9.0 Hazardous Materials

A. Introduction

This chapter evaluates the Proposed Actions' potential to lead to significant adverse impacts related to hazardous materials. It specifically examines the likelihood of hazardous materials being present at the 61 projected and seven potential development sites outlined in the RWCDS. Proposed measures aim to address and mitigate contamination issues to reduce exposure risks for future occupants and workers. These measures are integral components of the Proposed Actions, preventing the possibility of significant adverse impacts associated with hazardous materials. An analysis of potential impacts from hazardous materials was conducted for the projected and potential development sites, referring to properties where ground disturbance is expected to occur because of the Proposed Actions.

In accordance with the 2021 *CEQR Technical Manual*, hazardous materials are defined as substances posing threats to human health or the environment. Hazardous materials within (primarily historical) building materials and fixtures encompass asbestos-containing materials (ACM), lead-based paint (LBP), and mercury. Subsurface hazardous materials include volatile organic compounds (VOCs) commonly found in petroleum products and solvents; semi-volatile organic compounds (SVOCs) typically associated with petroleum products, coal, and ash; coal tar and other non-aqueous phase liquid (NAPL) byproducts of historically present manufactured gas plants (MGPs) in the area; heavy metals, including lead; and polychlorinated biphenyls (PCBs) usually associated with electrical transformers.

It is important to note that the mere presence of hazardous materials does not automatically indicate a threat to human health or the environment. An exposure pathway, the presence of a receptor, and an unacceptable dose must also be present to pose a threat. Without proper controls, hazardous materials could be released during the demolition or renovation of existing structures or during excavation or dewatering of a site. Human exposure to hazardous materials, primarily evaluated during construction, is most likely to occur through inhalation of VOCs, ingestion of particulate matter containing SVOCs or metals, or dermal (skin) contact with hazardous materials.

Therefore, a hazardous materials screening assessment was performed following the guidance in the 2021 *CEQR Technical Manual* to determine the potential for significant adverse impacts on hazardous materials.

B. Principal Conclusions

The Proposed Actions would not result in significant adverse impacts related to hazardous materials on projected and potential development sites with the placement of (E) Designation (E-830). However, significant adverse hazardous materials impacts cannot be precluded for potential conversions from non-residential use to residential use as a result of the Proposed Actions. An evaluation of potential hazardous materials impacts was conducted for the 61 projected and seven potential development sites. The assessment revealed environmental

concerns associated with each of these sites. Consequently, the proposed zoning map actions incorporate (E) designations for all privately owned projected and potential development sites. By implementing the (E) designation across all 68 projected and potential development sites, the potential presence of contaminated materials would not result in any impact. The adoption of preventive and remedial measures outlined in the (E) designation would avoid or eliminate the potential for significant adverse impacts related to hazardous materials on all projected and potential development sites during construction within the Rezoning Area resulting from the Proposed Actions.

Significant adverse impacts from hazardous materials cannot be precluded for the 1,093,808 gsf of non-residential area assumed for residential conversion. Because it is not possible to determine exactly where and to what extent an existing non-residential use might convert to a residential use, there are no specific sites and the extent of any additional in-ground disturbance that may occur for each residential conversion cannot be determined. In addition, since there are no specific development sites among the 1,093,808 gsf RWCDS residential conversion area, the absence of hazardous materials cannot be definitively demonstrated and the possibility of impacts cannot be eliminated. To mitigate potential residential exposure to soil vapor intrusion, newly developed residential buildings would need soil vapor barriers installed on the ground and sub-ground levels. Since development resulting from the Proposed Actions would be as-of-right, there would only be a mechanism for the City to require a hazardous materials assessment, or to mandate the remediation of such materials, on select parcels among the modeled residential conversion area that have already been (E) designated because of prior zoning actions.

C. Methodology

As described in the 2021 *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 or environmental impacts. This chapter's objective 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 or in the vicinity. Chapter 24 of Title 15 of the RCNY outlines the criteria for deciding whether a specific site warrants an (E) designation. Section 24-04 delineates the initial screening process, involving a review of historical documentation to identify past or current uses that may have affected or continue to affect a planned or potential development site, as well as adjacent sites.

Hazardous materials may be present in the soil, groundwater, soil vapor, or buildings and on-site structures as the residue of past or current activities. Manufacturing processes and commercial activities typically use, and thus require, storage and handling of hazardous materials, and leaking and misuse may release these materials to the environment.

For this assessment, the study area includes all projected and potential development sites within the Rezoning Area. Hazardous materials in (primarily historical) building materials and

fixtures include ACM, LBP, and mercury. Subsurface hazardous materials include VOCs, commonly found in petroleum products and solvents; SVOCs, typically associated with petroleum products, coal, and ash; coal tar, a byproduct of the MGPs historically in the area; heavy metals, including lead; and PCBs, usually associated with electrical transformers. Because there are well-established regulatory programs addressing hazardous materials in existing buildings, the analysis in this chapter primarily focuses on subsurface hazardous materials. As part of this assessment, each site was evaluated for potential subsurface hazardous materials by (1) reviewing historical Sanborn fire insurance maps for the site and nearby properties; (2) reviewing environmental regulatory databases for the site and nearby properties; and (3) conducting site reconnaissance (from streets and other public rights-of way (because interior access was not available) to determine current occupants/uses and any indications of historical or current hazardous materials use or storage (e.g., signage or petroleum storage tank fill caps).

Sanborn Fire Insurance Map Review

Sanborn maps from 1890 to current were reviewed to assess site and nearby activities and operations, including those listed in Hazardous Materials Appendix 1 of the 2021 *CEQR Technical Manual*. This review included identifying automotive uses (e.g., fueling operations, garages with gasoline tanks, auto repair shops), industrial uses (e.g., various manufacturing, coal storage, MGPs, smelters, chemical laboratories, metal works, printing facilities, substations, foundries, paint manufacturers, junk yards, rail yards, motor freight stations), and other historical uses that may involve the use or generation of hazardous materials.

Database Review

A standard list of federal and state regulatory databases (per American Society of Testing Materials [ASTM] E1527-21) related to the potential for hazardous materials was reviewed, including the following:

- The New York State SPILLS database that lists sites where petroleum or chemical releases have been reported to the New York State Department of Environmental Conservation (NYSDEC) since April 1, 1986.
- The NYSDEC chemical bulk storage (CBS) database that contains registered (since July 15, 1998) facilities that store (non-petroleum) hazardous substances—as defined by 6 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 NYSDEC Petroleum Bulk Storage database (or BULK PETRO) that keeps track of properties that store petroleum products of greater than 1,100 gallons in aggregate.
- The NYSDEC Leaking Storage Tank Incident Reports that 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 that uses both the NYSDEC manifest system for hazardous waste handlers and 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 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 for air pollutant sources that are permitted with the EPA, NYSDEC, or the New York City Office of Environmental Remediation (OER).
- New York State Brownfield Cleanup Sites for sites on record with NYSDEC as abandoned, idle, or under-used industrial and commercial sites where redevelopment is being contemplated under the NYSDEC Brownfield Cleanup Program.
- Solid Waste Facilities sites that are included in a NYSDEC 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, 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. of Shelton, Connecticut. Typical observations (noted in **Table 9-1**) include the nature of the visible operations; evidence of petroleum bulk storage tanks from either signs, fill ports, and/or vent pipes; roof or sidewall vents where potential air discharges occur; electrical transformers or large capacitors; monitoring wells, dry cleaning, automotive and other industrial uses; sheens, discoloration or staining of surfaces; topographical disturbances, including excavation and filling; stressed vegetation; and solid waste disposal practices.

Site Reconnaissance

Each site and nearby properties were observed to verify and potentially supplement literature and database records, identify existing environmental conditions, and note any potential evidence of historical conditions. Exterior site inspections were performed for each projected and potential development site to identify any visible monitoring wells; vent pipes; fill ports; and manufacturing, commercial, and industrial uses that could indicate environmental impacts. Because site interiors were not accessible, the reconnaissance was performed from public access areas such as streets and sidewalks.

Limitations

While the examinations of the Sanborn map and city directory adhered to the procedures delineated in the ASTM-E-1527-21 standard, it is crucial to underscore that, because of the private ownership status of all the anticipated and potential development sites, the plan's scope was confined to gathering and analyzing limited information essential for determining a hazardous materials (E) designation. The review of Sanborn maps and city directories

specifically focused on properties and their adjacent counterparts within the Rezoning Area. The regulatory database scrutiny also followed the protocols outlined in the ASTM-E-1527-21 standard, encompassing the site itself and a 400-foot buffer zone surrounding each site or cluster of sites. However, components of a Phase I Environmental Site Assessment (ESA) and procedures outlined in the 2021 *CEQR Technical Manual* (such as examinations of building department and fire department records, a title deed search, and interviews with current and former employees and owners) were intentionally excluded from the assessment.

D. Existing Conditions, Topography, and Hydrogeology

The study area has been primarily occupied by residential, commercial, and office uses for over 100 years. In the late 1800s, Midtown was mostly low-rise residential and commercial properties. By the early 1900s, the low-rise buildings began to be replaced by mid- and high-rise buildings. Select industrial properties were interspersed with the residential, commercial, and office buildings, and were mostly replaced by office buildings by the mid-1900s. Much of the Midtown landscape has remained unchanged since the mid-1900s and remains primarily mid- and high-rise office/multi-tenant buildings with commercial spaces. More residential properties are interspersed between office buildings in Midtown South, both as low-rise buildings and apartment buildings.

Based on reports compiled by the U.S. Geological Survey, ground elevation in the study area ranges from 32 to 61 feet above sea level. Groundwater is expected to be encountered below grade at or a few feet above sea level and flow generally to the west-southwest toward the Hudson River, presuming it follows the topography.

Overview of Historical Uses General Area History

Northwest Quadrant

In the late 1890s, the northwest quadrant is primarily occupied by low-rise buildings (i.e. five stories or fewer), including both residential dwellings and commercial properties. The NY State Arsenal is located on the northeast corner of West 35th Street and Seventh Avenue. Additional properties present include churches, schools, stables, a theatre, and a hotel.

In the early 1900s, the northwest quadrant continues to be occupied primarily by residential and commercial buildings, with the addition of office buildings and garages. The NY State Arsenal is described as a location for the storage of cartridges, military, and naval supplies. A picture frame factory is adjacent to the north of the Arsenal. A lumber yard is present on the south side of West 38th Street, and warehouses are present on the south side of West 35th Street and the north side of West 37th Street.

By 1930, most low-rise residential and commercial buildings have been replaced with mid- and high-rise office/multi-tenant buildings. A substation, owned by NY Edison Co., is present near the southwest corner of West 37th Street and Eighth Avenue. Multiple printing and publishing buildings are present, as well as garment-related establishments. The New York Telephone Company is located along the south side of West 37th Street, near Seventh Avenue. The Arsenal Building no longer appears to be operating as a military arsenal.

The mid- and high-rise buildings constructed by 1930 continue to remain substantially unchanged today. Most buildings are operated as office buildings, along with commercial properties, hotels, churches, parking garages, and schools. The latest Sanborn maps (2005) show tanks present in most mid- and high-rise buildings; these tanks are presumed to remain in the buildings.

Northeast Quadrant

In the late 1890s, the northeast quadrant is primarily low-rise buildings (i.e. five stories or fewer), including residential dwellings and commercial properties. Additional properties present include hotels, churches, and a theater.

By the early 1900s, a silversmith stock and showroom is present on the southwest corner of West 36th Street and Fifth Avenue. The remainder of properties continue to be primarily residential and commercial.

Between 1910 and 1930, many buildings were converted to mid- and high-rise buildings, operated as office buildings, multi-tenant buildings, and department stores. Tanks are noted in many buildings. By 1950, the Grey Line Terminal is present spanning from West 36th Street to West 37th Street near Sixth Avenue; the terminal was replaced by two parking garages by 1968.

The majority of the northeast quadrant is currently mid- and high-rise office buildings and multi-tenant buildings, garages, and hotels. Tanks are shown on maps in most mid- and high-rise buildings through the latest Sanborn maps (2005) and are presumed to remain in the buildings. Low rise buildings continue to be present, primarily along West 36th Street and West 39th Street.

Southwest Quadrant

In the late 1890s, the southwest quadrant is primarily low-rise buildings (i.e. five stories or fewer), including both residential dwellings and commercial properties, interspersed with manufacturing related facilities. A chocolate manufacturing facility is present to the west of Sixth Avenue, spanning from West 24th Street to West 25th Street, and a manufacturer of “magicians apparatus” is located along Sixth Avenue from West 29th Street to West 30th Street. A lumberyard is present near the northeast corner of West 26th Street and Seventh Avenue, and a hardware factory is located on the northside of 29th Street near Seventh Avenue. A paper manufacturer, wire works facility, insulated wire works facility, carpet cleaning works facility, and a mill are present on the block from Seventh to Eighth Avenue, West 28th to West 29th Street. Additional properties present include stables, churches, theaters, and schools.

By the early 1900s, a machine shop, two laundry facilities, a paint facility, and a wood working facility are constructed on the block from Sixth to Seventh Avenue, West 28th Street to West 29th Street. A mattress factory and an unnamed factory with multiple tanks are located on the adjacent block to the south. Many low-rise buildings have been converted to high-rise office/multi-tenant buildings, most of which include tanks.

By 1950, most of the aforementioned manufacturing and industrial properties are replaced by high-rise buildings with tanks, interspersed with low-rise commercial and residential properties. Multiple garages with tanks are also present.

The southwest quadrant is currently a mix of high-, mid-, and low-rise buildings, including offices, residential, and commercial properties. Tanks are shown on maps in most mid- and high-rise buildings through the latest Sanborn maps (2005) and are presumed to remain in the buildings.

Southeast Quadrant

In the late 1890s, the southeast quadrant is primarily low-rise buildings (i.e., five stories or fewer), including both residential dwellings and commercial properties. Additional properties present include hotels, churches, clubs, museums, and theaters.

By the early 1900s, low-rise buildings are being replaced by mid- and high-rise buildings; a trend that continues into the mid-1900s. Most buildings are depicted with tanks. A NY Con Edison substation is present between West 26th Street and West 27th Street, near Sixth Avenue. By 1968, large parking structures/areas are present along Sixth Avenue, spanning West 24th Street to West 26th Street, as well as along the north side of West 25th Street.

The southeast quadrant is currently a mix of high-, mid-, and low-rise buildings, including offices, residential, and commercial properties. Tanks are shown on maps in most mid- and high-rise buildings through the latest Sanborn maps (2005) and are presumed to remain in the buildings. The parking structures have all been replaced by apartment buildings.

E. Hazardous Materials Analysis

Table 9-1 summarizes the findings of the hazardous materials evaluation for each of the projected and potential development sites. The final column of the table includes the recommendation to place hazardous materials (E) designations for all privately owned projected and potential development sites because they all could have been adversely affected by current or historical uses on-site, adjacent to, or within 400 feet of the site. In evaluating whether the placement of an (E) designation for hazardous materials was necessary, current site conditions and previous on-site uses were prioritized, followed by the adjacent site use history and conditions within 400 feet.

Figures 9-1 through **9-4** identifies risk sites revealed through a thorough examination of the database. The database report and historical documents are included as Appendix D.

The evaluation of hazardous materials within this plan's scope has led to the categorization of sites into different risk statuses based on the presence and potential impact of contamination. High-risk status designations indicate sites with confirmed contamination or those strongly suspected to have varying levels of contamination that could significantly affect proposed or potential sites. Sites designated with a moderate risk status suggest potential contamination that may impact the Rezoning Area.

The environmental database report identified more than 2,000 sites within one mile of the Rezoning Area. Based on a thorough review of database searches, historical documents, and the City directory’s risk statuses of sites, sites were assessed based on their ability to

Table 9-1. Hazardous Materials - Projected and Potential Development Sites

Site Number	Site Type	Quadrant	Block	Lot	Address	Existing Zoning	Zoning Special District	Property Owner	Sanborn Map Concern	On-site Database Listing	Concerns within a 400-foot radius	On-site Environmental Concern (Historical or Current)
1	Projected	NW	761	31	539 8 Avenue	M1-6	GC	541 Construction Corp			X	
	Projected	NW	761	32	543 8 Avenue	M1-6	GC	541 Construction Corp			X	
2	Projected	SW	778	7	253 West 28 Street	M1-6D		253 W 28Th St Corp C/O A Michael Tyler Realty Corp		X	X	X
3	Projected	SW	778	34	207 West 28 Street	M1-6D		Yung Brothers Real Estate Co., Inc.		X	X	X
	Projected	SW	778	46	210 West 29 Street	M1-6D		210 West 29th Street Corp.		X	X	X
	Projected	SW	778	47	212 West 29 Street	M1-6D		Kopatsos		X	X	X
4	Projected	SW	779	8	253 West 29 Street	M1-6D		8th Ave Lumber Yard Corp		X	X	X
5	Projected	SW	779	69	250 West 30 Street	M1-6D		HW Development 3 LLC		X	X	X
6	Projected	SW	779	25	225 West 29 Street	M1-6D		Gavartins		X	X	X
	Projected	SW	779	26	223 West 29 Street	M1-6D		Rover-NYC, LLC		X	X	X
7	Projected	SW	779	53	216 West 30 Street	M1-6D		216 West 30 LLC		X	X	X
	Projected	SW	779	55	220 West 30 Street	M1-6D		220 West 30 LLC		X	X	X
	Projected	SW	779	56	222 West 30 Street	M1-6D		Hemat Realty Corp		X	X	X
8	Projected	SW	779	43	356 7 Avenue	M1-6		Corner Realty 30/7 Inc			X	
	Projected	SW	779	44	358 7 Avenue	M1-6		Corner Realty 30/7 Inc			X	
	Projected	SW	779	45	360 7 Avenue	M1-6		Corner Realty 30/7 Inc			X	
9	Projected	NW	784	80	490 8 Avenue	M1-6	GC	McDonald's Real Estate Company			X	
10	Projected	NW	786	18	247 West 36 Street	M1-6	GC	247 Realty Associates LLC			X	
	Projected	NW	786	68	240 West 37 Street	M1-6	GC	FPP TIC LLC		X	X	X
11	Projected	NW	786	66	232 West 37 Street	M1-6	GC	232 Associates, LLC			X	
	Projected	NW	786	68	240 West 37 Street	M1-6	GC	FPP TIC LLC		X	X	X
12	Projected	NW	786	29	225 West 36 Street	M1-6	GC	S.L.H. Group, Inc.			X	
	Projected	NW	786	31	223 West 36 Street	M1-6	GC	223-227 West 36th Street Realty Co.,			X	
13	Projected	NW	787	31	221 West 37 Street	M1-6	GC	221 W 37th Street Realty Group LLC		X	X	
14	Projected	NW	788	24	243 West 38 Street	M1-6	GC	Rafael Inc.		X	X	X

Site Number	Site Type	Quadrant	Block	Lot	Address	Existing Zoning	Zoning Special District	Property Owner	Sanborn Map Concern	On-site Database Listing	Concerns within a 400-foot radius	On-site Environmental Concern (Historical or Current)
15	Projected	NW	788	43	207 West 38 Street	M1-6	GC	E&J Green 38 LLC			X	
	Projected	NW	788	44	205 West 38 Street	M1-6	GC	205 Property Co., LLC			X	
	Projected	NW	788	45	203 West 38 Street	M1-6	GC	203 Property Co., LLC			X	
	Projected	NW	788	46	526 7 Avenue	M1-6	GC	SMC 526 Seventh, LLC			X	
16	Projected	NW	789	5	608 8 Avenue	M1-6	GC	608 8th Ave Corp. C/O			X	
	Projected	NW	789	78	618 8 Avenue	M1-6	GC	618 Eight Avenue, LLC			X	
	Projected	NW	789	79	612 8 Avenue	M1-6	GC	Hata Realty Corp		X	X	
	Projected	NW	789	82	610 8 Avenue	M1-6	GC	610 Eighth Ave Corp			X	
17	Projected	NW	789	60	236 West 40 Street	M1-6	GC	236 W. 40th St. Corp.		X	X	X
18	Projected	NW	789	40	552 7 Avenue	M1-6	GC	Dayan 26-552		X	X	
	Projected	NW	789	42	556 7 Avenue	M1-6	GC	Golden Arch Realty Corp			X	
	Projected	NW	789	43	558 7 Avenue	M1-6	GC	200 West 40 LLC			X	
19	Projected	SW	799	24	131 West 23 Street	C6-3X/M1-6		127 West 23rd Owner, LLC			X	
20	Projected	SW	800	14	147 West 24 Street	M1-6		147 West 24th Owner LLC		X	X	
	Projected	SW	800	15	145 West 24 Street	M1-6		145 West 24th Street Corp			X	
21	Projected	SW	800	19	139 West 24 Street	M1-6		G&G Electric Realty Corporation			X	
22	Projected	SW	801	28	117 West 25 Street	M1-6		Jjha Morak and Associates 25 LLC			X	
	Projected	SW	801	29	115 West 25 Street	M1-6		Jjha Morak and Associates 25 LLC			X	
23	Projected	SW	802	3	287 7 Avenue	M1-6		287th Ave Realty, LLC		X	X	
	Projected	SW	802	4	289 7 Avenue	M1-6		Doreen LLC		X	X	
25	Projected	SW	802	14	147 West 26 Street	M1-6		Justatone Building Inc			X	
	Projected	SW	802	17	141 West 26 Street	M1-6		Fumoha Development Corp			X	
26	Projected	SW	802	29	117 West 26 Street	M1-6		The West Paramont, L			X	
	Projected	SW	802	50	112 West 27 Street	M1-6		Miklos Real Estate .			X	
27	Projected	SW	803	11	149 West 27 Street	M1-6		149 West 27th St LLC			X	
28	Projected	SW	803	46	108 West 28 Street	M1-6/C6-4X		FPK Realty Corp C/O			X	
	Projected	SW	803	47	110 West 28 Street	M1-6		Thiha LLC			X	

Site Number	Site Type	Quadrant	Block	Lot	Address	Existing Zoning	Zoning Special District	Property Owner	Sanborn Map Concern	On-site Database Listing	Concerns within a 400-foot radius	On-site Environmental Concern (Historical or Current)
29	Projected	SW	804	68	154 West 29 Street	M1-6		Nympheas, LLC			X	
	Projected	SW	804	69	156 West 29 Street	M1-6		Aja Family LLC		X	X	
30	Projected	SW	804	63	142 West 29 Street	M1-6		Ratna Realty Inc			X	
31	Projected	SW	805	1	341 7 Avenue	M1-6		Empire 345 Seventh LLC			X	
	Projected	SW	805	2	343 7 Avenue	M1-6		Empire 345 Seventh LLC			X	
	Projected	SW	805	5	167 West 29 Street	M1-6		Empire 345 Seventh LLC			X	
32	Projected	SW	805	87	140 West 30 Street	M1-6		140 Ab LLC			X	
33	Projected	SW	805	75	122 West 30 Street	M1-6		Afghan House Inc		X	X	
34	Projected	SW	806	63	140 West 31 Street	M1-6		1-S Realty Corp			X	
35	Projected	SW	806	54	120 West 31 Street	M1-6		Montana Bay Inc		X	X	
	Projected	SW	806	56	124 West 31 Street	M1-6		124 West 31 St Street			X	
36	Projected	NW	811	47	124 West 36 Street	M1-6	GC	Dosol Corp			X	
	Projected	NW	811	49	128 West 36 Street	M1-6	GC	Ever Bright Realty Corp			X	
37	Projected	SE	825	7	69 West 23 Street	M1-6		Ttmh Nyc Holdings I, LLC		X	X	X
	Projected	SE	825	8	67 West 23 Street	M1-6		Ttmh Nyc Holdings I, LLC			X	
38	Projected	SE	826	61	32 West 25 Street	M1-6		HMH Special LLC		X	X	
39	Projected	SE	826	24	25 West 24 Street	M1-6		23 West 24th Street Owner LLC			X	
	Projected	SE	826	25	23 West 24 Street	M1-6		23 West 24th Street Owner LLC			X	
40	Projected	SE	827	14	39 West 25 Street	M1-6		Aljud Estates LLC			X	
	Projected	SE	827	16	35 West 25 Street	M1-6		L & M 25th Street			X	
	Projected	SE	827	17	29 West 25 Street	M1-6		L & M 25th Street			X	
	Projected	SE	827	20	25 West 25 Street	M1-6		25 West 25th LLC			X	
41	Projected	SE	829	65	38 West 28 Street	M1-6		Fareny-1 Management, LLC		X	X	
	Projected	SE	829	66	40 West 28 Street	M1-6		W28 Street Holding LLC		X	X	
	Projected	SE	829	67	42 West 28 Street	M1-6		Jeon America, Inc			X	
42	Projected	SE	829	62	32 West 28 Street	M1-6		Justin Indust Inc		X	X	X
	Projected	SE	829	63	34 West 28 Street	M1-6		34 West 28th LLC			X	

Site Number	Site Type	Quadrant	Block	Lot	Address	Existing Zoning	Zoning Special District	Property Owner	Sanborn Map Concern	On-site Database Listing	Concerns within a 400-foot radius	On-site Environmental Concern (Historical or Current)
	Projected	SE	829	64	36 West 28 Street	M1-6		36 West Associates, LLC			X	
43	Projected	SE	829	59	24 West 28 Street	M1-6		Real Evergreen International, Inc.			X	
	Projected	SE	829	61	26 West 28 Street	M1-6		Real Evergreen International, Inc.		X	X	X
44	Projected	SE	829	55	1177 Broadway	M1-6		Jtre 1177 Nomad Llc			X	
	Projected	SE	829	56	1179 Broadway	M1-6		AEP Properties Inc			X	
45	Projected	SE	830	69	36 West 29 Street	M1-6		40 West 29 LLC		X	X	X
46	Projected	SE	830	32	West 28 Street	M1-6		Drucker Mitchel			X	
	Projected	SE	830	34	7 West 28 Street	M1-6		Drucker Realties			X	
	Projected	SE	830	48	6 West 29 Street	M1-6		Philmar Realty Corp			X	
	Projected	SE	830	51	10 West 29 Street	M1-6		Drucker Realties			X	
47	Projected	SE	831	9	43 West 29 Street	M1-6		Koreana Trading Inc			X	
	Projected	SE	831	10	39 West 29 Street	M1-6		39 West 29th Street Owners Corp.		X	X	
48	Projected	SE	831	19	1204 Broadway	M1-6		1204 Broadway de LLC		X	X	
	Projected	SE	831	55	28 West 30 Street	M1-6		Fantasia World			X	
	Projected	SE	831	59	1214 Broadway	M1-6		1214-1216 Broadway de LLC		X	X	
	Projected	SE	831	61	1212 Broadway	M1-6		1212 Broadway de LLC			X	
49	Projected	SE	831	28	11 West 29 Street	M1-6		HFZ KIK 30th Street Owner LLC		X	X	
	Projected	SE	831	29	9 West 29 Street	M1-6		HFZ KIK 30th Street Owner LLC			X	
	Projected	SE	831	30	3 West 29 Street	M1-6		HFZ KIK 30th Street Owner LLC			X	
	Projected	SE	831	33	270 5 Avenue	C5-2/M1-6		Collegiate Reform Chu		X	X	X
	Projected	SE	831	48	8 West 30 Street	M1-6		HFZ KIK 30th Street Owner LLC		X	X	X
	Projected	SE	831	49	16 West 30 Street	M1-6		HFZ KIK 30th Street Owner LLC			X	
	Projected	SE	831	50	18 West 30 Street	M1-6		HFZ KIK 30th Street Owner LLC			X	
	Projected	SE	831	51	20 West 30 Street	M1-6		HFZ KIK 30th Street Owner LLC		X	X	
	Projected	SE	831	52	22 West 30 Street	M1-6		HFZ KIK 30th Street Owner LLC		X	X	
50	Projected	SE	832	36	5 West 30 Street	M1-6		S Axelrod Co LLC		X	X	

Site Number	Site Type	Quadrant	Block	Lot	Address	Existing Zoning	Zoning Special District	Property Owner	Sanborn Map Concern	On-site Database Listing	Concerns within a 400-foot radius	On-site Environmental Concern (Historical or Current)
	Projected	SE	832	37	3 West 30 Street	M1-6		R.T.H. Realty Corp.		X	X	
51	Projected	NE	837	26	27 West 35 Street	M1-6		27 West 35th Streetcorp.			X	
	Projected	NE	837	27	25 West 35 Street	M1-6		23-25 West 35 St Realty LLC		X	X	
	Projected	NE	837	28	23 West 35 Street	M1-6		23-25 West 35 St Realty LLC			X	
	Projected	NE	837	29	21 West 35 Street	M1-6		21 W 35 LLC			X	
52	Projected	NE	837	30	9 West 35 Street	M1-6		9 West 35th Street LLC		X	X	
53	Projected	NE	838	65	26 West 37 Street	M1-6		Yael 26 Realty Corp			X	
	Projected	NE	838	66	28 West 37 Street	M1-6		28-30 West 37th Street			X	
	Projected	NE	838	68	32 West 37 Street	M1-6		Chimos, Peter			X	
	Projected	NE	838	69	34 West 37 Street	M1-6		34 West 37th Street Realty .			X	
54	Projected	NE	838	34	13 West 36 Street	M1-6		1336 Venture LLC		X	X	X
	Projected	NE	838	60	16 West 37 Street	M1-6		Eider Realty Corp			X	
	Projected	NE	838	61	18 West 37 Street	M1-6		Manzi Realty Enterprises,			X	
55	Projected	NE	839	14	47 West 37 Street	M1-6		37th Street Management Inc			X	
	Projected	NE	839	78	58 West 38 Street	M1-6		Adien Realty, LLC			X	
	Projected	NE	839	79	60 West 38 Street	M1-6/C6-6	MiD	Heskel's West 38th Street Corp		X	X	
56	Projected	NE	839	14	47 West 37 Street	M1-6		37th Street Management Inc			X	
	Projected	NE	839	15	45 West 37 Street	M1-6		45 West 37Th St. Realty Corp.			X	
	Projected	NE	839	78	58 West 38 Street	M1-6		Adien Realty, LLC			X	
57	Projected	NE	839	68	38 West 38 Street	M1-6		38th Street Realty		X	X	
	Projected	NE	839	69	40 West 38 Street	M1-6		Sarco Realty LLC			X	
58	Projected	NE	839	58	18 West 38 Street	M1-6		Z.D. Jasper Realty, Inc.			X	
	Projected	NE	839	59	20 West 38 Street	M1-6		Bravo Management LLC			X	
59	Projected	NE	840	69	38 West 39 Street	M1-6		38 West 39 Realty Corp			X	
	Projected	NE	840	70	40 West 39 Street	M1-6		174 Orchard St Realty		X	X	
60	Projected	NE	840	21	35 West 38 Street	M1-6		Flame Realty			X	
61	Projected	NE	840	60	20 West 39 Street	M1-6		Crest Realty			X	

Site Number	Site Type	Quadrant	Block	Lot	Address	Existing Zoning	Zoning Special District	Property Owner	Sanborn Map Concern	On-site Database Listing	Concerns within a 400-foot radius	On-site Environmental Concern (Historical or Current)
62	Projected	NE	841	12	49 West 39 Street	M1-6		Kendor Development LLC			X	
	Projected	NE	841	13	47 West 39 Street	M1-6		Kendor Development LLC		X	X	
	Projected	NE	841	14	45 West 39 Street	M1-6		West 39th Associates, LLC			X	
A	Potential	SW	779	12	247 West 29 Street	M1-6D		249 W 29 Owners Corp		X	X	X
B	Potential	SW	779	62	234 West 30 Street	M1-6D		Grokash Realty Associates, LLC		X	X	X
C	Potential	NW	786	18	247 West 36 Street	M1-6	GC	247 Realty Associates LLC			X	
	Potential	NW	786	66	232 West 37 Street	M1-6	GC	232 Associates, LLC			X	
	Potential	NW	786	68	240 West 37 Street	M1-6	GC	FPP TIC LLC		X	X	X
D	Potential	SW	802	29	117 West 26 Street	M1-6		The West Paramont, LLC			X	
	Potential	SW	802	50	112 West 27 Street	M1-6		Miklos Real Estate .			X	
E	Potential	NW	812	68	144 West 37 Street	M1-6	GC	Filco Realty LLC			X	
	Potential	NW	812	167	West 37 Street	M1-6	GC	Unavailable Owner			X	
F	Potential	NE	838	34	13 West 36 Street	M1-6		1336 Venture LLC		X	X	X
	Potential	NE	838	35	11 West 36 Street	M1-6		Eternal Sino International Development Condo LLC			X	
	Potential	NE	838	60	16 West 37 Street	M1-6		Eider Realty Corp		X	X	
G	Potential	NW	1012	25	213 West 40 Street	M1-6	MiD	Future 40th Street Realty LLC			X	
	Potential	NW	1012	26	209 West 40 Street	M1-6	MiD	211 West 40th Street, Inc.		X	X	X

Figure 9-1. Hazardous Materials Risk Sites – Northwest Quadrant



Figure 9-2. Hazardous Materials Risk Sites – Northeast Quadrant



Figure 9-3. Hazardous Materials Risk Sites – Southeast Quadrant



Figure 9-4. Hazardous Materials Risk Sites – Southwest Quadrant



affect environmental conditions a potential or planned site. The presumed regional groundwater flow is west-southwest; therefore, the neighboring properties of the greatest concern are located to the east-northeast of the projected and potential development sites.

Hazardous Materials Implications

The Rezoning Area was developed prior to 1900 and has been redeveloped various times throughout the century. During this time, it was commonplace to use fill material of unknown origin following demolition or during construction and redevelopment. In Manhattan, this fill is typically from urban fill material, which commonly contains contaminates such as ash, cinder, slag, metals, and general SVOCs. Due to the unknown source of fill material, the potential exists for contamination from the use of fill material.

As mentioned previously, the study area currently includes office building in addition to a mix of residential and commercial facilities. Based on the age of most of the structures in the Rezoning Area (pre-1970), building materials are likely to include ACM, LBP, and/or PCBs. Most of these buildings have active or historical fuel oil tanks, either underground or aboveground. Historical operations included garages, manufacturing facilities, and substations. Subsurface contamination in the study area is likely to be principally associated with the following: auto-related, transportation, industrial or utility uses (e.g., garages, substations, and other uses noted in Hazardous Materials Appendix 1 of the 2021 *CEQR Technical Manual*), and the presence/operation of USTs or ASTs.

Subsurface Disturbance

An (E) designation for hazardous materials would be placed on the privately owned projected and potential development sites. This would require (pursuant to Section 11-15 of the New York City Zoning Resolution—Environmental Requirements) that prior to construction, further assessment of each site would be performed. This would start with preparation of a Phase I ESA in accordance with ASTM Standard E1527-21 and would be followed by preparation of a subsurface investigation protocol for review by OER. The scope of the investigation (the Remedial Investigation) would be determined based on the findings of the Phase I ESA. Upon approval of the protocol by OER, the investigation (typically including laboratory analysis of soil, groundwater, and soil vapor samples from the site) would be implemented, and a report would be prepared for OER.

No-Action Condition

In the future without the Proposed Actions (No-Action condition), the projected and potential development sites are assumed to remain unchanged from existing conditions.

Absent the Proposed Actions, development would occur on potentially contaminated sites with no mechanism in place, such as an (E) designation, to require testing and remediation. Any construction involving soil disturbance could create or increase pathways for human exposure to any subsurface hazardous materials present. Because no (E) designations (which require the owner of a property to assess potential hazardous material impacts prior to construction) currently exist on any of the projected or potential development sites, soil

disturbance would not necessarily be conducted in accordance with the procedures (e.g., for conducting testing before commencing excavation and implementation of health and safety plans during construction) described in the following section. Catalyzing redevelopment with the Proposed Actions, including the placement of (E) designations in connection with the amended zoning, is essential to the remediation of contaminated sites. However, the NYSDEC regulatory requirements pertaining to any identified petroleum tanks and/or spills, disturbance and handling of suspect LBP and ACM, and off-site disposal of soil/fill would need to be followed. As such, without the Proposed Actions, the amount of soil disturbance would be less, but the controls would not be as stringent as those described for the Proposed Actions.

With-Action Condition

In the future with the Proposed Actions, 61 projected development sites are considered more likely to be developed by the 2034 analysis year, and seven potential development sites are considered less likely to be developed over the same period. The development of all projected and potential sites may result in demolition and construction activities that could increase the exposure of workers and nearby residents to contamination materials. **Table 9-1** describes the potential presence of contaminated materials on and within 400 feet of each of the projected and potential development sites and identifies the regulatory controls that would be placed on the site to ensure further investigation and remediation (if required).

The assessment of hazardous materials concludes that each of the projected and potential development sites raises concerns regarding environmental conditions. Consequently, the proposed zoning map amendments encompass (E) designations for all of these sites. This strategic approach aims to address identified or suspected environmental issues and mitigate potential adverse impacts on human health and the environment resulting from the Proposed Actions.

The proposed (E) designations, illustrated in **Table 9-1**, are strategically placed based on a thorough screening process using historical documentation and regulatory databases. Prior to demolition and/or construction, a Phase I ESA would be performed on each site, in accordance with all relevant ASTM standards. Phase I ESAs would be followed by Phase II subsurface investigations, if warranted. Any demolition or renovation with the potential to disturb properties with LBP would be performed in accordance with relevant Occupational Safety and Health Administration standards. Any properties that may contain asbestos would be surveyed to confirm the presence of ACM, which would be subsequently stabilized or removed in accordance with relevant state and federal regulations. Soil excavated from construction sites in the study area would be managed and transported offsite in accordance with applicable regulatory requirements. On-site ASTs and USTs (including unforeseen tanks discovered on-site during demolition or construction) would be closed and/or removed in accordance with all applicable requirements. The (E) designation would require that the fee owner of the site conduct a testing and sampling protocol and have an approved remediation plan where appropriate to the satisfaction of the OER. The NYC Department of Buildings typically issues foundation permits when OER approves the remedial action work plan – the

actual remediation is usually done concurrently with the construction. The remediation plan provided to OER to satisfy the (E) designation must also include a mandatory OER-approved construction-related health and safety plan. Regulatory oversight by OER is integral to this process, ensuring compliance with Section 11-15 of the ZR. Ultimately, the (E) designation serves as a proactive approach to address and mitigate potential environmental concerns associated with the proposed development.

Through the assignment of (E) designations (E-830) on sites with recognized environmental concerns, the likelihood of adverse effects on human health and the environment would be minimized or prevented. Additionally, the implementation of the Proposed Actions would lead to the cleanup of a greater number of sites compared to the No-Action condition, with the cleanup typically being more rigorous due to the stipulations of the (E) designations. These requirements reduce the potential for human exposure during development and contribute to diminishing contaminants beneath the projected and potential development sites.

Significant adverse impacts from hazardous materials cannot be precluded for the 1,093,808 gsf of non-residential area modeled for residential conversion. For this area, the extent of hazardous materials are unknown because of the non-site specific nature of DCP's conversion model and because it is not possible to determine exactly where and to what extent additional in-ground disturbance may occur for each residential conversion. Since there are no specific development sites among the 1,093,808 gsf RWCDS residential conversion area, the absence of hazardous materials cannot be definitively demonstrated and the possibility of impacts cannot be eliminated. To mitigate potential residential exposure to soil vapor intrusion, newly developed residential buildings would need soil vapor barriers installed on the ground and sub-ground levels. Since development resulting from the Proposed Actions would be as-of-right, there would only be a mechanism for the City to require a hazardous materials assessment, or to mandate the remediation of such materials, on select parcels among the modeled residential conversion area that have already been (E) designated because of prior zoning actions.

F. Conclusion

With the implementation of the preventive and remedial measures outlined above and the (E) designation to ensure these measures are implemented, the potential for significant adverse impacts related to hazardous materials on the projected and potential development sites would be avoided.