A. INTRODUCTION

This chapter assesses the potential for the presence of hazardous materials in soil and/or groundwater at the proposed Development Site (Block 2615, lots 1, 6, 19, 21, 25, 50, and 125). 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 organic compounds (VOCs), semi-volatile organic compounds (SVOCs), methane, polychlorinated biphenyls (PCBs), pesticides, dioxins, and hazardous wastes (i.e., substances that are chemically reactive, ignitable, corrosive, or toxic).

As described in the 2014 *City Environmental Quality Review (CEQR) Technical Manual*, the goal of a hazardous materials assessment is to determine whether a proposed action would increase the exposure of people or the environment to hazardous materials, and if so, whether the increased exposure would lead to significant public health or environmental effects. As described in Chapter 1, "Project Description," the Proposed Actions consist of a number of discretionary actions that would facilitate a new 654,300 gross square foot (gsf) manufacturing/commercial development, on a site that is currently occupied by a number of 1- to 2-story buildings with active light industrial and manufacturing uses. The Proposed Development would entail demolition of the existing structures and excavation for the proposed new buildings, foundations, and utilities.

B. PRINCIPAL CONCLUSIONS

The Proposed Actions would not result in significant adverse impacts related to hazardous materials with the placement of an (E) designation on the lots comprising the Development Site. Phase I Environmental Site Assessments (ESAs) and Limited Phase II Environmental Site Investigations were prepared in March 2018 and November 2019 in order to evaluate potential contamination on the Development Site. These hazardous materials assessments identified various potential sources of subsurface contamination on, or in close proximity to, the Development Site, including past or present industrial, commercial and automotive uses.

To reduce the potential for adverse impacts associated with new construction resulting from the Proposed Actions, further environmental investigations and remediation will be required. To ensure that these investigations are undertaken, hazardous materials (E) designations would be placed on the lots comprising the Development Site (Lots 1, 6, 19, 21, 25, 50, and 125).

By placing an (E) designation on the lots comprising the Development Site, where Recognized Environmental Conditions (RECs) have been identified relating to soil, groundwater, and soil vapor, the potential for an adverse impact to human health and the environment resulting from the Proposed Development would be avoided. The New York City Office of Environmental Remediation (OER) would provide the regulatory oversight of any required supplemental sampling; including environmental scope, investigation, and potential remedial action during this process. Building permits are not issued by the New York City Department of Buildings (DOB) without prior OER approval of the investigation and/or

remediation pursuant to the provisions of Section 11-15 of the Zoning Resolution (Environmental Requirements).

The (E) designation would require that the Applicant conduct any required supplemental subsurface investigations and have an approved Remedial Action Plan (RAP), where appropriate, under the review and approval of OER. The RAP provided to OER to satisfy the (E) designation must also include a mandatory Construction Health and Safety Plan (CHASP).

With the inclusion of the remedial measures described above, which involve the mapping of an (E) designation (E-585) on the Development Site, the Proposed Actions and resultant Proposed Development would not result in any significant adverse impacts related to hazardous materials.

C. METHODOLOGY

Known or potential hazardous material conditions resulting from previous and existing uses in and near the Development Site were assessed through four Phase I Environmental Site Assessments (ESAs), two of which also reflected the findings of a Limited Phase II Environmental Site Investigations. The Phase I ESAs were conducted in accordance with ASTM International (ASTM) Practice E1527-13 (Standard Practice for ESA: Phase I ESA Process) and the United States Environmental Protection Agency's (USEPA) All Appropriate Inquiry (AAI) Rule, and included visual inspections; interviews with site owners/managers; and a review of federal, state, and local regulatory databases, New York City Buildings Department (DOB) records, previous environmental reports, U.S. Geological Service maps, and recent and historical Sanborn fire insurance maps and aerial photographs. The Limited Phase II ESIs were performed in the public right-of-way adjoining the portions of the Development Site for due diligence purposes to evaluate site conditions. The investigation included soil and groundwater sampling and laboratory analysis.

The following reports were reviewed:

- *Draft Phase I Environmental Site Assessment and Limited Phase II Environmental Site Investigation for 14 Meserole Avenue, 190 & 192 Banker Street, and 26 Gem Street (Block 2615, Lots 1, 21, 25, and 50)*; prepared by Langan; dated March 22, 2018. This document covers the site currently occupied by the Acme Smoked Fish processing plant and smokehouse, consisting of four interconnected one- to two-story buildings.
- *Draft Phase I Environmental Site Assessment for 26 Meserole Avenue (Block 2615, Lot 6)*; prepared by Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. (Langan); dated March 16, 2018. This document covers the site currently occupied by ABC stone, a stone supplier occupying a 2-story building and an adjacent storage area.
- *Draft Phase I Environmental Site Assessment and Limited Phase II Environmental Site Investigation for 14 Wythe Avenue (Block 2615, Lot 125*); prepared by Langan; dated March 16, 2018. This document covers the site currently occupied by an open storage area for Corzo Contracting Company, a utility construction company, at the southern portion of the block.
- *Draft Phase I Environmental Site Assessment for 200 Banker Street (Block 2615, Lot 19);* prepared by Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. (Langan); dated November 2019. This document covers the site currently occupied by a vacant 1-story building.

The findings of the Phase I ESAs and limited site investigations are discussed below in "Existing Conditions."

D. EXISTING CONDITIONS

Lots 1, 21, 25, 50 (Acme Smoked Fish Site)

This property is currently developed with four one- to two-story commercial/industrial buildings, some with mezzanine levels, all of which are occupied by ACME Smoked Fish. According to 2013 United States Geological Survey (USGS) maps, the property is at an elevation of about 10 feet above mean sea level.

Recognized Environmental Conditions (RECs)

REC 1 – HISTORICAL USE OF THE SUBJECT PROPERTY AND CURRENT AND HISTORICAL USE OF ADJOINING AND SURROUNDING PROPERTIES

This property has a century-long history of industrial occupants and uses including a lumber yard, a metal fabrication and manufacturing facility, a plastics manufacturer and die company, machinery/equipment/ auto repair, a tank stack company, and a laundry and dry cleaning company. Historical records indicate petroleum was stored at the property as early as 1910. Adjoining and hydraulically up-gradient properties also have a century-long history of industrial occupants and uses including various manufacturers, machinery/equipment/auto repair, trucking corporations, an aluminum smelter, dry cleaning facilities, rubber and chemical companies, a fuel corporation, paint and ink companies, and metal/electroplating facilities. Many of these properties were listed in regulatory databases for petroleum bulk storage and/or petroleum releases. One of these properties (W.H. Christian & Sons, Inc.) was a Recourse Conservation and Recovery Act (RCRA) generator of hazardous waste, including halogenated solvent wastes; this generator adjoins the subject property to the east across Banker Street.

Subsurface impacts were identified on this property (and on the adjoining Gem Street sidewalk) and on the south-adjoining property by the Limited Phase II Environmental Site Investigations completed by Langan and by other previous investigations. These impacts are likely related to the uses and operations identified above for this property and adjoining and surrounding properties.

- Subsurface petroleum contamination was identified by field observations and analytical results in soil and groundwater along the Gem Street sidewalk, which is the inferred downgradient end of this property. These conditions do not present a threat to human health, do not constitute a new threat to the environment, and generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. These area-specific investigation findings are collectively considered a de minimis condition.
- Chlorinated volatile organic compounds (CVOCs) were identified in soil vapor during a Limited Phase II ESI completed at the adjoining property to the south. The CVOCs in soil vapor on the south-adjoining property are likely representative of a condition that also exists at this property. This property is improved with weather-tight buildings and the potential exists for soil vapor to migrate into the buildings via preferential migration pathways (i.e., sumps, pits, and drains) and accumulate within the structures and affect indoor air quality.

The subsurface testing programs completed to date are insufficient to fully characterize subsurface conditions on this property given the long history of industrial uses and petroleum bulk storage at the property and current and historical uses of adjoining and hydraulically up-gradient properties. Therefore, these uses, together with the identified CVOCs in soil vapor at an adjoining property, are considered a REC as they indicate the likely presence of hazardous substances and/or petroleum in soil, groundwater and/or soil vapor at this property.

Non-ASTM Environmental Considerations

ASBESTOS-CONTAINING MATERIAL, LEAD-BASED PAINT, AND POLYCHLORINATED BIPHENYLS (PCBS)

Because of the age of the buildings at this property (constructed before 1961), asbestos-containing materials, lead-based paint, and PCB-containing materials may be present in building materials. Potential PCB-containing fluorescent lighting fixtures were observed throughout the buildings that occupy this property.

Lot 6 (ABC Stone Site)

This property consists of a one-story industrial building and a paved yard with a shed and is occupied by ABC Stone, a specialty stone supplier. According to 2013 USGS maps, the property is at an elevation of about 10 feet above mean sea level.

Recognized Environmental Conditions (RECs)

REC 1 - HISTORICAL USE OF THE SUBJECT PROPERTY

This property has a nearly 90-year history of industrial occupants and uses including a foundry, metal fabrication/manufacturing, and a trucking company. Historical records indicate petroleum was stored on this property from at least 1923 to 1956; a fill port and vent pipe, indicators of petroleum storage, were observed at the eastern façade of the building. The long history of industrial uses and petroleum bulk storage indicates the likely presence of hazardous substances and/or petroleum in soil, groundwater, and/or soil vapor at this property.

REC 2 - CURRENT AND HISTORICAL USE OF THE ADJOINING AND SURROUNDING PROPERTIES

Adjoining and hydraulically up-gradient properties also have a nearly 100-year history of industrial uses including various manufacturers, machinery/equipment/auto repair, an aluminum smelter, dry cleaning facilities, rubber and chemical companies, a fuel corporation. Many of these properties were listed in regulatory databases for petroleum bulk storage and/or petroleum releases. The current and historical uses of adjoining and hydraulically up-gradient properties indicate the likely presence of hazardous substances and/or petroleum that have migrated to and impacted groundwater and/or soil vapor at this property.

Non-ASTM Environmental Considerations

ASBESTOS-CONTAINING MATERIAL, LEAD-BASED PAINT, AND POLYCHLORINATED BIPHENYLS (PCBS)

Because of the age of the building at this property (constructed circa 1956), asbestos-containing materials, lead-based paint, and PCB-containing materials may be present in building materials.

Lot 125 (Corzo Site)

This property was once a part of former Lot 25 before a property subdivision created Lot 125 in 2003. Corzo Maintenance Co., Inc. operates a concrete and/or asphalt-paved contractor yard with a one-story structure, a shed, and a trailer on the property. According to 2013 USGS maps, the property is at an elevation of about 10 feet above mean sea level.

Recognized Environmental Conditions (RECs)

No RECs, controlled recognized environmental conditions (CRECs) or historic recognized environmental conditions (HRECs) were identified for this property.

De Minimis Conditions

A de minimis condition is a condition that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be de minimis conditions are not recognized environmental conditions nor controlled recognized environmental conditions. The following de minimis condition was identified on this property:

CVOCS IN GROUNDWATER AND SOIL VAPOR AND PETROLEUM-IMPACTED SOIL AND SOIL VAPOR

The results of the Limited Phase II ESI identified chlorinated volatile organic compounds (CVOCs) in soil vapor and groundwater at this property. In addition, field and analytical evidence of subsurface petroleum contamination in soil, including petroleum-like odors, elevated photoionization detector (PID) readings and petroleum-related volatile organic compounds (VOCs) above regulatory criteria, were detected at one sampling location. Petroleum-related VOCs were also identified in soil vapor.

The source of these impacts is likely an unknown on-site source or one or more of the adjoining and hydraulically up- and cross-gradient surrounding properties that have a nearly 90-year history of industrial uses that may have involved CVOC and petroleum uses. Industrial uses included various manufacturing facilities, machinery/equipment/auto repair, dry cleaning facilities and rubber and chemical companies. One of these properties was listed as a Recourse Conservation and Recovery Act (RCRA) generator of hazardous waste, including halogenated solvent wastes.

These conditions do not currently present a threat to human health, as soil vapor intrusion risk to site occupants is negligible and a municipal restriction prohibits the use of groundwater as drinking water. These conditions are indicative of past releases of hazardous substances and petroleum that are typical in urban areas with long histories of industrial use and do not constitute a new threat to the environment. In addition, these conditions generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies and no regulatory framework exists that would require mitigation on non-regulated sites.

Lot 19 (Vacant Building)

This property consists of a vacant one-story building. According to 2013 USGS maps, the property is at an elevation of about 10 feet above mean sea level.

Recognized Environmental Conditions (RECs)

REC 1 - HISTORICAL USE OF THE SUBJECT PROPERTY

This property has a 70-year industrial history including manufacturing, a plastic products/mold and die company, a welding supply and repair company, and auto repair. The long industrial history indicates the likely presence of hazardous substances and/or petroleum in soil, groundwater, and/or soil vapor at this property.

REC 2 - CURRENT AND HISTORICAL USE OF THE ADJOINING AND SURROUNDING PROPERTIES

Adjoining and surrounding properties also have a nearly 90-year industrial history including various manufacturers, auto repair, an aluminum smelter, dry cleaning facilities, rubber and chemical companies, a tank stack company, and a fuel oil company. Many of these properties were listed in regulatory databases for petroleum bulk storage and/or petroleum releases. The current and historical uses of adjoining and surrounding properties indicate the likely presence of hazardous substances and/or petroleum that have migrated to and impacted groundwater and/or soil vapor at this property.

Non-ASTM Environmental Considerations

ASBESTOS-CONTAINING MATERIAL, LEAD-BASED PAINT, AND POLYCHLORINATED BIPHENYLS (PCBS)

Because of the age of the building at this property (constructed in two phases: circa 1942 and circa 1991), asbestos-containing materials, lead-based paint, and PCB-containing materials may be present in building materials.

E. THE FUTURE WITHOUT THE PROPOSED ACTIONS (NO-ACTION CONDITION)

As described in Chapter 1, "Project Description," in the future without the Proposed Actions, it is anticipated that the existing buildings on the Development Site would be re-occupied by a mix of eating/drinking/entertainment establishments, creative office and warehouse uses, and Lot 125 would be redeveloped with a new 3-story commercial building with distillery, office, dance studio and restaurant uses. Overall, the No-Action condition for the Development Site is assumed to consist of a total of 169,485 gsf, comprised of approximately 35,225 gsf of restaurant/entertainment uses, 66,750 gsf of creative office space, 28,610 gsf of warehousing spaces, and 17,500 gsf of industrial space (distillery), as well as an estimated 21,400 gsf of accessory parking (107 spaces). Although the Development Site has the potential for subsurface contamination, without the subsurface disturbance associated with construction-related activities on most of the site, there would be less potential for exposure. Legal requirements (including local, state, and federal regulations) relating to any tanks, spills, ACM, LBP, and potential PCB-containing equipment would need to be followed.

F. THE FUTURE WITH THE PROPOSED ACTIONS (WITH-ACTION CONDITION)

The Proposed Development would entail demolition of the existing structures and excavation for the new buildings on the Development Site. As noted above, the potential for subsurface contamination has been identified for the proposed Development Site. Although the demolition and construction activities associated with the Proposed Actions could increase pathways for human exposure, the potential for adverse impacts would be avoided by placing a hazardous materials (E) Designation on each of the lots comprising the Development Site—Block 2615, Lots 1, 6, 19, 21, 25, 50, and 125.

The (E) designation would require that the fee owner of a lot with an (E) designation conduct a testing and sampling protocol and have an approved remediation plan where appropriate, to the satisfaction of the OER. The NYCDOB will typically issue the foundation permits when OER approves the remedial action work plan – the actual remediation is usually done concurrently with the construction. The remediation plan provided to OER to satisfy the (E) designation must also include a mandatory construction-related health and safety plan (CHASP), which must also be submitted to OER.

The (E) designation text related to hazardous materials (E-585), is as follows:

Task 1- Sampling Protocol

The applicant shall submit to OER the Phase I report for the site along with a proposed soil and groundwater testing protocol, including a description of methods and a site map with all sampling locations clearly and precisely represented.

If OER determines that site sampling is necessary, no sampling should begin until written approval of a protocol is received from OER. The number and location of sample sites shall 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 the appropriate remediation protocol (if any required) after review of sampling data.

Task 2- Remediation Determination and Protocol

A written report with findings and a summary of the data shall be submitted to OER after completion of the testing phase and laboratory analysis for review, approval, and a determination by OER as to whether remediation is necessary. If OER determines that no remediation is necessary, written notice shall be given by OER and no further action shall be required.

If remediation is determined to be necessary by OER, a proposed remediation plan shall be submitted to OER for review and approval. Once approved, the applicant shall undertake and complete such remediation in accordance with the OER-approved remediation plan. The applicant shall provide proper documentation that the work has been satisfactorily completed.

A construction-related health and safety plan shall be submitted to OER and implemented during excavation and construction activities to protect workers and the community from potentially significant adverse impacts associated with contaminated soil and/or groundwater. The CHASP shall be submitted to OER for review and approval prior to implementation.

All demolition would be conducted in accordance with applicable requirements for disturbance, handling and disposal of suspect lead-paint and asbestos-containing materials.

With the (E) Designation in place and implementation of the measures described above, no significant adverse impacts related to hazardous materials would be expected to occur as a result of the Proposed Actions and resultant Proposed Development.