HERKIMER-WILLAMS EIS
Chapter 9: Hazardous Materials

A. INTRODUCTION

As detailed in the 2021 *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 2021 *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 2021 *CEQR Technical Manual* and determined that the Proposed Actions would not result in significant adverse impacts related to hazardous materials with the assignment of an (E) designation to the lots comprising the projected development sites within the Project Area. The projected development sites are Projected Development Site 1A (Block 1555, Lot 19), Projected Development Site 1B (Block 1576, Lots 1 and 34), Projected Development Site 1C (Block 1577, Lots 17 and 26), Projected Development Site 1D (Block 1577, Lots 32, 35, 51, and 53), Projected Development Site 1E (Block 1577, Lots 1, 7, 56, and 58), and Projected Development Site 2 (Block 1576, Lot 9).

Phase I and Phase II Environmental Site Assessments (ESAs) were prepared to evaluate the potential for contamination on some of the projected development sites, specifically Projected Development Site 1A (Block 1555, Lot 19); Projected Development Site 1B (Block 1576, Lots 1 and 34); Projected Development Site 1C (Block 1577, Lots 17 and 26); and Projected Development Site 1D (Block 1577, Lots 32, 35, 51, and 53). The Phase I and Phase II ESAs identified limited potential sources of subsurface contamination on, or in close proximity to, these projected development sites, including past or present industrial and automotive uses.

As such, to reduce the potential for any significant adverse impacts associated with new construction resulting from the Proposed Actions, further environmental investigation and remediation will be required. To ensure that further environmental investigation and remediation are undertaken, a hazardous materials (E) designation would be assigned to the lots comprising the projected development sites within the Project Area: Projected Development Site 1A (Block 1555, Lot 19), Projected Development Site 1B (Block 1576, Lots 1 and 34), Projected Development Site 1C (Block 1577, Lots 17 and 26), Projected Development Site 1D (Block 1577, Lots 32, 35, 51, and 53), Projected Development Site 1E (Block 1577, Lots 1, 7, 56, and 58), and Projected Development Site 2 (Block 1576, Lot 9).

By assigning an (E) designation to the lots comprising the projected development sites within the Project Area, the potential for significant adverse impacts 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 regulatory oversight of investigation and remediation. 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 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 OER. The remedial action 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. With the assignment of a hazardous materials (E) designation (E-857) on the projected development sites within the Project Area, the Proposed Actions and resultant Proposed Development would not result in any significant adverse impacts related to hazardous materials.

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. The following assessment is based on the review of Phase I and Phase II ESAs prepared for some of the projected development sites, specifically Projected Development Site 1A (Block 1555, Lot 19); Projected Development Site 1B (Block 1576, Lots 1 and 34); Projected Development Site 1C (Block 1577, Lots 17 and 26); and Projected Development Site 1D (Block 1577, Lots 32, 35, 51, and 53), including the following:

- Block 1555, Lot 19 (Projected Development Site 1A):
    - July 2020 Phase I ESA prepared by P.W. Grosser Consulting, Inc.
    - May 2024 Phase II ESA prepared by P.W. Grosser Consulting, Inc.
- Block 1576, Lots 1 and 34 (Projected Development Site 1B):
    - September 2018 Phase I ESA prepared by CBRE, Inc. (two Phase I ESAs – one for Lot 1 and one for Lot 34).
    - November 2018 Phase II ESA prepared by Castleton Environmental Inc. for Block 1576, Lot 34.
    - May 2024 Phase II ESA prepared by P.W. Grosser Consulting, Inc.
- Block 1577, Lots 17 and 26 (Projected Development Site 1C):
    - September 2018 Phase I ESA prepared by CBRE, Inc.
    - May 2024 Phase II ESA prepared by P.W. Grosser Consulting, Inc.
- Block 1577, Lots 32, 35, 51, and 53 (Projected Development Site 1D):
    - July 2015 Phase I ESA prepared by Singer Environmental Group.
    - July 2015 Phase II ESA prepared by Associated Environmental Services, Ltd.
    - May 2024 Phase II ESA prepared by P.W. Grosser Consulting, Inc.

The listed Phase I and Phase II ESAs are summarized herein and provided in **Appendix C**. The existing conditions described for the Development Site are based on the Phase I and Phase II ESAs, which included reconnaissance of Projected Development Sites 1A, 1B, 1C, and 1D and vicinity, description and physical

setting of Projected Development Sites 1A, 1B, 1C, and 1D and vicinity, historical source review and descriptions of historical conditions on Projected Development Sites 1A, 1B, 1C, and 1D and in the surrounding area, interviews, review of environmental databases and regulatory agency records, review of previous environmental reports/documentation, review of environmental liens, and, in the case of the Phase II ESAs, subsurface soil testing.

As outlined in **Chapter 1, "Project Description,"** Projected Development Sites 1A, 1B, 1C, and 1D are Applicant-owned (Block 1555, Lot 19; Block 1576, Lots 1 and 34; and Block 1577, Lots 17, 26, 32, 35, 51, and 53), while Projected Development Site 1E (Block 1577, Lots 1, 7, 56, and 58) and Projected Development Site 2 (Block 1576, Lot 9) are not owned by the Applicant. Projected Development Site 2 is owned by Calvary Church and is improved with a two-story building containing approximately 12,904 gsf (11,731 zsf) of community facility (house of worship) uses (1.33 FAR). Projected Development Site 1E is owned by Mystic Display Co., Inc. and currently leased to the MTA. According to the MTA Lease Agreement that was executed in September 2015, Mystic Display Co., Inc. and the MTA agreed to a 10-year term set to expire in 2025, with a single five-year renewal option that could be exercised by the MTA to remain in place until 2030. The MTA-leased sites are currently utilized as warehouses, parking, shop, and offices for NYCT's Automated Fare Collection (AFC) and Electronic Maintenance Division (EMD). Lot 1 is improved with a one-story maintenance facility containing approximately 17,224 gsf (15,658 zsf) of light industrial uses (0.91 FAR); Lot 7 is improved with a one-story (plus mezzanine) maintenance facility containing approximately 20,768 gsf (18,880 zsf) of light industrial uses (1.00 FAR); and Lots 56 and 58 are currently improved with an unenclosed surface parking lot that provides access to the adjacent Lots 1 and 7 (0.0 FAR each). All Applicant-owned and non-Applicant-owned projected development sites would be redeveloped in the future with the Proposed Actions.

D. EXISTING CONDITIONS

Phase I Environmental Site Assessments

This section summarizes the findings of the aforementioned Phase I ESAs, which were prepared for Projected Development Sites 1A, 1B, 1C, and 1D in order to identify any Recognized Environmental Conditions (RECs) associated with existing or historic land uses. The Phase I ESAs were prepared in conformance with the American Society for Testing and Materials (ASTM) Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process E 1527-13.

Projected Development Site 1A: Block 1555, Lot 19

The subject property consists of one parcel located at 1519 Herkimer Street in the Ocean Hill neighborhood in Brooklyn, NY. The subject property is located in the borough of Brooklyn and Kings County. The property is identified in the NYC Tax Map as Block 1555, Lot 19. The subject property measures approximately 0.11 acres and is improved with an asphalt parking lot and a small building in the southwest corner in very poor condition. The parking lot is larger than the lot boundaries to the north and the east which include shed-like structures in very poor condition. The subject property is currently used as an asphalt parking lot.

Based on review of historic sources, the subject property was first developed between 1888 and 1908. The property was used as a commercial lumber yard from at least 1908, was undeveloped by 1932, and was redeveloped by at least 1951 into a parking lot.

Based on review of historic sources, the area surrounding the subject property was lightly developed by 1888 and more densely developed by 1932. The elevated subway track located north and east of the subject property has been in existence since at least 1897 and the remainder of the area has mostly been used for commercial or industrial uses up until the present time.

RECs

P.W. Grosser Consulting, Inc. evaluated the findings associated with the subject property and identified no RECs, Historical Recognized Environmental Conditions (HRECs), or Controlled Recognized Environmental Conditions (CRECs).

NON-ASTM ENVIRONMENTAL CONSIDERATIONS

Based on inspection of the subject property, it is possible that Asbestos-containing materials (ACMs) or lead-based paint (LBP) are present within the structure at the southwestern portion of the subject property. P.W. Grosser Consulting, Inc. recommends that, prior to demolition or renovation of the building, a detailed asbestos and/or lead-based paint survey should be performed by a qualified asbestos/lead inspector in accordance with applicable federal, state, and local regulations prior to renovation or demolition of the building; please note that the asbestos/lead inspection performed as part of this Phase I ESA does not meet that criteria.

Projected Development Site 1B: 45 Van Sinderen Avenue (Block 1576, Lot 1)

The property located at 45 Van Sinderen Avenue, Brooklyn, New York is situated in an urban area characterized by light industrial and residential development and consists of a 0.30-acre parcel improved with a 97-year-old (built in 1921), two-story warehouse and loft building that is currently used as a warehouse for furniture storage on the first floor and artist studios on the second floor. The property also includes an attached yard that is used for truck storage for an ironworks company.

Prior to the construction of the existing improvements, the property was improved with small buildings used for coal and wood storage associated with the Thatford and Ackerman Coal and Lumber Yard since at least 1888 and was likely vacant land prior to that. The current building was constructed in 1921 and was used as a rolled gold manufacturing facility in 1932 and an instrument testing company from 1951 until the early 2000s.

RECS

CBRE, Inc. did not identify any RECs, CRECs, or HRECs in connection with the property.

NON-ASTM ENVIRONMENTAL CONSIDERATIONS

Based on the age of the site improvements, the potential use of ACMs exists. No friable suspect ACM was identified in readily accessible areas. However, the non-friable resilient floor finish assemblies, plasters, built-up roofing system, caulking, and mastics may contain asbestos. Note, additional suspect ACMs may exist in inaccessible locations such as behind walls, above ceilings, and beneath visible flooring. Since these non-friable materials are in good condition and the potential for fiber release is low, no further action is recommended at this time, other than maintaining the materials in good condition under an Asbestos Operations and Maintenance (O&M) Program. However, in the event that building maintenance, renovation, or demolition activities require the removal or disturbance of the suspect ACM, CBRE, Inc.

recommends that they be characterized for asbestos by a material specific reliable method for detecting asbestos. All activities involving ACM should be conducted in accordance with governmental regulations.

Since the property was constructed prior to the Consumer Product Safety Commission's 1978 ban on the sale of LBP to consumers and the use of LBP in residences, there is a potential that LBP may have been applied at the property. Testing would be required in order to determine whether LBP exists. Painted surfaces observed were in good condition with no excessive peeling or flaking. No further action is recommended at this time. However, all activities involving LBP should be conducted in accordance with HUD guidelines, the USEPA's Lead-Based Paint Renovation, Repair and Painting Program Rule as well as the OSHA Lead in Construction (CFR Part 1926.62) and EPA Renovate Right regulations and RCRA guidelines.

Projected Development Site 1B: 2465 Atlantic Avenue (Block 1576, Lot 34)

The property located at 2465 Atlantic Avenue, Brooklyn, New York, which is situated in an urban area characterized by light industrial and residential development, consists of a 0.06-acre parcel improved with an approximately 110-year-old (built circa 1908), vacant three-story loft building.

Prior to the construction of the existing improvements, the property was developed with a two-story commercial building used as part of the Thatford & Ackerman Coal and Lumber Yard since at least 1888. Prior to that, the property was vacant land. The current building was constructed circa 1908 and was used as a hotel, an electrical supply company, a clothing manufacturer, a lamp manufacturer and a radio and telecom manufacturer throughout the years since its construction.

RECS

CBRE, Inc. identified the following REC in connection with the property:

- The property was formerly occupied by APEX Airtronics, Inc., a manufacturer of radio and telecom equipment. Historical research indicates that this company was founded in 1948 and occupied the property until 2014. The property is currently listed as a Resource Conservation and Recovery Act (RCRA) Non-Generator under US Environmental Protection Agency (EPA) ID NYD001284439 as of 2007 however, was historically a Small Quantity Generator (SQG) of hazardous waste in 1999 and a Large Quantity Generator (LQG) in 1980 for the production of spent non-halogenated solvents including xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane.

  It appears that the property has experienced at least 60 years of industrial usage and would not necessarily be considered "pristine." Given that much of the operations at the property occurred during a period with little or no environmental regulations concerning the storage, handling, use or disposal of hazardous substances, CBRE, Inc. considers the historical usage of the property a REC.

CBRE, Inc. did not identify CRECs or HRECs in connection with the property.

NON-ASTM ENVIRONMENTAL CONSIDERATIONS

The property is served by a 550-gallon No. 2 fuel oil AST that was reportedly installed in 1956 and has been converted to non-regulated use. The tank, which is provided with secondary containment, appeared

to be in good condition and void of obvious leaks. The secondary containment structure appears to be in good condition, void of breaches. The associated fill port and vent pipe are located at the exterior of the building along Van Sinderen Avenue. The AST is encased in concrete with weep holes which is now technically considered by the NYSDEC to be an underground storage tank (UST). Based on the observed site conditions, this tank is not considered a REC; however, given the age of the tank, it is considered a Business Environmental Risk (BER).

Based on the age of the site improvements, the potential use of ACMs exists. No friable suspect ACM was identified in readily accessible areas. However, the non-friable plasters, built-up roofing system, caulking, and mastics may contain asbestos. Note, additional suspect ACMs may exist in inaccessible locations such as behind walls, above ceilings, and beneath visible flooring. Since these non-friable materials are in good condition and the potential for fiber release is low, no further action is recommended at this time, other than maintaining the materials in good condition under an Asbestos Operations and Maintenance (O&M) Program. However, in the event that building maintenance, renovation, or demolition activities require the removal or disturbance of the suspect ACM, CBRE, Inc. recommends that they be characterized for asbestos by a material specific reliable method for detecting asbestos. All activities involving ACM should be conducted in accordance with governmental regulations.

Since the property was constructed prior to the Consumer Product Safety Commission's 1978 ban on the sale of LBP to consumers and the use of LBP in residences, there is a potential that LBP may have been applied at the property. Testing would be required in order to determine whether LBP exists. Painted surfaces observed were in good condition with no excessive peeling or flaking. No further action is recommended at this time other than maintaining the suspect LBP in good condition under an LBP O&M Program. All activities involving LBP should be conducted in accordance with HUD guidelines, the USEPA's Lead-Based Paint Renovation, Repair and Painting Program Rule as well as the OSHA Lead in Construction (CFR Part 1926.62) and EPA Renovate Right regulations and RCRA guidelines.

Projected Development Site 1C: Block 1577, Lots 17 and 26

The property located at 2488-2514 Fulton Street, Brooklyn, New York, which is situated in an urban area characterized by light industrial, commercial and residential development, consists of two contiguous parcels of land totaling 0.52-acres in size. Other than a small parking attendant booth, there are no permanent structures on-site.

Currently, the property consists of a construction lay down yard with a small single-room booth building used as an office. However, historically the property was utilized as a parking lot since at least 1963. Prior to that, the property was used as a lumber yard since at least 1951 and was partly a lumber yard and a residential dwelling since 1932. Prior to that, the eastern portion of the property was improved with a single-story flour, feed, and hay storage building since 1888. Historical records prior to this date were not reasonably ascertainable. However, it is likely that the property was vacant land prior to its original development.

RECS

CBRE, Inc. did not identify any RECs, CRECs, or HRECs in connection with the property.

NON-ASTM ENVIRONMENTAL CONSIDERATIONS

CBRE, Inc. conducted a preliminary evaluation for asbestos-containing material (ACM), radon, LBP, drinking water quality, mold and wetlands which are ASTM Non-Scope Considerations. This investigation

has revealed no business environmental risks relating to these ASTM Non-Scope Considerations in connection with the property.

Projected Development Site 1D: Block 1577, Lots 32, 35, 51, and 53

1821 East New York Avenue (Lot 53) contains an 11,287 sq. ft. lot and a trailer. 1829 East New York Avenue (Lot 51) contains a 5,175 sq. ft. used car lot. Lot 32 along Herkimer Street is an 802 sq. ft. lot (Please note: There is no address listed for this lot number in the NYC Department of Buildings). 1833 East New York Avenue is a 5,000 sq. ft. lot containing a lot for used cars, a one story building containing a former auto repair and a two story building containing an auto repair and offices. This site is not an "E" Designated Site with the Department of City Planning, and this site is not located in "IBZ" (Industrial Business Zone).

According to Sanborn Maps, the property is depicted as dwellings in the 1900's, dwellings and hospital in the 1930's, dwellings in the 1950's, dwellings, parking, commercial, and vacant in 1963, dwelling, filing station in 1965, dwelling and commercial from the 1970's to 1987, dwelling and auto repair from 1988 to 2003, and residential, vacant, and auto repair from 2004 to 2007.

RECS

Singer Environmental Group identified the following REC in connection with the property:

- An auto repair and former auto repair is located at 1833 East New York Avenue.

No CRECs or HRECs were identified in connection with the property.

NON-ASTM ENVIRONMENTAL CONSIDERATIONS

Singer Environmental Group conducted limited visual asbestos containing material (ACM) survey as part of this assessment. Lead based paint hazards and mold hazards were not surveyed for this report. Singer Environmental Group did not observe any visible and/or friable ACM. Singer Environmental Group observed electric and gas (inactive) heating units. No aboveground storage tanks, indications of an underground storage tank, vent or fill was noted. No fuel oil applications were filed with the Department of Buildings. No gasoline tanks are depicted on the Sanborn Maps.

Phase II Environmental Site Assessments

Projected Development Site 1A: Block 1555, Lot 19

P.W. Grosser Consulting, Inc. has performed a Phase II ESA at the subject property in conformance with the scope and limitations of ASTM Practice E1903-19 for the following objectives:

- Geophysical survey to identify potential USTs, utilities, and other subsurface anomalies.
- Installation of two soil borings (SB001-A and SB002-A), and collection of two soil samples from each boring.
- Installation of one temporary groundwater sampling point and collection of one groundwater sample (GW001-A).

- Installation of two soil vapor sampling points (SV001-A and SV002-A) and collection of two soil vapor samples.

Conclusions

Based on the results of the Phase II ESA, P.W. Grosser Consulting, Inc. offers the following conclusions:

- Subsurface anomalies indicative of potential USTs, drywells, or other objects which would warrant further investigation were not identified during the geophysical survey.

- Soil quality across both soil borings exhibited the presence of fill material in the top 15 feet. Four soil samples were collected from two soil borings installed across the site as part of this assessment. Analytical results for each of the four samples did not identify concentrations of VOCs greater than Unrestricted Use SCOs. Benzo(a)pyrene was detected in both of the soil samples collected from the 0 to 2-foot interval at concentrations greater than CUSCOs. Metals, including arsenic, lead, and mercury, were detected at concentrations greater than CUSCOs in SB001 in the 0 to 2-foot interval, and lead exceeded RRUSCOs in SB002 in the 0 to 2-foot interval. Despite the presence of fill material extending to 15 feet, VOCs, SVOCs, and metals were not detected at concentrations greater than UUSCOs in the two soil samples collected from the 13 to 15 foot interval. In general, elevated concentrations of SVOCs and metals were identified at locations and depths where the upper layer of fill material was observed.

- One groundwater sample (GW001) was collected from the downgradient potion of the property. Due to repeated refusals, an upgradient groundwater sample was unable to be collected. Analytical results for GW001 did not identify concentrations of VOCs exceeding AWQS with the exception of acetone, which is a common laboratory reagent and its detection is likely the result of laboratory interference and not from being present in the subsurface. SVOCs, namely PAH compounds, were detected at concentrations greater than AWQS in GW001. Metals including iron, manganese, and sodium were also detected at concentrations greater than AWQS in GW001. Although SVOCs and metals were detected in the groundwater sample, there were no exceedances of SCOs in the deeper soil samples and there is a separation of over 50 feet between the fill material and the groundwater table. The presence of these SVOCs and metals may be a regional concern and unrelated to the presence of fill material.

- Two soil vapor samples were collected from the upgradient and downgradient portions of the property. As there was no building present onsite, sub-slab vapor and indoor air samples could not be collected. Soil vapor samples were compared to the matrices to provide guidance. There were no concentrations of VOCs detected that would warrant mitigation based on the NYSDOH matrices; however, concentrations of petroleum related compounds, such as the trimethylbenzenes and BTEX and chlorinated VOCs such as tetrachloroethylene and vinyl chloride were detected at lower concentrations.

Recommendations

Based on the conclusions detailed above, P.W. Grosser Consulting, Inc. offers the following recommendations for the subject property:

- Based on the level of SVOC and metals impact observed in the subsurface, P.W. Grosser Consulting, Inc. recommends that these soils be handled in accordance with local, state, and federal regulations and guidance if they are to be disturbed and/or removed from the site for

offsite disposal. This should involve appropriate waste characterization sampling to determine if some of the metal impacts (particularly lead and mercury) are deemed hazardous.

- Installation of a vapor barrier or other appropriate soil vapor mitigation methods if a new building is to be constructed.

Projected Development Site 1B: Block 1576, Lot 34

November 2018 Phase II ESA

Castleton Environmental Inc. performed a subsurface investigation at 2465 Atlantic Avenue, Brooklyn, New York (the site). The investigation was performed based on the findings of the Phase I ESA by CBRE, Inc. dated September 23, 2018. The objective of this investigation was to screen for the presence of a VEC at the site from past historical industrial usage.

Two sub-slab vapor, two indoor air, and one outdoor air samples were collected for laboratory analysis. The presence and reported concentrations of the chemical PCE, which is commonly associated with historic industrial usage in SSV02 and IAQ01, represents the presence of a VEC at the site. However, the reported concentrations are not indicative of a significant source of contaminated media that would warrant a remedial response.

Based on the data set, the recommended corrective actions set forth in the NYSDOH guidance for these concentrations are:

1. To mitigate for vapors potentially entering the building.

Based upon the above, Castleton Environmental Inc. does not recommend further sampling that would result in disturbance of the concrete floor. Rather, practical measures to further minimize the potential for soil vapor intrusion are recommended. Such measures include the sealing of seams, piping penetrations, floor/wall joints, etc. with a self-leveling sealant such as Sikaflex.

Projected Development Site 1B: Block 1576, Lots 1 and 34

May 2024 Phase II ESA

P.W. Grosser Consulting, Inc. has performed a Phase II ESA at the subject property in conformance with the scope and limitations of ASTM Practice E1903-19 for the following objectives:

- Geophysical survey to identify potential USTs, utilities, and other subsurface anomalies.

- Installation of four soil borings (SB001 through SB004), and collection of one to two soil samples from each boring.

- Installation of one soil vapor sampling point (SV001) and one sub-slab soil vapor sampling point (SS001) and collection of two soil vapor samples.

Conclusions

Based on the results of the Phase II ESA, P.W. Grosser Consulting, Inc. offers the following conclusions:

- Subsurface anomalies indicative of potential USTs, drywells, or other objects which would warrant further investigation were not identified during the geophysical survey.

- Soil quality across the soil borings exhibited the presence of fill material in the top 15 feet. Six soil samples were collected from four soil borings installed across the site as part of this assessment. Analytical results for each of the four samples did not identify concentrations of VOCs greater than Unrestricted Use SCOs with the exception of PCE, TCE, and DCE in SB002 from the 0 to 2-foot interval, collected from the basement of 2465 Atlantic Avenue. SVOCs, namely PAH compounds, were detected in SB002 and SB003 from the 0 to 2-foot interval at concentrations greater than CUSCOs. Metals including arsenic and copper were detected at concentrations greater than CUSCOs in SB001, SB003, and SB004 in the 0 to 2-foot interval, lead, mercury, and zinc exceeded UUSCOs in SB002 in the 0 to 2-foot interval, and manganese exceeded UUSCOs in SB004 in the 13 to 15-foot interval. VOCs, SVOCs, and metals were not detected at concentrations greater than UUSCOs in the two soil samples collected from the deeper interval. In general, elevated concentrations of SVOCs and metals were identified at locations and depths where the upper layer of fill material was observed, with manganese being the only analyte detected greater than UUSCOs in the lower fill layer. Elevated concentrations of VOCs were identified only in samples collected from beneath the building slab and may be associated with the presence of soil vapors.

- One soil vapor sample was collected from the up gradient portion of the property in the northern yard, and one sub-slab soil vapor sample was collected from the down gradient portion of the property in the basement of 2465 Atlantic Ave, which was previously used for industrial purposes (radio and telecom manufacturing). There were no VOC concentrations detected in the up gradient soil vapor sample that would warrant mitigation based on NYSDOH matrices; however, concentrations of petroleum related compounds, such as the trimethylbenzenes and BTEX and chlorinated VOCs such as tetrachloroethylene and vinyl chloride were detected at lower concentrations. The sub-slab soil vapor sample contained concentrations of PCE, TCE, and DCE that would warrant mitigation regardless of a corresponding indoor air sample. Based on the results of the sub-slab soil vapor sample and the soil samples collected in the basements of 2465 Atlantic Avenue and 45 Van Sinderen Avenue, there appears to be a soil vapor intrusion concern within this portion of the property.

Recommendations

Based on the conclusions detailed above, P.W. Grosser Consulting, Inc. offers the following recommendations for the subject property:

- Based on the concentrations of SVOC and metals impact observed in the subsurface, P.W. Grosser Consulting, Inc. recommends that these soils be handled in accordance with local, state, and federal regulations and guidance if they are to be disturbed and/or removed from the site for offsite disposal. This should involve appropriate waste characterization sampling to determine if some of the metal impacts (particularly lead) are deemed hazardous.

- Soil vapor intrusion mitigation is recommended in the basements of 2465 Atlantic Avenue and 45 Van Sinderen Avenue. Additional delineation of sub-slab vapor concentrations is recommended to more finely focus this mitigation area. Once this area has been better defined, a pilot study is recommended to determine the radius of influence for SSDS pits, and the SSDS system should then be designed and installed.

- Installation of a vapor barrier or other appropriate soil vapor mitigation methods if a new building is to be constructed.

Projected Development Site 1C: Block 1577, Lots 17 and 26

P.W. Grosser Consulting, Inc. has performed a Phase II ESA at the subject property in conformance with the scope and limitations of ASTM Practice E1903-19 for the following objectives:

- Geophysical survey to identify potential USTs, utilities, and other subsurface anomalies.

- Installation of four soil borings (SB001-C through SB004-C), and collection of one to two soil samples from each boring.

- Installation of two soil vapor sampling points (SV001-C and SV002-C) and collection of two soil vapor samples.

Conclusions

Based on the results of the Phase II ESA, P.W. Grosser Consulting, Inc. offers the following conclusions:

- Subsurface anomalies indicative of potential USTs, drywells, or other objects which would warrant further investigation were not identified during the geophysical survey.

- Soil quality across both soil borings exhibited the presence of fill material in the top 15 feet. Six soil samples were collected from four soil borings installed across the site as part of this assessment. Analytical results for each of the four samples did not identify concentrations of VOCs exceeding Unrestricted Use SCOs. SVOCs, namely PAHs, were detected at concentrations exceeding RRUSCOs in SB004 collected from the 0 to 2-foot interval. Lead and mercury were detected at concentrations greater than RRUSCOs in SB003 in the 0 to 2-foot. Additionally, copper, lead, zinc, and mercury were detected at concentrations greater than Unrestricted Use SCOs in SB001, SB002, and SB004 in the 0 to 2-foot interval; however, these concentrations were less than Restricted Residential Use SCOs. VOCs, SVOCs, and metals were not detected at concentrations greater than UUSCOs in the two soil samples collected from the 13 to 15 foot interval. In general, elevated concentrations of SVOCs and metals were identified at locations and depths where the upper layer of fill material was observed.

- Two soil vapor samples were collected from the up gradient and down gradient portions of the property. As there was no building present onsite, sub-slab vapor and indoor air samples could not be collected. Soil vapor samples were compared to the matrices to provide guidance. There were no concentrations of VOCs detected that would warrant mitigation based on the NYSDOH matrices; however, concentrations of petroleum related compounds, such as the trimethylbenzenes and BTEX and chlorinated VOCs such as tetrachloroethylene and vinyl chloride were detected at lower concentrations.

Recommendations

Based on the conclusions detailed above, P.W. Grosser Consulting, Inc. offers the following recommendations for the subject property:

- Based on the level of SVOC and metals impact observed in the subsurface, P.W. Grosser Consulting, Inc. recommends that these soils be handled in accordance with local, state, and federal regulations and guidance if they are to be disturbed and/or removed from the site for offsite disposal. This should involve appropriate waste characterization sampling to determine if some of the metal impacts are deemed hazardous.

- Installation of a vapor barrier or other appropriate soil vapor mitigation methods if a new building is to be constructed.

Projected Development Site 1D: Block 1577, Lots 32, 35, 51, and 53

July 2015 Phase II ESA

Associated Environmental Services, Ltd. has prepared a Phase II Subsurface Investigation Report on behalf of Broadway Junction, LLC for the commercial property located at 1833 East New York Avenue, Brooklyn, New York. The Phase II Subsurface Investigation activities were performed in accordance with the guidance provided in the New York State Department of Environmental Conservation (NYSDEC) Technical Guidance for Site Investigation and Remediation (DER-10).

Conclusions

Eight (8) soil borings designated as SB-1 through SB-8 were installed throughout the site. Soil samples were collected in continuous five (5) foot intervals to a maximum depth often (10) feet below grade. There was no visual or olfactory evidence of contamination noted in any of the samples collected. In addition, there were no detectable readings observed with the PID.

Six (6) soil samples were submitted for analysis of VOCs and SVOCs. The analytical data for all the soil samples indicated that there were no VOCs or SVOCs detected above the NYSDEC Unrestricted Use Soil Cleanup Objectives (UUSCOs).

Based upon the lack of evidence of contamination noted in the field data as well as the analytical data, it appears that the historical use of the subject property has not impacted the subsurface.

Recommendations

Associated Environmental Services, Ltd. recommended no further investigative work for the subject property.

May 2024 Phase II ESA

P.W. Grosser Consulting, Inc. has performed a Phase II ESA at the subject property in conformance with the scope and limitations of ASTM Practice E1903-19 for the following objectives:

- Geophysical survey to identify potential USTs, utilities, and other subsurface anomalies.

- Installation of five soil borings (SB001 through SB005) and collection of one to two soil samples from each boring.

- Installation of two soil vapor sampling points (SV001 and SV002) and collection of two soil vapor samples.

Conclusions

Based on the results of the Phase II ESA, P.W. Grosser Consulting, Inc. offers the following conclusions:

- Subsurface anomalies indicative of potential USTs, drywells, or other objects which would warrant further investigation were not identified during the geophysical survey; however, the survey was greatly limited due to the presence of parked cars across the majority of the property.

- Soil quality across the soil borings exhibited the presence of fill material throughout the boring lengths. Eight soil samples were collected from five soil borings installed across the site as part of this assessment. Analytical results for each of the eight samples did not identify concentrations of VOCs or SVOCs greater than Unrestricted Use SCOs. Lead and mercury were detected at concentrations greater than RRUSCOs in SB001 in the 0 to 2-foot interval and SB002 in the 8 to 10-foot interval. These samples were located near the northern and eastern property boundaries, respectively. Additionally, copper, lead, nickel, silver, zinc, and mercury were detected at concentrations greater than Unrestricted Use SCOs in soil samples across the site in the shallow (0 to 5 foot) interval; however, these concentrations were less than Restricted Residential Use SCOs. In general, elevated concentrations of metals were identified at locations and depths where the upper layer of fill material was observed throughout much of the site and in select deeper locations, with the highest concentrations limited to the northern and eastern ends of the property in both the upper and lower fill layers.

- Two soil vapor samples were collected from the up gradient and down gradient portions of the property. Soil vapor samples were compared to the matrices to provide guidance. There were no concentrations of VOCs detected that would warrant mitigation based on the NYSDOH matrices; however, concentrations of petroleum related compounds, such as the trimethylbenzenes and BTEX and chlorinated VOCs such as tetrachloroethylene were detected at lower concentrations.

Recommendations

Based on the conclusions detailed above, P.W. Grosser Consulting, Inc. offers the following recommendations for the subject property:

- Based on the level of metals impact observed in the subsurface, PWGC recommends that these soils be handled in accordance with local, state, and federal regulations and guidance if they are to be disturbed and/or removed from the site for offsite disposal. This should involve appropriate waste characterization sampling to determine if some of the metal impacts (particularly lead) are deemed hazardous.

- Installation of a vapor barrier or other appropriate soil vapor mitigation methods if a new building is to be constructed.

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

In the 2036 future without the Proposed Actions (the "No-Action condition"), the Project Area and all projected development sites therein would remain as under existing conditions. Therefore, no soil and groundwater disturbance is anticipated to occur on the projected development sites that would create or increase pathways for human exposure to hazardous materials present at the projected development sites.

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

In the 2036 future with the Proposed Actions (the "With-Action condition"), the Proposed Actions would be approved and Projected Development Sites 1A through 1E and Projected Development Site 2 within the Project Area would be redeveloped. The Proposed Actions would increase the development potential of the projected development sites and permit new uses, including residential uses, at higher densities than the Project Area's current zoning permits under existing conditions. As described above, the potential for subsurface contamination has been identified at the projected development sites. Although the demolition and construction activities associated with the Proposed Actions could increase pathways for human exposure to hazardous materials, the potential for significant adverse impacts would be avoided by assigning a hazardous materials (E) designation on each of the lots comprising Projected Development Sites 1A through 1E and Projected Development Site 2 — Block 1555, Lot 19; Block 1576, Lots 1, 9, and 34; and Block 1577, Lots 1, 7, 17, 26, 32, 35, 51, 53, 56, and 58. As determined by DEP in a letter dated October 7, 2024 (provided in **Appendix C**), a hazardous materials (E) designation is necessary for the properties comprising Projected Development Sites 1A through 1E and Projected Development Site 2.

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 OER. DOB will typically issue the foundation permits when OER approves the remedial action work plan — the actual remediation is generally undertaken concurrently with the construction activities. The remedial action plan provided to OER to satisfy the (E) designation must also include a mandatory CHASP, which must also be submitted to OER.

The (E) designation text related to hazardous materials (E-857) is as follows:

Task 1: Sampling Protocol

> **Prior to construction, the Applicant must submit to the New York City Mayor's Office of Environmental Remediation (OER), for review and approval, a Phase II Investigation protocol, including a description of methods and a site map with all sampling locations clearly and precisely represented.**
>
> **No sampling should begin until written approval of a protocol is received by OER. The number and location of sample sites should be selected to adequately characterize the site, the specific source of suspected contamination (i.e., petroleum-based contamination and non-petroleum-based contamination), and the remainder of the site's condition. The characterization should be complete enough to determine what remediation strategy (if any) is necessary after review of the sampling data. Guidelines and criteria for selecting sampling locations and collecting samples are provided by OER upon request.**

Task 2: Remediation Determination and Protocol

> **A written report with findings and a summary of the data must be submitted to OER after completion of the testing phase and laboratory analysis for review and approval. After receiving such results, a determination is made by OER if the results indicate that remediation is necessary. If OER determines that no remediation is necessary, written notice shall be given by OER.**

If remediation is indicated for the test results, a proposed remedial action plan (RAP) must be submitted by OER for review and approval. The Applicant must complete such remediation as determined necessary by OER. The Applicant should then provide proper documentation that the work has been satisfactorily completed.

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

With the measures outlined above, adherence to existing regulations, and the assignment of an (E) designation on Projected Development Sites 1A through 1E and Projected Development Site 2, the potential for a significant adverse impact to human health and the environment regarding hazardous materials resulting from the Proposed Actions would be avoided. Therefore, no significant adverse impacts related to hazardous materials would occur as a result of the Proposed Actions.