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Hazardous Materials

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

Introduction

According to the *2021 City Environmental Quality Review (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.

GO Quay, LLC (the Project Developer) and the Metropolitan Transportation Authority (MTA) (an affiliate of the New York City Transit Authority [NYCTA]) (collectively, the Applicants) are seeking several discretionary actions (the Proposed Actions) that would apply to a rezoning area consisting of Brooklyn Block 2590, Lot 25, the majority of Lot 1, and the northern half of the former Quay Street in the Greenpoint neighborhood of Brooklyn, Community District (CD) 1 (the Rezoning Area); the remaining portion of Lot 1 (which would not be rezoned); and a relocation site that would house two NYCTA facilities that are being relocated from their existing locations and consolidated into a new facility located at 213 Meadow Street (Block 2951, Lots 1, 5, and 45) in the East Williamsburg neighborhood of Brooklyn CD 1 (the NYCTA Relocation Site) that would be constructed by the Project Developer. The Rezoning Area, the remaining portion of Lot 1 that will not be rezoned, and the NYCTA Relocation Site are, collectively, the Affected Area.

The Proposed Actions would facilitate on the Development Site (Brooklyn Block 2590, Lots 1 and 25)[1] a mixed-use development that would comprise three buildings totaling approximately 1,215,000 gross square feet (gsf) (the Proposed Development). The Proposed Development would include the construction of two buildings on Lot 1 totaling approximately 1,106,500 gsf of residential space for up to approximately 1,150 total dwelling units (DUs). Additionally, the Proposed Development would include the construction on Lot 25 of approximately 35,000 gsf of community facility space earmarked as a permanent home for the Greenpoint Monitor Museum, which is owned by the Monitor Museum.

The Proposed Development would also include substantial open space improvements. The development would include the creation of over an acre of waterfront open space (approximately 50,000 sf or 1.15 acres). This new open space would include a 34,000-sf Waterfront Public Access Area (WPAA), which would provide a pedestrian connection between the future Bushwick Inlet Park and the existing Shore Public Walkway to the north of the site and an upland connection between the future Bushwick Inlet Park and West Street, plus approximately 9,000 sf of Public Access Area (PAA).

In order to allow for the redevelopment of the Development Site, the Proposed Actions also involve the relocation and consolidation of two existing critical NYCTA facilities to a new 143,000-gsf turnkey facility (the NYCTA Replacement Facility) at the NYCTA Relocation Site. The NYCTA Relocation Site would accommodate the NYCTA Mobile Wash Unit and Materials Storage currently located on a portion of the Development Site (Block 2590, Lot 1) (the NYCTA Facility) and the NYCTA Emergency Response Unit (ERU) facility currently located on 65 Commercial Street (Block 2472, Lot 415) (the ERU Site).

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 Development and NYCTA Replacement Facility.

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 Development and relocation of two existing NYCTA facilities and how such potential issues of concern will be mitigated.

Principal Conclusions

To avoid the potential for significant adverse impacts related to hazardous materials, the Project Developer would comply with the requirements of the existing (E)-Designation (E-138) on the Development Site and at the new (E)-Designation (E-870) on the NYCTA Relocation Site. Any potential remedial action that may be required would be administered as part of the (E)-Designation protocol under the regulatory oversight of the Mayor's Office of Environmental Remediation (OER). The Project Developer is also applying to enroll the Lot 1 portion of the Development Site (under two separate applications for the East and West Buildings, which will cover the entirety of Lot 1) and NYCTA Relocation Site into the New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) which would provide a pathway to further characterize, investigate and remediate the Lot 1 and the NYCTA Relocation Site under regulatory oversight provided by NYSDEC. The BCP is also considered an accepted pathway for site investigation and remediation that satisfies the requirements of OER's (E)-Designation program. Compliance with

[1] On December 17, 2024, the southern half of former Quay Street was incorporated into Lot 25. The northern half of former Quay Street is not controlled by the Applicants.

either the E-designation program under OER oversight or the BCP under NYSDEC oversight would provide for the protection of human health and the environment within the Development Site and NYCTA Relocation Site once a Certificate of Completion (COC) is issued by NYSDEC or a Notice of Satisfaction (NOS) is issued by OER, and any required long term institutional and engineering controls (if required) are in place.

In addition to the requirements mandated under the (E)-Designation and/or enrollment in the BCP, regulatory requirements pertaining to the disturbance and handling of any lead-based paint (LBP), asbestos-containing materials (ACM) and polychlorinated biphenyl (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.

Development Site

A Phase I Environmental Site Assessment (ESA) was performed for Lot 1, on September 20, 2023, and subsurface investigations were conducted in December 2017 (for Lot 25) and September 2023 (for Lot 1) to evaluate for the presence of contamination. The results of the subsurface investigations indicate the presence of contaminants in historic/urban fill materials that exceed applicable NYSDEC Part 375 cleanup criteria. Furthermore, chlorinated volatile organic compounds (VOCs) were detected in one soil vapor sample above New York State Department of Health (NYSDOH) regulatory criteria.

To address these conditions at the Development Site during site redevelopment, the Proposed Actions would adhere to requirements of the existing (E)-Designation for hazardous materials (E-138), which was applied to Brooklyn Block 2590, Lots 1 and 25 as part of the 2005 Greenpoint-Williamsburg Rezoning. An environmental (E)-Designation is an institutional control that is placed on a site to establish a hazardous materials review and approval framework. It provides a mechanism to ensure that testing for and remediation of hazardous materials, if necessary, are completed prior to future development of an affected site, thereby removing the potential for a hazardous materials impact. (E)-Designated parcels are administered under the authority of OER. The Project Developer has also submitted an application to enroll the Lot 1 portion of the Development Site into the NYSDEC BCP. The implementation of remedial measures required under the (E)-Designation or the NYSDEC BCP would reduce the potential for significant adverse hazardous materials impacts due to the Proposed Actions.

NYCTA Relocation Site

A Phase I ESA was performed at the NYCTA Relocation Site in March 2022, and updated in September 2023, and a subsurface investigation was conducted in March 2022. The results of the subsurface investigation indicate the presence of contaminants in historic/urban fill materials that exceed applicable NYSDEC Part 375 cleanup criteria.

To reduce the potential for adverse impacts associated with new construction at the NYCTA Relocation Site resulting from the Proposed Actions, further environmental investigations and remediation will be required. To ensure that these investigations are undertaken, hazardous materials (E)-Designation (E-870) would be placed on the on the NYCTA Relocation Site (Brooklyn Block 2951, Lots 1, 5, and 45). The Project Developer has also submitted an application to NYSDEC to enroll the NYCTA Relocation Site into the BCP. The implementation of remedial measures required under the (E)-Designation or NYSDEC BCP would avoid the potential for significant adverse hazardous materials impacts due to the Proposed Actions.

Methodology

The potential for hazardous materials on the Development Site was evaluated based on the following documents (see **Appendix F**):

- A December 2017 Phase II Limited Site Investigation Results Report prepared by AECOM Technical Services Inc. (AECOM) for 56 Quay Street (Lot 25).
- A September 20, 2023, Phase I Environmental Site Assessment (ESA) prepared by Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. (Langan) for 40 Quay Street (Lot 1).
- A September 26, 2023, Phase II Environmental Investigation Report prepared by Langan for 40 Quay Street (Lot 1).

The potential for hazardous materials on the NYCTA Relocation Site was evaluated based on the following documents (see **Appendix F**):

- A March 11, 2022, Phase I ESA prepared by Langan for 213 Meadow Street.
- A March 11, 2022, Phase II Environmental Investigation Report prepared by Langan for 213 Meadow Street.
- An October 26, 2023, Addendum to 11 March 2022 Phase I ESA prepared by Langan for 213 Meadow Street.

The Phase I ESAs for the Development Site and NYCTA Relocation Site were prepared in general accordance with ASTM Practice E1527-21, inclusive of the "All Appropriate Inquiry" requirement amended in the Federal Register on December 30, 2013. The United States Environmental Protection Agency (EPA) "All Appropriate Inquiry" requirement establishes specific regulatory requirements for conducting appropriate inquiries into the previous ownership, uses, and environmental conditions of a property for the purposes of qualifying for certain landowner liability protections under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

As detailed in **Chapter 1, Project Description**, the Proposed Actions would facilitate the development of a museum on Lot 25, a residential and commercial building with two high-rise towers on the western portion of Lot 1, and a residential and commercial building on the eastern portion of Lot 1. There would also be open space and public realm improvements on the Development Site and relocation of an existing NYCTA facility to allow for development on Lot 1.

Assessment

Existing Conditions

The Development Site is located on western portions of Brooklyn Block 2590 and is currently developed with a 1-story MTA facility on Lot 1 and Lot 25 is vacant. Portions of Lot 25 are deteriorating due to flooding and erosion. An (E)-Designation (E-138) for Hazardous Materials was placed on Lots 1 and 25 as part of the Greenpoint-Williamsburg Rezoning (CEQR #04DCP003K).

The NYCTA Relocation Site is located on Brooklyn Block 2951, Lots 1, 5, and 45. Lot 45 contains a single-story building and is currently occupied by truck storage and repairs, food truck storage, and scaffolding storage areas.

Phase II Limited Site Investigation Results Report (Lot 25)

The 2017 Phase II Limited Site Investigation aimed to evaluate potential environmental concerns for the development of the USS Monitor Park and Museum, focusing on shoreline stabilization, flood control, and public access. AECOM conducted soil borings and analyzed samples, finding polycyclic aromatic hydrocarbons and metals above applicable standards, consistent with previous investigations. The contamination was determined to likely stem from historic operations and other sources like historic fill material and surface water runoff. Remedial measures suggested by the report include removing contaminated soil and sediment, capping remaining contaminated soil, and controlling erosion to prevent contaminants from entering Bushwick Creek or the East River. The report also suggested that a Site Management Plan be prepared to monitor and manage these measures.

Phase I Environmental Site Assessment for 40 Quay Street

A Phase I ESA dated September 20, 2023, was completed for Lot 1. The goal of the Phase I ESA was 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 E1527-21 Standard, the Phase I ESA reviewed 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 also included a site visit to the Development Site and observation of surrounding properties.

The RECs identified in the Phase I ESA are as follows:

- The subject property has a long history of industrial and manufacturing use from 1887 to 1983, including cork manufacturing, an iron foundry, metal plating, fireproof door manufacturing, machine shops, and steel product manufacturing. Since 1997, it has been owned by the NYCTA and used as a storage facility for the Mobile Wash Unit and the Material Control Unit, which involves vehicle parking, light vehicle maintenance including cleaning of the vehicles, and storage of petroleum and maintenance products. The NYCTA was a generator of hazardous waste disposal from 2006 to 2021. There is potential for environmental impacts on the soil, soil vapor, or groundwater due to historical and current site operations.
- The subject property is listed in the New York Underground Storage Tank (UST) database as an unregulated/closed Petroleum Bulk Storage Facility No. 2-260428 for two 7,500-gallon #2 fuel oil USTs that were closed in place on August 17, 2005. During a site walk, the location of the USTs could not be identified, and no records were found documenting their condition or the surrounding subsurface area. There is a potential for environmental impacts on the soil, soil vapor, or groundwater due to undocumented petroleum releases from these USTs.
- Pat & Dom's Body & Fender Repair at nearby 25 Franklin Street generated and disposed of hazardous waste, including ignitable waste, methyl ethyl ketone, and spent nonhalogenated solvents around 1994. W.H. Christan & Sons at 31 Franklin Street operated as a gasoline service station with tanks from 1942 to 1978 and provided automotive repair services from 1951 to 2013. The site had seven 550-gallon gasoline USTs, which were closed and removed in 1997, with

a spill due to tank failure that was closed in 2003. This property also generated ignitable hazardous waste in 1997 and 1999. Petroleum impacts from these operations may have migrated to and adversely impacted the subsurface at the subject property.

Phase II Environmental Investigation Report (Lot 1)

The 2023 Phase II Environmental Investigation detected contaminated fill in soil samples up to 7 feet below ground surface (bgs) in the western portion, up to 8 feet bgs in the eastern portion, and up to 5 feet bgs throughout the rest of Lot 1. Odors and elevated PID readings were found in two soil borings, indicating potential petroleum impacts. Petroleum-related VOCs were detected in groundwater, which was determined to be connected to a nearby spill and possibly from two closed-in-place fuel oil USTs. Semi-volatile organic compounds (SVOCs), metals, and pesticides were found in soil samples, suggesting contamination from historic operations. Groundwater samples showed total metals and SVOCs, including 1,4-dioxane and bis(2-ethylhexyl) phthalate, above applicable screening values. The presence of 1,1,1-trichloroethane in soil vapor was determined to be related to an unknown chlorinated VOC source. The investigation was limited in scope, and Langan suggested further impacts may be discovered during remedial investigation in connection with future redevelopment activities.

Phase I Environmental Site Assessment for 213 Meadow Street

A Phase I ESA dated March 11, 2022, was completed for 213 Meadow Street, including Lots 1, 5, and 45. The report determined that historically, this site has been used for oil truck parking, junk yards, auto wrecking, and a solid waste transfer facility, with surrounding sites used for various industrial purposes, including truck repair, gasoline storage, and metal products manufacturing. One REC was identified in the Phase I ESA as follows:

› A Phase II Environmental Investigation conducted in February 2022, which revealed contaminated fill material impacted with heavy metals and semi-volatile organic compounds (SVOCs) exceeding NYSDEC Soil Cleanup Objectives (SCOs).

Phase II Environmental Investigation Report for 213 Meadow Street

The March 2022 Phase II Environmental Investigation for 213 Meadow Street aimed to assess potential subsurface impacts at the site. The geological and hydrogeological conditions at the site were found to consist of layers of concrete, fill, sand, silt, and clay, with groundwater encountered between 9.5 and 11.5 feet below ground surface. The Phase II Environmental Investigation included the installation of seven soil borings, four groundwater monitoring wells, and four soil vapor sampling points. Soil, groundwater, and soil vapor samples were collected and analyzed for various contaminants.

The investigation findings revealed elevated concentrations of SVOCs and metals in soil samples, including benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and lead. Groundwater samples showed exceedances of NYSDEC standards and guidance values for SVOCs, metals, and PFAS. Soil vapor samples detected VOCs such as carbon tetrachloride, methylene chloride, and trichloroethylene (TCE). The presence of contaminated fill, elevated concentrations of SVOCs and metals in soil, and contaminants in groundwater and soil vapor indicate environmental concerns. Special handling and disposal requirements will be necessary during future site work, and additional investigation may be required if further impacts are encountered during redevelopment activities.

Addendum to Phase I Environmental Site Assessment for 213 Meadow Street

The Addendum to the March 2022 Phase I ESA for 213 Meadow Street was created to include additional information received after the initial Phase I ESA. A questionnaire requesting information in accordance with ASTM E-1527-21 was provided to the property owner but was not returned until September 29, 2023. The completed questionnaire identified stained soil/pavement and solid waste, including trash, construction debris, or demolition debris, present at the property. The property has a Stormwater Pollution Prevention Plan (SWPPP) under the State Pollutant Discharge Elimination System (SPDES) Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity.

Future No-Action Condition

Absent the Proposed Actions, it is assumed that existing conditions at the Development Site would remain. Neither the museum nor the open space improvements would be realized as part of an as-of-right scenario. The existing (E)-Designation on the Development Site (E-138) would remain; however, no further assessment of hazardous materials would be conducted in the absence of any development and an (E)-Designation for hazardous materials investigation and remediation measures would not be placed on the NYCTA Relocation Site. Consequently, confirmed contaminants present on the Development Site and NYCTA Relocation Site would go unmitigated and regulatory oversight from OER would not be provided. In addition to the above, regulatory requirements pertaining to building materials containing ACM and LBP would not be addressed under prevailing regulations as part of standard demolition and redevelopment practices.

The future No-Action condition would also mean that no new development would occur on the NYCTA Relocation Site at 213 Meadow Street. It is assumed that the NYCTA Relocation Site would continue operating under existing conditions and that no environmental remediation or mitigation would be performed.

Future With-Action Condition

The future With-Action condition would facilitate the Proposed Development, which would consist of a museum, residential space, commercial space, open space, and below-grade parking. Construction of the Development Site would entail demolition of the existing structures and excavation for the Proposed Development. To address any concerns relating to hazardous materials on the Development Site, the Proposed Actions would comply with the existing (E)-Designation (E-138) for hazardous materials. Compliance with the (E)-Designation would allow for the remediation and redevelopment of a site with identified contaminants under OER oversight. The greatest potential for exposure to contaminated materials would occur during subsurface disturbance associated with construction of the Proposed Development.

The (E)-Designation for hazardous materials provides a mechanism for regulatory oversight by OER for future remedial action as a post-demolition and/or pre-construction requirement that would reduce, or eliminate, the potential for future risk or exposure as it relates to hazardous materials and the conditions identified in the Phase I ESA and Phase II Environmental Investigation. Moreover, a Construction Health and Safety Plan (CHASP) would be required by OER under the (E)-Designation program. The potential for adverse impacts would be avoided by compliance with the (E)-Designation.

The future With-Action condition would also facilitate construction of a new, approximately 3-story facility on the NYCTA Relocation Site. The facility would consolidate the existing NYCTA operations to accommodate the NYCTA Mobile Wash Unit and Materials Storage currently located at 40 Quay Street (Block 2590, Lot 1) (the NYCTA Facility), and the NYCTA Emergency Response Unit (ERU) facility currently located at 65 Commercial Street (Block 2472, Lot 415) (the ERU Facility). The potential for adverse impacts would be avoided by placing a hazardous materials (E)-Designation (E-870) on each of the lots of the NYCTA Relocation Site (Block 2951, Lots 1, 5, and 45). With the (E)-Designation in place, additional characterization of the subsurface conditions in the specific areas of subsurface disturbance identified in the design documents(s) would be necessary to supplement the existing data; however, the nature of the subsurface environmental impacts at the NYCTA Relocation Site is not expected to change significantly from what was identified in the March 2022 Phase II and described herein.

In addition, the Project Developer would seek to enroll Lot 1 (under two separate BCP applications for the East and West Buildings that would cover the entirety of Lot 1) and the NYCTA Relocation Site in the NYSDEC BCP, which would provide regulatory oversight for any supplemental investigation or remedial action by NYSDEC. If Lot 1 portions and the NYCTA Relocation Site are admitted into the BCP, which is considered an accepted pathway for site investigation and remediation that satisfies the requirements of OER's (E)-Designation program, NYSDEC would provide regulatory oversite over the characterization, investigation and remediation of Lot 1 and the NYCTA Relocation Site.

A Remedial Investigation (RI) under the NYSDEC BCP would further characterize these areas to determine the full nature and extent of the contamination for purposes of determining the correct remedial methodology.

Remedial actions associated with Lot 1 and NYCTA Relocation Site would be completed under the requirements of the NYSDEC BCP, with regulatory oversight provided by the NYSDEC and NYSDOH.

Upon completion of remedial action, a Final Engineering Report (FER) would be completed and submitted to NYSDEC for review and approval. Any potential institutional or engineering controls (ICs/ECs) relating to site management would be followed in accordance with an NYSDEC-approved SMP.

If either site is found not to be eligible or the Applicant decides against pursuing the BCP, subsurface contaminants would subsequently be addressed through the E-designations under the jurisdiction of OER. This would mitigate potential risk and exposure relating to the presence of hazardous materials in the subsurface by implementing institutional and/or engineering controls, as necessary.

In addition to implementing the Remedial Action Plan (RAP) and Construction Health and Safety Plan (CHASP), regulatory requirements relating to asbestos, lead-based paint and PCBs in building materials would be followed as part of standard demolition practices.

(E)-Designation

The applicable text for the (E)-Designation that would be placed on the lots that comprise the NYCTA Relocation Site would be as follows. Provided the NYCTA Relocation Site's pending participation in the BCP, OER may waive aspects of Tasks 1 and/or 2 or accept documentation prepared for NYSDEC in lieu of the protocols as described below.

Task 1: Sampling Protocol

Prior to construction, the applicant shall submit to OER, for review and approval, a supplementary 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 areas of subsurface disturbance and the specific source of suspected contamination (i.e., petroleum-based contamination and non-petroleum-based contamination). 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 RAP 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 RAP. The applicant should then provide proper documentation that remedial action has been satisfactorily completed.

An OER-approved CHASP would be implemented during evacuation and construction and 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.