Brooklyn Navy Yard

13-ACRE PARCEL OPERABLE UNIT 1

KINGS COUNTY, NEW YORK

SITE MANAGEMENT PLAN

NYSDEC Site Number: 224019A

Prepared for:
New York City Department of Sanitation
125 Worth Street
New York, NY 10013

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Revisions to Final Approved Site Management Plan:

Revision No.	Date Submitted	Summary of Revision	NYSDEC Approval Date

June 2018

CERTIFICATION STATEMENT

I Elizabeth Tramposch, PE certify that I am currently a NYS registered professional engineer as in defined in 6 NYCRR Part 375 and that this Site Management Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

Elizabeth Tramposch P.E.

Elizabeth Tramposch, PE

12/20/2018 DATE

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KINGS COUNTY, BROOKLYN, NEW YORK

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LIST OF ACRONYMS

Acronym	Definition
ASTM	American Society for Testing and Materials
BNYDC	Brooklyn Navy Yard Development Corporation
BTEX	benzene, toluene, ethylbenzene, xylene
CAMP	Community Air Monitoring Plan
cm/s	centimeter per second
COC	Certificate of Completion
DCAS	Department of Citywide Administrative Services
DSNY	New York City Department of Sanitation
EC	Engineering Controls
EWP	Excavation Work Plan
FER	Final Engineering Report
HASP	Health & Safety Plan
HDR	Henningson, Durham & Richardson Architecture and Engineering, P.C.
IC	Institutional Controls
IRM	Interim Remedial Measure
mg/l	milligrams per liter
MGP	manufactured gas plant
MSL	mean sea level
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
NYSDOT	New York State Department of Transportation
OU1	Operable Unit No. 1
PCBs	polychlorinated biphenyls
ppm	parts per million
PRR	Periodic Review Report
RAO	Remedial Action Objective
RDWP	Remedial Design Work Plan
RI	Remedial Investigation
ROD	Record of Decision
SMP	Site Management Plan
SSDS	sub slab depressurization system
SVI	soil vapor intrusion
SVOC	semi-volatile organic compound
TAGM	Technical and Administrative Guidance Memorandum
TCLP	Toxicity Characteristic Leaching Procedure
USEPA	U.S. Environmental Protection Agency
VOC	volatile organic compound

EXECUTIVE SUMMARY

The following provides a brief summary of the controls implemented for the Site, as well as the inspections, monitoring, maintenance and reporting activities required by this Site Management Plan:

Site Identification: NYSDEC Site Number: 224019A, Brooklyn Navy Yard, 13-Acre Parcel Operable Unit 1, Kings County, Brooklyn, New York

Institutional Controls:	1. The property may be used for Commercial or industrial use;
	2. Environmental Easement
	3. All ECs must be inspected at a frequency and manner defined in the SMP
Engineering Controls:	1. Site-Wide Cover System

Inspections:	**Frequency**
1. Cover Inspection	Annually
Monitoring:	None
Maintenance:	
1. Site-Wide Cover System	As needed
Reporting:	
1. Periodic Review Report	Annually

Further description of the above requirements are provided in detail in the latter sections of this Site Management Plan.

1 INTRODUCTION

This document is required as an element of the remedial program at the Brooklyn Navy Yard, 13-Acre Parcel (hereinafter referred to as the "13-acre parcel") under the New York State Inactive Hazardous Waste Disposal Site Remedial Program administered by the New York State Department of Environmental Conservation (NYSDEC). A portion of the 13-acre parcel was remediated in accordance with an Order on Consent (Consent Order) [File Number D2-0001-9403], Site # 224019A, which was executed on October 12, 2006. A Final Engineering Report (FER) for this portion of the 13-acre parcel was prepared (pending approval).

This SMP is an update of the SMP prepared in 2011 for Operable Unit No. 1 (OU1), which is a 5.89 acre area of the 13-acre parcel. This update includes a summary of remedial activities completed after 2011 and also includes the Environmental Easement that was filed by the City of New York for NYSDEC.

1.1 General

The New York City Department of Sanitation (DSNY) entered into a Consent Order with the NYSDEC to remediate a 5.89 acre area of the 13-acre parcel located in Brooklyn, Kings County, New York. The 5.89 acre area is referred to as Operable Unit No. 1 (OU1 or "site" herein). The Consent Order required the Remedial Party, the DSNY, to investigate and remediate contaminated media at the site. Of the remaining 7.11 acres of the Brooklyn Navy Yard 13-acre parcel, 3.61 acres are underwater and 3.5 acres will be remediated under a separate Consent Order by KeySpan Energy Corporation (d/b/a National Grid). A figure showing the site location and boundaries of the OU1 area subject to this plan is provided in Figure 1.

After completion of the remedial work described in the Record of Decision (ROD) and the Remedial Design Work Plan (RDWP), some contamination was left in the subsurface at the site, which is hereafter referred to as "remaining contamination." Final construction and as-built built drawings associated with the remedial work are included as Appendix A. This Site Management Plan (SMP) was prepared to manage remaining contamination at the site until the Environmental Easement is extinguished in accordance with Environmental Conservation Law Article 71, Title 36. All reports associated with the site can be viewed by contacting the NYSDEC or its successor agency managing environmental issues in New York State.

This SMP was prepared by Henningson, Durham & Richardson Architecture and Engineering, P.C., in association with HDR Engineering, Inc. (HDR), on behalf of the DSNY, in accordance with the requirements in the NYSDEC Department of Environmental Remediation DER-10 Technical Guidance for Site Investigation and Remediation, (DER-10) dated May 2010, and the guidelines provided by the NYSDEC. This SMP addresses the means for implementing the Institutional Controls (ICs) and Engineering Controls (ECs) that are required by the Environmental Easement for the site.

The site contains contamination left after completion of the remedial action. This SMP describes the ECs that have been incorporated into the site remedy to control exposure to remaining contamination during the future use of the site in order to properly manage residual contamination and to ensure

protection of public health and the environment. The FER (pending approvald by NYSDEC) provides details of the remedial work completed on the 13-acre parcel site. An Environmental Easement (Appendix B) granted to the NYSDEC, and recorded with the Kings County Clerk, requires compliance with this SMP and all ECs and ICs placed on the site. The ICs place restrictions on site use, and mandates operation, maintenance, monitoring and reporting measures for all ECs and ICs. This SMP specifies the methods necessary to ensure compliance with all ECs and ICs that are required by the Environmental Easement for contamination that remains at the site. Once approved by the NYSDEC and the New York State Department of Health (NYSDOH), compliance with this plan is required by the grantor of the Environmental Easement and the grantor's successors and assignees. This SMP may only be modified or revised with the approval of the NYSDEC.

Site management is the last phase of the remedial process and is triggered by the approval of the FER and issuance of the Certificate of Completion (COC) by NYSDEC. The SMP continues in perpetuity or until extinguished in accordance with 6 NYCRR Part 375. It is the responsibility of the Environmental Easement grantor, and its successors and assigns to ensure that all site management responsibilities under this plan are performed.

The SMP provides a detailed description of all procedures required to maintain the remedies and manage residual impacted soils at the site following the completion of the Remedial Action in accordance with NYSDEC requirements. This includes: (1) development, implementation, and management of all ECs and ICs; (2) development and implementation of monitoring systems; (3) operation and maintenance of the containment system; (4) submittal of Site Management Reports, performance of inspections and certification of results, and demonstration of proper communication of site information to NYSDEC; and (5) defining criteria for termination of remedial system operations.

To address these needs, this SMP includes five plans: (1) an Engineering and Institutional Control Plan for implementation and management of EC/ICs; (2) a Monitoring Plan for implementation of Site Monitoring; (3) an Operation and Maintenance Plan for the implemented remedies; and (4) a Site Management Reporting Plan for submittal of data, information, recommendations, and certifications to NYSDEC; and 5) an excavation work plan (EWP).

Site Management activities, reporting, and EC/IC certification are scheduled on a certification period basis. The initial certification period is twelve to eighteen months after the Release and Covenant Not to Sue is issued by the Department and includes the submittal of a Periodic Review Report (PRR). Subsequent PRR submittal periods will be approved by NYSDEC set forth in the approval letter for the latest periodic review. This plan also includes a description of the PRRs for the submittal of data, information, recommendations, and certifications to NYSDEC.

Important notes regarding this SMP are as follows:

- This SMP details the site-specific implementation procedures that are required by the Environmental Easement. Failure to properly implement the SMP is a violation of the Environmental Easement, which will be grounds for revocation of the COC;
- Failure to comply with this SMP is also a violation of Environmental Conservation Law, 6 NYCRR Part 375 and the Consent Order (File Number D2-0001-9403, Site # 224019A) for the site, and thereby subject to applicable penalties.

1.2 Revisions

Any revisions to this plan will be proposed in writing to the NYSDEC's Project Manager. In accordance with the Environmental Easement for the site, the NYSDEC will provide a notice of any approved changes to the SMP, and append these notices to the SMP that is retained in its files.

1.3 Notifications

Notifications will be submitted by the property owner to the NYSDEC as needed for the following reasons:

- 60-day advance notice of any proposed changes in site use that are required under the terms of the Consent Order, 6 NYCRR Part 375, and/or Environmental Conservation Law.
- 15-day advance notice of any proposed ground-intrusive activities pursuant to the Excavation Work Plan (EWP).
- Notice within 48-hours of any damage or defect to the foundations structures that reduces or has the potential to reduce the effectiveness of other ECs and likewise any action to be taken to mitigate the damage or defect.
- Notice within 48-hours of any emergency, such as a fire, flood, or earthquake that reduces or has the potential to reduce the effectiveness of ECs in place at the site, including a summary of actions taken, or to be taken, and the potential impact to the environment and the public.
- Follow-up status reports on actions taken to respond to any emergency event requiring ongoing responsive action shall be submitted to the NYSDEC within 45 days and shall describe and document actions taken to restore the effectiveness of the ECs.

Any change in the ownership of the site or the responsibility for implementing this SMP will include the following notifications:

- At least 60 days prior to the change, the NYSDEC will be notified in writing of the proposed change. This will include a certification that the prospective purchaser has been provided with a copy of the Consent Order, and all approved work plans and reports, including the FER and this SMP.

Within 15 days after the transfer of all or part of the site, the new owner’s name, contact representative, and contact information will be confirmed in writing.

2 SUMMARY OF PREVIOUS INVESTIGATIONS AND REMEDIAL ACTIONS

2.1 Site Location and Description

The site is located in the County of Kings, New York and is identified as Block 2023 and Lot 1 on the Kings County Tax Map. The Brooklyn Navy Yard 13-acre parcel is located in the northeast portion of the Brooklyn Navy Yard Development Corporation (BNYDC) Industrial Park and is currently operated by the BNYDC. The OU1 site is situated on an approximately 5.89 acre area bounded by Wallabout Channel and the East River on the north and west, by Kent Avenue on the east, and by the remainder of the Brooklyn Navy Yard Industrial Park on the south (see Figure 1 - Site Location Map). The boundaries of the site are fully described on Plate 1 (Site and Environmental Easement Map, dated September 22, 2017) included as Appendix B. Features of the OU1 site are also included on an aerial photograph site plan (Figure 2).

The Brooklyn Navy Yard 13-acre parcel site includes a barge basin, the Former Building 419 transformer substation, two former drum storage areas, a former boat shop area and a former gasification plant area. The surrounding area includes industrial, commercial and residential uses. The site is generally comprised of historic fill material (e.g., coal ash, demolition debris, etc.), which is now overlain by pavement and buildings. Groundwater occurs at approximately six-feet below ground surface and groundwater flow is towards the Wallabout Channel locally and to the East River regionally. OU1, which is the subject of this document, includes two former drum storage areas (one of which is not part of this SMP), a railroad siding area, and the former Building 419 transformer substation area (refer to Figure 2).

The remaining operable unit for the 13-acre parcel is the “Former Brooklyn Navy Yard Manufactured Gas Plant (MGP)” site (a.k.a., OU2 or the “Nassau Works MGP” site), which occupies approximately 3.5 acres of the 13-acre parcel. This portion of the 13-acre parcel is currently the responsibility of KeySpan Energy Corporation (d/b/a National Grid) and is being investigated for contamination related to that use. Wastes associated with OU-2 of the 13-acre parcel are not subject to this proposed plan and will be addressed in a separate SMP issued by others.

2.2 Physical Setting

2.2.1 Land Use

The following sections describe the present conditions and uses of each area within OU1.

2.2.1.1 Railroad Siding Area

The Railroad Siding Area is primarily a paved surface which is currently used for vehicle parking. It is immediately adjacent to the barge basin, approximately 100 feet in width, and includes an inactive railroad track. The top of the rail is at or just below the surrounding ground surface. A significant quantity of debris and vegetation was removed to prepare the surface for application of cover. The area is segregated into smaller areas through the use of large (30 inch cubed) concrete blocks that are arranged in rows.

2.2.1.2 Former Building 419 and Surrounding Area

Former Building 419 and Surrounding Area had, for many years, been primarily used for vehicle storage and staging for the DSNY and the Department of Citywide Administrative Services (DCAS). It had been composed of three areas:

- DCAS Area (now known as Kent Avenue Area);
- Former Drum Storage Area A; and
- DSNY Staging Area.

In 2016, the Former Building and surrounding area was leased to Steiner Studios.

2.2.1.3 Kent Avenue Area

The Kent Avenue area is located at the eastern end of the site. The area had been used by DCAS for staging and storage of vehicles destined for auction. The DCAS area had included an office trailer and a guard shack that serve the operations of the site. The area is surrounded by a chain link fence topped with three courses of barbed wire. Much of the surface area of the lot received a thin topcoat of asphalt. Concrete slabs and foundation walls underlie much of the area that received proper cover. Creation of the site-wide cover in areas where concrete structures are encountered entailed excavation around the concrete and placement of the required depth of materials. An existing soil mound located behind the office trailer in the DCAS area was excavated to ground level and vegetation was re-established.

This area includes Former Building 419 which consisted of the exterior brick walls of the structure, the floor slab and its foundation. Trees had grown inside and immediately around the building. Former Building 419 was demolished and a localized area was remediated. Areas outside the fence were covered with a gravel surface. Once the building was demolished, the fence was restored following a straight line connecting the existing fence.

The area also includes the treed area along the property line, adjacent to Kent Avenue (Figure 2). This area consists of approximately 16 trees within an 8 foot wide stretch of vegetated ground to an existing curb within the DCAS area. Two large (40 inch x 40 inch x 6 inch) concrete slabs were found along this stretch of vegetated ground along with sporadic groups of rock and boulder. This area required removal of 12 inches of existing soil which was replaced with clean fill, with all concrete structures removed.

2.2.1.4 Former Drum Storage Area A

Former Drum Storage Area A is located beneath the resurfaced site road known as Jay Avenue or Wallabout Road. Utilities beneath the roadway include storm sewer, steam and water. To remediate the localized area associated with Former Drum Storage Area A, part of the road was excavated and removed.

2.2.1.5 Former New York City Department of Sanitation Staging Area

The former DSNY staging area is adjacent to Kent Avenue and across Washington Avenue from the former DCAS area. The area, located on OU-2, had been used for DSNY vehicle storage and parking and a DSNY salt shed, which had subsequently been relocated within the Navy Yard. Much of the area consists of a layer of gravel/historic fill over a slab of concrete which is approximately 6.5 inches in thickness. Inactive railroad tracks run through the area with the top of rail approximately at ground surface level.

2.2.2 Geologic Conditions

The near surface of the site is generally comprised of 2 to 6 inches of concrete, asphalt or gravel with a minimum of 8 inches of millings beneath. Historically, the Brooklyn shoreline was marshland, creeks and small islands and the site location was in Wallabout Bay. With development, shoreline areas including Wallabout Bay were filled to accommodate residences, transportation and industry in the area. By the end of the 19th century, the area was filled to resemble the current conditions with Wallabout Channel being a remnant of Wallabout Bay and Wallabout Creek.

The Harbor Hill Terminal Moraine is a ridge of glacial material that is orientated northeast-southwest through Brooklyn and Queens. Secondary elevations resulting from the Harbor Hill Terminal Moraine are present in Brooklyn Heights, which is just southwest of the site and likely extend through the site. Ground moraine deposits are northwest of the terminal moraine and consist of interbedded clay, silt, sand and gravel that are not well sorted. The terminal moraine and ground moraine, along with the outwash plain deposits which are southeast of the terminal moraine, are collectively considered the Upper Glacial Aquifer.

2.2.3 Hydrogeologic Conditions

The uppermost shallow aquifer underlying the site includes the surficial fill unit and, in places, portions of the silt and silty sand horizons. The uppermost “shallow” aquifer contains water under unconfined conditions. Due to the interbedding of clay, silt, sand and gravel in the ground moraine and terminal moraine, groundwater may also be under confined conditions locally. Yields within the ground moraine deposits are considered to be low with the poorly sorted material.

The general pattern of groundwater flow is from the northeast to the southwest, from Kent Avenue toward the Barge Basin. The estimated horizontal flow for the shallow aquifer is 6.25×10^{-6} centimeters per second (cm/s) or 0.018 feet/day (6.5 feet/year). The estimated horizontal groundwater flow for the deep sand aquifer is 2.60×10^{-6} cm/sec or 7.4×10^{-3} feet/day (2.69 feet/year).

Historic water table elevations ranged from 5.95 feet above mean sea level (MSL) to 1.23 feet above MSL. The groundwater elevations for the deep aquifer ranged from 3.02 feet above MSL to 2.55 feet above MSL. The approximate hydraulic gradient for the deep aquifer is 0.001. The water in both the shallow and deep aquifers discharges into the Barge Basin.

2.3 Site Investigation and Remedial History

2.3.1 Site History

In 1637, a Dutchman from the adjoining settlement of Breuckelen (Brooklyn) purchased the land on which the Brooklyn Navy Yard is located. At the time of the purchase, the land consisted mostly of mud flats, swamps and creeks. In 1678, John Jackson purchased the property and established a shipyard on the property called the Broldest Industry. In 1801, the United States Navy purchased the land, which officially became the nation's largest government-owned shipyard. The shipyard, commonly referred to as the Brooklyn Navy Yard, contained 270 buildings, in which approximately 71,000 men and women worked during World War II. The Brooklyn Navy Yard was decommissioned by the federal government in 1966. The federal government then sold the Brooklyn Navy Yard to the City in 1968. The property has since been leased from the City by the BNYDC.

A comparison of historical maps for the Brooklyn Navy Yard shows that the Wallabout Channel shoreline, located within the site, changed between 1801 and the 1950s as a result of various site improvement activities; much of the Brooklyn Navy Yard is underlain by fill material which was used to build up the swamp land to create the present day configuration.

2.3.2 Operational/Disposal History

OU1 of the 13-acre parcel contains the following distinct areas of investigation: Former Drum Storage Area A; the Railroad Siding Area; Former Building 419 and the surrounding area. Former Drum Storage Area B has been successfully remediated and is not part of this SMP. The following is a brief operational and disposal history of each area covered by this SMP:

Former Drum Storage Area A:

Former Drum Storage Area A is located in the southeastern corner of the site and was reportedly used to store a roll-off container filled with five-gallon drums that were labeled as containing various solvents, lubricating oils and cutting oils. The exact location of Former Drum Storage Area A is uncertain; however, a 1988 Environmental Assessment report placed it in the area shown on Figure 2. The concern at this area was that drums of hazardous materials may have leaked and caused contamination to soils underlying pavement.

Former Building 419 and the Surrounding Area:

A primary contaminant leading to the listing of this site on the Registry of Inactive Hazardous Waste Sites was polychlorinated biphenyls (PCBs) released during a 1986 transformer fire at Former Building 419, which was an enclosure formerly used as a transformer substation. The “building” has no roof and the “floor” consists of individual concrete slabs, on which the transformers were formerly located, separated by exposed earth and gravel. In June 1986, there was an explosion and subsequent fire at one of the PCB-containing transformers located within Former Building 419. Former Building 419 was decontaminated, and contaminated soils were removed from the immediate vicinity of the transformer. The investigation of this area focused on identifying PCB contamination remaining following the earlier cleanup.

Railroad Siding Area:

The Railroad Siding Area is located along the southwestern portion of the site and runs in a northwest to southeast direction. Sampling in this area initially occurred during the 1988 Environmental Assessment and indicated the presence of PCBs at low concentrations in a single composite sample collected. This resulted in further exploratory borings and test pits in the area to investigate the potential presence of PCBs, as well as lead and semi-volatile organic compounds (SVOCs). The investigation of this area focused on confirming earlier results, as well as filling data gaps.

The site has been the subject of several investigations. Results of these investigations were reported in the following documents:

- "Environmental Assessment Report," November 1988, prepared by Wehran Engineering for Wheelabrator Environmental Services Incorporated;
- "Work Plans for a Thirteen-Acre Parcel of The Brooklyn Navy Yard, Part I – Interim Remedial Measures [IRM] Work Plan," July 1996, prepared by HDR for DSNY;
- "Work Plans for a Thirteen-Acre Parcel of the Brooklyn Navy Yard, Part II – Supplementary Site Assessment [SSA] Work Plan," March 1997, prepared by HDR for DSNY;
- "Final Interim Remedial Measures Report, The Brooklyn Navy Yard," September 1997, prepared by HDR for DSNY;
- "Final Supplementary Site Assessment Report for a 13-Acre Parcel of the Brooklyn Navy Yard," June 1998, prepared by HDR for the DSNY;
- January 26,1999 HDR letter to the NYSDEC providing supplemental information related to the SSA;
- "Meeting with Federal Agencies; Summary of Water Quality, Aquatic Ecology, and Sediment Sampling Results; Brooklyn Navy Yard Nearshore Confined Disposal Facility," January 2001, prepared by PB in Association with Anchor and EEA, for BNYDC;
- April 13, 2004 Quay Consulting, LLC letter to the NYSDEC providing soil sample data results for areas that are to be occupied by proposed new roadways for future use of the property;
- October 2004 Data Usability Summary Report, The Brooklyn Navy Yard Parcel, prepared by HDR and December 2004 addendum; and
- Supplementary Site Investigation [SSI] Work Plan, The Brooklyn Navy Yard Parcel, New York, Site ID No. 224019A, HDR and HydroQual Environmental Engineers and Scientists, P.C., August 2005.

The information contained in the above noted documents was compiled for the site as a whole and constitutes the complete data set that was used in the preparation of the "Remedial Investigation Report [RI Report], The Brooklyn Navy Yard Parcel, Brooklyn, New York, Site ID No. 224019A," HydroQual Environmental Engineers and Scientists, P.C., September 2006.

Additional details of the prior site investigations and IRMs performed at Former Building 419 in response to the transformer fire are presented in the RI Report.

2.3.3 Summary of Remedial Investigation Findings

A Remedial Investigation (RI) was performed to characterize the nature and extent of contamination at the site. The results of the RI are described in detail in the following reports:

- Remedial Investigation (RI) Report, The Brooklyn Navy Yard Parcel, Brooklyn, New York, NYSDEC Site ID No. 224019A, September 2006.
- Feasibility Study, The Brooklyn Navy Yard Parcel, Brooklyn, New York, NYSDEC Site ID No. 224019A, September 2007.
- Proposed Remedial Action Plan, Brooklyn Navy Yard 13-Acre Parcel Operable Unit No. 1, Brooklyn, Kings County, New York, Site ID No. 224019A, February 2009.
- Record of Decision, Brooklyn Navy Yard 13-Acre Parcel Site Operable Unit No. 1, Brooklyn, Kings County, New York, Site ID No. 224019A, March 2009.

Generally, the RI determined the following:

- PCBs were present at concentrations above cleanup criteria within and immediately adjacent to Former Building 419 and Former Drum Storage Area B. The horizontal and vertical extent of PCBs above criteria has been fully defined at Former Building 419. At Former Drum Storage Area B, the extent of PCB concentrations above cleanup criteria was delineated within the site to the north and extended to the property line where a paved roadway, which predates the use of the location for drum storage, provided a boundary.

- Lead concentrations above Technical and Administrative Guidance Memorandum (TAGM) cleanup criteria were observed at a number of locations across the site. Elevated lead concentrations do not appear to have any obvious spatial distribution and were within the range observed for historic fill. Similarly, variable distributions were observed for concentrations of other metals such as arsenic and copper above cleanup criteria, yet within the typical range for historic urban fill. Elevated levels of these metals are most likely related to the historic urban fill used to raise the site above MSL as opposed to subsequent site activities. Two samples in Former Drum Storage Area A exceeded the Toxicity Characteristics Leaching Procedure (TCLP) criterion for lead.

- SVOCs, specifically several polycyclic aromatic hydrocarbons (PAHs), at concentrations above both TAGM 4046 and Part 375 criteria, were also observed throughout the site. These values did not display clear patterns in distribution horizontally or with depth. Concentrations were consistent with those observed in historic urban fill. The distribution and concentrations observed supports the interpretation that the source of these SVOCs was not historic site activity, but the historic fill used to create the site.

- Detectable concentrations of benzene, toluene, ethylbenzene and xylene (BTEX) compounds, as well as several other volatile organic compounds (VOCs), were observed in soil vapor samples. The reported BTEX compounds were consistent with the generally low VOC concentrations observed in soil and groundwater at the site, and the observed use of a majority of the site for vehicle and construction material storage.

- Sediment sampling in the barge basin adjacent to the site yielded concentrations of SVOCs and metals consistent with or lower than those observed in samples previously collected from the center of the barge basin and typically of what would be expected in urban waterways. These data did not show a correlation with contamination from the site. Sediments were not considered further in the feasibility study.

- Groundwater at the site was observed to have levels of a small number of metals, SVOCs and one VOC moderately elevated above NYSDEC criteria, consistent with the urban fill material and the nature of the Site. Overall, groundwater quality was consistent with the conclusion that groundwater impacts are restricted to OU-2. Therefore, groundwater was not considered further in the feasibility study.

- Potential exposure to soils is a complete pathway and potential exposure to soil vapor is a potential future complete pathway. Potential exposure to groundwater is considered an incomplete pathway, and groundwater will be investigated further as a part of OU-2 which is not the subject of this SMP.

Below is a summary of site conditions when the RI was performed between February 2005 and September 2006. Some historical data preceding the RI is also presented.

2.3.3.1 Surface Soil

Former Drum Storage Area A: This area is located (Sheet 1) beneath an improved asphalt surface and does not readily support vegetation, and therefore does not contain “surface soil.” All soil samples collected in this area were considered “Subsurface Soil,” and are discussed in a separate section.

Former Drum Storage Area B: This area is generally covered by a layer of compacted gravel and does not readily support vegetation, and therefore does not contain “surface soil.” All soil samples collected in this area were considered “Subsurface Soil,” and are discussed in a separate section.

Railroad Siding Area: This area is currently covered by either compacted gravel or asphalt and does not readily support vegetation, and therefore does not contain “surface soil.” All soil samples collected in this area were considered “Subsurface Soil,” and are discussed in a separate section.

Former Building 419 and Surrounding Area: Former Building 419 (Sheets 3 and 4) is currently the only area with exposed soils. A total of 43 surface soil samples (i.e., soils within the top two or three inches) were taken and analyzed primarily for PCBs. However, of those samples, five were analyzed for a broader suite of compounds, including VOCs, SVOCs, pesticides and metals for further characterization of the area. PCBs were found to be above one part per million (ppm) in soils within this area and were determined to be the contaminant of concern at this location.

Figures 3, 4, and 5 provide details on the pre RI analytical results for this Site.

2.3.3.2 Subsurface Soil

Former Drum Storage Area A: The subsurface soil investigation of Former Drum Storage Area A consisted of eight samples for a broad suite of compounds, including VOCs, SVOCs, pesticides, PCBs and metals, as well as an additional eight samples that targeted lead only. Most compounds detected were at concentrations below those in historic fill at other areas of the Brooklyn Navy Yard; however, one sample within the area did reveal leachable lead at levels that are considered hazardous. The highest total lead concentration within this area was 1,100 ppm, which is well above the unrestricted use criteria of 63 ppm, but only marginally above the commercial cleanup goal of 1,000 ppm (see 6 NYCRR 375-6.8). No PCBs were detected above one ppm in the area. Figure 4 and Table 1 provide a summary of analytical results from October 1996 through December 2005 for the Former Drum Storage Area A.

Former Drum Storage Area B: The subsurface soil investigation of Former Drum Storage Area B consisted of nine samples for a broad suite of compounds, including VOCs, SVOCs, pesticides, PCBs and metals, as well as an additional 23 samples that targeted SVOCs, PCBs and metals only. This area contained concentrations of lead and PCBs considerably higher than those in historic fill at other areas of OU1, with PCB levels as high as 27 ppm and lead levels as high as 5,300 ppm (Table 2). SVOCs were also found at relatively high levels in some samples within this area, but were generally less significant than the elevated lead and PCB values.

An IRM was undertaken at Former Drum Storage Area B in the summer of 2008 in an effort to address the soil contamination identified. The IRM is further discussed in Section 2.3.4.

Railroad Siding Area: The subsurface soil investigation of the Railroad Siding Area consisted of 21 samples for a broad suite of compounds, including VOCs, SVOCs, pesticides, PCBs and metals, as well as an additional 33 samples that targeted SVOC and metals only. No pesticide or VOCs were detected, and PCBs were not found in this area at levels generally considered a concern (e.g., only one PCB sample, with a concentration of 1.5 ppm, was above the unrestricted and commercial use standards of 0.1 and 1 ppm, respectively). Metals and SVOC contamination were detected above commercial and unrestricted soil cleanup objectives at several sample locations; however, the distribution was sporadic and not indicative of a “release,” but more likely representative of sampling within an area that consists of historic fill. A summary of analytical results from October 1996 through December 2005 is included as Table 3.

Former Building 419 and Surrounding Area: The subsurface soil investigation of the Former Building 419 and surrounding area consisted of 31 samples for a broad suite of compounds, including VOCs, SVOCs, pesticides, PCBs and metals, as well as additional rounds of sampling targeting a more select suite of compounds (e.g., 44 additional samples for PCBs only, 30 additional samples for lead only, as well as 11 more samples each for SVOCs and metals). Results indicated that VOCs and pesticides were not of concern, with only minor excursions above cleanup criteria established for unrestricted use. Metals (predominantly lead) and SVOCs were often above unrestricted criteria; however, when assigned against commercial cleanup criteria, the exceedances are sporadic and do not appear indicative of a “release,” but are more likely representative of sampling within an area that consists of historic fill. PCBs are present at levels above unrestricted and commercial use criteria within the former substation, with the highest subsurface result for total PCBs being 81 ppm.

Figure 3 and Table 4 provide details on the analytical results from October 1996 through December 2005 for this area.

2.3.3.3 Groundwater

During the final stages of the RI, groundwater samples were collected from up-gradient and down-gradient monitoring wells to supplement previously existing groundwater data. Wells were sampled and analyzed for the full Target Compound List (VOCs, SVOCs, pesticides/PCBs and metals including cyanide).

Analytical results exceeding groundwater quality criteria are summarized in Table 5. These results represent groundwater contained within the urban fill material and are consistent with the analytical results obtained from these fill deposits as described in the previous sections.

As described further below, both the groundwater and urban fill contain metals and a limited number of SVOCs. No pesticides or PCBs were observed above criteria in groundwater. With respect to VOCs, only xylene was above NYSDEC Part 703 criteria (ranging from 21-41 parts per billion) in one well (MW-6SR). Metals observed above their respective criteria included antimony, lead, iron, manganese, selenium and sodium. Levels of some metals observed during the earlier stages of the RI may be related to high particulate matter in the water sample. For example, recently collected groundwater samples in replacement well MW-5SR had considerably lower metals concentrations than previously observed in the original well at that location, and this is believed to be attributable to better sampling technique and well construction than was used in the past. Further support for the conclusion that high particulate matter in samples was the cause of elevated concentrations of metals in groundwater can be found by comparing filtered and unfiltered groundwater samples. For example, lead concentrations above criteria were observed in the unfiltered sample while only low concentrations were observed in the filtered sample. A small number of SVOCs were also observed to have concentrations moderately above screening criteria.

In general, observed concentrations of contaminants in groundwater do not indicate a significant source of groundwater contamination due to a release or waste management at OU1. However, there does appear to be minor impact to groundwater on the OU1 parcel, presumably due to historic operations at the site, as well as the presence of historic fill. No source area contamination relative to these minor groundwater impacts was found during the investigation.

2.3.3.4 Sediments

To investigate whether surface runoff from OU1 had contaminated sediment in the adjoining waterway, three sediment samples were collected on the perimeter of the barge basin and compared to sediment quality data collected previously from the center of the basin. Concentrations of metals in the new samples were similar to or lower than those observed in samples collected near the center of the basin, indicating that overland flow of contaminants was not significantly impacting sediments.

Additionally, concentrations of contaminants observed within the barge basin were not found to be significantly different from those prevalent throughout the region. Both metal and SVOC concentrations in the barge basin sediments were generally comparable to a background sample collected near the mouth of the East River, as well as to samples collected from nearby Wallabout

Basin, indicating that observed contaminant concentrations reflect the urban nature of local waterways rather than impacts from the site. Table 6 provides greater detail on the analytical data for this area.

No site-related sediment contamination of concern was identified during the RI/FS. Therefore, no remedial alternatives were evaluated for the sediment.

2.3.3.5 Site-Related Soil Vapor Intrusion

To assess the potential Soil Vapor Intrusion (SVI) pathway (there are currently no habitable structures on the site), a screening-level soil vapor investigation was performed at the site. Two soil vapor samples were collected in each of the former drum storage areas in the vicinity of monitoring well MW-6 within the Railroad Siding Area, and three soil vapor samples were collected in the vicinity of Former Building 419.

Soil vapor results revealed three constituents were detected (methylene chloride, tetrachloroethene, and trichloroethene) at levels above New York State Department of Health (NYSDOH) guidance values. These contaminants were also reported at low levels in several soil samples. Table 7 provides greater detail on the analytical data for this area.

2.3.4 Remedial History

In June of 1986, a transformer within the Former Building 419 enclosure ruptured and caught fire. A partial cleanup of that release occurred shortly thereafter. However, documentation of that cleanup is not complete. No other cleanups are documented to have occurred within the boundaries of Former Building 419.

In 2001, the NYSDEC listed the site as a Class 2 site in the Registry of Inactive Hazardous Waste Disposal Sites in New York. A Class 2 listing is a site where hazardous waste presents a significant threat to the public health or the environment and action is required.

The site was remediated in accordance with the NYSDEC-approved Interim Remedial Measure Work Plan dated March 2007 and the Remedial Action Work Plan dated August 24, 2009. The following is a summary of the IRM performed at the site:

An IRM soil removal was performed in the vicinity of Former Drum Storage Area B during the summer of 2008 in an effort to ready the area for planned commercial development. The IRM targeted anomalously high lead and PCB concentrations in soil found during the RI. Contaminated soils were excavated and disposed of off-site in accordance with state and federal law. Following the initial removal, samples were taken from the side walls and bottom of the excavation and results were compared to the cleanup objectives established for the IRM (i.e., 0.1 ppm PCB and 400 ppm lead). End point samples were determined to have achieved the goals of the IRM, and an IRM closeout report was submitted to the NYSDEC in December 2008. The IRM is considered to have successfully removed the most contaminated soils in the Former Drum Storage Area B portion of the site.

The following is a summary of the Remedial Actions that were performed at the site:

1) Excavation of soils containing PCBs greater than 10 ppm and soils with lead concentration in the TCLP extract of greater than 5 milligrams per liter (mg/l). The estimated areas and depths of excavation are indicated in Figure 3 in the areas of Former Building 419. Post excavation soil sample analytical results are summarized on Table 8. Waste classification analytical results are summarized on Table 9. Table 10 provides a summary of the brick and concrete sample analytical results. Figure 4 provide estimated areas and depths of excavation of the Former Drum Storage Area A. Post-excavation samples were collected to confirm the limits of excavation to the PCB and TCLP lead criteria with results presented in Table 11. Figure 5 provides the location of the excavation area along Kent Avenue. No post excavation samples were collected from this area. Excavated soils were analyzed for appropriate disposal and managed in accordance with applicable regulations. Table 12 provides the waste classification analytical results for Former Drum Storage Area "A". Former Drum Storage Area B has been remediated pursuant to an IRM and no further action is anticipated in connection with that area. As such, Former Drum Storage Area B is not discussed further herein.

2) Site-wide cover. The limits of the excavation and cover areas are shown on Figure 6. The cover was a combination of existing or new soil, pavement, or concrete. Where vegetated surfaces will remain, a soil cover was constructed or existing cover, if adequate would be used (e.g., gravel covered surfaces with less than 10% passing the number 100 sieve – fine sand and finer fraction). The soil cover consists of one foot of soil underlain by an indicator such as orange plastic snow fence to demarcate the cover soil from the subsurface soil. The indicator material location and depth may vary based on the use of existing materials. For example, if existing pavement were to remain, it would not be practicable to install the indicator. Or, if some portion of existing stone were used, the indicator layer may have been positioned at a depth other than the base of the cover. The top six inches of soil was suitable to support vegetation, unless the area is used for vehicle traffic (e.g., gravel areas). Cover soil will meet the Division of Environmental Remediation's criteria for backfill, as per 6 NYCRR Part 375-6.7. Where gravel is used for final cover, it will comply with typical aggregate gradations (American Society for Testing and Materials (ASTM) D448 or New York State Department of Transportation (NYSDOT) Specifications Tables 703-4 and 703-5) and be of a size suitable as a wearing surface. Where the final surface is pavement (e.g., roadways, parking lots) or concrete (e.g., building slab) the cover consists of a paving system or concrete slab system at least six inches thick, either constructed or existing.

3) Imposition of an IC in the form of an Environmental Easement that requires: (a) limiting the use and development of the property to commercial and industrial, including passive recreational uses, cultural uses, and college or graduate academic and administrative facilities, all with limited potential for soil contact, interior classroom and administrative facilities for secondary education with limited potential for soil contact, and rooftop gardens so long as they are not grown using soil from the Site.; (b) compliance with the approved SMP; (c) restricting the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by NYSDOH; and (d) the property owner to complete and submit to the NYSDEC a periodic certification of ICs and ECs. Regarding the Periodic Certification, it is:

- Prepared and submitted by a Professional Engineer licensed in New York State or such other expert approved by the NYSDEC until the NYSDEC notifies the property owner in writing that the certification is no longer needed;
- Contains a certification that the ICs and ECs remain in place and are either unchanged from the previous certification or are compliant with the NYSDEC-approved modifications;
- Allows the NYSDEC access to the site; and
- States that the ECs remain protective of public health and the environment, and remain in compliance with the SMP or any NYSDEC-approved modifications thereof.

4) A SMP which includes the following ICs and ECs:
    - Management of the site-wide cover system to restrict excavation below the site-wide cover's demarcation layer (and identification of specific areas where the demarcation layer may be an alternative material such as the pavement itself), pavement, or buildings, and procedures for proper management of soils and appropriate health and safety requirements should excavation occur;
    - Provisions for evaluation of the potential for SVI into buildings developed on the site, including the mitigation of impacts identified;
    - Identification of use restrictions on the site; and
    - Provisions for the continued proper operation and maintenance of the components of the remedy.

5) A Long-Term Monitoring Plan. The key components of this plan includes the periodic inspection of the site-wide cover system, the necessary inspections to support periodic certification of the site use restrictions, and the periodic monitoring of any future sub-slab depressurization systems (SSDS).

2.4 Remedial Action Objectives

Based on the results of the previous site investigations, the following Remedial Action Objectives (RAOs) were identified for this site.

Soil

RAOs for Public Health Protection:

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation of or exposure from contaminants volatilizing from contaminants in soil.

RAOs for Environmental Protection:

- Prevent migration of contaminants that could result in groundwater or surface water contamination.
- Prevent impacts to biota from ingestion/direct contact with soil causing toxicity or impacts from bioaccumulation through the terrestrial food chain.

Specifically, the soil RAOs were established to provide direct contact control to eliminate the complete pathway for metals, PCBs, and SVOCs found above criteria, and control of the potential for future exposure to soil vapor, because of the potential for a complete exposure pathway in the future.

It is noted that NYSDEC has identified RAOs for other media at the larger Brooklyn Navy Yard site (e.g., groundwater, surface water, and sediment), which are being addressed under different programs. Hence, impacted soil was the focus medium of interest in OU1.

2.5 Remedy for Remaining Contamination

Remaining contamination is discussed in the Final Engineering Report. In summary, PCB impacted soil below 10 ppm remains within the Building 419 soil excavation and in the Building 419 brick and concrete samples.

As part of the site-wide cover, new soil, pavement or concrete was placed on top of any remaining contamination left at the site after remediation has been completed. Where vegetated surfaces will remain, a site-wide cover was constructed or existing cover, if adequate, would be used (e.g., gravel covered surfaces with less than 10 percent passing the number 100 sieve – fine sand and finer fraction). The site-wide cover consists of one foot of soil underlain by an indicator, such as an orange plastic snow fence, to demarcate the cover soil from the remaining contaminated soil beneath. The indicator material location and depth may vary based on the use of existing materials. For example, if existing pavement remains, it was not practicable to install the indicator. Or, if some portion of the existing stone were used, the indicator layer may have been positioned at a depth other than the base of the cover. Where the final cover is pavement (e.g., roadways, parking lots) or concrete (e.g., building slab) the cover consists of a paving system or concrete slab system at least six inches thick, either constructed or existing.

3 ENGINEERING AND INSTITUTIONAL CONTROL PLAN

3.1 General

Contaminated soil and soil vapor remains beneath the site. Therefore, EC/ICs are required to protect human health and the environment. This EC/IC Plan describes the procedures for the implementation and management of all EC/ICs at the site. The EC/IC Plan is one component of the SMP and is subject to revision by NYSDEC.

This plan provides:

- A description of all EC/ICs on the site;
- The basic implementation and intended role of each EC/IC;
- A description of the key components of the ICs that are set forth in the Environmental Easement;
- A description of the features to be evaluated during each required inspection and periodic review;
- A description of plans and procedures to be followed for implementation of EC/ICs, such as the implementation of the EWP for the proper handling of remaining contamination that may be disturbed during maintenance or redevelopment work on the site; and
- Any other provisions necessary to identify or establish methods for implementing the EC/ICs required by the site remedy, as determined by the NYSDEC.

3.2 Engineering Controls

3.2.1 Engineering Control Systems

3.2.1.1 Site-Wide Cover

Exposure to remaining contamination in soil/fill at the site is prevented by a site-wide cover. This site-wide cover system was comprised of a minimum of 12 inches of clean soil or 6 inches of an asphalt paving system. An EWP included in Appendix C outlines the procedures required to be implemented in the event the site-wide cover is breached, penetrated or temporarily removed, and any underlying remaining contamination is disturbed. Procedures for the inspection and maintenance of this cover are provided in the Monitoring Plan included in Section 5 of this SMP.

3.2.1.2 Sub-Slab Depressurization System

At the current time, an SSDS is not required at the Brooklyn Navy Yard OU-1 site due to the lack of inhabitable buildings on site. If one is required based on the results of future testing, an addendum to or a revision of this document will be issued.

3.2.2 Criteria for Completion of Remediation/Termination of Remedial Systems

Generally, remedial processes are considered completed when effectiveness monitoring indicates that the remedy has achieved the remedial action objectives identified by the decision document. The framework for determining when remedial processes are complete is provided in Section 6.6 of NYSDEC DER-10.

The composite site-wide cover system is a permanent control and the quality and integrity of this system will be inspected at defined, regular intervals in perpetuity.

3.3 Institutional Controls

A series of ICs is required by the ROD to: (1) implement, maintain and monitor EC systems; (2) prevent future exposure to remaining contamination by controlling disturbances of the subsurface contamination; and (3) limit the use and development of the site to commercial and industrial, including passive recreational uses, cultural uses, and college or graduate academic and administrative facilities, all with limited potential for soil contact, interior classroom and administrative facilities for secondary education with limited potential for soil contact and rooftop gardens so long as they are not grown using soil from the Site. Adherence to these ICs on the site will be required by the Environmental Easement and will be implemented under this SMP.

These ICs are:

- Limiting the use and development of the property to commercial as described in 6 NYCRR Part 375-1.8(g)(2)(iii) and industrial as described in 6 NYCRR Part 375-1.8(g)(2)(iv), including passive recreational uses, cultural uses, and college or graduate academic and administrative facilities, all with limited potential for soil contact, interior classroom and administrative facilities for secondary education with limited potential for soil contact, and rooftop gardens that are not grown using soil from the Site;
- Compliance with the approved SMP;
- Restricting the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by NYSDOH;
- The property owner to complete and submit to the NYSDEC a periodic certification of ICs and ECs;
- Compliance with the Environmental Easement and this SMP by the Grantor and the Grantor's successors and assignees;
- All ECs must be operated and maintained as required by this SMP;
- All ECs on the Controlled Property must be inspected at a frequency and in a manner required by the SMP;
- Soil vapor and other environmental or public health monitoring must be performed as required by this SMP; and

- Data and information pertinent to the site management of the Controlled Property must be reported at the frequency and in a manner required by this SMP.

ICs that are identified in the Environmental Easement may not be discontinued without an amendment to or extinguishment of the Environmental Easement.

The environmental easement for the site was executed by the Department on August 3, 2017, and filed with the Kings County Clerk on September 22, 2017. The County Recording Identifier number for this filing is 2017082500881001. A copy of the easement and proof of filing is provided in Appendix B.

Adherence to the following Institutional Controls (ICs) / site restrictions is required by the Environmental Easement:

- The property may only be used for commercial and industrial, including passive recreational uses, cultural uses, and college or graduate academic and administrative facilities, all with limited potential for soil contact, interior classroom and administrative facilities for secondary education with limited potential for soil contact and rooftop gardens so long as they are not grown using soil from the Site, provided that the long-term ECs/ICs included in this SMP are employed.
- The property may not be used for a higher level of use, such as unrestricted (residential, etc.) use without additional remediation and amendment of the Environmental Easement, as approved by the NYSDEC.
- All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with this SMP.
- The use of the groundwater underlying the property is prohibited without treatment rendering it safe for intended use.
- The potential for SVI must be evaluated for any buildings developed in the vicinity of Former Drum Storage Area A, the Railroad Siding Area and Former Building 419 and the surrounding area, and any potential impacts that are identified must be monitored for mitigated.
- Vegetable gardens and farming on the property are prohibited.
- BNYDC, their designated representative or a Professional Engineer licensed to practice in New York State will submit to the NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls are employed at the Controlled Property and are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and (2) nothing has occurred that impairs the ability of the controls to protect public health and the environment or that constitute a violation or failure to comply with the SMP. The inspection form included in Appendix D of this document will be used, unless other formats are approved or required by NYSDEC. NYSDEC retains the right to access such Controlled Property at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually on or before May 30, or an alternative period of time that the NYSDEC may allow and will be made by an expert that the NYSDEC finds acceptable.

3.4 Excavation Work Plan

The site was remediated for restricted commercial use which will also permit industrial use. Any future intrusive work that will penetrate the site-wide cover, or encounter or disturb the remaining contamination, including any modifications or repairs to the site-wide cover will be performed in compliance with the EWP that is attached as Appendix C to this SMP. Importation and placement of clean fill must be reviewed and approved by the NYSDEC prior to placement on-site. Any work conducted pursuant to the EWP must also be conducted in accordance with the procedures defined in a Health and Safety Plan (HASP) and Community Air Monitoring Plan (CAMP) prepared for the site. A generic HASP is attached as Appendix E to this SMP that is in compliance with applicable federal, state and local regulations. Appendix F is the site CAMP, which is in effect for intrusive activities only. Based on future changes to state and federal health and safety requirements, and specific methods employed by future contractors, the HASP and CAMP will be updated and re-submitted with the notification provided in Section 1 of the EWP. Any intrusive construction work will be performed in compliance with the EWP, HASP and CAMP, and will be included in the periodic inspection and certification reports submitted under the Periodic Review Reporting Plan (see Section 7.2).

The site owner and associated parties performing any future intrusive work are completely responsible for the safe performance of all intrusive work, the structural integrity of excavations, proper disposal of excavation dewater, control of runoff from open excavations into remaining contamination, and for structures that may be affected by excavations (such as building foundations and bridge footings). The site owner will ensure that site development activities will not interfere with, or otherwise impair or compromise, the ECs described in this SMP.

4 MONITORING AND SAMPLING PLAN

4.1 General

Monitoring or sampling consisting of data collection is not currently required for this site.

The Monitoring Plan describes the measures for evaluating the performance and effectiveness of the site-wide cover and all affected site media identified below. The remedy results in untreated waste remaining at the site; therefore, a long-term monitoring program will be instituted. The key components of the program include the periodic monitoring of the site-wide cover system and the necessary inspections to support periodic certification of the site use restrictions.

Annual monitoring of the site-wide cover will be conducted by BNYDC on or before May 30 for a period that will be determined by the NYSDEC. The inspection form included in Appendix D of this document will be used, unless other formats are approved or required by NYSDEC. Monitoring and inspection program schedules are summarized in Table 13 and outlined in detail below.

Please note that the remedial action did not address soil vapor or groundwater. Therefore, this SMP does not consider potential soil vapor or groundwater issues. If site use changes such that a structure is constructed above the site cover and/or future excavations encounter groundwater, additional investigations of soil vapor and/or groundwater may be necessary. This SMP will be updated by BNYDC for any potential ECs, such as SSDS, to reflect those changes if they become effective. This program will allow the effectiveness of the remedy to be monitored and is a component of the long-term management of the site. This Monitoring Plan may only be revised with the approval of NYSDEC.

4.2 Site Wide Inspection

Site-wide inspections will be performed on a regular schedule at a minimum of once a year. Site-wide inspections will also be performed after all severe weather conditions that may affect ECs. During these inspections, an inspection form will be completed (Appendix D). The form will compile sufficient information to assess the following:

- Visual inspection of the site-wide cover;
- Compliance with all ICs, including site usage;
- An evaluation of the condition and continued effectiveness of ECs;
- If these controls continue to be protective of human health and the environment;
- Compliance with requirements of this SMP and the Environmental Easement;
- General site conditions at the time of inspection;
- The site management activities being conducted; and
- Confirm that site records are up to date.

The reporting requirements are outlined in the Periodic Review Reporting section of this plan (Section 7.2). In the event of an emergency, such as a natural disaster or an unforeseen failure of any of the ECs occurs, an inspection of the site will be conducted within 5 days of the event to verify the effectiveness of the EC/ICs implemented at the site by a Professional Engineer licensed to practice in New York State as determined by the NYSDEC.

4.3 Site-Wide Cover System Monitoring

Monitoring of the site-wide cover will be performed on an annual basis to assess the condition of the site-wide cover at the time of inspection. As part of the monitoring, the site-wide cover will be inspected to evaluate if the cover is still in place and has not been disturbed or is compliant with NYSDEC-approved modifications.

Any subsequent activities that result in excavation to build structures on the site would result in additional monitoring as required by the NYSDEC and would require notification to NYSDEC with specific information about the work to be performed. At that time, this SMP would be modified accordingly.

4.4 Media Monitoring Program

No media monitoring will occur as part of the Brooklyn Navy Yard OU-1 remedy unless a structure is constructed. Monitoring and the evaluation of the potential for SVI would be required to evaluate the presence of soil vapor in any buildings to be developed on the site. Any impacts that are identified would be mitigated in accordance with a monitoring and sampling plan approved by the NYSDEC. The SMP will be modified and approved by NYSDEC in the event that the monitoring of SVI or other media (e.g., groundwater) will be required.

4.5 Soil Vapor Intrusion Evaluation

Prior to the construction of any enclosed structures located over areas that contain remaining contamination where the potential for SVI has been identified, an SVI evaluation will be performed to determine whether any mitigation measures are necessary to eliminate potential exposure to vapors in the proposed structure(s). Alternatively, an SVI mitigation system may be installed as an element of the building foundation without first conducting an investigation, with agency approval. Such mitigation system may include a vapor barrier and passive SSDS that is capable of being converted to an active system if necessary.

Prior to conducting an SVI investigation or installing a mitigation system, a work plan will be developed and submitted to the NYSDEC and NYSDOH for approval. This work plan will be developed in accordance with the most recent NYSDOH “Guidance for Evaluating Vapor Intrusion in the State of New York.” Measures to be employed to mitigate potential SVI will be evaluated, selected, designed, installed, and maintained based on the SVI evaluation, the NYSDOH guidance, and construction details of the proposed structure.

The work plan will require that preliminary (not validated) SVI sampling data be forwarded to the NYSDEC and NYSDOH for initial review and interpretation. Upon validation, the final data will be

transmitted to the agencies, along with a recommendation for follow-up action, such as mitigation. In addition, SVI sampling results, evaluations, and follow-up actions will be summarized in the next PRR.

4.6 Contingency Plan

Emergencies may include injury to personnel, fire or explosion, environmental release, or serious weather conditions. Emergency contact information is also included in the HASP.

4.6.1 Emergency Telephone Numbers

In the event of any environmentally related situation or unplanned occurrence requiring assistance, the BNYDC or BNYDC's representative(s) should contact the appropriate party from the contact list (Table 14). For emergencies, appropriate emergency response personnel should be contacted. Prompt contact should also be made to the BNYDC and the Environmental Professional. These emergency contact lists (Tables 14 and 15) must be posted prominently by BNYDC and maintained in an easily accessible location at the site as required.

4.6.2 Map and Directions to Nearest Health Facility

Site Location:	Brooklyn Navy Yard 63 Flushing Avenue Brooklyn, New York 11205
Nearest Hospital Name:	The Brooklyn Hospital Center
Hospital Location:	121 Dekalb Avenue Brooklyn, New York 11211
Hospital Telephone:	(718) 250-8075

Directions to the Hospital:

1. Head towards the intersection of Kent Avenue and Clymer Street, turn right onto Kent Avenue and continue southeast (0.4 miles).
2. Turn slight right onto Williamsburg Place (0.1 miles).
3. Turn slight right onto Williamsburg Street West (0.1 miles).
4. Turn right onto Flushing Avenue (0.3 miles).
5. Turn left onto Washington Avenue (0.6 miles).
6. Turn right onto Dekalb Avenue (0.6 miles).
7. The Brooklyn Hospital Center will be on the right.

Total Distance: 1.98 miles

Total Estimated Time: 6 minutes

A map showing the route from the site to the Hospital is attached as Figure 7.

4.6.3 Response Procedures

As appropriate, the fire department and other emergency response groups will be notified immediately by telephone of the emergency. The emergency telephone number list is found at the beginning of this Contingency Plan. The list will also be posted prominently at the site and made readily available to all personnel at all times.

5 OPERATION MAINTENANCE AND MONITORING PLAN

5.1 General

An Operation and Maintenance Plan describes the measures necessary to operate, monitor and maintain the mechanical components of the remedy selected for the site in the event that buildings are constructed at the site and the potential for SVI into the buildings need to be monitored. In the event that buildings are constructed on the site and an Operation and Maintenance Plan becomes necessary, the SMP will be amended or revised at that time.

Monitoring of the site-wide cover is described in Section 4.3. Inspections will be conducted annually on or before May 30 and are described in detail in Section 4 of this SMP.

5.2 Monitoring Plans

As there are no mechanical portions of the remedy, an operation and maintenance plan is not required.

6 PERIODIC ASSESSMENTS/EVALUATIONS

6.1 Climate Change Vulnerability Assessment

Increases in both the severity and frequency of storms/weather events, an increase in sea level elevations along with accompanying flooding impacts, shifting precipitation patterns and wide temperature fluctuation, resulting from global climactic change and instability, have the potential to significantly impact the performance, effectiveness and protectiveness of a given site and associated remedial systems. Vulnerability assessments provide information so that the site and associated remedial systems are prepared for the impacts of the increasing frequency and intensity of severe storms/weather events and associated flooding.

During the site inspections, the site cover will be observed to assess effects associated with climate change. In the event a severe storm occurs that affects the site, the site cover will be observed to assess any potential impact. Photographs will document site conditions following the storm. Depending on the impact of the storm, repairs will be addressed as needed.

6.2 Green Remediation Evaluation

NYSDEC's DER-31 Green Remediation requires that green remediation concepts and techniques be considered during all stages of the remedial program including site management, with the goal of improving the sustainability of the cleanup and summarizing the net environmental benefit of any implemented green technology. This section of the SMP provides a summary of any green remediation evaluations to be completed for the site during site management, and as reported in the PRR.

The EC/IC implemented at the site limits waste generation, energy usage, water consumption, and emissions.

6.3 Remedial System Optimization

An active remedial system has not been implemented at the site.

7 REPORTING REQUIREMENTS

7.1 Site Management Reports

7.1.1 Inspection Frequency

All inspections will be conducted at the frequency specified in the schedules provided in Section 4 Monitoring Plan of this SMP. At a minimum, a site-wide inspection will be conducted annually. Inspections of remedial components will also be conducted whenever a severe condition has taken place, such as an erosion or flooding event that may affect the ECs or as required by NYSDEC.

7.1.2 Inspection Forms and Maintenance Reports

All inspections will be recorded on the appropriate form that is contained in Appendix D. All forms are subject to NYSDEC revision and approval.

All applicable inspection forms and other records generated for the site during the reporting period will be provided in electronic format in the PRR.

Forms and any other information generated during monitoring and inspections will be kept on file on-site. All forms, and other relevant reporting formats used during the monitoring and inspection events, will be (1) subject to approval by the NYSDEC and (2) submitted at the time of the PRR, as specified in the Reporting Plan of this SMP.

A letter report will be prepared and submitted to the NYSDEC as part of the PRR, subsequent to the completion of each monitoring and inspection event. The Site-Wide Investigation Form will be presented as an attachment to the letter report. The letter report will include, at a minimum:

- Date of event;
- Name and company of personnel conducting inspections;
- Current use of the site;
- Description of site-wide cover;
- Evaluation of whether ground disturbance has occurred;
- Excavation work on site is prohibited without prior notification of BNYDC and NYSDEC. In the event that any ground disturbance is requested, the appropriate BNYDC representative will be notified. BNYDC will be responsible for contacting the NYSDEC and the BNYDC as applicable and appropriate. In the event that evidence of ground disturbance is observed during the annual review all parties will be notified;
- The presence of any structures on the site;
- A determination of the need for maintenance of the remedy;
- Any additional observations, conclusions, or recommendations; and

- A determination as to whether site-wide cover conditions have changed since the last reporting event.

Data will be reported in hard copy or digital format as determined by the NYSDEC. Any need for maintenance of the remedy that is identified during the monitoring and inspections will be reported to the NYSDEC and corrected by the BNYDC or NYSDEC-approved agent of BNYDC or other approved party within 30 days of the completion of the monitoring and inspection report. A summary of the monitoring and inspection program deliverable schedules are summarized in Table 16.

7.1.3 Evaluation of Records and Reporting

The results of the inspection will be evaluated as part of the EC/IC certification to confirm that the:

- EC/ICs are in place, are performing properly, and remain effective;
- The Monitoring Plan is being implemented;
- Operation and maintenance activities are being conducted properly; and, based on the above items; and
- The site remedy continues to be protective of public health and the environment and is performing as designed in the ROD, RDWP and as described in the FER (pending approval).

7.2 Periodic Review Report

BNYDC will prepare a PRR in accordance with NYSDEC DER-10 and submit it to the NYSDEC on or before June 30 of each year. In the event that the site is subdivided into separate parcels with different ownership, a single PRR will be prepared that addresses the site. Investigation results will also be incorporated into the PRR. The report will include:

- Identification, assessment and certification of all ECs/ICs required by the remedy for the site.
- Excavation work on site is prohibited without prior notification of BNYDC. In the event that any ground disturbance is requested of BNYDC on the property, the appropriate BNYDC representative will be notified. BNYDC will be responsible for contacting the NYSDEC as applicable and appropriate. In the event that evidence of ground disturbance is observed during the annual review, all three parties will be notified.
- Results of the required annual site inspections and severe condition inspections, if applicable;
- All applicable inspection forms and other records generated for the site during the reporting period in electronic format.
- A site evaluation, which includes the following:
    - The compliance of the remedy with the requirements of the site-specific ROD, and/or RDWP;
    - The operation and the effectiveness of the site-wide cover, including identification of any needed repairs or modifications;

- Any new conclusions or observations regarding site contamination based on inspections or data generated by the Monitoring Plan for the media being monitored;
- Recommendations regarding any necessary changes to the remedy and/or Monitoring Plan; and
- The overall performance and effectiveness of the remedy.

In the event that buildings are constructed on the site and SVI monitoring and reporting becomes a necessary component of this SMP, the SMP will be modified accordingly and the following information will be included in the PRR:

- A summary of any discharge monitoring data and/or information generated during the reporting period with comments and conclusions.
- Data summary tables and graphical representations of contaminants of concern by media (groundwater, soil vapor), which include a listing of all compounds analyzed, along with the applicable standards, with all exceedances highlighted. These will include a presentation of past data as part of an evaluation of contaminant concentration trends.
- Results of all analyses, copies of all laboratory data sheets, and the required laboratory data deliverables for all samples collected during the reporting period will be submitted electronically in a NYSDEC-approved format.

The PRR will be submitted, in hard-copy format, to the NYSDEC Central Office and Regional Office in which the site is located, and in electronic format to the NYSDEC Central Office, Regional Office and the NYSDOH Bureau of Environmental Exposure Investigation.

Certification of Engineering and Institutional Controls

After the last inspection of the reporting period, a Professional Engineer licensed to practice in New York State will prepare the following certification:

- For each IC or EC identified for the site, I certify that all of the following statements are true:
  - The inspection of the site to confirm the effectiveness of the ECs/ICs required by the remedial program was performed under my direction;
  - The IC and/or EC employed at this site is unchanged from the date the control was put in place, or last approved by the NYSDEC;
  - Nothing has occurred that would impair the ability of the control to protect the public health and environment;
  - Nothing has occurred that would constitute a violation or failure to comply with any site management plan for this control;
  - Access to the site will continue to be provided to the NYSDEC to evaluate the remedy, including access to evaluate the continued maintenance of this control;

- If a financial assurance mechanism is required under the oversight document for the site, the mechanism remains valid and sufficient for the intended purpose under the document;
- Use of the site is compliant with the Environmental Easement;
- The EC systems are performing as designed and are effective;
- To the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program and generally accepted engineering practices;
- The information presented in this report is accurate and complete; and
- I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.4 of the Penal Law. I, [state your name], of [business address], am certifying as the [Owner or Owner's Designated Site Representative] for the site.

The signed certification will be included in the PRR described above.

7.3 Corrective Measures Plan

If any component of the remedy is found to have failed, or if the periodic certification cannot be provided due to the failure of an IC or EC, a Corrective Measures Plan will be submitted to the NYSDEC for approval. This plan will explain the failure and provide the details and schedule for performing work necessary to correct the failure. Unless an emergency condition exists, no work will be performed pursuant to the corrective measures plan until it is approved by the NYSDEC.

TABLES

Table 1. Former Drum Storage Area A
Nature and Extent of Contamination
Range of Sampling Dates: October 1996 – December 2005

Subsurface Soil	Contaminants of Concern	Concentration Range Detected (ppm)[a]	Unrestricted SCG[b(1)] (ppm)[a]	Frequency of Exceeding Unrestricted SCG	Restricted Commercial SCG[b(2)] (ppm)[a]	Frequency of Exceeding Restricted Commercial SCG
Semi-volatile Organic Compounds (SVOCs)	Benzo(a)anthracene	0.043J – 1.1	1	1 of 8	5.6	0 of 8
	Chrysene	0.048J of 1.1	1	1 of 8	56	0 of 8
	Benzo(b)fluoranthene	0.037J – 1.5	1	1 of 8	5.6	0 of 8

Subsurface Soil	Contaminants of Concern	Concentration Range Detected (ppm)[a]	Unrestricted SCG[b(1)] (ppm)[a]	Frequency of Exceeding Unrestricted SCG	Restricted Commercial SCG[b(2)] (ppm)[a]	Frequency of Exceeding Restricted Commercial SCG
Inorganic Compounds	Arsenic	1.5B – 17.9	13	1 of 8	16	1 of 8
	Chromium	11.8 – 31.6	30	1 of 8	1,500	0 of 8
	Copper	29.9 – 135	50	5 of 8	270	0 of 8
	Lead	38 – 1,100	63	15 of 20	1,000	1 of 20
	Mercury	0.24 – 0.69	0.18	3 of 8	2.8	0 of 8
	Selenium	0.88J – 4.6J	3.9	1 of 8	1,500	0 of 8
	Zinc	65.9 - 519	109	5 of 8	10,000	0 of 8

(1) Criteria taken from NYSDEC Part 375 Soil Cleanup Objectives table for Unrestricted Use (Table 375-6.8(a)).

(2) Criteria taken from NYSDEC Part 375 Soil Cleanup Objectives table for Restricted Commercial Use (Table 375-6.8(b))

Table 2. Former Drum Storage Area B
Nature and Extent of Contamination
Range of Sampling Dates: October 1996 – December 2005

Subsurface Soil	Contaminants of Concern	Concentration Range Detected (ppm)[a]	Unrestricted SCG[b(1)] (ppm)[a]	Frequency of Exceeding Unrestricted SCG	Restricted Commercial SCG[b(2)] (ppm)[a]	Frequency of Exceeding Restricted Commercial SCG
Semi-volatile Organic Compounds (SVOCs)	Phenol	0.054J – 2.93	0.33	1 of 37	500	0 of 32
	Naphthalene	0.358J – 28.3	1.2	1 of 37	500	0 of 32
	Pentachlorophenol	2.50 – 2.50	0.8	1 of 37	6.7	0 of 32
	Anthracene	0.064J – 7.44	100	1 of 36	500	0 of 32
	Benzo(a)anthracene	0.039J – 8.26	1	8 of 36	5.6	1 of 32
	Chrysene	0.037J – 6.99	1	12 of 36	56	0 of 32
	Benzo(b)fluoranthene	0.040 – 7.73	1	15 of 36	5.6	1 of 32
	Benzo(k)fluoranthene	0.110J – 2.67J	0.8	6 of 37	56	0 of 32
	Benzo(a)pyrene	0.037J – 5.78	1	8 of 36	1	8 of 32
	Indeno(1,2,3-cd)pyrene	0.042J – 2.87J	0.5	13 of 37	5.6	0 of 32
	Dibenzo(a,h)anthracene	0.042J - .880J	0.33	5 of 37	0.56	3 of 32
PCB/Pesticides	Total PCBs	0.04 – 27	0.1	21 of 23	1	8 of 23
Inorganic Compounds	Arsenic	0.38J – 44J	13	4 of 109	16	3 of 32
	Barium	14J – 590	350	2 of 32	400	2 of 32
	Beryllium	0.086J - 20	7.2	5 of 32	590	0 of 32
	Cadmium	0.091 – 14	2.5	2 of 32	9.3	1 of 32
	Chromium	6.4J – 150	30	16 of 32	1,500	0 of 32
	Copper	14 – 1,450	50	30 of 32	270	14 of 32
	Lead	8.2 – 5,300	63	31 of 32	1,000	5 of 32
	Mercury	0.1 – 5.4	0.18	18 of 32	2.8	8 of 32
	Nickel	8.5J – 330	30	20 of 32	310	1 of 32
	Selenium	0.4J – 14	3.9	1 of 32	1,500	1 of 32
	Silver	0.23J – 13	2	2 of 32	1,500	0 of 32
	Zinc	34 – 7,400	109	31 of 32	10,000	0 of 32

(1) Criteria taken from NYSDEC Part 375 Soil Cleanup Objectives table for Unrestricted Use (Table 375-6.8(a)).

(2) Criteria taken from NYSDEC Part 375 Soil Cleanup Objectives table for Restricted Commercial Use (Table 375-6.8(b))

Table 3. Railroad Siding Area
Nature and Extent of Contamination
Range of Sampling Dates: October 1996 – December 2005

Subsurface Soil	Contaminants of Concern	Concentration Range Detected (ppm)[a]	Unrestricted SCG[b(1)] (ppm)[a]	Frequency of Exceeding Unrestricted SCG	Restricted Commercial SCG[b(2)] (ppm)[a]	Frequency of Exceeding Restricted Commercial SCG
Volatile Organic Compounds (VOCs)	Acetone	0.004 - 0.190J	0.05	2 of 18	500	0 of 18
	Benzene	0.001 - 0.069	0.06	1 of 22	44	0 of 22
Semi-volatile Organic Compounds (SVOCs)	Phenol	0.042J – 3.05	0.33	2 of 56	500	0 of 56
	Acenaphthene	0.044J – 30.8	20	1 of 56	500	0 of 56
	Fluorene	0.039J – 31.9	30	1 of 56	500	0 of 56
	Pentachlorophenol	2.38 – 4.98	0.8	2 of 56	6.7	0 of 56
	Anthracene	0.045J – 157	100	1 of 56	500	0 of 56
	Fluoroanthene	0.056J – 162	100	1 of 56	500	0 of 56
	Benzo(a)anthracene	0.041J – 20.6	1	11 of 56	5.6	2 of 56
	Chrysene	0.037J – 17.2J	1	11 of 56	56	0 of 56
	Benzo(b)fluoranthene	0.047J – 11.3	1	13 of 56	5.6	2 of 56
	Benzo(k)fluoranthene	0.057J – 4.31J	0.8	6 of 56	56	0 of 56
	Benzo(a)pyrene	0.041J – 6.69J	1	9 of 56	1	9 of 56
	Indeno(1,2,3-cd)pyrene	0.062J – 4.26	0.5	9 of 56	5.6	0 of 56
	Dibenzo(a,h)anthracene	0.042J – 1.35J	0.33	4 of 56	0.56	1 of 56
PCB/ Pesticides	Dieldrin	0.020 - 0.021	0.005	1 of 22	1.4	0 of 22
	4,4' – DDE	0.003J - 0.018	0.003	4 of 22	62	0 of 22
	Endrin	0.022 - 0.022	0.014	1 of 22	89	0 of 22
	4,4' – DDD	0.008J - 0.046	0.003	5 of 22	200	0 of 22
	4,4' – DDT	0.015 - 0.026	0.003	4 of 22	47	0 of 22
	Total PCBs	0.018 – 2.50	0.1	21 of 51	1	4 of 51

Table 3. Railroad Siding Area
Nature and Extent of Contamination
Range of Sampling Dates: October 1996 – December 2005

Subsurface Soil	Contaminants of Concern	Concentration Range Detected (ppm)[a]	Unrestricted SCG[b(1)] (ppm)[a]	Frequency of Exceeding Unrestricted SCG	Restricted Commercial SCG[b(2)] (ppm)[a]	Frequency of Exceeding Restricted Commercial SCG
Inorganic Compounds	Arsenic	1.1J – 170	13	7 of 56	16	7 of 56
	Barium	10J – 510	350	3 of 56	400	2 of 56
	Beryllium	0.11J – 11	7.2	2 of 56	590	0 of 56
	Cadmium	0.051 – 13.6	2.5	5 of 56	9.3	3 of 56
	Chromium	3.7J – 100	30	8 of 56	1,500	0 of 56
	Copper	9.7 – 1,500	50	32 of 56	270	6 of 56
	Lead	4.4 – 2,070	63	36 of 70	1,000	4 of 70
	Manganese	29 – 1,900	1,600	1 of 56	10,000	0 of 56
	Mercury	0.1 – 2.8	0.18	20 of 56	2.8	0 of 56
	Nickel	4.3J – 210J	30	11 of 56	310	0 of 56
	Selenium	0.57J – 11	3.9	2 of 56	1,500	0 of 56
	Silver	0.23B – 45.9	2	29 of 56	1,500	0 of 56
	Zinc	19 – 3,800	109	29 of 56	10,000	0 of 56

(1) Criteria taken from NYSDEC Part 375 Soil Cleanup Objectives table for Unrestricted Use (Table 375-6.8(a)).

(2) Criteria taken from NYSDEC Part 375 Soil Cleanup Objectives table for Restricted Commercial Use (Table 375-6.8(b))

Table 4. Former Building 419 and Surrounding Area
Nature and Extent of Contamination
Range of Sampling Dates: October 1996 - December 2005

Subsurface Soil	Contaminants of Concern	Concentration Range Detected (ppm)[a]	Unrestricted SCG[b(1)] (ppm)[a]	Frequency of Exceeding Unrestricted SCG	Restricted Commercial SCG[b(2)] (ppm)[a]	Frequency of Exceeding Restricted Commercial SCG
Semi-Volatile Organic Compounds (SVOC)	Acenaphthene	0.045J - 0.045J	20	0 of 5	500	0 of 5
	Fluorene	47J – 51J	30	0 of 5	500	0 of 5
PCB/ Pesticides	Aldrin	0.001J - 0.001J	0.005	0 of 5	0.68	0 of 5
	Endosulfan 1	0.001J - 0.001J	24	0 of 5	200	0 of 5
	Total PCBs	0.001J - 210	0.1	26 of 43	1	11 of 43
Inorganic Compounds	Arsenic	7.2 – 25.2	13	2 of 5	16	2 of 5
	Cadmium	1.5 – 3.7	2.5	4 of 5	9.3	0 of 5
	Chromium	34.5 – 116	30	5 of 5	1,500	0 of 5
	Copper	176 – 837	50	5 of 5	270	4 of 5
	Lead	236 – 4,440	63	5 of 5	1,000	1 of 5
	Mercury	0.25 – 1.4	0.18	5 of 5	2.8	0 of 5
	Nickel	41.2J – 129	30	5 of 5	310	0 of 5
	Selenium	0.94J – 5.1	3.9	2 of 5	1,500	0 of 5
	Silver	0.61B – 3.1	2	2 of 5	1,500	0 of 5
	Zinc	410 – 1,850J	109	5 of 5	10,000	0 of 5
Volatile Organic Compounds (VOCs)	Methylene Chloride	0.005J - 0.077B	0.05	4 of 31	500	0 of 31
	Acetone	0.013 - 0.081	0.05	4 of 27	500	0 of 31
Semi-volatile Organic Compounds (SVOCs)	Phenol	9.26 – 9.26	0.33	1 of 44	500	0 of 44
	Benzo(a)anthracene	0.042J – 16.1	1	17 of 43	5.6	7 of 43
	Chrysene	0.15J – 16.8	1	15 of 44	56	0 of 44
	Benzo(b)fluoranthene	0.052J – 25.3	1	21 of 43	5.6	7 of 43
	Benzo(k)fluoranthene	0.150J – 6.22	0.8	12 of 44	5.6	0 of 44
	Benzo(a)pyrene	0.042J – 15.6	1	17 of 43	1	17 of 43
	Indeno(1,2,3-cd)pyrene	0.091J – 7.88	0.5	18 of 44	5.6	3 of 44
	Dibenzo(a,h)anthracene	0.074J – 2.51	0.33	11 of 44	0.56	9 of 44

Table 4. Former Building 419 and Surrounding Area
Nature and Extent of Contamination
Range of Sampling Dates: October 1996 - December 2005

Subsurface Soil	Contaminants of Concern	Concentration Range Detected (ppm)[a]	Unrestricted SCG[b(1)] (ppm)[a]	Frequency of Exceeding Unrestricted SCG	Restricted Commercial SCG[b(2)] (ppm)[a]	Frequency of Exceeding Restricted Commercial SCG
PCB/ Pesticides	Dieldrin	0.049 - 0.061	0.005	2 of 31	1.4	0 of 31
	4,4' - DDE	0.007 - 0.014	0.003	2 of 31	62	0 of 31
	4,4' – DDT	0.006 - 0.050	0.003	5 of 31	47	0 of 31
	Total PCBs	0.021 - 54	0.1	29 of 73	1	13 of 73
Inorganic Compounds	Arsenic	1.1J – 56	13	11 of 44	16	7 of 44
	Barium	11J – 667	350	1 of 44	400	1 of 44
	Cadmium	0.056J – 10	2.5	7 of 44	9.3	1 of 44
	Chromium	4.5J – 130	30	7 of 44	1,500	0 of 44
	Copper	8.8 – 600	50	29 of 44	270	6 of 44
	Lead	6.6 – 5,200	63	50 of 73	1,000	2 of 73
	Manganese	140 – 790	1,600	0 of 44	10,000	0 of 44
	Mercury	0.099 – 4.7	0.18	24 of 44	2.8	1 of 44
	Nickel	3.5J – 120	30	9 of 44	310	0 of 44
	Selenium	0.86J – 4.1J	3.9	1 of 44	1,500	0 of 44
	Silver	0.22J – 8.6J	2	22 of 44	1,500	0 of 44

(1) Criteria taken from NYSDEC Part 375 Soil Cleanup Objectives table for Unrestricted Use (Table 375-6.8(a)).

(2) Criteria taken from NYSDEC Part 375 Soil Cleanup Objectives table for Restricted Commercial Use (Table 375-6.8(b))

Table 5. Groundwater
Nature and Extent of Contamination
Range of Sampling Dates: April 1997 – February 2006

Groundwater	Contaminants of Concern	Concentration Range Detected (ppb)[a]	SCG[b] (ppb)[a(2)]	Frequency of Exceeding SCG[(1)]
Volatile Organic Compounds (VOCs)	Benzene	2.93J – 2.93J	1	1 of 14
	Xylenes(total)	10U – 41.36	5	2 of 14
Groundwater	**Contaminants of Concern**	**Concentration Range Detected (ppb)[4]**	**SCG[b] (ppb)[a(2)]**	**Frequency of Exceeding SCG[(1)]**
Semi-volatile Organic Compounds (SVOCs)	2,4-Dimethylphenol	2.76J – 2.76J	1	1 of 14
Groundwater	**Contaminants of Concern**	**Concentration Range Detected (ppb)[4]**	**SCG[b] (ppb)[a(2)]**	**Frequency of Exceeding SCG[(1)]**
Inorganic Compounds	Antimony	3J – 14.9J	3	5 of 14
	Arsenic	10J – 165	25	1 of 14
	Cadmium	0.3J – 7.6	5	1 of 14
	Chromium	1J – 109	50	1 of 14
	Copper	2.9J – 467	200	1 of 14
	Iron	1,890 – 48,200	300	14 of 14
	Lead	2J – 689	25	4 of 14
	Iron and Manganese	2,660 – 48,949	500	14 of 14
	Manganese	260 – 5,200	300	13 of 14
	Mercury	0.17J – 2.4	0.7	1 of 14
	Potassium	11,000 – 328,000	NC	NC
	Selenium	12J – 26J	10	3 of 14
	Sodium	98,200 – 5,370,000	20,000	14 of 14

Notes:

ND A standard defined by the symbol “ND” means not detectable by the analytical tests specified or approved pursuant to Part 700 of the NYSDEC regulations.

(1) For samples where an analyte was detected below the method detection limit and the concentration is estimated (J qualified) and the level is above the SCG, an exceedance was counted. Otherwise, U qualified data (i.e., ND) not counted as an exceedance.

(2) Criteria from Part 703: Surface Water and Groundwater Quality Standards and Groundwater Effluent Limitations for GA classification.

Where a compound does not have a numerical standard in Part 703, 50 :g/L was used as the SCG per 10 NYCRR Part 5 of the Sanitary Code.

Table 6. Sediments
Nature and Extent of Contamination

Range of Sampling Dates: October 2000 – December 2005

Sediments	Contaminants of Concern	Concentration Range Detected (ppb)[a]	SCG[b] (ppb)[a(2,3)]	Frequency of Exceeding SCG[(4)]
Semi-volatile Organic Compounds (SVOCs)	Naphthalene	67 – 280	ER-L – 160 (76)	2 of 14
	2-Methylnaphthalene	72 – 270	ER-L – 70 (69)	11 of 14
	Acenaphthylene	69 – 510	ER-L – 44 (680)	14 of 14
	Acenaphthene	37J – 280J	ER-L – 16 (67)	11 of 14
	Fluorene	34J – 190	ER-L – 19 (73)	12 of 14
	Phenanthrene	220 – 2,990	ER-L – 240 (1,660)	13 of 14
	Phenanthrene	220 – 2,990	ER-M – 1,500 (1,660)	3 of 14
	Anthracene	75 – 390	ER-L – 85.3 (680)	13 of 14
	Fluoroanthene	320 – 3,330	ER-L – 600 (2,480)	13 of 14
	Pyrene	300 – 2,310	ER-L – 665 (2,720)	10 of 14
	Benzo(a)anthracene	290 – 1,280	ER-L – 261 (1,870)	14 of 14
	Chrysene	210 – 1,060	ER-L – 384 (1,120)	11 of 14
	Benzo(a)pyrene	91 – 830	ER-L – 430 (170)	8 of 14
	Dibenzo(a,h)anthracene	37J – 280J	ER-L – 63.4 (32)	8 of 14
	Dibenzo(a,h)anthracene	37J – 280J	ER-M – 260 (32)	1 of 14
PCB/Pesticides	4,4’ – DDE	8.74 – 18.4	ER-L – 2.2 (0.34)	7of 14
	4,4’ – DDD	3.05 – 28.5	10	1 of 14
	4,4’ – DDT	0.29 – 5.15	ER-L – 1.58	2 of 14
	Total PCB Congeners	113 – 376	ER-L – 22.7 (38.5)	13 of 14
	Total PCB Congeners	113 - 376	ER-M – 180 (38.5)	4 of 14

Table 6. Sediments
Nature and Extent of Contamination

Range of Sampling Dates: October 2000 – December 2005

Sediments	Contaminants of Concern	Concentration Range Detected (ppb)[a]	SCG[b] (ppb)[a(2,3)]	Frequency of Exceeding SCG[(4)]
Inorganic Compounds	Aluminum	6,100J – 6,600J	ER-L - NC	NC
			ER-M - NC	NC
	Antimony	1.3J – 1.6J	ER-L – NC	NC
			ER-M - NC	NC
	Arsenic	2.3J – 12.4	ER-L – 8.2 (8.73)	6 of 14
			ER-M – 70	0 of 14
	Barium	42J – 50J	ER-L – NC	NC
			ER-M – NC	NC
	Beryllium	0.087J – 0.51J	ER-L – NC	NC
			ER-M - NC	NC
	Cadmium	0.71 – 4.7	ER-L – 1.2 (2.52)	11 of 14
			ER-M – 9.6 (2.52)	0 of 14
	Calcium	7,600 – 24,000	ER-L – NC	NC
			ER-M - NC	NC
	Chromium	30.7 - 125	ER-L – 81	2 of 14
			ER-M - 370	0 of 14
	Cobalt	6.71 – 7.1	ER-L - NC	NC
	Copper	84 - 193	ER-L – 34 (79.2)	14 of 14
			ER-M – 270 (79.2)	0 of 14
	Iron	17,000 – 19,000	ER-L – NC	NC
			ER-M – NC	NC
	Lead	78.4 - 301	ER-L – 46.7 (88.3)	14 of 14
			ER-M – 218 (88.3)	2 of 14
	Magnesium	6,300 – 7,200	ER-L – NC	NC
			ER-M – NC	NC
	Manganese	180 – 200	ER-L – NC	NC
			ER-M – NC	NC
	Mercury	0.43J – 2.75	ER-L – 0.15 (1.34)	14 of 14
			ER-M – 0.71 (1.34)	11 of 14
	Nickel	16.8 – 27.7	ER-L – 20.9 (20.9)	10 of 14
			ER-M – 51.6 (20.9)	0 of 14
	Potassium	1,800 – 2,000	ER-L – NC	NC
			ER-M – NC	NC
	Selenium	2.8J – 3.2J	ER-L – NC	NC
			ER-M - NC	NC

Table 6. Sediments
Nature and Extent of Contamination

Range of Sampling Dates: October 2000 – December 2005

Sediments	Contaminants of Concern	Concentration Range Detected (ppb)[a]	SCG[b] (ppb)[a(2,3)]	Frequency of Exceeding SCG[(4)]
Inorganic Compounds	Silver	0.1 – 2.5	ER-L – 1 (0.82)	6 of 14
			ER-M – 3.7 (0.82)	0 of 14
	Sodium	10,000 – 14,000	ER-L – NC	NC
			ER-M – NC	NC
	Thallium	11 – 13J	ER-L – NC	NC
			ER-M – NC	NC
	Vanadium	21 - 26	ER-L – NC	NC
			ER-M – NC	NC
	Zinc	146 - 464	ER-L – 150 (150)	13 of 14
			ER-M – 410 (150)	2 of 14
	Cyanide	1.5 – 1.5	ER-L – NC	NC
			ER-M – NC	NC

Notes:

(1) SCG taken from NYSDEC document titled, “Technical Guidance for Contaminated Sediments” – For marine sediments. Appendix 4, Table 3 used for inorganics.

(2) SCG taken from NYSDEC document titled, “Technical Guidance for Contaminated Sediments” for saltwater samples. Appendix 4, Table 4 values used when applicable. If a constituent was not in Table 4, then per guidance, values from Table 1 were used. The lowest criteria value from Human Health Bioaccumulation (HHB), Benthic Aquatic Life Chronic Toxicity (BALCT), or Wildlife Bioaccumulation (WB) was used as the SCG for comparison when Table 1 was used.

(3) Background level shown in SCG column in parentheses for reference. Background data taken from the sample labeled “PB REF SURF COMP.”

(4) For samples where an analyte was detected below the method detection limit at an estimated concentration (J qualified) that was above the criteria value, an exceedance was counted. Otherwise, U qualified data (i.e., ND) not counted as an exceedance.

ER-L = Effect Range Low and ER-M = Effect Range – Moderate

NC = No Criteria

Table 7. Soil Vapor
Nature and Extent of Contamination

Range of Sampling Dates: December 22 – 23, 2005

Soil Vapor	Contaminants of Concern	Concentration Range Detected (:g/m^3)[a]	SCG[b(2)] (:g/m^3)[a]	Frequency of Exceeding SCG
Volatile Organic Compounds (VOCs)	Bromodichloromethane	10 – 137	14	1 of 10
	1,3-Butadiene	1.4 – 6.2	0.9	6 of 10
	Chloroform	2.6 – 27	11	1 of 10
	Methylene Chloride	2 - 115	60[(1)]	1 of 10
	1,1,2,2-Tetrachloroethane	6.1 – 12	4.2	2 of 10
	Tetrachloroethylene (PCE)	16 – 144	<100[(1)]	2 of 10
	Trichloroethylene (TCE)	3.3 - 18	<5[(1)]	1 of 10

Notes:

[(1)] SCG taken from Matrix 1 or Matrix 2 from "Guidance for Evaluating Soil Vapor Intrusion in the State of New York." Indoor air concentration assumed to be <0.25 :g/m3 and level indicates the threshold between No Further Action or Monitor/Mitigate.

[(2)] SCG taken from United States Environmental Protection Agency (USEPA) Shallow Soil Vapor Target Value, 0.1 Attenuation Factor, 1x10^{-5} Risk unless otherwise noted. These values were assigned since NYSDOH values were not available (per guidance in the document titled "Guidance for Evaluating Soil Vapor Intrusion in the State of New York").

[a] ppb = parts per billion, which is equivalent to micrograms per liter, :g/L, in water;

ppm = parts per million, which is equivalent to milligrams per kilogram, mg/kg, in soil;

:g/m^3 – micrograms per cubic meter

[b] SCG = standards, criteria, and guidance values;

[c] ER-L = Effect Range – Low and ER-M = Effect Range – Moderate. Sediment is considered to be contaminated if either of these criteria is exceeded. If both criteria are exceeded, the sediment is severely impacted. If only the ER-L is exceeded, the impact is considered to be moderate.

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Brooklyn Navy Yard

Building 419 - Post Excavation Soil Sample Analytical Results (PCBs)

		BLD 419-Post Ex 1 11/13/12			BLD 419-Post Ex 2 11/13/12			BLD 419-Post Ex 3 11/13/12			BLD 419-Post Ex 4 11/13/12		
Analyte (ug/kg)	**CAS RN**	**Result**	**Qualifer**	**RL**	**Result**	**Qualifer**	**RL**	**Result**	**Qualifer**	**RL**	**Result**	**Qualifer**	**RL**
Aroclor-1016	12674-11-2	ND	-	2.8	ND	-	2.7	ND	-	2.8	ND	-	2.7
Aroclor-1221	11104-28-2	ND	-	2.8	ND	-	2.7	ND	-	2.8	ND	-	2.7
Aroclor-1232	11141-16-5	ND	-	2.8	ND	-	2.7	ND	-	2.8	ND	-	2.7
Aroclor-1242	53469-21-9	ND	-	2.8	ND	-	2.7	ND	-	2.8	ND	-	2.7
Aroclor-1248	12672-29-6	ND	-	2.8	ND	-	2.7	ND	-	2.8	ND	-	2.7
Aroclor-1254	11097-69-1	ND	-	2.8	ND	-	2.7	ND	-	2.8	ND	-	2.7
Aroclor-1260	11096-82-5	52	-	2.8	320	-	2.7	550	-	2.8	ND	-	2.7
Aroclor-1262	37324-23-5	ND	-	2.8	ND	-	2.7	ND	-	2.8	540	-	2.7
Aroclor-1268	11100-14-4	ND	-	2.8	ND	-	2.7	ND	-	2.8	ND	-	2.7

		BLD 419-Post Ex 5 11/13/12			BLD 419-Post Ex 6 11/13/12			BLD 419-Post Ex 7 11/13/12			BLD 419-Post Ex 8 11/13/12		
Analyte (ug/kg)	**CAS RN**	**Result**	**Qualifer**	**RL**	**Result**	**Qualifer**	**RL**	**Result**	**Qualifer**	**RL**	**Result**	**Qualifer**	**RL**
Aroclor-1016	12674-11-2	ND	-	2.7	ND	-	2.7	ND	-	2.8	ND	-	2.8
Aroclor-1221	11104-28-2	ND	-	2.7	ND	-	2.7	ND	-	2.8	ND	-	2.8
Aroclor-1232	11141-16-5	ND	-	2.7	ND	-	2.7	ND	-	2.8	ND	-	2.8
Aroclor-1242	53469-21-9	ND	-	2.7	ND	-	2.7	ND	-	2.8	ND	-	2.8
Aroclor-1248	12672-29-6	ND	-	2.7	ND	-	2.7	ND	-	2.8	ND	-	2.8
Aroclor-1254	11097-69-1	ND	-	2.7	ND	-	2.7	ND	-	2.8	ND	-	2.8
Aroclor-1260	11096-82-5	ND	-	2.7	ND	-	2.7	850	-	2.8	600	-	2.8
Aroclor-1262	37324-23-5	490	-	2.7	3000	-	27	ND	-	2.8	ND	-	2.8
Aroclor-1268	11100-14-4	ND	-	2.7	ND	-	2.7	ND	-	2.8	ND	-	2.8

Brooklyn Navy Yard

Building 419 - Post Excavation Soil Sample Analytical Results (PCBs)

		BLD 419-Post Ex 8 DUP 11/13/12			BLD 419-Post Ex 9 11/13/12			BLD 419-Post Ex 10 11/13/12			BLD 419-Post Ex 11 11/13/12		
Analyte (ug/kg)	**CAS RN**	**Result**	**Qualifer**	**RL**	**Result**	**Qualifer**	**RL**	**Result**	**Qualifer**	**RL**	**Result**	**Qualifer**	**RL**
Aroclor-1016	12674-11-2	ND	-	2.8	ND	-	2.8	ND	-	2.8	ND	-	2.8
Aroclor-1221	11104-28-2	ND	-	2.8	ND	-	2.8	ND	-	2.8	ND	-	2.8
Aroclor-1232	11141-16-5	ND	-	2.8	ND	-	2.8	ND	-	2.8	ND	-	2.8
Aroclor-1242	53469-21-9	ND	-	2.8	ND	-	2.8	ND	-	2.8	ND	-	2.8
Aroclor-1248	12672-29-6	ND	-	2.8	ND	-	2.8	ND	-	2.8	ND	-	2.8
Aroclor-1254	11097-69-1	ND	-	2.8	ND	-	2.8	ND	-	2.8	ND	-	2.8
Aroclor-1260	11096-82-5	280	-	2.8	3000	-	28	13	-	2.8	56	-	2.8
Aroclor-1262	37324-23-5	ND	-	2.8	ND	-	2.8	ND	-	2.8	ND	-	2.8
Aroclor-1268	11100-14-4	ND	-	2.8	ND	-	2.8	ND	-	2.8	ND	-	2.8

		BLD 419-Post Ex 12 11/13/12			BLD 419-Post Ex East 11/13/12			BLD 419-Post Ex West 11/13/12		
Analyte (ug/kg)	**CAS RN**	**Result**	**Qualifer**	**RL**	**Result**	**Qualifer**	**RL**	**Result**	**Qualifer**	**RL**
Aroclor-1016	12674-11-2	ND	-	2.8	ND	-	2.8	ND	-	2.9
Aroclor-1221	11104-28-2	ND	-	2.8	ND	-	2.8	ND	-	2.9
Aroclor-1232	11141-16-5	ND	-	2.8	ND	-	2.8	ND	-	2.9
Aroclor-1242	53469-21-9	ND	-	2.8	ND	-	2.8	ND	-	2.9
Aroclor-1248	12672-29-6	ND	-	2.8	ND	-	2.8	ND	-	2.9
Aroclor-1254	11097-69-1	ND	-	2.8	ND	-	2.8	ND	-	2.9
Aroclor-1260	11096-82-5	1100	-	2.8	270	-	2.8	ND	-	2.9
Aroclor-1262	37324-23-5	ND	-	2.8	ND	-	2.8	ND	-	2.9
Aroclor-1268	11100-14-4	ND	-	2.8	ND	-	2.8	ND	-	2.9

Notes:

ND - Parameter not detected

RL - Reporting detection limit

ug/kg - micrograms per kilogram

Brooklyn Navy Yard

Building 419 - Waste Classification Analytical Results (Soil)

		Sample ID:	BLD 419 WC Comp			BLD 419 WC Grab		
		Sample Date:	11/13/2012			11/13/2012		
		Sample Type:	Composite - Soil			Grab - Soil		
		Result Units:	mg/kg except as noted			mg/kg except as noted		
			Result	**Qual.**	**RL**	**Result**	**Qual.**	**RL**
VOCs by Method 8260C								
1,1,1,2-TETRACHLOROETHANE	630-20-6		NA			ND		0.0022
1,1,1-TRICHLOROETHANE	71-55-6		NA			ND		0.0022
1,1,2,2-TETRACHLOROETHANE	79-34-5		NA			ND		0.0022
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1		NA			ND		0.0022
1,1,2-TRICHLOROETHANE	79-00-5		NA			ND		0.0022
1,1-DICHLOROETHANE	75-34-3		NA			ND		0.0022
1,1-DICHLOROETHENE	75-35-4		NA			ND		0.0022
1,1-DICHLOROPROPENE	563-58-6		NA			ND		0.0022
1,2,3-TRICHLOROBENZENE	87-61-6		NA			ND		0.0022
1,2,3-TRICHLOROPROPANE	96-18-4		NA			ND		0.0022
1,2,4,5-TETRAMETHYLBENZENE	95-93-2		NA			ND		0.0022
1,2,4-TRICHLOROBENZENE	120-82-1		NA			ND		0.0022
1,2,4-TRIMETHYLBENZENE	95-63-6		NA			ND		0.0022
1,2-DIBROMO-3-CHLOROPROPANE	96-12-8		NA			ND		0.0022
1,2-DIBROMOETHANE	106-93-4		NA			ND		0.0022
1,2-DICHLOROBENZENE	95-50-1		NA			ND	UC	0.0022
1,2-DICHLOROETHANE	107-06-2		NA			ND		0.0022
1,2-DICHLOROPROPANE	78-87-5		NA			ND		0.0022
1,3,5-TRIMETHYLBENZENE	108-67-8		NA			ND		0.0022
1,3-DICHLOROBENZENE	541-73-1		NA			ND	UC	0.0022
1,3-DICHLOROPROPANE	142-28-9		NA			ND		0.0022
1,4-DICHLOROBENZENE	106-46-7		NA			ND	UC	0.0022
1,4-DIOXANE	123-91-1		NA			ND		0.0022
2,2-DICHLOROPROPANE	594-20-7		NA			ND		0.0022
2-BUTANONE	78-93-3		NA			ND	UC	0.0056
2-CHLOROETHYL VINYL ETHER	110-75-8		NA			ND		0.0022
2-CHLOROTOLUENE	95-49-8		NA			ND		0.0022
2-HEXANONE	591-78-6		NA			ND		0.0056
2-PROPANOL	67-63-0		NA			ND		0.0022
4-CHLOROTOLUENE	106-43-4		NA			ND		0.0022
4-ISOPROPYLTOLUENE	99-87-6		NA			ND		0.0022
4-METHYL-2-PENTANONE	108-10-1		NA			ND		0.0056
ACETONE	67-64-1		NA			ND	UC	0.0056
ACROLEIN	107-02-8		NA			ND		0.011
ACRYLONITRILE	107-13-1		NA			ND		0.0022
BENZENE	71-43-2		NA			ND		0.0022
BROMOBENZENE	108-86-1		NA			ND		0.0022
BROMOCHLOROMETHANE	74-97-5		NA			ND		0.0022
BROMODICHLOROMETHANE	75-27-4		NA			ND		0.0022
BROMOFORM	75-25-2		NA			ND		0.0022
BROMOMETHANE	74-83-9		NA			ND		0.0022
CARBON DISULFIDE	75-15-0		NA			ND		0.0022
CARBON TETRACHLORIDE	56-23-5		NA			ND		0.0022
CHLOROBENZENE	108-90-7		NA			ND		0.0022
CHLORODIFLUOROMETHANE	75-45-6		NA			ND		0.0022
CHLOROETHANE	75-00-3		NA			ND	UC	0.0022
CHLOROFORM	67-66-3		NA			ND		0.0022
CHLOROMETHANE	74-87-3		NA			ND		0.0022

Brooklyn Navy Yard

Building 419 - Waste Classification Analytical Results (Soil)

	Sample ID:	BLD 419 WC Comp			BLD 419 WC Grab		
	Sample Date:	11/13/2012			11/13/2012		
	Sample Type:	Composite - Soil			Grab - Soil		
	Result Units:	mg/kg except as noted			mg/kg except as noted		
		Result	**Qual.**	**RL**	**Result**	**Qual.**	**RL**
CIS-1,2-DICHLOROETHENE	156-59-2	NA			ND		0.0022
CIS-1,3-DICHLOROPROPENE	10061-01-5	NA			ND		0.0022
DIBROMOCHLOROMETHANE	124-48-1	NA			ND		0.0022
DIBROMOMETHANE	74-95-3	NA			ND		0.0022
DICHLORODIFLUOROMETHANE	75-71-8	NA			ND		0.0022
DIISOPROPYL ETHER	108-20-3	NA			ND		0.0022
ETHANOL	64-17-5	NA			ND		0.0056
ETHYL ACETATE	141-78-6	NA			ND		0.0022
ETHYLBENZENE	100-41-4	NA			0.0003	J	0.0022
FREON-114	76-14-2	NA			ND		0.0022
HEXACHLOROBUTADIENE	87-68-3	NA			ND	UC	0.0022
ISOPROPYL ACETATE	108-21-4	NA			ND		0.0022
ISOPROPYLBENZENE	98-82-8	NA			ND		0.0022
M,P-XYLENE	1330-20-7	NA			0.00089	J	0.0045
METHYL ACETATE	79-20-9	NA			ND		0.0022
METHYL TERT-BUTYL ETHER	1634-04-4	NA			ND		0.0022
METHYLENE CHLORIDE	75-09-2	NA			0.012	BC	0.0022
N-AMYL ACETATE	628-63-7	NA			ND		0.0022
NAPHTHALENE	91-20-3	NA			ND		0.0022
N-BUTYL ACETATE	123-86-4	NA			ND		0.0022
N-BUTYLBENZENE	104-51-8	NA			ND	UC	0.0022
N-PROPYL ACETATE	109-60-4	NA			ND		0.0022
N-PROPYLBENZENE	103-65-1	NA			ND		0.0022
O-XYLENE	95-47-6	NA			0.0003	J	0.0022
P-DIETHYLBENZENE	105-05-5	NA			ND	UC	0.0022
P-ETHYLTOLUENE	622-96-8	NA			ND		0.0022
SEC-BUTYLBENZENE	135-98-8	NA			ND		0.0022
STYRENE	100-42-5	NA			ND		0.0022
T-BUTYL ALCOHOL	75-65-0	NA			ND		0.0022
TERT-BUTYLBENZENE	98-06-6	NA			ND		0.0022
TETRACHLOROETHENE	127-18-4	NA			ND		0.0022
TOLUENE	108-88-3	NA			ND		0.0022
TRANS-1,2-DICHLOROETHENE	156-60-5	NA			ND		0.0022
TRANS-1,3-DICHLOROPROPENE	10061-02-6	NA			ND		0.0022
TRICHLOROETHENE	79-01-6	NA			ND		0.0022
TRICHLOROFLUOROMETHANE	75-69-4	NA			ND		0.0022
VINYL ACETATE	108-05-4	NA			ND		0.0022
VINYL CHLORIDE	75-01-4	NA			ND		0.0022
VOCs by Method 8260C							
1,1´-BIPHENYL	92-52-4	ND		0.28	NA		
1,2,4-TRICHLOROBENZENE	120-82-1	0.068	J	0.28	NA		
1,2-DICHLOROBENZENE	95-50-1	ND		0.28	NA		
1,3-DICHLOROBENZENE	541-73-1	ND		0.28	NA		
1,4-DICHLOROBENZENE	106-46-7	ND		0.28	NA		
2,3,4,6-TETRACHLOROPHENOL	58-90-2	ND		0.28	NA		
2,4,5-TRICHLOROPHENOL	95-95-4	ND		0.28	NA		
2,4,6-TRICHLOROPHENOL	88-06-2	ND		0.28	NA		
2,4-DICHLOROPHENOL	120-83-2	ND		0.28	NA		
2,4-DIMETHYLPHENOL	105-67-9	ND		0.28	NA		

Brooklyn Navy Yard

Building 419 - Waste Classification Analytical Results (Soil)

	Sample ID:	BLD 419 WC Comp			BLD 419 WC Grab		
	Sample Date:	11/13/2012			11/13/2012		
	Sample Type:	Composite - Soil			Grab - Soil		
	Result Units:	mg/kg except as noted			mg/kg except as noted		
		Result	**Qual.**	**RL**	**Result**	**Qual.**	**RL**
2,4-DINITROPHENOL	51-28-5	ND	UC	0.28	NA		
2,4-DINITROTOLUENE	121-14-2	ND		0.28	NA		
2,6-DINITROTOLUENE	606-20-2	ND		0.28	NA		
2-CHLORONAPHTHALENE	91-58-7	ND		0.28	NA		
2-CHLOROPHENOL	95-57-8	ND		0.28	NA		
2-METHYLNAPHTHALENE	91-57-6	0.044	J	0.28	NA		
2-METHYLPHENOL	95-48-7	ND		0.28	NA		
2-NITROANILINE	88-74-4	ND		0.28	NA		
2-NITROPHENOL	88-75-5	ND		0.28	NA		
3,3´-DICHLOROBENZIDINE	91-94-1	ND		0.28	NA		
3+4-METHYLPHENOL	108-39-4	ND		0.28	NA		
3-NITROANILINE	99-09-2	ND		0.28	NA		
4,6-DINITRO-2-METHYLPHENOL	534-52-1	ND		0.28	NA		
4-BROMOPHENYL PHENYL ETHER	101-55-3	ND		0.28	NA		
4-CHLORO-3-METHYLPHENOL	59-50-7	ND		0.28	NA		
4-CHLOROANILINE	106-47-8	ND		0.28	NA		
4-CHLOROPHENYL PHENYL ETHER	7005-72-3	ND		0.28	NA		
4-NITROANILINE	100-01-6	ND		0.28	NA		
4-NITROPHENOL	100-02-7	ND		0.28	NA		
ACENAPHTHENE	83-32-9	ND		0.28	NA		
ACENAPHTHYLENE	208-96-8	ND		0.28	NA		
ACETOPHENONE	98-86-2	ND		0.28	NA		
ANILINE	62-53-3	ND		0.28	NA		
ANTHRACENE	120-12-7	0.036	J	0.28	NA		
ATRAZINE	1912-24-9	ND		0.28	NA		
AZOBENZENE	103-33-3	ND		0.28	NA		
BENZALDEHYDE	100-52-7	ND	UC	0.28	NA		
BENZIDINE	92-87-5	ND		0.28	NA		
BENZO(A)ANTHRACENE	56-55-3	0.17	J	0.28	NA		
BENZO(A)PYRENE	50-32-8	0.15	J	0.28	NA		
BENZO(B)FLUORANTHENE	205-99-2	0.15	J	0.28	NA		
BENZO(G,H,I)PERYLENE	191-24-2	0.13	J	0.28	NA		
BENZO(K)FLUORANTHENE	207-08-9	0.13	J	0.28	NA		
BENZOIC ACID	65-85-0	ND		0.28	NA		
BENZYL ALCOHOL	100-51-6	ND		0.28	NA		
BIS(2-CHLOROETHOXY)METHANE	111-91-1	ND		0.28	NA		
BIS(2-CHLOROETHYL)ETHER	111-44-4	ND		0.28	NA		
BIS(2-CHLOROISOPROPYL)ETHER	108-60-1	ND		0.28	NA		
BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	0.15	J	0.28	NA		
BUTYL BENZYL PHTHALATE	85-68-7	ND		0.28	NA		
CAPROLACTAM	105-60-2	ND		0.28	NA		
CARBAZOLE	86-74-8	ND		0.28	NA		
CHRYSENE	218-01-9	0.18	J	0.28	NA		
DIBENZO(A,H)ANTHRACENE	53-70-3	0.035	J	0.28	NA		
DIBENZOFURAN	132-64-9	ND		0.28	NA		
DIETHYL PHTHALATE	84-66-2	0.078	JB,C	0.28	NA		
DIMETHYL PHTHALATE	131-11-3	ND		0.28	NA		
DI-N-BUTYL PHTHALATE	84-74-2	0.41		0.28	NA		
DI-N-OCTYL PHTHALATE	117-84-0	ND		0.28	NA		

Brooklyn Navy Yard

Building 419 - Waste Classification Analytical Results (Soil)

	Sample ID:	BLD 419 WC Comp			BLD 419 WC Grab		
	Sample Date:	11/13/2012			11/13/2012		
	Sample Type:	Composite - Soil			Grab - Soil		
	Result Units:	mg/kg except as noted			mg/kg except as noted		
		Result	**Qual.**	**RL**	**Result**	**Qual.**	**RL**
FLUORANTHENE	206-44-0	0.24	J	0.28	NA		
FLUORENE	86-73-7	ND		0.28	NA		
HEXACHLOROBENZENE	118-74-1	ND		0.28	NA		
HEXACHLOROBUTADIENE	87-68-3	ND		0.28	NA		
HEXACHLOROCYCLOPENTADIENE	77-47-4	ND		0.28	NA		
HEXACHLOROETHANE	67-72-1	ND		0.28	NA		
INDENO(1,2,3-C,D)PYRENE	193-39-5	0.15	J	0.28	NA		
ISOPHORONE	78-59-1	ND		0.28	NA		
NAPHTHALENE	91-20-3	ND		0.28	NA		
NITROBENZENE	98-95-3	ND		0.28	NA		
N-NITROSODIMETHYLAMINE	62-75-9	ND		0.28	NA		
N-NITROSODI-N-PROPYLAMINE	621-64-7	ND		0.28	NA		
N-NITROSODIPHENYLAMINE	86-30-6	ND		0.28	NA		
PARATHION	56-38-2	ND		0.28	NA		
PENTACHLOROPHENOL	87-86-5	ND		0.28	NA		
PHENANTHRENE	85-01-8	0.15	J	0.28	NA		
PHENOL	108-95-2	ND		0.28	NA		
PYRENE	129-00-0	0.2	JC	0.28	NA		
PYRIDINE	110-86-1	ND		0.28	NA		
SVOCs by Method 1311/8270C (*Results in mg/L)							
2,4,5-TRICHLOROPHENOL	95-95-4	ND		0.05	NA		
2,4,6-TRICHLOROPHENOL	88-06-2	ND		0.05	NA		
2,4-DINITROTOLUENE	121-14-2	ND		0.05	NA		
2-METHYLPHENOL	95-48-7	ND		0.05	NA		
3+4-METHYLPHENOL	108-39-4	ND		0.05	NA		
HEXACHLOROBENZENE	118-74-1	ND		0.05	NA		
HEXACHLOROBUTADIENE	87-68-3	ND		0.05	NA		
HEXACHLOROETHANE	67-72-1	ND		0.05	NA		
NITROBENZENE	98-95-3	ND		0.05	NA		
PENTACHLOROPHENOL	87-86-5	ND		0.1	NA		
PYRIDINE	110-86-1	ND		0.05	NA		
PCBs by Method SW8082A							
AROCLOR 1016	12674-11-2	ND		0.0028	NA		
AROCLOR 1221	11104-28-2	ND		0.0028	NA		
AROCLOR 1232	11141-16-5	ND		0.0028	NA		
AROCLOR 1242	53469-21-9	ND		0.0028	NA		
AROCLOR 1248	12672-29-6	ND		0.0028	NA		
AROCLOR 1254	11097-69-1	ND		0.0028	NA		
AROCLOR 1260	11096-82-5	3.4		0.028	NA		
AROCLOR 1262	37324-23-5	ND		0.0028	NA		
AROCLOR 1268	11100-14-4	ND		0.0028	NA		
Mercury by Method SW7471B *(Results in mg/L), Cyanide by Method SW9012B (Results in mg/kg)							
CYANIDE, TOTAL & AMENABLE	57-12-5	2.5		0.117	NA		
MERCURY	7439-97-6	0.0021	J	0.02	NA		
Metals by Method 8260C							
ARSENIC	7440-38-2	NA			NA		
BARIUM	7440-39-3	NA			NA		
BERYLLIUM	7440-41-7	NA			NA		
CADMIUM	7440-43-9	NA			NA		

Brooklyn Navy Yard

Building 419 - Waste Classification Analytical Results (Soil)

	Sample ID:	BLD 419 WC Comp			BLD 419 WC Grab		
	Sample Date:	11/13/2012			11/13/2012		
	Sample Type:	Composite - Soil			Grab - Soil		
	Result Units:	mg/kg except as noted			mg/kg except as noted		
		Result	**Qual.**	**RL**	**Result**	**Qual.**	**RL**
CHROMIUM	7440-47-3	NA			NA		
COPPER	7440-50-8	NA			NA		
LEAD	7439-92-1	NA			NA		
NICKEL	7440-02-0	NA			NA		
SELENIUM	7782-49-2	NA			NA		
SILVER	7440-22-4	NA			NA		
VANADIUM	7440-62-2	NA			NA		
ZINC	7440-66-6	NA			NA		

Notes:

B - Analyte detected in the associated Method Blank

C - Calibration %RSD%/%D exceeded for non-CCC analytes

J - Parameter detected however result is estimated

mg/kg - milligrams per kilogram

mg/L - milligrams per liter

NA - Parameter not analyzed for

ND - Parameter not detected above the RL

Qual. - Qualifier

RL - Reporting Detection Limit

Brooklyn Navy Yard

Building 419 - Waste Classification Analytical Results (Soil)

		Sample ID:	BLD 419 WC Comp (dry)			BLD 419 WC Comp (wet)		
		Sample Date:	11/13/2012			11/13/2012		
		Sample Type:	Composite			Composite		
		Result Units:	mg/kg except as noted			mg/kg except as noted		
			Result	**Qual.**	**RL**	**Result**	**Qual.**	**RL**
VOCs by Method 8260C								
1,1,1,2-TETRACHLOROETHANE	630-20-6		NA			NA		
1,1,1-TRICHLOROETHANE	71-55-6		NA			NA		
1,1,2,2-TETRACHLOROETHANE	79-34-5		NA			NA		
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1		NA			NA		
1,1,2-TRICHLOROETHANE	79-00-5		NA			NA		
1,1-DICHLOROETHANE	75-34-3		NA			NA		
1,1-DICHLOROETHENE	75-35-4		NA			NA		
1,1-DICHLOROPROPENE	563-58-6		NA			NA		
1,2,3-TRICHLOROBENZENE	87-61-6		NA			NA		
1,2,3-TRICHLOROPROPANE	96-18-4		NA			NA		
1,2,4,5-TETRAMETHYLBENZENE	95-93-2		NA			NA		
1,2,4-TRICHLOROBENZENE	120-82-1		NA			NA		
1,2,4-TRIMETHYLBENZENE	95-63-6		NA			NA		
1,2-DIBROMO-3-CHLOROPROPANE	96-12-8		NA			NA		
1,2-DIBROMOETHANE	106-93-4		NA			NA		
1,2-DICHLOROBENZENE	95-50-1		NA			NA		
1,2-DICHLOROETHANE	107-06-2		NA			NA		
1,2-DICHLOROPROPANE	78-87-5		NA			NA		
1,3,5-TRIMETHYLBENZENE	108-67-8		NA			NA		
1,3-DICHLOROBENZENE	541-73-1		NA			NA		
1,3-DICHLOROPROPANE	142-28-9		NA			NA		
1,4-DICHLOROBENZENE	106-46-7		NA			NA		
1,4-DIOXANE	123-91-1		NA			NA		
2,2-DICHLOROPROPANE	594-20-7		NA			NA		
2-BUTANONE	78-93-3		NA			NA		
2-CHLOROETHYL VINYL ETHER	110-75-8		NA			NA		
2-CHLOROTOLUENE	95-49-8		NA			NA		
2-HEXANONE	591-78-6		NA			NA		
2-PROPANOL	67-63-0		NA			NA		
4-CHLOROTOLUENE	106-43-4		NA			NA		
4-ISOPROPYLTOLUENE	99-87-6		NA			NA		
4-METHYL-2-PENTANONE	108-10-1		NA			NA		
ACETONE	67-64-1		NA			NA		
ACROLEIN	107-02-8		NA			NA		
ACRYLONITRILE	107-13-1		NA			NA		
BENZENE	71-43-2		NA			NA		
BROMOBENZENE	108-86-1		NA			NA		
BROMOCHLOROMETHANE	74-97-5		NA			NA		
BROMODICHLOROMETHANE	75-27-4		NA			NA		
BROMOFORM	75-25-2		NA			NA		
BROMOMETHANE	74-83-9		NA			NA		
CARBON DISULFIDE	75-15-0		NA			NA		
CARBON TETRACHLORIDE	56-23-5		NA			NA		
CHLOROBENZENE	108-90-7		NA			NA		
CHLORODIFLUOROMETHANE	75-45-6		NA			NA		
CHLOROETHANE	75-00-3		NA			NA		
CHLOROFORM	67-66-3		NA			NA		
CHLOROMETHANE	74-87-3		NA			NA		

	Sample ID:	BLD 419 WC Comp (dry)			BLD 419 WC Comp (wet)		
	Sample Date:	11/13/2012			11/13/2012		
	Sample Type:	Composite			Composite		
	Result Units:	mg/kg except as noted			mg/kg except as noted		
		Result	**Qual.**	**RL**	**Result**	**Qual.**	**RL**
CIS-1,2-DICHLOROETHENE	156-59-2	NA			NA		
CIS-1,3-DICHLOROPROPENE	10061-01-5	NA			NA		
DIBROMOCHLOROMETHANE	124-48-1	NA			NA		
DIBROMOMETHANE	74-95-3	NA			NA		
DICHLORODIFLUOROMETHANE	75-71-8	NA			NA		
DIISOPROPYL ETHER	108-20-3	NA			NA		
ETHANOL	64-17-5	NA			NA		
ETHYL ACETATE	141-78-6	NA			NA		
ETHYLBENZENE	100-41-4	NA			NA		
FREON-114	76-14-2	NA			NA		
HEXACHLOROBUTADIENE	87-68-3	NA			NA		
ISOPROPYL ACETATE	108-21-4	NA			NA		
ISOPROPYLBENZENE	98-82-8	NA			NA		
M,P-XYLENE	1330-20-7	NA			NA		
METHYL ACETATE	79-20-9	NA			NA		
METHYL TERT-BUTYL ETHER	1634-04-4	NA			NA		
METHYLENE CHLORIDE	75-09-2	NA			NA		
N-AMYL ACETATE	628-63-7	NA			NA		
NAPHTHALENE	91-20-3	NA			NA		
N-BUTYL ACETATE	123-86-4	NA			NA		
N-BUTYLBENZENE	104-51-8	NA			NA		
N-PROPYL ACETATE	109-60-4	NA			NA		
N-PROPYLBENZENE	103-65-1	NA			NA		
O-XYLENE	95-47-6	NA			NA		
P-DIETHYLBENZENE	105-05-5	NA			NA		
P-ETHYLTOLUENE	622-96-8	NA			NA		
SEC-BUTYLBENZENE	135-98-8	NA			NA		
STYRENE	100-42-5	NA			NA		
T-BUTYL ALCOHOL	75-65-0	NA			NA		
TERT-BUTYLBENZENE	98-06-6	NA			NA		
TETRACHLOROETHENE	127-18-4	NA			NA		
TOLUENE	108-88-3	NA			NA		
TRANS-1,2-DICHLOROETHENE	156-60-5	NA			NA		
TRANS-1,3-DICHLOROPROPENE	10061-02-6	NA			NA		
TRICHLOROETHENE	79-01-6	NA			NA		
TRICHLOROFLUOROMETHANE	75-69-4	NA			NA		
VINYL ACETATE	108-05-4	NA			NA		
VINYL CHLORIDE	75-01-4	NA			NA		
VOCs by Method 8260C							
1,1´-BIPHENYL	92-52-4	NA			NA		
1,2,4-TRICHLOROBENZENE	120-82-1	NA			NA		
1,2-DICHLOROBENZENE	95-50-1	NA			NA		
1,3-DICHLOROBENZENE	541-73-1	NA			NA		
1,4-DICHLOROBENZENE	106-46-7	NA			NA		
2,3,4,6-TETRACHLOROPHENOL	58-90-2	NA			NA		
2,4,5-TRICHLOROPHENOL	95-95-4	NA			NA		
2,4,6-TRICHLOROPHENOL	88-06-2	NA			NA		
2,4-DICHLOROPHENOL	120-83-2	NA			NA		
2,4-DIMETHYLPHENOL	105-67-9	NA			NA		

Brooklyn Navy Yard

Building 419 - Waste Classification Analytical Results (Soil)

	Sample ID:	BLD 419 WC Comp (dry)			BLD 419 WC Comp (wet)		
	Sample Date:	11/13/2012			11/13/2012		
	Sample Type:	Composite			Composite		
	Result Units:	mg/kg except as noted			mg/kg except as noted		
		Result	**Qual.**	**RL**	**Result**	**Qual.**	**RL**
2,4-DINITROPHENOL	51-28-5	NA			NA		
2,4-DINITROTOLUENE	121-14-2	NA			NA		
2,6-DINITROTOLUENE	606-20-2	NA			NA		
2-CHLORONAPHTHALENE	91-58-7	NA			NA		
2-CHLOROPHENOL	95-57-8	NA			NA		
2-METHYLNAPHTHALENE	91-57-6	NA			NA		
2-METHYLPHENOL	95-48-7	NA			NA		
2-NITROANILINE	88-74-4	NA			NA		
2-NITROPHENOL	88-75-5	NA			NA		
3,3´-DICHLOROBENZIDINE	91-94-1	NA			NA		
3+4-METHYLPHENOL	108-39-4	NA			NA		
3-NITROANILINE	99-09-2	NA			NA		
4,6-DINITRO-2-METHYLPHENOL	534-52-1	NA			NA		
4-BROMOPHENYL PHENYL ETHER	101-55-3	NA			NA		
4-CHLORO-3-METHYLPHENOL	59-50-7	NA			NA		
4-CHLOROANILINE	106-47-8	NA			NA		
4-CHLOROPHENYL PHENYL ETHER	7005-72-3	NA			NA		
4-NITROANILINE	100-01-6	NA			NA		
4-NITROPHENOL	100-02-7	NA			NA		
ACENAPHTHENE	83-32-9	NA			NA		
ACENAPHTHYLENE	208-96-8	NA			NA		
ACETOPHENONE	98-86-2	NA			NA		
ANILINE	62-53-3	NA			NA		
ANTHRACENE	120-12-7	NA			NA		
ATRAZINE	1912-24-9	NA			NA		
AZOBENZENE	103-33-3	NA			NA		
BENZALDEHYDE	100-52-7	NA			NA		
BENZIDINE	92-87-5	NA			NA		
BENZO(A)ANTHRACENE	56-55-3	NA			NA		
BENZO(A)PYRENE	50-32-8	NA			NA		
BENZO(B)FLUORANTHENE	205-99-2	NA			NA		
BENZO(G,H,I)PERYLENE	191-24-2	NA			NA		
BENZO(K)FLUORANTHENE	207-08-9	NA			NA		
BENZOIC ACID	65-85-0	NA			NA		
BENZYL ALCOHOL	100-51-6	NA			NA		
BIS(2-CHLOROETHOXY)METHANE	111-91-1	NA			NA		
BIS(2-CHLOROETHYL)ETHER	111-44-4	NA			NA		
BIS(2-CHLOROISOPROPYL)ETHER	108-60-1	NA			NA		
BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	NA			NA		
BUTYL BENZYL PHTHALATE	85-68-7	NA			NA		
CAPROLACTAM	105-60-2	NA			NA		
CARBAZOLE	86-74-8	NA			NA		
CHRYSENE	218-01-9	NA			NA		
DIBENZO(A,H)ANTHRACENE	53-70-3	NA			NA		
DIBENZOFURAN	132-64-9	NA			NA		
DIETHYL PHTHALATE	84-66-2	NA			NA		
DIMETHYL PHTHALATE	131-11-3	NA			NA		
DI-N-BUTYL PHTHALATE	84-74-2	NA			NA		
DI-N-OCTYL PHTHALATE	117-84-0	NA			NA		

Brooklyn Navy Yard

Building 419 - Waste Classification Analytical Results (Soil)

	Sample ID:	BLD 419 WC Comp (dry)			BLD 419 WC Comp (wet)		
	Sample Date:	11/13/2012			11/13/2012		
	Sample Type:	Composite			Composite		
	Result Units:	mg/kg except as noted			mg/kg except as noted		
		Result	**Qual.**	**RL**	**Result**	**Qual.**	**RL**
FLUORANTHENE	206-44-0	NA			NA		
FLUORENE	86-73-7	NA			NA		
HEXACHLOROBENZENE	118-74-1	NA			NA		
HEXACHLOROBUTADIENE	87-68-3	NA			NA		
HEXACHLOROCYCLOPENTADIENE	77-47-4	NA			NA		
HEXACHLOROETHANE	67-72-1	NA			NA		
INDENO(1,2,3-C,D)PYRENE	193-39-5	NA			NA		
ISOPHORONE	78-59-1	NA			NA		
NAPHTHALENE	91-20-3	NA			NA		
NITROBENZENE	98-95-3	NA			NA		
N-NITROSODIMETHYLAMINE	62-75-9	NA			NA		
N-NITROSODI-N-PROPYLAMINE	621-64-7	NA			NA		
N-NITROSODIPHENYLAMINE	86-30-6	NA			NA		
PARATHION	56-38-2	NA			NA		
PENTACHLOROPHENOL	87-86-5	NA			NA		
PHENANTHRENE	85-01-8	NA			NA		
PHENOL	108-95-2	NA			NA		
PYRENE	129-00-0	NA			NA		
PYRIDINE	110-86-1	NA			NA		
SVOCs by Method 1311/8270C (*Results in mg/L)							
2,4,5-TRICHLOROPHENOL	95-95-4	NA			NA		
2,4,6-TRICHLOROPHENOL	88-06-2	NA			NA		
2,4-DINITROTOLUENE	121-14-2	NA			NA		
2-METHYLPHENOL	95-48-7	NA			NA		
3+4-METHYLPHENOL	108-39-4	NA			NA		
HEXACHLOROBENZENE	118-74-1	NA			NA		
HEXACHLOROBUTADIENE	87-68-3	NA			NA		
HEXACHLOROETHANE	67-72-1	NA			NA		
NITROBENZENE	98-95-3	NA			NA		
PENTACHLOROPHENOL	87-86-5	NA			NA		
PYRIDINE	110-86-1	NA			NA		
PCBs by Method SW8082A							
AROCLOR 1016	12674-11-2	NA			NA		
AROCLOR 1221	11104-28-2	NA			NA		
AROCLOR 1232	11141-16-5	NA			NA		
AROCLOR 1242	53469-21-9	NA			NA		
AROCLOR 1248	12672-29-6	NA			NA		
AROCLOR 1254	11097-69-1	NA			NA		
AROCLOR 1260	11096-82-5	NA			NA		
AROCLOR 1262	37324-23-5	NA			NA		
AROCLOR 1268	11100-14-4	NA			NA		
Mercury by Method SW7471B *(Results in mg/L), Cyanide by Me							
CYANIDE, TOTAL & AMENABLE	57-12-5	NA			NA		
MERCURY	7439-97-6	NA			NA		
Metals by Method 8260C							
ARSENIC	7440-38-2	5.27		0.582	ND		0.05
BARIUM	7440-39-3	126		0.465	1.3	J	5
BERYLLIUM	7440-41-7	ND		0.465	NA		
CADMIUM	7440-43-9	1.36		0.465	0.0259	J	0.05

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Brooklyn Navy Yard

Building 419 - Waste Classification Analytical Results (Soil)

	Sample ID:	BLD 419 WC Comp (dry)			BLD 419 WC Comp (wet)		
	Sample Date:	11/13/2012			11/13/2012		
	Sample Type:	Composite			Composite		
	Result Units:	mg/kg except as noted			mg/kg except as noted		
		Result	**Qual.**	**RL**	**Result**	**Qual.**	**RL**
CHROMIUM	7440-47-3	23.6		0.465	0.0122	J	0.05
COPPER	7440-50-8	167		0.465	0.289		0.05
LEAD	7439-92-1	322		0.465	0.522		0.05
NICKEL	7440-02-0	28.5		0.465	0.0432	J	0.05
SELENIUM	7782-49-2	0.283	J	0.582	ND		0.05
SILVER	7440-22-4	0.815		0.465	ND		0.05
VANADIUM	7440-62-2	27.7		0.465	NA		
ZINC	7440-66-6	728		0.465	1.9		0.05

Notes:

B - Analyte detected in the associated Method Blank

C - Calibration %RSD%/%D exceeded for non-CCC analytes

J - Parameter detected however result is estimated

mg/kg - milligrams per kilogram

mg/L - milligrams per liter

NA - Parameter not analyzed for

ND - Parameter not detected above the RL

Qual. - Qualifier

RL - Reporting Detection Limit

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Brooklyn Navy Yard

Building 419 - Brick and Concrete Sample Analytical Results

		Sample A 1-8 Comp 10/4/12 13:30			Sample B 12-14 Comp 10/5/12 13:38			Sample C 9,10,11,15,16,17 Comp 10/5/12 12:50			Sample D 18-23 Comp 10/5/12 11:45		
Analyte (mg/kg)	**CAS RN**	**Result**	**Qualifer**	**RL**	**Result**	**Qualifer**	**RL**	**Result**	**Qualifer**	**RL**	**Result**	**Qualifer**	**RL**
% Solids	NA	97	-		98	-		97	-		97	-	
Aroclor (Total)	1336-36-3	0.55	-	0.026	3.1	-	0.13	0.48	-	0.026	0.12	-	0.026
Aroclor-1016	12674-11-2	ND	U	0.026	ND	U	0.13	ND	U	0.026	ND	U	0.026
Aroclor-1221	11104-28-2	ND	U	0.026	ND	U	0.13	ND	U	0.026	ND	U	0.026
Aroclor-1232	11141-16-5	ND	U	0.026	ND	U	0.13	ND	U	0.026	ND	U	0.026
Aroclor-1242	53469-21-9	ND	U	0.026	ND	U	0.13	ND	U	0.026	ND	U	0.026
Aroclor-1248	12672-29-6	ND	U	0.026	ND	U	0.13	ND	U	0.026	ND	U	0.026
Aroclor-1254	11097-69-1	ND	U	0.026	ND	U	0.13	ND	U	0.026	ND	U	0.026
Aroclor-1260	11096-82-5	0.55	-	0.026	3.1	-	0.13	0.48	-	0.026	0.12	-	0.026
Aroclor-1262	37324-23-5	ND	U	0.026	ND	U	0.13	ND	U	0.026	ND	U	0.026
Aroclor-1268	11100-14-4	ND	U	0.026	ND	U	0.13	ND	U	0.026	ND	U	0.026

		Sample E 24-25 Comp 10/5/12 11:30			Sample F 26-27 Comp 10/5/12 12:43			Sample G 28-30 Comp 10/4/12 11:27			Sample H 31-37 Comp 10/4/12 11:05		
Analyte (mg/kg)	**CAS RN**	**Result**	**Qualifer**	**RL**	**Result**	**Qualifer**	**RL**	**Result**	**Qualifer**	**RL**	**Result**	**Qualifer**	**RL**
% Solids	NA	98	-		97	-		97	-		94	-	
Aroclor (Total)	1336-36-3	0.054	-	0.026	0.21	-	0.026	0.082	-	0.026	ND	U	0.027
Aroclor-1016	12674-11-2	ND	U	0.026	ND	U	0.026	ND	U	0.026	ND	U	0.027
Aroclor-1221	11104-28-2	ND	U	0.026	ND	U	0.026	ND	U	0.026	ND	U	0.027
Aroclor-1232	11141-16-5	ND	U	0.026	ND	U	0.026	ND	U	0.026	ND	U	0.027
Aroclor-1242	53469-21-9	ND	U	0.026	ND	U	0.026	ND	U	0.026	ND	U	0.027
Aroclor-1248	12672-29-6	ND	U	0.026	ND	U	0.026	ND	U	0.026	ND	U	0.027
Aroclor-1254	11097-69-1	ND	U	0.026	ND	U	0.026	ND	U	0.026	ND	U	0.027
Aroclor-1260	11096-82-5	0.054	-	0.026	0.21	-	0.026	0.082	-	0.026	ND	U	0.027
Aroclor-1262	37324-23-5	ND	U	0.026	ND	U	0.026	ND	U	0.026	ND	U	0.027
Aroclor-1268	11100-14-4	ND	U	0.026	ND	U	0.026	ND	U	0.026	ND	U	0.027

		Sample I 38-42 Comp 10/4/12 11:50			Sample J 43-47 Comp 10/4/12 11:00			Sample K 48-50 Comp 10/4/12 13:44			Sample L 51-53 Comp 10/8/12 8:26		
Analyte (mg/kg)	**CAS RN**	**Result**	**Qualifer**	**RL**	**Result**	**Qualifer**	**RL**	**Result**	**Qualifer**	**RL**	**Result**	**Qualifer**	**RL**
% Solids	NA	92			92			93			93		
Aroclor (Total)	1336-36-3	ND	U	0.027	ND	U	0.027	ND	U	0.027	ND	U	0.027
Aroclor-1016	12674-11-2	ND	U	0.027	ND	U	0.027	ND	U	0.027	ND	U	0.027
Aroclor-1221	11104-28-2	ND	U	0.027	ND	U	0.027	ND	U	0.027	ND	U	0.027
Aroclor-1232	11141-16-5	ND	U	0.027	ND	U	0.027	ND	U	0.027	ND	U	0.027
Aroclor-1242	53469-21-9	ND	U	0.027	ND	U	0.027	ND	U	0.027	ND	U	0.027
Aroclor-1248	12672-29-6	ND	U	0.027	ND	U	0.027	ND	U	0.027	ND	U	0.027
Aroclor-1254	11097-69-1	ND	U	0.027	ND	U	0.027	ND	U	0.027	ND	U	0.027
Aroclor-1260	11096-82-5	ND	U	0.027	ND	U	0.027	ND	U	0.027	ND	U	0.027
Aroclor-1262	37324-23-5	ND	U	0.027	ND	U	0.027	ND	U	0.027	ND	U	0.027
Aroclor-1268	11100-14-4	ND	U	0.027	ND	U	0.027	ND	U	0.027	ND	U	0.027

		Sample P 62-66 Comp 10/4/12 14:58			Sample Q 67-70 Comp 10/4/12 14:12			Sample R 71-73 Comp 10/4/12 15:08			Sample S 74-76 Comp 10/4/12 15:13		
Analyte (mg/kg)	**CAS RN**	**Result**	**Qualifer**	**RL**	**Result**	**Qualifer**	**RL**	**Result**	**Qualifer**	**RL**	**Result**	**Qualifer**	**RL**
% Solids	NA	94			91			90			91		
Aroclor (Total)	1336-36-3	ND	U	0.027	ND	U	0.027	ND	U	0.028	ND	U	0.027
Aroclor-1016	12674-11-2	ND	U	0.027	ND	U	0.027	ND	U	0.028	ND	U	0.027
Aroclor-1221	11104-28-2	ND	U	0.027	ND	U	0.027	ND	U	0.028	ND	U	0.027
Aroclor-1232	11141-16-5	ND	U	0.027	ND	U	0.027	ND	U	0.028	ND	U	0.027
Aroclor-1242	53469-21-9	ND	U	0.027	ND	U	0.027	ND	U	0.028	ND	U	0.027
Aroclor-1248	12672-29-6	ND	U	0.027	ND	U	0.027	ND	U	0.028	ND	U	0.027
Aroclor-1254	11097-69-1	ND	U	0.027	ND	U	0.027	ND	U	0.028	ND	U	0.027
Aroclor-1260	11096-82-5	ND	U	0.027	ND	U	0.027	ND	U	0.028	ND	U	0.027
Aroclor-1262	37324-23-5	ND	U	0.027	ND	U	0.027	ND	U	0.028	ND	U	0.027
Aroclor-1268	11100-14-4	ND	U	0.027	ND	U	0.027	ND	U	0.028	ND	U	0.027

Brooklyn Navy Yard

Building 419 - Brick and Concrete Sample Analytical Results

		Sample T 55,78 Comp 10/5/12 11:32			Sample U 58-61 Comp 10/4/12 14:23			Sample U 79-81 Comp 10/5/12 10:37			Sample V 82-88 Comp 10/5/12 10:12		
Analyte (mg/kg)	**CAS RN**	**Result**	**Qualifer**	**RL**	**Result**	**Qualifer**	**RL**	**Result**	**Qualifer**	**RL**	**Result**	**Qualifer**	**RL**
% Solids	NA	91			93			95			94		
Aroclor (Total)	1336-36-3	ND	U	0.027	ND	U	0.027	ND	U	0.026	ND	U	0.027
Aroclor-1016	12674-11-2	ND	U	0.027	ND	U	0.027	ND	U	0.026	ND	U	0.027
Aroclor-1221	11104-28-2	ND	U	0.027	ND	U	0.027	ND	U	0.026	ND	U	0.027
Aroclor-1232	11141-16-5	ND	U	0.027	ND	U	0.027	ND	U	0.026	ND	U	0.027
Aroclor-1242	53469-21-9	ND	U	0.027	ND	U	0.027	ND	U	0.026	ND	U	0.027
Aroclor-1248	12672-29-6	ND	U	0.027	ND	U	0.027	ND	U	0.026	ND	U	0.027
Aroclor-1254	11097-69-1	ND	U	0.027	ND	U	0.027	ND	U	0.026	ND	U	0.027
Aroclor-1260	11096-82-5	ND	U	0.027	ND	U	0.027	ND	U	0.026	ND	U	0.027
Aroclor-1262	37324-23-5	ND	U	0.027	ND	U	0.027	ND	U	0.026	ND	U	0.027
Aroclor-1268	11100-14-4	ND	U	0.027	ND	U	0.027	ND	U	0.026	ND	U	0.027

		Sample W 89-93 Comp 10/5/12 9:28			Sample X 94-98 Comp 10/5/12 10:30			Sample Y 99-102 Comp 10/5/12 10:00			Sample Z 103-105 Comp 10/5/12 10:45		
Analyte (mg/kg)	**CAS RN**	**Result**	**Qualifer**	**RL**	**Result**	**Qualifer**	**RL**	**Result**	**Qualifer**	**RL**	**Result**	**Qualifer**	**RL**
% Solids	NA	95			94			92			91		
Aroclor (Total)	1336-36-3	ND	U	0.026	ND	U	0.027	ND	U	0.027	ND	U	0.027
Aroclor-1016	12674-11-2	ND	U	0.026	ND	U	0.027	ND	U	0.027	ND	U	0.027
Aroclor-1221	11104-28-2	ND	U	0.026	ND	U	0.027	ND	U	0.027	ND	U	0.027
Aroclor-1232	11141-16-5	ND	U	0.026	ND	U	0.027	ND	U	0.027	ND	U	0.027
Aroclor-1242	53469-21-9	ND	U	0.026	ND	U	0.027	ND	U	0.027	ND	U	0.027
Aroclor-1248	12672-29-6	ND	U	0.026	ND	U	0.027	ND	U	0.027	ND	U	0.027
Aroclor-1254	11097-69-1	ND	U	0.026	ND	U	0.027	ND	U	0.027	ND	U	0.027
Aroclor-1260	11096-82-5	ND	U	0.026	ND	U	0.027	ND	U	0.027	ND	U	0.027
Aroclor-1262	37324-23-5	ND	U	0.026	ND	U	0.027	ND	U	0.027	ND	U	0.027
Aroclor-1268	11100-14-4	ND	U	0.026	ND	U	0.027	ND	U	0.027	ND	U	0.027

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Brooklyn Navy Yard

Building 419 - Brick and Concrete Sample Analytical Results

		Sample 56 10/4/12 14:39			Sample 106N 10/5/12 12:18			Sample 106D 10/5/12 12:18			Sample BB 77,107 Comp 10/8/12 10:48		
Analyte (mg/kg)	**CAS RN**	**Result**	**Qualifer**	**RL**	**Result**	**Qualifer**	**RL**	**Result**	**Qualifer**	**RL**	**Result**	**Qualifer**	**RL**
% Solids	NA	96			96			96			91		
Aroclor (Total)	1336-36-3	ND	U	0.026	ND	U	0.026	ND	U	0.026	ND	U	0.027
Aroclor-1016	12674-11-2	ND	U	0.026	ND	U	0.026	ND	U	0.026	ND	U	0.027
Aroclor-1221	11104-28-2	ND	U	0.026	ND	U	0.026	ND	U	0.026	ND	U	0.027
Aroclor-1232	11141-16-5	ND	U	0.026	ND	U	0.026	ND	U	0.026	ND	U	0.027
Aroclor-1242	53469-21-9	ND	U	0.026	ND	U	0.026	ND	U	0.026	ND	U	0.027
Aroclor-1248	12672-29-6	ND	U	0.026	ND	U	0.026	ND	U	0.026	ND	U	0.027
Aroclor-1254	11097-69-1	ND	U	0.026	ND	U	0.026	ND	U	0.026	ND	U	0.027
Aroclor-1260	11096-82-5	ND	U	0.026	ND	U	0.026	ND	U	0.026	ND	U	0.027
Aroclor-1262	37324-23-5	ND	U	0.026	ND	U	0.026	ND	U	0.026	ND	U	0.027
Aroclor-1268	11100-14-4	ND	U	0.026	ND	U	0.026	ND	U	0.026	ND	U	0.027

		CC BP-N,S,E,W,C Comp 10/8/12 13:36			EB10-5-12 10/5/12 12:20 Note: Results in ug/L		
Analyte (mg/kg)	**CAS RN**	**Result**	**Qualifer**	**RL**	**Result**	**Qualifer**	**RL**
% Solids	NA	91			Not Applicable		
Aroclor (Total)	1336-36-3	0.13		0.027	ND	U	0.27
Aroclor-1016	12674-11-2	ND	U	0.027	ND	U	0.27
Aroclor-1221	11104-28-2	ND	U	0.027	ND	U	0.27
Aroclor-1232	11141-16-5	ND	U	0.027	ND	U	0.27
Aroclor-1242	53469-21-9	ND	U	0.027	ND	U	0.27
Aroclor-1248	12672-29-6	ND	U	0.027	ND	U	0.27
Aroclor-1254	11097-69-1	ND	U	0.027	ND	U	0.27
Aroclor-1260	11096-82-5	0.13		0.027	ND	U	0.27
Aroclor-1262	37324-23-5	ND	U	0.027	ND	U	0.27
Aroclor-1268	11100-14-4	ND	U	0.027	ND	U	0.27

Notes:

ND - Parameter not detected

RL - Reporting detection limit

U - Parameter not detected

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Brooklyn Navy Yard

Former Drum Storage Area "A" - Post Excavation Soil Sample Analytical Results

Client Id	BS-01		SWS-01		SWS-02		SWS-03		SWS-04	
Lab Sample Id	BC68362		BC68363		BC68364		BC68365		BC68366	
Collection Date	9/11/2012		9/11/2012		9/11/2012		9/11/2012		9/11/2012	
Matrix	Solid		Solid		Solid		Solid		Solid	
	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
Miscellaneous/Inorganics (%)										
Percent Solid	88		82		88		79		90	
Metals, TCLP (mg/L)										
TCLP Lead	0.11	0.1	ND	0.1	0.36	0.1	0.11	0.1	0.16	0.1
PCBs By SW 8082 (ug/kg)										
PCB-1016	ND	76	ND	79	ND	75	ND	84	ND	73
PCB-1221	ND	76	ND	79	ND	75	ND	84	ND	73
PCB-1232	ND	76	ND	79	ND	75	ND	84	ND	73
PCB-1242	ND	76	ND	79	ND	75	ND	84	ND	73
PCB-1248	ND	76	ND	79	ND	75	ND	84	ND	73
PCB-1254	ND	76	ND	79	ND	75	ND	84	ND	73
PCB-1260	ND	76	ND	79	ND	75	ND	84	ND	73
PCB-1262	ND	76	ND	79	ND	75	ND	84	ND	73
PCB-1268	ND	76	ND	79	ND	75	ND	84	ND	73

Notes:

mg/L - milligrams per liter

ND - Non detect; Sample was not detected above the reporting limit

RL - Reporting Limit

ug/kg - micrograms per kilogram

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Brooklyn Navy Yard

Former Drum Storage Area "A" - Waste Classification Analytical Results

	Sample ID	WC-1	
	Lab Sample ID	BC72454	
	Sample Date	9/21/2012	
	Matrix	Solid	
		Result	RL
Miscellaneous/Inorganics			
Percent Solid (%)		90	--
Corrosivity (no unit)		Not Analyzed	
Flash Point (°F)		Not Analyzed	
Gasoline Range Organics (mg/kg)		Not Analyzed	
Ignitability (°F)		Not Analyzed	
pH - Soil (pH units)		Not Analyzed	
Reactivity Cyanide (mg/kg)		Not Analyzed	
Reactivity Sulfide (mg/kg)		Not Analyzed	
Metals, Total (mg/kg)			
		Not Analyzed	
Metals, TCLP (mg/l)			
		Not Analyzed	
TPH By QAM-025 (mg/kg)			
		Not Analyzed	
TPH By 8015M (C9-C36) (mg/kg)			
		Not Analyzed	
PCBs By SW 8082 (ug/kg)			
		Not Analyzed	
Volatiles By SW8260 (ug/kg)			
1,1,1,2-Tetrachloroethane		ND	5.6
1,1,1-Trichloroethane		ND	5.6
1,1,2,2-Tetrachloroethane		ND	5.6
1,1,2-Trichloroethane		ND	5.6
1,1-Dichloroethane		ND	5.6
1,1-Dichloroethene		ND	5.6
1,1-Dichloropropene		ND	5.6
1,2,3-Trichlorobenzene		ND	5.6
1,2,3-Trichloropropane		ND	5.6
1,2,4-Trichlorobenzene		ND	5.6
1,2,4-Trimethylbenzene		ND	5.6
1,2-Dibromo-3-chloropropane		ND	5.6
1,2-Dibromoethane		ND	5.6
1,2-Dichlorobenzene		ND	5.6
1,2-Dichloroethane		ND	5.6
1,2-Dichloropropane		ND	5.6
1,3,5-Trimethylbenzene		ND	5.6
1,3-Dichlorobenzene		ND	5.6
1,3-Dichloropropane		ND	5.6
1,4-Dichlorobenzene		ND	5.6
2,2-Dichloropropane		ND	5.6
2-Chlorotoluene		ND	5.6
2-Hexanone		ND	28
2-Isopropyltoluene		ND	5.6
4-Chlorotoluene		ND	5.6

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Brooklyn Navy Yard

Former Drum Storage Area "A" - Waste Classification Analytical Results

	Sample ID	WC-1	
	Lab Sample ID	BC72454	
	Sample Date	9/21/2012	
	Matrix	Solid	
		Result	RL
Volatiles By SW8260 (ug/kg)			
4-Methyl-2-pentanone		ND	28
Acetone		ND	28
Acrylonitrile		ND	11
Benzene		ND	5.6
Bromobenzene		ND	5.6
Bromochloromethane		ND	5.6
Bromodichloromethane		ND	5.6
Bromoform		ND	5.6
Bromomethane		ND	5.6
Carbon Disulfide		ND	5.6
Carbon tetrachloride		ND	5.6
Chlorobenzene		ND	5.6
Chloroethane		ND	5.6
Chloroform		ND	5.6
Chloromethane		ND	5.6
cis-1,2-Dichloroethene		ND	5.6
cis-1,3-Dichloropropene		ND	5.6
Dibromochloromethane		ND	5.6
Dibromomethane		ND	5.6
Dichlorodifluoromethane		ND	5.6
Ethylbenzene		ND	5.6
Hexachlorobutadiene		ND	5.6
Isopropylbenzene		ND	5.6
m&p-Xylene		ND	5.6
Methyl Ethyl Ketone		ND	28
Methyl t-butyl ether (MTBE)		ND	11
Methylene chloride		ND	5.6
Naphthalene		ND	5.6
n-Butylbenzene		ND	5.6
n-Propylbenzene		ND	5.6
o-Xylene		ND	5.6
p-Isopropyltoluene		ND	5.6
sec-Butylbenzene		ND	5.6
Styrene		ND	5.6
tert-Butylbenzene		ND	5.6
Tetrachloroethene		ND	5.6
Tetrahydrofuran (THF)		ND	11
Toluene		ND	5.6
Total Xylenes		ND	5.6
trans-1,2-Dichloroethene		ND	5.6
trans-1,3-Dichloropropene		ND	5.6
trans-1,4-dichloro-2-butene		ND	11
Trichloroethene		ND	5.6
Trichlorofluoromethane		ND	5.6
Trichlorotrifluoroethane		ND	5.6
Vinyl chloride		ND	5.6

Brooklyn Navy Yard

Former Drum Storage Area "A" - Waste Classification Analytical Results

Notes:

mg/kg - milligrams per kilogram

mg/L - milligrams per liter

ND - Non detect; Sample was not detected above the reporting limit.

RL - Reporting Limit

ug/kg - micrograms per kilogram

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Brooklyn Navy Yard

Former Drum Storage Area "A" - Waste Classification Analytical Results

	Sample ID	WC-2	
	Lab Sample ID	BC72455	
	Sample Date	9/21/2012	
	Matrix	Solid	
		Result	RL
Miscellaneous/Inorganics			
Percent Solid (%)		90	
Corrosivity (no unit)		Negative	NONE
Flash Point (°F)		>200	200
Gasoline Range Organics (mg/kg)		ND	20
Ignitability (°F)		Passed	140
pH - Soil (pH units)		8.62	0.1
Reactivity Cyanide (mg/kg)		ND	5.4
Reactivity Sulfide (mg/kg)		ND	20
Metals, Total (mg/kg)			
Arsenic		5.1	0.7
Barium		110	0.36
Cadmium		0.38	0.36
Chromium		20.5	0.36
Lead		170	3.6
Mercury		0.39	0.08
Selenium		ND	1.4
Silver		ND	0.36
Metals, TCLP (mg/l)			
TCLP Arsenic		ND	0.1
TCLP Barium		0.54	0.1
TCLP Cadmium		ND	0.05
TCLP Chromium		ND	0.1
TCLP Lead		0.11	0.1
TCLP Mercury		ND	0.0002
TCLP Selenium		ND	0.1
TCLP Silver		ND	0.1
TPH By QAM-025 (mg/kg)			
Total Petroleum Hydrocarbon		190	81
TPH By 8015M (C9-C36) (mg/kg)			
Fuel Oil #2 / Diesel Fuel		ND	150
Fuel Oil #4		ND	150
Fuel Oil #6		ND	150
Kerosene		ND	150
Motor Oil		**	150
Other Oil (Cutting & Lubricating)		ND	150
Unidentified		270	150
PCBs By SW 8082 (ug/kg)			
PCB-1016		ND	73
PCB-1221		ND	73
PCB-1232		ND	73
PCB-1242		ND	73
PCB-1248		ND	73
PCB-1254		ND	73
PCB-1260		150	73
PCB-1262		ND	73
PCB-1268		ND	73

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Brooklyn Navy Yard

Former Drum Storage Area "A" - Waste Classification Analytical Results

	Sample ID	WC-2	
	Lab Sample ID	BC72455	
	Sample Date	9/21/2012	
	Matrix	Solid	
		Result	RL
Volatiles By SW8260 (ug/kg)			
		Not Analyzed	
Semivolatiles By SW 8270 (ug/kg)			
1,2,4,5-Tetrachlorobenzene		ND	500
1,2,4-Trichlorobenzene		ND	500
1,2-Dichlorobenzene		ND	500
1,3-Dichlorobenzene		ND	500
1,4-Dichlorobenzene		ND	500
2,4,5-Trichlorophenol		ND	500
2,4,6-Trichlorophenol		ND	500
2,4-Dichlorophenol		ND	500
2,4-Dimethylphenol		ND	500
2,4-Dinitrophenol		ND	1,200
2,4-Dinitrotoluene		ND	500
2,6-Dinitrotoluene		ND	500
2-Chloronaphthalene		ND	500
2-Chlorophenol		ND	500
2-Methylnaphthalene		ND	500
2-Methylphenol (o-cresol)		ND	500
2-Nitroaniline		ND	1,200
2-Nitrophenol		ND	500
3&4-Methylphenol (m&p-cresol)		ND	720
3,3'-Dichlorobenzidine		ND	500
3-Nitroaniline		ND	1,200
4,6-Dinitro-2-methylphenol		ND	2,100
4-Bromophenyl phenyl ether		ND	720
4-Chloro-3-methylphenol		ND	500
4-Chloroaniline		ND	500
4-Chlorophenyl phenyl ether		ND	500
4-Nitroaniline		ND	1,200
4-Nitrophenol		ND	2,100
Acenaphthene		ND	500
Acenaphthylene		ND	500
Acetophenone		ND	500
Aniline		ND	2,100
Anthracene		ND	500
Benz(a)anthracene		820	500
Benzidine		ND	860
Benzo(a)pyrene		710	500
Benzo(b)fluoranthene		800	500
Benzo(ghi)perylene		510	500
Benzo(k)fluoranthene		ND	500
Benzoic acid		ND	2,100
Benzyl butyl phthalate		ND	500
Bis(2-chloroethoxy)methane		ND	500
Bis(2-chloroethyl)ether		ND	720
Bis(2-chloroisopropyl)ether		ND	500
Bis(2-ethylhexyl)phthalate		ND	500
Carbazole		ND	1,100

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Brooklyn Navy Yard

Former Drum Storage Area "A" - Waste Classification Analytical Results

	Sample ID	WC-2	
	Lab Sample ID	BC72455	
	Sample Date	9/21/2012	
	Matrix	Solid	
		Result	RL
Semivolatiles By SW 8270 (ug/kg)			
Chrysene		660	500
Dibenzofuran		ND	500
Diethyl phthalate		ND	500
Dimethylphthalate		ND	500
Di-n-butylphthalate		ND	500
Di-n-octylphthalate		ND	500
Fluoranthene		1,200	500
Fluorene		ND	500
Hexachlorobenzene		ND	500
Hexachlorobutadiene		ND	500
Hexachlorocyclopentadiene		ND	500
Hexachloroethane		ND	500
Indeno(1,2,3-cd)pyrene		ND	500
Isophorone		ND	500
Naphthalene		ND	500
Nitrobenzene		ND	500
N-Nitrosodimethylamine		ND	720
N-Nitrosodi-n-propylamine		ND	500
N-Nitrosodiphenylamine		ND	720
Pentachloronitrobenzene		ND	720
Pentachlorophenol		ND	720
Phenanthrene		670	500
Phenol		ND	500
Pyrene		1,100	500
Pyridine		ND	720

Notes:

mg/kg - milligrams per kilogram

mg/L - milligrams per liter

ND - Non detect; Sample was not detected above the reporting limit.

RL - Reporting Limit

ug/kg - micrograms per kilogram

Table 13: Monitoring Schedule

Monitoring Program	Frequency*	Matrix	Analysis
Site-Wide Cover System Monitoring	Annually on or before May 30	Site-Wide Cover	Visual inspection; Determination whether maintenance is required
* The frequency of events will be conducted as specified until otherwise approved by NYSDEC and NYSDOH			

Table 14: Emergency Contact Numbers

Medical, Fire, and Police	911
One Call Center	(800) 272-4480 (3 day notice required for utility markout)
Poison Control Center	(800) 222-1222
Pollution Toxic Chemical Oil Spills	(800) 424-8802
NYSDEC Spills Hotline	(800) 457-7362

Table 15: Contact Numbers *

Shani Leibowitz	BNYDC Project Manager	718.907.5955
Carmine Stabile	BNYDC Contact (Spills)	718.907.5919
Charles Post	NYSDEC Project Manager	518.402.9768
Stephanie Selmer	NYSDOH Contact	518.402.7864
	NYSDEC Regional HW Engineer	
	NYSDEC Site Control	
To Be Determined	Project Manager	To Be Determined
To Be Determined	Project Leader	To Be Determined
To Be Determined	Health and Safety Officer	To Be Determined
To Be Determined	Field Team Leader	To Be Determined
To Be Determined	Field Team	To Be Determined

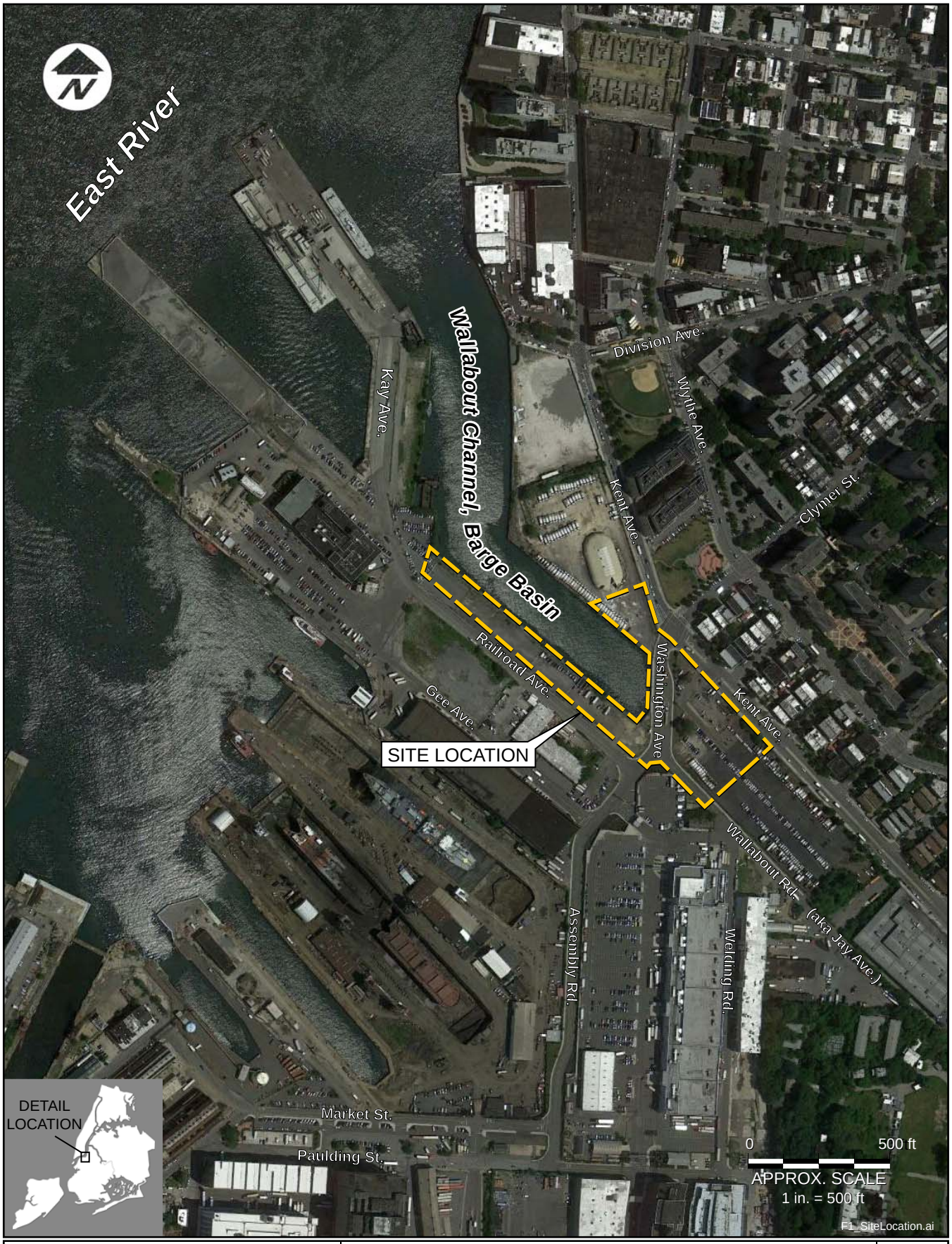
* Contact numbers subject to change and should be updated as necessary

Table 16: Schedule of Monitoring and Inspection Report

Task	Reporting Frequency*
Submit Monitoring and Inspection Report to NYSDEC	Annually on or before June 30

* The frequency of events will be conducted as specified until otherwise approved by the NYSDEC

FIGURES



HDR	HDR Engineering, Inc. 1 International Blvd. Mahwah, NJ 07495	**Site Location Map** **Brooklyn Navy Yard Soil Remediation** **Brooklyn, NY**	**Figure 1**

M:\Graphics\Projects\10085539_BrooklynNavyYard\Fig1_SiteLocation_20180328.ai

HDR Engineering, Inc.
1 International Blvd.
Mahwah, NJ 07495

Reference: Soil Remediation Brooklyn Navy Yard
Aerial Photo Sheet H-001.00 Dated 05/16/11
Prepared by the New York City Department of Sanitation

Brooklyn Navy Yard Soil Remediation

Brooklyn, NY

Site Map

Figure 2

M:\Graphics\Projects\10085539_BrooklynNavyYard\Fig2_SiteMap_20180328.ai

BLD 419-Post Ex West 11/13/2012	Result
PCB-1016 (ug/kg)	ND
PCB-1221 (ug/kg)	ND
PCB-1232 (ug/kg)	ND
PCB-1242 (ug/kg)	ND
PCB-1248 (ug/kg)	ND
PCB-1254 (ug/kg)	ND
PCB-1260 (ug/kg)	ND
PCB-1262 (ug/kg)	ND
PCB-1268 (ug/kg)	ND

BLD 419-Post Ex 12 11/13/2012	Result
PCB-1016 (ug/kg)	ND
PCB-1221 (ug/kg)	ND
PCB-1232 (ug/kg)	ND
PCB-1242 (ug/kg)	ND
PCB-1248 (ug/kg)	ND
PCB-1254 (ug/kg)	ND
PCB-1260 (ug/kg)	1100
PCB-1262 (ug/kg)	ND
PCB-1268 (ug/kg)	ND

BLD 419-Post Ex 9 11/13/2012	Result
PCB-1016 (ug/kg)	ND
PCB-1221 (ug/kg)	ND
PCB-1232 (ug/kg)	ND
PCB-1242 (ug/kg)	ND
PCB-1248 (ug/kg)	ND
PCB-1254 (ug/kg)	ND
PCB-1260 (ug/kg)	3000
PCB-1262 (ug/kg)	ND
PCB-1268 (ug/kg)	ND

BLD 419-Post Ex 5 11/13/2012	Result
PCB-1016 (ug/kg)	ND
PCB-1221 (ug/kg)	ND
PCB-1232 (ug/kg)	ND
PCB-1242 (ug/kg)	ND
PCB-1248 (ug/kg)	ND
PCB-1254 (ug/kg)	ND
PCB-1260 (ug/kg)	ND
PCB-1262 (ug/kg)	490
PCB-1268 (ug/kg)	ND

BLD 419-Post Ex 6 11/13/2012	Result
PCB-1016 (ug/kg)	ND
PCB-1221 (ug/kg)	ND
PCB-1232 (ug/kg)	ND
PCB-1242 (ug/kg)	ND
PCB-1248 (ug/kg)	ND
PCB-1254 (ug/kg)	ND
PCB-1260 (ug/kg)	ND
PCB-1262 (ug/kg)	3000
PCB-1268 (ug/kg)	ND

BLD 419-Post Ex 11 11/13/2012	Result
PCB-1016 (ug/kg)	ND
PCB-1221 (ug/kg)	ND
PCB-1232 (ug/kg)	ND
PCB-1242 (ug/kg)	ND
PCB-1248 (ug/kg)	ND
PCB-1254 (ug/kg)	ND
PCB-1260 (ug/kg)	56
PCB-1262 (ug/kg)	ND
PCB-1268 (ug/kg)	ND

BLD 419-Post Ex 3 11/13/2012	Result
PCB-1016 (ug/kg)	ND
PCB-1221 (ug/kg)	ND
PCB-1232 (ug/kg)	ND
PCB-1242 (ug/kg)	ND
PCB-1248 (ug/kg)	ND
PCB-1254 (ug/kg)	ND
PCB-1260 (ug/kg)	550
PCB-1262 (ug/kg)	ND
PCB-1268 (ug/kg)	ND

BLD 419-Post Ex 10 11/13/2012	Result
PCB-1016 (ug/kg)	ND
PCB-1221 (ug/kg)	ND
PCB-1232 (ug/kg)	ND
PCB-1242 (ug/kg)	ND
PCB-1248 (ug/kg)	ND
PCB-1254 (ug/kg)	ND
PCB-1260 (ug/kg)	13
PCB-1262 (ug/kg)	ND
PCB-1268 (ug/kg)	ND

BLD 419-Post Ex East 11/13/2012	Result
PCB-1016 (ug/kg)	ND
PCB-1221 (ug/kg)	ND
PCB-1232 (ug/kg)	ND
PCB-1242 (ug/kg)	ND
PCB-1248 (ug/kg)	ND
PCB-1254 (ug/kg)	ND
PCB-1260 (ug/kg)	270
PCB-1262 (ug/kg)	ND
PCB-1268 (ug/kg)	ND

BLD 419-Post Ex 7 11/13/2012	Result
PCB-1016 (ug/kg)	ND
PCB-1221 (ug/kg)	ND
PCB-1232 (ug/kg)	ND
PCB-1242 (ug/kg)	ND
PCB-1248 (ug/kg)	ND
PCB-1254 (ug/kg)	ND
PCB-1260 (ug/kg)	850
PCB-1262 (ug/kg)	ND
PCB-1268 (ug/kg)	ND

BLD 419-Post Ex 8 11/13/2012	Result
PCB-1016 (ug/kg)	ND
PCB-1221 (ug/kg)	ND
PCB-1232 (ug/kg)	ND
PCB-1242 (ug/kg)	ND
PCB-1248 (ug/kg)	ND
PCB-1254 (ug/kg)	ND
PCB-1260 (ug/kg)	600
PCB-1262 (ug/kg)	ND
PCB-1268 (ug/kg)	ND

BLD 419-Post Ex 4 11/13/2012	Result
PCB-1016 (ug/kg)	ND
PCB-1221 (ug/kg)	ND
PCB-1232 (ug/kg)	ND
PCB-1242 (ug/kg)	ND
PCB-1248 (ug/kg)	ND
PCB-1254 (ug/kg)	ND
PCB-1260 (ug/kg)	ND
PCB-1262 (ug/kg)	540
PCB-1268 (ug/kg)	ND

BLD 419-Post Ex 1 11/13/2012	Result
PCB-1016 (ug/kg)	ND
PCB-1221 (ug/kg)	ND
PCB-1232 (ug/kg)	ND
PCB-1242 (ug/kg)	ND
PCB-1248 (ug/kg)	ND
PCB-1254 (ug/kg)	ND
PCB-1260 (ug/kg)	52
PCB-1262 (ug/kg)	ND
PCB-1268 (ug/kg)	ND

BLD 419-Post Ex 2 11/13/2012	Result
PCB-1016 (ug/kg)	ND
PCB-1221 (ug/kg)	ND
PCB-1232 (ug/kg)	ND
PCB-1242 (ug/kg)	ND
PCB-1248 (ug/kg)	ND
PCB-1254 (ug/kg)	ND
PCB-1260 (ug/kg)	320
PCB-1262 (ug/kg)	ND
PCB-1268 (ug/kg)	ND

LEGEND:

- EDGE OF PAVEMENT
- EDGE OF CURB
- CHAIN LINK FENCE
- RIGHT OF WAY
- OPERABLE UNIT 1 BOUNDARY
- ADJACENT PROPERTY LINE
- CONCRETE RETAINING WALL
- HYDRANT
- AOC AREA
- TSCA AREA (SOIL EXCAVATED TO DEPTH OF 3 FT)
- BUILDING 419 FOOT PRINT
- SOIL ENDPOINT SAMPLE LOCATION
- ND NON DETECT
- PCB POLYCHLORINATED BIPHENYL
- UG/KG MICROGRAMS PER KILOGRAM
- TSCA TOXIC SUBSTANCE CONTROL ACT

NOTES

1. Base file is from a survey completed in March 2013.
2. End point sample locations were located by HDR using a hand-held GPS unit in September and November 2012.

0 40 80 ft

SCALE (ft)

HDR Engineering, Inc.
1 International Blvd.
Mahwah, NJ 07495

Brooklyn Navy Yard Soil Remediation

Brooklyn, NY

Former Building 419 Excavation Area

Figure 3

M:\Graphics\Projects\10085539_BrooklynNavyYard\Fig7_Building419ExcavationArea_20180330.ai

SWS-03 9/11/2012	Result
Misc/Inorganics (%)	79
TCLP Lead (mg/L)	0.11
PCB-1016 (ug/kg)	ND
PCB-1221 (ug/kg)	ND
PCB-1232 (ug/kg)	ND
PCB-1242 (ug/kg)	ND
PCB-1248 (ug/kg)	ND
PCB-1254 (ug/kg)	ND
PCB-1260 (ug/kg)	ND
PCB-1262 (ug/kg)	ND
PCB-1268 (ug/kg)	ND

SWS-04 9/11/2012	Result
Misc/Inorganics (%)	90
TCLP Lead (mg/L)	0.16
PCB-1016 (ug/kg)	ND
PCB-1221 (ug/kg)	ND
PCB-1232 (ug/kg)	ND
PCB-1242 (ug/kg)	ND
PCB-1248 (ug/kg)	ND
PCB-1254 (ug/kg)	ND
PCB-1260 (ug/kg)	ND
PCB-1262 (ug/kg)	ND
PCB-1268 (ug/kg)	ND

SWS-02 9/11/2012	Result
Misc/Inorganics (%)	88
TCLP Lead (mg/L)	0.36
PCB-1016 (ug/kg)	ND
PCB-1221 (ug/kg)	ND
PCB-1232 (ug/kg)	ND
PCB-1242 (ug/kg)	ND
PCB-1248 (ug/kg)	ND
PCB-1254 (ug/kg)	ND
PCB-1260 (ug/kg)	ND
PCB-1262 (ug/kg)	ND
PCB-1268 (ug/kg)	ND

SWS-01 9/11/2012	Result
Misc/Inorganics (%)	82
TCLP Lead (mg/L)	ND
PCB-1016 (ug/kg)	ND
PCB-1221 (ug/kg)	ND
PCB-1232 (ug/kg)	ND
PCB-1242 (ug/kg)	ND
PCB-1248 (ug/kg)	ND
PCB-1254 (ug/kg)	ND
PCB-1260 (ug/kg)	ND
PCB-1262 (ug/kg)	ND
PCB-1268 (ug/kg)	ND

BS-01 9/11/2012	Result
Misc/Inorganics (%)	88
TCLP Lead (mg/L)	0.11
PCB-1016 (ug/kg)	ND
PCB-1221 (ug/kg)	ND
PCB-1232 (ug/kg)	ND
PCB-1242 (ug/kg)	ND
PCB-1248 (ug/kg)	ND
PCB-1254 (ug/kg)	ND
PCB-1260 (ug/kg)	ND
PCB-1262 (ug/kg)	ND
PCB-1268 (ug/kg)	ND

LEGEND:

- EDGE OF PAVEMENT
- EDGE OF CURB
- CHAIN LINK FENCE
- RIGHT OF WAY
- OPERABLE UNIT 1 BOUNDARY
- ADJACENT PROPERTY LINE
- CONCRETE RETAINING WALL
- HYDRANT
- AOC AREA
- SOIL ENDPOINT SAMPLE LOCATION

ND	NON DETECT
PCB	POLYCHLORINATED BIPHENYL
TCLP	TOXICITY CHARACTERISTIC LEACHING PROCEDURE
UG/KG	MICROGRAMS PER KILOGRAM
MG/L	MILLIGRAMS PER LITER
%	PERCENT SOLID

NOTES

1. Base file is from a survey completed in March 2013.
2. End point sample locations were located by HDR using a hand-held GPS unit in September and November 2012.

0 30 60 ft

SCALE (ft)

HDR Engineering, Inc.
1 International Blvd.
Mahwah, NJ 07495

Brooklyn Navy Yard Soil Remediation — **Brooklyn, NY**

Former Drum Storage Area "A" Excavation

Figure 4

M:\Graphics\Projects\10085539_BrooklynNavyYard\Fig5_FormerDrumStorageAreaA_20180330.ai

LEGEND

- Edge of Pavement
- Edge of Curb
- Chain Link Fence
- Right of Way
- Operable Unit 1 Boundary
- Adjacent Property Line
- Concrete Retaining Wall
- Hydrant
- AOC Area

NOTE

Base file is from a survey completed in March 2013

0 50 100 ft

SCALE (ft)

HDR Engineering, Inc.
1 International Blvd.
Mahwah, NJ 07495

Kent Avenue Excavation Area

Brooklyn Navy Yard Soil Remediation

Brooklyn, NY

Figure 5

M:\Graphics\Projects\10085539_BrooklynNavyYard\Fig6_KentAveExcavationArea_20180330.ai

LEGEND:

- COVER APPLICATION AREA
- EXCAVATION OF CONTAMINATED MATERIAL
- MATERIAL AND EQUIPMENT STORAGE AREA
- EXISTING RAIL LINE
- EXISTING FENCE LINE
- EXISTING BLOCK WALLS
- EXISTING CONTOURS
- APPROXIMATE PROPERTY LINE
- LIMITS OF OPERABLE UNIT 1

KENT AVE.

NORTON ST.

SAND

LIMITS OF OPERABLE UNIT No.1

ASPHALT AREA EXCAVATED TO A DEPTH OF 2" AND COVERED WITH A 2" BINDER COURSE

CLYMER ST.

EXISTING SOIL/ROCK REMOVED

TAYLOR ST.

AREA = 24,382.57 SQ. FT.

BARGE BASIN

FORMER BUILDING 419 LOCAL EXCAVATION

FORMER BUILDING 419 LOCAL EXCAVATION (APPROX. 3' DEEP, 10 CY; REMAINS OF BUILDING DEMOLISHED AND REMOVED TO BOTTOM OF FOUNDATION. REPLACED IN PART WITH IMPERVIOUS ASPHALT AND PART WITH GRAVEL SURFACE

FORMER DEBRIS IN REMEDIATION AREAS

SECURITY FENCING INSTALLED AROUND BUILDING 419 DEMOLITION AREA.

AREA = 1,421.36 SQ. FT.

KENT AVE.

VEGETATED AREA EXCAVATED TO A DEPTH OF 12" AND RESTORED WITH 12" OF CLEAN FILL

FORMER DEBRIS IN REMEDIATION AREAS

ASPHALT AREA EXCAVATED TO A DEPTH OF 2" AND COVERED WITH A 2" BINDER COURSE

LIMITS OF OPERABLE UNIT No. 1

FORMER DEBRIS IN REMEDIATION AREAS

AREA = 8,754.17 SQ. FT.

WASHINGTON AVE.

ASPHALT AREA EXCAVATED TO A DEPTH OF 2" AND COVERED WITH A 2" BINDER COURSE

AREA = 63,249.23 SQ. FT.

AREA = 25,380.87 SQ. FT.

RAILROAD AVE.

JAY AVE.

BLOCK WALLS REMOVED, STORED ON SITE AND REPLACED UPON COMPLETION OF COVER PLACEMENT

AREA = 10,592.31 SQ. FT.

LOCAL EXCAVATION (APPROX. 2' DEEP, 13 CY)

EXCLUSION AREA

FORMER DRUM STORAGE AREA "A"

FORMER DRUM STORAGE AREA A

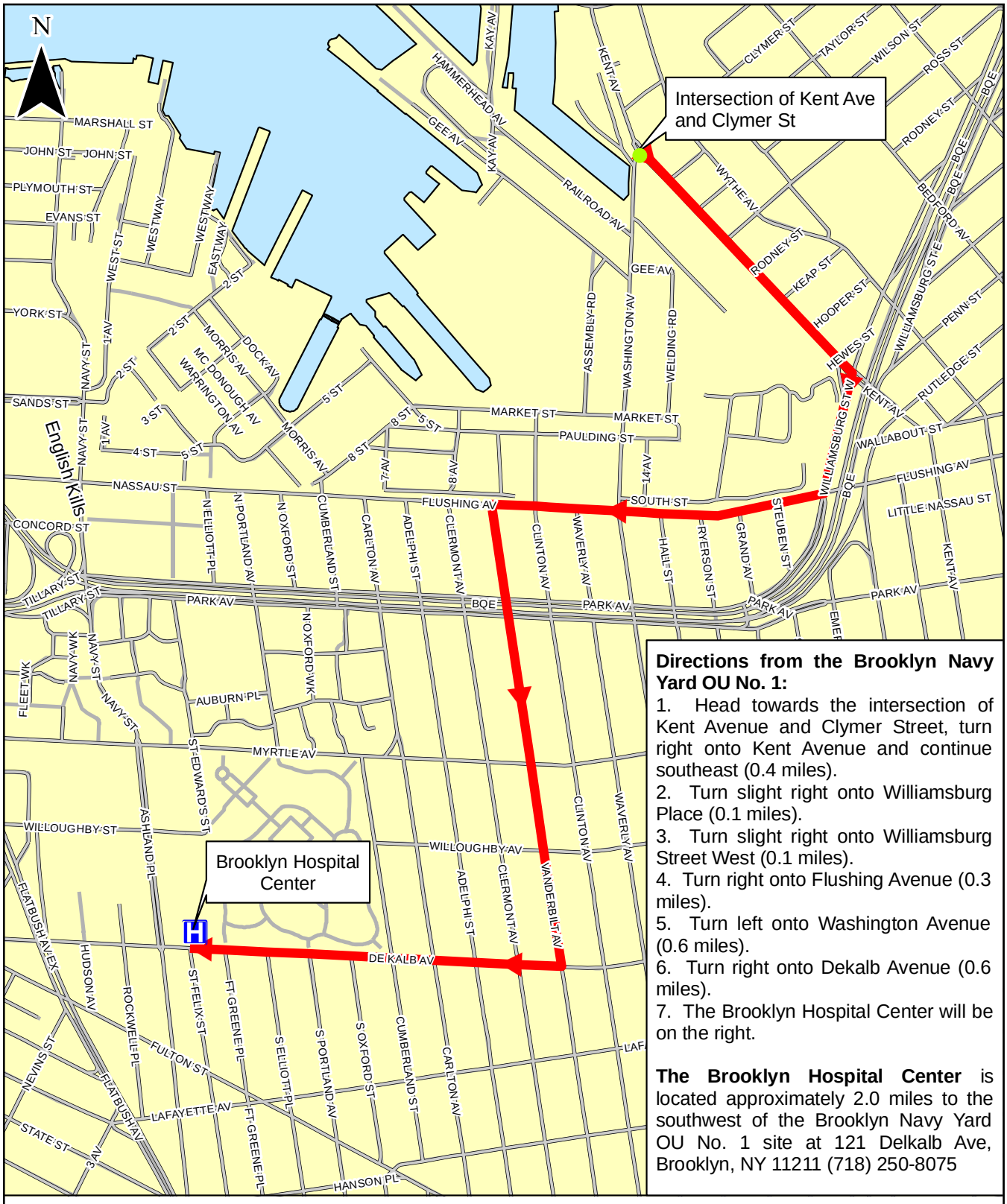
60 0 60 120 ft

SCALE (ft)

Reference: Soil Remediation Brooklyn Navy Yard,
Excavation and Demolition Plan Sheet H0003.00, Dated 05/16/2011
Prepared by the New York City Department of Sanitation

HDR Engineering, Inc. 1 International Blvd. Mahwah, NJ 07495	**Brooklyn Navy Yard Soil Remediation**	**Brooklyn, NY**	**Remedial Elements**	**Figure 6**

M:\Graphics\Projects\10085539_BrooklynNavyYard\Fig3DraftRemedialElements_20180330.ai



Directions from the Brooklyn Navy Yard OU No. 1:

1. Head towards the intersection of Kent Avenue and Clymer Street, turn right onto Kent Avenue and continue southeast (0.4 miles).
2. Turn slight right onto Williamsburg Place (0.1 miles).
3. Turn slight right onto Williamsburg Street West (0.1 miles).
4. Turn right onto Flushing Avenue (0.3 miles).
5. Turn left onto Washington Avenue (0.6 miles).
6. Turn right onto Dekalb Avenue (0.6 miles).
7. The Brooklyn Hospital Center will be on the right.

The Brooklyn Hospital Center is located approximately 2.0 miles to the southwest of the Brooklyn Navy Yard OU No. 1 site at 121 Delkalb Ave, Brooklyn, NY 11211 (718) 250-8075

Base Map Source: NYC Department of Information & Telecommunications, 2004.

50 1,000 ft
SCALE (ft)

HDR Engineering, Inc. 1 International Blvd. Mahwah, NJ 07495	**Hospital Route** **Brooklyn Navy Yard Soil Remediation** **Brooklyn, NY**	**Figure 7**

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APPENDIX A

FINAL CONSTRUCTION AND AS-BUILT DRAWINGS

THE CITY OF NEW YORK
DEPARTMENT OF SANITATION

BROOKLYN NAVY YARD SOIL REMEDIATION

BROOKLYN NAVY YARD DEVELOPMENT CORPORATION INDUSTRIAL PARK
BROOKLYN, NEW YORK

PIN: 82712WD00033

JANUARY 2012

LIST OF DRAWINGS

DRAWING NUMBER	DRAWING TITLE
1	AERIAL PHOTO
2	EXISTING CONDITIONS PLAN
3	EXCAVATION AND DEMOLITION PLAN
4	PRE-DESIGN INVESTIGATION RESULTS
5	EROSION AND SEDIMENT CONTROLS
6	DETAILS/CROSS SECTIONS

SITE LOCATION MAP

500 0 500 1000

SCALE IN FEET

NO	DATE	REVISIONS DESCRIPTION	APPR'D

DSNY

THE CITY OF NEW YORK
DEPARTMENT OF SANITATION
BUREAU OF WASTE DISPOSAL

SOIL REMEDIATION
BROOKLYN NAVY YARD
Kent Ave.
Kings County, NEW YORK

CAP. PROJECT NO: 5136-389	DATE: 05/16/11
CONT. NO: 1 OF 1	SCALE: NONR
DWG. BY: AW	PRJ. ENG.: B. CHENEY

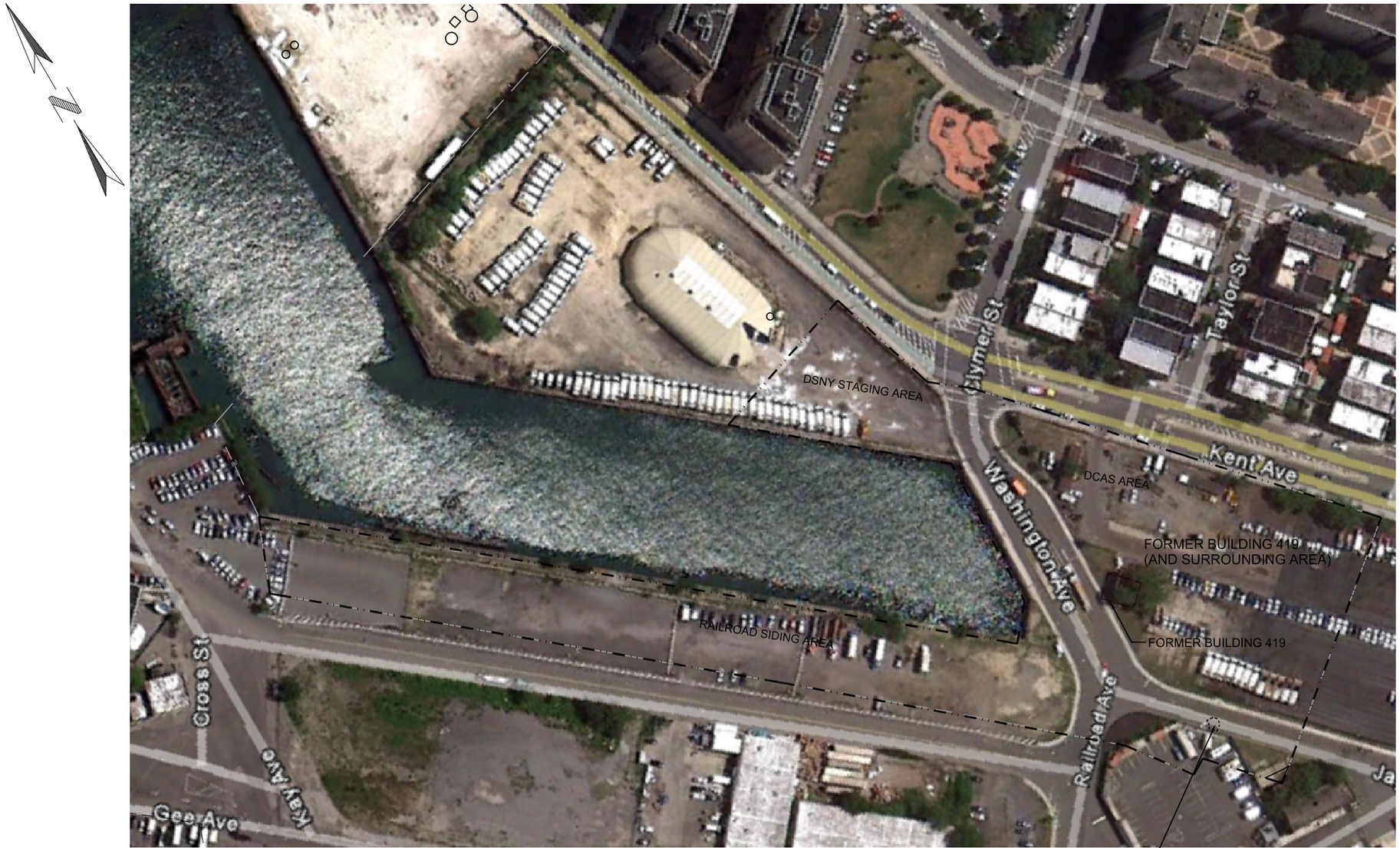
DRAWING TITLE:
COVER SHEET

DWG. NO:

SHEET. NO:
COVER

BARRY J. CHENEY PE
NYPE 54349

\\MAH-MEADOWLANDS\U032\BLYN_NAV_YD_16\DESIGN 2009-10\DRAWINGS\DWG\REMEDIAL DESIGN DRAWINGS.DWG 04/24/2012 LAYOUT: DSNY TITLE SHEET



LEGEND:

APPROXIMATE PROPERTY LINE

LIMITS OF OPERABLE UNIT 1

60 0 60 120

SCALE IN FEET

NO	DATE	REVISIONS DESCRIPTION	APPR'D

DSNY

THE CITY OF NEW YORK
DEPARTMENT OF SANITATION
BUREAU OF WASTE DISPOSAL

SOIL REMEDIATION
BROOKLYN NAVY YARD
Kent Ave.
Kings County, NEW YORK

CAP. PROJECT NO: S136-389 | DATE: 05/16/11
CONT. NO: 1 OF 1 | SCALE: 1" = 50'
DWG. BY: AW | PRJ. ENG.: B. CHENEY

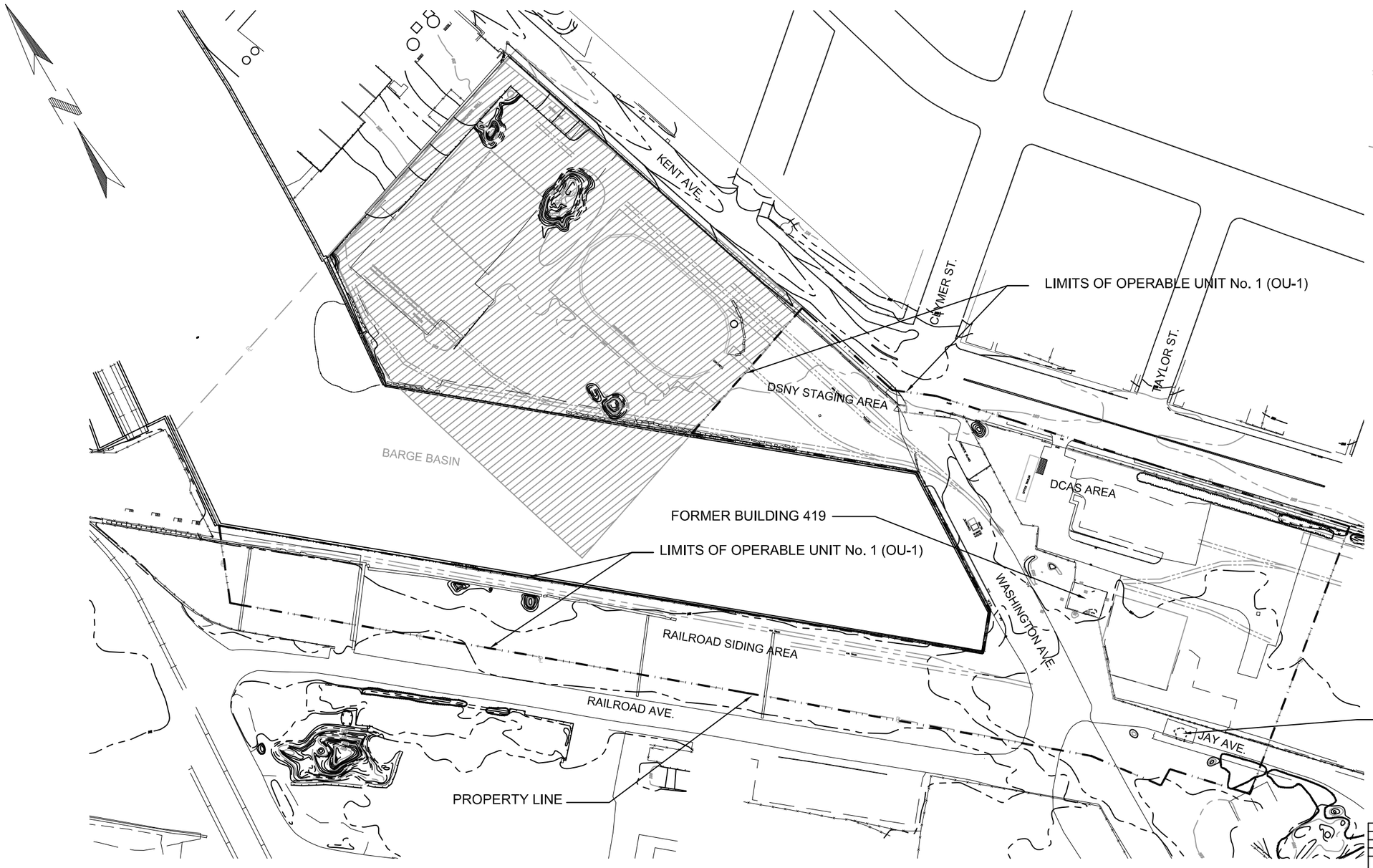
DRAWING TITLE:

AERIAL PHOTO

BARRY J. CHENEY PE
NYPE 54349

DWG. NO: H-001.00

SHEET. NO: 1 OF 6



LEGEND:

- VEGETATED AREAS
- EXISTING RAIL LINE
- EXISTING FENCE LINE
- EXISTING BLOCK WALLS
- EXISTING CONTOURS
- APPROXIMATE PROPERTY LINE
- LIMITS OF OPERABLE UNIT 1
- APPROXIMATE LIMITS OF OPERABLE UNIT No. 2 (OU-2)

60 0 60 120
SCALE IN FEET

NO	DATE	REVISIONS DESCRIPTION	APPR'D

DSNY

THE CITY OF NEW YORK
DEPARTMENT OF SANITATION
SUPPORT OPERATIONS
BUREAU OF ENGINEERING

REMEDIAL DESIGN
BROOKLYN NAVY YARD
Kent Ave.
Kings County, NEW YORK

CAP. PROJECT NO: S136-389	DATE: 05/16/11
CONT. NO: 1 OF 1	SCALE: 1" = 50'
DWG. BY: AW	PRJ. ENG.: B. CHENEY

DRAWING TITLE:
EXISTING CONDITIONS PLAN

DWG. NO: H-002.00
SHEET. NO: 2 OF 6

LEGEND:

- PROPOSED COVER APPLICATION AREA
- PROPOSED EXCAVATION OF CONTAMINATED MATERIAL
- PROPOSED MATERIAL AND EQUIPMENT STORAGE AREA
- EXISTING RAIL LINE
- EXISTING FENCE LINE
- EXISTING BLOCK WALLS
- EXISTING CONTOURS
- PL — APPROXIMATE PROPERTY LINE
- LIMITS OF OPERABLE UNIT 1

KENT AVE.

MORTON ST.

CLYMER ST.

TAYLOR ST.

WASHINGTON AVE.

RAILROAD AVE.

JAY AVE.

BARGE BASIN

SAND

LIMITS OF OPERABLE UNIT No.1

PROPOSED ASPHALT AREA TO BE EXCAVATED TO A DEPTH OF 2" AND COVERED WITH A 2" BINDER COURSE (SEE DETAIL SHEET 6)

EXISTING SOIL/ROCK TO BE REMOVED

AREA = 24,382.57 SQ. FT.

AREA = 1,421.36 SQ. FT.

REMOVE DEBRIS IN REMEDIATION AREAS

PROPOSED ASPHALT AREA TO BE EXCAVATED TO A DEPTH OF 2 INCHES AND COVERED WITH A 2" BINDER COURSE (SEE DETAIL SHEET 6)

LIMITS OF OPERABLE UNIT No. 1

REMOVE DEBRIS IN REMEDIATION AREAS

AREA = 63,249.23 SQ. FT.

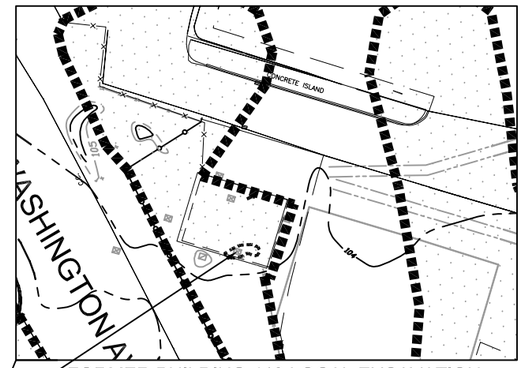
EXISTING BLOCK WALLS TO BE REMOVED, STORED ON SITE AND REPLACED UPON COMPLETION OF COVER PLACEMENT

AREA = 10,592.31 SQ. FT.

FORMER DRUM STORAGE AREA A

AREA = 8,754.17 SQ. FT.

AREA = 25,380.87 SQ. FT.



FORMER BUILDING 419 LOCAL EXCAVATION

FORMER BUILDING 419 LOCAL EXCAVATION (APPROX. 3' DEEP, 10 CY; REMAINS OF BUILDING TO BE DEMOLISHED AND REMOVED TO BOTTOM OF FOUNDATION. TO BE REPLACED IN PART WITH IMPERVIOUS ASPHALT AND PART WITH GRAVEL SURFACE.

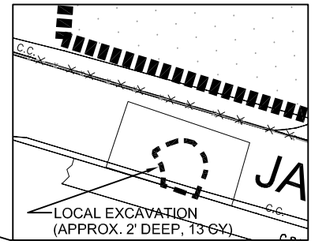
REMOVE DEBRIS IN REMEDIATION AREAS

TEMPORARY SECURITY FENCING TO BE INSTALLED AROUND BUILDING 419 DEMOLITION AREA. (ONLY OUTSIDE. ACTUAL LOCATION TO BE DETERMINED BY CONTRACTOR)

PROPOSED VEGETATED AREA TO BE EXCAVATED TO A DEPTH OF 12" AND RESTORED WITH 12" OF CLEAN FILL (SEE DETAIL SHEET 6)

PROPOSED WASTE STORAGE AREA

PROPOSED ASPHALT AREA TO BE EXCAVATED TO A DEPTH OF 2" AND COVERED WITH A 2" BINDER COURSE (SEE DETAIL SHEET 6)



LOCAL EXCAVATION (APPROX. 2' DEEP, 13 CY.)

FORMER DRUM STORAGE AREA "A"

60 0 60 120

SCALE IN FEET

NO	DATE	REVISIONS DESCRIPTION	APPR'D

DSNY

THE CITY OF NEW YORK
DEPARTMENT OF SANITATION
SUPPORT OPERATIONS
BUREAU OF ENGINEERING

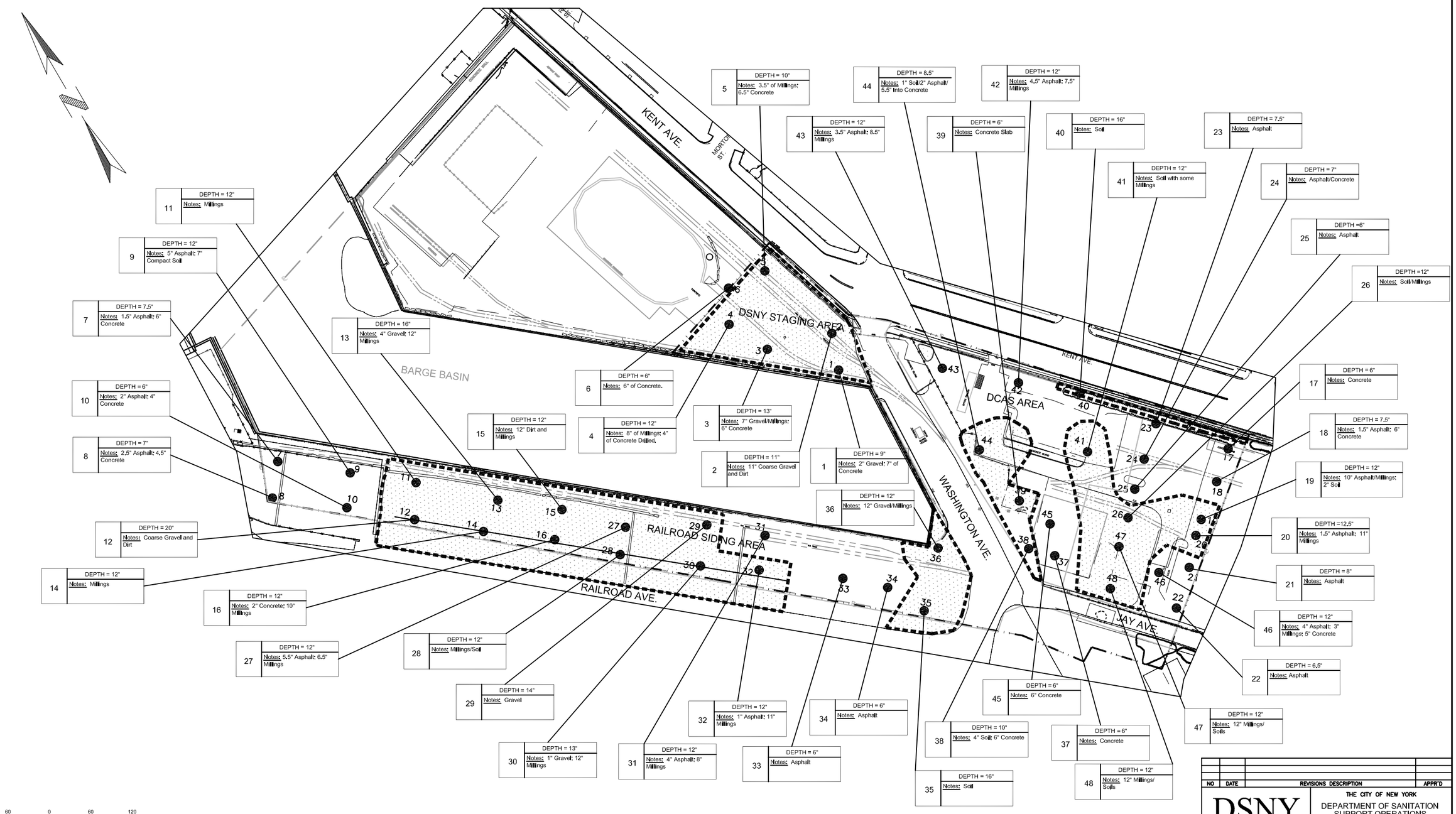
REMEDIAL DESIGN
BROOKLYN NAVY YARD
Kent Ave.
Kings County, NEW YORK

CAP. PROJECT NO: S136-389	DATE: 05/16/11
CONT. NO: 1 OF 1	SCALE: 1" = 50'
DWG. BY: AW	PRJ. ENG.: B. CHENEY

DRAWING TITLE:
EXCAVATION AND DEMOLITION PLAN

DWG. NO: H-003.00

SHEET. NO: 3 OF 6



NO	DATE	REVISIONS DESCRIPTION	APPR'D

DSNY

THE CITY OF NEW YORK
DEPARTMENT OF SANITATION
SUPPORT OPERATIONS
BUREAU OF ENGINEERING

REMEDIAL DESIGN
BROOKLYN NAVY YARD

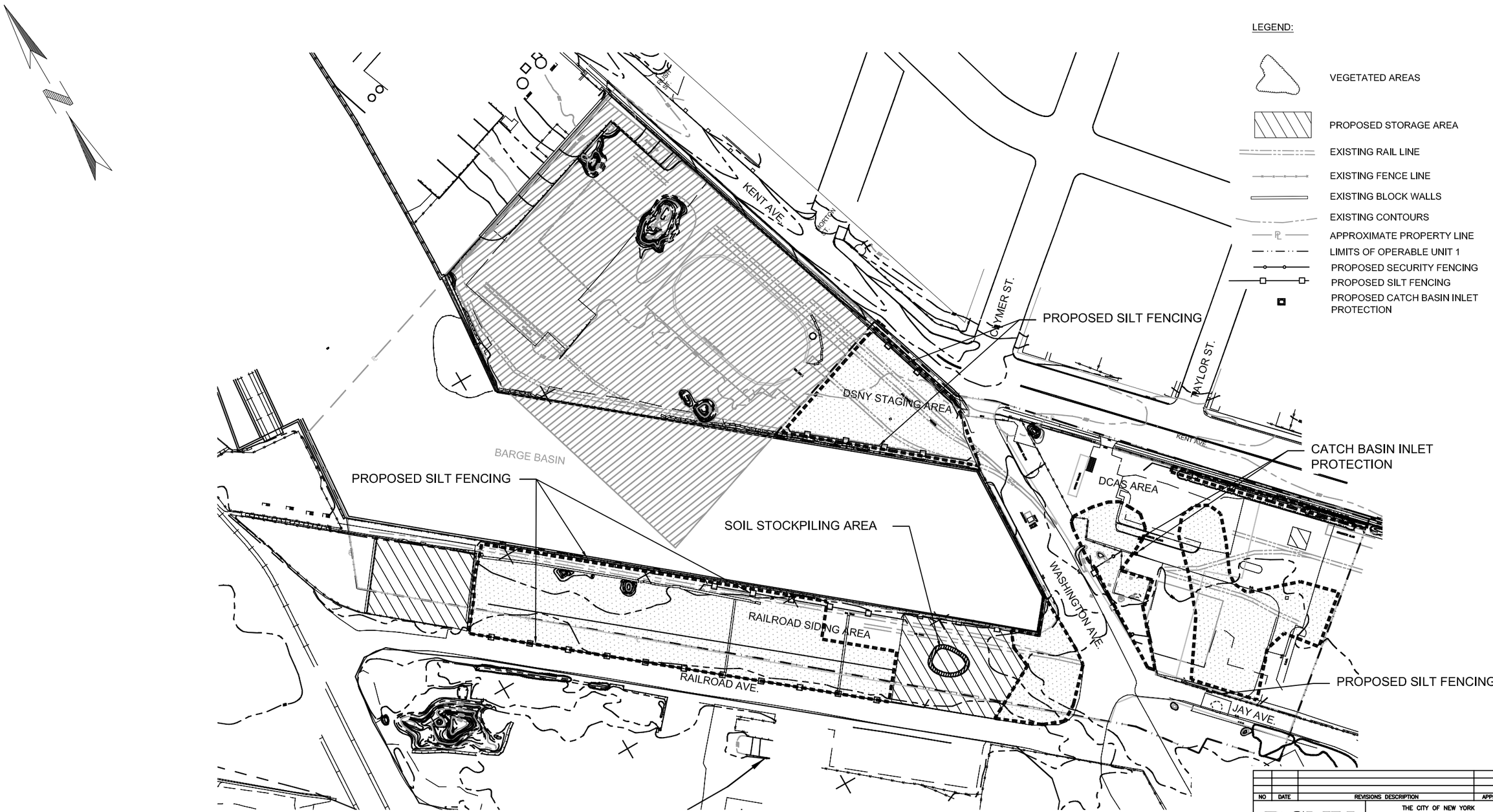
Kent Ave.
Kings County, NEW YORK

CAP. PROJECT NO: S136-389	DATE: 05/16/11
CONT. NO: 1 OF 1	SCALE: 1" = 50'
DWG. BY: AW	PRJ. ENG.: B. CHENEY

DRAWING TITLE:

PRE-DESIGN INVESTIGATION RESULTS

DWG. NO:	SHEET. NO:
H-004.00	4 OF 6



NO	DATE	REVISIONS DESCRIPTION	APPR'D

DSNY

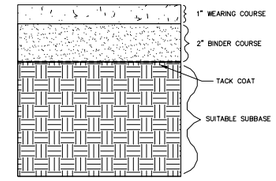
THE CITY OF NEW YORK
DEPARTMENT OF SANITATION
SUPPORT OPERATIONS
BUREAU OF ENGINEERING

REMEDIAL DESIGN
BROOKLYN NAVY YARD
Kent Ave.
Kings County, NEW YORK

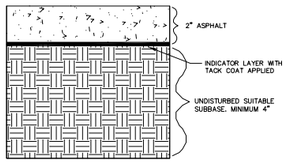
CAP. PROJECT NO: S136-389	DATE: 05/16/11
CONT. NO: 1 OF 1	SCALE: 1" = 50'
DWG. BY: AW	PRJ. ENG.: B. CHENEY

DRAWING TITLE:
EROSION AND SEDIMENT CONTROLS

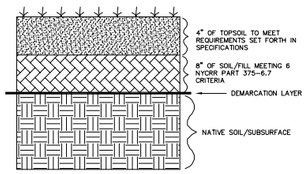
DWG. NO: H-005.00
SHEET. NO: 5 OF 6



JAY STREET / DRUM STORAGE AREA A STREET EXCAVATION REPAIR

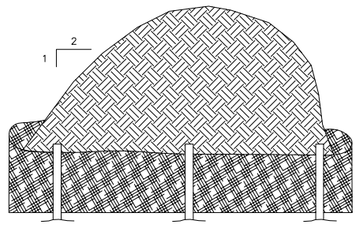


ASPHALT COVER CROSS-SECTION



PROPOSED VEGETATIVE CAP

NOTE: INDICATOR MATERIAL WILL BE A COLORED FABRIC THAT WILL CLEARLY MARK THE LIMITS OF THE FILL SECTION (I.E. ORANGE PLASTIC SNOW FENCING)



SOIL STOCKPILE DETAIL

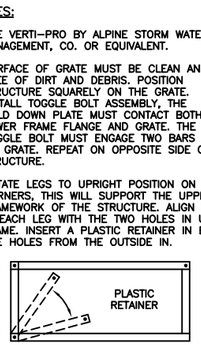
NOT TO SCALE

NOTES:

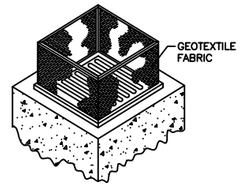
1. HAY BALES MAY BE USED FOR PROTECTION AT UPGRADE ACCESS POINT TO ALLOW EASIER ACCESS
2. STOCKPILES ARE TO BE STABILIZED WITH A TARP OR HAY WHEN INACTIVE FOR MORE THAN 48 HOURS.

NOTES:

1. USE VERTI-PRO BY ALPINE STORM WATER MANAGEMENT, CO. OR EQUIVALENT.
2. SURFACE OF GRATE MUST BE CLEAN AND FREE OF DIRT AND DEBRIS. POSITION STRUCTURE SQUARELY ON THE GRATE. INSTALL TOGGLE BOLT ASSEMBLY, THE HOLD DOWN PLATE MUST CONTACT BOTH LOWER FRAME FLANGE AND GRATE. THE TOGGLE BOLT MUST ENGAGE TWO BARS ON GRATE. REPEAT ON OPPOSITE SIDE OF STRUCTURE.
3. ROTATE LEGS TO UPRIGHT POSITION ON DIAGONAL CORNERS, THIS WILL SUPPORT THE UPPER FRAMEWORK OF THE STRUCTURE. ALIGN HOLES IN EACH LEG WITH THE TWO HOLES IN UPPER FRAME. INSERT A PLASTIC RETAINER IN EACH OF THE HOLES FROM THE OUTSIDE IN.

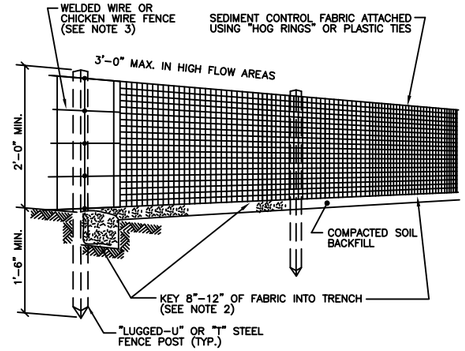


4. INSPECT AFTER EACH RAIN EVENT. REMOVE DEBRIS AND CAPTURED SEDIMENT WHEN DEPOSITS REACH 7" OR 1/2 THE HEIGHT OF THE STRUCTURE. REMOVE CAPTURED DEBRIS FROM THE STRUCTURE FABRIC WITH A STIFF BRISTLE BRUSH.
5. USE MIRAFI 140N GEOTEXTILE FILTER FABRIC OR APPROVED EQUIVALENT.



CATCH BASIN INLET PROTECTION DETAIL

NOT TO SCALE

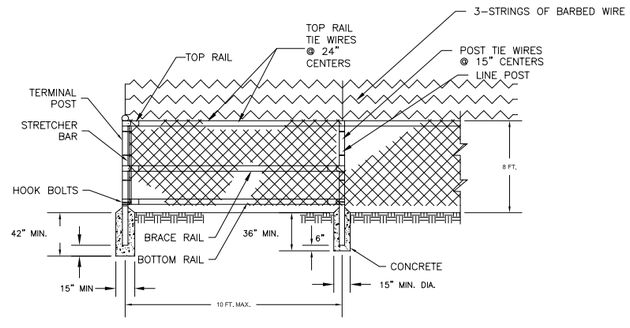


SILT FENCE DETAIL

NOT TO SCALE

DETAIL NOTES:

1. PRE-MANUFACTURED SILT FENCE SUCH AS ENVIROFENCE BY MIRAFI OR APPROVED EQUAL. IN SUCH CASE, ELIMINATE WELDED WIRE/ CHICKEN WIRE FENCE.
2. KEY TOWARD UPSLOPE SIDE.
3. WELDED WIRE SHALL BE 14.5 GAUGE WITH 6-INCH MESH.



CONSTRUCTION NOTES

1. MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE MANUFACTURER'S SPECIFICATIONS.
2. ALL POSTS SHALL BE INSTALLED VERTICALLY. WHERE POSTS ARE INSTALLED ON AN INCLINED SURFACE, THE ANGLE OF THE POST SHALL BE ADJUSTED SO THAT THE POST WILL BE VERTICAL.

FENCE DETAILS

50 0 50 100

SCALE IN FEET

NO	DATE	REVISIONS DESCRIPTION	APPR'D

DSNY

THE CITY OF NEW YORK
DEPARTMENT OF SANITATION
SUPPORT OPERATIONS
BUREAU OF ENGINEERING

REMEDIAL DESIGN
BROOKLYN NAVY YARD

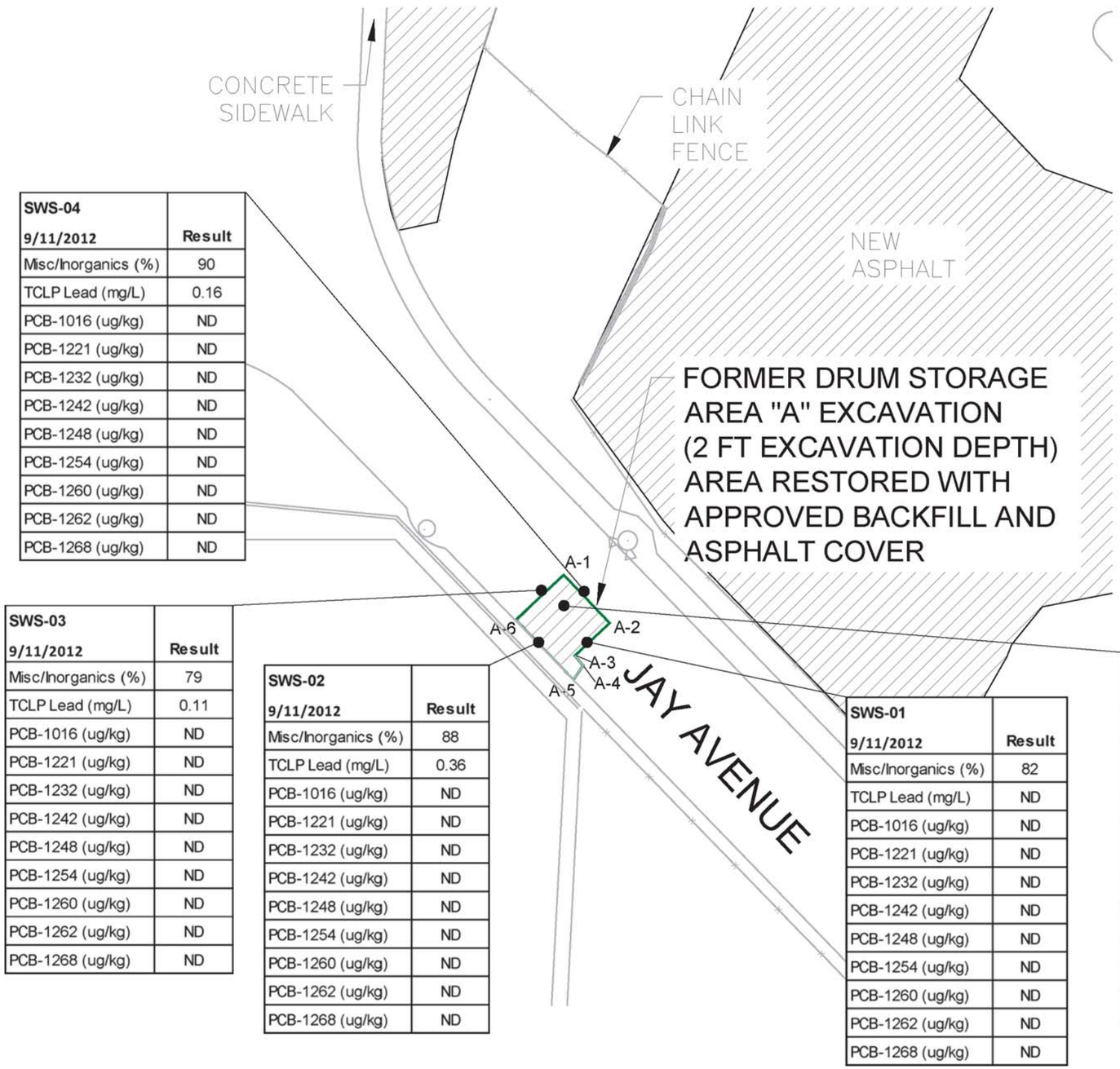
Kent Ave.
Kings County, NEW YORK

CAP. PROJECT NO: S136-389	DATE: 05/16/11
CONT. NO: 1 OF 1	SCALE: 1" = 50'
DWG. BY: AW	PRJ. ENG.: B. CHENEY

DRAWING TITLE:

DETAILS
CROSS SECTIONS

DWG. NO:	SHEET. NO:
H-006.00	6 OF 6



SWS-04 9/11/2012	Result
Misc/Inorganics (%)	90
TCLP Lead (mg/L)	0.16
PCB-1016 (ug/kg)	ND
PCB-1221 (ug/kg)	ND
PCB-1232 (ug/kg)	ND
PCB-1242 (ug/kg)	ND
PCB-1248 (ug/kg)	ND
PCB-1254 (ug/kg)	ND
PCB-1260 (ug/kg)	ND
PCB-1262 (ug/kg)	ND
PCB-1268 (ug/kg)	ND

SWS-03 9/11/2012	Result
Misc/Inorganics (%)	79
TCLP Lead (mg/L)	0.11
PCB-1016 (ug/kg)	ND
PCB-1221 (ug/kg)	ND
PCB-1232 (ug/kg)	ND
PCB-1242 (ug/kg)	ND
PCB-1248 (ug/kg)	ND
PCB-1254 (ug/kg)	ND
PCB-1260 (ug/kg)	ND
PCB-1262 (ug/kg)	ND
PCB-1268 (ug/kg)	ND

SWS-02 9/11/2012	Result
Misc/Inorganics (%)	88
TCLP Lead (mg/L)	0.36
PCB-1016 (ug/kg)	ND
PCB-1221 (ug/kg)	ND
PCB-1232 (ug/kg)	ND
PCB-1242 (ug/kg)	ND
PCB-1248 (ug/kg)	ND
PCB-1254 (ug/kg)	ND
PCB-1260 (ug/kg)	ND
PCB-1262 (ug/kg)	ND
PCB-1268 (ug/kg)	ND

SWS-01 9/11/2012	Result
Misc/Inorganics (%)	82
TCLP Lead (mg/L)	ND
PCB-1016 (ug/kg)	ND
PCB-1221 (ug/kg)	ND
PCB-1232 (ug/kg)	ND
PCB-1242 (ug/kg)	ND
PCB-1248 (ug/kg)	ND
PCB-1254 (ug/kg)	ND
PCB-1260 (ug/kg)	ND
PCB-1262 (ug/kg)	ND
PCB-1268 (ug/kg)	ND

BS-01 9/11/2012	Result
Misc/Inorganics (%)	88
TCLP Lead (mg/L)	0.11
PCB-1016 (ug/kg)	ND
PCB-1221 (ug/kg)	ND
PCB-1232 (ug/kg)	ND
PCB-1242 (ug/kg)	ND
PCB-1248 (ug/kg)	ND
PCB-1254 (ug/kg)	ND
PCB-1260 (ug/kg)	ND
PCB-1262 (ug/kg)	ND
PCB-1268 (ug/kg)	ND

N

LEGEND:

- EDGE OF PAVEMENT
- EDGE OF CURB
- CHAIN LINK FENCE
- RIGHT OF WAY
- ADJACENT PROPERTY LINE
- CONCRETE RETAINING WALL
- HYDRANT
- AOC AREA
- SOIL ENDPOINT SAMPLE LOCATION

ND	NON DETECT
PCB	POLYCHLORINATED BIPHENYL
TCLP	TOXICITY CHARACTERISTIC LEACHING PROCEDURE
UG/KG	MICROGRAMS PER KILOGRAM
MG/L	MILLIGRAMS PER LITER
%	PERCENT SOLID

DRUM STORAGE AREA A												EXCAVATION DEPTH (FT)
APPROXIMATE EASTINGS AND NORTHINGS FOR EXCAVATION CORNERS												
A-1		A-2		A-3		A-4		A-5		A-6		
E	993381.77	E	993392.92	E	993384.45	E	993386.49	E	993384.11	E	993370.16	2
N	195326.90	N	195315.20	N	195307.26	N	195304.88	N	195301.42	N	195315.98	

*NAD83, New York State Planes, East Zone, US Foot

STATE OF NEW YORK
Musso Michael Paul
081074-1
LICENSED PROFESSIONAL ENGINEER

Michael P. Musso, P.E.

NOTES:
1. BASE FILE IS FROM A FIELD SURVEY COMPLETED JULY 2012 AND UPDATED MAY 5, 2014 BY THE CITY OF NEW YORK DEPARTMENT OF DESIGN AND CONSTRUCTION (DDC).
2. END POINT SAMPLE LOCATIONS WERE LOCATED BY HDR USING A HAND HELD GPS UNIT IN SEPTEMBER AND NOVEMBER 2012.

HDR

ISSUE	DATE	DESCRIPTION

PROJECT MANAGER M. Musso

PROJECT NUMBER

SIGNATURE DATE

WARNING: It is a violation of the New York State Education Law for any person unless acting under the direction of a licensed professional engineer, to alter any item on these plans in any way. If alterations to these plans are made, the alterations shall be made in accordance with 145-subsection 7209 of the New York State Education Law.

FINAL REMEDIAL ACTION AS-BUILTS
FORMER BROOKLYN NAVY YARD
BROOKLYN, NEW YORK

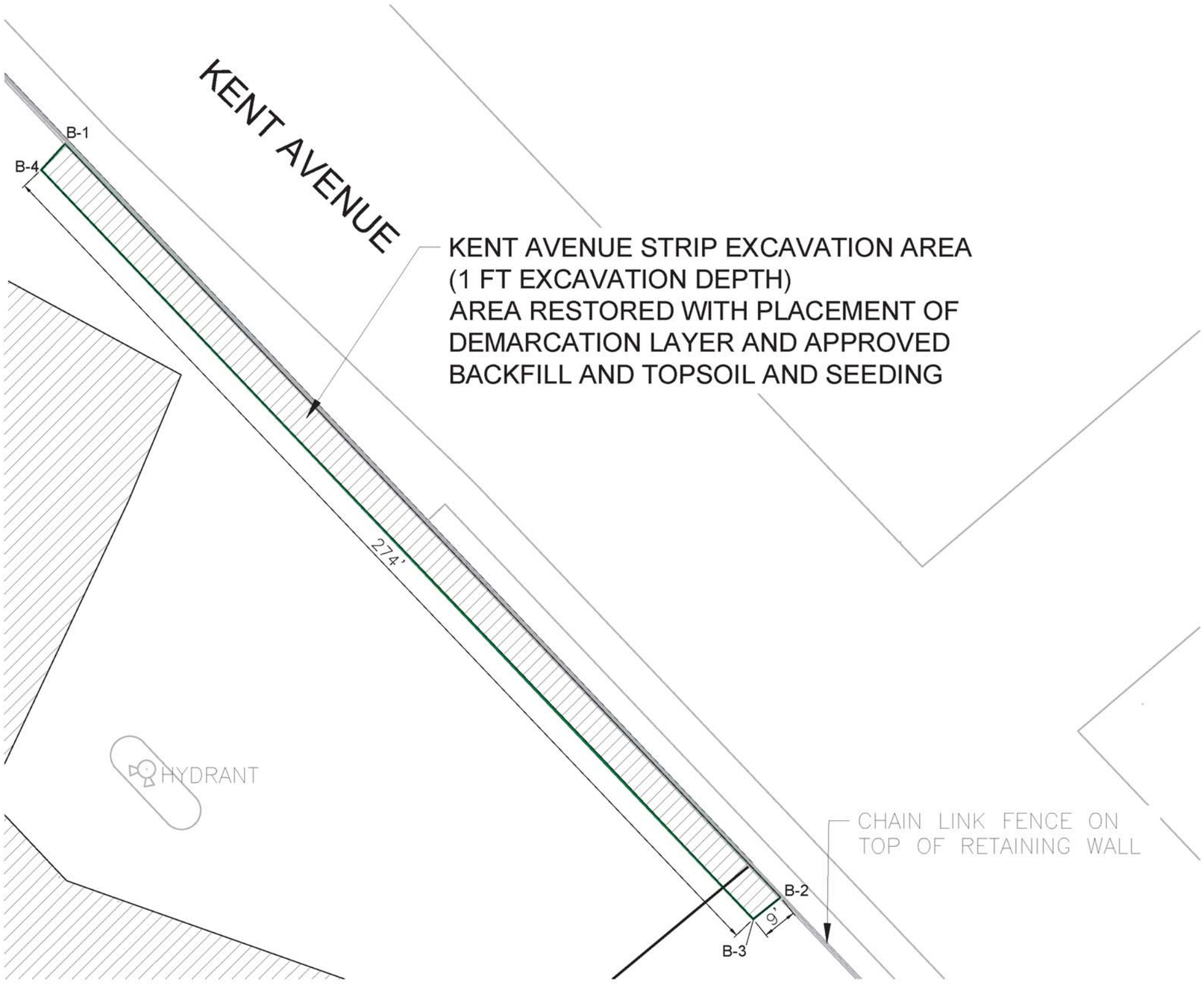
FORMER DRUM STORAGE AREA "A" EXCAVATION AREA

0 30' 60'

FILENAME

SCALE 1"=30'

SHEET 1



LEGEND:

- EDGE OF PAVEMENT
- EDGE OF CURB
- CHAIN LINK FENCE
- RIGHT OF WAY
- ADJACENT PROPERTY LINE
- CONCRETE RETAINING WALL
- HYDRANT
- AOC AREA

KENT AVENUE								
APPROXIMATE EASTINGS AND NORTHINGS FOR EXCAVATION CORNERS								EXCAVATION DEPTH (FT)
B-1		B-2		B-3		B-4		
E	993498.06	E	993687.97	E	993680.71	E	993491.78	1
N	195620.90	N	195420.92	N	195415.12	N	195614.04	
*NAD83, New York State Planes, East Zone, US Foot								

STATE OF NEW YORK
Musso Michael Paul
081074-1
LICENSED PROFESSIONAL ENGINEER

Michael P. Musso, P.E.

NOTES:
1. BASE FILE IS FROM A FIELD SURVEY COMPLETED JULY 2012 AND UPDATED MAY 5, 2014 BY THE CITY OF NEW YORK DEPARTMENT OF DESIGN AND CONSTRUCTION (DDC).
2. APPROVED BY NYSDEC POST-EXCAVATION ENDPOINT SAMPLING WAS NOT REQUIRED BASED ON THE EXISTING PRE-CHARACTERIZATION DATA SET.

HDR

PROJECT MANAGER M. Musso

ISSUE DATE DESCRIPTION | PROJECT NUMBER

SIGNATURE DATE

FINAL REMEDIAL ACTION AS-BUILTS
FORMER BROOKLYN NAVY YARD
BROOKLYN, NEW YORK

KENT AVENUE
EXCAVATION AREA

0 30' 60'

FILENAME

SCALE 1"=40'

SHEET 2

BLD 419-Post Ex 12 11/13/2012	Result
PCB-1016 (ug/kg)	ND
PCB-1221 (ug/kg)	ND
PCB-1232 (ug/kg)	ND
PCB-1242 (ug/kg)	ND
PCB-1248 (ug/kg)	ND
PCB-1254 (ug/kg)	ND
PCB-1260 (ug/kg)	1100
PCB-1262 (ug/kg)	ND
PCB-1268 (ug/kg)	ND

BLD 419-Post Ex 9 11/13/2012	Result
PCB-1016 (ug/kg)	ND
PCB-1221 (ug/kg)	ND
PCB-1232 (ug/kg)	ND
PCB-1242 (ug/kg)	ND
PCB-1248 (ug/kg)	ND
PCB-1254 (ug/kg)	ND
PCB-1260 (ug/kg)	3000
PCB-1262 (ug/kg)	ND
PCB-1268 (ug/kg)	ND

BLD 419-Post Ex 5 11/13/2012	Result
PCB-1016 (ug/kg)	ND
PCB-1221 (ug/kg)	ND
PCB-1232 (ug/kg)	ND
PCB-1242 (ug/kg)	ND
PCB-1248 (ug/kg)	ND
PCB-1254 (ug/kg)	ND
PCB-1260 (ug/kg)	ND
PCB-1262 (ug/kg)	490
PCB-1268 (ug/kg)	ND

BLD 419-Post Ex West 11/13/2012	Result
PCB-1016 (ug/kg)	ND
PCB-1221 (ug/kg)	ND
PCB-1232 (ug/kg)	ND
PCB-1242 (ug/kg)	ND
PCB-1248 (ug/kg)	ND
PCB-1254 (ug/kg)	ND
PCB-1260 (ug/kg)	ND
PCB-1262 (ug/kg)	ND
PCB-1268 (ug/kg)	ND

BLD 419-Post Ex 6 11/13/2012	Result
PCB-1016 (ug/kg)	ND
PCB-1221 (ug/kg)	ND
PCB-1232 (ug/kg)	ND
PCB-1242 (ug/kg)	ND
PCB-1248 (ug/kg)	ND
PCB-1254 (ug/kg)	ND
PCB-1260 (ug/kg)	ND
PCB-1262 (ug/kg)	3000
PCB-1268 (ug/kg)	ND

BLD 419-Post Ex 11 11/13/2012	Result
PCB-1016 (ug/kg)	ND
PCB-1221 (ug/kg)	ND
PCB-1232 (ug/kg)	ND
PCB-1242 (ug/kg)	ND
PCB-1248 (ug/kg)	ND
PCB-1254 (ug/kg)	ND
PCB-1260 (ug/kg)	56
PCB-1262 (ug/kg)	ND
PCB-1268 (ug/kg)	ND

BLD 419-Post Ex 3 11/13/2012	Result
PCB-1016 (ug/kg)	ND
PCB-1221 (ug/kg)	ND
PCB-1232 (ug/kg)	ND
PCB-1242 (ug/kg)	ND
PCB-1248 (ug/kg)	ND
PCB-1254 (ug/kg)	ND
PCB-1260 (ug/kg)	550
PCB-1262 (ug/kg)	ND
PCB-1268 (ug/kg)	ND

BLD 419-Post Ex 10 11/13/2012	Result
PCB-1016 (ug/kg)	ND
PCB-1221 (ug/kg)	ND
PCB-1232 (ug/kg)	ND
PCB-1242 (ug/kg)	ND
PCB-1248 (ug/kg)	ND
PCB-1254 (ug/kg)	ND
PCB-1260 (ug/kg)	13
PCB-1262 (ug/kg)	ND
PCB-1268 (ug/kg)	ND

BLD 419-Post Ex East 11/13/2012	Result
PCB-1016 (ug/kg)	ND
PCB-1221 (ug/kg)	ND
PCB-1232 (ug/kg)	ND
PCB-1242 (ug/kg)	ND
PCB-1248 (ug/kg)	ND
PCB-1254 (ug/kg)	ND
PCB-1260 (ug/kg)	270
PCB-1262 (ug/kg)	ND
PCB-1268 (ug/kg)	ND

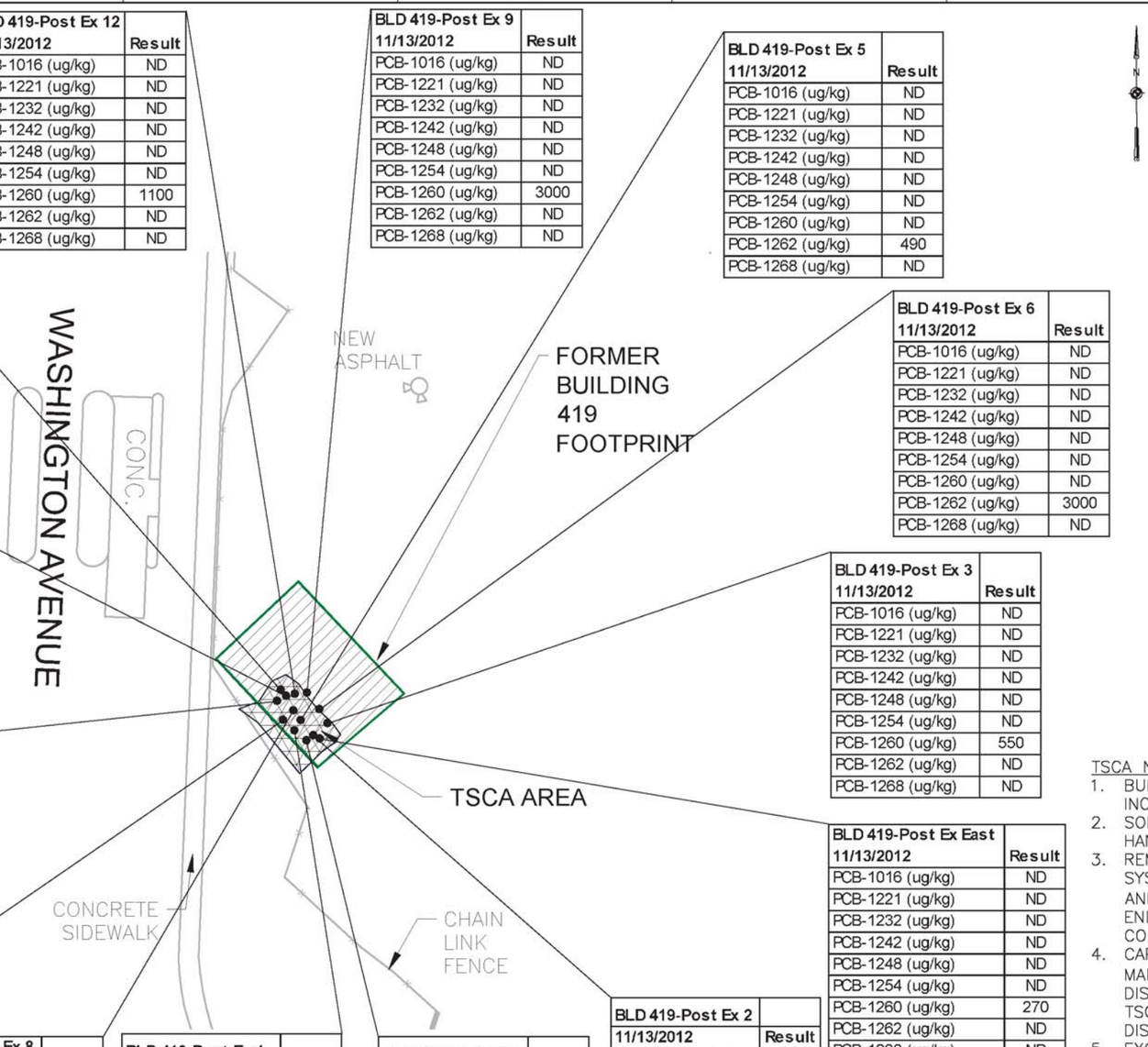
BLD 419-Post Ex 7 11/13/2012	Result
PCB-1016 (ug/kg)	ND
PCB-1221 (ug/kg)	ND
PCB-1232 (ug/kg)	ND
PCB-1242 (ug/kg)	ND
PCB-1248 (ug/kg)	ND
PCB-1254 (ug/kg)	ND
PCB-1260 (ug/kg)	850
PCB-1262 (ug/kg)	ND
PCB-1268 (ug/kg)	ND

BLD 419-Post Ex 8 11/13/2012	Result
PCB-1016 (ug/kg)	ND
PCB-1221 (ug/kg)	ND
PCB-1232 (ug/kg)	ND
PCB-1242 (ug/kg)	ND
PCB-1248 (ug/kg)	ND
PCB-1254 (ug/kg)	ND
PCB-1260 (ug/kg)	600
PCB-1262 (ug/kg)	ND
PCB-1268 (ug/kg)	ND

BLD 419-Post Ex 4 11/13/2012	Result
PCB-1016 (ug/kg)	ND
PCB-1221 (ug/kg)	ND
PCB-1232 (ug/kg)	ND
PCB-1242 (ug/kg)	ND
PCB-1248 (ug/kg)	ND
PCB-1254 (ug/kg)	ND
PCB-1260 (ug/kg)	ND
PCB-1262 (ug/kg)	540
PCB-1268 (ug/kg)	ND

BLD 419-Post Ex 1 11/13/2012	Result
PCB-1016 (ug/kg)	ND
PCB-1221 (ug/kg)	ND
PCB-1232 (ug/kg)	ND
PCB-1242 (ug/kg)	ND
PCB-1248 (ug/kg)	ND
PCB-1254 (ug/kg)	ND
PCB-1260 (ug/kg)	52
PCB-1262 (ug/kg)	ND
PCB-1268 (ug/kg)	ND

BLD 419-Post Ex 2 11/13/2012	Result
PCB-1016 (ug/kg)	ND
PCB-1221 (ug/kg)	ND
PCB-1232 (ug/kg)	ND
PCB-1242 (ug/kg)	ND
PCB-1248 (ug/kg)	ND
PCB-1254 (ug/kg)	ND
PCB-1260 (ug/kg)	320
PCB-1262 (ug/kg)	ND
PCB-1268 (ug/kg)	ND



LEGEND:

- EDGE OF PAVEMENT
- EDGE OF CURB
- CHAIN LINK FENCE
- RIGHT OF WAY
- ADJACENT PROPERTY LINE
- CONCRETE RETAINING WALL
- HYDRANT
- AOC AREA
- TSCA AREA (SOIL EXCAVATED TO DEPTH OF 3 FT)
- BUILDING 419 FOOT PRINT
- SOIL ENDPOINT SAMPLE LOCATION
- ND NON DETECT
- PCB POLYCHLORINATED BIPHENYL
- UG/KG MICROGRAMS PER KILOGRAM
- TSCA TOXIC SUBSTANCE CONTROL ACT

TSCA NOTES:

1. BUILDING WAS ASSESSED AND DEMOLISHED UNDER TSCA PROTOCOLS, INCLUDING SELF-IMPLEMENTING CLEAN UP PLAN APPROVED BY USEPA.
2. SOILS WITH TOTAL PCB CONCENTRATIONS >50 PPM WERE EXCAVATED AND HANDLED UNDER TSCA PROTOCOLS.
3. REMAINING SOILS IN THE TSCA AREA WERE COVERED WITH A CAPPING SYSTEM THAT INCLUDED A DEMARCATION LAYER AND APPROVED BACKFILL AND AN ASPHALT SURFACE COVER WITH MINIMUM THICKNESS OF 6". ALL ENDPOINT SOIL SAMPLES WERE FOUND TO HAVE TOTAL PCB CONCENTRATIONS OF <10 PPM.
4. CAPPING SYSTEM TO BE MONITORED IN ACCORDANCE WITH SITE MANAGEMENT PLAN (SMP) (TO BE APPROVED BY NYSDEC). ROUTINE SOIL DISTURBANCE WORK CONDUCTED UNDER THE SMP WOULD NOT REQUIRE TSCA NOTICE IF GENERATED WASTES ARE SENT TO A TSCA PERMITTED DISPOSAL FACILITY AND THE TSCA CAPPING SYSTEM IS REPLACED.
5. EXCAVATION EQUIPMENT WAS DECONTAMINATED PRIOR TO DEMOBILIZATION FROM WORK AREA.

NOTES:

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2. END POINT SAMPLE LOCATIONS WERE LOCATED BY HDR USING A HAND HELD GPS UNIT IN SEPTEMBER AND NOVEMBER 2012.
3. REFER TO BUILDING 419 EXCAVATION AREA CROSS SECTION SHEET 4.

STATE OF NEW YORK
Musso Michael Paul
081074-1
LICENSED PROFESSIONAL ENGINEER

HDR

ISSUE	DATE	DESCRIPTION

PROJECT MANAGER M. Musso

PROJECT NUMBER

Michael P. Musso, P.E.

SIGNATURE DATE

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FINAL REMEDIAL ACTION AS-BUILTS
FORMER BROOKLYN NAVY YARD
BROOKLYN, NEW YORK

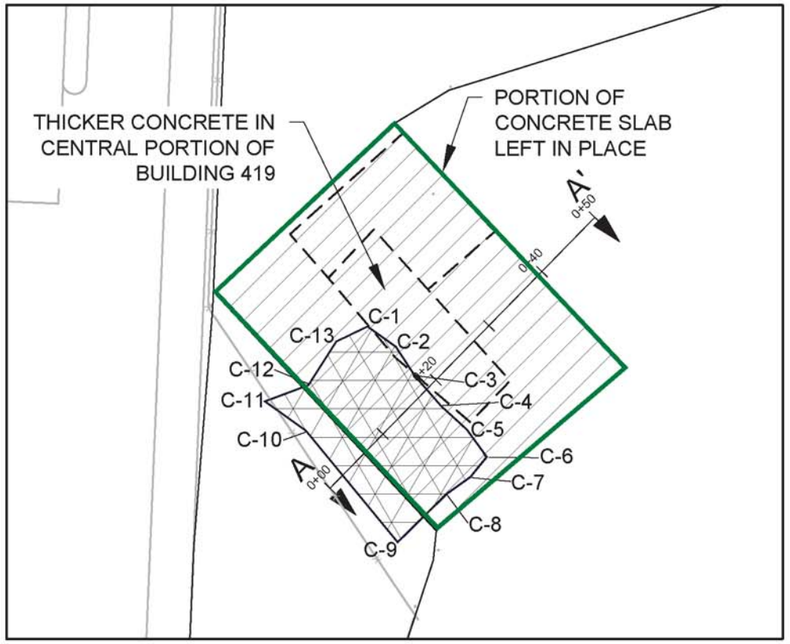
BUILDING 419
SOIL EXCAVATION AREA

0 40' 80'

FILENAME

SCALE 1"=40'

SHEET 3

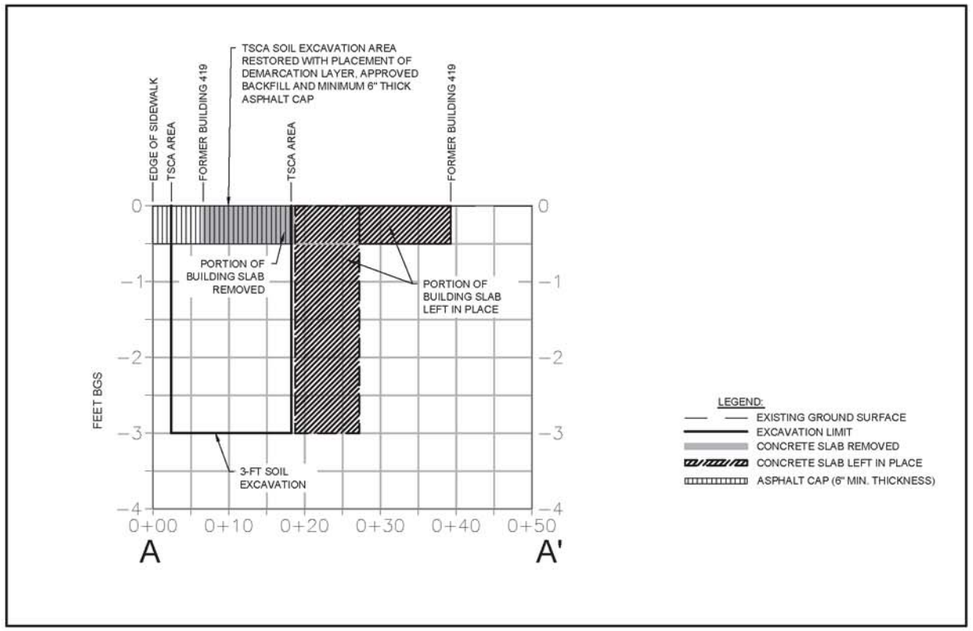


BUILDING 419 & TSCA AREA

SCALE: 1" = 20'

LEGEND:

- AOC AREA
- TSCA AREA (SOIL EXCAVATED TO DEPTH OF 3 FT)
- BUILDING 419 FOOT PRINT
- PORTION OF SLAB LEFT IN PLACE



SECTION A – A'

VERTICAL SCALE: 1" = 2'
HORIZONTAL SCALE: 1" = 20'

BUILDING 419														EXCAVATION DEPTH (FT)
APPROXIMATE EASTINGS AND NORTHINGS FOR EXCAVATION CORNERS														
C-1		C-2		C-3		C-4		C-5		C-6		C-7		3
E	993362.6	E	993366.3	E	993368.8	E	993372.3	E	993375.7	E	993378.3	E	993376.2	
N	195513.3	N	195510.7	N	195506.8	N	195502.9	N	195499.7	N	195496.2	N	195493.5	
C-8		C-9		C-10		C-11		C-12		C-13				
E	993373.1	E	993366.6	E	993354.5	E	993349	E	993354.8	E	993358.5			
N	195491.3	N	195484.9	N	195499.6	N	195503.5	N	195505.6	N	195511.4			

*NAD83, New York State Planes, East Zone, US Foot

Michael P. Musso, P.E.

HDR

ISSUE	DATE	DESCRIPTION

PROJECT MANAGER M. Musso

PROJECT NUMBER

SIGNATURE DATE

WARNING: It is a violation of the New York State Education Law for any person unless acting under the direction of a licensed professional engineer, to alter any item on these plans in any way. If alterations to these plans are made, the alterations shall be made in accordance with 145-subsection 7209 of the New York State Education Law.

FINAL REMEDIAL ACTION AS-BUILTS
FORMER BROOKLYN NAVY YARD
BROOKLYN, NEW YORK

BUILDING 419
SOIL EXCAVATION AREA SECTION

0 20' 40'

FILENAME

SCALE AS SHOWN

SHEET 4

APPENDIX B

SITE AND ENVIRONMENTAL EASEMENT MAP

Department of Finance

September 22, 2017

FRANCIS DECOTEAU
NEW YORK CITY LAW DEPARTMENT
100 CHURCH STREET
NEW YORK, NY 10007

RE: Submitted Transaction Successfully Recorded

Dear FRANCIS DECOTEAU:

Document Identification Number 2017082500881001 which was submitted and intaken for Recording on 9/21/2017 4:19:08 PM, was successfully recorded on 9/22/2017 at 10:13 AM.

Below summarizes the status of the document(s).

Recording & Endorsement Cover Page(s) attached

2017082500881001

If you have questions or require further information, please send an email to acrishelp@finance.nyc.gov and someone will get back to you.

Thank you.

City Register

NYC DEPARTMENT OF FINANCE
OFFICE OF THE CITY REGISTER

This page is part of the instrument. The City Register will rely on the information provided by you on this page for purposes of indexing this instrument.The information on this page will control for indexing purposes in the event of any conflict with the rest of the document.

2017082500881001001EC985

RECORDING AND ENDORSEMENT COVER PAGE **PAGE 1 OF 19**

Document ID: 2017082500881001 Document Date: 08-03-2017 Preparation Date: 08-25-2017
Document Type: EASEMENT
Document Page Count: 18

PRESENTER:
FRANCIS DECOTEAU
NEW YORK CITY LAW DEPARTMENT
100 CHURCH STREET
NEW YORK, NY 10007
212-356-2064
FDECOTEA@LAW.NYC.GOV

RETURN TO:
FRANCIS DECOTEAU
NEW YORK CITY LAW DEPARTMENT
100 CHURCH STREET
NEW YORK, NY 10007
212-356-2064
FDECOTEA@LAW.NYC.GOV

PROPERTY DATA

Borough	Block	Lot		Unit	Address
BROOKLYN	2023	1	Partial Lot		652 KENT AVENUE

Property Type: OTHER Easement

CROSS REFERENCE DATA

CRFN_____ *or* DocumentID_____ *or* _____ Year_____ Reel____ Page_____ *or* File Number_____

PARTIES

GRANTOR/SELLER:
THE CITY OF NEW YORK
CITY HALL
NEW YORK, NY 10007

GRANTEE/BUYER:
PEOPLE OF THE STATE OF NEW YORK - NYSDEC
625 BROADWAY
ALBANY, NY 12233-1500

FEES AND TAXES

Mortgage :		
Mortgage Amount:	$	0.00
Taxable Mortgage Amount:	$	0.00
Exemption:		
TAXES: County (Basic):	$	0.00
City (Additional):	$	0.00
Spec (Additional):	$	0.00
TASF:	$	0.00
MTA:	$	0.00
NYCTA:	$	0.00
Additional MRT:	$	0.00
TOTAL:	$	0.00
Recording Fee:	$	EXEMPT
Affidavit Fee:	$	0.00

Filing Fee:	$	0.00
NYC Real Property Transfer Tax:	$	0.00
NYS Real Estate Transfer Tax:	$	0.00

RECORDED OR FILED IN THE OFFICE OF THE CITY REGISTER OF THE CITY OF NEW YORK
Recorded/Filed 09-22-2017 10:13
City Register File No.(CRFN):
2017000353068

City Register Official Signature

ENVIRONMENTAL EASEMENT GRANTED PURSUANT TO ARTICLE 71, TITLE 36 OF THE NEW YORK STATE ENVIRONMENTAL CONSERVATION LAW

THIS INDENTURE made this 30th day of August, 2017, between Owner(s) City of New York, a municipal corporation of the State of New York, having an office at City Hall, New York, New York, State of New York 10007(the "Grantor"), and The People of the State of New York (the "Grantee."), acting through their Commissioner of the Department of Environmental Conservation (the "Commissioner", or "NYSDEC" or "Department" as the context requires) with its headquarters located at 625 Broadway, Albany, New York 12233,

WHEREAS, the Legislature of the State of New York has declared that it is in the public interest to encourage the remediation of abandoned and likely contaminated properties ("sites") that threaten the health and vitality of the communities they burden while at the same time ensuring the protection of public health and the environment; and

WHEREAS, the Legislature of the State of New York has declared that it is in the public interest to establish within the Department a statutory environmental remediation program that includes the use of Environmental Easements as an enforceable means of ensuring the performance of operation, maintenance, and/or monitoring requirements and the restriction of future uses of the land, when an environmental remediation project leaves residual contamination at levels that have been determined to be safe for a specific use, but not all uses, or which includes engineered structures that must be maintained or protected against damage to perform properly and be effective, or which requires groundwater use or soil management restrictions; and

WHEREAS, the Legislature of the State of New York has declared that Environmental Easement shall mean an interest in real property, created under and subject to the provisions of Article 71, Title 36 of the New York State Environmental Conservation Law ("ECL") which contains a use restriction and/or a prohibition on the use of land in a manner inconsistent with engineering controls which are intended to ensure the long term effectiveness of a site remedial program or eliminate potential exposure pathways to hazardous waste or petroleum; and

WHEREAS, Grantor, is the owner of real property located in the Brooklyn Navy Yard southwesterly form the intersection of Kent Avenue with Clymer Street in the Borough of Brooklyn, County of New York City and State of New York, known and designated on the tax map of the County Clerk of New York City as tax map parcel numbers: Section 7 Block 2023 Lot 1(p/o), being part of that property conveyed to Grantor by deed dated June 10, 1970 and recorded in the City Register of the City of New York in Reel 417 Page 1420. The property subject to this Environmental Easement (the "Controlled Property") comprises approximately 5.89 +/- acres, and is hereinafter more fully described in the Land Title Survey dated June 19, 2013, last revised August 18, 2014 prepared by City of New York Department of Design and Construction, which will be attached to the Site Management Plan. The Controlled Property description is set forth in and attached hereto as Schedule A; and

WHEREAS, the Department accepts this Environmental Easement in order to ensure the

protection of public health and the environment and to achieve the requirements for remediation established for the Controlled Property until such time as this Environmental Easement is extinguished pursuant to ECL Article 71, Title 36; and

NOW THEREFORE, in consideration of the mutual covenants contained herein and the terms and conditions of Order on Consent IndexNumber: W2-1089-06-06, as modified on September 19, 2011, as amended by Amendment #1, Grantor conveys to Grantee a permanent Environmental Easement pursuant to ECL Article 71, Title 36 in, on, over, under, and upon the Controlled Property as more fully described herein ("Environmental Easement")

1. Purposes. Grantor and Grantee acknowledge that the Purposes of this Environmental Easement are: to convey to Grantee real property rights and interests that will run with the land in perpetuity in order to provide an effective and enforceable means of encouraging the reuse and redevelopment of this Controlled Property at a level that has been determined to be safe for a specific use while ensuring the performance of operation, maintenance, and/or monitoring requirements; and to ensure the restriction of future uses of the land that are inconsistent with the above-stated purpose.

2. Institutional and Engineering Controls. The controls and requirements listed in the Department approved Site Management Plan ("SMP") including any and all Department approved amendments to the SMP are incorporated into and made part of this Environmental Easement. These controls and requirements apply to the use of the Controlled Property, run with the land, are binding on the Grantor and the Grantor's successors and assigns, and are enforceable in law or equity against any owner of the Controlled Property, any lessees and any person using the Controlled Property.

A. (1) The Controlled Property may be used for:

Commercial as described in 6 NYCRR Part 375-1.8(g)(2)(iii) and Industrial as described in 6 NYCRR Part 375-1.8(g)(2)(iv), including passive recreational uses, cultural uses, and college or graduate academic and administrative facilities, all with limited potential for soil contact. Interior classroom and administrative facilities for secondary education with limited potential for soil contact shall be allowed. Rooftop gardens shall be allowed so long as they are not grown using soil from the Controlled Property.

(2) All Engineering Controls must be operated and maintained as specified in the SMP;

(3) All Engineering Controls must be inspected at a frequency and in a manner defined in the SMP;

(4) The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the New York City Department of Health to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department;

(5) Groundwater and other environmental or public health monitoring must be

performed as defined in the SMP;

(6) Data and information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in the SMP;

(7) All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the SMP;

(8) Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in the SMP;

(9) Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy shall be performed as defined in the SMP;

(10) Access to the site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by this Environmental Easement.

B. The Controlled Property shall not be used for Residential or Restricted Residential purposes as defined in 6NYCRR 375-1.8(g)(2)(i) and (ii), and the above-stated engineering controls may not be discontinued without an amendment or extinguishment of this Environmental Easement.

C. The SMP describes obligations that the Grantor assumes on behalf of Grantor, its successors and assigns. The Grantor's assumption of the obligations contained in the SMP which may include sampling, monitoring, and/or operating a treatment system, and providing certified reports to the NYSDEC, is and remains a fundamental element of the Department's determination that the Controlled Property is safe for a specific use, but not all uses. The SMP may be modified in accordance with the Department's statutory and regulatory authority. The Grantor and all successors and assigns, assume the burden of complying with the SMP and obtaining an up-to-date version of the SMP from:

Site Control Section
Division of Environmental Remediation
NYSDEC
625 Broadway
Albany, New York 12233
Phone: (518) 402-9553

D. Grantor must provide all persons who acquire any interest in the Controlled Property a true and complete copy of the SMP that the Department approves for the Controlled Property and all Department-approved amendments to that SMP.

E. Grantor covenants and agrees that until such time as the Environmental Easement is extinguished in accordance with the requirements of ECL Article 71, Title 36 of the ECL, the property deed and all subsequent instruments of conveyance relating to the Controlled Property shall state in at least fifteen-point bold-faced type:

This property is subject to an Environmental Easement held by the New York State Department of Environmental Conservation pursuant to Title 36 of Article 71 of the Environmental Conservation Law.

F. Grantor covenants and agrees that this Environmental Easement shall be incorporated in full or by reference in any leases, licenses, or other instruments granting a right to use the Controlled Property.

G. Grantor covenants and agrees that it shall, at such time as NYSDEC may require, submit to NYSDEC a written statement by an expert the NYSDEC may find acceptable certifying under penalty of perjury, in such form and manner as the Department may require, that:

(1) the inspection of the site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under the direction of the individual set forth at 6 NYCRR Part 375-1.8(h)(3).

(2) the institutional controls and/or engineering controls employed at such site:

(i) are in-place;

(ii) are unchanged from the previous certification, or that any identified changes to the controls employed were approved by the NYSDEC and that all controls are in the Department-approved format; and

(iii) that nothing has occurred that would impair the ability of such control to protect the public health and environment;

(3) the owner will continue to allow access to such real property to evaluate the continued maintenance of such controls;

(4) nothing has occurred that would constitute a violation or failure to comply with any site management plan for such controls;

(5 the report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

(6) to the best of his/her knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and

(7) the information presented is accurate and complete.

3. Right to Enter and Inspect. Grantee, its agents, employees, or other representatives of the State may enter and inspect the Controlled Property in a reasonable manner and at reasonable times to assure compliance with the above-stated restrictions.

4. Reserved Grantor's Rights. Grantor reserves for itself, its assigns, representatives, and successors in interest with respect to the Property, all rights as fee owner of the Property, including:

A. Use of the Controlled Property for all purposes not inconsistent with, or limited by the terms of this Environmental Easement;

B. The right to give, sell, assign, or otherwise transfer part or all of the underlying fee interest to the Controlled Property, subject and subordinate to this Environmental Easement;

5. Enforcement

A. This Environmental Easement is enforceable in law or equity in perpetuity by Grantor, Grantee, or any affected local government, as defined in ECL Section 71-3603, against the owner of the Property, any lessees, and any person using the land. Enforcement shall not be defeated because of any subsequent adverse possession, laches, estoppel, or waiver. It is not a defense in any action to enforce this Environmental Easement that: it is not appurtenant to an interest in real property; it is not of a character that has been recognized traditionally at common law; it imposes a negative burden; it imposes affirmative obligations upon the owner of any interest in the burdened property; the benefit does not touch or concern real property; there is no privity of estate or of contract; or it imposes an unreasonable restraint on alienation.

B. If any person violates this Environmental Easement, the Grantee may revoke the Certificate of Completion with respect to the Controlled Property.

C. Grantee shall notify Grantor of a breach or suspected breach of any of the terms of this Environmental Easement. Such notice shall set forth how Grantor can cure such breach or suspected breach and give Grantor a reasonable amount of time from the date of receipt of notice in which to cure. At the expiration of such period of time to cure, or any extensions granted by Grantee, the Grantee shall notify Grantor of any failure to adequately cure the breach or suspected breach, and Grantee may take any other appropriate action reasonably necessary to remedy any breach of this Environmental Easement, including the commencement of any proceedings in accordance with applicable law.

D. The failure of Grantee to enforce any of the terms contained herein shall not be deemed a waiver of any such term nor bar any enforcement rights.

6. Notice. Whenever notice to the Grantee (other than the annual certification) or approval from the Grantee is required, the Party providing such notice or seeking such approval shall identify the Controlled Property by referencing the following information:

County, NYSDEC Site Number, NYSDEC Brownfield Cleanup Agreement, State Assistance Contract or Order Number, and the County tax map number or the Liber and Page or computerized system identification number.

Parties shall address correspondence to:

Site Number: 224019A
Office of General Counsel
NYSDEC
625 Broadway
Albany New York 12233-5500

With a copy to:

Site Control Section

Division of Environmental Remediation
NYSDEC
625 Broadway
Albany, NY 12233

All notices and correspondence shall be delivered by hand, by registered mail or by Certified mail and return receipt requested. The Parties may provide for other means of receiving and communicating notices and responses to requests for approval.

7. Recordation. Grantor shall record this instrument, within thirty (30) days of execution of this instrument by the Commissioner or her/his authorized representative in the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

8. Amendment. Any amendment to this Environmental Easement may only be executed by the Commissioner of the New York State Department of Environmental Conservation or the Commissioner's Designee, and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

9. Extinguishment. This Environmental Easement may be extinguished only by a release by the Commissioner of the New York State Department of Environmental Conservation, or the Commissioner's Designee, and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

10. Joint Obligation. If there are two or more parties identified as Grantor herein, the obligations imposed by this instrument upon them shall be joint and several.

IN WITNESS WHEREOF, Grantor has caused this instrument to be signed in its name.

City of New York:

By: _____

Print Name: **Andrew Schwartz**

Title: **Deputy Commissioner** Date: 5-2-17

Grantor's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF KINGS)

On the 2nd day of May, in the year 2017, before me, the undersigned, personally appeared Andrew Schwartz personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

Notary Public - State of New York

NAIMA ANSARI-SIDDIQUI
Notary Public, State of New York
No. 01AN6170571
Qualified in Kings County
Commission Expires July 09, 2019

THIS ENVIRONMENTAL EASEMENT IS HEREBY ACCEPTED BY THE PEOPLE OF THE STATE OF NEW YORK, Acting By and Through the Department of Environmental Conservation as Designee of the Commissioner,

By: _____
Robert W. Schick, Director
Division of Environmental Remediation

Grantee's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF ALBANY)

On the 3rd day of August, in the year 2017 before me, the undersigned, personally appeared Robert W. Schick, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/ executed the same in his/her/ capacity as Designee of the Commissioner of the State of New York Department of Environmental Conservation, and that by his/her/ signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

_____
Notary Public - State of New York

David J. Chiusano
Notary Public, State of New York
No. 01CH5032146
Qualified in Schenectady County
Commission Expires August 22, 2018

SCHEDULE "A" PROPERTY DESCRIPTION

Beginning at a point on the southwesterly line of the said Kent Avenue, said point being distant 839.57 feet southeasterly from the intersection of the southerly line of Division Avenue (70 feet wide) and the southwesterly line of the said Kent Avenue as measured along the southwesterly line of the said Kent Avenue;

1. Running thence southeastwardly along southwesterly line of the said Kent Avenue, for 163.53 feet to an angle point in the said southwesterly line of Kent Avenue;
2. Thence, southeastwardly, forming an interior angle of 213°45'54" with the previous course and along the said southwesterly line of Kent Avenue, for 50.80 feet to an angle point in the said southwesterly line of Kent Avenue;
3. Thence, southeastwardly, forming an interior angle of 171°24'43" with the previous course and along the said southwesterly line of Kent Avenue, for 507.36 feet to a point;
4. Thence, southwestwardly, forming an interior angle of 86°16'36" with the previous course and through tax lot 1 in Brooklyn tax block 2023, for 303.15 feet to a point on the concrete curb as it was located in July, 2012;
5. Thence, northwestwardly, forming an interior angle of 94°23'44" with the previous course, and along the said concrete curb and continuing along steel faced curb as it was located in July, 2012 and through tax lot 1 in Brooklyn tax block 2023, for 188.90 feet to a point on a nontangential arc;
6. Thence, northwestwardly and westwardly, along the said steel faced curb which is the said arc of a circle with a radius of 49.50 feet and a central angle of 80°16'03" deflecting to the left, which chord forms an interior angle of 229°00'58" with the previous course and has a length of 63.82, and through tax lot 1 in Brooklyn tax block 2023, for 69.35 feet to a point on the said steel faced curb;
7. Thence, northwestwardly, forming an interior angle of 136°35'49" with the chord to the previous course and through tax lot 1 in Brooklyn tax block 2023, for 382.01 feet to a point;
8. Thence, northwestwardly, forming an interior angle of 180°29'37" with the previous course, part of the distance through tax lot 1 in Brooklyn tax block 2023 and continuing through Wallabout Channel as shown on the final map, for 637.21 feet to the northwesterly side of a concrete wall;
9. Thence, northwardly, forming an interior angle of 108°02'59" with the previous course and through the said mapped Wallabout Channel, for 97.85 feet to the northeasterly side of a concrete bulkhead;
10. Thence, southeastwardly, forming an interior angle of 72°18'43" with the previous course, along the said northeasterly side of a concrete bulkhead, through the said mapped Wallabout Channel, and continuing across a part of tax lot 1 in Brooklyn tax block 2023, for 934.13 feet to an angle point in the said concrete bulkhead;
11. Thence, northeastwardly, forming an interior angle of 270°11'27" with the previous course, along the said concrete bulkhead and through tax lot 1 in Brooklyn tax block 2023, for 49.87 feet to an angle point in the said concrete bulkhead;
12. Thence, northwardly, forming an interior angle of 216°42'15" with the previous course, along the said concrete bulkhead and through tax lot 1 in Brooklyn tax block 2023, for 187.52 feet to an angle point in the said concrete bulkhead;
13. Thence, northwestwardly, forming an interior angle of 233°11'45" with the previous course, along the said concrete bulkhead and through tax lot 1 in Brooklyn tax block 2023, for 276.43 feet to a point;
14. Thence, northeastwardly, forming an interior angle of 58°04'08" with the previous course

and through tax lot 1 in Brooklyn tax block 2023, for 195.94 feet back to the point of beginning.

This parcel comprises an area of 256,574 square feet or 5.890 acres.

NEW YORK CITY DEPARTMENT OF FINANCE

NYC - RPT

Department of Finance

REAL PROPERTY TRANSFER TAX RETURN

(Pursuant to Title 11, Chapter 21, NYC Administrative Code)

▲ DO NOT WRITE IN THIS SPACE ▲
FOR OFFICE USE ONLY

GRANTOR

● Name THE CITY OF NEW YORK

● Grantor is a(n): (check one) ☐ Individual ☐ partnership ☐ corporation ☐ single member LLC ☐ multiple member LLC (see instructions) ☑ other MUNICIPAL AGENCY

Telephone Number

● Permanent mailing address after transfer (number and street) CITY HALL

● City and State NEW YORK, NY

Zip Code 10007

● Single member's name if grantor is a single member LLC

SOCIAL SECURITY NUMBER

OR

EMPLOYER IDENTIFICATION NUMBER 13-6400434

SINGLE MEMBER EIN OR SSN

GRANTEE

● Name PEOPLE OF THE STATE OF NEW YORK - NYSDEC

● Grantee is a(n): (check one) ☐ Individual ☐ partnership ☐ corporation ☐ single member LLC ☐ multiple member LLC (see instructions) ☑ other GOVERNMENTAL

Telephone Number

● Permanent mailing address after transfer (number and street) 625 BROADWAY

● City and State ALBANY, NY

Zip Code 12233-1500

● Single member's name if grantee is a single member LLC

SOCIAL SECURITY NUMBER

OR

EMPLOYER IDENTIFICATION NUMBER 14-6013200

SINGLE MEMBER EIN OR SSN

PROPERTY LOCATION

LIST EACH LOT SEPARATELY. ATTACH A RIDER IF ADDITIONAL SPACE IS REQUIRED

● Address (number and street)	Apt. No.	Borough	Block	Lot	# of Floors	Square Feet	● Assessed Value of Property
652 KENT AVENUE		BROOKLYN	2023	1	15	5,865,000	99,277,650 00

● DATE OF TRANSFER TO GRANTEE: 08/03/2017

● PERCENTAGE OF INTEREST TRANSFERRED: 100 %

CONDITION OF TRANSFER. See Instructions

● Check (✓) all of the conditions that apply and fill out the appropriate schedules of this return. Additionally, Schedules1 and 2 must be completed for all transfers.

a. ☐ Arms length transfer
b. ☐ Transfer in exercise of option to purchase
c. ☐ Transfer from cooperative sponsor to cooperative corporation
d ☐ Transfer by referee or receiver (complete Schedule A)
e. ☐ Transfer pursuant to marital settlement agreement or divorce decree (complete Schedule I)
f. ☐ Deed in lieu of foreclosure (complete Schedule C)
g ☐ Transfer pursuant to liquidation of an entity (complete Schedule D)
h ☐ Transfer from principal to agent, dummy, strawman or conduit or vice-versa (complete Schedule E)
i ☐ Transfer pursuant to trust agreement or will (attach a copy of trust agreement or will)
j ☐ Gift transfer not subject to indebtedness
k. ☐ Gift transfer subject to indebtedness
l ☐ Transfer to a business entity in exchange for an interest in the business entity (complete Schedule F)
m. ☐ Transfer to a governmental body
n ☐ Correction deed
o. ☐ Transfer by or to a tax exempt organization (complete Schedule G)
p. ☐ Transfer of property partly within and partly without NYC
q. ☐ Transfer of successful bid pursuant to foreclosure
r. ☐ Transfer by borrower solely as security for a debt or a transfer by lender solely to return such security
s. ☐ Transfer wholly or partly exempt as a mere change of identity or form of ownership Complete Schedule M)
t ☐ Transfer to a REIT or to a corporation or partnership controlled by a REIT. (Complete Schedule R)
u. ☐ Other transfer in connection with financing (describe): _____
v. ☐ A grant or assignment of a leasehold interest in a tax-free NY area
w ☐ Transfer to an HDFC or an entity controlled by an HDFC. (Complete Schedule L)
x. Reserved
y. Reserved
z. ☑ Other (describe) ENVIRONMENTAL EASEMENT

2017050100023910101

TYPE OF PROPERTY (✓)

a. ☐ 1-3 family house
b. ☐ Individual residential condominium unit
c. ☐ Individual cooperative apartment
d. ☐ Commercial condominium unit
e. ☐ Commercial cooperative
f. ☐ Apartment building
g. ☐ Office building
h. ☐ Industrial building
i. ☐ Utility
j. ☑ OTHER. (describe): OTHER

TYPE OF INTEREST (✓)

Check box at LEFT if you intend to record a document related to this transfer. Check box at RIGHT if you do not intend to record a document related to this transfer.

	REC.		NON REC.
a.	☐	Fee	☐
b.	☐	Leasehold Grant	☐
c.	☐	Leasehold Assignment or Surrender	☐
d.	☐	Easement	☑
e.	☐	Subterranean Rights	☐
f.	☐	Development Rights	☐
g.	☐	Stock	☐
h.	☐	Partnership Interest	☐
i.	☐	OTHER. (describe):	☐

SCHEDULE 1 - DETAILS OF CONSIDERATION

COMPLETE THIS SCHEDULE FOR ALL TRANSFERS AFTER COMPLETING THE APPROPRIATE SCHEDULES ON PAGES 5 THROUGH 12. ENTER "ZERO" ON LINE 11 IF THE TRANSFER REPORTED WAS WITHOUT CONSIDERATION.

1. Cash	1.	0 00
2. Purchase money mortgage	2.	0 00
3. Unpaid principal of pre-existing mortgage(s)	3.	0 00
4. Accrued interest on pre-existing mortgage(s)	4	0 00
5. Accrued real estate taxes	5.	0 00
6. Amounts of other liens on property	6.	0 00
7. Value of shares of stock or of partnership interest received	7.	0 00
8. Value of real or personal property received in exchange	8.	0 00
9. Amount of Real Property Transfer Tax and/or other taxes or expenses of the grantor which are paid by the grantee	9.	0 00
10. Other (describe):	10.	0 00
11. **TOTAL CONSIDERATION** (add lines 1 through 10 - must equal amount entered on line 1 of Schedule 2) (see instructions)	11.	$ 0 00

See Instructions for special rules relating to transfers of cooperative units, liquidations, marital settlements and transfers of property to a business entity in return for an interest in the entity.

SCHEDULE 2 - COMPUTATION OF TAX

A. **Payment** | Pay amount shown on line 15 - *See Instructions*

		Payment Enclosed
1. Total Consideration (from line 11, above)	1	0 00
2. Excludable liens (see instructions)	2.	0 00
3. Consideration (line 1 less line 2)	3.	0 00
4. Tax Rate (see instructions)	4.	0 %
5. HDFC Exemption (see Schedule L, line 15)	5.	0 00
6. Consideration less HDFC Exemption (line 3 less line 5)	6.	0 00
7. Percentage change in beneficial ownership (see instructions)	7.	100 %
8 Taxable consideration (multiply line 6 by line 7)	8.	0 00
9. Tax (multiply line 8 by line 4)	9	0 00
10. Credit (see instructions)	10	0 00
11. Transfer tax previously paid (see Schedule L, line 18)	11	0 00
12. Tax due (line 9 less line 10 and 11) (if the result is negative, enter zero)	12.	0 00
13. Interest (see instructions)	13.	0 00
14. Penalty (see instructions)	14.	0 00
15 **Total Tax Due** (add lines 12, 13 and 14)	15	$ 0 00

20170510002391010I

GRANTOR'S ATTORNEY

Name of Attorney			Telephone Number ( )
Address (number and street)		City and State	Zip Code
EMPLOYER IDENTIFICATION NUMBER	-	OR SOCIAL SECURITY NUMBER	- -

GRANTEE'S ATTORNEY

Name of Attorney			Telephone Number ( )
Address (number and street)		City and State	Zip Code
EMPLOYER IDENTIFICATION NUMBER	-	OR SOCIAL SECURITY NUMBER	- -

CERTIFICATION

I swear or affirm that this return, including any accompanying schedules, affidavits and attachments, has been examined by me and is, to the best of my knowledge, a true and complete return made in good faith, pursuant to Title 11, Chapter 21 of the Administrative Code and the regulations issued thereunder.

GRANTOR

Sworn to and subscribed to before me on this 25th day of July, 2017

Signature of Notary

RITA P CHANG
Notary Public, State of New York
No. 02CH6289352
Qualified in New York County
Commission Expires 9/23/2017

Notary's stamp or seal

13-6400434
EMPLOYER IDENTIFICATION NUMBER OR SOCIAL SECURITY NUMBER

THE CITY OF NEW YORK

Andrew Schwartz
Name of Grantor

Signature of Grantor

GRANTEE

Sworn to and subscribed to before me on this _____ day of _____, _____

Signature of Notary

Notary's stamp or seal

14-6013200
EMPLOYER IDENTIFICATION NUMBER OR SOCIAL SECURITY NUMBER

PEOPLE OF THE STATE OF NEW YORK - NYSDEC
Name of Grantee

Signature of Grantee

2017051000239101

GRANTOR'S ATTORNEY

Name of Attorney		Telephone Number ( )
Address (number and street)	City and State	Zip Code
EMPLOYER IDENTIFICATION NUMBER	OR	SOCIAL SECURITY NUMBER

GRANTEE'S ATTORNEY

Name of Attorney		Telephone Number ( )
Address (number and street)	City and State	Zip Code
EMPLOYER IDENTIFICATION NUMBER	OR	SOCIAL SECURITY NUMBER

CERTIFICATION

I swear or affirm that this return, including any accompanying schedules, affidavits and attachments, has been examined by me and is, to the best of my knowledge, a true and complete return made in good faith, pursuant to Title 11, Chapter 21 of the Administrative Code and the regulations issued thereunder.

GRANTOR

Sworn to and subscribed to before me on this 25th day of July, 2017.

Signature of Notary

RITA P CHANG
Notary Public, State of New York
No. 02CH6289352
Qualified in New York County
Commission Expires 9/23/2017

13-6400434
EMPLOYER IDENTIFICATION NUMBER OR SOCIAL SECURITY NUMBER

THE CITY OF NEW YORK
Andrew Silberstz
Name of Grantor

Signature of Grantor

GRANTEE

Sworn to and subscribed to before me on this 2nd day of August, 2017.

Signature of Notary

Caitlin E. Stephen
Notary Public, State of New York
No. 02ST6338529
Qualified in Albany County
Commission Expires Mar. 14, 2020

14-6013200
EMPLOYER IDENTIFICATION NUMBER OR SOCIAL SECURITY NUMBER

PEOPLE OF THE STATE OF NEW YORK - NYSDEC
Name of Grantee Andrew Guglielmi, Esq.

Signature of Grantee

TP-584 (4/13)

New York State Department of Taxation and Finance

Combined Real Estate Transfer Tax Return, Credit Line Mortgage Certificate, and Certification of Exemption from the Payment of Estimated Personal Income Tax

Recording office time stamp

See Form TP-584-I, Instructions for Form TP-584, before completing this form. Print or type.

Schedule A — Information relating to conveyance

Grantor/Transferor
- ☐ Individual
- ☐ Corporation
- ☐ Partnership
- ☐ Estate/Trust
- ☐ Single member LLC
- ☑ Other

Name *(if individual, last, first, middle initial)* (☐ *check if more than one grantor*): THE CITY OF NEW YORK

Social security number:

Mailing address: CITY HALL

Social security number:

City	State	ZIP code
NEW YORK	NY	10007

Federal EIN: 13 6400434

Single member's name if grantor is a single member LLC *(see instructions)*

Single member EIN or SSN:

Grantee/Transferee
- ☐ Individual
- ☐ Corporation
- ☐ Partnership
- ☐ Estate/Trust
- ☐ Single member LLC
- ☑ Other

Name *(if individual, last, first, middle initial)* (☐ *check if more than one grantee*): PEOPLE OF THE STATE OF NEW YORK - NYSDEC

Social security number:

Mailing address: 625 BROADWAY

Social security number:

City	State	ZIP code
ALBANY	NY	12233-1500

Federal EIN: 14 6013200

Single member's name if grantee is a single member LLC *(see instructions)*

Single member EIN or SSN:

Location and description of property conveyed

Tax map designation - Section, block & lot *(include dots and dashes)*	SWIS code (six digits)	Street address	City, town, or village	County
3 - 2023 - 1	650000	652 KENT AVENUE	NEW YORK	BROOKLYN / KINGS

Type of property conveyed *(check applicable box)*

1 ☐ One- to three-family house
2 ☐ Residential cooperative
3 ☐ Residential condominium
4 ☐ Vacant land
5 ☐ Commercial/Industrial
6 ☐ Apartment building
7 ☐ Office building
8 ☑ Other OTHER

Date of conveyance: 08 (month) 03 (day) 2017 (year)

Percentage of real property conveyed which is residential real property 0.00 % *(see instructions)*

Condition of conveyance *(check all that apply)*

a. ☐ Conveyance of fee interest
b. ☐ Acquisition of a controlling interest (state percentage acquired _____ %)
c. ☐ Transfer of a controlling interest (state percentage transferred _____ %)
d. ☐ Conveyance to cooperative housing corporation
e. ☐ Conveyance pursuant to or in lieu of foreclosure or enforcement of security interest *(attach Form TP-584.1, Schedule E)*
f. ☐ Conveyance which consists of a mere change of identity or form of ownership or organization *(attach Form TP-584.1, Schedule F)*
g. ☐ Conveyance for which credit for tax previously paid will be claimed *(attach Form TP-584.1, Schedule G)*
h. ☐ Conveyance of cooperative apartment(s)
i. ☐ Syndication
j. ☐ Conveyance of air rights or development rights
k. ☐ Contract assignment
l. ☐ Option assignment or surrender
m. ☐ Leasehold assignment or surrender
n. ☐ Leasehold grant
o. ☑ Conveyance of an easement
p. ☑ Conveyance for which exemption from transfer tax claimed *(complete Schedule B, Part III)*
q. ☐ Conveyance of property partly within and partly outside the state
r. ☐ Conveyance pursuant to divorce or separation
s. ☑ Other *(describe)* ENVIRONMENTAL EASEMENT

For recording officer's use	Amount received	Date received	Transaction number
	Schedule B., Part I $ Schedule B., Part II $		

2017050100023930101

Schedule B — Real estate transfer tax return (Tax Law, Article 31)

Part I – Computation of tax due

1	Enter amount of consideration for the conveyance *(if you are claiming a total exemption from tax, check the exemption claimed box, enter consideration and proceed to Part III)* ☑ **Exemption claimed**	1.	0 00
2	Continuing lien deduction *(see instructions if property is taken subject to mortgage or lien)*	2.	0 00
3	Taxable consideration *(subtract line 2 from line 1)*	3.	0 00
4	Tax: $2 for each $500, or fractional part thereof, of consideration on line 3	4.	0 00
5	Amount of credit claimed for tax previously paid *(see instructions and attach Form TP-584.1, Schedule G)*	5.	0 00
6	Total tax due* *(subtract line 5 from line 4)*	6.	0 00

Part II – Computation of additional tax due on the conveyance of residential real property for $1 million or more

1	Enter amount of consideration for conveyance *(from Part I, line 1)*	1.	0 00
2	Taxable consideration *(multiply line 1 by the percentage of the premises which is residential real property, as shown in Schedule A)*	2.	0 00
3	Total additional transfer tax due* *(multiply line 2 by 1% (.01))*	3.	0 00

Part III – Explanation of exemption claimed on Part I, line 1 *(check any boxes that apply)*

The conveyance of real property is exempt from the real estate transfer tax for the following reason:

a. Conveyance is to the United Nations, the United States of America, the state of New York, or any of their instrumentalities, agencies, or political subdivisions (or any public corporation, including a public corporation created pursuant to agreement or compact with another state or Canada) ..... a ☑

b. Conveyance is to secure a debt or other obligation ..... b ☐

c. Conveyance is without additional consideration to confirm, correct, modify, or supplement a prior conveyance ..... c ☐

d. Conveyance of real property is without consideration and not in connection with a sale, including conveyances conveying realty as bona fide gifts ..... d ☑

e. Conveyance is given in connection with a tax sale ..... e ☐

f. Conveyance is a mere change of identity or form of ownership or organization where there is no change in beneficial ownership. (This exemption cannot be claimed for a conveyance to a cooperative housing corporation of real property comprising the cooperative dwelling or dwellings.) Attach Form TP-584.1, Schedule F ..... f ☐

g. Conveyance consists of deed of partition ..... g ☐

h. Conveyance is given pursuant to the federal Bankruptcy Act ..... h ☐

i. Conveyance consists of the execution of a contract to sell real property, without the use or occupancy of such property, or the granting of an option to purchase real property, without the use or occupancy of such property ..... i ☐

j. Conveyance of an option or contract to purchase real property with the use or occupancy of such property where the consideration is less than $200,000 and such property was used solely by the grantor as the grantor's personal residence and consists of a one-, two-, or three-family house, an individual residential condominium unit, or the sale of stock in a cooperative housing corporation in connection with the grant or transfer of a proprietary leasehold covering an individual residential cooperative apartment ..... j ☐

k. Conveyance is not a conveyance within the meaning of Tax Law, Article 31, section 1401(e) *(attach documents supporting such claim)* ..... k ☐

*The total tax (from Part I, line 6 and Part II, line 3 above) is due within 15 days from the date conveyance. Please make check(s) payable to the county clerk where the recording is to take place. If the recording is to take place in the New York City boroughs of Manhattan, Bronx, Brooklyn, or Queens, make check(s) payable to the ***NYC Department of Finance*** If a recording is not required, send this return and your check(s) made payable to the ***NYS Department of Taxation and Finance***, directly to the NYS Tax Department, RETT Return Processing, PO Box 5045, Albany NY 12205-5045.

Schedule C — Credit Line Mortgage Certificate (Tax Law, Article 11)

Complete the following only if the interest being transferred is a fee simple interest.

I (we) certify that: *(check the appropriate box)*

1. ☐ The real property being sold or transferred is not subject to an outstanding credit line mortgage.

2. ☐ The real property being sold or transferred is subject to an outstanding credit line mortgage. However, an exemption from the tax is claimed for the following reason:

   ☐ The transfer of real property is a transfer of a fee simple interest to a person or persons who held a fee simple interest in the real property (whether as a joint tenant, a tenant in common or otherwise) immediately before the transfer.

   ☐ The transfer of real property is (A) to a person or persons related by blood, marriage or adoption to the original obligor or to one or more of the original obligors or (B) to a person or entity where 50% or more of the beneficial interest in such real property after the transfer is held by the transferor or such related person or persons (as in the case of a transfer to a trustee for the benefit of a minor or the transfer to a trust for the benefit of the transferor).

   ☐ The transfer of real property is a transfer to a trustee in bankruptcy, a receiver, assignee, or other officer of a court.

   ☐ The maximum principal amount secured by the credit line mortgage is $3,000,000 or more, and the real property being sold or transferred is **not** principally improved nor will it be improved by a one- to six-family owner-occupied residence or dwelling.

   Please note: for purposes of determining whether the maximum principal amount secured is $3,000,000 or more as described above, the amounts secured by two or more credit line mortgages may be aggregated under certain circumstances. See TSB-M-96(6)-R for more information regarding these aggregation requirements.

   ☐ Other *(attach detailed explanation)*.

3. ☐ The real property being transferred is presently subject to an outstanding credit line mortgage. However, no tax is due for the following reason:

   ☐ A certificate of discharge of the credit line mortgage is being offered at the time of recording the deed.

   ☐ A check has been drawn payable for transmission to the credit line mortgagee or his agent for the balance due, and a satisfaction of such mortgage will be recorded as soon as it is available.

4. ☐ The real property being transferred is subject to an outstanding credit line mortgage recorded in _____ (insert liber and page or reel or other identification of the mortgage). The maximum principal amount of debt or obligation secured by the mortgage is _____. No exemption from tax is claimed and the tax of _____ is being paid herewith. *(Make check payable to county clerk where deed will be recorded or, if the recording is to take place in New York City but not in Richmond County, make check payable to the **NYC Department of Finance**.)*

Signature (both the grantor(s) and grantee(s) must sign)

The undersigned certify that the above information contained in schedules A, B, and C, including any return, certification, schedule, or attachment, is to the best of his/her knowledge, true and complete, and authorize the person(s) submitting such form on their behalf to receive a copy for purposes of recording the deed or other instrument effecting the conveyance.

Grantor signature	Title	Grantee signature	Title
[signature]	Deputy Commissioner		
Grantor signature	Title	Grantee signature	Title

Reminder: Did you complete all of the required information in Schedules A, B, and C? Are you required to complete Schedule D? If you checked e, f, or g in Schedule A, did you complete Form TP-584.1? Have you attached your check(s) made payable to the county clerk where recording will take place or, if the recording is in the New York City boroughs of Manhattan, Bronx, Brooklyn, or Queens, to the ***NYC Department of Finance***? If no recording is required, send your check(s), made payable to the ***Department of Taxation and Finance***, directly to the NYS Tax Department, RETT Return Processing, PO Box 5045, Albany NY 12205-5045.

Schedule C — Credit Line Mortgage Certificate (Tax Law, Article 11)

Complete the following only if the interest being transferred is a fee simple interest.
I (we) certify that: *(check the appropriate box)*

1. ☐ The real property being sold or transferred is not subject to an outstanding credit line mortgage.

2. ☐ The real property being sold or transferred is subject to an outstanding credit line mortgage. However, an exemption from the tax is claimed for the following reason:
   - ☐ The transfer of real property is a transfer of a fee simple interest to a person or persons who held a fee simple interest in the real property (whether as a joint tenant, a tenant in common or otherwise) immediately before the transfer.
   - ☐ The transfer of real property is (A) to a person or persons related by blood, marriage or adoption to the original obligor or to one or more of the original obligors or (B) to a person or entity where 50% or more of the beneficial interest in such real property after the transfer is held by the transferor or such related person or persons (as in the case of a transfer to a trustee for the benefit of a minor or the transfer to a trust for the benefit of the transferor).
   - ☐ The transfer of real property is a transfer to a trustee in bankruptcy, a receiver, assignee, or other officer of a court.
   - ☐ The maximum principal amount secured by the credit line mortgage is $3,000,000 or more, and the real property being sold or transferred is **not** principally improved nor will it be improved by a one- to six-family owner-occupied residence or dwelling.

     Please note: for purposes of determining whether the maximum principal amount secured is $3,000,000 or more as described above, the amounts secured by two or more credit line mortgages may be aggregated under certain circumstances. See TSB-M-96(6)-R for more information regarding these aggregation requirements.
   - ☐ Other *(attach detailed explanation)*.

3. ☐ The real property being transferred is presently subject to an outstanding credit line mortgage. However, no tax is due for the following reason:
   - ☐ A certificate of discharge of the credit line mortgage is being offered at the time of recording the deed.
   - ☐ A check has been drawn payable for transmission to the credit line mortgagee or his agent for the balance due, and a satisfaction of such mortgage will be recorded as soon as it is available.

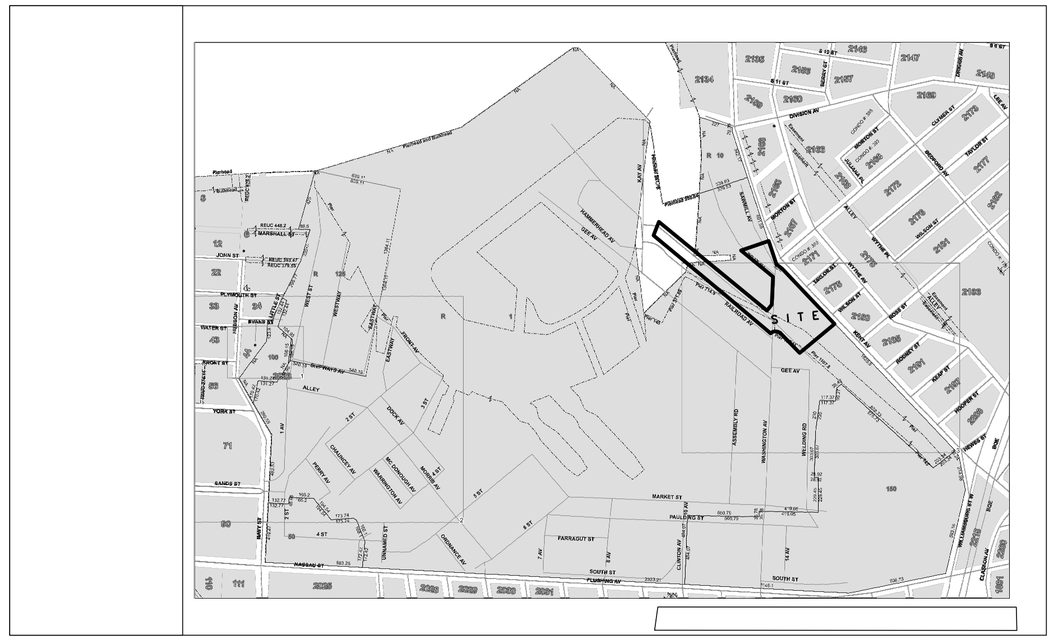
4. ☐ The real property being transferred is subject to an outstanding credit line mortgage recorded in _____ (insert liber and page or reel or other identification of the mortgage). The maximum principal amount of debt or obligation secured by the mortgage is _____. No exemption from tax is claimed and the tax of _____ is being paid herewith. *(Make check payable to county clerk where deed will be recorded or, if the recording is to take place in New York City but not in Richmond County, make check payable to the **NYC Department of Finance**.)*

Signature (both the grantor(s) and grantee(s) must sign)

The undersigned certify that the above information contained in schedules A, B, and C, including any return, certification, schedule, or attachment, is to the best of his/her knowledge, true and complete, and authorize the person(s) submitting such form on their behalf to receive a copy for purposes of recording the deed or other instrument effecting the conveyance.

Grantor signature	Title	Grantee signature	Title
[signature]	Deputy Commissioner	[signature]	Attorney
		Bradford Burns NYSDEC	

Reminder: Did you complete all of the required information in Schedules A, B, and C? Are you required to complete Schedule D? If you checked e, f, or g in Schedule A, did you complete Form TP-584.1? Have you attached your check(s) made payable to the county clerk where recording will take place or, if the recording is in the New York City boroughs of Manhattan, Bronx, Brooklyn, or Queens, to the ***NYC Department of Finance***? If no recording is required, send your check(s), made payable to the ***Department of Taxation and Finance***, directly to the NYS Tax Department, RETT Return Processing, PO Box 5045, Albany NY 12205-5045.



TAX MAP WITH EFFECTIVE DATE OF 10-07-2008
NOT TO SCALE

LEGEND

BUILDING

BUILDING WALLS — PARTY WALL — INDEPENDENT

FENCE

HYDRANT

ASPHALT CAP AREA (SEE NOTES)

ENCROACHMENTS — 0.10'SW, 0.04'SE

CURB

STREET LINE

BLOCK LINE

TAX LOT LINE & DIMENSION — 339.83' T.M.

LOT CROSSES LINE

PARTIAL TAX LOT NUMBER — P/O 1

PARTIAL TAX MAP BLOCK No. — P/O BLOCK 2023

U.S. PIERHEAD LINE

U.S. BULKHEAD LINE

U.S. PIERHEAD & BULKHEAD LINE

NY CITY PIERHEAD LINE

PROPOSED EASEMENT LINE & DIMENSION — 52.62'

NOTES

THIS SURVEY IS CERTIFIED TO: THE PEOPLE OF THE STATE OF NEW YORK ACTING THROUGH ITS COMMISSIONER OF THE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, THE CITY OF NEW YORK AND BROOKLYN NAVY YARD.

ALL TAX BLOCKS AND TAX LOTS HEREIN ARE BROOKLYN TAX BLOCKS AND TAX LOTS AS SHOWN ON THE TAX MAP OF THE CITY OF NEW YORK FOR THE BOROUGH OF BROOKLYN WITH EFFECTIVE DATE OF 10/07/2008

THE PROPERTY THAT CONSTITUTES THE ENVIRONMENTAL EASEMENT IS PART OF THE PROPERTY THAT WAS TRANSFERRED TO THE CITY OF NEW YORK BY THE UNITED STATES OF AMERICA, ACTING BY AND THROUGH THE ADMINISTRATOR OF GENERAL SERVICES AS RECORDED IN REEL 417 ON PAGES 1420-1436 AT THE OFFICE OF CITY REGISTER, KINGS COUNTY, NEW YORK.

FIELD SURVEY COMPLETED: JULY 2012, UPDATED MAY 5, 2014

ALL ENCROACHMENTS SHOWN TO POLES OR TREES REFER TO THE CENTER OF SAME.

THE ENVIRONMENTAL REMEDIATION AREAS SHOWN WERE LOCATED DURING SEPTEMBER AND NOVEMBER 2012 BY HDR.

@ ASPHALT CAP AREAS WERE EXCAVATED TO A DEPTH OF 2" AND COVERED WITH 2" BINDER COURSE.

THIS IS TO CERTIFY THAT THERE ARE NO VISIBLE STREAMS OR VISIBLE NATURAL WATER COURSES ACROSS THE PROPERTY EXCEPT AS SHOWN ON THIS SURVEY.

"ONLY COPIES FROM THE ORIGINAL OF THIS SURVEY MARKED WITH AN ORIGINAL OF THE LAND SURVEYOR'S BLUE INKED OR EMBOSSED SEAL SHALL BE CONSIDERED TO BE A TRUE VALID COPY"

"UNAUTHORIZED ALTERATIONS OR ADDITION TO A LAND SURVEYING DRAWING BEARING A LICENSED PROFESSIONAL LAND SURVEYOR'S SEAL IS A VIOLATION OF ARTICLE 145, SECTION 7209 PARAGRAPH 2 OF THE NEW YORK STATE EDUCATION LAW"

OLTON OLIVER, LS, NYS LIC. NO. 50301

DIRECTOR, TOPOGRAPHICAL SECTION
NYC DEPARTMENT OF DESIGN AND CONSTRUCTION
30-30 THOMSON AVENUE
LIC, NY 11101
718-391-1300

SITE AND ENVIRONMENTAL EASEMENT DESCRIPTION

METES AND BOUNDS DESCRIPTION OF THE BROOKLYN NAVY YARD-13-ACRE PARCEL SITE (SITE No. 224019A) AND ENVIRONMENTAL EASEMENT WHICH IS LOCATED WITHIN THE REAL PROPERTY KNOWN AS THE BROOKLYN NAVY YARD SOUTHWESTERLY FROM THE INTERSECTION OF KENT AVENUE (VARIED WIDTH) WITH CLYMER STREET (80 FEET WIDE) IN WHICH ALL STREETS MENTIONED ARE AS LAID OUT ON THE FINAL MAP FOR THE BOROUGH OF BROOKLYN, FOLLOWS:

BEGINNING AT A POINT ON THE SOUTHWESTERLY LINE OF THE SAID KENT AVENUE, SAID POINT BEING DISTANT 839.57 FEET SOUTHEASTERLY FROM THE INTERSECTION OF THE SOUTHERLY LINE OF DIVISION AVENUE (70 FEET WIDE) AND THE SOUTHWESTERLY LINE OF THE SAID KENT AVENUE AS MEASURED ALONG THE SOUTHWESTERLY LINE OF THE SAID KENT AVENUE ;

1. RUNNING THENCE SOUTHEASTWARDLY ALONG SOUTHWESTERLY LINE OF THE SAID KENT AVENUE, FOR 163.53 FEET TO AN ANGLE POINT IN THE SAID SOUTHWESTERLY LINE OF KENT AVENUE;
2. THENCE, SOUTHEASTWARDLY, FORMING AN INTERIOR ANGLE OF 213°45'54" WITH THE PREVIOUS COURSE AND ALONG THE SAID SOUTHWESTERLY LINE OF KENT AVENUE, FOR 50.80 FEET TO AN ANGLE POINT IN THE SAID SOUTHWESTERLY LINE OF KENT AVENUE;
3. THENCE, SOUTHEASTWARDLY, FORMING AN INTERIOR ANGLE OF 171°24'43" WITH THE PREVIOUS COURSE AND ALONG THE SAID SOUTHWESTERLY LINE OF KENT AVENUE, FOR 507.36 FEET TO A POINT;
4. THENCE, SOUTHWESTWARDLY, FORMING AN INTERIOR ANGLE OF 86°16'36" WITH THE PREVIOUS COURSE AND THROUGH TAX LOT 1 IN BROOKLYN TAX BLOCK 2023, FOR 303.15 FEET TO A POINT ON THE CONCRETE CURB AS IT WAS LOCATED IN JULY, 2012;
5. THENCE, NORTHWESTWARDLY, FORMING AN INTERIOR ANGLE OF 94°23'44" WITH THE PREVIOUS COURSE, AND ALONG THE SAID CONCRETE CURB AND CONTINUING ALONG STEEL FACED CURB AS IT WAS LOCATED IN JULY, 2012 AND THROUGH TAX LOT 1 IN BROOKLYN TAX BLOCK 2023, FOR 188.90 FEET TO A POINT ON A NONTANGENTIAL ARC;
6. THENCE, NORTHWESTWARDLY AND WESTWARDLY, ALONG THE SAID STEEL FACED CURB WHICH IS THE SAID ARC OF A CIRCLE WITH A RADIUS OF 49.50 FEET AND A CENTRAL ANGLE OF 80°16'03" DEFLECTING TO THE LEFT, WHICH CHORD FORMS AN INTERIOR ANGLE OF 229°00'58" WITH THE PREVIOUS COURSE AND HAS A LENGTH OF 63.82, AND THROUGH TAX LOT 1 IN BROOKLYN TAX BLOCK 2023, FOR 69.35 FEET TO A POINT ON THE SAID STEEL FACED CURB;
7. THENCE, NORTHWESTWARDLY, FORMING AN INTERIOR ANGLE OF 136°35'49" WITH THE CHORD TO THE PREVIOUS COURSE AND THROUGH TAX LOT 1 IN BROOKLYN TAX BLOCK 2023, FOR 382.01 FEET TO A POINT;
8. THENCE, NORTHWESTWARDLY, FORMING AN INTERIOR ANGLE OF 180°29'37" WITH THE PREVIOUS COURSE, PART OF THE DISTANCE THROUGH TAX LOT 1 IN BROOKLYN TAX BLOCK 2023 AND CONTINUING THROUGH WALLABOUT CHANNEL AS SHOWN ON THE FINAL MAP, FOR 637.21 FEET TO THE NORTHWESTERLY SIDE OF A CONCRETE WALL;
9. THENCE, NORTHWARDLY, FORMING AN INTERIOR ANGLE OF 108°02'59" WITH THE PREVIOUS COURSE AND THROUGH THE SAID MAPPED WALLABOUT CHANNEL, FOR 97.85 FEET TO THE NORTHEASTERLY SIDE OF A CONCRETE BULKHEAD;
10. THENCE, SOUTHEASTWARDLY, FORMING AN INTERIOR ANGLE OF 72°18'43" WITH THE PREVIOUS COURSE, ALONG THE SAID NORTHEASTERLY SIDE OF A CONCRETE BULKHEAD, THROUGH THE SAID MAPPED WALLABOUT CHANNEL, AND CONTINUING ACROSS A PART OF TAX LOT 1 IN BROOKLYN TAX BLOCK 2023, FOR 934.13 FEET TO AN ANGLE POINT IN THE SAID CONCRETE BULKHEAD;
11. THENCE, NORTHEASTWARDLY, FORMING AN INTERIOR ANGLE OF 270°11'27" WITH THE PREVIOUS COURSE, ALONG THE SAID CONCRETE BULKHEAD AND THROUGH TAX LOT 1 IN BROOKLYN TAX BLOCK 2023, FOR 49.87 FEET TO AN ANGLE POINT IN THE SAID CONCRETE BULKHEAD;
12. THENCE, NORTHWARDLY, FORMING AN INTERIOR ANGLE OF 216°42'15" WITH THE PREVIOUS COURSE, ALONG THE SAID CONCRETE BULKHEAD AND THROUGH TAX LOT 1 IN BROOKLYN TAX BLOCK 2023, FOR 187.52 FEET TO AN ANGLE POINT IN THE SAID CONCRETE BULKHEAD;
13. THENCE, NORTHWESTWARDLY, FORMING AN INTERIOR ANGLE OF 233°11'45" WITH THE PREVIOUS COURSE, ALONG THE SAID CONCRETE BULKHEAD AND THROUGH TAX LOT 1 IN BROOKLYN TAX BLOCK 2023, FOR 276.43 FEET TO A POINT;
14. THENCE, NORTHEASTWARDLY, FORMING AN INTERIOR ANGLE OF 58°04'08" WITH THE PREVIOUS COURSE AND THROUGH TAX LOT 1 IN BROOKLYN TAX BLOCK 2023, FOR 195.94 FEET BACK TO THE POINT OF BEGINNING.

THIS PARCEL COMPRISES AN AREA OF 256,574 SQUARE FEET OR 5.890 ACRES.

PARTY CHIEF	P. FEDELE			
COMPUTATION	A. VOLOVICH	CHECKED	K. KRAEMER	
DRAFTED	A. VOLOVICH	CHECKED	K. KRAEMER	
FIELD EDITED				

KURT KRAEMER, L.S.
CHIEF
TOPOGRAPHICAL SECTION

OLTON OLIVER, L.S.
DIRECTOR
BUREAU OF SITE ENGINEERING

MARK A. CANU
ASSOCIATE COMMISSIONER
DIVISION OF SAFETY AND SITE SUPPORT

NO.	DATE	DESCRIPTIONS		APPR'D
1	5/07/2014	REVISED EASEMENT LINES & UPDATED TOPO	K.K.	O.O.

REVISIONS

CITY OF NEW YORK
DEPARTMENT OF DESIGN + CONSTRUCTION
DIVISION OF SAFETY AND SITE SUPPORT

N/A
3919 A
T3919A1rev1G6454

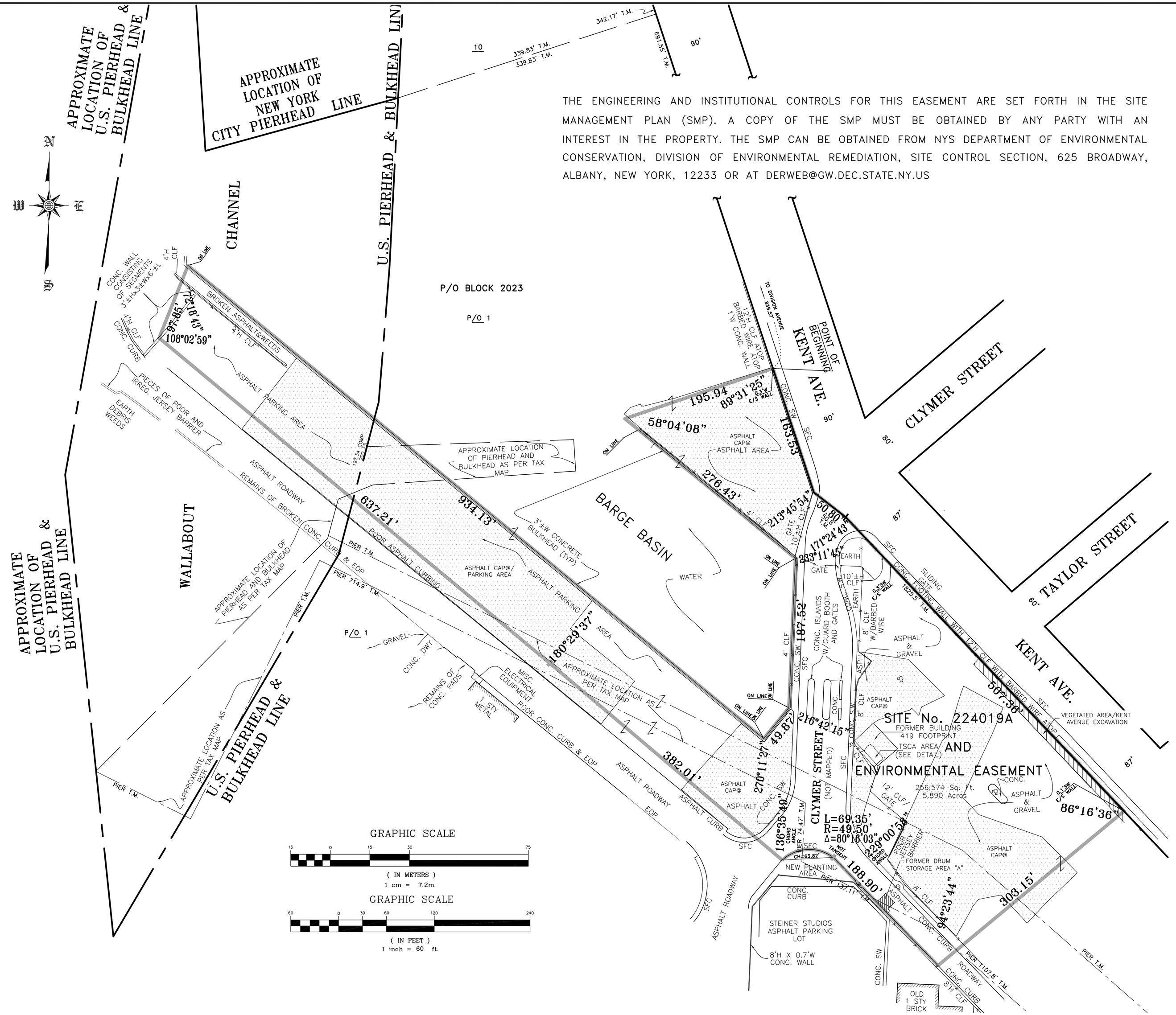
BUREAU OF SITE ENGINEERING
TOPOGRAPHICAL SECTION

BROOKLYN NAVY YARD-13-ACRE PARCEL SITE
SITE No. 224019A
KENT AVENUE & CLYMER STREET
BOROUGH OF BROOKLYN

SITE AND ENVIRONMENTAL EASEMENT MAP

DATE		SHEET
06/19/2013		1 OF 2

THE ENGINEERING AND INSTITUTIONAL CONTROLS FOR THIS EASEMENT ARE SET FORTH IN THE SITE MANAGEMENT PLAN (SMP). A COPY OF THE SMP MUST BE OBTAINED BY ANY PARTY WITH AN INTEREST IN THE PROPERTY. THE SMP CAN BE OBTAINED FROM NYS DEPARTMENT OF ENVIRONMENTAL CONSERVATION, DIVISION OF ENVIRONMENTAL REMEDIATION, SITE CONTROL SECTION, 625 BROADWAY, ALBANY, NEW YORK, 12233 OR AT DERWEB@GW.DEC.STATE.NY.US



GRAPHIC SCALE

15 0 15 30 75

(IN METERS)

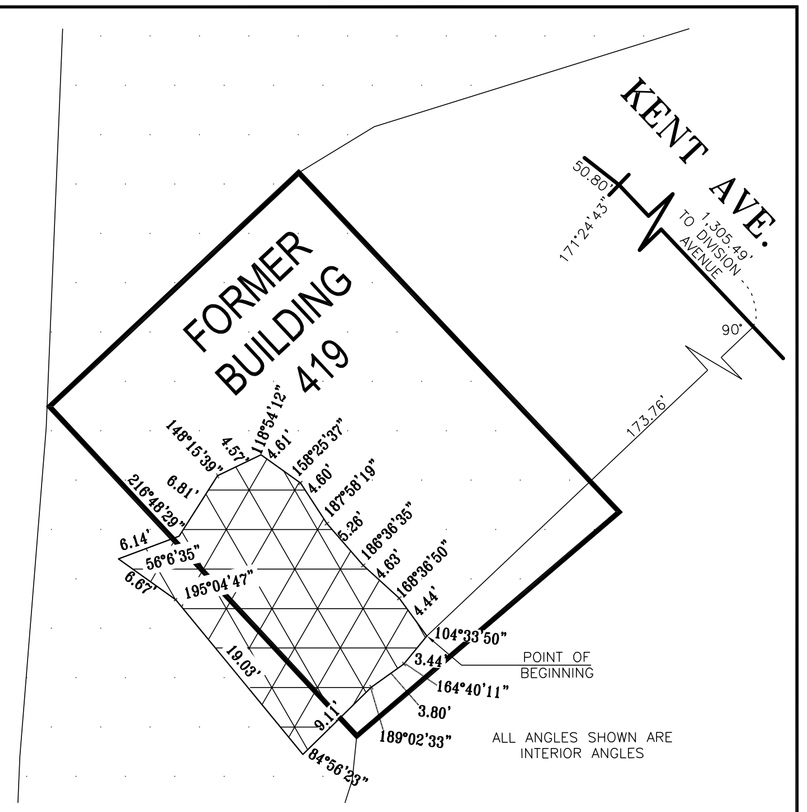
1 cm = 7.2m.

GRAPHIC SCALE

60 0 30 60 120 240

(IN FEET)

1 inch = 60 ft.



DETAL – TSCA AREA

NOT TO SCALE

TSCA AREA DESCRIPTION

METES AND BOUNDS DESCRIPTION OF THE TSCA AREA LOCATED WITHIN BROOKLYN NAVY YARD-13-ACRE PARCEL SITE (SITE No. 224019A) AND ENVIRONMENTAL EASEMENT WHICH IS LOCATED WITHIN THE REAL PROPERTY KNOWN AS THE BROOKLYN NAVY YARD SOUTHWESTERLY FROM THE INTERSECTION OF KENT AVENUE (VARIED WIDTH) WITH CLYMER STREET (80 FEET WIDE) IN WHICH ALL STREETS MENTIONED ARE AS LAID OUT ON THE FINAL MAP FOR THE BOROUGH OF BROOKLYN, FOLLOWS:

COMMENSING AT AN ANGLE POINT ON THE INTERSECTION OF THE SOUTHERLY LINE OF DIVISION AVENUE (70 FEET WIDE) AND THE SOUTHWESTERLY LINE OF THE SAID KENT AVENUE, RUNNING THENCE SOUTHEASTERLY ALONG THE SOUTHWESTERLY LINE OF THE SAID KENT AVENUE FOR 1,305.49 FEET TO A POINT, THENCE, SOUTHWESTERLY , AT RIGHT ANGLES TO THE SOUTHWESTERLY LINE OF THE SAID KENT AVENUE, FOR 173.76 FEET TO THE POINT OF BEGINNING ;

1. RUNNING THENCE NORTHWESTWARDLY, FOR A DISTANCE OF 4.44 FEET TO A POINT;
2. THENCE, NORTHWESTWARDLY, FORMING AN INTERIOR ANGLE OF 168°36'50"WITH THE PREVIOUS COURSE FOR A DISTANCE OF 4.63 FEET TO A POINT;
3. THENCE, NORTHWESTWARDLY, FORMING AN INTERIOR ANGLE OF 186°36'35"WITH THE PREVIOUS COURSE FOR A DISTANCE OF 5.26 FEET TO A POINT;
4. THENCE, NORTHWESTWARDLY, FORMING AN INTERIOR ANGLE OF 187°58'19"WITH THE PREVIOUS COURSE FOR A DISTANCE OF 4.60 FEET TO A POINT;
5. THENCE, NORTHWESTWARDLY, FORMING AN INTERIOR ANGLE OF 158°25'37"WITH THE PREVIOUS COURSE FOR A DISTANCE OF 4.61 FEET TO A POINT;
6. THENCE, SOUTHWESTWARDLY, FORMING AN INTERIOR ANGLE OF 118°54'12"WITH THE PREVIOUS COURSE FOR A DISTANCE OF 4.57 FEET TO A POINT;
7. THENCE, SOUTHWESTWARDLY, FORMING AN INTERIOR ANGLE OF 148°15'39"WITH THE PREVIOUS COURSE FOR A DISTANCE OF 6.81 FEET TO A POINT;
8. THENCE, SOUTHWESTWARDLY, FORMING AN INTERIOR ANGLE OF 216°48'29"WITH THE PREVIOUS COURSE FOR A DISTANCE OF 6.14 FEET TO A POINT;
9. THENCE, SOUTHEASTWARDLY, FORMING AN INTERIOR ANGLE OF 56°06'35"WITH THE PREVIOUS COURSE FOR A DISTANCE OF 6.67 FEET TO A POINT;
10. THENCE, SOUTHEASTWARDLY, FORMING AN INTERIOR ANGLE OF 195°04'47"WITH THE PREVIOUS COURSE FOR A DISTANCE OF 19.03 FEET TO A POINT;
11. THENCE, NORTHEASTWARDLY, FORMING AN INTERIOR ANGLE OF 84°56'23"WITH THE PREVIOUS COURSE FOR A DISTANCE OF 9.11 FEET TO A POINT;
12. THENCE, NORTHEASTWARDLY, FORMING AN INTERIOR ANGLE OF 189°02'33"WITH THE PREVIOUS COURSE FOR A DISTANCE OF 3.80 FEET TO A POINT;
13. THENCE, NORTHEASTWARDLY, FORMING AN INTERIOR ANGLE OF 164°40'11" WITH THE PREVIOUS COURSE, FOR A DISTANCE OF 3.44 FEET BACK TO THE POINT OF BEGINNING.

THIS PARCEL COMPRISES AN AREA OF 389 SQUARE FEET OR 0.009 ACRES.

NOTES FOR TSCA AREA AND BUILDING 419

* BUILDING 419 WAS ASSESSED AND DEMOLISHED UNDER TSCA PROTOCOLS, INCLUDING SELF-IMPLEMENTING CLEAN UP PLAN APPROVED BY USEPA.
* SOILS WITH TOTAL PCB CONCENTRATIONS >50 PPM WERE EXCAVATED AND HANDLED HANDLED UNDER TSCA PROTOCOLS
* REMAINING SOILS IN THE TSCA AREA WERE COVERED WITH A CAPPING SYSTEM THAT INCLUDED A MINIMUM ASPHALT OR CONCRETE THICKNESS OF 6". ALL ENDPOINT SOIL SAMPLES WERE FOUND TO HAVE TOTAL PCB CONCENTRATIONS OF <10 PPM.
* CAPPING SYSTEM TO BE MONITORED IN ACCORDANCE WITH UPDATED SITE MANAGEMENT PLAN (TO BE APPROVED BY NYSDEC).

PARTY CHIEF P. FEDELE

COMPUTATION A. VOLOVICH CHECKED K. KRAEMER

DRAFTED A. VOLOVICH CHECKED K. KRAEMER

FIELD EDITED

KURT KRAEMER, L.S.
CHIEF
TOPOGRAPHICAL SECTION

OLTON OLIVER, L.S.
DIRECTOR
BUREAU OF SITE ENGINEERING

MARK A. CANU
ASSOCIATE COMMISSIONER
DIVISION OF SAFETY AND SITE SUPPORT

NO.	DATE	REVISIONS		
1	5/07/2014	REVISED EASEMENT LINES & UPDATED TOPO	K.K.	O.O.

CITY OF NEW YORK
DEPARTMENT OF DESIGN + CONSTRUCTION
DIVISION OF SAFETY AND SITE SUPPORT

N/A
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BUREAU OF SITE ENGINEERING
TOPOGRAPHICAL SECTION

BROOKLYN NAVY YARD-13-ACRE PARCEL SITE
SITE No. 224019A
KENT AVENUE & CLYMER STREET
BOROUGH OF BROOKLYN

SITE AND ENVIRONMENTAL EASEMENT MAP

DATE 06/19/2013

SHEET 2 OF 2

APPENDIX C

EXCAVATION WORK PLAN

EXCAVATION WORK PLAN

1. NOTIFICATION

At least 15 days prior to the start of any intrusive activity that is anticipated to encounter remaining contamination, the site owner or their representative will notify the New York State Department of Environmental Conservation (NYSDEC). Currently, this notification will be made to:

Charles Post, Project Manager
New York State Department of Environmental Conservation
625 Broadway, 12th Floor
Albany, NY 12233-7016
(518)-402-9768
charles.post@dec.ny.gov

This notification will include:

- A detailed description of the work to be performed, including the location and areal extent, plans for site re-grading, intrusive elements or utilities to be installed below the soil cover, estimated volumes of contaminated soil to be excavated and any work that may impact an engineering control;
- A summary of environmental conditions anticipated in the work areas, including the nature and concentration levels of contaminants of concern, potential presence of grossly contaminated media, and plans for any pre-construction sampling;
- A schedule for the work, detailing the start and completion of all intrusive work;
- A summary of the applicable components of this Excavation Work Plan (EWP);
- A statement that the work will be performed in compliance with this EWP and 29 CFR 1910.120;
- A copy of the contractor's health and safety plan (HASP), in electronic format;
- Identification of disposal facilities for potential waste streams; and
- Identification of sources of any anticipated backfill, along with all required chemical testing results.

It is noted that any parties performing this intrusive work will be responsible for complying with all federal state, and city regulations (e.g., including filing of SWPPP; NYSDEC discharge permits; etc.)

2. SOIL SCREENING METHODS

Visual, olfactory and photoionization detector (PID) soil screening will be performed by a qualified environmental professional during all remedial and development excavations into known or potentially contaminated material (remaining contamination). Soil screening will be performed regardless of when the invasive work is done and will include all excavation and invasive work performed during development, such as excavations for foundations and utility work, after issuance of the Certificate of Completion (COC).

Soils will be segregated based on previous environmental data and screening results into material that requires off-site disposal, material that requires testing, materials that can be returned to the subsurface, and material that can be used as cover soil.

3. STOCKPILE METHODS

Protecting the stockpile from erosion will follow the recommendations presented in the *New York Standards and Specifications for Erosion and Sediment Control (August 2005)*. Soil stockpiles will be located where erosion and sediment hazards are low. The side slope of the stockpile will be maintained at a ratio of 2:1 (H:V) or flatter. Stockpiles will be kept covered at all times with appropriately anchored tarps. When in use, contractors will access the soil stockpile area from up grade to ensure the drainage path of any runoff from the stockpile area will have constant erosion and sediment controls in place.

When not in use, soil stockpiles will be continuously encircled with a berm and/or silt fencing at the toe of the slope to prevent washout. Hay bales are to be used as a secondary filtering method after the silt fencing around any soil stock piles or in place of a silt back insert to the catch basins on site to prevent any sediment from reaching the existing stormwater conveyance system. They are not to be used to redirect stormwater runoff from reaching the existing system.

Stockpiles will be inspected at a minimum once each week and after every storm event that generates 0.5 inches or greater of rain as required by NYSDEC standards for erosion and sediment control. Damaged tarp covers will be promptly replaced. Results of inspections will be recorded in a logbook and maintained at the site and available for inspection by NYSDEC in accordance with all applicable rules and regulations.

4. MATERIALS EXCAVATION AND LOAD OUT

A Professional Engineer licensed to practice in New York State or where appropriate a Qualified Environmental Professional will oversee all invasive work and the excavation and load-out of all excavated material. The owner of the property and its contractors are solely responsible for safe execution of all excavation and other work performed under this plan. The locations of site utilities and easements will be investigated to determine whether they pose a risk or impediment to work planned under the Site Management Plan (SMP).

Loaded vehicles leaving the site will be appropriately lined, tarped, securely covered, manifested, and placarded in accordance with appropriate federal, state, local and New York State Department of Transportation (NYSDOT) requirements (and all other applicable transportation requirements). If deemed necessary, a truck wash will be operated on-site. A qualified environmental professional will ensure that all outbound trucks will be washed at the truck wash before leaving the site until the intrusive work is complete.

Locations where vehicles enter or exit the site shall be inspected daily for evidence of off-site soil tracking. All egress points for truck and equipment transport leaving the site will be kept clean of dirt and other materials derived from the site during intrusive excavation activities. Adjacent streets will be cleaned, as necessary, to keep them free of site-derived materials.

5. MATERIALS TRANSPORT OFF-SITE

All soil/fill/solid waste excavated and removed from the site will be treated as contaminated and regulated material and will be transported and disposed in accordance with all local, State (including 6 NYCRR Part 360) and Federal regulations. Haulers will be appropriately licensed and trucks properly placarded. The contractor will determine the truck-transport route; however, the contractor will attempt to limit the transport of materials through residential areas and past sensitive sites while maintaining overall transport safety. Trucks

will be prohibited from stopping and idling in the neighborhood outside the project site. Egress points for trucks and equipment leaving the site will be kept clean of dirt and other materials during excavation activities at the site. Trucks will be queued on-site to minimize off-site disturbance. Off-site queuing will be prohibited. Materials transported by trucks leaving the site will be secured with tight-fitting covers. Loose-fitting canvas-type covers will be prohibited. If loads contain wet materials capable of producing free liquid, truck liners will be used. If necessary, all trucks will be washed before leaving the site.

6. MATERIALS DISPOSAL OFF-SITE

All soil/fill/solid waste excavated and removed from the site will be treated as contaminated and regulated material and will be transported and disposed in accordance with all local, state (including 6 NYCRR Part 360) and federal regulations. If disposal of soil/fill from this site is proposed for unregulated off-site disposal (i.e., clean soil removed for development purposed), a formal request with an associated plan will be made to the NYSDEC. Unregulated off-site management of materials from this site will not occur without formal NYSDEC approval.

Off-site disposal locations for excavated soils will be identified in the pre-excavation notification. This will include estimated quantities and a breakdown by class of disposal facility if appropriate, i.e., hazardous waste disposal facility, solid waste landfill, petroleum treatment facility, construction and demolition (C&D) recycling facility, etc. Actual disposal quantities and associated documentation will be reported to the NYSDEC in the Periodic Review Report. This documentation will include: waste profiles, test results, facility acceptance letters, manifests, bills of lading and facility receipts.

Non-hazardous historic fill and contaminated soils taken off-site will be handled, at a minimum, as a Municipal Solid Waste per 6 NYCRR Part 360-1.2. Material that does not meet Track 1 unrestricted soil cleanup objectives (SCOs) is prohibited from being taken to a New York State recycling facility (6 NYCRR Part 360-16 Registration Facility).

7. MATERIALS REUSE ON-SITE

Excavated material may be reused at the same location unless it exhibits signs of gross contamination. Assuming no signs of contamination, no laboratory analyses are required provided one foot of clean fill or a six-inch paving system is placed atop it.

Staged materials, including historic fill and contaminated soil that will be used at locations other than the site of excavation will be sampled and analyzed prior to reuse. The sampling frequency for the reuse will be consistent with Table 5.4(e)10 Recommended Number of Samples for Soil Imported To or Exported From a Site (DER-10). The samples will be analyzed to determine the suitability for use as backfill. The analytical results will be compared to the Commercial or Industrial Use concentrations of the Allowable Constituent Levels for Imported Fill or Soil table found in Appendix 5 of DER-10. Any soils that meet the criteria of DER-10 may be reused on-site below the demarcation layer or impervious surface, but will not be reused within a cover soil layer, within landscaping berms or as backfill for subsurface utility lines. A Professional Engineer or where appropriate a Qualified Environmental Professional will be responsible for procedures defined for material reuse in this SMP are followed and that unacceptable material will not remain on-site.

Any demolition material proposed for reuse on-site will be sampled for asbestos and the results will be reported to NYSDEC for acceptance. Concrete crushing or processing on-site will not be performed without

prior NYSDEC approval. Organic matter (wood, roots, stumps, etc.) or other solid waste derived from clearing and grubbing of the site will not be reused on-site.

8. FLUIDS MANAGEMENT

All liquids to be removed from the site, including excavation dewatering (if necessary) will be handled, transported and disposed in accordance with applicable local, state, and federal regulations. Dewatering or other fluids will not be recharged back to the land surface or subsurface of the site, but will be managed off-site.

Discharge of water generated during large-scale construction activities to surface waters (i.e., a local pond, stream or river) will be performed under a State Pollutant Discharge Elimination System (SPDES) permit, which will be obtained if applicable and appropriate.

9. SITE-WIDE COVER SYSTEM RESTORATION

After the completion of soil removal and any other invasive activities the cover system will be restored in a manner that complies with the Record of Decision. The demarcation layer, consisting of orange snow fencing material or equivalent material will be replaced to provide a visual reference to the top of the 'Remaining Contamination Zone,' the zone that requires adherence to special conditions for disturbance of remaining contaminated soils defined in this SMP. If the type of cover system changes from that which exists prior to the excavation (i.e., a soil cover is replaced by asphalt), as discussed in Section 1.4.4 of the SMP, this will constitute a modification of the cover element of the remedy and the upper surface of the 'Remaining Contamination Zone.' A figure showing the modified surface will be included in the subsequent Periodic Review Report and in any updates to the SMP.

10. BACKFILL FROM OFF-SITE SOURCES

All materials proposed for import onto the site will be approved by the Professional Engineer licensed to practice in New York State or where appropriate a Qualified Environmental Professional and will be in compliance with provisions in this SMP prior to receipt at the site. Following PE or QEP approval, a Request to Import/Re-use Fill or Soil form will be prepared and submitted to NYSDEC for approval. Material from industrial sites, spill sites, or other environmental remediation sites or potentially contaminated sites will not be imported to the site. All materials brought on-site for fill material will meet the levels established in 6 NYCRR Part 375-6.8. Sampling requirements for soils brought to the site will be based on the soil quantity in cubic yards as presented in DER-10 in Table 5.4(e)10 'Recommended Number of Samples for Soil Imported To or Exported From a Site.'

Soils that meet 'exempt' fill requirements under 6 NYCRR Part 360, but do not meet backfill or cover soil objectives for this site, will not be imported onto the site without prior approval by NYSDEC. Solid waste will not be imported onto the site. Trucks entering the site with imported soils will be securely covered with tight fitting covers. Imported soils will be stockpiled separately from excavated materials and covered to prevent dust releases.

11. STORMWATER POLLUTION PREVENTION

All excavations, including remedial work on the site, will be performed in accordance with all applicable permits, including Stormwater Pollution Prevention permits, as necessary. An Erosion and

Sediment Control Plan, prepared by a state licensed Professional Engineer or Landscape Architect, or a Certified Professional in Erosion and Sediment Control (CPESC), will be implemented by the Contractor during all excavation activities. In accordance with the SPDES General Permit for Stormwater Discharges, an application will be made under the SPDES permit program for stormwater pollution prevention by filing a Notice of Intent supported by a Stormwater Pollution Prevention Plan including an erosion and sediment control plan in satisfaction of all substantive technical requirements. The maintenance on site is limited to standard New York City street cleaning rules.

12. CONTINGENCY PLAN

If underground tanks or other previously unidentified contaminant sources are found during post-remedial subsurface excavations or development-related construction, excavation activities will be suspended until sufficient equipment is mobilized to address the condition.

Sampling will be performed on product, sediment, and surrounding soils, etc. as necessary to determine the nature of the material and proper disposal method. Chemical analysis will be performed for a full list of analytes, Target Analyte List (TAL) metals, Target Compound List (TCL) volatile and semivolatile organics, TCL pesticides, and polychlorinated biphenyls (PCBs), unless the site history and previous sampling results provide a sufficient justification to limit the list of analytes. In this case, a reduced list of analytes will be proposed to the NYSDEC for approval prior to sampling.

Identification of unknown or unexpected contaminated media identified by screening during invasive site work will be promptly communicated by phone to NYSDEC's Project Manager. Reportable quantities of petroleum product will also be reported to the NYSDEC spills hotline. These findings will also be included in the periodic reports prepared pursuant to Section 5 of the SMP.

13. COMMUNITY AIR MONITORING PLAN

OVERVIEW

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

The generic CAMP presented below will be sufficient to cover many, if not most, sites. Specific requirements will be reviewed for each situation in consultation with New York State Department of Health (NYSDOH) to ensure proper applicability. In some cases, a separate site-specific CAMP or supplement may be required. Depending upon the nature of contamination, chemical-specific monitoring with appropriately-sensitive methods may be required. Depending upon the proximity of potentially exposed individuals, more stringent monitoring or response levels than those presented below may be required. Special requirements will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with

collocated residences or facilities. These requirements should be determined in consultation with NYSDOH.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

COMMUNITY AIR MONITORING PLAN

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for VOCs and/or particulate levels at the perimeter of the Work Zone will be necessary. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring. If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate NYSDEC/NYSDOH staff.

- **Continuous monitoring** will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

- **Periodic monitoring** for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. "Periodic" monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

VOC MONITORING, RESPONSE LEVELS, AND ACTIONS

VOCs must be monitored at the downwind perimeter of the immediate work area (e.g., Work Zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions, particularly if wind direction changes. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

1. If the ambient air concentration of total organic vapors at the downwind perimeter of the Work Zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.
2. If total organic vapor levels at the downwind perimeter of the Work Zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the Work Zone or half the distance to the nearest potential receptor or residential/commercial structure,

whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

3. If the organic vapor level is above 25 ppm at the perimeter of the Work Zone, activities must be shutdown.
4. All 15-minute readings must be recorded and be available for State (NYSDEC and NYSDOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

PARTICULATE MONITORING, RESPONSE LEVELS, AND ACTIONS

Particulate concentrations should be monitored continuously at the upwind and downwind perimeters of the Work Zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

1. If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m3 above the upwind level and provided that no visible dust is migrating from the work area.
2. If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m3 above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m3 of the upwind level and in preventing visible dust migration.
3. All readings must be recorded and be available for State (NYSDEC and NYSDOH) and County Health personnel to review.

14. ODOR CONTROL PLAN

This odor control plan is capable of controlling emissions of nuisance odors off-site. Specific odor control methods to be used on a routine basis will include keeping a record of odor complaints, minimizing the time that odor-emitting soils or other media are stockpiled and maximize the distance of the storage area from off-site properties. If nuisance odors are identified at the site boundary, or if odor complaints are received, work will be halted and the source of odors will be identified and corrected. Work will not resume until all nuisance odors have been abated. NYSDEC and NYSDOH will be notified of all odor events and of any other complaints about the project. Implementation of all odor controls, including the halt of work, is the responsibility of the Engineer or Contractor, and any measures that are implemented will be discussed in the Periodic Review Report.

All necessary means will be employed to prevent on- and off-site nuisances. At a minimum, these measures will include: (a) limiting the area of open excavations and size of soil stockpiles; (b) shrouding open excavations with tarps and other covers; and (c) using foams to cover exposed odorous soils. If odors develop and cannot be otherwise controlled, additional means to eliminate odor nuisances will include: (d) direct load-out of soils to trucks for off-site disposal; (e) use of chemical odorants in spray or misting systems; and (f) use

of staff to monitor odors in surrounding neighborhoods.

If nuisance odors develop during intrusive work that cannot be corrected, or where the control of nuisance odors cannot otherwise be achieved due to on-site conditions or close proximity to sensitive receptors, odor control will be achieved by sheltering the excavation and handling areas in a temporary containment structure equipped with appropriate air venting/filtering systems.

15. DUST CONTROL PLAN

- A dust suppression plan that addresses dust management during invasive on-site work will include, at a minimum, the items listed below:
- Dust suppression will be achieved through the use of a dedicated on-site water truck for road wetting. The truck will be equipped with a water cannon capable of spraying water directly onto off-road areas including excavations and stockpiles.
- Clearing and grubbing of larger sites will be done in stages to limit the area of exposed, unvegetated soils vulnerable to dust production.
- Gravel will be used on roadways to provide a clean and dust-free road surface.
- On-site roads will be limited in total area to minimize the area required for water truck sprinkling.

16. SITE SECURITY

During intrusive activities, excavations and associated stockpiles will be fenced or gated to minimize health and safety concerns and to prevent direct contact with excavated impacted materials, etc. by other BNYDC tenants or other onsite personnel.

Occupational Safety and Health Administration regulations (29 CFR Part 1926, Subpart P) must be followed during excavations.

17. OTHER NUISANCES

A plan will be developed and utilized by the contractor for all remedial work to ensure compliance with local noise control ordinances.

APPENDIX D

INSPECTION, MAINTENANCE, AND SOIL IMPORT FORMS

SITE-WIDE INSPECTION FORM

BROOKLYN NAVY YARD, OPERABLE UNIT 1
KINGS COUNTY
BROOKLYN, NEW YORK
NYSDEC SITE NUMBER 224019A

NAME OF INSPECTOR:_____

COMPANY OF INSPECTOR:_____

DATE OF INSPECTION:_____

CURRENT USE OF SITE:_____

HAS A CHANGE OF USE OCCURRED SINCE THE LAST CERTIFICATION?
_____ YES _____ NO
IF YES, THEN EXPLAIN:_____
_____
_____

GENERAL DESCRIPTION OF COVER:_____
_____
_____
_____
_____

HAS THE COVER BEEN PENETRATED? _____YES _____NO
IF YES, THEN EXPLAIN:_____
_____
_____
_____
_____

HAVE ANY STRUCTURES BEEN CONSTRUCTED ON THE SITE SINCE THE LAST INSPECTION? _____ YES _____NO
IF YES, THEN EXPLAIN:_____
_____
_____

HAVE COVER CONDITIONS CHANGED SINCE THE LAST INSPECTION?
_____YES _____NO

IF YES, THEN EXPLAIN:_____
_____
_____

IS ANY MAINTENANCE OF THE COVER REQUIRED?
_____YES _____NO

IF YES, THEN EXPLAIN:_____
_____
_____

ADDITIONAL OBSERVATIONS, CONCLUSIONS OR RECCOMMENDATIONS:
_____
_____
_____
_____

ANY CHANGES TO THE SITE OR REQUIRED MAINTENANCE SHOULD BE MARKED IN THE CORRESPONDING LOCATION ON THE ATTACHED MAP

CONTROL CERTIFICATION STATEMENT

For each Institutional or Engineering Control listed above, I certify that by checking "YES" that all of the following is true:

- The Institutional Control and/or Engineering Control employed at the site is unchanged from the date the control was put in place or last approved by the Department.
- Nothing has occurred that would impair the ability of such a control to protect public health and the environment.
- Nothing has occurred that would constitute a violation or failure to comply with any Site Management Plan for this control.
- Access to the site will continue to be provided to the Department to evaluate the remedy, including access to evaluate the continued maintenance of this control.
- Use of the site is compliant with the Environmental Easement.
- The EC systems are performing as designed and are effective.
- To the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program and generally accepted engineering practices.
- The information presented in this report is accurate and complete.

CONTROL CERTIFICATIONS

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements contained in this certification form are true. I understand that a false statement made herein is punishable as a "Class A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I _____ (print name), _____ (print business address), am certifying as _____ (Owner or Owner's Designated Site Representative) for the Brooklyn Navy Yard, Operable Unit 1.

_____ _____

Signature of Site Owner or Representative Rendering Certification Date

PROFESSIONAL ENGINEER SIGNATURE

I certify that all information and statements contained in this certification form are true. I understand that a false statement made herein is punishable as a "Class A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I _____ (print name), _____ (print business address), am certifying as a Professional Engineer licensed to practice in New York State for the _____ (Owner or Owner's Representative) for the Brooklyn Navy Yard, Operable Unit 1.

_____ _____

Signature and seal of Professional Engineer for the Owner or Owner's Representative, Rendering Certification Date

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Request to Import/Reuse Fill or Soil

This form is based on the information required by DER-10, Section 5.4(e). Use of this form is not a substitute for reading the applicable Technical Guidance document.

SECTION 1 – SITE BACKGROUND

The allowable site use is: Choose an item

Have Ecological Resources been identified? Choose an item

Is this soil originating from the site? Choose an item

How many cubic yards of soil will be imported/reused? Choose an item

If greater than 1000 cubic yards will be imported, enter volume to be imported:

SECTION 2 – MATERIAL OTHER THAN SOIL

Is the material to be imported gravel, rock or stone? Choose an item

Does it contain less than 10%, by weight, material that would pass a size 80 sieve? Choose an item

Is this virgin material from a permitted mine or quarry? Choose an item

Is this material recycled concrete or brick from a DEC registered processing facility? Choose an item

SECTION 3 - SAMPLING

Provide a brief description of the number and type of samples collected in the space below:

Example Text: 5 discrete samples were collected and analyzed for VOCs. 2 composite samples were collected and analyzed for SVOCs, Inorganics & PCBs/Pesticides.

If the material meets requirements of DER-10 section 5.5 (other material), no chemical testing needed.

SECTION 3 CONT'D - SAMPLING

Provide a brief written summary of the sampling results or attach evaluation tables (compare to DER-10, Appendix 5):

Example Text: Arsenic was detected up to 17 ppm in 1 (of 5) samples; the allowable level is 16 ppm.

If Ecological Resources have been identified use the "If Ecological Resources are Present" column in Appendix 5.

SECTION 4 – SOURCE OF FILL

Name of person providing fill and relationship to the source:

Location where fill was obtained:

Identification of any state or local approvals as a fill source:

If no approvals are available, provide a brief history of the use of the property that is the fill source:

Provide a list of supporting documentation included with this request:

The information provided on this form is accurate and complete.

_____ _____

Signature Date

_____

Print Name

_____

Firm

Revised August 2014

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

60-Day Advance Notification of Site Change of Use, Transfer of Certificate of Completion, and/or Ownership

Required by 6NYCRR Part 375-1.11(d) and 375-1.9(f)

To be submitted at least 60 days prior to change of use to:

Chief, Site Control Section
New York State Department of Environmental Conservation
Division of Environmental Remediation, 625 Broadway
Albany NY 12233-7020

I. Site Name: _____ **DEC Site ID No.** _____

II. Contact Information of Person Submitting Notification:

Name: _____

Address1: _____

Address2: _____

Phone: _____ E-mail: _____

III. Type of Change and Date: Indicate the Type of Change(s) (check all that apply):

☐ Change in Ownership or Change in Remedial Party(ies)

☐ Transfer of Certificate of Completion (CoC)

☐ Other (e.g., any physical alteration or other change of use)

Proposed Date of Change (mm/dd/yyyy): _____

IV. Description: Describe proposed change(s) indicated above and attach maps, drawings, and/or parcel information.

_____

_____

_____

If "Other," the description must explain and advise the Department how such change may or may not affect the site's proposed, ongoing, or completed remedial program (attach additional sheets if needed).

_____

_____

_____

_____

V. Certification Statement: Where the change of use results in a change in ownership or in responsibility for the proposed, ongoing, or completed remedial program for the site, the following certification must be completed (by owner or designated representative; see §375-1.11(d)(3)(i)):

I hereby certify that the prospective purchaser and/or remedial party has been provided a copy of any order, agreement, Site Management Plan, or State Assistance Contract regarding the Site's remedial program as well as a copy of all approved remedial work plans and reports.

Name: _____ _____
(Signature) (Date)

_____
(Print Name)

Address1: _____

Address2: _____

Phone: _____ E-mail: _____

VI. Contact Information for New Owner, Remedial Party, or CoC Holder: If the site will be sold or there will be a new remedial party, identify the prospective owner(s) or party(ies) along with contact information. If the site is subject to an Environmental Easement, Deed Restriction, or Site Management Plan requiring periodic certification of institutional controls/engineering controls (IC/ECs), indicate who will be the certifying party (attach additional sheets if needed).

☐ Prospective Owner ☐ Prospective Remedial Party ☐ Prospective Owner Representative

Name: _____

Address1: _____

Address2: _____

Phone: _____ E-mail: _____

Certifying Party Name: _____

Address1: _____

Address2: _____

Phone: _____ E-mail: _____

VII. Agreement to Notify DEC after Transfer: If Section VI applies, and all or part of the site will be sold, a letter to notify the DEC of the completion of the transfer must be provided. If the current owner is also the holder of the CoC for the site, the CoC should be transferred to the new owner using DEC's form found at http://www.dec.ny.gov/chemical/54736.html. This form has its own filing requirements (see 6NYCRR Part 375-1.9(f)).

Signing below indicates that these notices will be provided to the DEC within the specified time frames. If the sale of the site also includes the transfer of a CoC, the DEC agrees to accept the notice given in VII.3 below in satisfaction of the notice required by VII.1 below (which normally must be submitted within 15 days of the sale of the site).

Within 30 days of the sale of the site, I agree to submit to the DEC:

1. the name and contact information for the new owner(s) (see §375-1.11(d)(3)(ii));
2. the name and contact information for any owner representative; and
3. a notice of transfer using the DEC's form found at http://www.dec.ny.gov/chemical/54736.html (see §375-1.9(f)).

Name: _____ _____

(Signature) (Date)

_____

(Print Name)

Address1: _____

Address2: _____

Phone: _____ E-mail: _____

Continuation Sheet

☐ Prospective Owner/Holder ☐ Prospective Remedial Party ☐ Prospective Owner Representative

Name: ____________________

Address1: ____________________

Address2: ____________________

Phone: ____________________ E-mail: ____________________

☐ Prospective Owner/Holder ☐ Prospective Remedial Party ☐ Prospective Owner Representative

Name: ____________________

Address1: ____________________

Address2: ____________________

Phone: ____________________ E-mail: ____________________

☐ Prospective Owner/Holder ☐ Prospective Remedial Party ☐ Prospective Owner Representative

Name: ____________________

Address1: ____________________

Address2: ____________________

Phone: ____________________ E-mail: ____________________

☐ Prospective Owner/Holder ☐ Prospective Remedial Party ☐ Prospective Owner Representative

Name: ____________________

Address1: ____________________

Address2: ____________________

Phone: ____________________ E-mail: ____________________

☐ Prospective Owner/Holder ☐ Prospective Remedial Party ☐ Prospective Owner Representative

Name: ____________________

Address1: ____________________

Address2: ____________________

Phone: ____________________ E-mail: ____________________

☐ Prospective Owner/Holder ☐ Prospective Remedial Party ☐ Prospective Owner Representative

Name: ____________________

Address1: ____________________

Address2: ____________________

Phone: ____________________ E-mail: ____________________

New York State Department of Environmental Conservation

Instructions for Completing the 60-Day Advance Notification of Site Change of Use, Transfer of Certificate of Completion (CoC), and/or Ownership Form

Submit to: Chief, Site Control Section, New York State Department of Environmental Conservation, Division of Environmental Remediation, 625 Broadway, Albany NY 12233-7020

Section I	**Description**
Site Name	Official DEC site name. (see http://www.dec.ny.gov/cfmx/extapps/derexternal/index.cfm?pageid=3)
DEC Site ID No.	DEC site identification number.

Section II	**Contact Information of Person Submitting Notification**
Name	Name of person submitting notification of site change of use, transfer of certificate of completion and/or ownership form.
Address1	Street address or P.O. box number of the person submitting notification.
Address2	City, state and zip code of the person submitting notification.
Phone	Phone number of the person submitting notification.
E-mail	E-mail address of the person submitting notification.

Section III	**Type of Change and Date**
Check Boxes	Check the appropriate box(s) for the type(s) of change about which you are notifying the Department. Check all that apply.
Proposed Date of Change	Date on which the change in ownership or remedial party, transfer of CoC, or other change is expected to occur.

Section IV	**Description**
Description	For each change checked in Section III, describe the proposed change. Provide all applicable maps, drawings, and/or parcel information. If "Other" is checked in Section III, explain how the change may affect the site's proposed, ongoing, or completed remedial program at the site. Please attach additional sheets, if needed.

Section V Certification Statement

This section must be filled out if the change of use results in a change of ownership or responsibility for the proposed, ongoing, or completed remedial program for the site. When completed, it provides DEC with a certification that the prospective purchaser has been provided a copy of any order, agreement, or State assistance contract as well as a copy of all approved remedial work plans and reports.

Name	The owner of the site property or their designated representative must sign and date the certification statement. Print owner or designated representative's name on the line provided below the signature.
Address1	Owner or designated representative's street address or P.O. Box number.
Address2	Owner or designated representative's city, state and zip code.
Phone	Owner or designated representative's phone number.
E-Mail	Owner or designated representative's E-mail.

Section VI Contact Information for New Owner, Remedial Party, and CoC Holder (if a CoC was issued)

Fill out this section only if the site is to be sold or there will be a new remedial party. Check the appropriate box to indicate whether the information being provided is for a Prospective Owner, CoC Holder (if site was ever issued a COC), Prospective Remedial Party, or Prospective Owner Representative. Identify the prospective owner or party and include contact information. A Continuation Sheet is provided at the end of this form for additional owner/party information.

Name	Name of Prospective Owner, Prospective Remedial Party or Prospective Owner Representative.
Address1	Street address or P.O. Box number for the Prospective Owner, Prospective Remedial Party, or Prospective Owner Representative.
Address2	City, state and zip code for the Prospective Owner, Prospective Remedial Party, or Prospective Owner Representative.
Phone	Phone number for the Prospective Owner, Prospective Remedial Party or Prospective Owner Representative.
E-Mail	E-mail address of the Prospective Owner, Prospective Remedial Party or Prospective Owner Representative.

If the site is subject to an Environmental Easement, Deed Restriction, or Site Management Plan requiring periodic certification of institutional controls/engineering controls (IC/EC), indicate who will be the certifying party(ies). Attach additional sheets, if needed.

Certifying Party Name	Name of Certifying Party.
Address1	Certifying Party's street address or P.O. Box number.
Address2	Certifying Party's city, state and zip code.
Phone	Certifying Party's Phone number.
E-Mail	Certifying Party's E-mail address.

Section VII Agreement to Notify DEC After Property Transfer/Sale

This section must be filled out for all property transfers of all or part of the site. If the site also has a CoC, then the CoC shall be transferred using DEC's form found at http://www.dec.ny.gov/chemical/54736.html

Filling out and signing this section of the form indicates you will comply with the post transfer notifications within the required timeframes specified on the form. If a CoC has been issued for the site, the DEC will allow 30 days for the post transfer notification so that the "Notice of CoC Transfer Form" and proof of it's filing can be included. Normally the required post transfer notification must be submitted within 15 day (per 375-1.11(d)(3)(ii)) when no CoC is involved.

Name	Current property owner must sign and date the form on the designated lines. Print owner's name on the line provided.
Address1	Current owner's street address.
Address2	Current owner's city, state and zip code.

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Request to Import/Reuse Fill or Soil

This form is based on the information required by DER-10, Section 5.4(e). Use of this form is not a substitute for reading the applicable Technical Guidance document.

SECTION 1 – SITE BACKGROUND

The allowable site use is: Choose an item

Have Ecological Resources been identified? Choose an item

Is this soil originating from the site? Choose an item

How many cubic yards of soil will be imported/reused? Choose an item

If greater than 1000 cubic yards will be imported, enter volume to be imported:

SECTION 2 – MATERIAL OTHER THAN SOIL

Is the material to be imported gravel, rock or stone? Choose an item

Does it contain less than 10%, by weight, material that would pass a size 80 sieve? Choose an item

Is this virgin material from a permitted mine or quarry? Choose an item

Is this material recycled concrete or brick from a DEC registered processing facility? Choose an item

SECTION 3 - SAMPLING

Provide a brief description of the number and type of samples collected in the space below:

Example Text: 5 discrete samples were collected and analyzed for VOCs. 2 composite samples were collected and analyzed for SVOCs, Inorganics & PCBs/Pesticides.

If the material meets requirements of DER-10 section 5.5 (other material), no chemical testing needed.

SECTION 3 CONT'D - SAMPLING

Provide a brief written summary of the sampling results or attach evaluation tables (compare to DER-10, Appendix 5):

Example Text: Arsenic was detected up to 17 ppm in 1 (of 5) samples; the allowable level is 16 ppm.

If Ecological Resources have been identified use the "If Ecological Resources are Present" column in Appendix 5.

SECTION 4 – SOURCE OF FILL

Name of person providing fill and relationship to the source:

Location where fill was obtained:

Identification of any state or local approvals as a fill source:

If no approvals are available, provide a brief history of the use of the property that is the fill source:

Provide a list of supporting documentation included with this request:

The information provided on this form is accurate and complete.

Signature	Date
Print Name	
Firm	

Revised August 2014

APPENDIX E

HEALTH AND SAFETY PLAN

GENERIC SITE HEALTH AND SAFETY PLAN

SECTION 1: GENERAL INFORMATION & DISCLAIMER
CLIENT NAME: New York City Department of Sanitation (DSNY) PROJECT NAME: Brooklyn Navy Yard Implementation of intrusive activities at Operable Unit No. 1
PROJECT MANAGER: Marshah-Reaff Barrett, DSNY Contractor:
PROJECT LEADER: To Be Determined
SITE HEALTH & SAFETY OFFICERS: To Be Determined
PREPARED BY: Contractor DATE: To Be Determined
NOTE: This Site Specific Health and Safety Plan (HASP) has been prepared as an example for employees for work at the site referenced below. Each contractor will be responsible for preparing their own Health and Safety Plans. DSNY is not responsible for its use by others. The plan is written for the generic site conditions, purposes, tasks, dates and personnel and must be amended and reviewed by those named in Section 16 if these conditions change.

SECTION 2: PROJECT INFORMATION

(1) SITE INFORMATION Site Name: Brooklyn Navy Yard	Site Project Client Contact: Marshah-Reaff Barrett, DSNY
Address: 63 Flushing Avenue	Site Phone No.: (646) 885-4776
Brooklyn, NY 11205	Site Health and Safety Contact: To Be Determined

(2) SITE CLASSIFICATION (check, highlight or circle all that apply

Hazardous (RCRA)	Hazardous (CERCLA/State)	UST/LUST
First Entry	Manufacturing	Municipal POTW
Previously Characterized	C & D Landfill	Construction
Industrial	Sanitary Landfill	Other
Active	Inactive	
Explanation/Details:		

(3) CONTRACTOR TASKS & OJECTIVES (attach additional sheet if necessary): The work covered by this HASP includes implementation of intrusive activities in areas where previously completed sampling data indicated impacts from prior site activities and the installation of a site-wide cover. This work will be conducted with the assistance of excavation equipment which will be operated by a contractor yet to be selected. Former Building 419 had been identified as being impacted by Polychlorinated biphenyls (PCBs) from historic operations. In addition, since lead concentrations exceeded Toxicity Characteristic Leaching Procedure (TCLP) criterion in Former Drum Storage Area A, the area was characterized as having characteristic hazardous waste. The localized PCB and TCLP lead areas (Former Drum Storage Area A and Former Building 419) were addressed through excavation while the contamination on the remainder of the site was addressed using a site-wide cover. After soils above the TCLP lead criterion and the PCB soil cleanup criteria were excavated, post-excavation confirmatory soil sampling were conducted. Samples were collected from both the excavation bottom and from the excavation sidewalls and analyzed for TCLP lead and/or PCBs. These excavations were shallow (less than 2 feet) and did not require specific trenching and excavation health and safety protocols. If work in deeper excavations is deemed necessary, that work would need to be conducted under an appropriate addendum to this HASP to be prepared and approved. If sample results exceed the TCLP lead criterion or the PCB cleanup criteria, the excavation limits would be expanded and re-sampled until the sample results for the excavation sidewall and excavation bottom samples are below the relevant criteria.

This HASP applies to personnel working at the Brooklyn Navy Yard site and addressees emergency on-site procedures and health and safety related procedures for specific work activities, and additional requirements in accordance with 29 CFR 1910.120.

TASKS PERFORMED BY OTHERS: Additional contractors may perform activities including but not limited to the site clearing, excavation, installation of the site-wide cover, building sub-slab depressurization systems (applicable when buildings are constructed on the site), site restoration and soil disposal. All contractors are required to have their own HASP in accordance with 29 CFR 1910.120 requirements.

(4) PROJECT ORGANIZATION AND COORDINATION – The following personnel are designated to carry out the stated project job functions on site. (Note: One person may carry out more than one job function, not all positions must be filled for each project.)

Job Function	Company	Phone
PROJECT MANAGER	Marshah-Reaff Barrett, DSNY	(646) 885-4776
SITE SAFETY OFFICER	To Be Determined	To Be Determined
ALTERNATE SITE SAFETY OFFICER	To Be Determined	To Be Determined
PUBLIC INFORMATION OFFICER	To Be Determined	To Be Determined
SITE RECORDKEEPER	To Be Determined	To Be Determined
ON-SITE PERSONNEL WITH CPR/FA	To Be Determined	To Be Determined
FIELD TEAM LEADER	To Be Determined	To Be Determined
FIELD TEAM MEMBERS	To Be Determined	To Be Determined
ON-SITE CLIENT CONTACT		
VISITORS:	FEDERAL AGENCY REPS (i.e., EPA, OSHA)	None
	STATE AGENCY REPS	None
	LOCAL AGENCY REPS	None
SUBCONTRACTORS: TBD	SUBCONTRACTOR(S) SITE SAFETY OFFICERS TBD	SUBCONTRACTOR SHASP ( ) YES _____ NO_____

All personnel arriving or departing the site should log in and out with the Record-keeper.

(5) ONSITE CONTROL (Prevailing wind directions, Work Zones, etc.) (Attach additional sheet if necessary)

A Work Zone will be established by the Contractor around each area where intrusive activities will occur.
Section 3: PHYSICAL HAZARDS INFORMATION

SECTION 3: PHYSICAL HAZARDS INFORMATION

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(1) IDENTIFY POTENTIAL PHYSICAL HAZARDS TO WORKERS		
Confined Space	Steep/uneven terrain	Surface Water
Heavy Equipment	Heat Stress	Drum Handling
Moving Parts	Extreme Cold	Noise
Heavy Lifting	Ionizing Radiation	Non-Ionizing Radiation
Electrical	Traffic	Elevated Work Surface
Overhead Hazards	Marine/Open Water Navigation	Trenching
Underground Utilities	Biological Hazards	Sewage
2) SAFETY EQUIPMENT REQUIRED FOR PERSONNEL		
(Explosimeter	Barrier Tape	Lights
Fall Protection Equipment	Traffic Cones	Lights – emergency
Confined Space Equipment	A-B-C Fire Extinguisher	Communications – On Site
Ladder	Tick Repellant	Communications -Off
First Aid Kit	Snake Bite Kit	Lockout/Tagout
Eye Wash	Floatation Device (USCG)	
Emergency Shower	Emergency Air Horn	
Other: A personal data (hand-held) RAM meter for dust monitoring A TSI air velocity meter for logging wind speed A wind sock for wind direction		Other
Comment: See Attachment 3-1 for Physical Hazard Analysis.		

SECTION 4: CHEMICAL HAZARDS INFORMATION

(1) IDENTIFIED CHEMICAL HAZARDS

Data obtained from previous investigations and the Remedial Action (RA) have identified the following Chemical hazards:

- PCBS are present at concentrations above cleanup criteria within and immediately adjacent to Former Building 149 and Former Drum Storage Area A.
- Lead concentrations above Technical and Administrative Guidance Memorandum (TAGM) cleanup criteria were observed at a number of locations across the site. Elevated lead concentrations are within the range observed for historic fill. Concentrations of other metals, such as arsenic and copper, were observed above cleanup criteria but were within the typical range for historic, urban fill. Elevated levels of these metals are most likely related to the historic urban fill used to raise the site above mean sea level as opposed to subsequent site activities. Two samples in Former Drum Storage A exceeded the TCLP criterion for lead.
- Semi-volatile organic compounds (SVOCs) specifically several polycyclic aromatic hydrocarbons (PAHs) at concentrations above both TAGM 4046 and Brownfield criteria were also observed throughout the site. Concentrations were consistent with those observed in historic fill. The distribution and concentration observed supports the interpretation that the source of these SVOCs is not historic site activity but historic fill used to create the site.
- Detectable concentrations of BTEX compounds (benzene, toluene, ethylbenzene, and xylene), as well as other VOCs, were observed in soil gas samples. The reported BTEX compounds are consistent with the generally low VOC concentrations observed in soil and groundwater at the site and the observed use of a majority of the site for vehicle and construction material storage. These concentrations however, are below OSHA permissible exposure limits (PELs) and would not be considered a hazard.

Attachment 4-1 summarizes the range of metals, SVOCs, VOCs, and pesticide/PCB concentrations detected in site soils during the site investigations

Media	Substances Involved	Characteristics	Estimated Concentrations	PEL

2) DESCRIBE THE POTENTIAL FOR CONTACT WITH EACH MEDIA TYPE FOR EACH OF THE TASKS LISTED IN SECTION 2.4

The potential routes of exposure to the chemicals that may be present in the soils include: 1) direct (dermal) skin contact or adsorption of contaminants; 2) ingestion by hand to mouth transfer of contaminants; and 3) inhalation of dust during construction activities.

For direct dermal contact or adsorption, prevention of exposure is accomplished by the proper selection of protective clothing. Section 5 presents PPE requirements for this project.

For ingestion, prevention is accomplished through good hygiene practices frequent hand washing and enforcement of rules regarding eating, drinking, and smoking.

For inhalation, prevention of exposure is accomplished by using appropriate vapor control measures, such as half-faced dust respirator with HEPA cartridges.

The Site Safety Office will brief the onsite personnel on the symptoms and signs of overexposure to chemical hazards.

SECTION 5: PROTECTIVE EQUIPMENT LIST

TASK	RESPIRATORS & CARTRIDGE	USE	CLOTHING	GLOVES	BOOTS	OTHERS
Site Clearing			T		S, O	H, N
Excavation			T		S, O	H, S/G, N
B = SCBA	O = organic vapor	Cont = Continuous	T = Tyvek	B = Butyl	F = Fireman's	F = Face Shield
APR = APR	G = organic vapor/acid gas	UP = Upgrade	P = PE Tyvek	L = latex	L = Latex	G = Goggles
D = N/A	A = asbestos		S = Saranex	N = Neo	N = Neo	H = Hard Hat
E = Escape	P = particulate		C = Cover-alls	T = nitrile	S = Safety	S = Safety glasses
AL = air line	C = combination organic vapor & particulate			V = Vitron	O = Overboots	N = Hearing Protection
				CN = Cotton		
				P = PVC		
				PA = polyvinyl		
				SS = Silver Shield		

SECTION 6: HAZARD COMMUNICATION PROGRAM

If chemicals are introduced to the site by the contractor (e.g., decontamination liquids, preservatives, etc.) bring a copy of the Hazard Communication Program to the site and attach Material Safety Dada Sheets (MSDS). The site Safety Office will review this information with field personnel prior to the start of the project. The Comprehensive List of Chemicals for this site is:

Not Applicable

SECTION 7: ENVIRONMENTAL MONITORING
1) The following environmental monitoring instruments shall be used on sit eat the specified intervals A Community Air Monitoring Program (CAMP) requires real time monitoring for particulates at the downwind perimeter of each designated work area when certain activities are in progress at contaminated site. The intent of the CAMP is to provide a measure of protection for the downwind community from airborne contaminants due to site activities. See Attachment 7-1 for the CAMP.
2) Monitoring equipment to be calibrated according to manufacturer's instructions. Record calibration data and air concentrations in the Health and Safety on-site log book. See Attachment 7-1 for the CAMP.
3) Recommended action levels for upgrade or downgrade of respiratory protection or site shutdown and evacuation. See Attachment 7-1 for the CAMP.

SECTION 8: HEALTH AND SAFETY TRAINING AND MEDICAL MONITORING PROGRAM						
The project staff is included in the project health and safety training and medical monitoring programs.						
NAME	MEDICAL (Date)	INITIAL (Hours/Date)	REFRESHER (Date)	SUPV (Date)	CPR/FA/BBP (Dates)	FIT TEST (Make/Size/Type/Date)

SECTION 9: PERSONAL MONITORING
The following personnel monitoring will be in effect on site:
Personal Exposure Sampling:
Medical Monitoring:
A copy of the personal monitoring results (if collected) is to be sent to the Health and Safety Officer.

SECTION 10: CONFINED SPACE ENTRY		
(1) Will confined space entry take place?	YES _____	NO _____
If yes, attach Confined Space Entry Program.		

SECTION 11: COMMUNICATION PROCEDURES	
The following standard hand signals will be used in case of failure of radio communications:	
Grip Partner's wrist or both hands around wrist	Leave area immediately
Hands on top of Head	Need Assistance
Air Horn sounded 3 times	Notification for injury. Personnel should assemble at designated location
Thumbs up	OK, I am all right, I understand.
Thumbs down	No, Negative

SECTION 12: DECONTAMINATION PROCEDURES

APPENDIX F

COMMUNITY AIR MONITORING PLAN

COMMUNITY AIR MONITORING PLAN

OVERVIEW

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

The generic CAMP presented below will be sufficient to cover many, if not most, sites. Specific requirements will be reviewed for each situation in consultation with New York State Department of Health (NYSDOH) to ensure proper applicability. In some cases, a separate site-specific CAMP or supplement may be required. Depending upon the nature of contamination, chemical-specific monitoring with appropriately-sensitive methods may be required. Depending upon the proximity of potentially exposed individuals, more stringent monitoring or response levels than those presented below may be required. Special requirements will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with collocated residences or facilities. These requirements should be determined in consultation with NYSDOH.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

COMMUNITY AIR MONITORING PLAN

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for VOCs and/or particulate levels at the perimeter of the Work Zone will be necessary. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring. If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate NYSDEC/NYSDOH staff.

- **Continuous monitoring** will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil

borings or monitoring wells.

- **Periodic monitoring** for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. "Periodic" monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

VOC MONITORING, RESPONSE LEVELS, AND ACTIONS

VOCs must be monitored at the downwind perimeter of the immediate work area (e.g., Work Zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions, particularly if wind direction changes. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

1. If the ambient air concentration of total organic vapors at the downwind perimeter of the Work Zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

2. If total organic vapor levels at the downwind perimeter of the Work Zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the Work Zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.
3. If the organic vapor level is above 25 ppm at the perimeter of the Work Zone, activities must be shutdown.

4. All 15-minute readings must be recorded and be available for State (NYSDEC and NYSDOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

PARTICULATE MONITORING, RESPONSE LEVELS, AND ACTIONS

Particulate concentrations should be monitored continuously at the upwind and downwind perimeters of the Work Zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

1. If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m3 above the upwind level and provided that no visible dust is migrating from the work area.

2. If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m3 above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m3 of the upwind level and in preventing visible dust migration.

3. All readings must be recorded and be available for State (NYSDEC and NYSDOH) and County Health personnel to review.