, and soil vapor samples from one or more lots) would be implemented and a report of the findings submitted to the agency along with any 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 regulation (OSHA 29 CFR 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 ACMs. 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 were to be labeling or test data that indicated that florescent lights, other electrical equipment, and hydraulic fluid are not mercury- and/or PCB-containing, if disposal were to be 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 conducted 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 were to be 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.

To ensure the measures above would be implemented, an (E) Designation (E-675) for hazardous materials would be placed on all of the lots within the Development Site and the 12 lots of the

Additional Affected Area where future development is projected as part of the Proposed Actions, as shown in **Table 9-1**.

The (E) Designation would require that, prior to redevelopment, the property owner conduct: a Phase I ESA in accordance with the ASTM E1527-13 and updated standard ASTM E1527-21, as required (OER may require updates to the existing Phase I ESAs for certain lots); 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 (E-675) would be the following:

> ***Task 1****—The applicant submits to OER, for review and approval, a Phase I ESA of the site along with a soil and groundwater 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.*
>
> ***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.*
>
> *If OER determines that no remediation is necessary, written notice shall be given by OER.*
>
> *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

As shown in **Table 9-1**, the Proposed Actions would include the placement of a hazardous materials E-Designation (E-675) for all of the lots included in the Development Site and the 12 lots of the Additional Affected Area where future development is projected. The implementation of this and the other measures outlined in the previous section would preclude the potential for significant adverse impacts to be associated with the Proposed Actions. ✷