# Chapter 9: Hazardous Materials

## 9.1 Introduction

This chapter provides an evaluation of the potential presence of hazardous materials in soil, groundwater, and/or soil vapor that could be encountered as a result of the Proposed Actions. As indicated in the 2021 *CEQR Technical Manual*, the primary goal of a hazardous materials assessment is to determine whether a proposed action would lead to a potential increased exposure of hazardous materials to people or the environment, and furthermore whether the increased exposure would lead to significant public health impacts or environmental damage

As described in Chapter 1, "Project Description," the Bronx Metro-North Station Study would consist of a series of land use actions (collectively, the "Proposed Actions"), including zoning map amendments, zoning text amendments (including mapping a special zoning district and Mandatory Inclusionary Housing), changes to the City Map, and disposition of real property, that would facilitate the implementation of a multi-year planning process conducted in the Parkchester/Van Nest and Morris Park neighborhoods of the Bronx in partnership with local stakeholders, City agencies, and the MTA.

The Proposed Actions would affect an approximately 46-block area primarily along the main corridors — East Tremont Avenue, White Plains Road, Bronxdale Avenue, Eastchester Road, and Stillwell Avenue— near the future Parkchester/Van Nest and Morris Park Metro-North stations in Bronx Community Districts 9, 10 and 11 (the "Affected Area"). The approximately 28-block area closest to the future Parkchester/Van Nest station is generally bound by Baker Avenue and Van Nest Avenue to the north, Silver Street to the east, East Tremont Avenue to the south, and St. Lawrence Avenue to the west. The approximately 18-block area closest to the future Morris Park station is generally bound by Pelham Parkway to the north, Marconi Street to the east, Williamsbridge Road to the south, and Eastchester Road to the west. The Proposed Actions are intended to leverage new planned Metro-North Railroad service to promote economic growth, facilitate the development of housing, including affordable housing, as well as guide investment in the public realm around new Metro-North Railroad stations to improve pedestrian safety and comfort.

Within the larger Rezoning Area, the Reasonable Worst Case Development Scenario (RWCDS) identified a total of sixty (60) projected development sites and thirty-six (36) potential development sites. This hazardous materials assessment will determine which, if any, of these projected and potential development sites may contain contaminated materials due to current or historical uses on- or off-site, such that the property would require the placement of an institutional control for hazardous materials (i.e., a Hazardous Materials (E) Designation).

A hazardous materials (E) Designation is an institutional control that can be placed on a property as a result of CEQR review of a zoning action. An (E) designation is a mechanism to ensure that testing for and mitigation and/or remediation of hazardous materials are completed prior to or as a part of the future development of a site, thereby limiting or eliminating the potential for a hazardous materials impact and to ensure the protection of human health and the environment. Generally, redevelopment of a site with an (E) Designation for hazardous materials will require review from the New York City Mayor's Office of Environmental Remediation (OER) and documentation of hazardous materials exposure mitigation prior to the issuance of New York City Department of Buildings (DOB) development permits.

## 9.2 Principal Conclusions

The Proposed Actions would not result in significant adverse impacts related to hazardous materials. A preliminary analysis of potential hazardous materials impacts was performed for each of the sixty projected and thirty-six potential development sites. The hazardous materials assessment found that the majority of the projected and potential development sites have some associated concern regarding environmental conditions (as indicated in Table 9-2).

Throughout its developed history, the Affected Area has been composed of a mix of residential, commercial, and industrial properties. By the 1950's commercial and industrial operations were heavily developed along the primary transportation corridors including Tremont Avenue, Eastchester Road, and Basset Avenue. The majority of the projected and potential development sites historically were commercial properties associated with the Affected Area's development as a transportation corridor. A large portion of the projected and potential development sites were either historically used or neighboring properties used for commercial and/or light manufacturing operations, including specific uses include gasoline filling stations, automobile repair, unspecified manufacturing, drycleaners, and accessory railroad infrastructure (e.g., substations, railyards, etc.).

In the future with the Proposed Actions, 60 projected development sites and 36 potential development sites would be assigned institutional control measures including (E) Designations. The implementation of preventative and remedial measures required under the (E) designation (E-750) would avoid the potential for significant adverse hazardous materials impacts due to the Proposed Actions. The OER would provide regulatory oversight of the environmental scope, including investigations and remediation during the development process and prior to occupancy.

In summary, due to various environmental conditions, the Proposed Actions may increase exposure pathways for hazardous materials. However, development of sites assigned institutional controls would require regulatory oversight, thereby ensuring that, to the maximum extent possible, that investigation, mitigation, and remediation of any hazardous materials would be completed in a safe and comprehensive manner. Table 9-2 provides a summary of environmental conditions and recommendations for all projected and potential development sites.

# 9.3 Methodology

An environmental review of current and historical environmental resources was conducted in order to determine whether the Proposed Actions may increase the potential for significant impacts at projected and potential development sites. Per the guidance of the *CEQR Technical Manual* (Chapter 12, "Hazardous Materials") and Section 24-04 of the Rules of New York, this review process includes a historical review of the past and current uses of projected and potential development sites, as well as adjacent sites.

Appendix A of Title 15, Chapter 24 of the Rules of the City of New York (*Contamination of Tax Lot by Hazardous Materials or Hazardous Waste; Placement and Removal of an (E) Designation on a Tax Lot in Connection with Zoning Map Amendment*) provides a list of types of facilities, activities or conditions that could lead to an environmental condition that would require the application of an institutional control on a site. Development sites with indications of uses listed in Appendix A of Title 15, Chapter 24, are identified as containing a Recognized Environmental Condition (REC), as defined under the American Society for Testing and Materials (ASTM) E1527-21 and placement of an (E) designation or equivalent institutional control recommended. In addition, if properties within a 400-foot radius of a projected or potential development site contains evidence of past or current uses that could reasonably have impacted the site, placement of an (E) designation or equivalent institutional control on the affected development site is recommended.

Per the *CEQR Technical Manual*, for projects covering a large geographic area (e.g., the Proposed Actions), portions of the typical scope for a Phase I Environmental Site Assessment (ESA) may not be possible. As such, this hazardous materials assessment includes a comprehensive review of the following environmental resources: regulatory databases, historic Sanborn Fire Insurance Maps, City directories, and a street-level site reconnaissance.

## REGULATORY DATABASES

For each of the projected and potential development sites, published federal and state environmental databases were reviewed to identify evidence of historic use, generation, storage, treatment, disposal, and/or release of hazardous substances and/or petroleum products that may have impacted the properties. Environmental Data Resources, Inc. (EDR) of Shelton, Connecticut, conducted the search of regulatory database records and provided the records in the form of regulatory agency database reports (provided in Appendix D, "Hazardous Materials"). The regulatory databases were reviewed separately for each site.[1,2] Table 9-1 summarizes relevant Federal, State and local environmental databases reviewed.

[1] Inclusive of the area within a 400-foot radius around each site.
[2] Where sites were adjacent to each other on the same block, the radius was measured from the center of the clustered sites

**Table 9-1: Federal, State, and Local Environmental Databases Reviewed**

| |
|---|
| Federal National Priorities List (NPL) |
| Federal Delisted NPL Site List |
| NPL LIENS Federal Superfund Liens |
| Federal CERCLA Superfund Enterprise Management System (SEMS) List |
| Federal CERCLA Sites with No Further Remedial Action Planned (NFRAP) SEMS-ARCHIVE |
| Federal Resource Conservation and Recovery Act (RCRA) Corrective Action Report (CORRACTS) List |
| Federal RCRA non-CORRACTS Treatment, Storage, or Disposal (TSD) Facilities List |
| Federal RCRA Generators Lists (Large, Small, NonGen, and Very Small Quantity Generators) |
| Federal Institutional Control/Engineering Control Registries |
| Federal Emergency Response Notification System (ERNS) |
| VAPOR REOPENED Vapor Intrusion Legacy Site List |
| New York State Spills (NY Spills) |
| Inactive Hazardous Waste Disposal Sites in New York State (SHWS) |
| Hazardous Substance Waste Disposal Site Inventory (HSWDS) |
| Solid Waste Facility/Landfill (SWF/LF) |
| Leaking Storage Tanks Incidents Report (LTANKS) |
| Registered Aboveground/Underground Storage Tanks (ASTs/USTs) |
| CBS UST Chemical Bulk Storage Database |
| MOSF UST Major Oil Storage Facilities Database |
| CBS AST Chemical Bulk Storage Database |
| Institutional and Engineering Controls (INST CNTRL/ENG CNTRL) |
| Manufactured Gas Plant Sites (Coal Gas) |
| New York City E Designation Database |
| New York Drycleaners Database |
| New York State Voluntary Cleanup Program (VCP) |
| New York State Brownfields Cleanup Program |
| EDR Manufactured Gas Plants (MGP) |
| EDR Historic Auto Repair |
| EDR Historic Cleaner |

## HISTORIC SANBORN FIRE INSURANCE MAPS

Historic Sanborn Fire Insurance Maps, obtained from EDR, were reviewed to determine historical use of development sites and neighboring properties. The review included an examination of all available maps starting in 1893 through 2007. Historical Sanborn Fire Insurance Maps are provided in Appendix D, "Hazardous Materials."

## CITY DIRECTORIES

City Directories for the Affected Area for the years 1927 through 2005 were provided by EDR and reviewed to determine potential site tenants and historic site uses that may have resulted in environmental impacts to the projected and potential sites. A copy of the City Directory abstract is included in Appendix D, "Hazardous Materials."

## SITE RECONNAISSANCE

Per the *CEQR Technical Manual*, for projects covering a large geographic area (e.g., the Proposed Actions), portions of the typical scope for a Phase I ESA may not be possible, including a full site reconnaissance. As such, site reconnaissance was performed from the property boundaries for each of the projected and potential development sites. Exterior site inspections were performed on February 8, 2023 for each projected and potential development site to identify any visible monitoring wells, vent pipes, fill ports, and/or manufacturing, commercial, or industrial uses, which could indicate environmental impacts. A photo log of Site Reconnaissance findings is provided in Appendix D, "Hazardous Materials."

## LIMITATIONS

While the Historic Sanborn Fire Insurance Maps and City Directory reviews were conducted in accordance with the protocols outlined in the ASTM-E-1527-21 standard, it should be emphasized that, as all of the projected and potential development sites are privately-owned, the scope of this project was limited to collecting and analyzing limited information sufficient to make a determination relevant to a hazardous materials (E) designation. Historic Sanborn Fire Insurance Maps and City Directory review was limited to the properties and adjacent properties within the boundaries of the Affected Area. The City Directory review included research on historic listings at a total of 583 addresses within the Affected Area. A regulatory database review was also conducted in accordance with the protocols outlined in the ASTM-E-1527-21 standard and encompassed each of the development sites and a 400-foot radius around each site or cluster of sites. Other elements of a Phase I Environmental Site Assessment (ESA) and the protocols outlined in the *CEQR Technical Manual* (e.g., reviews of building department and fire department records, a title deed search, and interviews with current and former employees and owners) were not included as part of the assessment.

# 9.4 Existing Conditions

## GENERAL CONDITIONS

According to Sanborn Fire Insurance Maps and City Directories, throughout its developed history, the Affected Area has been composed of a mix of residential, commercial, and industrial uses. According to Sanborn Fire Insurance Maps, the majority of the Affected Area was largely undeveloped or residential as late as the 1890s. At about that time the New Haven Railroad (present day Hell Gate Line Railroad) was constructed through the Affected Area and several large railyards were constructed (notably in the vicinity of Projected Development Sites 9 and 28).

By 1929 the Affected Area saw increased residential infill and transportation services, including auto repair and gasoline stations along primary throughfares. By 1950 the area had largely filled in with single- or multi-family dwellings and commercial properties. Commercial operations were heavily developed along the main transportation corridors including Tremont Avenue, Eastchester Road, and Basset Avenue. These commercial-use developments generally included filling stations, automotive repair, and dry-cleaners with a few manufacturing operations at select neighboring sites. The Affected Area has remained largely unchanged to the present day.

Groundwater depth is thought to be variable throughout the Affected Area, ranging from approximately 6 to 16 feet below ground surface (bgs). Based on historic groundwater sampling data from historical remediation sites within the Affected Area, groundwater flow direction is generally thought to vary across the Affected Area. Groundwater flow in the Parkchester/Van Nest area is thought to be to the south or southwest towards the Bronx River and Westchester Creek. However, the groundwater flow in northern Morris Park area is thought to generally flow north to northeast towards the Hutchinson River and Eastchester Bay.

The current and former uses of the Affected Area, including uses listed within Appendix A of Title 15, Chapter 24, indicate the potential presence of several environmental contaminants of concern. Auto repair and filling stations that currently and formerly operated in the Affected Area are associated with subsurface impacts from petroleum related compounds, including volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs). Chlorinated solvents are contaminants of concern due to certain historic manufacturing and dry-cleaning operations in the area.

## PROJECTED & POTENTIAL DEVELOPMENT SITE(S) CONDITIONS

Similar to the general development of the Affected Area, the majority of projected and potential development sites were historically used for commercial use. In particular, projected and potential development sites and neighboring properties along the primary transportation corridors were largely historically utilized for commercial and/or light manufacturing operations, including filling stations,

automobile repair, unspecified manufacturing, drycleaners, and accessory railroad infrastructure (e.g., substations, railyards, etc.).

The majority of projected and potential development sites have historic site-use or environmental conditions listed within Appendix A of Title 15, Chapter 24. Historic hazardous materials use at these sites, likely included VOCs, SVOCs, chlorinated solvent-related VOCs, and metals, which may have affected subsurface conditions at the projected and potential development site(s), including soil, groundwater, and/or soil vapor. Similarly, the majority of projected and potential development sites have historic neighboring site-use associated with hazardous materials including those uses listed in Appendix A of Title 15, Chapter 24. Given the unconfirmed and likely variable flow direction of groundwater throughout the Affected Area, contaminant fate and transport are not fully known at this time. However, it is inferred that projected and potential development sites within a reasonable distance (allowing for potential migration through groundwater flow) and downgradient or cross-gradient from neighboring properties with a history of contaminant exposure could have been impacted by hazardous materials, including impacts to soil, groundwater, and/or soil vapor.

## 9.5 The Future without the Proposed Actions (No-Action Condition)

Under the No-Action condition, the projected and potential development sites are assumed to either remain unchanged from existing conditions or, if they are vacant, occupied by vacant buildings, or occupied by low intensity uses that are deemed likely to support more active uses, be developed as-of-right under existing zoning and reflect current development trends. In the future without the Proposed Actions 48 of the 60 projected development sites would remain as in the existing condition, while 12 of the 60 projected development sites are expected to be redeveloped or undergo conversion/re-occupation. All of the 36 potential development sites would remain as in the existing condition.

Without the Proposed Actions, any subsurface contamination at previously developed sites would remain largely in place, and any hazardous source material would generally migrate with groundwater flow. Vacant properties would remain vulnerable to on-going dumping of unknown materials that could expose development sites to additional contaminants.

Should vacant projected and potential development sites be redeveloped as-of-right under existing zoning, any construction activity involving soil disturbance could potentially create or increase pathways for human exposure to any subsurface hazardous materials present. NYSDEC regulatory requirements pertaining to any identified petroleum tanks and/or spills, requirements for disturbance and handling of suspect lead-based paint, asbestos-containing material and PCB-containing material, and requirements for off-site disposal of soil/fill, would need to be followed.

However, under the No-Action Condition, hazardous materials (E) designations and other equivalent institutional controls would not be applied to any of the projected or potential development sites and as

such, construction activity involving soil disturbance, should any occur, may not be conducted in accordance with the best practices and procedures of OER. These procedures include preparation of a Phase I ESA and Phase II ESA, a Remedial Investigation Report (RIR), Remedial Action Work Plan (RAWP), Construction Health and Safety Plan (CHASP) and site remediation conducted with the regulatory oversight of OER. As such, absent the Proposed Actions, investigation, mitigation and remediation of any potential hazardous materials may be less stringent, comprehensive and protective of human health and the environment.

## 9.6 The Future with the Proposed Actions (With-Action Condition)

The Proposed Actions would not result in significant adverse impacts related to hazardous materials. The hazardous materials assessment identified environmental conditions at certain projected and potential development sites and neighboring sites consistent with the listed uses and environmental conditions provided in Appendix A of Title 15, Chapter 24, and are generally considered the equivalent of RECs as defined under ASTM E1527-21 for the presence or likely presence of hazardous materials. However, the possibility of potential impacts from hazardous materials during the Proposed Actions would be greatly reduced by the implementation of standard preventative measures and best practices while performing demolition and construction. Under the Proposed Actions, projected and potential development sites with identified environmental conditions and/or neighboring properties with environmental conditions would be assigned institutional control measures including hazardous materials (E) Designations (E-750). The hazardous materials analyses summary provided in Table 9-2 provides a list of environmental conditions and institutional control recommendations for both projected and potential development sites. As shown in Table 9-2, (E) Designations are proposed on 59 of the projected development sites and 36 of the potential development sites.

Generally, applying an (E) Designation to a development site provides a mechanism for regulatory oversight for future remedial action as a pre-construction requirement that would reduce or eliminate the potential for future risk or exposure as it relates to hazardous materials to the maximum extent practicable. Compliance in association with the hazardous materials (E) Designation on the development site would be conducted under the administration of OER.

The (E) Designation process generally begins with the evaluation of RECs and/or areas of concern (AOCs) that may require additional investigation. Any potential RECs or AOCs identified would follow the (E) Designation protocol for additional investigation and potential remedial action. The applicable text for the (E) Designation to be applied to lots as designated in Table 9-2 would be as follows:

### *Task 1: Sampling Protocol*

Prior to construction, the applicant submits to OER, for review and approval, a Phase II Investigation protocol, including a description of methods and a site map with all sampling locations clearly and precisely represented.

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 the sampling data. Guidelines and criteria for selecting sampling locations and collecting samples are provided by OER upon request.

### *Task 2: Remediation Determination and Protocol*

A written report with findings and a summary of the data must 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 Remedial Action Work Plan (RAWP) must be submitted to OER for review and approval. The applicant must complete such remediation as determined necessary by OER in accordance with the approved RAWP. The applicant should then provide proper documentation that remedial action has been satisfactorily completed.

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

In addition to applying a hazardous materials (E) Designation to the development site, regulatory requirements relating to asbestos, lead-based paint, and PCBs in building materials would be followed as part of standard demolition practices. Overall, under the Proposed Actions, the majority of the ninety-six (96) projected and potential development sites would be expected to be redeveloped as a part of the larger redevelopment of the Affected Area. At sites identified with potential subsurface contamination from hazardous materials, construction activity involving soil disturbance may create or increase pathways for exposure to potential subsurface impacts. However, as previously stated, by placing an institutional control on these sites, the potential for an adverse impact to human health and the environment resulting from the Proposed Actions would be largely mitigated or avoided altogether. These measures would ensure investigation, mitigation, and remediation of any hazardous materials under the Proposed Actions would be completed in a safe, and comprehensive manner. Given these procedures, the With-Action condition would not result in any significant adverse impacts with respect to hazardous materials for the identified projected and potential development sites.

## *Changes to the City Map*

As noted in Chapter 1, "Project Description," the Proposed Actions include the mapping and de-mapping of several street segments in the Affected Area, intended to improve neighborhood livability by increasing access to planned Metro-North stations, publicly accessible open space and community gardens, and to facilitate public realm improvements in connection with planned private and public investments.

The possibility for impact by hazardous materials on the proposed street expansions and proposed de-mapped streets is thought to be generally less than that of the nearby projected and potential development sites within the proposed Affected Area. However, due to environmental concerns identified on-site or at neighboring properties during the hazardous materials assessment, there is the possibility of subsurface contaminants being present under the proposed street expansions and proposed street de-mapping areas. As such, mapping agreements or other equivalent institutional controls for the proposed street expansion lots and de-mapped streets would be necessary to avoid adverse impacts related to hazardous materials on all de-mapped/mapped and street expansion lots. [1]

**Table 9-2 Project Development Site Environmental Conditions and Recommendations**

| Site No. | Tax Block | Tax Lot | Existing Zoning | Sanborn Maps | Environmental Databases | Site Inspection | Onsite Environmental Concern | Offsite Environmental Concern | Institutional Control |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 3919 | 27 | C8-1 | x | x | x | A, Tk | A | E |
| 2 | 3919 | 34 | C8-1 | x | x | | | A, Tk, Sp | E |
| 3 | 3926 | 1 | C8-1 | x | x | | A, Tk, Sp | Gs, Dc, Sp | E |
| 4 | 3927 | 1 | C8-1 | x | x | | A | A, Gs, Tk | E |
| 5 | 4025 | 1 | R5 | x | x | x | | ES, C, RR, Du | E |
| | 4025 | 2 | R5 | x | x | x | | ES, C, RR, Du | E |
| | 4025 | 3 | R5 | x | x | x | | ES, C, RR, Du | E |
| | 4025 | 4 | R5 | x | x | x | | ES, C, RR, Du | E |
| | 4025 | 5 | R5 | x | x | x | | ES, C, RR, Du | E |
| | 4025 | 6 | R5 | x | x | x | | ES, C, RR, Du | E |
| | 4025 | 7 | R5 | x | x | x | | ES, C, RR, Du | E |
| | 4025 | 8 | R5 | x | x | x | | ES, C, RR, Du | E |
| | 4025 | 9 | R5 | x | x | x | | ES, C, RR, Du | E |
| | 4025 | 10 | R5 | x | x | x | | ES, C, RR, Du | E |
| | 4025 | 11 | R5 | x | x | x | | ES, C, RR, Du | E |
| | 4025 | 12 | R5 | x | x | x | | ES, C, RR, Du | E |
| | 4025 | 13 | R5 | x | x | x | | ES, C, RR, Du | E |
| | 4025 | 14 | R5 | x | x | x | | ES, C, RR, Du | E |

| Site No. | Tax Block | Tax Lot | Existing Zoning | Sanborn Maps | Environmental Databases | Site Inspection | Onsite Environmental Concern | Offsite Environmental Concern | Institutional Control |
|---|---|---|---|---|---|---|---|---|---|
| 5 | 4025 | 15 | R5 | x | x | x | | ES, C, RR, Du | E |
| | 4025 | 16 | R5 | x | x | x | | ES, C, RR, Du | E |
| | 4025 | 17 | R5 | x | x | x | | ES, C, RR, Du | E |
| | 4025 | 18 | R5 | x | x | x | | ES, C, RR, Du | E |
| | 4025 | 19 | R5 | x | x | x | | ES, C, RR, Du | E |
| | 4025 | 21 | R5 | x | x | x | | ES, C, RR, Du | E |
| | 4025 | 22 | R5 | x | x | x | | ES, C, RR, Du | E |
| | 4025 | 23 | R5 | x | x | x | | ES, C, RR, Du | E |
| | 4025 | 24 | R5 | x | x | x | | ES, C, RR, Du | E |
| | 4025 | 25 | R5 | x | x | x | | ES, C. RR, Du | E |
| | 4025 | 26 | R5 | x | x | x | | ES, C, RR, Du | E |
| | 4025 | 28 | R5 | x | x | x | Du | ES, C, RR | E |
| 6 | 4041 | 1 | M1-1 | x | x | x | Gs, Tk, MW | ES, Gs, A | E |
| 7[2] | 3952 | 1 | R6 | x | x | x | Dc, BCP (Remediation Complete) | Tk, Gs | E |
| | 3952 | 7 | R6 | x | x | x | Tk, BCP (Remediation Complete) | Gs, Dc | |
| | 3952 | 8 | C8-1 | x | x | x | Gs, BCP (Remediation Complete) | Tk, Dc | E |
| | 3952 | 17 | R6 | x | x | x | BCP (Remediation Complete) | Tk, Gs, Dc | |

| Site No. | Tax Block | Tax Lot | Existing Zoning | Sanborn Maps | Environmental Databases | Site Inspection | Onsite Environmental Concern | Offsite Environmental Concern | Institutional Control |
|---|---|---|---|---|---|---|---|---|---|
| 7[2] | 3952 | 23 | R6 | x | x | x | Dc, BCP (Remediation Complete) | Tk, Gs | |
| 8 | 3943 | 205 | C8-4 | x | x | x | Tk, Sp, G | RR | E |
| | 3943 | 207 | C8-4 | x | x | x | Gs, Tk | RR | E |
| | 3943 | 209 | C8-4 | x | x | x | A, G, Tk, Sp | RR | E |
| 9 | 4042 | 200 | M1-1 | x | x | | RR | RR, ES | E |
| | 4042 | 201 | M1-1 | x | x | | | RR, ES | E |
| | 4042 | 204 | M1-1 | x | x | | A | RR, ES | E |
| 10 | 4042 | 244 | M1-1 | x | | x | A, Tk | | E |
| 11 | 4091 | 39 | C8-1 | x | x | x | Gs, A, Tk | | E |
| | 4091 | 45 | C8-1 | | | x | | Gs, A, Tk | E |
| 12 | 4091 | 34 | R4 | | | x | | A | E |
| | 4091 | 37 | R4 | x | x | x | A | A | E |
| 13 | 4058 | 25 | R4 | x | x | x | | Gs, Tk, A | E |
| | 4058 | 27 | C8-1 | x | x | x | A | Gs, Tk, A | E |
| 14 | 4042 | 224 | M1-1 | x | x | x | Gs, A | Gs, Tk | E |
| 15 | 4062 | 18 | R4 | x | | x | | RR | E |
| | 4062 | 19 | R4 | x | | x | | RR | E |
| 16 | 4062 | 1 | R4 | x | | x | | RR | E |

| Site No. | Tax Block | Tax Lot | Existing Zoning | Sanborn Maps | Environmental Databases | Site Inspection | Onsite Environmental Concern | Offsite Environmental Concern | Institutional Control |
|---|---|---|---|---|---|---|---|---|---|
| 16 | 4062 | 2 | R4 | x | | x | | RR | E |
| 17 | 3999 | 32 | R6 | x | x | x | Gs, A | | E |
| 18 | 4078 | 123 | R4 | x | | x | | A | E |
| 19 | 4078 | 10 | R4 | x | | x | | A | E |
| 20 | 4079 | 1 | R4 | x | | x | | Gs, FH | E |
| 21 | 4085 | 130 | R4 | x | | x | | RR | E |
| 22 | 4085 | 119 | M1-1 | x | | x | | RR | E |
| | 4085 | 125 | M1-1 | x | | x | | RR | E |
| 23 | 4082 | 18 | R4 | x | | | Fm | RR, FH | E |
| 24 | 4083 | 1 | M1-1 | x | x | | Gs, A | Gs, A | E |
| | 4083 | 5 | M1-1 | x | | | | M, Gs, A | E |
| | 4083 | 11 | M1-1 | x | | | | M, Gs, A | E |
| | 4083 | 13 | M1-1 | x | | | M, A | Gs, A | E |
| | 4083 | 27 | M1-1 | x | | | M | Gs, A | E |
| 25 | 4081 | 33 | M1-1 | | x | x | | Gs, A | E |
| 26 | 4081 | 14 | M1-1 | | x | x | A | Gs, A | E |
| | 4081 | 16 | M1-1 | x | x | x | A | Gs, A | E |
| 27 | 4081 | 24 | M1-1 | | x | x | Vp | A | E |
| 28 | 4142 | 1 | M1-1 | | x | x | | RR | E |
| | 4142 | 6 | M1-1 | | x | x | | RR | E |

| Site No. | Tax Block | Tax Lot | Existing Zoning | Sanborn Maps | Environmental Databases | Site Inspection | Onsite Environmental Concern | Offsite Environmental Concern | Institutional Control |
|---|---|---|---|---|---|---|---|---|---|
| 28 | 4142 | 7 | M1-1 | | x | x | | RR | E |
| 29 | 4226 | 7 | M1-1 | x | x | | RR, C, Tk, Sp | RR | E |
| | 4226 | 10 | M1-1 | x | x | | RR, C, Tk, Sp | RR | E |
| | 4226 | 507 | M1-1 | | x | | C, Sp | RR, Tk | E |
| | 4226 | 508 | M1-1 | | x | | C, Sp | RR, Tk | E |
| | 4226 | 509 | M1-1 | | x | | C, Sp | RR, Tk | E |
| 30 | 4226 | 15 | M1-1 | x | x | | M, Tk, RR | C, RR | E |
| 31 | 4226 | 409 | M1-1 | x | | | A | RR, A, Gs | E |
| | 4226 | 418 | M1-1 | x | x | x | A | RR, A, Gs | E |
| 32 | 4226 | 419 | M1-1 | | x | x | | A, Gs, RR | E |
| | 4226 | 420 | M1-1 | | x | x | | A, Gs, RR | E |
| | 4226 | 422 | M1-1 | | x | x | | A, Gs, RR | E |
| 33 | 4209 | 1 | M1-1 | x | x | x | Gs, A, Tk | A | E |
| 34 | 4209 | 5 | M1-1 | x | | x | A | A | E |
| 35 | 4209 | 76 | M1-1 | x | | x | A | A, RR | E |
| 36 | 4209 | 12 | M1-1 | x | x | | A, Gs, Sp | | E |
| | 4209 | 110 | M1-1 | x | x | | A, Gs, Sp | | E |
| 37 | 4209 | 64 | M1-1 | x | x | x | | Gs, A, RR | E |
| 38 | 4209 | 25 | M1-1 | x | | x | A | RR | E |

| Site No. | Tax Block | Tax Lot | Existing Zoning | Sanborn Maps | Environmental Databases | Site Inspection | Onsite Environmental Concern | Offsite Environmental Concern | Institutional Control |
|---|---|---|---|---|---|---|---|---|---|
| 39 | 4209 | 50 | M1-1 | | | x | | A, I, RR | E |
| | 4209 | 51 | M1-1 | x | | x | A | A, I, RR | E |
| | 4209 | 53 | M1-1 | | | x | | A, I, RR | E |
| | 4209 | 54 | M1-1 | | | x | | A, I, RR | E |
| | 4209 | 55 | M1-1 | x | | x | I | A, RR | E |
| 40 | 4209 | 47 | M1-1 | x | | x | | A, I, RR | E |
| | 4209 | 48 | M1-1 | x | | | | A, I, RR | E |
| 41 | 4209 | 33 | M1-1 | x | | | | A, I | E |
| | 4209 | 37 | M1-1 | x | | | | A, I | E |
| 42 | 4219 | 3 | M1-1 | x | | | | A | E |
| 43 | 4219 | 64 | M1-1 | x | | x | A | RR | E |
| | 4219 | 68 | M1-1 | x | | x | | A, RR | E |
| 44 | 4219 | 1 | M1-1 | x | | x | A, Vp | | E |
| | 4219 | 4 | M1-1 | x | | x | | A, Vp | E |
| 45 | 4219 | 5 | M1-1 | | | x | A | M, RR | E |
| | 4219 | 9 | M1-1 | x | x | x | M, A | RR | E |
| | 4219 | 58 | M1-1 | | | x | A | M, RR | E |
| 46 | 4219 | 16 | M1-1 | x | x | | M, VCP (Remediation Complete) | RR | E |
| 47 | 4218 | 11 | M1-1 | | | x | Vp | M | E |

| Site No. | Tax Block | Tax Lot | Existing Zoning | Sanborn Maps | Environmental Databases | Site Inspection | Onsite Environmental Concern | Offsite Environmental Concern | Institutional Control |
|---|---|---|---|---|---|---|---|---|---|
| 47 | 4218 | 13 | M1-1 | x | | | | Vp, M | E |
| 48 | 4218 | 31 | M1-1 | x | x | x | A, M | | E |
| 49 | 4218 | 26 | M1-1 | x | x | x | A, Sp | | E |
| 50 | 4219 | 42 | M1-1 | | | x | | A, RR | E |
| | 4219 | 45 | M1-1 | | | x | | A, RR | E |
| 51 | 4219 | 40 | M1-1 | x | | x | A | M | E |
| 52 | 4219 | 35 | M1-1 | x | | x | | RR, A | E |
| | 4219 | 39 | M1-1 | x | | x | | RR, A | E |
| 53 | 4219 | 26 | M1-1 | x | | | M | | E |
| 54 | 4219 | 29 | M1-1 | x | | | | A, M | E |
| | 4219 | 31 | M1-1 | x | | | | A, M | E |
| 55 | 4221 | 42 | M1-1 | x | | x | A | | E |
| | 4221 | 44 | M1-1 | x | x | x | A, Tk, Vp, Fp | | E |
| | 4221 | 46 | M1-1 | | | x | | A | E |
| 56 | 4221 | 36 | M1-1 | x | | x | A | A | E |
| 57 | 4222 | 72 | M1-1 | | | x | A | | E |
| 58[3] | 4205 | 1 | R4 | | | | | | |
| 59[3] | 4205 | 40 | R4 | | | x | Tk, Vp, Fp | | |
| 60 | 4203 | 75 | R4 | | | | | Tk | E |

| Site No. | Tax Block | Tax Lot | Existing Zoning | Sanborn Maps | Environmental Databases | Site Inspection | Onsite Environmental Concern | Offsite Environmental Concern | Institutional Control |
|---|---|---|---|---|---|---|---|---|---|
| 60 | 4203 | 81 | R4 | | | | | Tk | E |
| | 4203 | 82 | R4 | | | | | Tk | E |
| A | 3925 | 1 | C8-1 | x | | | A, Tk | Dc | E |
| | 3925 | 6 | C8-1 | x | | | | A, Tk, Dc | E |
| | 3925 | 9 | C8-1 | x | | | Dc | A, Tk | E |
| B | 3927 | 8 | C8-1 | x | x | x | A, Tk | | E |
| C | 4042 | 236 | M1-1 | x | x | | A | | E |
| D | 4091 | 46 | C8-1 | | x | | | A, Tk | E |
| | 4091 | 47 | C8-1 | x | x | | A, Tk | | E |
| E | 4058 | 2 | C8-1 | x | x | x | Gs, Tk | | E |
| | 4058 | 8 | C8-1 | x | x | x | | Gs, Tk | E |
| F | 4058 | 29 | C8-1 | x | x | x | Gs, A, Tk | | E |
| G | 4062 | 21 | R4 | x | | x | | RR | E |
| | 4062 | 22 | R4 | x | | x | | RR | E |
| H | 4063 | 18 | R4 | x | x | | | A, Gs, Tk | E |
| | 4063 | 19 | R4 | x | x | | | A, Gs, Tk | E |
| | 4063 | 20 | R4 | x | x | | | A, Gs, Tk | E |
| I | 4063 | 15 | R4 | x | x | | | A, Gs, Tk | E |
| | 4063 | 17 | R4 | x | x | | | A, Gs, Tk | E |
| J | 4063 | 10 | R4 | x | x | | | A, Gs, Tk | E |

| Site No. | Tax Block | Tax Lot | Existing Zoning | Sanborn Maps | Environmental Databases | Site Inspection | Onsite Environmental Concern | Offsite Environmental Concern | Institutional Control |
|---|---|---|---|---|---|---|---|---|---|
| K | 4062 | 4 | R4 | x | | x | | RR | E |
| | 4062 | 6 | R4 | x | | x | | RR | E |
| | 4062 | 310 | R4 | x | | x | | RR | E |
| L | 4067 | 41 | R4 | x | | | | A | E |
| | 4067 | 141 | R4 | x | | | A | | E |
| M | 4067 | 37 | R4 | x | | | | A | E |
| | 4067 | 39 | R4 | x | | | | A | E |
| N | 4067 | 35 | R4 | x | | | | A | E |
| O | 4068 | 27 | R4 | x | | x | | A | E |
| | 4068 | 28 | R4 | x | | x | A | | E |
| | 4068 | 30 | R4 | x | | x | | A | E |
| P | 4077 | 18 | R6 | x | x | x | A, Gs, Mw | | E |
| Q | 4081 | 1 | R6 | x | x | | | Gs, Sp | E |
| | 4081 | 2 | R6 | x | x | | | Gs, Sp | E |
| R | 4081 | 30 | M1-1 | x | x | x | A | A | E |
| S | 4082 | 19 | R4 | x | | | | Fm, RR, FH | E |
| | 4082 | 20 | R4 | x | | | | FM, RR, FH | E |
| T | 4226 | 510 | M1-1 | x | | | | RR, Sp | E |
| | 4226 | 511 | M1-1 | x | | | | RR, Sp | E |

| Site No. | Tax Block | Tax Lot | Existing Zoning | Sanborn Maps | Environmental Databases | Site Inspection | Onsite Environmental Concern | Offsite Environmental Concern | Institutional Control |
|---|---|---|---|---|---|---|---|---|---|
| U | 4226 | 401 | M1-1 | x | x | x | M | A, RR | E |
| | 4226 | 405 | M1-1 | x | x | x | A | M, RR | E |
| | 4226 | 408 | M1-1 | x | x | x | A | M, RR | E |
| V | 4209 | 15 | M1-1 | x | | | A | | E |
| W | 4209 | 30 | M1-1 | x | | | | A | E |
| | 4209 | 32 | M1-1 | x | | | A | | E |
| X | 4218 | 7 | M1-1 | x | x | x | | Gs, A, M | E |
| | 4218 | 9 | M1-1 | x | x | x | A | Gs, A, M | E |
| Y | 4218 | 33 | M1-1 | x | | x | | A, M | E |
| | 4218 | 36 | M1-1 | x | x | x | A, Tk | A, M | E |
| Z | 4219 | 12 | M1-1 | x | | | A | M | E |
| | 4219 | 13 | M1-1 | x | | | A | | E |
| AA | 4219 | 55 | M1-1 | x | | x | | A, M, RR | E |
| BB | 4218 | 21 | M1-1 | x | | | | A, M | E |
| | 4218 | 22 | M1-1 | x | | | | A, M | E |
| | 4218 | 23 | M1-1 | x | | | | A, M | E |
| | 4218 | 24 | M1-1 | x | | | | A, M | E |
| CC | 4219 | 18 | M1-1 | x | | | A | I, M | E |
| | 4219 | 20 | M1-1 | x | | | A, I | I, M | E |
| DD | 4219 | 46 | M1-1 | x | | x | | A, RR, M | E |

| Site No. | Tax Block | Tax Lot | Existing Zoning | Sanborn Maps | Environmental Databases | Site Inspection | Onsite Environmental Concern | Offsite Environmental Concern | Institutional Control |
|---|---|---|---|---|---|---|---|---|---|
| DD | 4219 | 47 | M1-1 | x | | x | | A, RR, M | E |
| EE | 4219 | 22 | M1-1 | x | | x | A | A, M | E |
| | 4219 | 24 | M1-1 | x | | x | A | A, M | E |
| FF | 4220 | 1 | M1-1 | | X | | Tk, M | | E |
| GG | 4220 | 26 | M1-1 | x | | x | | A | E |
| | 4220 | 29 | M1-1 | x | | x | | A | E |
| | 4220 | 30 | M1-1 | x | | x | A | | E |
| | 4220 | 32 | M1-1 | x | | x | | A | E |
| HH | 4221 | 32 | R4 | x | | | | A | E |
| | 4221 | 33 | M1-1 | x | | | | A | E |
| II | 4221 | 34 | M1-1 | x | | x | | A | E |
| | 4221 | 35 | M1-1 | x | | x | | A, Tk | E |
| JJ | 4222 | 1 | R4 | | x | | Dc | | E |
| | 4222 | 3 | R4 | | x | | | Dc | E |
| | 4222 | 111 | R4 | | x | | | Dc | E |
| **Proposed Street Expansion Lots[1]** | | | | | | | | | |
| - | 4209 | 10 | M1-1 | x | x | | | A, Tk | [1] |
| - | 4209 | 70 | M1-1 | x | x | | A | Tk | [1] |
| - | 4226 | 1 | M1-1 | x | x | | RR | RR, A, Tk, M, C, I, Fm, Sp | [1] |

| Site No. | Tax Block | Tax Lot | Existing Zoning | Sanborn Maps | Environmental Databases | Site Inspection | Onsite Environmental Concern | Offsite Environmental Concern | Institutional Control |
|---|---|---|---|---|---|---|---|---|---|
| - | 4226 | 11 | M1-1 | x | x | | RR | RR, A, Tk, M, C, I | [1] |
| - | 4226 | 5 | M1-1 | x | x | | RR, Tk, Sp | RR, VCP | [1] |
| - | 4226 | 75 | M1-1 | x | x | | Tk | RR, Tk, Sp | [1] |
| - | 4411 | 75 | R3-2 | x | | | RR | | [1] |
| - | 4226 | 50 | R5/M1-1 | | | | | | [1, 4] |

Footnotes:

[1]The Proposed Actions support (E) designations (or other equivalent institutional controls) for the proposed street expansion lots and de-mapped streets to reduce or avoid adverse impacts related to hazardous materials on all de-mapped and street expansion lots. For proposed newly mapped streets, summaries of environmental conditions and E-designation recommendations at affected lots are provided above. When these lots are ultimately mapped, incorporation of proper controls will be implemented within the mapping agreement (e.g., implementation of a CHASP during street development).

[2]The section of Archer Road (street) between Unionport Road and Guerlain Street is to be de-mapped to facilitate the development of adjacent Block 3952. Where lots with (E) designations would be merged with de-mapped street segments, such as the de-mapped section of Archer Road and Block 3952 (i.e., projected development Site 7), the (E) designation requirements would apply to the entirety of the merged zoning lot and avoid adverse impacts related to hazardous materials on the entire development site including the de-mapped segment.

[3]For the City-owned sites within the Affected Area of the Proposed Actions (Block 4205, Lots 1 and 40), it is expected that measures to require testing and remediation would be included as part of future Land Disposition Agreements (LDA), Restrictive Declarations (RD), or comparable binding mechanisms between the City of New York and a developer, and would require measures similar to those required by an (E) Designation.

[4]Block 4226, Lot 50 was analyzed in the Bronx Psychiatric Center Land Use Improvement Project Final Impact Statement and testing and required remedial measures will be memorialized in the development agreement between Empire State Development and the developer. Should the developer not perform the investigation/remediation under the Brownfields Cleanup Program (due to ineligibility or other reasons), the developer would be required to perform these activities (including preparation and implementation of a RAP) under the oversight of the DEP.

| Legend: | |
|---|---|
| x = Potential environmental hazard identified during review | Sp = Spill |
| E = E-Designation | BCP = Brownfield Cleanup Program Site |
| Tk = Bulk Storage Tank | Fp = Fill Port |
| Gs = Gas station, Filling station | Vp = Vent pipe |
| Dc = Dry cleaner | FH = Fire House/Station |
| M = Manufacturing | RR = Railroad |
| I = Industrial | VCP = Voluntary Cleanup Program Site |
| C = Coal yard | Fm = Furniture Manufacture |
| G = Garage/parking | Mw = Monitoring well |
| A = Auto repair/service/sales/towing | Du = Dumping, unlicensed landfill |
| ES = Electrical Substation | |