RIVER RING
Chapter 10: Hazardous Materials

A. INTRODUCTION

As detailed in the 2020 *CEQR Technical Manual*, the goal of a hazardous materials assessment is to determine whether an action may increase the exposure of people or the environment to hazardous materials, and if so, whether this increased exposure would result in potential significant adverse public health or environmental impacts. A hazardous material is any substance that under certain circumstances may pose 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 and hazardous wastes (defined as substances that are chemically reactive, ignitable, corrosive, or toxic). According to the 2020 *CEQR Technical Manual*, the potential for significant impacts from hazardous materials can occur when: (a) hazardous materials exist on a site; (b) an action would increase pathways to their exposure; or (c) an action would introduce new activities or processes using hazardous materials.

B. PRINCIPAL CONCLUSIONS

An assessment was conducted based on the methodology set forth in the *CEQR Technical Manual*, and determined that the Proposed Actions would not result in a significant adverse impact related to hazardous materials. A Phase I Environmental Site Assessment (ESA) was prepared in September 2019 by NOVA Consulting in order to evaluate potential contamination of the Applicant's Proposed Development Site. As described in that report, the Proposed Development Site was historically utilized as a No. 6 fuel oil storage complex for Con Edison's North First Street Terminal (NFST) from the 1960s until decommissioned in 2012. Two of the three former NFST parcels comprising the Proposed Development Site (central and northern parcels, aka Parcel II and Parcel I, or Complex A and Complex B) were occupied by large fuel oil aboveground storage tanks (ASTs) that were removed in 2012. The former facility was a New York State Department of Environmental Conservation (NYSDEC) Major Oil Storage Facility (MOSF) (MOSF ID No. 2-1480). Subsurface investigations were conducted on behalf of Con Edison from 1999 through 2012 in order to assess potential impact from the oil storage. These activities included soil and groundwater assessments and remedial excavation of one area of petroleum-contaminated soil. The New York State Department of Environmental Conservation (NYSDEC) approved the work conducted for the MOSF assessment and issued a letter on July 24, 2012 indicating that no further action (NFA) was required specifically in relation to the former MOSF.

Based on review of available historical information, the Phase I ESA concluded that soil and groundwater contamination is present at the Proposed Development Site above cleanup levels for residential uses and poses a potential vapor intrusion concern for the Proposed Development Site. The Phase I ESA indicated that while the soil contamination currently exceeds unrestricted use criteria, the implementation of engineering and institutional controls will ensure the Property meets the applicable standards for residential development. Previous assessments, such as the 2017 HDR Supplemental Remedial Investigation Report, identified SVOC contamination at concentrations typical of historic fill, and concluded that these concentrations were not likely from prior MOSF activities. In the southeast corner

of Parcel II, the reports do identify a few soil and groundwater samples with VOC concentrations exceeding the relevant restricted residential use standards, but finds that those are associated with the off-site migration from the Fyn Paint's Brownfield Cleanup Program site (not from MOSF use) and are being addressed through that program.

In addition, as some of the volatile organic compound (VOC) concentrations in soil vapor exceed the US Environmental Protection Agency (USEPA) Vapor Intrusion Screening Levels (VISLs), there is the potential for a vapor intrusion risk to future site buildings. Therefore, the Phase I ESA recommended that the vapor intrusion pathway should be evaluated prior to construction, as well as the feasibility of installing a vapor intrusion mitigation barrier as part of the proposed future residential development. Any environmental cleanup at the Property will be performed under regulatory oversight.

Additionally, as part of the planned site redevelopment activities, NOVA Consulting recommend that a Health and Safety Plan, a Community Air Monitoring Plan (CAMP), and a Soil Management Plan be provided during development to address the handling and offsite disposal of the contaminated soil and water during construction.

As such, to reduce the potential for any significant adverse impacts associated with new construction resulting from the Proposed Actions, institutional and engineering controls (including vapor mitigation measures) will be required for the Applicant's Proposed Development Site, as recommended in the Phase I ESA. To ensure that these investigations are undertaken, a hazardous materials (E) designation would be placed on the lots comprising the Proposed Development Site (i.e., Block 2355, Lots 1 and 20; Block 2361, Lots 1, 20, and 21; and Block 2376, Lot 50) as part of the proposed rezoning.

By placing an (E) designation on the lots comprising the Proposed Development Site, the potential for a significant adverse impact to human health and the environment resulting from the Proposed Actions would be avoided. The New York City Office of Environmental Remediation (OER) would provide the regulatory oversight of any future supplemental sampling that may be warranted; including environmental scope, investigation, and potential remedial action during this process. Building permits are not issued by the NYC 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 would also include a mandatory Construction Health and Safety Plan (CHASP). The inclusion of the institutional and engineering control measures described above, which involve the mapping of (E) designation (E-636) on the Proposed Development Site, the Proposed Actions would not result in any significant adverse impacts related to hazardous materials.

The reasonable worst-case development scenario (RWCDS) for the Proposed Actions includes a non-Applicant-owned Projected Development Site. The Projected Development Site was accepted into the New York State Department of Environmental Conservation (NYSDEC) Voluntary Cleanup Program and Brownfield Cleanup Program (BCP), and all cleanup and remedial activities have been completed (V00380, BCP site C224154). Remedial action has successfully achieved a Track 4 restricted residential cleanup. Therefore, no significant adverse impacts related to hazardous materials would result from construction activities on the Projected Development Site as a result of the Proposed Actions.

C. METHODOLOGY

An assessment was conducted to determine whether the Proposed Actions could lead to increased exposure of people or the environment to hazardous materials and whether the increased exposure would result in significant adverse public health impacts or environmental damage. In September 2019, NOVA Consulting prepared a Phase I Environmental Site Assessment (ESA) for the Proposed Development Site located at 87 and 105 River Street and West 1st Street, Brooklyn, NY. The Phase I ESA is included as **Appendix F** to the EIS. The existing conditions described are based on the Phase I ESA, which included reconnaissance of the Proposed Development Site and vicinity, description and physical setting of the Proposed Development Site and vicinity, historical source review and description of historical conditions in the surrounding area, interviews, review of environmental databases and regulatory agency records, review of previous environmental reports/documentation, and review of environmental liens.

D. EXISTING CONDITIONS

Proposed Development Site

Phase I Environmental Site Assessment

This section summarizes the findings of the Phase I ESA, specifically with respect to current and historical site conditions and RECs identified for the Proposed Development Site. A Phase I ESA was prepared for the Proposed Development Site in order to identify any RECs from existing or historic land uses. The Phase I ESA was prepared in conformance with the ASTM Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process E 1527-13. The assessment was undertaken to determine whether additional investigations are necessary and whether any remedial or environmental control measures would be required on the Proposed Development Site for the Proposed Actions to avoid the potential for impacts pertaining to hazardous materials.

CURRENT AND HISTORIC SITE USE

The Proposed Development Site is currently vacant (see **Figure 10-1**,) and contains no existing structures. According to the Phase I ESA, a variety of historical sources (e.g., aerials, Fire Insurance Maps, Topographic Maps, local city directories, tax files, recorded land title records, building department records, and zoning/land use records, as well as other historical sources) were consulted to determine past uses on the Proposed Development Site. Per the Phase I ESA, the site contained a variety of warehousing and storage uses prior to its most recent use as an oil storage and transfer facility, as described below:

- 1887-1904: Developed with multiple warehouses and storage buildings at the northern parcel of the Proposed Development Site for a sugar refining plant; a lumber yard in the central parcel of the Proposed Development Site for C.W. Wilson Lumber Yard; and a storage building in the southern parcel for Hardy, Voorhee's & Co. Lumber Yard.
- 1905-1915: Multiple warehouse and storage buildings, a roasting house and a gas house at the northern parcel of the Proposed Development Site for The American Coffee Company, and a coal storage yard related to the coffee company's use was located in the central portion of the Proposed Development Site.
- 1916-Early 1920s: Multiple warehouse and storage buildings for a sugar refining plant and undeveloped land.

Project Boundary



Source: Nova Consulting, Phase I Environmental Site Assessment Report



- 1922-Late 1940s: Multiple warehouse and storage buildings were located on the northern portion of the Proposed Development Site related to a sugar refining plant. A coal storage facility for Larkin Coal Co. was located in the central portion of the Proposed Development Site. A small building for Ireland R.E. Co. was located on the southern parcel through 1928. By 1935, the southern parcel is depicted with a storage building with an adjacent 350-gallon gasoline UST. Between 1947 and 1950, per Fire Insurance Maps, the Southern parcel is identified as a portion of Charles Pfizer & Co.
- 1950s-Early 1960s: Multiple warehouse and storage buildings and a private garage for a retail terminal facility (Brooklyn Terminal Stores, Inc.), with two gasoline tanks and some coal storage bins at the north and southeast portion of the Proposed Development Site. Historic aerials show that the southwest portion of the Proposed Development Site was predominantly vacant.
- Mid-1960s through 2011: A No. 6 oil storage and transfer facility active from the mid-1960s through the 1990s. Six large oil storage tanks are visible on the historic aerials throughout the northern and central portion of the Proposed Development Site with a dock area at the southwest portion of the Proposed Development Site. The Phase I ESA lists the capacity of the tanks at approximately 31,275,000 gallons and lists the operator as NEPCO Terminal Corp.
- 2013-present: Undeveloped land.

CURRENT AND HISTORIC USE ON ADJOINING PROPERTIES

The Phase I ESA also used historical references to identify adjacent uses that have been located in the vicinity of the Proposed Development Site. The following is a list of uses on adjoining properties and a summary of the observations made.

North

Property to the north was developed with storage buildings and warehouses for sugar refinery uses from approximately 1887 through sometime around 1905. By 1916, the area to the north was developed with a commercial warehouse building for wholesale groceries and distribution. The area to the north is currently a mixed-use development that contains a combination of residential and local retail uses.

East

Property to the east side of River Street was developed with commercial warehouse buildings from 1887 through 2011. A gasoline filling station was located to the east of the site as early as 1942 per the area's FIRE Insurance Map and is also visible on the 1951 aerial photograph, but is not visible on the subsequent 1954 aerial photograph. From 1951 through 1989, warehouse buildings for lumber storage, valves and pipes, machine shop, paint and lacquer manufacturer (Fyn Paint), and manufacturing flat were identified to the east of the site. Per the 2013 and 2017 aerial photographs, the area to the east contains commercial warehouse uses, office buildings, and undeveloped lots.

South

The property to the south contained storage buildings for a lumber supply company in 1887. By 1904 the property was vacant. In 1924, the property to the south was developed with a warehouse storage and office building and also contained vacant property. The 1935 FIRE Insurance Map indicates that the property to the south contained a storage building with a 550-gallon gasoline UST. Between 1947 and 1995 the property contained a storage building and a major oil storage facility with over five million gallons of aboveground storage tanks. The property was identified as a power plant beginning in 2006.

West

The Proposed Development Site is bounded immediately to the west by the East River. According to the resources that were consulted for the Phase I ESA, docks and slips were located along the East River waterfront from the late 1800s in support of the warehouse/storage, commercial and oil storage uses that were historically located along this stretch of the New York City waterfront.

Based on the information discussed above, the historical research has identified prior adjacent/adjoining property uses that have resulted in a REC for the Proposed Development Site including the former Fyn Paint facility to the east.

RECOGNIZED ENVIRONMENTAL CONDITIONS

Based on the information gathered as a result of the Phase I ESA process, NOVA Consulting identified RECs in connection with the Proposed Development Site, as described below.

The Proposed Development Site was historically utilized as a No. 6 fuel oil storage complex for Con Edison North First Street Terminal (NFST) from the 1960s until decommissioned in 2012. The entirety of two of the three former NFST parcels comprising the Proposed Development Site (central and northern parcels, aka Parcel II and Parcel I or Complex A and B) were occupied by large fuel oil aboveground storage tanks (ASTs) that were removed in 2012. The former facility was a New York State Department of Environmental Conservation (NYSDEC) Major Oil Storage Facility (MOSF) (MOSF ID No. 2-1480). Subsurface investigations were conducted on behalf of Con Edison from 1999 through 2012 in order to assess potential impact from the oil storage. These activities included soil and groundwater assessments and excavation of one area of petroleum-contaminated soil. The NYSDEC approved the work conducted for the MOSF assessment and issued a letter on July 24, 2012 indicating that no further action (NFA) was required specifically in relation to the former MOSF. The letter also indicated that volatile organic compounds (VOCs) and semi-VOCs (SVOCs) contamination was present at the Proposed Development Site above cleanup guidance levels and Brooklyn background data. Soil exceedances included elevated levels of acetone, benzo(a)anthracene, benzo(b)fluoranthene, benzo(a)pyrene, chrysene ethylobenzene, indeno(1,2,3-cd)pyrene, toluene, and total xylenes. Groundwater exceedances included most of the analyzed VOCs and SVOCs compounds. The NFA letter indicated that elevated concentrations of toluene, xylene, and acetone as well as levels of heavy metals concentrations on Complex A appear to be linked to the adjacent up-gradient Fyn Paint & Lacquer Company (Fyn Paint) facility. Subsequent investigations continued to be performed at the Proposed Development Site on behalf of Con Edison at Complex A as well as the smaller southernmost parcel until 2017 in an effort to further assess contamination that appeared to be migrating from the Fyn Paint facility. Previous assessments on behalf of Con Edison identified SVOC contamination at concentrations typical of historic fill and concluded that these concentrations were not likely from prior MOSF activities.

According to the 2017 HDR Supplemental Remedial Investigation Report (SRIR), only a few VOCs exceed the Restricted Residential Soil Cleanup Objectives on Parcel II. These VOCs are related to the migration from Fyn Paint, and their source is being addressed under the Brownfield Cleanup Program. The SRIR found no other VOCs in soil at concentrations exceeding the Restricted Residential or Protection of Groundwater SCOs. The SRIR results of the SVOC analyses showed no exceedances of the Restricted Residential SCOs or the Protection of Groundwater SCOs in soil samples. Although certain SVOCs were detected, those compounds were reported at concentrations below the Unrestricted Use SCOs. Groundwater samples exhibited VOCs exceeding the groundwater standard, but those are also related to migration of contaminants from Fyn Paint, and not any on-site source. As noted, Fyn Paint is required to address the source of those VOCs in groundwater, and groundwater from the Proposed Development will

not be used for any purpose, in accordance with City Administrative Code (see Chapter 9, "Natural Resources," for additional details). Furthermore, the potential for vapor intrusion resulting from VOCs in the soil and groundwater will be addressed through potential vapor mitigation measures, as discussed throughout this chapter.

Based on review of available historical information, the Phase I ESA concluded that soil and groundwater contamination is present at the Proposed Development Site above cleanup levels for residential uses and poses a potential vapor migration concern for the Proposed Development Site. A significant amount of the contamination is suspected to currently be migrating from the adjacent Fyn Paint facility while other sources have been traced to urban fill, creosote pilings, or railroad ties. Fyn Paint is currently undergoing assessment and cleanup activities under the oversight of the NYSDEC which should help prevent future migration of contaminants. Other contamination has been reported to be from urban fill, creosote pilings or railroad ties. The E-designation will impose institutional and engineering controls that would ensure that the future redevelopment of this property would not result in any significant adverse environmental impacts.

As discussed above, the former No. 6 fuel oil ASTs on the Proposed Development Site for use by Con Edison NFST, and registered under MOSF ID No. 2-1480, have been issued NFA by the NYSDEC in a letter dated July 24, 2012. Based on the NYSDEC-approved assessment and cleanup work conducted, and 2012 NYSDEC NFA letter, the former No. 6 fuel oil ASTs are considered an HREC and no further action is warranted at this time in relation to the former ASTs.

The Proposed Development Site is identified with multiple NYSDEC SPILLS cases and one LST case that were closed. Based on the regulatory closures, the former SPILLS and LST cases are considered an HREC and no further action appears warranted at this time in relation to these cases.

No additional conditions were observed at the Proposed Development Site that would potentially present a significant environmental concern or REC.

Projected Development Site

This 5,862 sf lot was previously occupied by a two-story wood frame building with a partial basement, which had full lot coverage. Demolition permits were filed in February 2019, and subsequent permits have been filed for excavation, bracing and shoring, but no New Building permits are on file at DOB. The site is currently vacant.

A search of NYSDEC's online Environmental Site Remediation Database[1] indicates that the Projected Development Site at 230 Kent Avenue was a paint and lacquer manufacturing facility (Fyn Paint & Lacquer Co., Inc.) from 1930 to 2010. The facility was a large hazardous waste generator with an assigned EPA number 001270867. The owner of the site entered into a Voluntary Cleanup Agreement (VCA) with NYSDEC in April 2001. Based on the investigations performed at the site it was revealed that the soil, soil vapor and groundwater are contaminated with volatile organic compounds (VOCs). In March 2007, an Interim Remedial Measure (IRM) consisting of a groundwater pump and treatment system with an activated carbon filtration stage was installed and operated at the site. The Remedial Investigation (RI) was completed in January 2008. A Remedial Action Work Plan (RAWP) to address on-site and off-site contamination was approved by the NYSDEC in October 2009. In 2010, a pilot test for soil vapor extraction

[1] https://www.dec.ny.gov/cfmx/extapps/derexternal/haz/details.cfm

and dual phase extraction system was performed for additional remedial system design. In July 2011, the RCRA closure work plan was approved and RCRA closure activities continued through 2014. In May 2013 the supplemental remedial investigation work plan (SRIWP) was approved for off-site contamination plume. In 2014, the Remedial Design for a dual phase extraction system (DPES) was approved and the system was installed. As of November 2014, the SRIWP had not been implemented and the Volunteer stopped paying for the remedial action. As a result, the Voluntary Cleanup Agreement for this site has been terminated. In March 2015, a new owner applied and the site was accepted into the Brownfield Cleanup Program (BCP) under site no. C224154.

Remediation at the site has since been completed under the BCP. According to information on NYSDEC's online Environmental Site Remediation Database, remedial action has successfully achieved a Track 4 restricted residential cleanup. Remaining contamination in soil, groundwater and soil vapor is being managed under a Site Management Plan (SMP). An Environmental Easement will limit the future use of the property, restrict the use of groundwater and require compliance with the SMP. All engineering controls of the remedy will be operated and maintained under the SMP.

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

In the future without the Proposed Actions, also known as the "No-Action Condition," the Proposed Development Site would be redeveloped with a new as-of-right commercial and light industrial development pursuant to the site's existing M3-1 zoning. As such, it is anticipated that construction related to the as-of-right development involving soil and groundwater disturbance could potentially create or increase pathways for human exposure to the hazardous materials present on-site. Since no institutional controls (e.g., (E) designations or Restrictive Declarations that require the owner of a property to assess potential hazardous material impacts prior to construction) currently exist on the Proposed Development Site, such disturbance would not necessarily be conducted in accordance with the procedures described in the following section (e.g., for conducting testing before commencing excavation and implementation of health and safety plans during construction). However, the local, State, and Federal regulatory requirements pertaining to any identified petroleum tanks and/or spills, and requirements for off-site disposal of soil/fill, would need to be followed. As such, without the Proposed Actions the potential for controls on the redevelopment of the Proposed Development Site would not be as stringent as under the Proposed Actions, as described below.

For the non-Applicant-owned Projected Development Site, it is assumed that the site would be redeveloped with a commercial/warehouse building. As noted above, remediation at this site has been completed under the BCP, and any future development would be in compliance with the SMP.

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

Proposed Development Site

In the future with the Proposed Actions, the development potential of the Proposed Development Site would change to allow for new land uses, including residential uses, at higher densities then the current zoning designation permits at present. As discussed above, off-site migration of contaminants from the upgradient Fyn Paint BCP site has caused soil and groundwater samples taken predominantly on the southeast corner of Parcel II to exceed restricted residential use soil cleanup objectives and ambient groundwater criteria. As a result, the E-Designation will impose Proposed Development Site engineering

and institutional controls to make the property suitable for residential development. Additionally, a Health and Safety Plan, a Community Air Monitoring Plan (CAMP), and a Soil Management Plan will be needed during development to address the handling and offsite disposal of the contaminated soil and water during construction.

Some of the VOC groundwater contaminant concentrations exceed the USEPA Vapor Intrusion Screening Levels (VISLs) so there is the potential for a vapor intrusion risk to future site buildings. The Phase I ESA recommended that the vapor intrusion pathway should be evaluated prior to construction, and indicated that a chemically protective vapor intrusion mitigation barrier may be warranted as part of the proposed future residential development. Cleanup of contamination at the Proposed Development Site should be performed under regulatory oversight, and this work would be undertaken under the auspices of one or more of the NYSDEC, OER, and/or NYC Department of Environmental Protection (DEP).

Although the construction activities associated with the Proposed Actions could increase pathways for human exposure, the potential for significant adverse impacts would be avoided by placing a hazardous materials (E) designation on the lots comprising the Proposed Development Site (i.e., Block 2355, Lots 1 and 20; Block 2361, Lots 1, 20, and 21; and Block 2376, Lot 50) to ensure that further environmental investigations and remediation are undertaken.

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 DOB 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-636) 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 (CHASP) shall also 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.

With the (E) Designation in place and implementation of the preventative and institutional and engineering control 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.

Projected Development Site

In the future with the Proposed Actions, the development potential of the Projected Development Site would change to allow for new land uses, including community facilities, at higher densities then the current zoning designation permits at present. As noted above, the Projected Development Site was accepted into the New York State Department of Environmental Conservation (NYSDEC) Voluntary Cleanup Program and Brownfield Cleanup Program (BCP), and all cleanup and remedial activities have been completed (V00380, BCP site C224154). Remedial action has successfully achieved a Track 4 restricted residential cleanup. Therefore, no significant adverse impacts related to hazardous materials would result from construction activities on the Projected Development Site as a result of the Proposed Actions.