



# 7

## Hazardous Materials

A hazardous material is any substance that poses a threat to human health or the environment. Substances that can be of concern include, but are not limited to, heavy metals, volatile and semi-volatile organic compounds, methane, polychlorinated biphenyls (PCBs), and hazardous wastes (defined as substances that are chemically reactive, ignitable, corrosive, or toxic).

### Introduction

According to the *CEQR Technical Manual*, the potential for significant impacts from hazardous materials can occur when:

- › hazardous materials exist on a site;
- › an action would increase pathways to their exposure; or
- › an action would introduce new activities or processes using hazardous materials.

This section presents the findings of the hazardous materials assessment and identifies potential issues of concern with respect to workers, the community, and/or the environment during construction and after implementation of the proposed project.

### Principal Conclusions

The Proposed Actions would not result in significant adverse impacts related to hazardous materials.

The Development Site is currently improved with the Grand Hyatt Hotel, a 26-story steel and glass building with approximately 1,300 guest rooms with conference/event space. The existing building is located directly above the Grand Central – 42nd Street subway station and Metropolitan Transportation Authority (MTA) Metro-North Railroad (MNR) tracks below grade. The Development Site is located immediately east of the Beaux Arts-style Grand Central Terminal (GCT). The Proposed Actions would facilitate the redevelopment of the Development Site with approximately 2,992,161 gross square feet (gsf) of mixed-use development, including a hotel,<sup>1</sup> office, and public space. In addition, a number of on- and off-site transit and public realm improvements would be introduced to enhance passenger circulation conditions at the Grand Central – 42nd Street subway station. These improvements include the redesign and expansion of Fare Control Areas (FCAs) R238 and R 238A, a new transit hall on the western side of the Development Site, a redesign of the FCA R240 area, removal of girders from the subway mezzanine level, and a “Short Loop Connection” construction to provide direct access for MNR and Long Island Railroad (LIRR) from GCT to the subway.

A subsurface investigation was conducted at the Development Site to evaluate for the presence of contamination in soil/fill materials that would be disturbed as part of the redevelopment. Sub-slab soil vapor was also evaluated for the presence of volatile organic compounds (VOCs) to determine if soil vapor mitigation may be warranted for the future redevelopment. The results of the subsurface investigation provided in the Phase II Environmental Site Assessment (ESA) indicate the presence of contaminants in historic/urban fill materials below the building slab that exceed applicable New York State Department of Environmental Conservation (NYSDEC) Part 375 cleanup criteria. Furthermore, chlorinated and petroleum VOCs were detected in sub-slab soil vapor samples, but were not detected at concentrations that exceed New York State Department of Health (NYSDOH) regulatory criteria. Contamination identified in the Phase II ESA was not directly attributed to an active release.

To address these conditions during site redevelopment, a New York City Department of Environmental Protection (NYCDEP)-approved Remedial Action Plan (RAP) and associated Construction Health and Safety Plan (CHASP) were developed and would be implemented during construction with regulatory oversight provided by NYCDEP with respect to subsurface disturbance related to construction of the building (see **Appendix B** for the May 2021 RAP and CHASP). The RAP provides requirements relating to the management of excavated materials including *in-situ* waste characterization sampling, stockpiling methods, transport and disposal of soil/fill materials, and fugitive dust and VOC monitoring under a Community Air Monitoring Plan (CAMP). Soil vapor mitigation would also be implemented including a minimum 20-mil soil vapor barrier to be incorporated into the design of the building. Quality assurance and contingency measures are also outlined in the RAP including potential gross contamination or underground storage tanks (USTs) that may be encountered relating to current and/or historic uses. The CHASP identifies potential hazards that may be encountered during construction and specifies appropriate health and safety measures to be undertaken to ensure that subsurface disturbance is performed in a manner protective of workers, the community and the environment (such as personal protective

<sup>1</sup> Development may also occur under an All Office Scenario. Under this scenario, the overall building square footage and building massing would be the same as under the Proposed Project but would be comprised of approximately 2,561,770 gsf of office space, retail, and no hotel.

equipment [PPE], community air monitoring, and emergency response procedures). Upon completion of remedial action, a Professional Engineer (PE)-certified Remedial Action Report (RAR) would be prepared and submitted to the NYCDEP for review and approval, which would detail the implementation of the remedy.

In addition to implementing the RAP and CHASP, regulatory requirements pertaining to the disturbance and handling of any lead-based paint (LBP), asbestos-containing materials (ACM) and PCB-containing building materials would be followed. As such, implementation of the Proposed Actions would not result in significant adverse impacts related to hazardous materials.

## Methodology

The potential for hazardous materials at the Development Site was evaluated in several environmental documents. A Phase I Environmental Site Assessment (ESA) was prepared by Roux Environmental Engineering and Geology, D.P.C. (Roux), dated January 13, 2021. The Phase I ESA was prepared in accordance with the American Society for Testing and Materials (ASTM) Practice E1527-13, inclusive of the "All Appropriate Inquiry" requirement amended in the Federal Register on December 30, 2013.

The goal of a Phase I ESA process is to identify Recognized Environmental Conditions (RECs), which means the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of the property. Per the ASTM Standard, a Phase I ESA reviews a variety of information sources, including current and historic Sanborn Fire Insurance Maps and aerial photographs; state and federal environmental regulatory databases identifying listed sites; and local environmental records. The Phase I ESA summarized herein also included reconnaissance of the Development Site and surrounding neighborhood and interviews with the building manager.

As stated in Practice E1527-13, there may be environmental issues or conditions at the site, which may be requested by the user to be addressed as part of the Phase I ESA, which are not covered within the scope of ASTM Practice E1527-13. These additional environmental issues (or non-scope considerations) could evaluate for the potential present of radon, lead-based paint (LBP), asbestos-containing materials (ACM), wetlands, and mold and water damage. Additional environmental issues, or non-scope considerations, are typically characterized in a Phase I ESA as Business Environmental Risks (BERs), which are risks that can have a material environmental or environmentally driven impact on the business associated with the current or planned use of a parcel of commercial real estate, not necessarily limited to those environmental issues required to be investigated.

To evaluate RECs and relevant BERs established in the Phase I ESA, a Phase II ESA was performed at the Development Site by Roux and was documented in a Phase II ESA report, dated February 3, 2021. The goal of a Phase II ESA is to evaluate subsurface conditions for the potential presence of contamination that could be encountered during site redevelopment. The results of a Phase II ESA can be used to establish practical mitigation measures that would be implemented during construction, as well as to prevent future site occupants from risk of exposure to potential contaminants of concern.

Based on the results of the Phase II ESA, an NYCDEP-approved RAP was developed by Roux, dated May 10, 2021, which would be implemented during construction of the building to address regulatory requirements relating to the management of excavated materials including stockpiling, transport and disposal of soil/fill materials, dust control, soil vapor mitigation, quality assurance and contingency measures should any gross contamination be encountered relating to current and/or historic site uses. Provisions for on- and off-site MTA and MNR public realm improvements were also included in the RAP for potential soil disturbance that may be required. Implementation of the RAP with respect to work associated with the MNR public realm improvements would be supervised by MTA, in consultation with DEP. The RAP was prepared in general conformance with the *CEQR Technical Manual* and includes a CHASP, dated May 10, 2021. The goal of a CHASP is to identify potential hazards that may be encountered during construction and specify appropriate health and safety measures to be undertaken to ensure that subsurface disturbance is performed in a manner protective of workers, the community and the environment (such as PPE, air monitoring including community air monitoring, and emergency response procedures).

As detailed in **Chapter 1, Project Description**, the Proposed Actions would facilitate the redevelopment of the Development Site with approximately 2,992,161 gsf of mixed-use development, including a hotel, office,<sup>2</sup> and public space. The at-grade and below-grade portions of the Development Site would continue to contain the subway station and rail station areas. The ground floor would include a hotel lobby and an office lobby, a reconstructed Lexington Passage and MTA retail located along the passage, an approximately 5,800-sf Transit Hall, and approximately 2,400-sf of additional area for subway entries off 42nd Street and Lexington Avenue. The hotel lobby would be located on the eastern frontage on Lexington Avenue, while the office lobby would be accessed from East 42nd Street. The second floor would contain office lobby and open-air publicly accessible open spaces. Office space is planned to be located on floors 7-63, and the hotel on floors 65-83.

In addition, off-site public realm improvements would be introduced including removal of girders from the subway mezzanine level, and a "Short Loop Connection" construction to provide direct access for MNR and LIRR from GCT to the subway.

As discussed in **Chapter 1, Project Description**, for conservative analysis purposes the EIS considers the two building program options to determine the With-Action reasonable worst case development scenario (RWCDs) for each density-based technical area: the Proposed Project with a mix of hotel, commercial office, local retail, and publicly accessible space; and the All Office Scenario, based on the same overall building square footage and building massing as the Proposed Project but comprised of approximately 2,561,770 gsf of office space, retail, and no hotel. In each chapter, where applicable, the EIS analyzes the scenario with the greater potential for impacts. Since the overall building massing and design would be the same in both program options, this chapter evaluates the With-Action condition including the hotel space, as described above, because it represents the Proposed Project.

<sup>2</sup> Development may also occur under an All Office Scenario. Under this scenario, the overall building square footage and building massing would be the same as under the Proposed Project but would be comprised of approximately 2,561,770 gsf of office space, retail, and no hotel.

## Assessment

### Existing Conditions

The Development Site is designated as Manhattan Block 1280, Lot 30, which is identified by the street address as 109 East 42nd Street. The Development Site is currently improved with the Grand Hyatt Hotel, a 26-story steel and glass building with approximately 1,300 guest rooms with conference/event space. The existing building is located directly above the Grand Central – 42nd Street subway station and MTA Metro-North Railroad tracks below grade. The Development Site is located immediately east of the Beaux Arts-style GCT.

### Phase I Environmental Site Assessment

Based on the Phase I ESA, a history of the Development Site was established dating back to 1890. At that time, the Development Site was originally developed with the Warren Fuller & Co (Manufactory of Paper-Hangings) on the western portions, a hospital on the southeastern portion and multiple unspecified buildings on the northeastern portion, and a structure identified as a wagon building. Circa 1919, the former buildings were demolished, and the Development Site was improved with the 26-story Commodore Hotel. According to historic resources (Sanborn Fire Insurance maps), the Commodore Hotel was renovated into the Grand Hyatt Hotel between 1968 and 1980.

In addition to the above, the Phase I ESA provided existing conditions noted during the site reconnaissance and study of the Development Site. According the Phase I ESA, the Development Site is improved with the existing Grand Hyatt Hotel, as previously described. The building is constructed of steel and glass with foundations that penetrate the Metro North Railroad and MTA mezzanine and platform levels below grade. The first three levels of the building include a mezzanine area that contains the main amenity spaces of the hotel, a ground floor lobby, ballrooms, convention center spaces and a restaurant. The upper 23 floors contain approximately 1,300 guest rooms and 45 conference rooms. The Grand Hyatt Hotel is improved with three basement levels that serve as back-of-house spaces to support the hotel. The basement levels were observed to be used for laundry services, storage, mechanical spaces, maintenance and porters' quarters, staff locker rooms and a security office. The second basement level is currently used for laundry services but was formerly used for dry cleaning operations.

Based upon the information provided in the Phase I ESA, the following findings and features were identified for the Development Site:

- › The Development Site as a topographic elevation of approximately 49 feet above mean sea level (amsl).
- › Groundwater beneath the Development Site is expected to flow toward the east-southeast, toward the East River.
- › The Development Site was identified on several Federal and State listings contained within the Environmental Data Resources, Inc. (EDR) database report under the names "Grand Hyatt New York" and "109 East 42nd Street," which are summarized, below.
  - The Development Site was identified on the Resource Conservation and Recovery Act Small Quantity Hazardous Waste Generator (RCRA-SQG) database under United States Environmental Protection Agency (USEPA) ID No. NYD986930675. Waste

streams identified with this listing include non-listed ignitable wastes, non-hazardous mercury, F-coded halogenated solvents and sill bottoms, K-coded solvent washes and sludges, caustic wastes and sludges or water washes and sludges from leaning tubs and equipment used in the formulation of pigments, driers, soaps and stabilizers containing chromium and lead. Multiple RCRA violations were identified by the USEPA spanning the 1990s to the early 2000s. The Phase I ESA attributes the RCRA listing to historic dry-cleaning activities that occurred on the second level of the basement level. The Phase I ESA indicated that dry cleaning activities were not conducted on the lowest level of the basement and were therefore, less likely to affect subsurface conditions.

- The Development Site was listed on the Facility Index System (FINDS), Enforcement and Compliance History Online (ECHO) and the Facility Manifest Information (MANIFEST) databases due to the Development Site's status as a RCRA hazardous waste generator.
  - The Development Site was identified on the Emergency Response Notification System (ERNS) database in association with public incident No. 466855, where a caller indicated gasoline running down the street near GCT. It was concluded the incident is unlikely to affect subsurface conditions at the Development Site.
  - The Development Site was identified on the Cooling Towers database, which did not indicate the presence of legionella.
- › The adjacent GCT, which adjoins the Development Site to the northwest is identified to have multiple spill incidents. The following spill incident associated with GCT was noted with the potential to affect subsurface conditions at the Development Site:
- NYSDEC Spill No. 00-10574 occurred on December 20, 2000 and is related to seepage of oil through walls of the #7 subway line tubes. The seepage was continuing to occur while being continually mopped by MTA workers. Impacts to an MTA sump pit was identified in connection with the seepage. A tube sealing and cleaning event was noted that occurred in January 2015 to help prevent additional seepage. The spill is currently active.
- › The adjacent GCT was identified on the RCRA Large Quantity Hazardous Waste Generator (RCRA-LQG) database for the generation of ignitable wastes, lead, mercury, benzene, methyl ethyl ketone (MEK), F-coded spent halogenated and non-halogenated solvents. Numerous violations were identified in association with the RCRA listing. The adjacent GCT was also identified on the TANKS database and is associated with Petroleum Bulk Storage (PBS) ID 2-613155. Specific information relating to quantity, type and location of tanks was identified to be withheld and not releasable under Freedom of Information Law (FOIL) for security reasons.
- › The Development Site is serviced by municipal water, sewer, electric, natural gas and steam utilities.
- › Flammable safety cages were identified throughout the building during the Phase I ESA site reconnaissance, which contained canned food heating gels, paints, lacquers, paint thinners, spray paint, crack sealants, adhesives and other spray products, and are associated with typical maintenance materials. Several 25-gallon plastic drums of corrosive laundry detergent were observed in basement level 2. No spillage, stains or odors were identified in the vicinity of the drums.

- › One (1) 275-gallon diesel fuel tank was identified on the 36th floor of the building (the 26th above grade floor of the building), which was noted to be in good condition with no evidence of leaks or release.
- › Dry transformers were observed throughout the building spaces. None of the electrical equipment was marked with PCB-containing materials.
- › No staining or stressed vegetation was observed during the Phase I ESA site reconnaissance.
- › Floor drains observed throughout the building presumably discharge to the municipal sewer and are unlikely to affect subsurface conditions at the Development Site.
- › Various suspect asbestos-containing building materials (ACM) were observed during the Phase I ESA site reconnaissance.

In addition to the above, a Sub-Slab Soil Vapor Investigation was performed by Roux as a supplemental limited subsurface investigation. The results of the Sub-Slab Soil Vapor Investigation were documented in a Summary of Sub-Slab Soil Vapor Investigation letter, dated November 20, 2020, which was incorporated into the findings of the Phase I ESA and appended, therein. A summary of the soil vapor investigation is provided, below.

- › Three soil vapor points (SV-1, SV-2 and SV-3) were installed within the basement of the Grand Hyatt Hotel on October 21, 2020. Soil vapor points were installed, and quality checked using helium as a tracer gas to verify the integrity of the surface seal.
- › Soil vapor results contained detections of volatile organic compounds (VOCs).
- › One (1) compound, PCE, was detected in the three soil vapor samples that has a guidance value under the Soil Vapor/Indoor Air Decision Matrices in accordance with the New York State Department of Health (NYSDOH) Final Guidance for Evaluating Soil Intrusion in the State of New York, October 2006 (Revised May 2017). However, the results were detected below any monitoring or mitigation thresholds under the NYSDOH Matrix B.
- › There are no comparative regulatory guidance values or cleanup concentrations for the remaining VOCs detected in the three soil vapor samples. However, it was noted that low concentrations of petroleum VOCs detected, including benzene, ethylbenzene, toluene and xylenes (BTEX), as well as 1,2,4-trimethylbenzene.

Based on the results of the Sub-Slab Soil Vapor Investigation, no additional investigation was recommended.

Based upon the results of the Phase I ESA, the following REC was identified:

- › **Mass Transit Usage:** The surrounding area to the northwest (upgradient) is developed with railroads/subway infrastructure associated with Metro North Railroad, including the adjoining GCT. Rail structures associated with the New York City subway are also present underneath the Development Site. Railway infrastructure typically involves the use of various hazardous substances and petroleum products in operations including lubricants, hydraulic oil, heat resistant oils, brake fluid and other oils used in power generation. Railway infrastructure also requires electrical power conversion typically in the form of substations, which may involve the use of PCBs in electrical transformers. Numerous NYSDEC spill incidents are associated with the rail lines in the general vicinity of the Development Site. One spill incident identified free product seeping into nearby subway tunnels from an unknown source. Collectively, this was considered a REC with the potential to have affected subsurface conditions at the Development Site.

In addition to the REC, the following Business Environmental Risks (BERs) were identified for the Development Site:

- › **Suspect Presence of Historic Fill Material:** The Development Site was historically redeveloped with the Commodore Hotel in 1919 based on historic sources, which would have required demolition of the previous hospital and manufacturing-related buildings present on the site. As such, there is a potential for historic fill material to be present including, but not limited to, glass, bricks, concrete, slag, ceramic and other non-native materials brought, deposited or demolished directly into the subsurface to facilitate redevelopment. This material would likely require proper removal and was considered a BER for the Development Site.
- › **Suspect Presence of Asbestos Containing Materials:** Based on the age of construction (circa 1919), there is a potential for ACM to be present in various pipe wrappings, joint wrappings and other materials. The suspected presence of ACM was considered a BER for the Development Site and should be considered prior to redevelopment.

## Phase II Environmental Site Assessment

A subsurface investigation was implemented at the Development Site by Roux to investigate the REC relating to mass transit beneath the building, as well as potential concerns relating to historic/urban fill material that was identified as a BER in the Phase I ESA. The investigation targeted areas of concern (AOCs) as they relate to redevelopment, including areas of proposed excavation and an evaluation of sub-slab soil vapor. The subsurface investigation was summarized in a Phase II ESA report, dated February 3, 2021. The scope of the Phase II ESA involved the following:

- › Collection and analysis of ten (10) soil samples from seven (7) test pits across the basement footprint.
- › Installation of three (3) soil vapor and the collection and analysis of soil vapor beneath the building.
- › Groundwater was not expected to be encountered above rock during the investigation. Field observation confirmed no groundwater was present and would not be encountered during site redevelopment and therefore, groundwater was not sampled.

### Soil Sample Results

The test pits were installed as part of a concurrent geotechnical investigation beneath the basement of the building. There was no discernable threshold between historic fill and native soils at each test pit location. Soil samples collected from each test pit were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), heavy metals, PCBs, pesticides and herbicides. The results of the soil investigation were compared to the applicable NYSDEC regulatory cleanup criteria (i.e., NYSDEC Part 375 Unrestricted Use Soil Cleanup Objectives [UUSCOs] and NYSDEC Part 375 Commercial Use Soil Cleanup Objectives [CSCO]).

The results of the soil analyses in the Phase II ESA indicates no VOCs, with the exception of acetone, were identified in the soil samples above NYSDEC Part 375 UUSCOs or CSCOs. The exceedance of acetone was attributed to laboratory cross-contamination and was not indicative of on-site contamination. Concentrations of SVOCs, specifically polycyclic aromatic hydrocarbons (PAHs) were detected at concentrations that exceeded their respective NYSDEC Part 375 UUSCOs and/or CSCOs in five (5) of the ten (10) soil samples. Heavy metals



were detected above NYSDEC Part 375 UUSCOs in eight (8) of the ten (10) soil samples collected, and above NYSDEC Part 375 CSCOs in two (2) of the ten (10) soil samples collected. Lead was the only heavy metal detected above NYSDEC Part 375 CSCOs. Concentrations of total PCBs were detected above the NYSDEC Part 375 UUSCO at one location but were below the respective CSCO. Two pesticides were detected at concentrations that exceed their respective NYSDEC Part 375 UUSCOs but below the CSCOs at two locations.

Soil exceedances were primarily attributed to the presence of historic/urban fill materials and mass transit operations and were not associated with an active release. The Phase II ESA indicated excess soils, if generated as part of site redevelopment, should be properly managed and disposed off-site and that future waste characterization sampling would be required to ensure soils are appropriately handled in accordance with prevailing regulations and requirements of the selected disposal facility(s).

### **Soil Vapor Results**

Three (3) soil vapor points were installed as part of a limited subsurface investigation. The results of the soil vapor evaluation were incorporated into the findings of the Phase I ESA, as previously discussed. However, the findings of the soil vapor evaluation were also discussed in the Phase II ESA prepared by Roux.

As previously indicated, three (3) soil vapor points were installed within the basement and were quality checked using helium as a tracer gas to verify the integrity of the surface seal. Soil vapor samples were analyzed for VOCs using United States Environmental Protection (USEPA) Method TO-15. Each sub-slab soil vapor sample contained detections of VOCs. Detections were noted to be chlorinated VOCs and petroleum VOCs. One (1) compound, PCE, was detected in the three soil vapor samples that has a guidance value under the Soil Vapor/Indoor Air Decision Matrices in accordance with the NYSDOH Final Guidance for Evaluating Soil Intrusion in the State of New York, October 2006 (Revised May 2017). However, PCE was not detected in exceedance of the NYSDOH Soil Vapor/Indoor Air matrices that would warrant further monitoring or mitigation. There are no comparative regulatory guidance values or cleanup concentrations for the remaining VOCs detected in the three soil vapor samples. However, it was noted that low concentrations of petroleum VOCs detected, including BTEX, as well as 1,2,4-trimethylbenzene.

The results of the soil vapor assessment conducted during the subsurface investigation did not indicate an active source of contamination to sub-slab soil vapor. However, the Phase II ESA recommended a vapor barrier be installed as part of construction of the redevelopment.

### **Remedial Action Plan and Construction Health and Safety Plan**

To address the conditions identified in the Phase II ESA, a RAP, dated May 10, 2021 was developed by Roux to establish remedial action objectives (RAOs) and procedures to meet those objectives for the Proposed Project. The following RAOs are outlined in the RAP:

#### **Soil**

- › Prevent direct contact with contaminated soil.
- › Prevent exposure to contaminants volatilizing from contaminated soil.
- › Prevent migration of contaminants that would result in groundwater contamination.

### **Groundwater**

- › Groundwater was not encountered in the overburden during the Phase II ESA. Furthermore, based on the shallow depth-to-bedrock, the Proposed Project would not encounter groundwater, and exposures to groundwater are not anticipated. As such, no RAOs were identified.

### **Soil Vapor**

- › Prevent exposure to contaminants in potential soil vapor.
- › Prevent migration of potential soil vapor into dwelling and other occupied structures.

With respect to soil generation and disposal, excavation and removal of contaminated soils/fill materials is required in localized areas within the footprint of the existing basement and within the on- and off-site MNR and MTA public realm spaces. Given the presence of contaminated soil/fill materials identified in the Phase II ESA, *in-situ* waste characterization sampling would be performed prior to excavation to identify appropriate disposal facilities. Excavated materials would be properly managed on-site including the staging of soil/fill materials on polyethylene sheeting with a minimum thickness of six (6) mils prior to disposal. Stockpiles, if generated or required, would also be covered to limit precipitation from contacting material and to avoid generation of dust. Stockpiles, if generated, would be inspected daily to ensure adequate cover. To minimize exposure to field personnel and the public to potential environmental hazards in the soil during excavation, a real-time CAMP would be implemented in accordance with the limits specified in NYSDOH and NYSDEC guidance during ground-intrusive activities (i.e., soil/waste excavation and handling, test pit excavation or trenching). The CAMP includes fugitive dust monitoring for particulates as well as VOCs, and establishes mitigation requirements should any guidance value exceedances be recorded above 15-minute time-weighted averages (TWAs). Should any fill material be required to be imported, procedures would be followed, as specified in the RAP, that establishes a testing protocol and provides regulatory limits prior to import based on the type of material. Best Management Practices (BMPs) to prevent future site occupants from exposure would be employed during remedial action to address post-excavation residual contaminants that may remain in-place. These BMPs include a cover system consisting of the new concrete building slab with a minimum thickness of six inches, and a soil vapor barrier to separate new building slabs from underlying soil.

The soil vapor barrier would be a minimum 20-mil thickness and would be incorporated into the design of the building. The sub-slab soil vapor barrier would be made of polyolefin and barrier resins resistant to puncturing that has a high tensile strength. The soil vapor barrier would consist of either a Stego® Wrap 20 Mil Vapor Barrier, Grace Florprufe® or approved equal, and would be installed in accordance with manufacturer's recommendations. It should be noted the soil vapor barrier is not proposed to be installed in portions of the building footprint where there is no direct exposure risk to soil vapor, which includes portions of the new building where the slab on the lowest level does not make contact with soil due to the presence of MTA or MNR infrastructure (tunnel) air space. A soil vapor barrier is not proposed within the offsite and public realm improvement areas.

Spill prevention and control measures would be implemented, as specified in the RAP, inclusive of potential releases that may occur during construction, as well as unexpected contaminants that may be encountered in the subsurface during construction. Furthermore,

contingency procedures in the event a UST is encountered would also be followed, as specified in the RAP.

To accompany the RAP, a site-specific CHASP was developed by Roux, dated May 10, 2021. The CHASP would be implemented during construction and establishes health and safety procedures including designated work zones, appropriate PPE levels, and emergency procedures in the event of injury or exposure to contaminants. Upon the start of construction, the CHASP would be updated to incorporate the names and contact information of the designated superintendents and safety officers responsible for overseeing and implementing the CHASP.

Following completion of remedial activities, a PE-certified RAR would be submitted to NYCDEP for review and approval which would document the implementation of the remedy.

NYCDEP conditionally approved the RAP and CHASP on May 13, 2021 (see **Appendix B**).

### Future No-Action Condition

Absent the Proposed Project, the Development Site would be improved with a 27-FAR development of approximately 1,883,743 gsf, comprised of approximately 1,682,336 gsf of office space; approximately 18,300 gsf of retail; and an approximately 5,896-sf enclosed publicly accessible space on the ground floor. In addition, approximately 10,220 gsf of MTA circulation space would be provided on the ground floor. The No-Action development would be 69 stories and approximately 1,118 feet tall. This represents the maximum floor area developable on the Development Site through non-discretionary actions. Further, the Applicant would provide transit improvements from the Priority Improvement List set forth in Zoning Resolution Section 81-682 to improve circulation and reduce congestion.

In the No-Action condition, the RAP and CHASP would not be implemented during construction, and regulatory oversight would not be provided by NYCDEP with respect to the excavation and management of on- and off-site soil/fill materials, as well as mitigation measures to be implemented due to the presence of chlorinated- and petroleum VOCs in soil vapor that were confirmed in the Phase II ESA.

In addition to the above, regulatory requirements pertaining to building materials containing ACM, LBP and PCBs would be addressed under prevailing regulations as part of standard demolition and redevelopment practices.

### Future With-Action Condition

The future With-Action condition would facilitate the redevelopment of the Development Site with approximately 2,992,161 gsf of mixed-use development, including a hotel, office, and public space. The at-grade and below-grade portions of the Development Site would continue to contain the subway station and rail station areas. The ground floor would include a hotel lobby and an office lobby, a reconstructed Lexington Passage and MTA retail located along the passage, an approximately 5,800-sf Transit Hall, and approximately 2,400-sf of additional area for subway entries off 42nd Street and Lexington Avenue. The hotel lobby would be located on the eastern frontage on Lexington Avenue, while the office lobby would be accessed from East 42nd Street. The second floor would contain office lobby and open-air publicly accessible open spaces. Office space is planned to be located on floors 7-63, and the hotel on floors 65-83.

In addition, off-site public realm improvements would be introduced including removal of girders from the subway mezzanine level, and a "Short Loop Connection" construction to provide direct access for MNR and LIRR from GCT to the subway.

The results provided in the Phase II ESA indicate the presence of historic/urban fill materials that exceed the applicable NYSDEC Part 375 cleanup criteria. Furthermore, chlorinated and petroleum VOCs were detected in sub-slab soil vapor samples, but were not detected at concentrations that exceed NYSDOH regulatory criteria, and were not directly attributed to an active release. To address these conditions during site redevelopment, an NYCDEP-approved RAP and associated CHASP were developed and would be implemented during construction. The RAP provides for regulatory oversight by NYCDEP and includes requirements relating to the management of excavated materials including *in-situ* waste characterization sampling, stockpiling methods, transport and disposal of soil/fill materials, and fugitive dust and VOC monitoring under a CAMP. Soil vapor mitigation would also be implemented including a minimum 20-mil soil vapor barrier to be incorporated into the design of the building. Quality assurance and contingency measures are also outlined in the RAP including potential gross contamination or USTs that may be encountered relating to current and/or historic uses. The CHASP identifies potential hazards that may be encountered during construction and specifies appropriate health and safety measures to be undertaken to ensure that subsurface disturbance is performed in a manner protective of workers, the community and the environment (such as PPE, community air monitoring, and emergency response procedures). Upon completion of remedial action, a PE-certified RAR would be prepared and submitted to the NYCDEP for review and approval, which would document the implementation of the remedy.

In addition to implementing the RAP and CHASP, regulatory requirements relating to asbestos, lead-based paint and PCBs in building materials would be followed as part of standard demolition practices. Given these procedures, the With-Action condition would not result in any significant adverse impacts with respect to hazardous materials for the Development Site and off-site public realm improvement areas.