

148 WEST STREET

BROOKLYN, NEW YORK

Remedial Action Report

NYC VCP Project Number 15CVCP168K

OER Project Number 15EHAZ541K

Prepared For:

148 West Villa LLC
124-04 Metropolitan Avenue,
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Prepared By:

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REMEDIAL ACTION REPORT

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LIST OF ACRONYMS

Acronym	Definition
CAMP	Community Air Monitoring Plan
DER-10	NYSDEC Division of Environmental Remediation Technical Guidance Manual 10
EC	Engineering Control
HASP	Health and Safety Plan
IC	Institutional Control
NYC VCP	New York City Voluntary Cleanup Program
NYC DEP	New York City Department of Environmental Protection
NYC DOHMH	New York City Department of Health and Mental Hygiene
NYC OER	New York City Office of Environmental Remediation
ORC	Oxygen Release Compound
PID	Photoionization Detector
QA/QC	Quality Assurance/Quality Control
QEP	Qualified Environmental Professional
RAR	Remedial Action Report
RAWP	Remedial Action Work Plan
SCG	Standards, Criteria and Guidance
SCO	Soil Cleanup Objective
SMMP	Soil/Materials Management Plan
SMP	Site Management Plan
SVOCs	Semi-Volatile Organic Compounds
UST	Underground Storage Tank
VOCs	Volatile Organic Compounds

CERTIFICATION

I, Spiro Dongaris, certify to the following:

- I am currently a registered professional engineer licensed by the State of New York.
- I performed professional engineering services and had primary direct responsibility for implementation of the remedial program for the 148 West Street site, site number 15CVCP168K.
- I have reviewed this document, to which my signature and seal are affixed.
- The vapor barrier and composite cover system constructed during this remedial action were designed by Mr. Reza Sharif, P.E. and achieve the goals established in the Remedial Action Work Plan for this site.
- The vapor barrier and composite cover system constructed during this remedial action were professionally observed by me or by a person under my direct supervision and are accurately reflected in the text and drawings for as-built design reported in this Remedial Action Report.
- The OER-approved Remedial Action Work Plan dated July 2015 and Stipulations in a letter dated July 8, 2015 were implemented and that all requirements in those documents have been substantively complied with. I certify that contaminated soil, fill, liquids or other material from the property were taken to facilities licensed to accept this material in full compliance with applicable laws and regulations.

Name

Spiro I. Dongaris

PE License Number

095954.

Signature



Date

5/7/19.



EXECUTIVE SUMMARY

148 West Villa LLC has enrolled in the New York City Voluntary Cleanup Program (NYC VCP) to investigate and remediate a property located at 148 West Street in the Greenpoint section of Brooklyn, New York. A Remedial Investigation (RI) was performed to compile and evaluate data and information necessary to develop a Remedial Action Work Plan (RAWP). A remedial action was performed pursuant to an OER-approved RAWP in a manner that has rendered the Site protective of public health and the environment consistent with the proposed use of the property. This RAR describes the remedial action performed under the RAWP. The remedial action described in this document provides for the protection of public health and the environment, complies with applicable environmental standards, criteria and guidance and applicable laws and regulations.

Site Location and Background

The Site is located at 148 West Street in the Greenpoint section of Brooklyn, New York and is identified as Block 2531 and Lot 3 on the New York City Tax Map. The Site is 2,500-square feet in area and is bounded by a vacant lot the north, a 3-story residential building to the east, an active construction site to the south, and a new 7-story residential building to the west, across West Street. Prior to redevelopment, the Site was developed with a 3-story residential building with a full basement and rear yard.

Summary of Redevelopment Plan

The redevelopment of the Site consisted of constructing a 5-story residential building with a full basement and rear yard. The total gross square footage of the building is approximately 6,715 square feet. The basement includes accessory space for the first floor apartment, storage areas, and utility and elevator equipment rooms. The floors above (first through fifth floors) are utilized as residential apartments (one or two apartments per floor). There is also a lobby located on the first floor and a rear yard consisting of approximately 875 square feet. The previously existing basement was approximately 950 square feet and was expanded to encompass the entire footprint of the

new building (1,625 square feet). Excavation of soils to approximately 6-8 feet below grade surface (bgs) was required for the expansion of the basement. Additional excavation to 9 feet below grade was performed in the basement expansion to meet Track 2 SCOs. Based on the Remedial Investigation soil sample results showing compliance with Track 2 SCO's, the rear yard was only grubbed a few inches.

Approximately 250 cubic yards (317.51 tons) of non-hazardous soil were generated during the construction, plus an additional excavation, estimated to be less than 30 cubic yards; Athenica was not on-Site during this additional excavation and the disposal manifests for the excavated soil are not available. Groundwater was encountered at approximately 7 to 8 feet below grade during the excavation, requiring 6,100 gallons of dewatering for construction of the expanded basement. The current zoning designation is R6A/M1-2. The redevelopment is consistent with existing zoning for the property.

Summary of Surrounding Property

The Site is located within a mixed use residential and commercial area of Brooklyn, New York. The Site is bounded by vacant lot to the north, a construction site to the south, a 3-story residential building to the east, and a newly-constructed 7-story residential building to the west, across West Street.

There are no sensitive receptors such as schools, hospitals and day-care facilities within a 500-foot radius of the Site.

Summary of Past Site Uses of Site and Areas of Concern

Based upon the review of the Phase I Environmental Site Assessment (ESA) Report prepared by AA Soil & Concrete Testing in May 2015, the Site history was established.

The Site consists of a 2,500 square-foot lot that was previously developed with a 3-story residential building prior to redevelopment. Historic Sanborn Maps show the Site as developed with the former 3-story dwelling since 1887. This is consistent with the previous on-Site building.

There was no area of concern identified for this Site.

Summary of the Work Performed under the Remedial Investigation

Athenica performed the following scope of work at the site in June of 2015:

1. Conducted a Site inspection to identify AOCs and physical obstructions (i.e. structures, buildings, etc.);
2. Performed a geophysical survey using ground penetrating radar (GPR);
3. Installed three (3) soil borings across the entire project Site, and collected six (6) soil samples for chemical analysis from the soil borings to evaluate soil quality;
4. Installed three (3) groundwater monitoring wells throughout the Site to establish groundwater flow and collected three (3) groundwater samples for chemical analysis to evaluate groundwater quality;
5. Installed two (2) soil vapor probes and one (1) sub-slab vapor probe around Site perimeter and collected three (3) samples for chemical analysis.

Summary of Findings of Remedial Investigation

1. Elevation of the property ranges from 10 to 11 feet.
2. Depth to groundwater at the Site ranges from 8.5 to 9.5 feet below ground surface (bgs).
3. Groundwater flow is generally from east to west beneath the Site.
4. Bedrock was not encountered during the RI.
5. The stratigraphy of the Site, from the surface down, consists of approximately 8 feet of fine grained sand with trace amount of pebbles, underlain by saturated sand.
6. Soil/fill samples collected during the RI were compared to 6NYCRR Part 375-6.8 Track 1 Unrestricted Use Soil Cleanup Objectives (SCOs) and Track 2 Restricted Residential Use SCOs. Soil sampling results showed no detectable concentration of pesticides or PCBs in any sample. Only two VOCs, 2-butanone and acetone (a common laboratory contaminant), were detected in the soil samples. However,

- neither of these VOCs were detected at concentrations above their respective Unrestricted Use SCOs. No other VOCs were detected in the soil samples. One (1) Polycyclic Aromatic Hydrocarbon (PAH) SVOC, benzo(a)anthracene (max. of 1.02 ppm), was detected at a concentration above its Unrestricted Use SCO in one shallow (0 to 2 feet) soil sample. Other PAH SVOCs were detected in the soil samples, but none of the SVOCs were detected at concentrations above their respective Unrestricted Use SCOs. Four (4) metals, including lead (max. of 251 ppm), mercury (max. of 0.95 ppm), selenium (max. of 3.95 ppm), and zinc (max. of 297 ppm), were detected at concentrations above their respective Unrestricted Use SCOs. Of these metals, only mercury was detected at a concentration exceeding its Restricted Residential Use SCO, in one shallow (zero to 2 feet) soil sample.
7. Groundwater samples collected during the RI were compared to 6NYCRR Part 703.5 Class GA Groundwater Quality Standards (GQS). No pesticides or PCBs were detected in any of the groundwater samples. One VOC, p-&m-xylene (7.5 µg/L), was detected in one of the groundwater samples above its respective GQS. No other VOCs were detected above their GQS in groundwater. One SVOC, bis(2-ethylhexyl)phthalate (max. of 10.1 µg/L) was detected in one of the groundwater samples above its respective GQS. Several dissolved metals were detected in groundwater samples, however only three (3) of them exceeded their respective GQS. These dissolved metals included manganese (max. of 3,470 µg/L), selenium (17 µg/L) and sodium (max. of 58,900 µg/L). Overall the results are consistent with concentrations found in groundwater throughout NYC.
 8. Soil vapor and sub-slab vapor samples collected during the RI were compared to the compounds listed in Vapor Intrusion Matrices in the New York State Department of Health (NYSDOH) Final Guidance for Evaluating Soil Vapor Intrusion, dated October 2006. Sub-slab vapor and soil vapor results detected elevated levels of petroleum compounds, including BTEX (max. of 3,350 µg/m³). Chlorinated VOCs were detected at trace concentrations. Samples did not have detected concentrations of 1,1,1-trichloroethane, carbon tetrachloride, and

trichloroethene (TCE) in any of the sub-slab vapor or soil vapor samples.

Tetrachloroethene (PCE) was detected at a concentration of 19 $\mu\text{g}/\text{m}^3$ in one of the soil vapor samples.

9. Tetrachloroethene (PCE) was detected at a concentration of 19 $\mu\text{g}/\text{m}^3$ in one of the soil vapor samples.

Summary of the Remedial Action

The Remedial Action was performed in accordance with an OER-approved Remedial Action Work Plan and achieved the Remedial Action Objectives established for the project. The Remedial Action was evaluated in an alternatives analysis and was determined to be protective of human health and the environment, compliant with standards, criteria, and guidelines (SCGs), effective in the short-term, effective in the long-term, capable of attaining appropriate levels of reduction of toxicity, mobility, or volume of contaminated material, implementable, cost effective, acceptable to the community, consistent with land uses, and sustainable.

A summary of the milestones achieved in the Remedial Action is as follows: 4. A Remedial Investigation (RI) was performed in June 2015. A RI Report was prepared to evaluate data and information necessary to develop a Remedial Action Work Plan (RAWP). A Site Contact List was established. A draft RAWP was prepared and released with a Fact Sheet on September 2, 2015 for a 30-day public comment period. The RAWP and Stipulation List dated July 8, 2015 was approved by the New York City Office of Environmental Remediation (OER) on July 16, 2015. A Pre-Construction meeting was held on November 19, 2015. The remedial action was begun in February 2016 and completed on August 23, 2017.

The remedial action consisted of the following tasks:

1. Prepared a Community Protection Statement and implemented a Citizen Participation Plan.
2. Mobilized site security, equipment, utility mark outs, and marking and staking of excavation areas.

3. Performed Waste Characterization Study prior to excavation activities. Four waste characterization soil samples were collected in February and March 2016. Waste characterization samples were collected at a frequency dictated by disposal facility(s).
4. Performed a Community Air Monitoring Program for particulates and volatile organic carbon compounds.
5. Established Track 4 Site Specific Soil Cleanup Objectives (SCO's). The following Track 4 SCO's were utilized:

<u>Contaminant</u>	<u>Site-Specific SCO's</u>
Total SVOCs	100 ppm
Lead	800 ppm
Mercury	1.5 ppm

6. The following excavations were performed: soil was removed to a depth of 6-8 feet below grade within the area of the basement expansion. Additional excavation was performed to 9 feet below grade to address mercury SCO exceedances. The existing basement area and the rear yard area was not excavated. 317.51 tons of non-hazardous soil/fill were excavated and removed from the property for proper disposal as non-hazardous material. This total does not include the additional excavation presented above, which was conducted between April 19, 2016 and May 12, 2016 to address the mercury SCO exceedance; Athenica was not on-Site during this additional excavation and the disposal manifests for the excavated soil are not available, which is estimated to be a quantity less than 30 cubic yards.
7. Excavated 317.51 tons of non-hazardous soil/fill, plus an additional quantity of soil to address the mercury SCO exceedance, estimated to be less than 30 cubic yards and transported to Clean Earth's facility in Carteret, located at 24 Middlesex Avenue, Carteret, New Jersey 07008.

8. Transported and disposed all soil/fill material at permitted facilities in accordance with all applicable laws and regulations for handling, transport, and disposal, and the RAWP.
9. Screened excavated soil/fill during intrusive work for indications of contamination by visual means, odor, and monitoring with a PID.
10. Conducted materials management of excavated materials including temporarily stockpiling and segregating in accordance with defined material types and to prevent co-mingling of contaminated material and non-contaminated materials.
11. Collected and analyzed post-excavation confirmation samples to determine attainment of SCOs. Track 2 Restricted Residential Use SCOs were achieved.
12. Conducted dewatering as required for installation of the building foundation. A total of 6,100 gallons of non-hazardous liquid was transported for off-Site disposal to the AB Oil Service Ltd facility, located at 1599 Ocean Avenue, Bohemia, New York 11716.
13. As part of development, constructed an engineered Composite Cover System consisting of a minimum 4-inch thick concrete building slab beneath the building footprint, which is overlain by the Vapor Barrier System and the 4-inch thick concrete layer that serves as the basement floor or base for tile installed in the basement. The Composite Cover System in the rear yard area (open and landscaped areas) is comprised of the clean in-situ soil. The contractor for the Composite Cover System construction was M Development.
14. As part of development, installed a Vapor Barrier System that consisted of a 20-mil vapor barrier manufactured by Stego Industries, Inc. (model "Stego Wrap 20-Mil Vapor Barrier"). Overlaps between sheets of Stego Wrap were 6 inches, and all seams were sealed with Stego Industries, Inc. "Stego Tape". The horizontal membrane was extended up the interior basement walls by at least 4 inches, and was sealed to the wall using Stego Tape. The vapor barrier was installed behind all sidewalls and beneath the footings installed for the expanded cellar slab, as well as horizontally between the building foundation and the 4-inch thick

concrete layer that serves as the basement floor or base for tile installed in the basement. The contractor for the Vapor Barrier System construction was M Development.

15. Performed all activities required for the Remedial Action, including permitting requirements and pretreatment requirements, in compliance with applicable laws and regulations.
16. Implemented storm-water pollution prevention measures in compliance with applicable laws and regulations.
17. Submitted a Sustainability Report.
18. Submitted a Remedial Action Report (RAR) that describes the Remedial Action, certifies that the remedial requirements defined in the Remedial Action Work Plan have been achieved; defines the Site boundaries; and describes any changes from the RAWP.

REMEDIAL ACTION REPORT

1.0 SITE BACKGROUND

148 West Villa LLC has enrolled in the New York City Voluntary Cleanup Program (NYC VCP) to investigate and remediate a property located at 148 West Street in the Greenpoint section of Brooklyn, New York. The boundary of the property, subject to this Remedial Action, is shown in Figure 2 and includes, in its entirety, Brooklyn Block 2531, Lot 3. The Remedial Action was performed pursuant to the OER-approved RAWP in a manner that has rendered the property protective of public health and the environment, consistent with its intended use. This RAR describes the remedial action performed under the RAWP. The remedial action described in this document provides for the protection of public health and the environment, complies with applicable environmental standards, criteria and guidance and applicable laws and regulations.

1.1 SITE LOCATION AND BACKGROUND

The Site is located at 148 West Street in the Greenpoint section of Brooklyn, New York and is identified as Block 2531 and Lot 3 on the New York City Tax Map. Figure 1 shows the Site location. The Site is 2,500-square feet in area and is bounded by a vacant lot the north, a 3-story residential building to the east, an active construction site to the south, and a new 7-story residential building to the west, across West Street. A map of the site boundary is shown in Figure 2.

Prior to redevelopment, the Site was developed 3-story residential building with a full basement and rear yard.

1.2 REDEVELOPMENT PLAN

The redevelopment of the Site consisted of constructing a 5-story residential building with a full basement and rear yard. The total gross square footage of the building is approximately 6,715 square feet. The basement includes accessory space for the first floor apartment, storage areas, and utility and elevator equipment rooms. The floors above (first through fifth floors) are utilized as residential apartments (one or two

apartments per floor). There is also a lobby located on the first floor and a rear yard consisting of approximately 875 square feet. The previously existing basement was approximately 950 square feet and was expanded to encompass the entire footprint of the new building (1,625 square feet). Excavation of soils to approximately 6-8 feet below grade surface (bgs) was required for the expansion of the basement. Additional excavation to 9 feet below grade was performed in the basement expansion to meet Track 2 SCOs. Based on the Remedial Investigation soil sample results showing compliance with Track 2 SCO's, O the rear yard was only grubbed to a few inches.

Approximately 250 cubic yards (317.51 tons) of non-hazardous soil were generated during the construction, plus an additional excavation, estimated to be less than 30 cubic yards; Athenica was not on-Site during this additional excavation and the disposal manifests for the excavated soil are not available. Groundwater was encountered at approximately 7 to 8 feet below grade during the excavation, requiring 6,100 gallons of dewatering for construction of the expanded basement. The current zoning designation is R6A/M1-2. The redevelopment is consistent with existing zoning for the property.

1.3 DESCRIPTION OF SURROUNDING PROPERTY

The Site is located within a mixed use residential and commercial area of Brooklyn, New York. The Site is bounded by vacant lot to the north, a construction site to the south, a 3-story residential building to the east, and a newly-constructed 7-story residential building to the west, across West Street.

There are no sensitive receptors such as schools, hospitals and day-care facilities within a 500-foot radius of the Site. Figure 2 shows the surrounding land usage.

1.4 SUMMARY OF PAST SITE USES AND AREAS OF CONCERN

Based upon the review of the Phase I Environmental Site Assessment (ESA) Report prepared by AA Soil & Concrete Testing in May 2015, the Site history was established.

The Site consists of a 2,500 square-foot lot that was previously developed with a 3-story residential building prior to redevelopment. Historic Sanborn Maps show the Site

as developed with the former 3-story dwelling since 1887. This is consistent with the previous on-Site building.

There was no area of concern identified for this Site.

1.5 SUMMARY OF WORK PERFORMED UNDER THE REMEDIAL INVESTIGATION

The scope of work implemented in June of 2015 by Athenica included:

1. Conducting a Site inspection to identify AOCs and physical obstructions (i.e., structures, buildings, etc.);
2. Performing a geophysical survey using ground penetrating radar (GPR);
3. Installation of three (3) soil borings across the entire project Site, and collection of six (6) soil samples for chemical analysis from the soil borings to evaluate soil quality;
4. Installation of three (3) groundwater monitoring wells throughout the Site to establish groundwater flow and collection of three (3) groundwater samples for chemical analysis to evaluate groundwater quality;
5. Installation of two (2) soil vapor probes and one (1) sub-slab vapor probe at the Site and collection of three (3) samples for chemical analysis.

1.6 SUMMARY OF FINDINGS OF REMEDIAL INVESTIGATION

A remedial investigation was performed and the results are documented in a companion document called “Remedial Investigation Report, 148 West Street”, dated June 2015 (RIR).

1. Elevation of the property ranges from 10 to 11 feet.
2. Depth to groundwater at the Site ranges from 8.5 to 9.5 feet below ground surface (bgs).
3. Groundwater flow is generally from east to west beneath the Site.
4. Bedrock was not encountered during the RI.

5. The stratigraphy of the Site, from the surface down, consists of approximately 8 feet of fine grained sand with trace amount of pebbles, underlain by saturated sand.
6. Soil/fill samples collected during the RI were compared to 6NYCRR Part 375-6.8 Track 1 Unrestricted Use Soil Cleanup Objectives (SCOs) and Track 2 Restricted Residential Use SCOs. Soil sampling results showed no detectable concentration of pesticides or PCBs in any sample. Only two VOCs, 2-butanone and acetone (a common laboratory contaminant), were detected in the soil samples. However, neither of these VOCs were detected at concentrations above their respective Unrestricted Use SCOs. No other VOCs were detected in the soil samples. One (1) Polycyclic Aromatic Hydrocarbon (PAH) SVOC, benzo(a)anthracene (max. of 1.02 ppm), was detected at a concentration above its Unrestricted Use SCO in one shallow (0 to 2 feet) soil sample. Other PAH SVOCs were detected in the soil samples, but none of the SVOCs were detected at concentrations above their respective Unrestricted Use SCOs. Four (4) metals, including lead (max. of 251 ppm), mercury (max. of 0.95 ppm), selenium (max. of 3.95 ppm), and zinc (max. of 297 ppm), were detected at concentrations above their respective Unrestricted Use SCOs. Of these metals, only mercury was detected at a concentration exceeding its Restricted Residential Use SCO, in one shallow (zero to 2 feet) soil sample.
7. Groundwater samples collected during the RI were compared to 6NYCRR Part 703.5 Class GA Groundwater Quality Standards (GQS). No pesticides or PCBs were detected in any of the groundwater samples. One VOC, p-&m-xylene (7.5 µg/L), was detected in one of the groundwater samples above its respective GQS. No other VOCs were detected above their GQS in groundwater. One SVOC, bis(2-ethylhexyl)phthalate (max. of 10.1 µg/L) was detected in one of the groundwater samples above its respective GQS. Several dissolved metals were detected in groundwater samples, however only three (3) of them exceeded their respective GQS. These dissolved metals included manganese (max. of 3,470

- $\mu\text{g/L}$), selenium ($17 \mu\text{g/L}$) and sodium (max. of $58,900 \mu\text{g/L}$). Overall the results are consistent with concentrations found in groundwater throughout NYC.
8. Soil vapor and sub-slab vapor samples collected during the RI were compared to the compounds listed in Vapor Intrusion Matrices in the New York State Department of Health (NYSDOH) Final Guidance for Evaluating Soil Vapor Intrusion, dated October 2006. Sub-slab vapor and soil vapor results detected elevated levels of petroleum compounds, including BTEX (max. of $3,350 \mu\text{g/m}^3$). Chlorinated VOCs were detected at trace concentrations. Samples did not have detected concentrations of 1,1,1-trichloroethane, carbon tetrachloride, and trichloroethene (TCE) in any of the sub-slab vapor or soil vapor samples. Tetrachloroethene (PCE) was detected at a concentration of $19 \mu\text{g/m}^3$ in one of the soil vapor samples.

For more detailed results, consult the RIR. Based on an evaluation of the data and information from the RIR and the RAWP, disposal of significant amounts of hazardous waste was not suspected at this site.

2.0 DESCRIPTION OF REMEDIAL ACTIONS

The remedial action was performed in accordance with an OER approved Remedial Action Work Plan and achieved the remedial action objectives established for the project. The remedial action was evaluated in an alternatives analysis and was determined to be protective of human health and the environment, compliant with standards, criteria, and guidelines (SCGs), effective in the short-term, effective in the long-term, capable of attaining appropriate levels of reduction of toxicity, mobility, or volume of contaminated material, implementable, cost effective, acceptable to the community, consistent with land uses, and sustainable.

A summary of the milestones achieved in the Remedial Action is as follows: A Remedial Investigation (RI) was performed in June 2015. A RI Report was prepared to evaluate data and information necessary to develop a Remedial Action Work Plan (RAWP). A Site Contact List was established. A draft RAWP was prepared and released with a Fact Sheet on September 2, 2015 for a 30-day public comment period. The RAWP and Stipulation List dated July 8, 2015 was approved by the New York City Office of Environmental Remediation (OER) on July 16, 2015. A Pre-Construction meeting was held on November 19, 2015. The remedial action was begun in February 2016 and completed on August 23, 2017.

The remedial action consisted of the following tasks:

1. Prepared a Community Protection Statement and implemented a Citizen Participation Plan.
2. Mobilized site security, equipment, utility mark outs, and marking and staking of excavation areas.
3. Performed Waste Characterization Study prior to excavation activities. Four waste characterization soil samples were collected in February and March 2016. Waste characterization samples were collected at a frequency dictated by disposal facility(s).

4. Performed a Community Air Monitoring Program for particulates and volatile organic carbon compounds.
5. Established Track 4 Site Specific Soil Cleanup Objectives (SCO's). The following Track 4 SCO's were utilized:

<u>Contaminant</u>	<u>Site-Specific SCO's</u>
Total SVOCs	100 ppm
Lead	800 ppm
Mercury	1.5 ppm

6. The following excavations were performed: soil was removed to a depth of 6-8 feet below grade within the area of the basement expansion. Additional excavation was performed to 9 feet below grade to address mercury SCO exceedances. The existing basement area and the rear yard area was not excavated. 317.51 tons of non-hazardous soil/fill were excavated and removed from the property for proper disposal as non-hazardous material. This total does not include the additional excavation presented above, which was conducted between April 19, 2016 and May 12, 2016 to address the mercury SCO exceedance; Athenica was not on-Site during this additional excavation and the disposal manifests for the excavated soil are not available, which is estimated to be a quantity less than 30 cubic yards.
7. Excavated 317.51 tons of non-hazardous soil/fill, plus an additional quantity of soil to address the mercury SCO exceedance, estimated to be less than 30 cubic yards and transported to Clean Earth's facility in Carteret, located at 24 Middlesex Avenue, Carteret, New Jersey 07008.
8. Transported and disposed all soil/fill material at permitted facilities in accordance with all applicable laws and regulations for handling, transport, and disposal, and the RAWP.

9. Screened excavated soil/fill during intrusive work for indications of contamination by visual means, odor, and monitoring with a PID.
10. Conducted materials management of excavated materials including temporarily stockpiling and segregating in accordance with defined material types and to prevent co-mingling of contaminated material and non-contaminated materials.
11. Collected and analyzed post-excavation confirmation samples to determine attainment of SCOs. Track 2 Restricted Residential Use SCOs were achieved.
12. Conducted dewatering as required for installation of the building foundation. A total of 6,100 gallons of non-hazardous liquid was transported for off-Site disposal to the AB Oil Service Ltd facility, located at 1599 Ocean Avenue, Bohemia, New York 11716.
13. As part of development, constructed an engineered Composite Cover System consisting of a minimum 4-inch thick concrete building slab beneath the building footprint, which is overlain by the Vapor Barrier System and the 4-inch thick concrete layer that serves as the basement floor or base for tile installed in the basement. The Composite Cover System in the rear yard area (open and landscaped areas) is comprised of the clean in-situ soil. The contractor for the Composite Cover System construction was M Development.
14. As part of development, installed a Vapor Barrier System that consisted of a 20-mil vapor barrier manufactured by Stego Industries, Inc. (model “Stego Wrap 20-Mil Vapor Barrier”). Overlaps between sheets of Stego Wrap were 6 inches, and all seams were sealed with Stego Industries, Inc. “Stego Tape”. The horizontal membrane was extended up the interior basement walls by at least 4 inches, and was sealed to the wall using Stego Tape. The vapor barrier was installed behind all sidewalls and beneath the footings installed for the expanded cellar slab, as well as horizontally between the building foundation and the 4-inch thick concrete layer that serves as the basement floor or base for tile installed in the basement. The contractor for the Vapor Barrier System construction was M Development.

15. Performed all activities required for the Remedial Action, including permitting requirements and pretreatment requirements, in compliance with applicable laws and regulations.
16. Implemented storm-water pollution prevention measures in compliance with applicable laws and regulations.
17. Submitted a Sustainability Report.
18. Submitted a Remedial Action Report (RAR) that describes the Remedial Action, certifies that the remedial requirements defined in the Remedial Action Work Plan have been achieved; defines the Site boundaries; and describes any changes from the RAWP.

3.0 COMPLIANCE WITH REMEDIAL ACTION WORK PLAN

3.1 HEALTH & SAFETY PLAN

The remedial construction activities performed under this program were in compliance with the Health and Safety Plan and applicable laws and regulations. The Site Safety Coordinator was Roy Podlisky.

3.2 COMMUNITY AIR MONITORING PLAN

The Community Air Monitoring Plan provided for the collection and analysis of air samples during remedial construction activities to ensure proper protections were employed to protect workers and the neighboring community. Monitoring was performed in compliance with the Community Air Monitoring Plan in the approved RAWP. The results of Community Air monitoring are shown in Appendix C.

3.3 SOIL/MATERIALS MANAGEMENT PLAN

The Soil/Materials Management Plan (SMMP) provided detailed plans for managing all soil/materials that were disturbed at the Site, including excavation, handling, storage, transport and disposal. It also included a series of controls to assure effective, nuisance free remedial activity in compliance with applicable laws and regulations. Remedial construction activities performed under this program were in compliance with the SMMP in the approved RAWP.

3.4 STORM-WATER POLLUTION PREVENTION

Storm water pollution prevention included physical methods and processes to control and/or divert surface water flows and to limit the potential for erosion and migration of Site soils, via wind or water. Remedial construction activities performed under this program were in full compliance with methods and processes defined in the RAWP for storm water prevention and applicable laws and regulations.

3.5 DEVIATIONS FROM THE REMEDIAL ACTION WORK PLAN

The QEP who signed the Remedial Action Work Plan dated July 2015 was William Silveri. However, the project was reassigned to A.J. Infante. Remedial activities were overseen by Mr. Infante. He is the QEP certifying the Remedial Action Report.

The P.E. who certified the Remedial Action Work Plan dated July 2015 was Reza Sharif. However, Spiro Dongaris, P.E. subsequently accepted responsibility for the project, prior to the onset of construction. He has reviewed all plans and remedial design documents. The installation of the vapor barrier system and the composite cover were also overseen by Mr. Dongaris. He is the P.E. certifying this Remedial Action Report.

The Remedial Action was implemented as presented in the OER-approved RAWP, with one exception regarding the Composite Cover System and two exceptions regarding the Vapor Barrier System. The RAWP specified that the rear yard would be excavated two feet and backfilled. The Composite Cover System in the rear yard area was to be a concrete cap. However, analytical results for the four (4) soil samples collected in this area during the RI did not show any parameters at concentrations exceeding Track 2 Restricted Residential SCO's. These results show that the in-situ soil in the rear yard area is clean, therefore it was requested that the requirement for a concrete cap be waived. OER approved the modified cover plan by email on May 5, 2017.

The RAWP specified that the material used to construct the Vapor Barrier System would be 20-mil Vapor Block Plus 20 manufactured by Raven Industries, which was to be installed horizontally below the slab throughout the entire building area and vertically outside new sub-grade foundation sidewalls. As noted above, the material used for the Vapor Barrier System was Stego Wrap 20-mil Vapor Barrier manufactured by Stego Industries. As the Stego Wrap is equivalent to the Vapor Block Plus 20 product, this substitution provides equivalent mitigation for potential vapor intrusion into the building and is equally protective of public health and the environment.

The second Vapor Barrier System deviation from the OER-approved RAWP was placement of the horizontal vapor barrier material. Due to the construction of a basement foundation only in the extension area (i.e., re-use of the existing foundation in the existing basement area), the vapor barrier system was placed above the basement foundation, to ensure that it was continuous throughout the basement area. The Vapor Barrier System is overlain by a 4-inch concrete layer that serves as the basement floor or base for tile installed in the basement. This revision provides equivalent mitigation for potential vapor intrusion into the building and is equally protective of public health and the environment. OER was notified of the Vapor Barrier deviations via email on July 7, 2017, and accepted the revisions via email on July 17, 2017.

As documented in manifests, thirteen (13) loads of non-hazardous soil and solids were removed from the Site, including two (2) loads of soil on April 13, 2016, four (4) loads of soil on April 14, 2016, six (6) loads of soil on April 18, 2016, and one (1), 2-cubic yard load of solids on October 19, 2016. Athenica was not informed of the planned loading activities on April 13 and October 19, so was only present to observe the truck loading and conduct CAMP monitoring on April 14 and April 18. Daily reports for these days are included in Appendix D.

The soil removed on April 13 was derived from two (2) stockpiles that were generated from hand excavations conducted in January and February 2016 (Athenica was not present to observe these tasks). Removal activities conducted on October 19 included removal of the 6,100 gallons of dewatering liquids along with the two (2) cubic yards of solids; it is therefore likely that the solids represent sediment that had settled from the dewatering liquids during on-Site staging.

Between April 19, 2016 and May 12, 2016, additional excavation was conducted to address exceedances of mercury SCOs. Athenica was not present during removal of this soil, and manifests for this soil are not available. The estimated quantity of soil removed from the Site during this event is less than 30 cubic yards.

4.0 REMEDIAL PROGRAM

4.1 PROJECT ORGANIZATION

Principal personnel who participated in the remedial action include Ezgi Karayel (Project Manager). The Professional Engineer (PE) and Qualified Environmental Professional (QEP) for this project are Spiro Dongaris, P.E, and A.J. Infante, respectively.

4.2 SITE CONTROLS

Site Preparation

Site preparation was completed in accordance with the schedule indicated below:

- The Department of Buildings issued a building permit for the Site on February 12, 2016;
- Fencing was installed at the Site by February 1, 2016;
- Erosion and sedimentation controls were established by February 2016;
- Mobilization was conducted as necessary for each phase of work at the Site. Mobilization included field personnel orientation, equipment mobilization (including securing all monitoring and sampling equipment needed for the field investigation and CAMP), marking/staking sampling locations, and requesting utility mark-outs. Each field team member attended an orientation meeting to become familiar with the general operation of the Site, health and safety requirements, and field procedures. Mobilization at the Site occurred in January 2016;
- The presence of utilities and easements on the Site was fully investigated prior to the performance of invasive work such as excavation or drilling under this plan, by using, at a minimum, the One-Call System (811). Underground utilities may pose an electrocution, explosion, or other hazard during excavation or drilling activities. All invasive activities were performed in compliance with applicable laws and regulations to assure safety. Utility companies and other responsible authorities were contacted by the One-Call System to locate and mark the locations of underground utilities in public rights-of-way and easements

surrounding the Site. Proper safety and protective measures pertaining to utilities and easements, and compliance with all laws and regulations were employed during intrusive and other work. The integrity and safety of on-Site and off-Site structures was maintained during all intrusive, excavation or other remedial activity performed under the RAWP;

- An OER Project Notice was erected at the project entrance and was in place during all phases of the Remedial Action.

Soil Screening

Excavation activities began on February 1, 2016. Most soil excavation and loading activities were overseen by Athenica. On January 29, 2016, soil was removed by hand from a few small pits to allow for installation of underpinning of the existing building. These activities were conducted by the contractor without observation by Athenica, and the soils were stockpiled in the existing basement for subsequent waste characterization by Athenica and disposal. Since the soil was removed by hand and did not leave the existing basement, no CAMP monitoring was conducted, as the potential for off-Site migration of VOCs and particulates was considered unlikely.

In addition to extensive sampling and chemical testing of soils on the Site prior to excavation, all excavated soil other than that from the underpinning pits, was continuously screened using hand-held instruments (i.e., PID), and by visual and olfactory methods, to ensure proper material handling and management. No evidence of a spill or potential soil contamination was observed by Athenica during Site excavation.

Stockpile Management

With the exception of the small pits for underpinning activities, excavated historic fill/soils were directly loaded into trucks for off-site disposal/re-use. Stockpiling was therefore minimized and the soil stockpiles were placed on, and covered with, 6-mil poly-sheeting to prevent dust and minimize odors.

Truck Inspection

All outbound trucks were inspected and cleaned as necessary prior to departing the Site, to prevent any off-Site migration of contamination. Cleaning of the adjacent streets was performed as needed.

Site Security

Site access was controlled through a gated entrance in the construction fence. The fence was locked with a chain and padlock during non-working hours/days.

Nuisance Controls

There were no complaints of odors migrating from the Site. CAMP monitoring confirmed that VOC and dust levels at the Site were not present at concentrations warranting corrective action.

Reporting

Daily reports were prepared and submitted to OER for each day of activities involving soil disturbance and installation of engineering controls as part of new development. All daily and monthly reports with digital photographs are included in Appendix D.

Additional photographs documenting the Remedial Action are included in Appendix E.

4.3 MATERIALS EXCAVATION AND REMOVAL

Soil and historic fill were excavated to a depth of approximately 9 feet bgs within the expanded basement area, to match the existing basement depth, and the remaining rear yard area was cleared of vegetation, which generated no additional soil. A total of 317.51 tons of soil mixed with historic fill excavated from these areas was disposed off-Site. As noted above, additional excavation was conducted between April 19, 2016 and May 12, 2016, to address exceedance of the SCO for mercury. Athenica was not present during this excavation event and manifests for the material excavated during this are not available. The estimated quantity of soil removed from the Site during this event is less than 30 cubic yards. In addition, as noted above, an additional 2-cubic yard load of solids, likely sediment from dewatering liquids, was removed from the Site on October 19, 2016.

As documented in manifests and weight tickets (see Appendix I), the 317.51 tons of non-hazardous soil removed from the Site included two (2) loads (totaling 49.48 tons) on April 13, 2016, four (4) loads (totaling 105.98 tons) on April 14, 2016, and six (6) loads (totaling 162.05 tons) on April 18, 2016. Material loaded on April 14 and 18 consisted of fine to medium sand; no odors or elevated PID readings were noted in any of the

excavated material (as discussed above, Athenica did not observe the loading activities on April 13, 2016, the excavation/loading between April 19, 2016 and May 12, 2016, and the loading on October 19, 2016).

The material excavated on April 14 and April 18 was removed from the building footprint using an excavator, and was placed directly into tri-axle dump trucks. Each load consisted of approximately 25 cubic yards of soil. In accordance with the approved RAWP and as discussed further below, each truck was inspected prior to leaving the Site, and cleaned as needed to prevent releases of Site-related material into the surrounding community. No complaints were received and no issues were encountered during the soil excavation/loading program.

A map showing the locations where excavation was performed is shown in Figure number 3.

End-Point Sample Results

Following the completion of excavation activities at the Site, post-excavation confirmation soil samples were collected at four locations across the Site; three were collected on April 20, 2016 and a supplemental sample was collected on May 12, 2016, following additional excavation. The post-excavation soil samples were each collected using a dedicated, disposal sampling scoop. Post-excavation soil samples were containerized in laboratory-provided glassware and placed into iced coolers to maintain a temperature of 4°C. Samples were picked up by the laboratory on the same day as collected and transported to York Analytical Laboratories (York), located at 120 Research Drive, Stratford, CT 06615 (New York State ELAP Certification No. 10854). Samples were analyzed for VOCs via EPA Method 8260, SVOCs via EPA Method 8270, and TAL Metals by EPA Method 6010. Raw laboratory results are included in Appendix F. York's ELAP Certification is included in Appendix G.

A map of post-excavation sample locations is shown in Figure 4. A tabular summary of post-excavation sampling results compared to SCOs is shown in Table 1. Significant findings and results of the end-point soil sampling are as follows:

- The subsurface soils exhibited no field evidence of petroleum or solvent contamination (i.e., elevated PID readings, staining, odors, etc.).
- The three initial end-point samples were collected at a depth of 6 to 8 feet bgs, and were analyzed for VOCs, SVOCs, and metals. All three samples contained mercury at that exceeded the Unrestricted Use SCO. The two samples located in the basement expansion area also exceeded the Track 2 Restricted Residential SCO for mercury but were below the Track 4 SCO for mercury, and one of these samples exceeded the Track 4 SCO for mercury. No VOCs, SVOCs, or other metals were detected in any of the samples at concentrations exceeding Track 2 SCO's.
- The supplemental post-excavation sample (EP-4) was collected at a depth of 9 feet bgs in the area of the previous post-excavation sample that contained mercury exceeding the Track 4 SCO. The sample was analyzed for mercury only, which was not detected in the supplemental post-excavation sample.
- As noted above, analytical results for the four (4) soil samples collected in the rear yard area during the RI did not show any parameters at concentrations exceeding Track 2 Restricted Residential SCO's. Based on these data, which indicate that the soil in the rear yard is sufficiently clean for the planned use of the Site, and OER approved a request to eliminate the requirement for a concrete cap in this area.

4.4 MATERIALS DISPOSAL

As indicated below, soil/fill and liquids generated during dewatering at the Site were properly characterized for off-Site disposal in accordance with the RAWP and/or specific requirements of the disposal and re-use facilities. For characterization of soil and fill for off-Site disposal and to confirm acceptability of soil for on-Site re-use, two representative samples were collected for laboratory analysis, one of the stockpiled soil from the underpinning pits that were excavated in the area of the existing basement, and the other from the expanded basement area. A brief summary of the classification of soils and fill is provided below.

- A letter from Clean Earth dated April 11, 2016 indicated its approval to accept

approximately 300 tons of non-hazardous soil/historic fill from the Site for disposal at its facility in Carteret, NJ (as noted above, 317.51 tons of material were transported from the Site for disposal). This letter is included in Appendix H.

- Transportation and disposal of material excavated from the Site occurred on April 13, 2016 (49.48 tons in two roll-off containers). This material reportedly comprised the soil excavated from the underpinning activities and miscellaneous soil generated during preliminary construction activities, and was transported to Clean Earth (manifests are included in Appendix I). Since the loading and removal of the roll-offs was conducted by the Site contractor without notification to Athenica, CAMP monitoring was not conducted on April 13, 2016.
- Transportation and disposal of the remaining 268.03 tons of material excavated from the Site occurred on April 14, 2016 and April 18, 2016. The manifests for this material are included in Appendix I, and the CAMP data recorded during these days are included in Appendix C.

Transportation and disposal of an additional unspecified quantity of material, estimated to be less than 30 cubic yards, occurred between April 19, 2016 and May 12, 2016. Athenica was not present during this event, and manifests for this material are not available.

An additional two (2) cubic yards of material associated with the dewatering activities, characterized as “non-hazardous solids”, were removed from the Site by Able Environmental Service dump truck on October 19, 2016. This material was transported to the AB Oil Service Ltd. facility in Bohemia, New York for disposal.

In addition, as noted above, groundwater was encountered during the excavation program for the expanded basement. Approximately 6,100 gallons of groundwater was dewatered during construction of the expanded basement. This liquid was temporarily stored in a tank brought to the Site, and removed from the Site on October 19, 2016 by an AB Oil Service Ltd. tanker truck for disposal as non-hazardous liquid at the AB Oil Service Ltd. facility in Bohemia, New York. The RI groundwater data were utilized by the disposal facility for acceptance of the dewatering liquids.

The material type, quantity, and disposal location for the material removed and disposed off-Site is presented below:

Disposal Location/Address	Type of Material	Quantity
Clean Earth of Carteret 24 Middlesex Ave, Carteret, NJ 07008	Non-Hazardous Soil	317.51 tons
Clean Earth of Carteret 24 Middlesex Ave, Carteret, NJ 07008	Non-Hazardous Soil	Est. less than 30 cubic yards
AB Oil Service Ltd 1599 Ocean Avenue, Bohemia, NY 11716	Non-Hazardous Solids	2 cubic yards
AB Oil Service Ltd 1599 Ocean Avenue, Bohemia, NY 11716	Dewatering Fluids	6,100 gallons

A letter from 148 West Villa LLC to the soil disposal facility providing materials type, source and data, and the acceptance letter from the disposal facility stating it is approved to accept above materials are attached in Appendix H. Manifests for the disposal of soil, dewatering liquids, and non-hazardous solids are included in Appendix I. The disposal quantities and disposal facilities are included in Table 3. The characterization samples' laboratory data packages are included in Appendix J.

4.5 BACKFILL IMPORT

No backfill was imported during the Remedial Action/Site redevelopment program.

4.6 DEMARCATION

Based upon the evaluation of the RI in-situ soil samples in the rear yard and post-excavation confirmation samples, a Track 2 Restricted Residential cleanup has been achieved, therefore a demarcation barrier is not required.

5.0 ENGINEERING CONTROLS

A Track 2 Restricted Residential Remedial Action was achieved and Engineering Controls are not required. However, as part of construction, several protective systems were installed. These are:

- (1) Composite Cover System; and
- (2) Vapor Barrier System.

Composite Cover System

As part of development, an engineered Composite cover System has been built at the site. This Composite Cover System is comprised of a minimum 4-inch thick concrete building slab beneath the building footprint, which is overlain by the Vapor Barrier System and the 4-inch thick concrete layer that serves as the basement floor or base for tile installed in the basement. The Composite Cover System in the rear yard area (open and landscaped areas) is comprised of the clean in-situ soil. The contractor for the Composite Cover System construction was M Development.

Figure 5 shows the location and design of each cover type built at the Site. Photographs of construction of the Composite Cover System are included in Appendix E.

Vapor Barrier System

As part of development, a Vapor Barrier System has been built at the site. This Vapor Barrier System consisted of Stego Wrap 20-mil Vapor Barrier manufactured by Stego Industries. Overlaps between sheets of Stego Wrap were 6 inches, and all seams were sealed with Stego Industries, Inc. "Stego Tape". The horizontal membrane was extended up the interior basement walls by at least 4 inches, and was sealed to the wall using Stego Tape. The vapor barrier was installed behind all sidewalls and beneath the footings installed for the expanded cellar slab, as well as horizontally between the building foundation and the 4-inch thick concrete layer that serves as the basement floor or base for tile installed in the basement. The professional engineer for the Vapor Barrier System was Spiro Dongaris. The contractor for the Vapor Barrier System construction was M Development.

Figure 5 shows the location and design of vapor barrier installed at the Site. Photographs of installation of the Vapor Barrier System are included in Appendix E. Documentation of the Vapor Barrier and a copy of the certificate of warranty are included in Appendix L.

6.0 INSTITUTIONAL CONTROLS

A Track 2 Restricted Residential Remedial Action was achieved and Engineering Controls and Institutional Controls are not required.

7.0 SITE MANAGEMENT PLAN

A Track 2 Restricted Residential Remedial Action was achieved and Site Management is not required.

8.0 SUSTAINABILITY REPORT

This Remedial Action Work Plan provides for sustainable remediation and redevelopment through a variety of means that are defined in this Sustainability Report.

Reduced Energy Consumption and Promotion of Greater Energy Efficiency.

Reduced energy consumption lowers greenhouse gas emissions, improves local air quality, lessens in-city power generation requirements, can lower traffic congestion, and provides substantial cost savings.

The following means were used to reduce energy consumption in this project:

- Whenever possible, travel for Site field activities and inspections utilized public transportation/mass transit sources or carpooling.

Conversion to Clean Fuels. Use of clean fuel improves NYC's air quality by reducing harmful emissions. Natural gas is utilized as the principal fuel in the new building.

Recontamination Control. Recontamination after cleanup and redevelopment is completed undermines the value of work performed, may result in a property that is less protective of public health or the environment, and may necessitate additional cleanup work later that could impede future redevelopment. Recontamination can arise from future releases that occur within the property or by influx of existing contamination from off-Site.

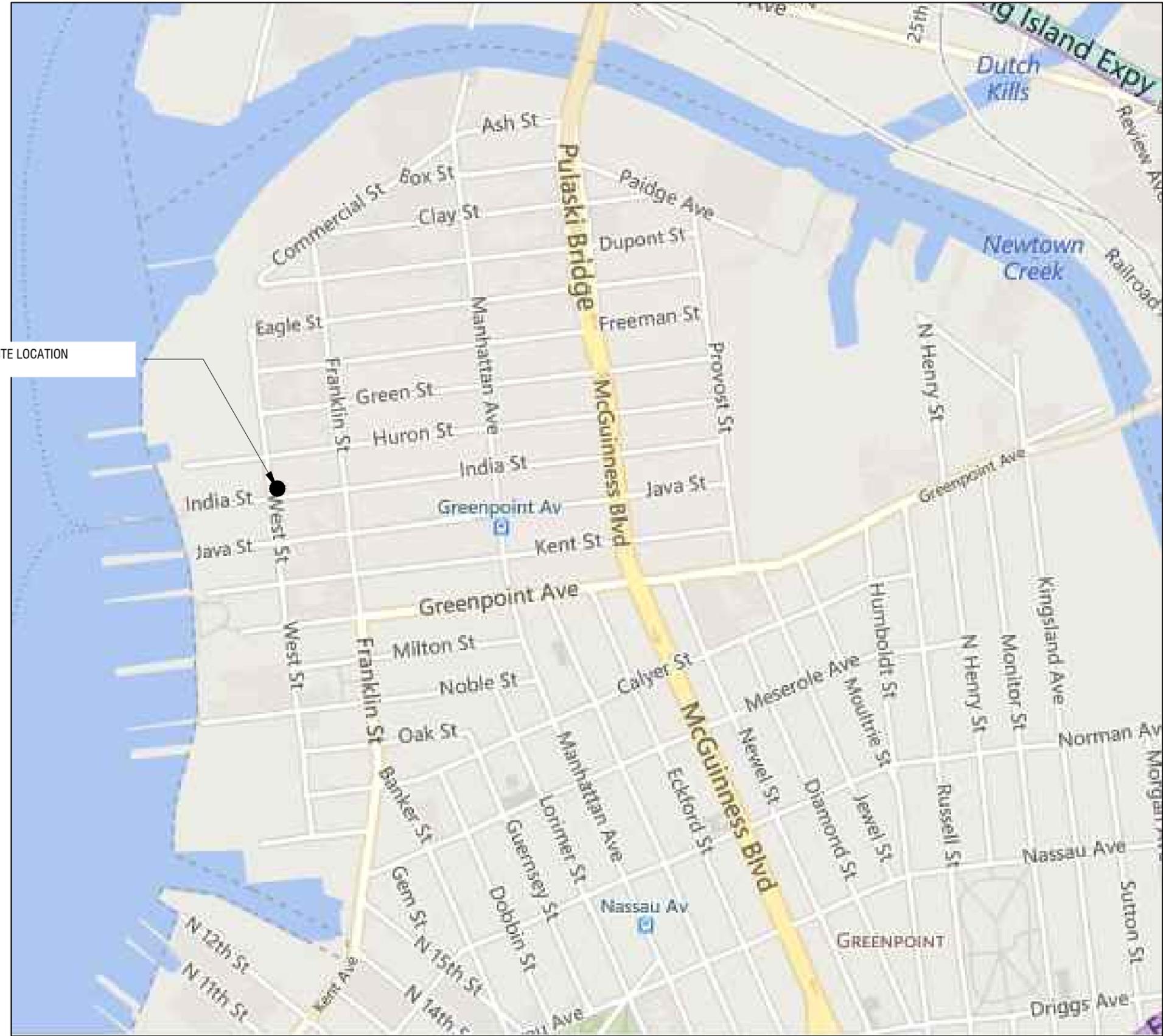
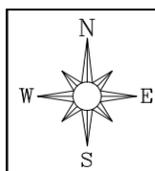
The Composite Cover System installed within the building footprint serves to prevent recontamination by eliminating infiltration of precipitation into the subsurface, which could mobilize parameters of concern contained within the underlying residual soil/fill. The Vapor Barrier System installed within the building footprint at the Site also serves as a recontamination control by eliminating the risk of future migration of off-Site soil vapor contamination into the building. The Composite Cover System installed in the rear yard area serves to prevent recontamination by minimizing potential exposures to the underlying residual soil/fill with a 2-foot thick cap of in-situ clean material. The area of

the Site that utilizes recontamination controls under this plan is 2,500 square feet, which is 100% of the Site area.

Paperless Voluntary Cleanup Program. 148 West Villa LLC participated in OER's Paperless Voluntary Cleanup Program. Under this program, submission of electronic documents replaced submission of hard copies for the review of project documents, communications and milestone reports. A best estimate of the mass (pounds) of paper saved under this plan is 25 pounds.

Low-Energy Project Management Program. 148 West Villa LLC participated in OER's low-energy project management program. Under this program, whenever possible, meetings were held using remote communication technologies, such as videoconferencing and teleconferencing to reduce energy consumption and traffic congestion associated with personal transportation. In addition, whenever possible, travel for Site field activities and inspections utilized public transportation/mass transit sources or carpooling. A gross estimate of the number of miles of personal transportation that was conserved in this process is 210 miles.

FIGURES



SITE LOCATION

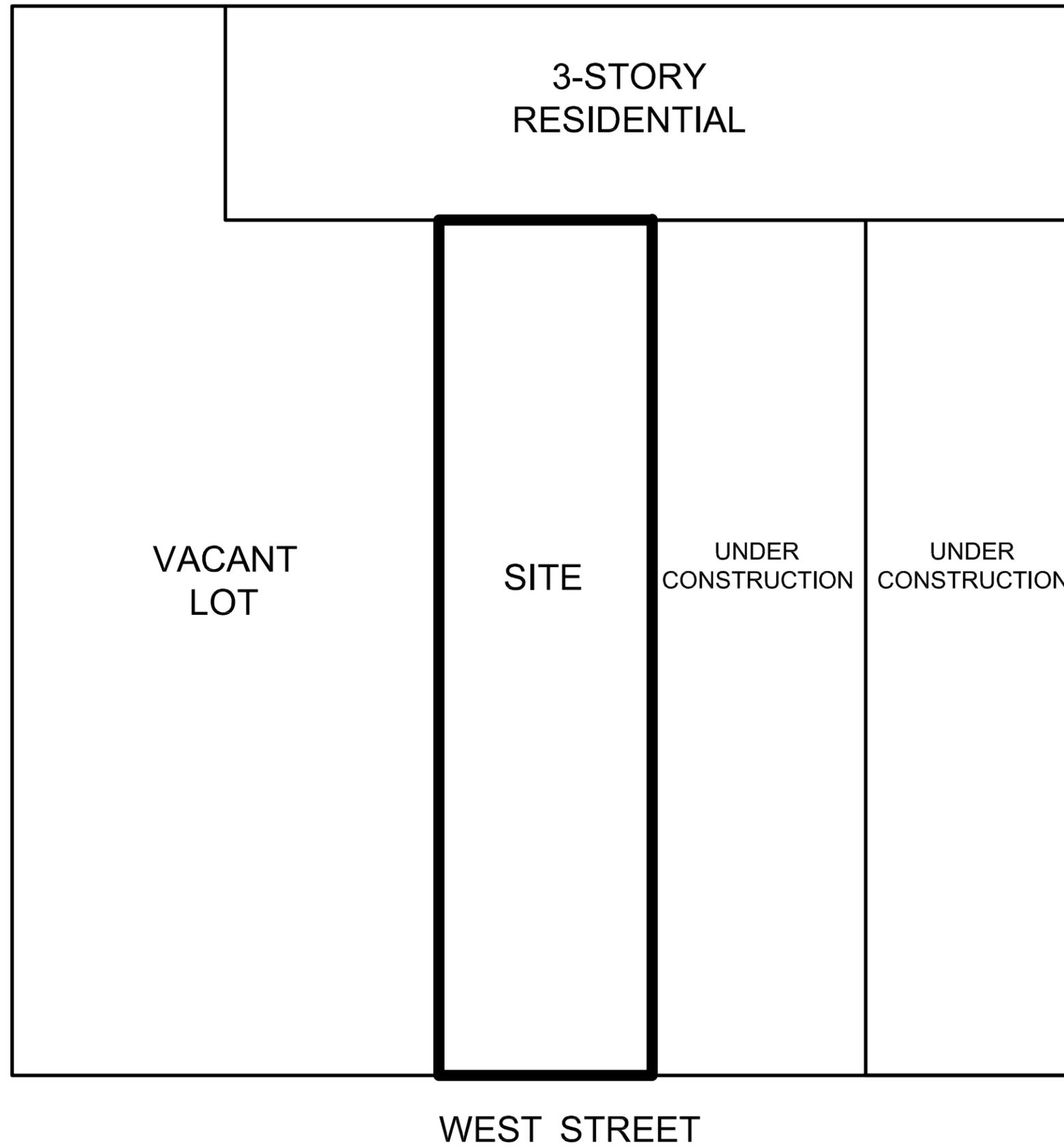
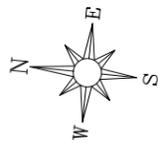
LEGEND:

 **ATHENICA ENVIRONMENTAL SERVICES, INC.**
Environmental Engineering Consultants

45-09 GREENPOINT AVENUE
LONG ISLAND CITY, NY 11104
TEL: (718) 784-7490
FAX: (718) 784-4085

Date:	OCTOBER 2, 2018
Drawn by:	EVAN GREENBERG
Checked by:	KEN WENZ
Drawing Scale:	NOT TO SCALE
Project No.:	15-133-0578

Site:	148 WEST STREET BROOKLYN, NY 11222
Figure:	1
Title:	SITE LOCATION MAP



LEGEND:



**ATHENICA ENVIRONMENTAL
SERVICES, INC.**
Environmental Engineering Consultants

45-09 GREENPOINT AVENUE
LONG ISLAND CITY, NY 11104
TEL: (718) 784 - 7490
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Date: OCTOBER 2, 2018

Drawn by: EVAN GREENBERG

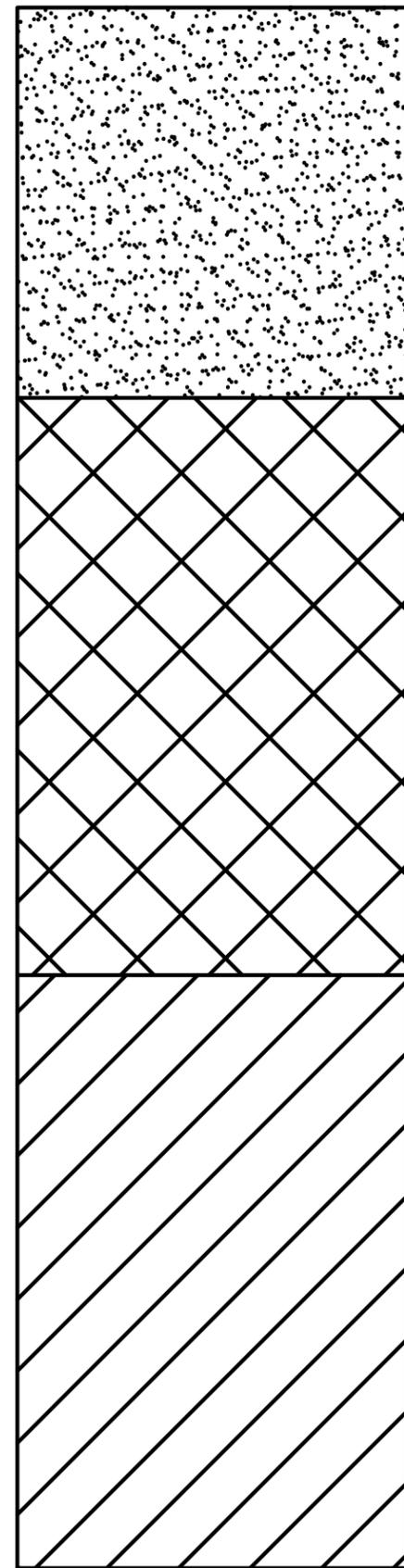
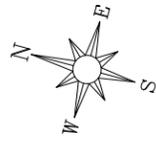
Checked by: KEN WENZ

Drawing Scale: NOT TO SCALE

Project No.: 15-133-0578

Site: 148 WEST STREET
BROOKLYN, NY 11222

Figure: 2
Title: SITE BOUNDARY MAP



Rear Yard

Expanded Cellar

Existing Cellar

WEST STREET

LEGEND:

-  Rear Yard: (only grubbed)
-  Expanded Cellar: excavated to 9 feet bgs
-  Existing Cellar: 6-8 feet bgs (no additional excavation)

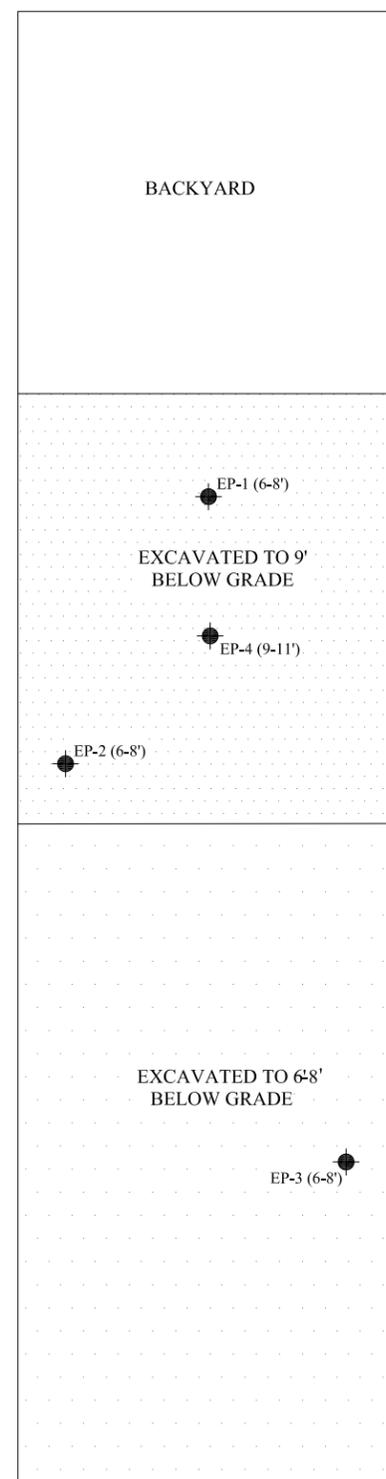
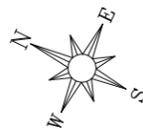


ATHENICA ENVIRONMENTAL SERVICES, INC.
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Date:	OCTOBER 3, 2018
Drawn by:	EVAN GREENBERG
Checked by:	KEN WENZ
Drawing Scale:	NOT TO SCALE
Project No.:	15-133-0578

Site:	148 WEST STREET BROOKLYN, NY 11222
Figure:	3
Title:	MAP SHOWING LOCATION AND APPROXIMATE DEPTH OF EXCAVATION



WEST STREET

LEGEND:

EP-X
- PROPOSED END-POINT SAMPLING LOCATION

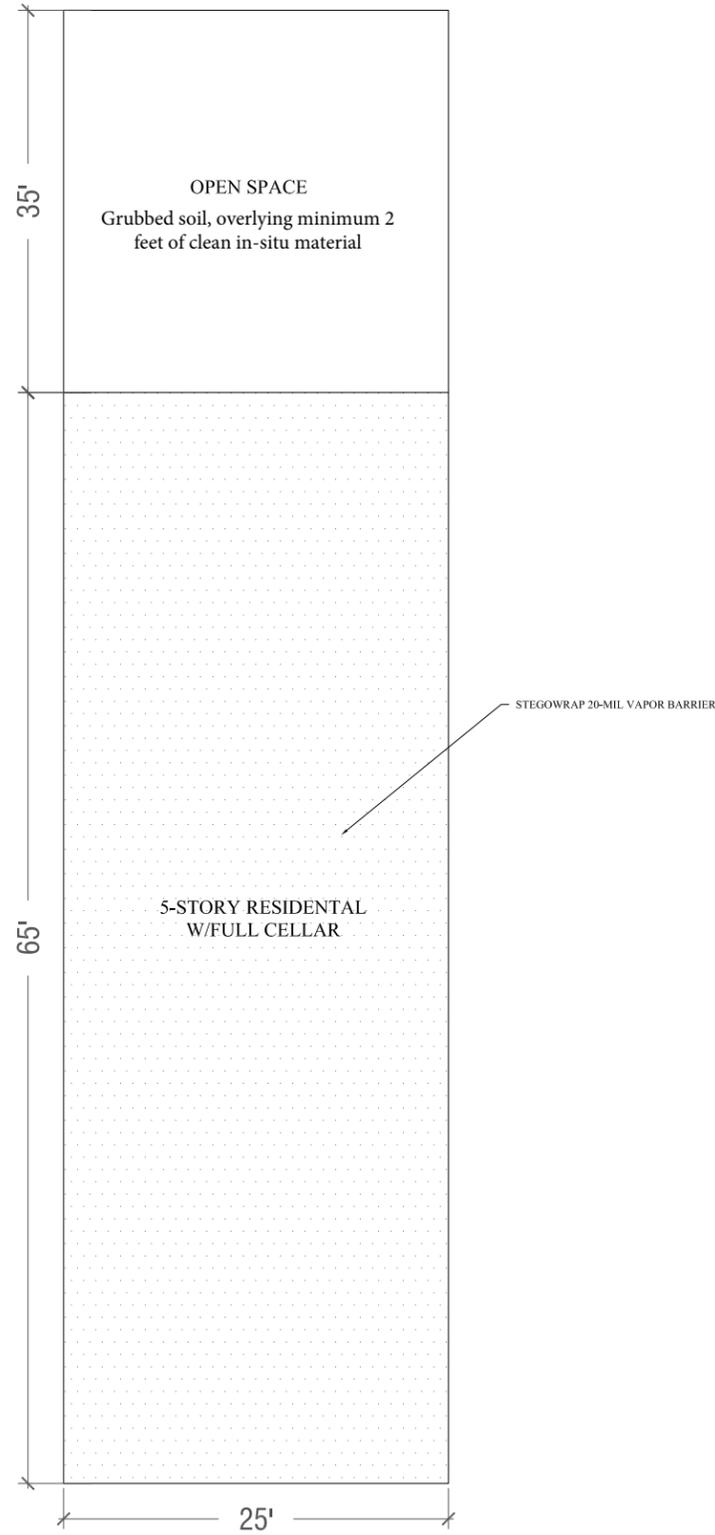
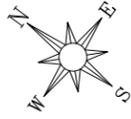


45-09 GREENPOINT AVENUE
LONG ISLAND CITY, NY 11104
TEL: (718) 784 - 7490
FAX: (718) 784 - 4085

Date:	MARCH 17, 2017
Drawn by:	VOLODYMYR PROTSYUK
Checked by:	A.J. INFANTE
Drawing Scale:	NOT TO SCALE
Project No.:	15-133-0578

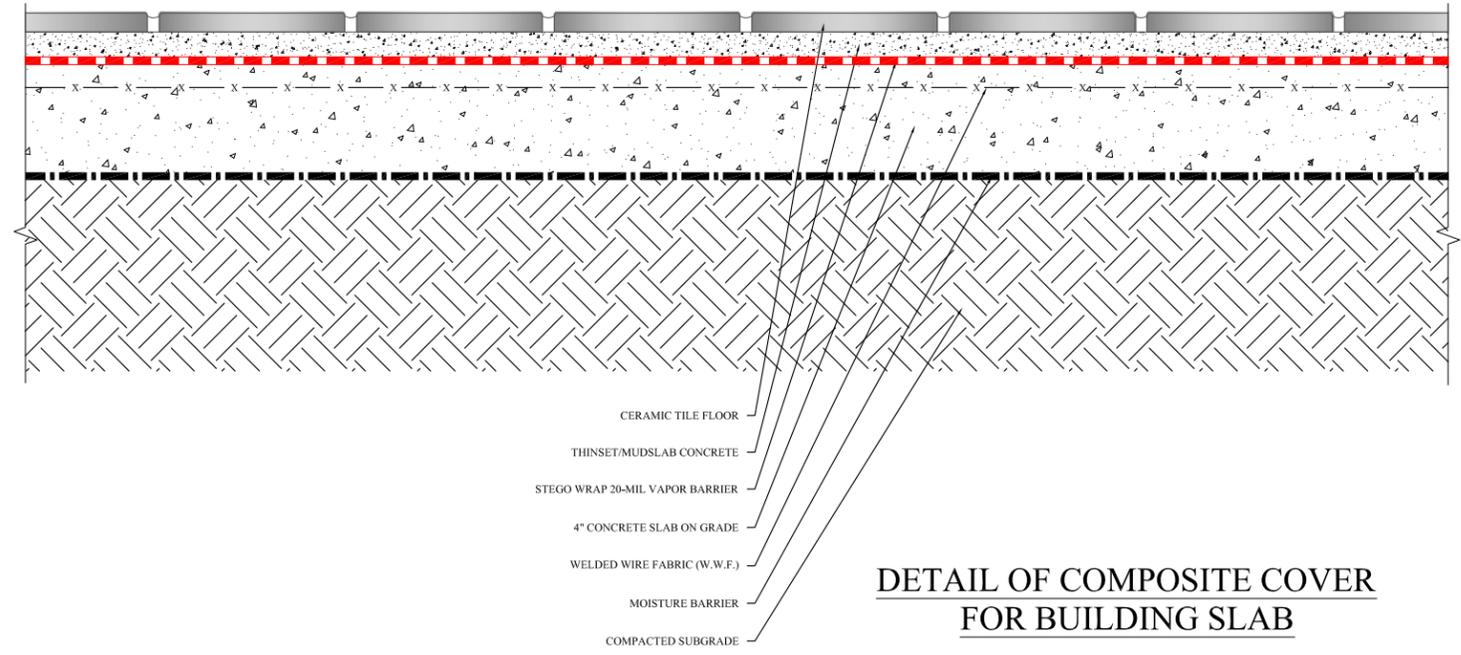
Site: 148 WEST STREET
BROOKLYN, NY 11222

Figure: 4
Title: END-POINT SAMPLING LOCATIONS



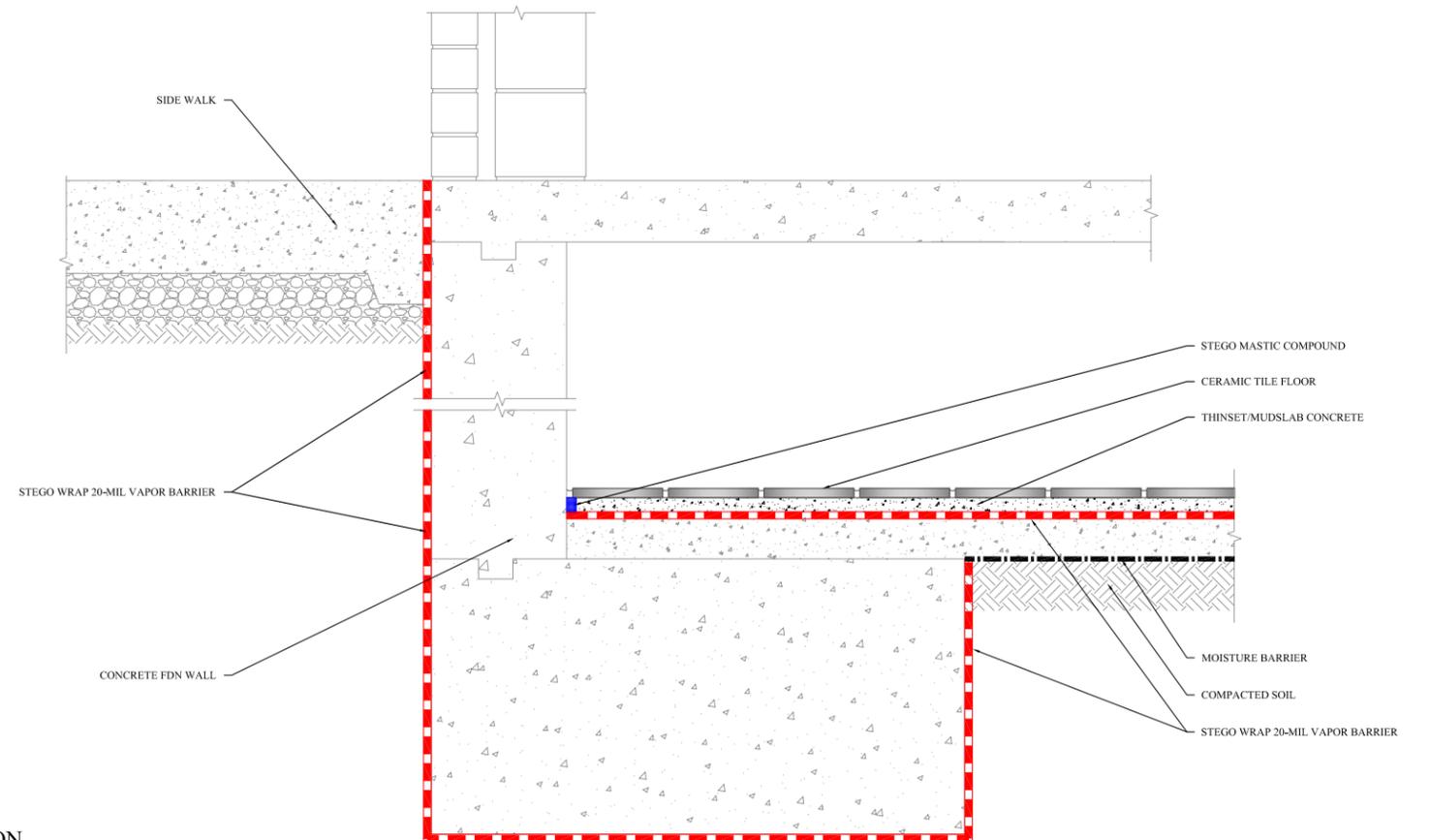
PLAN VIEW

WEST STREET



DETAIL OF COMPOSITE COVER FOR BUILDING SLAB

CROSS SECTION



CROSS SECTION

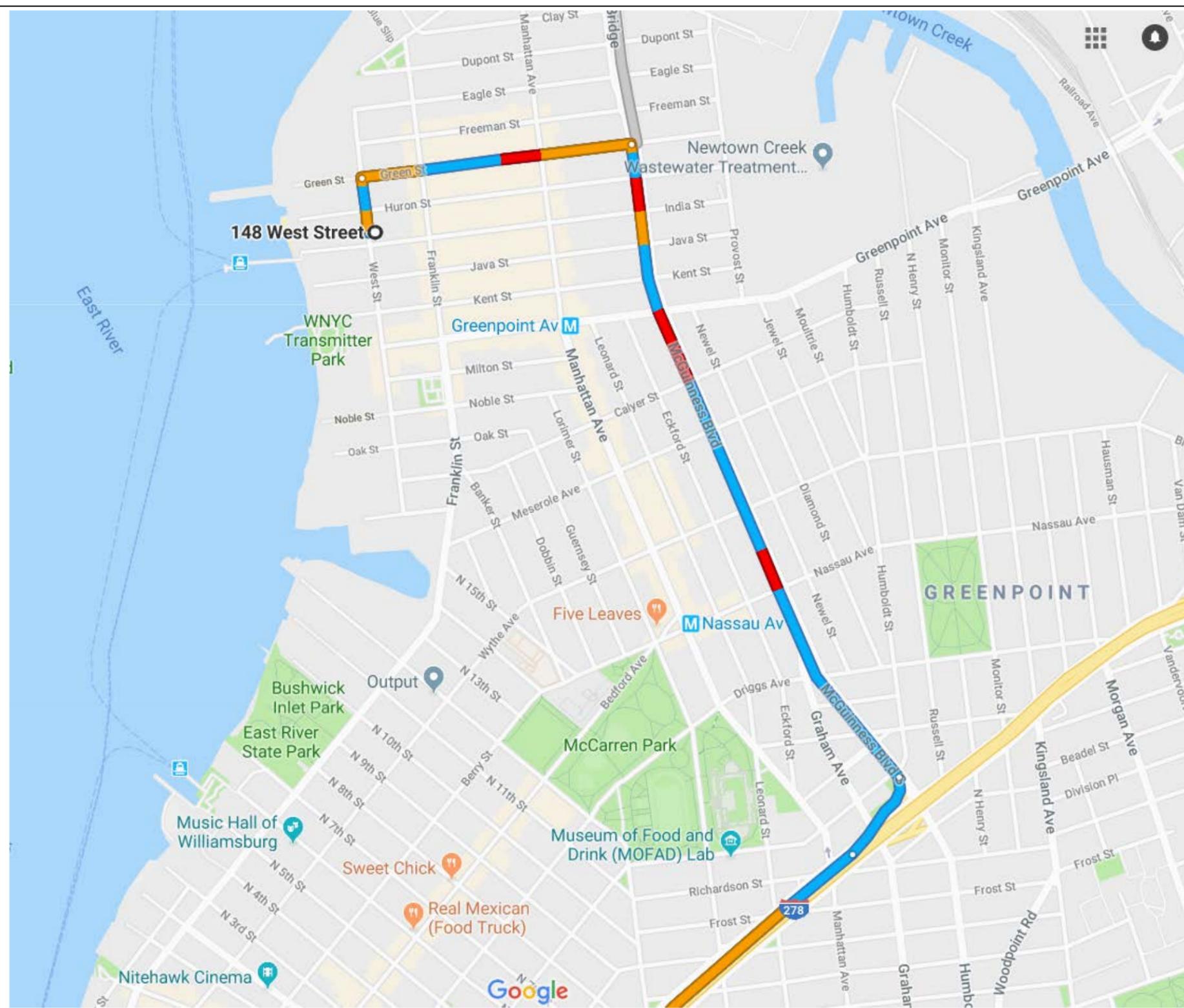
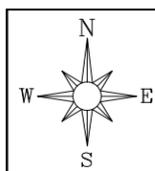
LEGEND:

ATHENICA ENVIRONMENTAL SERVICES, INC.
Environmental Engineering Consultants

45-09 GREENPOINT AVENUE
LONG ISLAND CITY, NY 11104
TEL: (718) 784 - 7490
FAX: (718) 784 - 4085

Date:	JULY 07, 2017
Drawn by:	VOLODYMYR PROTSYUK
Checked by:	A.J. INFANTE
Drawing Scale:	NOT TO SCALE
Project No.:	15-133-0578

Site:	148 WEST STREET BROOKLYN, NY 11222
Figure:	5
Title:	MAP OF LOCATION OF VAPOR BARRIER SYSTEM AND DESIGN DETAILS



NOTES Trucks will move northbound on West Street, Turn right (eastbound) onto Green Street, turn right (southbound) onto McGuinness Boulevard and merge right onto the Brooklyn-Queens Expressway Westbound towards the Verrazano Bridge and I-278 W. This trucking route minimizes the amount of exposure to residential neighborhoods. McGuinness Boulevard and I-278 West are recognized commercial thoroughfares with multi-lane roads. From I-278 West, the trucks can move freely through the interstate highway system to the disposal facilities of New Jersey.

LEGEND:

ATHENICA ENVIRONMENTAL SERVICES, INC.
 Environmental Engineering Consultants

45-09 GREENPOINT AVENUE
 LONG ISLAND CITY, NY 11104
 TEL: (718) 784 - 7490
 FAX: (718) 784 - 4085

Date:	OCTOBER 3, 2018
Drawn by:	EVAN GREENBERG
Checked by:	KEN WENZ
Drawing Scale:	NOT TO SCALE
Project No.:	15-133-0578

Site:	148 WEST STREET BROOKLYN, NY 11222
Figure:	6
Title:	OUTBOUND TRUCKING ROUTE

TABLES

Table 1
VOC's in Soil
148 West Street, Brooklyn, NY 10014

Sample ID	NYSDEC Part 375 Restricted Use Soil Cleanup Objectives	NYSDEC Part 375 Unrestricted Use Soil Cleanup Objectives	EP-1 6'-8' 4/20/2016 Soil 1 mg/Kg	EP-2 6'-8' 4/20/2016 Soil 1 mg/Kg	EP-3 6'-8' 4/20/2016 Soil 1 mg/Kg
1,1,1,2-Tetrachloroethane	NC	NC	0.0032 ND	0.0031 ND	0.0032 ND
1,1,1-Trichloroethane	100	0.68	0.0032 ND	0.0031 ND	0.0032 ND
1,1,2,2-Tetrachloroethane	NC	NC	0.0032 ND	0.0031 ND	0.0032 ND
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	NC	NC	0.0032 ND	0.0031 ND	0.0032 ND
1,1,2-Trichloroethane	NC	NC	0.0032 ND	0.0031 ND	0.0032 ND
1,1-Dichloroethane	26	0.27	0.0032 ND	0.0031 ND	0.0032 ND
1,1-Dichloroethylene	100	0.33	0.0032 ND	0.0031 ND	0.0032 ND
1,2,3-Trichlorobenzene	NC	NC	0.0032 ND	0.0031 ND	0.0032 ND
1,2,3-Trichloropropane	NC	NC	0.0032 ND	0.0031 ND	0.0032 ND
1,2,4-Trichlorobenzene	NC	NC	0.0032 ND	0.0031 ND	0.0032 ND
1,2,4-Trimethylbenzene	52	3.6	0.0032 ND	0.0031 ND	0.0032 ND
1,2-Dibromo-3-chloropropane	NC	NC	0.0032 ND	0.0031 ND	0.0032 ND
1,2-Dibromoethane	NC	NC	0.0032 ND	0.0031 ND	0.0032 ND
1,2-Dichlorobenzene	100	1.1	0.0032 ND	0.0031 ND	0.0032 ND
1,2-Dichloroethane	3.1	0.02	0.0032 ND	0.0031 ND	0.0032 ND
1,2-Dichloropropane	NC	NC	0.0032 ND	0.0031 ND	0.0032 ND
1,3,5-Trimethylbenzene	52	8.4	0.0032 ND	0.0031 ND	0.0032 ND
1,3-Dichlorobenzene	49	2.4	0.0032 ND	0.0031 ND	0.0032 ND
1,4-Dichlorobenzene	13	1.8	0.0032 ND	0.0031 ND	0.0032 ND
1,4-Dioxane	13	0.1	0.064 ND	0.062 ND	0.063 ND
2-Butanone	100	0.12	0.0032 ND	0.0031 ND	0.0032 ND
2-Hexanone	NC	NC	0.0032 ND	0.0031 ND	0.0032 ND
4-Methyl-2-pentanone	NC	NC	0.0032 ND	0.0031 ND	0.0032 ND
Acetone	100	0.05	0.0064 ND	0.0062 ND	0.0063 ND
Acrolein	NC	NC	0.0064 ND	0.0062 ND	0.0063 ND
Acrylonitrile	NC	NC	0.0032 ND	0.0031 ND	0.0032 ND
Benzene	4.8	0.06	0.0032 ND	0.0031 ND	0.0032 ND
Bromochloromethane	NC	NC	0.0032 ND	0.0031 ND	0.0032 ND
Bromodichloromethane	NC	NC	0.0032 ND	0.0031 ND	0.0032 ND
Bromoform	NC	NC	0.0032 ND	0.0031 ND	0.0032 ND
Bromomethane	NC	NC	0.0032 ND	0.0031 ND	0.0032 ND
Carbon disulfide	NC	NC	0.0032 ND	0.0031 ND	0.0032 ND
Carbon tetrachloride	2.4	0.76	0.0032 ND	0.0031 ND	0.0032 ND
Chlorobenzene	100	1.1	0.0032 ND	0.0031 ND	0.0032 ND
Chloroethane	NC	NC	0.0032 ND	0.0031 ND	0.0032 ND
Chloroform	49	0.37	0.0032 ND	0.0031 ND	0.0032 ND
Chloromethane	NC	NC	0.0032 ND	0.0031 ND	0.0032 ND
cis-1,2-Dichloroethylene	100	0.25	0.0032 ND	0.0031 ND	0.0032 ND
cis-1,3-Dichloropropylene	NC	NC	0.0032 ND	0.0031 ND	0.0032 ND
Cyclohexane	NC	NC	0.0032 ND	0.0031 ND	0.0032 ND
Dibromochloromethane	NC	NC	0.0032 ND	0.0031 ND	0.0032 ND
Dibromomethane	NC	NC	0.0032 ND	0.0031 ND	0.0032 ND
Dichlorodifluoromethane	NC	NC	0.0032 ND	0.0031 ND	0.0032 ND
Ethyl Benzene	41	1	0.0032 ND	0.0031 ND	0.0032 ND
Hexachlorobutadiene	NC	NC	0.0032 ND	0.0031 ND	0.0032 ND
Isopropylbenzene	NC	NC	0.0032 ND	0.0031 ND	0.0032 ND
Methyl acetate	NC	NC	0.0032 ND	0.0031 ND	0.0032 ND
Methyl tert-butyl ether (MTBE)	100	0.93	0.0032 ND	0.0031 ND	0.0032 ND
Methylcyclohexane	NC	NC	0.0032 ND	0.0031 ND	0.0032 ND
Methylene chloride	100	0.05	0.010 J	0.0062 ND	0.0063 ND
n-Butylbenzene	100	12	0.0032 ND	0.0031 ND	0.0032 ND
n-Propylbenzene	100	3.9	0.0032 ND	0.0031 ND	0.0032 ND
o-Xylene	NC	NC	0.0032 ND	0.0031 ND	0.0032 ND
p- & m- Xylenes	NC	NC	0.0064 ND	0.0062 ND	0.0063 ND
p-Isopropyltoluene	NC	NC	0.0032 ND	0.0031 ND	0.0032 ND
sec-Butylbenzene	100	11	0.0032 ND	0.0031 ND	0.0032 ND
Styrene	NC	NC	0.0032 ND	0.0031 ND	0.0032 ND
tert-Butyl alcohol (TBA)	NC	NC	0.0064 ND	0.0062 ND	0.0063 ND
tert-Butylbenzene	100	5.9	0.0032 ND	0.0031 ND	0.0032 ND
Tetrachloroethylene	19	1.3	0.0032 ND	0.0031 ND	0.0032 ND
Toluene	100	0.7	0.0032 ND	0.0031 ND	0.0032 ND
trans-1,2-Dichloroethylene	100	0.19	0.0032 ND	0.0031 ND	0.0032 ND
trans-1,3-Dichloropropylene	NC	NC	0.0032 ND	0.0031 ND	0.0032 ND
Trichloroethylene	21	0.47	0.0032 ND	0.0031 ND	0.0032 ND
Trichlorofluoromethane	NC	NC	0.0032 ND	0.0031 ND	0.0032 ND
Vinyl Chloride	0.9	0.02	0.0032 ND	0.0031 ND	0.0032 ND
Xylenes, Total	100	0.26	0.0095 ND	0.0093 ND	0.0095 ND

NOTES:

Any Regulatory Exceedences are color coded by Regulation

J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimatec

ND=analyte not detected at or above the level indicated

NC=no criterion for evaluation of analytical parameter

NT= Sample not tested for this analyte

Table 1 cont.
SVOC's in Soil
148 West Street, Brooklyn, NY 10014

Sample ID	NYSDEC Part 375 Restricted Use Soil Cleanup Objectives	NYSDEC Part 375 Unrestricted Use Soil Cleanup Objectives	EP-1 6'-8' 4/20/2016 Soil 1 mg/Kg	EP-2 6'-8' 4/20/2016 Soil 1 mg/Kg	EP-3 6'-8' 4/20/2016 Soil 1 mg/Kg
1,1'-Biphenyl	NC	NC	0.027 ND	0.026 ND	0.027 ND
1,2,4,5-Tetrachlorobenzene	NC	NC	0.053 ND	0.052 ND	0.053 ND
1,2,4-Trichlorobenzene	NC	NC	0.027 ND	0.026 ND	0.027 ND
1,2-Dichlorobenzene	100	1.1	0.027 ND	0.026 ND	0.027 ND
1,2-Diphenylhydrazine (a)	NC	NC	0.027 ND	0.026 ND	0.027 ND
1,3-Dichlorobenzene	49	2.4	0.027 ND	0.026 ND	0.027 ND
1,4-Dichlorobenzene	13	1.8	0.027 ND	0.026 ND	0.027 ND
2,3,4,6-Tetrachlorophenol	NC	NC	0.053 ND	0.052 ND	0.053 ND
2,4,5-Trichlorophenol	NC	NC	0.027 ND	0.026 ND	0.027 ND
2,4,6-Trichlorophenol	NC	NC	0.027 ND	0.026 ND	0.027 ND
2,4-Dichlorophenol	NC	NC	0.027 ND	0.026 ND	0.027 ND
2,4-Dimethylphenol	NC	NC	0.027 ND	0.026 ND	0.027 ND
2,4-Dinitrophenol	NC	NC	0.053 ND	0.052 ND	0.053 ND
2,4-Dinitrotoluene	NC	NC	0.027 ND	0.026 ND	0.027 ND
2,6-Dinitrotoluene	NC	NC	0.027 ND	0.026 ND	0.027 ND
2-Chloronaphthalene	NC	NC	0.027 ND	0.026 ND	0.027 ND
2-Chlorophenol	NC	NC	0.027 ND	0.026 ND	0.027 ND
2-Methylnaphthalene	NC	NC	0.027 ND	0.026 ND	0.027 ND
2-Methylphenol	100	0.33	0.027 ND	0.026 ND	0.027 ND
2-Nitroaniline	NC	NC	0.053 ND	0.052 ND	0.053 ND
2-Nitrophenol	NC	NC	0.027 ND	0.026 ND	0.027 ND
3- & 4-Methylphenols	NC	NC	0.027 ND	0.026 ND	0.027 ND
3,3'-Dichlorobenzidine	NC	NC	0.027 ND	0.026 ND	0.027 ND
3-Nitroaniline	NC	NC	0.053 ND	0.052 ND	0.053 ND
4,6-Dinitro-2-methylphenol	NC	NC	0.053 ND	0.052 ND	0.053 ND
4-Bromophenyl phenyl ether	NC	NC	0.027 ND	0.026 ND	0.027 ND
4-Chloro-3-methylphenol	NC	NC	0.027 ND	0.026 ND	0.027 ND
4-Chloroaniline	NC	NC	0.027 ND	0.026 ND	0.027 ND
4-Chlorophenyl phenyl ether	NC	NC	0.027 ND	0.026 ND	0.027 ND
4-Nitroaniline	NC	NC	0.053 ND	0.052 ND	0.053 ND
4-Nitrophenol	NC	NC	0.053 ND	0.052 ND	0.053 ND
Acenaphthene	100	20	0.027 ND	0.043 J	0.027 ND
Acenaphthylene	100	100	0.027 ND	0.026 ND	0.027 ND
Acetophenone	NC	NC	0.027 ND	0.026 ND	0.027 ND
Aniline	NC	NC	0.11 ND	0.10 ND	0.11 ND
Anthracene	100	100	0.062	0.34	0.027 ND
Atrazine	NC	NC	0.027 ND	0.026 ND	0.027 ND
Benzaldehyde	NC	NC	0.027 ND	0.026 ND	0.027 ND
Benzidine	NC	NC	0.11 ND	0.10 ND	0.11 ND
Benzo(a)anthracene	1	1	0.027 ND	0.15	0.027 ND
Benzo(a)pyrene	1	1	0.027 ND	0.11	0.027 ND
Benzo(b)fluoranthene	1	1	0.027 ND	0.082	0.027 ND
Benzo(g,h,i)perylene	100	100	0.027 ND	0.049 J	0.027 ND
Benzo(k)fluoranthene	3.9	0.8	0.027 ND	0.082	0.027 ND
Benzoic acid	NC	NC	0.027 ND	0.026 ND	0.027 ND
Benzyl alcohol	NC	NC	0.027 ND	0.026 ND	0.027 ND
Benzyl butyl phthalate	NC	NC	0.027 ND	0.026 ND	0.027 ND
Bis(2-chloroethoxy)methane	NC	NC	0.027 ND	0.026 ND	0.027 ND
Bis(2-chloroethyl)ether	NC	NC	0.027 ND	0.026 ND	0.027 ND
Bis(2-chloroisopropyl)ether	NC	NC	0.027 ND	0.026 ND	0.027 ND
Bis(2-ethylhexyl)phthalate	NC	NC	0.027 ND	0.026 ND	0.027 ND
Caprolactam	NC	NC	0.053 ND	0.052 ND	0.053 ND
Carbazole	NC	NC	0.027 ND	0.026 ND	0.027 ND
Chrysene	3.9	1	0.027 ND	0.15	0.027 ND
Dibenzo(a,h)anthracene	0.33	0.33	0.027 ND	0.026 ND	0.027 ND
Dibenzofuran	59	7	0.027 ND	0.026 ND	0.027 ND
Diethyl phthalate	NC	NC	0.027 ND	0.026 ND	0.027 ND
Dimethyl phthalate	NC	NC	0.027 ND	0.026 ND	0.027 ND
Di-n-butyl phthalate	NC	NC	0.027 ND	0.026 ND	0.027 ND
Di-n-octyl phthalate	NC	NC	0.027 ND	0.026 ND	0.027 ND
Fluoranthene	100	100	0.064	0.37	0.057
Fluorene	100	30	0.027 ND	0.026 ND	0.027 ND
Hexachlorobenzene	1.2	0.33	0.027 ND	0.026 ND	0.027 ND
Hexachlorobutadiene	NC	NC	0.027 ND	0.026 ND	0.027 ND
Hexachlorocyclopentadiene	NC	NC	0.027 ND	0.026 ND	0.027 ND
Hexachloroethane	NC	NC	0.027 ND	0.026 ND	0.027 ND
Indeno(1,2,3-cd)pyrene	0.5	0.5	0.027 ND	0.042 J	0.027 ND
Isophorone	NC	NC	0.027 ND	0.026 ND	0.027 ND
Naphthalene	100	12	0.027 ND	0.026 ND	0.027 ND
Nitrobenzene	NC	NC	0.027 ND	0.026 ND	0.027 ND
N-Nitrosodimethylamine	NC	NC	0.027 ND	0.026 ND	0.027 ND
N-nitroso-di-n-propylamine	NC	NC	0.027 ND	0.026 ND	0.027 ND
N-Nitrosodiphenylamine	NC	NC	0.027 ND	0.026 ND	0.027 ND
Pentachlorophenol	6.7	0.8	0.027 ND	0.026 ND	0.027 ND
Phenanthrene	100	100	0.065	0.36	0.055
Phenol	100	0.33	0.027 ND	0.026 ND	0.027 ND
Pyrene	100	100	0.061	0.30	0.059

NOTES:

Any Regulatory Exceedences are color coded by Regulation
 J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated
 ND=analyte not detected at or above the level indicated
 NC=no criterion for evaluation of analytical parameter
 NT= Sample not tested for this analyte

Table 1 cont.
Metals and Solids in Soil
148 West Street, Brooklyn, NY 10014

Sample ID	NYSDEC Part 375 Unrestricted Use Soil Cleanup Objectives	NYSDEC Part 375 Restricted Use Soil Cleanup Objectives - Restricted Residential *	EP-1 6'-8' 4/20/2016 Soil 1 mg/Kg	EP-2 6'-8' 4/20/2016 Soil 1 mg/Kg	EP-3 6'-8' 4/20/2016 Soil 1 mg/Kg	EP-4 9' 5/12/2016 Soil 1 mg/Kg
Aluminum	~	~	11,400	9,570	8,490	NT
Antimony	~	~	0.64 ND	0.62 ND	0.63 ND	NT
Arsenic	13	16	3.80	5.98	6.51	NT
Barium	350	400	50.10	163	184	NT
Beryllium	7.2	72	0.27	0.27	0.23	NT
Cadmium	2.5	4.3	0.38 ND	0.37 ND	0.38 ND	NT
Calcium	~	~	915	1,340	3,570	NT
Chromium	~	~	21.30	17.10	17.10	NT
Chromium, Hexavalent	1	110	0.64 ND	0.62 ND	0.63 ND	NT
Chromium, Trivalent	30	180	21.30	17.10	17.10	NT
Cobalt	~	~	6.63	7.48	7.49	NT
Copper	50	270	19.60	35.20	32.10	NT
Iron	~	~	18,300	17,600	20,700	NT
Lead	63	400	74.70	380	388	NT
Magnesium	~	~	3,050	2,520	2,720	NT
Mercury	0.18	0.81	5.98	1.01	0.77	0.038 ND
Manganese	1600	2000	189	301	259	NT
Nickel	30	310	17.80	16.20	16.70	NT
Potassium	~	~	968	870	1,010	NT
Selenium	3.9	180	2.64	2.88	2.74	NT
Silver	2	180	0.64 ND	0.62 ND	0.63 ND	NT
Sodium	~	~	154	68.70	456	NT
Thallium	~	~	1.27 ND	1.24 ND	1.27 ND	NT
Vanadium	~	~	20.30	20.40	18.30	NT
Zinc	109	10000	90	182	141	NT

NOTES:

Bolded and Shaded values exceed NYSDEC Part 375 Unrestricted Use Soil Cleanup Objectives

Bolded and Shaded values exceed NYSDEC Part 375 Restricted Use Soil Cleanup Objectives

* = As ammended by Track 4

ND = Analyte not detected at or above the level indicated

NC = No criterion for evaluation of analytical parameter

NT = Sample not tested for this analyte

Table 2
Soil Cleanup Objectives (SCOs)
148 West Street, Brooklyn, NY

Contaminant	CAS Number	NYSDEC Part 375-6 SCOs for Unrestricted Use (ppm)
Volatile Organic Compounds		
1,1,1-Trichloroethane	71-55-6	0.68
1,1-Dichloroethane	75-34-3	0.27
1,1-Dichloroethene	75-35-4	0.33
1,2-Dichlorobenzene	95-50-1	1.1
1,2-Dichloroethane	107-06-2	0.02
cis-1,2-Dichloroethene	156-59-2	0.25
trans-1,2-Dichloroethene	156-60-5	0.19
1,3-Dichlorobenzene	541-73-1	2.4
1,4-Dichlorobenzene	106-46-7	1.8
1,4-Dioxane	123-91-1	0.1
Acetone	67-64-1	0.05
Benzene	71-43-2	0.06
Butylbenzene	104-51-8	12
Carbon tetrachloride	56-23-5	0.76
Chlorobenzene	108-90-7	1.1
Chloroform	67-66-3	0.37
Ethylbenzene	100-41-4	1
Hexachlorobenzene	118-74-1	0.33
Methyl ethyl ketone	78-93-3	0.12
Methyl tert-butyl ether	1634-04-4	0.93
Methylene chloride	75-09-2	0.05
n-Propylbenzene	103-65-1	3.9
sec-Butylbenzene	135-98-8	11
tert-Butylbenzene	98-06-6	5.9
Tetrachloroethene	127-18-4	1.3
Toluene	108-88-3	0.7
Trichloroethene	79-01-6	0.47
1,2,4-Trimethylbenzene	95-63-6	3.6
1,3,5-Trimethylbenzene	108-67-8	8.4
Vinyl chloride	75-01-4	0.02
Xylene (mixed)	1330-20-7	0.26
Semivolatile Organic Compounds		
Acenaphthene	83-32-9	20
Acenaphthylene	208-96-8	100
Anthracene	120-12-7	100
Benz(a)anthracene	56-55-3	1
Benzo(a)pyrene	50-32-8	1
Benzo(b)fluoranthene	205-99-2	1
Benzo(g,h,i)perylene	191-24-2	100
Benzo(k)fluoranthene	207-08-9	0.8
Chrysene	218-01-9	1
Dibenz(a,h)anthracene	53-70-3	0.33
Fluoranthene	206-44-0	100
Fluorene	86-73-7	30
Ideno(1,2,3-cd)pyrene	193-39-5	0.5
m-Cresol	108-39-4	0.33
Naphthalene	91-20-3	12
o-Cresol	95-48-7	0.33
p-Cresol	106-44-5	0.33
Pentachlorophenol	87-86-5	0.8
Phenanthrene	85-01-8	100
Phenol	108-95-2	0.33
Pyrene	129-00-0	100

Table 2
 Soil Cleanup Objectives (SCOs)
 148 West Street, Brooklyn, NY

Contaminant	CAS Number	NYSDEC Part 375-6 SCOs for Unrestricted Use (ppm)
Pesticides/PCBs		
2,4,5-TP Acid (Silvex)	93-72-1	3.8
4,4'-DDE	72-55-9	0.0033
4,4'-DDT	50-29-9	0.0033
4,4'-DDD	72-54-8	0.0033
Aldrin	309-00-2	0.005
alpha-BHC	319-84-6	0.02
beta-BHC	319-85-7	0.036
Chlordane (alpha)	5103-71-9	0.094
delta-BHC	319-86-8	0.04
Dibenzofuran	132-64-9	7
Dieldrin	60-57-1	0.005
Endosulfan I	959-98-8	2.4
Endosulfan II	33213-65-9	2.4
Endosulfan sulfate	1031-07-8	2.4
Endrin	72-20-8	0.014
Heptachlor	76-44-8	0.042
Lindane	58-89-9	0.1
Polychlorinated biphenyls	1336-36-3	0.1
Metals		
Arsenic	7440-38-2	13
Barium	7440-39-3	350
Beryllium	7440-41-7	7.2
Cadmium	7440-43-9	2.5
Chromium hexavalent	18540-29-9	1
Chromium trivalent	16065-83-1	30
Copper	7440-50-8	50
Total Cyanide		27
Lead	7439-92-1	63
Manganese	7439-96-5	1600
Total Mercury		0.18
Nickel	7440-02-0	30
Selenium	7782-49-2	3.9
Silver	7440-22-4	2
Zinc	7440-66-6	109

Table 3: Disposal Quantities and Disposal Facilities
 Soil Disposal Trucking Log
 148 West Street, Brooklyn, NY 11222

Date	Manifest #	Trucking Company	License Plate	Quantity	Tons/ Yard	Receiving Facility	Material Type	On-Site Grid
4/13/2016	957614	Rizzo	Truck #72	24.36	Tons	Clean Earth	Non-Hazardous Soil	1
4/13/2016	957615	Rizzo	Truck #77	25.12	Tons	Clean Earth	Non-Hazardous Soil	1
4/14/2016	1245232	CV Trucking	Truck #52	26.08	Tons	Clean Earth	Non-Hazardous Soil	2
4/14/2016	1300008	CV Trucking	Truck #52	25.03	Tons	Clean Earth	Non-Hazardous Soil	2
4/14/2016	1256343	JDC Transport	Truck #9	27.36	Tons	Clean Earth	Non-Hazardous Soil	2
4/14/2016	1256344	JDC Transport	Truck #6	27.51	Tons	Clean Earth	Non-Hazardous Soil	2
4/18/2016	189983	TEV Transport	Truck #3	25.23	Tons	Clean Earth	Non-Hazardous Soil	2
4/18/2016	1300007	CV Trucking	Truck #52	25.02	Tons	Clean Earth	Non-Hazardous Soil	2
4/18/2016	574204	TEV Transport	Truck #8	27.68	Tons	Clean Earth	Non-Hazardous Soil	2
4/18/2016	1242453	TEV Transport	Truck #4	26.21	Tons	Clean Earth	Non-Hazardous Soil	2
4/18/2016	1242469	CV Trucking	Truck #486	30.07	Tons	Clean Earth	Non-Hazardous Soil	2
4/18/2016	1075551	TEV Transport	Truck #7	27.84	Tons	Clean Earth	Non-Hazardous Soil	2

317.51