

CHALMERS BUILDING
CITY OF AMSTERDAM, MONTGOMERY COUNTY, NEW YORK

Site Management Plan

NYSDEC Site Number: E429011
C.T. Male Associates Project Number 14.4072

Prepared for:
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Revisions to Final Approved Site Management Plan:

Revision #	Submitted Date	Summary of Revision	DEC Approval Date

JULY 2014

CERTIFICATIONS

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

082100

NYS Professional Engineer #

July 16, 2014

Date

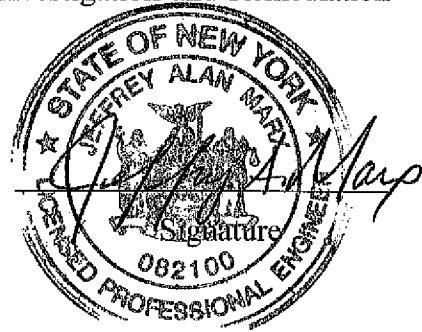


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SITE MANAGEMENT PLAN

1.0 INTRODUCTION AND DESCRIPTION OF REMEDIAL PROGRAM

1.1 INTRODUCTION

This document is required as an element of the remedial program at the Chalmers Building (hereinafter referred to as the “Site”) under the New York State (NYS) Environmental Restoration Program (ERP) administered by New York State Department of Environmental Conservation (NYSDEC). The Site was remediated in accordance with State Assistance Contract (SAC) #C303155, Site #E429011, which was executed on November 30, 2006 and last amended on February 2011 (Amendment #2).

1.1.1 General

The City of Amsterdam entered into a SAC, with the NYSDEC to remediate a 3.31 acre property located at 21 to 41 Bridge Street and 32 Gilliland Avenue in City of Amsterdam, New York. This SAC required the Remedial Party, City of Amsterdam, to investigate and remediate contaminated media at the Site, which consists of two contiguous parcels more commonly referred to as Parcel A (2.54 acres – Bridge Street) and Parcel B (0.77 acres – Gilliland Avenue). A figure showing the Site location and boundaries of this 3.31-acre “Site” or “area subject to this plan” is provided in Figures 1 and 2, respectively. The boundaries of the Site are more fully described in the metes and bounds Site description that is part of the Environmental Easement. The Metes and Bounds Site description is also provided as Appendix A.

After completion of the remedial work described in the Remedial Action Work Plan, some contamination was left in the subsurface at the Site, which is hereafter referred to as ‘remaining contamination.’ This Site Management Plan (SMP) was prepared to manage remaining contamination within the Site until the Environmental

Easement is extinguished in accordance with ECL 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 C.T. Male Associates Engineering, Surveying, Architecture & Landscape Architecture, D.P.C., on behalf of the City of Amsterdam, in accordance with the requirements in NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation, dated May 2010, and the guidelines provided by 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.

1.1.2 Purpose

The Site contains contamination in soil and/or fill materials that remain in place after completion of the remedial action. Engineering Controls have been incorporated into the Site remedy to control exposure to remaining contamination during the use of the Site to ensure protection of public health and the environment. An Environmental Easement granted to the NYSDEC, and recorded with the Montgomery County Clerk, will require compliance with this SMP and all ECs and ICs placed on the Site. The ICs place restrictions on Site use, and mandate operation, maintenance, monitoring and reporting measures for all ECs and ICs. This SMP specifies the methods necessary ensure compliance with all ECs and ICs required by the Environmental Easement for contamination that remains at the Site. This plan has been approved by the NYSDEC, and compliance with this plan is required by the grantor of the Environmental Easement and the grantor's successors and assigns. This SMP may only be revised with the approval of the NYSDEC.

This SMP provides a detailed description of all procedures required to manage remaining contamination at the Site after completion of the Remedial Action, including: (1) implementation and management of all Engineering and Institutional Controls; (2) operation and maintenance of the surface cover system; and (3) performance of periodic inspections, certification of results, and submittal of Periodic Review Reports.

To address these needs, this SMP includes three 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 surface cover system.

This plan also includes a description of Periodic Review Reports for the periodic submittal of data, information, recommendations, and certifications to NYSDEC.

It is important to note that:

- 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 is grounds for revocation of the Certificate of Completion (COC);
- Failure to comply with this SMP is also a violation of Environmental Conservation Law, 6 NYCRR Part 375 and the SAC (Site #E429011) for the Site, and thereby subject to applicable penalties.

1.1.3 Revisions

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.

1.2 SITE BACKGROUND

1.2.1 Site Location and Description

The Site is located in the City of Amsterdam, County of Montgomery, New York and is identified as Block 1 and Lots 13 (0.77 acres) and 14 (2.54 acres) on the City of Amsterdam Tax Map 55.042. The Site is an approximately 3.31-acre area bounded by Mohawk River to the north, Gilliland Avenue and commercial lots to the south, Bridge Street and vacant commercial lots to the east, and commercial lots and South

Chuctanunda Creek (tributary to Mohawk River) to the west (see Figures). The boundaries of the Site are more fully described in Appendix A – Metes and Bounds.

The Site is located on the southern bank of the Mohawk River at an elevation of generally 271 feet above mean sea level. It is separated from the river by a concrete flood control wall. Most of the larger parcel was formerly occupied by the building complex, with the remainder consisting of nearly flat grassy and vegetated areas. The smaller parcel was overgrown by trees and brush, but did not have structures on it.

1.2.2 Site History

According to the Draft Site Investigation Report prepared by The Saratoga Associates, the Chalmers Knitting Company began knitting operations at the Site in the early 20th Century. An entry in *Iron Age*, a common engineering periodical at that time, dated June 11, 1913 read as follows:

“The new cop yarn plant of the Chalmers Knitting Company at Amsterdam, N. Y., will soon be completed and in readiness for the installation of machinery, which will be electrically operated. The plant will comprise a knitting mill, 50 x 300 ft., four stories and basement; a one-story dye house, 58 X 110 ft.; a one-story boiler and pump house, 28 x 60 ft.; warehouse, 60 x 70 ft., four stories and basement, and two story office building, 40 x 65 ft.”

By 1917, the company had constructed the seven-story “new mill” of concrete and rebar, and improvements to the Site continued into the 1950s. During operation, the Chalmers Knitting Company manufactured cloth, blankets, and undergarments. During World War II, the company was a large supplier of underwear to the military.

The Chalmers Knitting Company ceased operations during the 1950s and sub-let portions of the property to smaller companies into the 1970s. The Site has been vacant for over 20 years and all manufacturing equipment has been removed. The City of Amsterdam took possession of the property from the Montgomery County Economic Development Council in 2006.

The Site was historically owned and operated by garment manufacturers (beginning with the Chalmers Knitting Company) between circa 1915 until the 1980s. The Site was used for the manufacturing of cloth, blankets and undergarments. Information provided in a Phase I ESA completed for the site by ENSR in 2003), provided the following historical list of ownership for the property:

- City of Amsterdam (Vacant) 2006 to Present.
- Montgomery County Economic Development Corporation (Vacant), 1991 to 2006.
- Amkal Realty Corp (Vacant) 1985-1991
- Edmund Stern Company (Manufactured undergarments) 1961-1985
- Lester Martin & Co (Manufactured undergarments) 1944-1961
- Bigelow Sanford (leased a portion of building) (Manufactured army blankets) World War II
- Chalmers Knitting Company Cloth production 1917-1944

ENSR's Phase I ESA in 2003 also provided a historic use of properties abutting the site from the late 1880s through the 1970s. Properties in the Site's vicinity were historically used for a variety of purposes including: residential; wood/lumber yard; coal yards; the Erie and Barge Canals; and a roofing company.

1.2.3 Geologic Conditions

According to the Draft Site Investigation Report prepared by The Saratoga Associates, the Hudson Mohawk Sheet of the Surficial Geologic Map of New York (1991) categorizes surficial geology at the Site as recent alluvium (sand and gravel). Based on the configuration of the Site adjacent to the Mohawk River, it is likely that materials in the northern portion of the Site are Urban Fill.

The bedrock geology underlying the surficial geology in the vicinity of the Site is mapped as middle Ordovician aged limestone of the Trenton and Black River formations

(New York State Museum and Science Service, 1970). The depth to bedrock underlying the site is not known, nor was it encountered during site investigations within the depths explored (~15 to 20 feet below grade).

Multiple soil borings and monitoring wells were installed as part of the SI, and supplemental investigations. The borings/wells identified unconsolidated subsurface materials consist of sand and gravel fill materials overlying native silts and clays. Below the silt and clay, where present, are silty sand to gravelly sand units that may represent alluvial/stream deposits. Groundwater was encountered approximately fifteen to twenty feet below grade and generally flowing northeast toward the Mohawk River.

1.3 SUMMARY OF SITE INVESTIGATION FINDINGS

A Site Investigation (SI) was performed to characterize the nature and extent of contamination at the Site. The results of the SI are described in detail in the following report:

- Draft Site Investigation Report (SIR), Chalmers Building Environmental Restoration Project, prepared by Saratoga Associates, January 15, 2013.

Generally, the SI was completed in three general phases, as described below:

- A Preliminary Site Investigation (PSI) and Supplemental Site Investigation (SSI), which focused on areas of the Site outside of the Building footprint, commenced in 2006 and was completed in 2012;
- A Focused Site Investigation (FSI) and Supplemental Focused Site Investigation (SFSI), which were focused on identifying and delineating impacts within the footprint of the Chalmers Building, occurred from 2009 until 2010; and
- Interim Remedial Measures, which were conducted at the Site from May 2011 through September 2012. Details of the Interim Remedial Measures taken are provided as Appendix J to this report.

The SI identified SVOCs, PCBs and metals as contaminants of concern within the Site's surface soil; SVOCs and metals as contaminants of concern within the Site's

subsurface soil; VOCs, SVOCs and metals as contaminants of concern within the Site's groundwater; and VOCs (including petroleum hydrocarbons, chlorinated hydrocarbons and others) within sub-slab vapor. A summary of Site conditions when the SI was performed in 2009, 2010 and 2012 is presented below:

1.3.1 Surface Soil

Analytical results for surface soil samples collected during the SI are presented in Table 1 (PSI-VOCs), Table 2 (PSI-SVOCs), Table 3 (SSI-SVOCs & Pesticides), Table 4 (PSI-Metals), Table 5 (SSI-Metals), and Table 6 (PSI-PCBs) in the SIR. Figure 6 also in the SIR depicts chemicals of concern (COCs) exceeding their respective SCOs in soil samples. The following summarizes the nature and extent of contamination:

- No VOCs were detected at a concentration that exceeded their respective restricted-commercial SCOs.
- SVOCs were detected in each of the surface soil samples collected during the SI. Eleven of the seventeen surface soil samples contained one or more SVOCs at concentrations exceeding their respective SCOs. These SVOCs included benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, chrysene, dibenzo(a,h)anthracene, and indeno (1,2,3-cd) pyrene.
- Metals were detected in each of the surface soil samples collected during the SI. Four of the surface samples analyzed for metals contained one or more metals at concentrations exceeding their respective SCOs. These metals included arsenic, barium, cadmium, and lead.
- One PCB, Aroclor 1260, was detected at concentrations exceeding restricted –commercial SCOs in sample PCB-08.

1.3.2 Subsurface Soil

Analytical results for subsurface soil samples collected during the PSI & SSI are presented in Table 7 through Table 12 in the SIR. Analytical results for subsurface soil

samples collected during the FSI & SFSI are presented in Table 17 through Table 22 in the SIR. Figures 5 and 6 in the SIR depict COCs detected at concentrations exceeding SCOs in subsurface soil samples collected during the PSI and SSI, and Figure 7 also in the SIR depicts COCs detected at concentrations exceeding their respective SCOs in subsurface soil samples collected during the FSI and SFSI.

- VOCs were detected in 30 of the 50 subsurface soil samples collected from the Site during the SI, but no VOCs were detected at concentrations that exceeded their restricted – commercial SCOs.
- SVOCs were detected in most of the subsurface soil samples collected from the Site during the SI. Several of these samples contained one or more SVOCs at concentrations exceeding their respective SCOs. These SVOCs included benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd) pyrene.
- Metals were detected in each of the subsurface soil samples collected during the SI. Several of the samples contained one or more metals at concentrations exceeding their respective SCOs. These metals included arsenic, barium, calcium, chromium, cobalt, copper, iron, lead, nickel, zinc, vanadium and mercury.
- PCB Aroclor 1254 was detected in subsurface soil sample MW/SB-4 (9-10), collected from a depth of 9-10 feet bgs, at a concentration of 0.1 parts per million (ppm). PCBs were not detected in other subsurface soil samples collected during the SI.

1.3.3 Site-Related Groundwater

Analytical results for groundwater samples collected during the SI are presented in Table 13 through Table 16 (PSI & SSI) and Table 23 through Table 26 (FSI) in the SIR. Chemical concentrations detected in groundwater samples were compared to groundwater standards/guidance values (GWS) as presented in the New York State

Department of Environmental Conservation's (NYSDEC) Technical and Operational Guidance Series 1.1.1 (TOGS 1.1.1). Figure 8 also in the SIR presents COCs that were detected in groundwater samples collected during the SI, whose concentrations exceeded their respective GWS.

Groundwater sampling of monitoring wells MW-1 through MW-7, and the collection of grab groundwater samples GW/SB-17 and GW/SB-18 were conducted during the PSI in December 2006. Sampling of monitoring wells MW-8 through MW-14 was conducted during the FSI in August 2009.

- VOCs were detected in the PSI groundwater samples collected from MW-3, MW-6, and in grab groundwater sample GW/SB-17, included trichloroethene (TCE), and cis-1,2-dichloroethene (DCE). TCE in MW-3 and DCE in MW-6 were detected at concentrations exceeding their respective GWS (Table 9 of the SIR). One or more VOCs were detected in each of the FSI groundwater samples collected from monitoring wells MW-8 through MW-14 (Table 17 of the SIR), however, VOC concentrations did not exceed GWS.
- SVOCs were not detected in groundwater samples collected during the PSI (Table 10 of the SIR). Estimated (J-qualified) concentrations of bis(2-ethylhexyl)phthalate were reported in groundwater samples collected from MW-10 and MW-14 during the FSI, however, the concentrations detected did not exceed GWS (Table 18 of the SIR).
- Metals were detected in each of the groundwater samples collected during the SI (Table 11 and Table 19 of the SIR). With the exception of MW-13, each groundwater sample collected during the SI contained at least one chemical at a concentration that exceeded its GWS. The metals detected in groundwater samples collected from properly developed monitoring wells at concentrations exceeding GWS included iron, magnesium, manganese, nickel, selenium, sodium, lead and antimony. Somewhat higher concentrations of these metals, as well as elevated levels of other metals

exceeding their respective GWS, were detected in grab groundwater samples GW/SB-17 and GW/SB-18 (Table 11 of the SIR). The elevated metals concentrations detected in the grab groundwater samples, is likely the result of total solids (sediment) present in the water samples at the time nitric acid was added as a preservative, and therefore may be present as a component of the soils rather than of groundwater.

- PCBs were not detected in the groundwater samples collected during the SI (see Table 12 and Table 20 of the SIR).

1.3.4 Site-Related Soil Vapor Intrusion

Analytical results for sub-slab soil vapor, indoor and ambient outdoor air samples collected during the FSI are presented in Table 21 of the SIR. The VOCs detected included petroleum hydrocarbons (e.g., benzene, toluene, xylenes, etc.), chlorinated hydrocarbons (chloroethane, chloroform, carbon tetrachloride, tetrachloroethene, etc.) and others. The presence of these compounds indicates a potential for vapor intrusion.

1.3.5 Underground Storage Tanks

Two (2) underground storage tanks were identified on the Site during the SI. The tanks were located north and northwest of the former site building. The tanks were each 20,000 gallons in size and contained heavy oil, believed to be No. 5 or No. 6 fuel oil. The tanks were listed as “Temporarily Out of Service” during the SI. In November 2011, the tanks were emptied, cleaned and removed to obtain “Permanent” closure status as part of the interim remedial measures performed at the site.

1.4 SUMMARY OF REMEDIAL ACTIONS

The Site was remediated in accordance with the NYSDEC-approved Interim Remedial Measures Work Plan dated October 29, 2010 and Final Grading Plan prepared by Saratoga Associates dated June 2012.

The following is a summary of the Remedial Actions performed at the Site:

1. Completion of interim remedial measures;

2. Construction and maintenance of a soil cover system consisting of vegetated soil to prevent human exposure to remaining contaminated soil/fill remaining at the Site;
3. Execution and recording of an Environmental Easement to restrict land use and prevent future exposure to any contamination remaining at the Site.
4. Development and implementation of a Site Management Plan for long term management of remaining contamination as required by the Environmental Easement, which includes plans for: (1) Institutional and Engineering Controls, (2) monitoring, (3) operation and maintenance and (4) reporting;

Remedial activities were completed at the Site in September 2012.

1.4.1 Removal of Contaminated Materials from the Site

The Final Engineering Report describes the contaminated materials removed from the site as part of the interim remedial measures completed. These included demolition related materials (asbestos, lead paint, lead flashing, caulk, mercury containing items and light ballasts), and other wastes and substances including drums, underground storage tanks petroleum impacted soil, transformer removal, PCB impacted soil removal (from transformers) and lead impacted soil (beneath Structure 2).

1.4.2 Site-Related Treatment Systems

No long-term treatment systems were installed as part of the Site remedy.

1.4.3 Remaining Contamination

The remaining contamination at the Site is similar to what was identified by the SI and described in Section 1.3 of this SMP with one exception. During site grading activities some of the remaining contamination was excavated/graded and relocated to achieve more suitable final grades after installation of surface cover system. This primarily occurred along the property boundaries where existing grades needed to be lowered to tie in the surface cover to similar grades of the adjoining properties.

Utilizing data collected as part of the IRM, the following Tables 1.4.3-1, 1.4.3-2 and 1.4.3.3 were prepared to show specific areas of where remaining contamination exists at the Site above SCGs (i.e., highlighted detections). This was documented through end point soil sampling after removal of PCB impacted soils (Table 1.4.3-1 and Figure 2) and closure of petroleum storage tanks (Tables 1.4.3-2 and 1.4.3.3, and Figure 3). The remaining impacted soils represented by these highlighted data in the tables were not altered from their original locations. Figures 2 and 3 depict the approximate location of these samples.

Regardless of final deposition, all soils beneath the cover system are to be considered contaminated unless sampling is performed to document otherwise. A black filter fabric demarcation layer is located between the cover system and existing Site fill (crushed concrete) and/or native soils to show the start of the remaining contamination. The demarcation layer is generally present 12 inches below grade across the entire Site. Refer to the Excavation Work Plan (Appendix B) requirements for guidance for disturbance and handling of remaining contamination.

Table 1.4.1-1 – PCB Soil Removal End Point Soil Sampling Summary of Detections													
Compound/Analyte	EP PCB 1	EP PCB 2	EP PCB 3	EP PCB 4	EP PCB 5	EP PCB 6	EP PCB 7	EP PCB 7a	EP PCB 8	EP PCB 9	6 NYCRR Part 375 Commercial Use SCO	Protection of Ecological Resources	Protection of Groundwater
Metals													
Aluminum	2,620 B	4,070 B	2,220 B	2,580 B	4,050 B	2,600 B	2,560 B	NA	5,600 B	5,490 B	NS	10,000 *	NS
Antimony	1.1 J	ND	0.81 J	ND	ND	ND	ND	NA	ND	1.9 J	NS	12 *	NS
Arsenic	12	8.4	7.9	7.3	16.4	5.9	9.3	NA	5.3	12.9	16	13	16
Barium	125	130	66.4	122	891	87.5	93.3	NA	87	183	400	433	820
Beryllium	0.44 B	0.5 B	0.36 B	0.33 B	0.89 B	0.34 B	0.37 B	NA	0.49 B	0.58 B	590	10	47
Cadmium	0.43	0.59	0.25	0.41	0.27	0.45	0.54	NA	1.1	0.96	9.3	4	7.5
Calcium	8,780 B	11,900 B	5,750 B	3,130 B	12,000 B	13,500 B	148 B	NA	37,100 B	37,600 B	NS	10,000 *	NS
Chromium, trivalent	6.2	6.4	6.2	5.9	12.1	5.6	5.5	NA	10.1	10.7	1,500	41	NS
Cobalt	3.5	4.8	4	3.7	8	2.8	4.1	NA	6.2	5.7	NS	20 *	NS
Copper	41	42.7	47.2	20.3	39.2	30.2	22.8	NA	26.7	72.6	270	50	1,720
Iron	8,130	7,960	10,500	5,990	24,500	7,770	8,400	NA	13,400	15,700	NS	NS	NS
Lead	570	230	176	105	76.8	206	125	NA	153	679	1,000	63	450
Magnesium	2,290 B	3,250 B	1620 B	720 B	3,010 B	3170 B	31,100 B	NA	7,720 B	6,980 B	NS	NS	NS
Manganese	85.3 B	96.7 B	83.4 B	69.4 B	59.4 B	74.5 B	276 B	NA	313 B	298 B	10,000	1,600	2,000
Mercury	0.23	0.3	0.16	0.2	0.3	0.32	0.51	NA	0.13	0.64	2.8	0.18	0.73
Nickel	11	12.6	9.6	12	24.6	8	10.4	NA	18	19.3	310	30	130
Potassium	349	468	365	279	443	423	517	NA	1,030	722	NS	NS	NS
Selenium	ND	ND	ND	ND	1.4 J	ND	0.78 J	NA	0.87 J	0.76 J	1,500	3.9	4
Silver	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	1,500	2	8.3
Sodium	85.7	243	57.5	81.6 J	175 J	73.1 J	93.4 J	NA	65.4 J	129 J	NS	NS	NS
Vanadium	17.9	15.2	14.6	11.5	24.2	14.4	15.5	NA	33	42.1	NS	39 *	NS
Zinc	213	211	122	149	72.4	178	111	NA	272	416	10,000	109	2,480
PCBs													
Polychlorinated biphenyls	0.29	0.21 J	0.45	ND	0.23 J	0.96	1.01	0.28	0.28	0.82 J	1	1	3.2
Semi-volatile Organic Compounds													
Methylene Chloride	ND	ND	ND	0.0036 J	0.003 J	ND	ND	NA	3.1 J	ND	NS	NS	NS
Tetrachlorethene	ND	ND	ND	0.0023 J	ND	ND	ND	NA	1.4 J	ND	NS	NS	NS
2-Methylnaphthalene	1 J	1.1 J	0.19 J	ND	0.88 J	7.9	0.78 J	NA	0.75 J	9.1 J	NS	NS	36.4 *
4-Methylphenol	ND	ND	ND	ND	ND	0.49 J	ND	NA	ND	ND	NS	NS	NS
Acenaphthene	3.9 J	3.9	0.89 J	0.11 J	1.2 J	22	4.7	NA	4.6 J	38	500	20	98
Acenaphthylene	0.18 J	0.26 J	0.1 J	ND	1.7 J	0.44 J	0.18 J	NA	ND	2.2 J	500	NS	107
Anthracene	6.7	10	2	0.37 J	4.7	35	8.5	NA	6 J	73	500	NS	1,000 ^c
Benzo(a)anthracene	17	24	5.9	2.1 J	12	63	20	NA	16	180	5.6	NS	1
Benzo(a)pyrene	15	22	5.7	2.1 J	11	60	19	NA	15	160	1	2.6	22
Benzo(b)fluoranthene	17	25	7.2	2.5 J	13	79	24	NA	17	210	5.6	NS	1.7
Benzo(g,h,i)perylene	8.5	11	2.4	1.3 J	4.7	22	7.3	NA	6 J	62	500	NS	1,000
Benzo(k)fluoranthene	8.5	14	2.8	1.4 J	5.5	31	12	NA	11	96	56	NS	1.7
Biphenyl	0.32 J	0.27 J	0.057 J	ND	ND	2.2 J	0.22 J	NA		2.7 J	NS	60 *	NS

Table 1.4.1-1 – PCB Soil Removal End Point Soil Sampling Summary of Detections													
Compound/Analyte	EP PCB 1	EP PCB 2	EP PCB 3	EP PCB 4	EP PCB 5	EP PCB 6	EP PCB 7	EP PCB 7a	EP PCB 8	EP PCB 9	6 NYCRR Part 375 Commercial Use SCO	Protection of Ecological Resources	Protection of Groundwater
Carbazole	4	5.4	0.1 J	0.18 J	1.9 J	22	3.9	NA	3.4 J	39	NS	NS	NS
Chrysene	17	24	6.1	2.5 J	11	61	20	NA	17	170	56	NS	1
Dibenzofuran	2.3 J	3	0.43 J	ND	1.1 J	16	2	NA	2 J	23 J	NS	6.2 *	NS
Dibenz(a,h)anthracene	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	0.56	NS	1,000
Fluoranthene	31	47	11	3.7 J	20	130 E	37	NA	28	340	500	NS	1,000
Fluorene	2.7 J	3.5 J	0.68 J	0.1 J	1.5 J	18	3.3	NA	2.9 J	29 J	500	30	386
Indeno(1,2,3-cd)pyrene	7.8	9	2.2	2.8 J	5.4	18	6.4	NA	8.3	64	5.6	NS	8.2
Naphthalene	2.2 J	2 J	0.28 J	ND	1.3 J	16	1.6 J	NA	1.8 J	16 J	500	NS	12
Pentachlorophenol	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	6.7	0.8	0.8
Phenanthrene	32	49	8.4	2 J	18	160 E	34	NA	27	350	500	NS	1,000
Phenol	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	500	30	0.33
Pyrene	41	57	12	4.3 J	23	140 E	40	NA	35	390	500	NS	1,000
Volatile Organic Compounds	None Detected	None Detected	None Detected	None Detected	None Detected	None Detected	None Detected	NA	None Detected	None Detected			

All soil cleanup objectives (SCOs) are in milligrams per kilogram (mg/kg) or parts per million (ppm).

NA = Not Analyzed

ND = Not Detected above the limit of laboratory detection

NS = No Standard

* = CP-51 Soil Cleanup Guidance

J = Estimated Value

Table 1.4.3-2 – Tank 1 End Point Soil Sampling Summary of Detections

COMPOUND	SCOs	UST-1 SW-1	UST1 SW-2	UST-1 SW-3	UST-1 SW-4	UST-1 SW-5	UST-1 SW-6	UST-1 FLOOR-1	UST-1 FLOOR-2	UST-1 FLOOR-3	UST-1 FLOOR-4	UST-1 PIPE-1	UST-1 PIPE-2
Volatile Organic Compounds by EPA Method 8260 (mg/kg)													
Chloroform	350	U	U	U	U	U	U	U	U	0.0014 J	U	U	U
Ethylbenzene	390	0.00062 J	U	U	U	U	U	U	U	U	U	U	U
Tetrachloroethene	150	U	U	0.0013 J	U	U	U	U	U	U	U	U	U
Toluene	500	0.00051 J	U	U	U	U	U	U	U	U	U	U	U
Xylenes, Total	500	0.0016 J	0.0012 J	0.0011 J	U	U	U	U	U	U	U	U	U
Semi-volatile Organic Compounds by EPA Method 8270 (mg/kg)													
2-Methylnaphthalene	36.4 (PGW CP51)	U	U	U	U	U	0.050 J	U	U	U	U	0.74 J	U
Acenaphthene	500	U	U	U	0.026 J	U	0.12 J	U	U	0.074 J	U	2.3 J	U
Acenaphthylene	500	U	U	U	U	U	0.092 J	U	U	U	U	U	U
Anthracene	500	U	U	U	0.13 J	0.0089 J	0.48 J	U	U	0.13 J	U	4.4 J	0.28 J
Benzo(a)anthracene	5.6	0.0069 J B	0.0074 J B	0.14 J B	1 J B	0.074 J B	2.1 B	0.18 J B	0.020 J B	0.73 J B	0.015 J B	12 J B	1.6 J B
Benzo(a)pyrene	1	U	U	1.1 J	1.8 J	0.15 J	2.3	1.1 J	0.13 J	1.7 J	U	22 J	5.9 J
Benzo(b)fluoranthene	5.6	U	U	0.38 J	1.3 J	0.11 J	2.4	U	0.070 J	1.1 J	0.040 J	16 J	3 J
Benzo(g,h,i)perylene	500	U	U	0.084 J	0.44 J	0.03 J	0.72 J	U	0.031 J	0.3 J	U	4.1 J	0.58 J
Benzo(k)fluoranthene	56	U	U	1 J	1.5 J	0.12 J	1.7 J	U	0.12 J	1.5 J	0.11 J	19 J	5.3 J
Carbazole	No Standard	U	U	U	U	U	0.2 J	U	U	U	U	2.2 J	U
Chrysene	56	0.0035 J B	0.0043 J B	0.092 J B	1.1 J B	0.07 J B	2 B	0.11 J B	0.028 J B	0.67 J B	0.0066 J B	11 J B	1.5 J B
Dibenzofuran	No Standard	U	U	U	U	U	0.091 J	U	U	U	U	U	U
Fluoranthene	500	U	U	U	2.1	0.17 J	3.6	1 J	0.11 J	1.9 J	0.11 J	31	6.3 J
Fluorene	500	U	U	U	U	U	0.17 J	U	U	U	U	1.7 J	U
Indeno(1,2,3-cd)pyrene	5.6	U	U	1 J	1.3 J	0.12 J	1.5 J	0.98 J	0.12 J	1.4 J	U	17 J	5.1 J
Naphthalene	500	U	U	U	U	U	0.12 J	U	U	U	U	1.9 J	U
Phenanthrene	500	U	U	0.052 J	0.61 J	0.043 J	2.1	0.079 J	0.011 J	0.53 J	0.0057 J	20 J	1.3 J
Pyrene	500	U	U	0.1 J	1.5 J	0.1 J	3.4	0.15 J	0.022 J	1.1 J	U	21 J	2.1 J

Notes:

"J" denotes estimated value below the instrument detection limit. "U" denotes not detected.

Commercial SCOs are from 6 NYCRR Part 375 Commercial Use category soil cleanup objectives. Highlights show exceedence of SCO.

Table 1.4.3-3 – Tank 2 End Point Soil Sampling Summary of Detections

COMPOUND	SCOs	UST-2 PIPE-1	UST-2 PIPE-2	UST-2 SW-1	UST-2 SW-2	UST-2 SW-3	UST-2 SW-4	UST-2 FLOOR-1	UST-2 FLOOR-2	UST-2 FLOOR-3	UST-2 FLOOR-4
Volatile Organic Compounds by EPA Method 8260 (mg/kg)											
Ethylbenzene	390	0.00081 J B	0.00045 J B	U	0.00044 J B	0.00046 J B	0.00048 J B	U	0.00053 J B	U	U
Toluene	500	0.0026 J B	0.0013 J B	0.0012 J B	0.0012 J B	0.0011 J B	0.0016 J B	U	0.001 J B	U	U
Xylenes, Total	500	0.0032 J B	0.0018 J B	0.0015 J B	0.0017 J B	0.0017 J B	0.0017 J B	0.0014 J B	0.0016 J B	U	U
Semi-volatile Organic Compounds by EPA Method 8270 (mg/kg)											
2-Methylnaphthalene	36.4 (PGW CP51)	0.17 J	0.082 J	U	U	U	0.041 J	0.038 J	0.066 J	U	U
Acenaphthene	500	0.18 J	0.22 J	U	U	U	0.27 J	0.035 J	0.075 J	U	U
Acenaphthylene	500	0.16 J	U	U	U	U	0.22 J	0.86 J	0.090 J	U	U
Anthracene	500	0.51 J	0.38 J	U	U	U	1.2 J	0.47 J	U	U	U
Benzo(a)anthracene	5.6	3	1.3 J	0.0076 J	U	0.0066 J	4.3	4.8	1.2	0.018 J	0.025 J
Benzo(a)pyrene	1	2.8	1.1 J	U	U	U	4.3	6.2	1.6	0.013 J	0.021 J
Benzo(b)fluoranthene	5.6	3.3	1.4 J	U	U	U	5.1	8.2	1.8	U	0.035 J
Benzo(g,h,i)perylene	500	1.5	0.55 J	U	U	U	1.7 J	2.5	0.82 J	U	0.015 J
Benzo(k)fluoranthene	56	1.6	0.65 J	U	0.0028 J	U	2.5	3.5	1.2	U	U
Carbazole	No Standard	0.27 J	0.19 J	U	U	U	0.32 J	0.23 J	0.038 J	U	U
Chrysene	56	3	1.3 J	U	U	U	4.4	5.8	1.1	0.015 J	0.021 J
Dibenz(a,h)anthracene	0.56	0.43 J	0.18 J	U	U	U	0.43 J	0.76 J	0.25 J	U	U
Dibenzofuran	No Standard	0.2 J	U	U	U	U	0.18 J	0.072 J	U	U	U
Diethyl phthalate	No Standard	U	U	U	U	U	U	U	U	0.011 J	U
Fluoranthene	500	4.6	2.3	U	U	U	9.4	9.4	0.8 J	0.014 J	0.035 J
Fluorene	500	0.19 J	0.14 J	U	U	U	0.38 J	0.12 J	U	U	U
Indeno(1,2,3-cd)pyrene	5.6	1.2	0.56 J	U	U	U	1.5 J	2.3	0.7 J	U	0.011 J
Naphthalene	500	0.2 J	U	U	U	U	U	U	0.062 J	U	U
Phenanthrene	500	2.9	1.6 J	U	U	U	5.9	2.2	0.48 J	0.0052 J	0.016 J
Pyrene	500	4.4	2	U	U	U	7.8	8.5	0.76 J	0.014 J	0.031 J

Notes:

"J" denotes estimated value below the instrument detection limit. "U" denotes not detected.

Commercial SCOs are from 6 NYCRR Part 375 Commercial Use category soil cleanup objectives. Highlights show exceedence of SCO.

2.0 ENGINEERING AND INSTITUTIONAL CONTROL PLAN

2.1 INTRODUCTION

2.1.1 General

Since remaining contaminated soil and groundwater/soil vapor exists beneath the Site, Engineering Controls and Institutional Controls (EC/ICs) are required to protect human health and the environment. This Engineering and Institutional Control 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.

2.1.2 Purpose

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 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 Excavation Work Plan 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.

2.2 ENGINEERING CONTROLS

2.2.1 Engineering Control Systems

2.2.1.1 Soil Cover

Exposure to remaining contamination in soil/fill at the Site is prevented by a soil cover system placed over the Site. This cover system is comprised of a minimum of 12 inches of clean soil. Any future site work which disturbs the current soil cover would be addressed by installation of a composite cover system (e.g., asphalt pavement, concrete sidewalks, and concrete building slabs) or restoration of a 12-inch soil cover over a demarcation layer, with the upper six inches of the soil of sufficient quality to maintain a vegetation layer. Any imported fill material brought to the site shall meet the requirements of commercial use as set forth in 6 NYCRR Part 375-6.7(d).

The Excavation Work Plan that appears in Appendix B outlines the procedures required to be implemented in the event the cover system 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 4 of this SMP.

2.2.2 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.

2.2.2.1 Soil Cover System

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

2.3 INSTITUTIONAL CONTROLS

A series of Institutional Controls is required by the Record of Decision ROD to: (1) implement, maintain and monitor Engineering Control 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 or industrial uses only. Adherence to these Institutional Controls on the Site is required by the Environmental Easement and will be implemented under this Site Management Plan. These Institutional Controls are:

- Compliance with the Environmental Easement and this SMP by the Grantor and the Grantor's successors and assigns;
- Engineering Controls must be operated and maintained as specified in this SMP;
- Engineering Controls on the Controlled Property must be inspected at a frequency and in a manner defined in the SMP.
- Data and information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in this SMP;

Institutional Controls identified in the Environmental Easement may not be discontinued without an amendment to or extinguishment of the Environmental Easement.

The Site has a series of Institutional Controls in the form of Site restrictions. Adherence to these Institutional Controls is required by the Environmental Easement. Site restrictions that apply to the Controlled Property are:

- The property may only be used for commercial or industrial use provided that the long-term Engineering and Institutional Controls included in this SMP are employed.
- The property may not be used for a higher level of use, such as unrestricted or restricted residential use without additional remediation and amendment of the Environmental Easement, as approved by the NYSDEC;
- 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 as a source of potable or process water is prohibited without treatment rendering it safe for intended use;
- The potential for vapor intrusion must be evaluated for any buildings developed at the Site, and any potential impacts that are identified must be monitored or mitigated;
- Vegetable gardens and farming on the property are prohibited;
- The Site owner or remedial party will submit to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls employed at the Controlled Property 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 environment or that constitute a violation or failure to comply with the SMP. 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, or an alternate period of time that NYSDEC may allow and will be made by an expert that the NYSDEC finds acceptable.

2.3.1 Excavation Work Plan

The Site has been remediated for restricted commercial or industrial use. Any future intrusive work that will penetrate the soil cover or cap, or encounter or disturb the remaining contamination, including any modifications or repairs to the existing cover system will be performed in compliance with the Excavation Work Plan (EWP) that is attached as Appendix B to this SMP. 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. Prior to the commencement of any intrusive work, the contractor shall prepare for DEC approval, a HASP and CAMP that is in current compliance with DER-10, and 29 CFR 1910, 29 CFR 1926, and all other applicable Federal, State and local regulations. The HASP and CAMP will be submitted with the notification provided in Section A-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 Site Management Reporting Plan (See Section 5).

The Site owner and associated parties preparing the remedial documents submitted to the State, and parties performing this work, are completely responsible for the safe performance of all intrusive work, the structural integrity of excavations, proper disposal of excavation de-water, 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 engineering controls described in this SMP.

2.3.2 Soil Vapor Intrusion Evaluation

Prior to the construction of any enclosed structures located over areas that contain remaining contamination and the potential for soil vapor intrusion (SVI) (entire site), an SVI evaluation will be performed to determine whether any mitigation measures are necessary to eliminate potential exposure to vapors in the proposed structure. Alternatively, an SVI mitigation system may be installed as an element of the building foundation without first conducting an investigation. This mitigation system will include a vapor barrier and passive sub-slab depressurization system that is capable of being converted to an active system.

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 vapor intrusion will be evaluated, selected, designed, installed, and maintained based on the SVI evaluation, the NYSDOH guidance, and construction details of the proposed structure.

Preliminary (unvalidated) SVI sampling data will 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.

SVI sampling results, evaluations, and follow-up actions will also be summarized in the next Periodic Review Report.

2.4 INSPECTIONS AND NOTIFICATIONS

2.4.1 Inspections

Inspections of all remedial components installed at the Site will be conducted at the frequency specified in the SMP Monitoring Plan schedule. A comprehensive Site-wide inspection will be conducted annually, regardless of the frequency of the Periodic Review Report. The inspections will determine and document the following:

- Engineering Controls continue to perform as designed;
- Engineering Controls continue to be protective of human health and the environment;
- Compliance with requirements of this SMP and the Environmental Easement; and
- Site records are complete and up to date.

Inspections will be conducted in accordance with the procedures set forth in the Monitoring Plan of this SMP (Section 3). The reporting requirements are outlined in the Periodic Review Reporting section of this plan (Section 5).

If 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 qualified environmental professional as determined by NYSDEC.

2.4.2 Notifications

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

- 60-day advance notice of any proposed changes in Site use that are required under the terms of the State Assistance Contract, 6 NYCRR Part 375, and/or Environmental Conservation Law.
- 7-day advance notice of any proposed ground-intrusive activities pursuant to the Excavation Work Plan.
- Notice within 48-hours of any damage or defect to the foundation, structures or engineering control that reduces or has the potential to reduce the effectiveness of an Engineering Control and likewise any action to be taken to mitigate the damage or defect.
- Verbal notice by noon of the following day of any emergency, such as a fire, flood, or earthquake that reduces or has the potential to reduce the effectiveness of Engineering Controls in place at the Site, with written confirmation within seven (7) days that includes 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 State Assistance Contract, and NYSDEC work plans and reports, including 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.

2.5 CONTINGENCY PLAN

Emergencies may include injury to personnel, fire or explosion, environmental release, or serious weather conditions.

Above grade drums and known underground storage tanks have been remediated during the IRMs completed for the site. Buried drums and additional underground storage tanks are not expected to be present at the site. If drums or tanks are found during ground intrusive work, excavation activities must cease and the Site owner and/or remedial party must notify NYSDEC prior to continuing. The drums and tanks shall be handled, removed and cleaned by appropriately trained personnel in accordance with all applicable federal, state and local regulations. Soils surrounding the tanks and drums shall be assessed for impacts in accordance with applicable NYSDEC guidance and regulation documents (i.e., Petroleum Bulk Storage, 6 NYCRR Part 375, CP-51, etc.).

2.5.1 Emergency Telephone Numbers

In the event of any environmentally related situation or unplanned occurrence requiring assistance the Owner or Owner’s representative(s), or remedial party should contact the appropriate party from the contact list below. For emergencies, appropriate emergency response personnel should be contacted. Prompt contact should also be made to qualified environmental professional. These emergency contact lists must be maintained in an easily accessible location at the Site.

Table 2.5.1-1: Emergency Contact Numbers

Medical, Fire, and Police:	911
Dig Safely New York One Call Center:	811 (At least 2 days notice prior to excavation, but no more than 10 days notice)
Poison Control Center:	(800) 222-1222
National Response Center (for reporting oil, chemical, radiological, biological and etiological discharges into the environment anywhere in the United States):	(800) 424-8802
NYSDEC Spills Hotline (report petroleum spill incident within two hours of discovery):	(800) 457-7362

Table 2.5.1-2: Contact Numbers

Name and Affiliation	Contact Information
Property Owner City of Amsterdam Richard Miller – City Engineer	Telephone: (518) 841-4327 Email: rmiller@amsterdamny.gov
NYSDEC Larry Alden	Telephone: (518) 402-9767 Email: ljalden@gw.dec.state.ny.us
Qualified Environmental Professional C.T. Male Associates Jeffrey A. Marx, PE	Telephone: (518) 786-7400 Email: j.marx@ctmale.com

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

2.5.2 Map and Directions to Nearest Health Facility

Site Location: Chalmers Building (two parcels)
 21 to 41 Bridge Street & 32 Gilliland Avenue
 Amsterdam, New York

Nearest Hospital Name: St. Mary’s Hospital

Hospital Location: 427 Guy Park Avenue, Amsterdam, NY 12010

Hospital Telephone: (518) 842-1900

Directions to the Hospital:

1. Head Southeast on Gilliland Avenue toward Bridge Street.
2. Take 1st Left onto Bridge Street.
3. Take immediate Right onto Minaville Street which turns into River Street at right hand bend in the road and goes under highway ramp.

3. Continue on River Street and Turn Left onto the Ramp to NY-30 North
4. Merge Left onto NY-30 North over the Mohawk River.
5. Take 3rd Left onto NY-5 West (West Main Street) for less than 2 miles.
6. Turn Right onto Steadwell Avenue (no traffic light).
7. Turn Left at Stop sign onto Guy Park Avenue. Hospital will be on the right in approximately 500 feet.

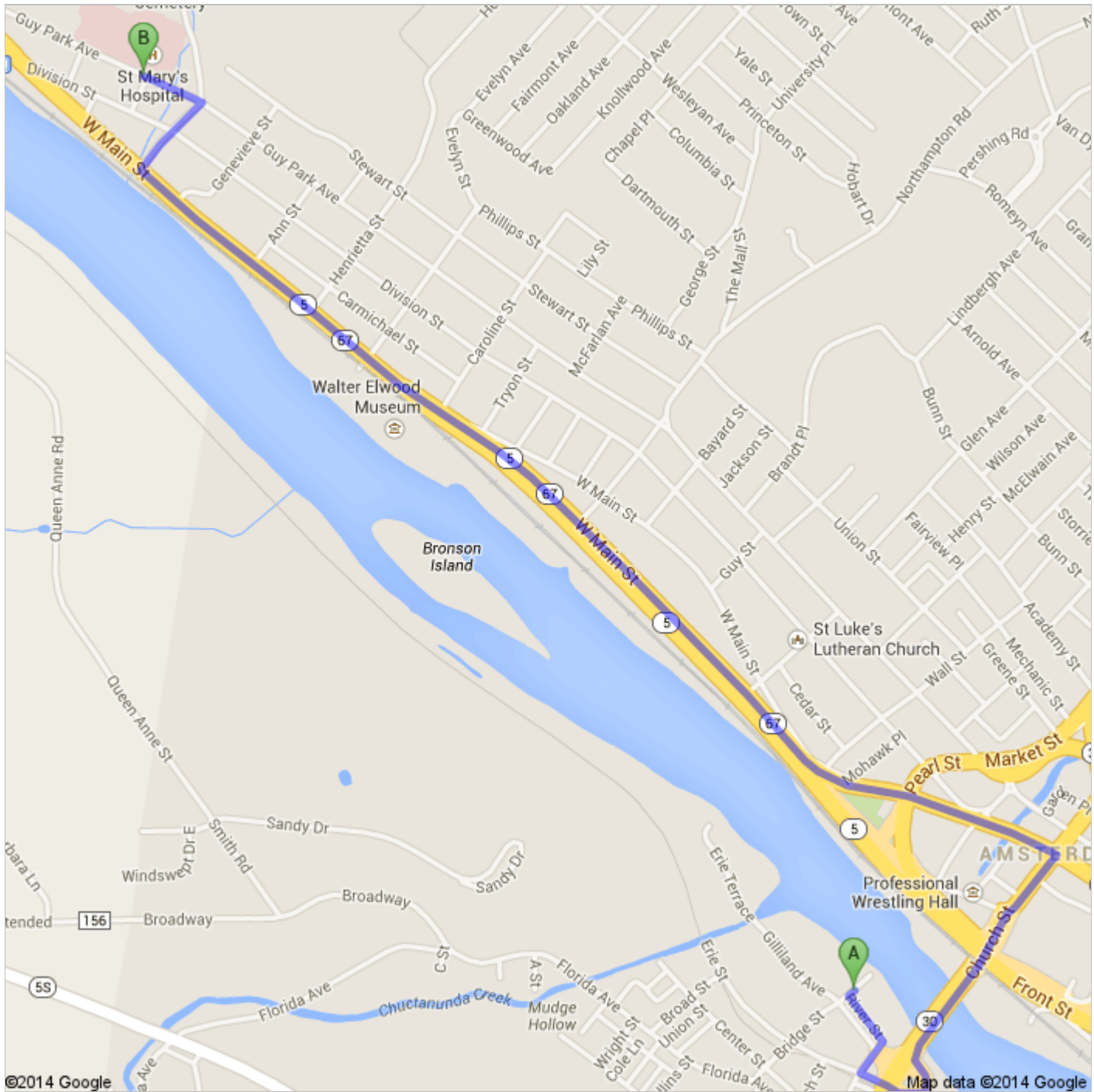
Total Distance: ~ 2.5 Miles

Total Estimated Time: ~ 5 Minutes

See Next Page for Map Showing Route from the Site to the Hospital:



Directions to St. Mary's Hospital
427 Guy Park Ave, Amsterdam, NY 12010
2.5 mi – about 5 mins



2.5.3 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 (Table 2.5.1-1). If the site becomes occupied, the list will also get posted prominently at the Site and made readily available to site personnel at all times.

Petroleum spills must be reported to NYSDEC unless they meet **all** of the following criteria:

- The spill quantity is known to be less than 5 gallons; and
- The spill is contained and under the control of the spiller; and
- The spill has not and will not reach the State's water or any land; and
- The spill is cleaned up within 2 hours of discovery.

A spill is considered to have not impacted land if it occurs on a paved surface such as asphalt or concrete. A spill in a dirt or gravel parking lot is considered to have impacted land and is reportable.

3.0 SITE MONITORING PLAN

3.1 INTRODUCTION

3.1.1 General

The Monitoring Plan describes the measures for evaluating the performance and effectiveness of the remedy to reduce or mitigate contamination at the Site, the soil cover system, and all affected Site media identified below. This Monitoring Plan may only be revised with the approval of NYSDEC.

3.1.2 Purpose and Schedule

This Monitoring Plan describes the methods to be used for:

- Evaluating Site information periodically to confirm that the remedy continues to be effective in protecting public health and the environment; and
- Preparing the necessary reports for the various monitoring activities.

To address these issues, this Monitoring Plan provides information on:

- Reporting requirements; and
- Annual inspection and periodic certification.

Annual monitoring of the performance of the remedy will be conducted for the first four (4) years. The frequency thereafter will be determined by NYSDEC.

3.2 COVER SYSTEM MONITORING

The cover system monitoring will consist of Site visit during times when there is no snow or ice cover, traversing the entire Site and observing for a visual breakdown of the vegetative soil cover, or if applicable, asphalt paved surface resulting from erosion by natural elements such as wind and water. Conditions such as stressed vegetation, animal burrows, pavement cracking/heaving/patching, and exposure of demarcation fabric would be the focus of the Site visit. Surface drainage features and steep slopes should also be

viewed for erosion or other manmade alterations (utility repair and installation) causing surface condition compromise.

Photographs documenting the conditions of the soil cover system are required for reporting. The cover system monitoring will be performed by a Qualified Environmental Professional approved by NYSDEC. The cover system type installed at the Site is vegetated soil from property line to property line. A list of components to be observed is provided in the Site-Wide Inspection Form, presented in Appendix C.

3.3 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 Engineering Controls or monitoring devices. During these inspections, an inspection form will be completed (Appendix C). The form will compile sufficient information to assess the following:

- Compliance with all ICs, including Site usage;
- An evaluation of the condition and continued effectiveness of ECs;
- General Site conditions at the time of the inspection;
- The Site management activities being conducted including, where appropriate, confirmation sampling and a health and safety inspection; and
- Confirm that Site records are up to date.

3.4 MONITORING REPORTING REQUIREMENTS

Forms and any other information generated during regular monitoring events and inspections will be kept on file at the City Engineer's office at City Hall. All forms, and other relevant reporting formats used during the monitoring/inspection events, will be (1) subject to approval by NYSDEC and (2) submitted at the time of the Periodic Review Report, as specified in the Reporting Plan of this SMP.

All monitoring results will be reported to NYSDEC on a periodic basis in the Periodic Review Report. The report will include, at a minimum:

- Date of event;
- Personnel conducting sampling;
- Description of the activities performed; and
- Any observations, conclusions, or recommendations.

Data will be reported in hard copy or digital format as determined by NYSDEC.

4.0 OPERATION AND MAINTENANCE PLAN

4.1 INTRODUCTION

The Site remedy does not rely on any mechanical systems, such as sub-slab depressurization systems or air sparge/soil vapor extraction systems to protect public health and the environment. Therefore, the operation and maintenance of such components is not included in this SMP.

5.0 INSPECTIONS, REPORTING AND CERTIFICATIONS

5.1 SITE INSPECTIONS

5.1.1 Inspection Frequency

All inspections will be conducted at the frequency specified in the schedules provided in Section 3 Monitoring Plan. At a minimum, a Site-wide inspection will be conducted annually. Inspections of remedial components will also be conducted when a breakdown of any treatment system component has occurred or whenever a severe condition has taken place, such as an erosion or flooding event that may affect the ECs.

5.1.2 Inspection Forms, Sampling Data, and Maintenance Reports

All inspections and monitoring events will be recorded on the appropriate forms for their respective system which are contained in Appendices C. Additionally, a general Site-wide inspection form will be completed during the Site-wide inspection (see Appendix C for blank forms. These forms are subject to NYSDEC revision.

Applicable inspection forms and other records generated for the Site during the reporting period will be provided in electronic format in the Periodic Review Report.

5.1.3 Evaluation of Records and Reporting

The results of the inspection and Site monitoring data 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,
- The Site remedy continues to be protective of public health and the environment and is performing as designed in the RAWP and FER.

5.2 CERTIFICATION OF ENGINEERING AND INSTITUTIONAL CONTROLS

After the last inspection of the reporting period, a qualified environmental professional or Professional Engineer licensed to practice in New York State as defined in NYSDEC DER-10 will prepare the following certification:

For each institutional or engineering control 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 institutional and engineering controls required by the remedial program was performed under my direction;
- The institutional control and/or engineering control employed at this 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 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 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 engineering control 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; and
- The information presented in this report is accurate and complete.
- 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 210.45 of the Penal Law. I, [name], of

[business address], am certifying as [Owner or Owner's Designated Site Representative] for the Site.

The signed certification will be included in the Periodic Review Report described below.

5.3 PERIODIC REVIEW REPORT

A Periodic Review Report will be submitted to the Department every fifth year, beginning fifteen months after the Certificate of Completion is issued. In the event that the Site is subdivided into separate parcels with different ownership, a single Periodic Review Report will be prepared that addresses the Site described in Appendix A (Metes and Bounds). The report will be prepared in accordance with NYSDEC DER-10 and submitted within 30 days of the end of each certification period. Media sampling results will also be incorporated into the Periodic Review Report. The report will include:

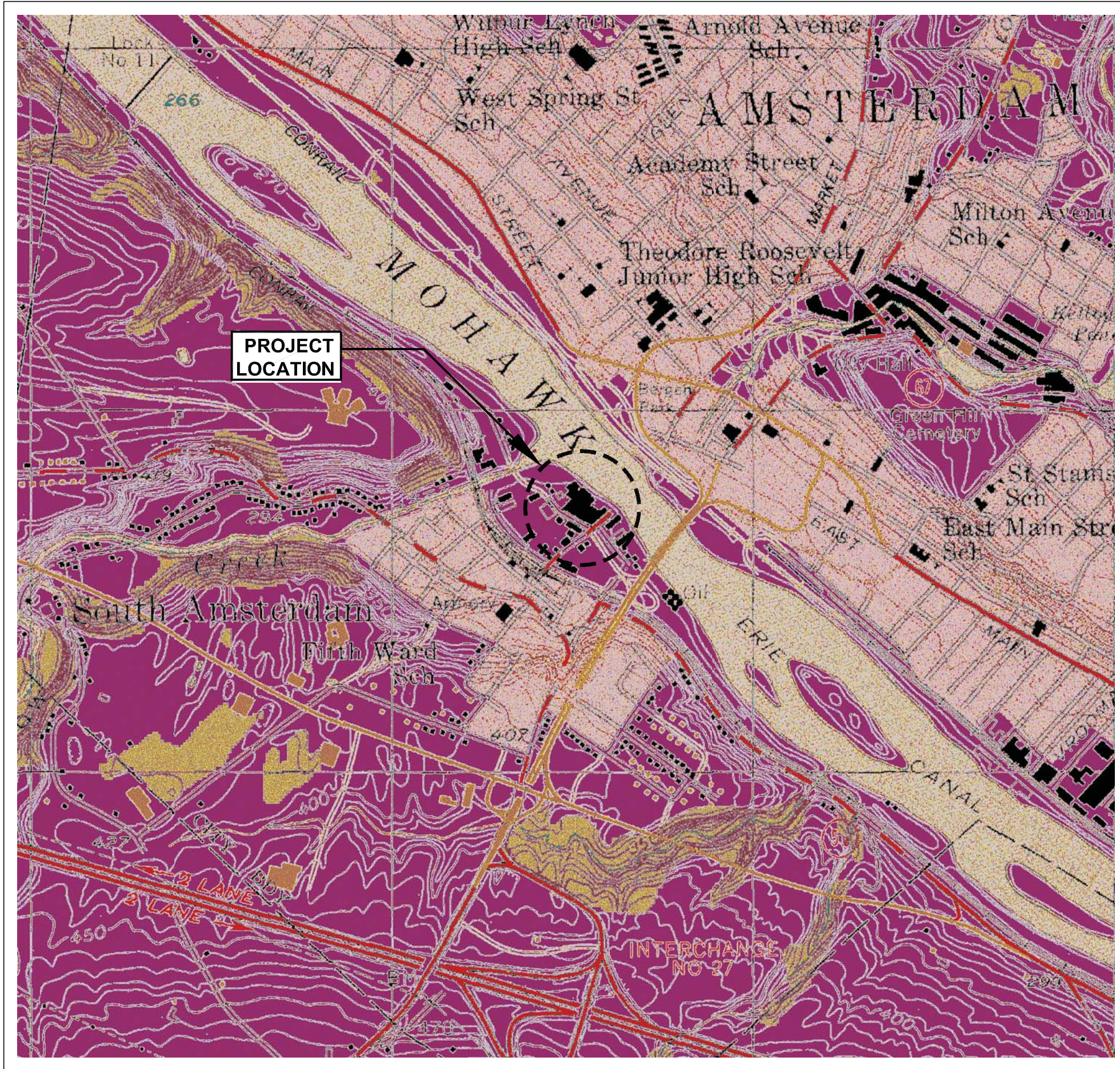
- Identification, assessment and certification of all ECs/ICs required by the remedy for the Site;
- Results of the required annual Site inspections and severe condition inspections, if applicable;
- All applicable inspection forms and other records generated for the Site during the reporting period in electronic format;
- A Site evaluation, which includes the following:
 - The compliance of the remedy with the requirements of the Site-specific RAWP, ROD or Decision Document;
 - The operation and the effectiveness of all treatment units, etc., 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.

The Periodic Review Report 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 NYSDEC Central Office, Regional Office and the NYSDOH Bureau of Environmental Exposure Investigation.

5.4 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 institutional or engineering control, 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.



PROJECT
LOCATION

CHALMERS
BUILDING

21-41 Bridge Street/32 Gilliland Avenue
Amsterdam, New York

SARATOGA ASSOCIATES PROJECT # 06083.10M

DATE: 02-01-10
DRAWN BY: SRD
CHECKED BY: DMS

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THE NEW YORK STATE EDUCATION LAW.
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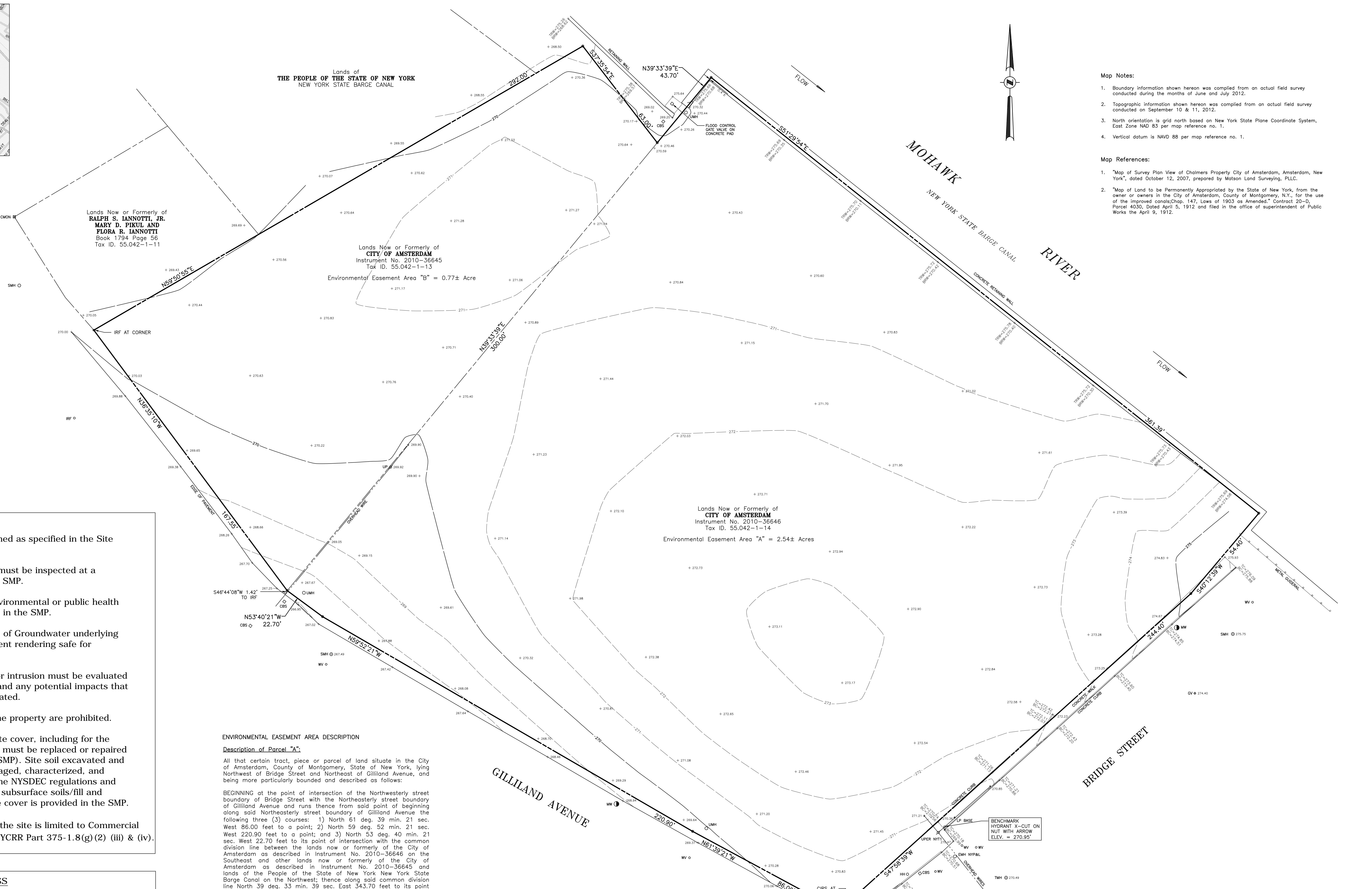
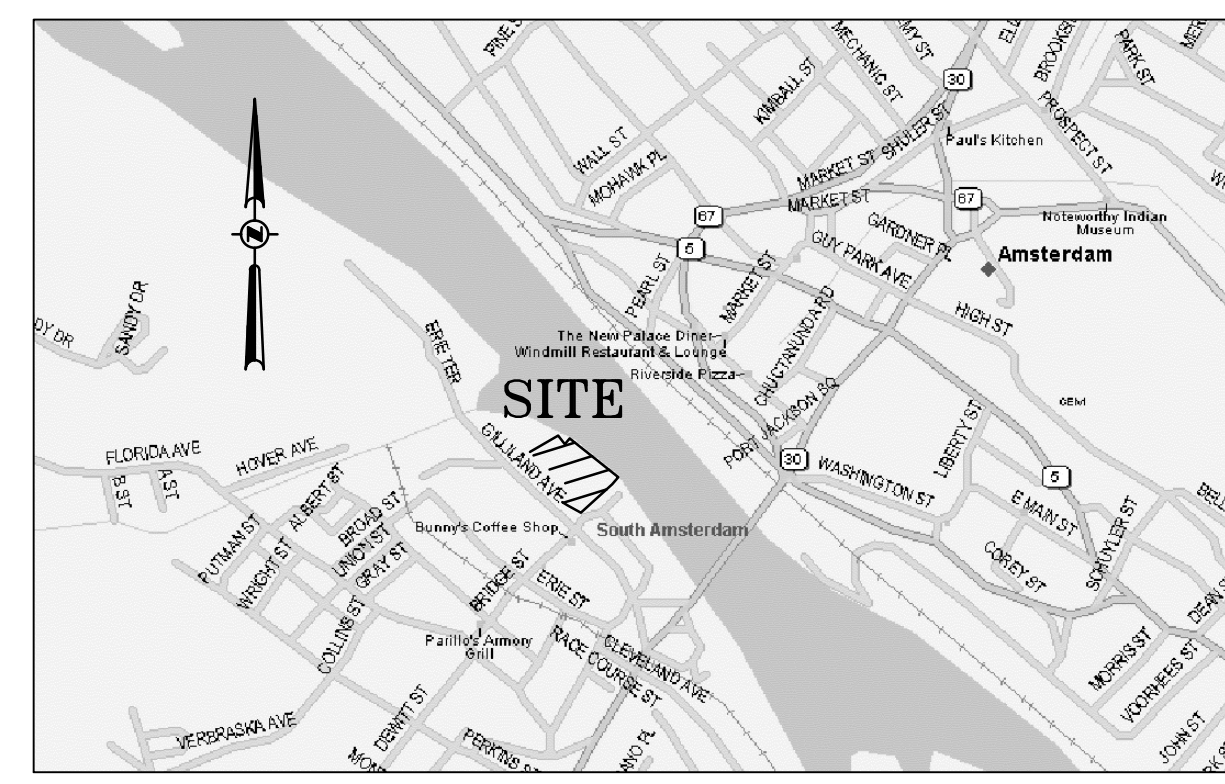
SITE LOCATION
MAP

SITE LOCATION

0 30 60 120



FIG. 1



- Map Notes: 1. Boundary information shown hereon was compiled from an actual field survey conducted during the months of June and July 2012. 2. Topographic information shown hereon was compiled from an actual field survey conducted on September 10 & 11, 2012. 3. North orientation is grid north based on New York State Plane Coordinate System, East Zone NAD 83 per map reference no. 1. 4. Vertical datum is NAVD 88 per map reference no. 1.

- ENGINEERING / INSTITUTIONAL CONTROLS
All Engineering Controls must be maintained as specified in the Site Management Plan (SMP).
All Engineering Controls on the property must be inspected at a frequency and in a manner defined in the SMP.
Groundwater monitoring and other environmental or public health monitoring must be performed as defined in the SMP.
Groundwater use restriction - The use of Groundwater underlying the property is prohibited without treatment rendering safe for intended use.
Vapor intrusion - The potential for vapor intrusion must be evaluated for any buildings developed on the Site; and any potential impacts that are identified must be monitored or mitigated.
Vegetable gardens - and farming on the property are prohibited.
Soil Cover - Any breach of the natural site cover, including for the purposes of construction or utilities work, must be replaced or repaired according to the Site Management Plan (SMP).
Land Use - The use and development of the site is limited to Commercial and Industrial uses only as defined in 6 NYCRR Part 375-1.8(g) (2) (iii) & (iv).

ENVIRONMENTAL EASEMENT AREA ACCESS
THE DEC OR THEIR AGENT MAY ACCESS THE ENVIRONMENTAL EASEMENT AREA AS SHOWN HEREON THROUGH ANY EXISTING STREET ACCESS OR BUILDINGINGRESS/EGRESS ACCESS POINT

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

ENVIRONMENTAL EASEMENT AREA DESCRIPTION
Description of Parcel "A":
All that certain tract, piece or parcel of land situate in the City of Amsterdam, County of Montgomery, State of New York, lying Northwest of Bridge Street and Northeast of Gilliland Avenue, and being more particularly bounded and described as follows:

BEGINNING at the point of intersection of the Northwesterly street boundary of Bridge Street with the Northwesterly street boundary of Gilliland Avenue and runs thence from said point of beginning along said Northwesterly street boundary of Gilliland Avenue the following three (3) courses: 1) North 61 deg. 39 min. 21 sec. West 86.00 feet to a point; 2) North 59 deg. 52 min. 21 sec. West 220.90 feet to a point; and 3) North 53 deg. 40 min. 21 sec. West 22.70 feet to its point of intersection with the common division line between the lands now or formerly of the City of Amsterdam as described in Instrument No. 2010-36646 and lands of the People of the State of New York New York State Barge Canal on the Northwest; thence along said common division line North 39 deg. 33 min. 39 sec. East 343.70 feet to its point of intersection with the division line between the said lands now or formerly of the City of Amsterdam as described in Instrument No. 2010-36646 on the Southwest and said lands of the People of the State of New York New York State Barge Canal on the Northeast; thence along said division line South 51 deg. 29 min. 54 sec. East 361.39 feet to its point of intersection with the above mentioned Northwesterly street boundary of Bridge Street; thence along said Northwesterly street boundary the following two (2) courses: 1) South 40 deg. 12 min. 39 sec. West 54.40 feet to a point; and 2) South 47 deg. 58 min. 39 sec. West 244.40 feet to the point or place of beginning and containing 2.54 acres of land, more or less.

Description of Parcel "B":
All that certain tract, piece or parcel of land situate in the City of Amsterdam, County of Montgomery, State of New York, lying Northeast of Gilliland Avenue, and being more particularly bounded and described as follows:
COMMENCING at the point of intersection of the Northwesterly street boundary of Bridge Street with the Northwesterly street boundary of Gilliland Avenue; thence from said point of commencement along said Northwesterly street boundary of Gilliland Avenue the following three (3) courses: 1) North 61 deg. 39 min. 21 sec. West 86.00 feet to a point; 2) North 59 deg. 52 min. 21 sec. West 220.90 feet to a point; and 3) North 53 deg. 40 min. 21 sec. West 22.70 feet to the point or place of beginning of the herein described Parcel B and runs thence from said point of beginning continuing along said Northwesterly street boundary of Gilliland Avenue North 36 deg. 35 min. 10 sec. West 167.55 feet to its point of intersection with the common division line between the lands now or formerly of the City of Amsterdam as described in Instrument No. 2010-36646 on the Southwest and said lands of the People of the State of New York New York State Barge Canal on the Northeast; thence along said common division line North 39 deg. 33 min. 39 sec. East 343.70 feet to its point of intersection with the division line between the said lands now or formerly of the City of Amsterdam as described in Instrument No. 2010-36646 on the Southwest and said lands of the People of the State of New York New York State Barge Canal on the Northeast; thence along said division line South 51 deg. 29 min. 54 sec. East 361.39 feet to the point or place of beginning and containing 0.77 acre of land, more or less.

Legend table listing symbols for Catch Basin Square, Capped Iron Rod Set, Concrete Monument, Drainage Manhole, Electric Manhole, Gas Valve, Hand Hole, Hydrant, Iron Rod Found, Light Pole, Monitoring Well, Sanitary Manhole, Sign, Unknown Manhole, Utility Pole Electric Riser, Utility Pole, Water Valve, Top & Bottom Curb Elevation, Top & Bottom Retaining Wall Elevation.

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 New York State Department of Environmental Conservation, Division of Environmental Remediation, Site Control Section, 625 Broadway, Albany, NY 12233 or at derweb@gw.dec.state.ny.us.

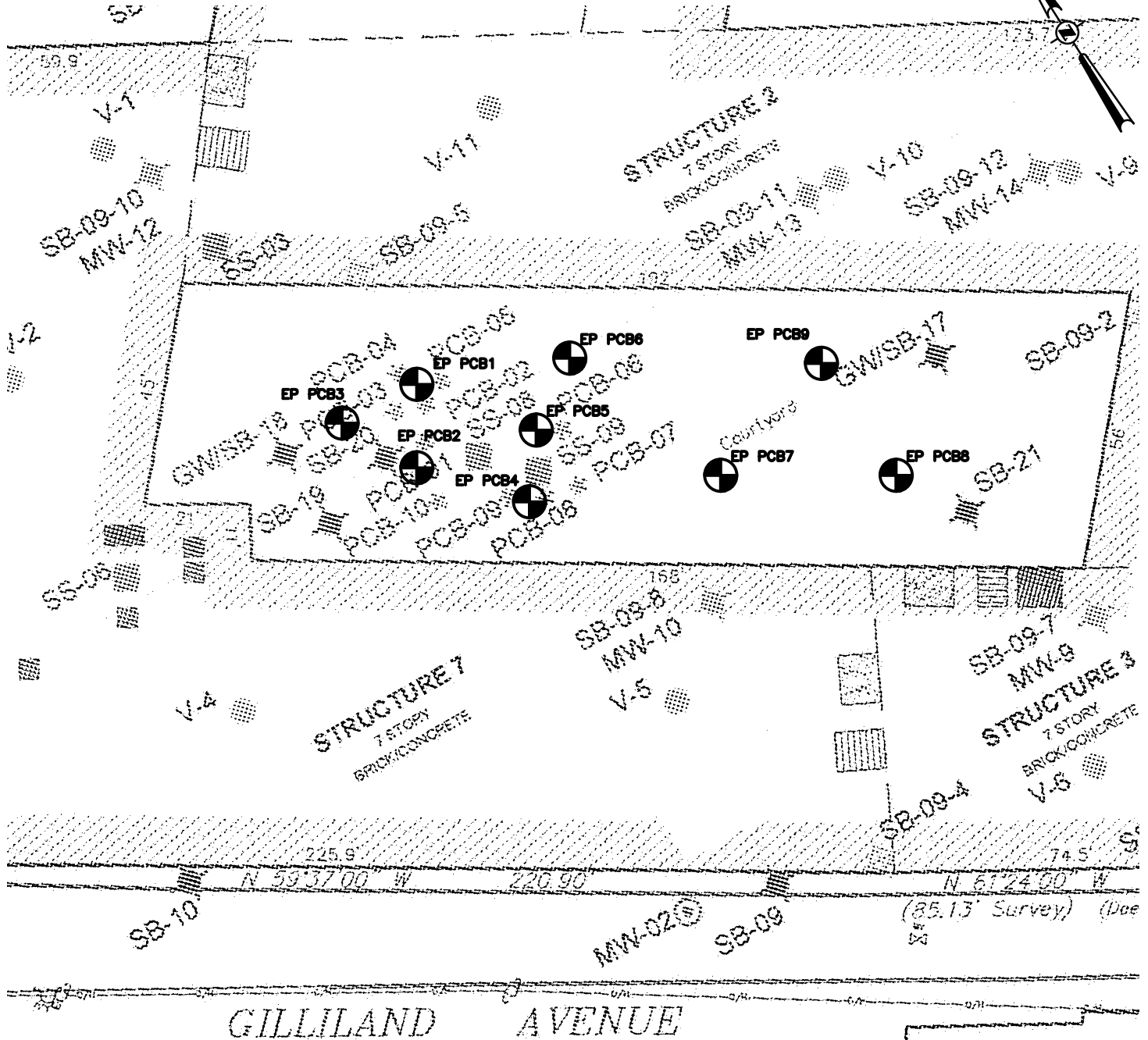
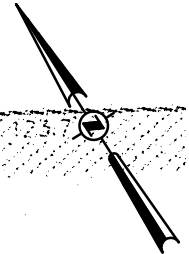
PROGRESS PRINT

To: City of Amsterdam, New York
The people of the State of New York, acting through their Commissioner of the Department of Environmental Conservation
XXXXXX Title Insurance Company
This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2011 Minimum Standard Detail Requirements for ALTA/ACSM Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes items 1, 2, 4, 5, 7(a), 8, 9, 11(a), 12, and 13 of Table A thereof. The field work was completed on November 7, 2013.

Project information table including Date (1/30/14), Revisions Record/Description, Drafter (SMW), Checked (JFC), Appr. (JFC), and Client (CITY OF AMSTERDAM). Includes logo for C.T. MALE ASSOCIATES and sheet number 1 OF 1.


CAD FILE NAME: K:\Projects\101580\Survey\Drawings\Mapa\ALTA_Chalmers.dwg

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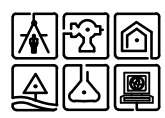
MAP REFERENCE AND NOTES:
 1.) PORTION OF MAP TAKEN FROM FIGURE 2, DATED 11-03-09, AS PRESENTED IN THE DRAFT SITE INVESTIGATION REPORT
 2.) SCALE SHOWN IS APPROX. 1" = 20'
 3.) THE LOCATIONS AND FEATURES DEPICTED ON THIS MAP ARE APPROXIMATE AND DO NOT REPRESENT AN ACTUAL FIELD SURVEY.

LEGEND:

 EP PCB1 END POINT SOIL SAMPLE COLLECTED FROM THE 0" TO 2" INTERVAL BELOW GRADE AFTER PCB SOIL REMOVAL ACTIVITY.

CAD DWG. FILE NAME: COURTYARD SAMPLING PLAN

Date	RECORD OF WORK	Appr.	FIGURE 3 PCB END POINT SAMPLING LOCATIONS CHALMERS BUILDING ERP	
			CITY OF AMSTERDAM	MONTGOMERY COUNTY, NY
			C.T. MALE ASSOCIATES Engineering, Surveying, Architecture & Landscape Architecture, P.C. 50 CENTURY HILL DRIVE, LATHAM, NY 12110 518.786.7400 * FAX 518.786.7299	
Drafter: J.MARX Appr. by:		Checker: D.SHEARER Proj. No. 10.1580		SCALE: NOT TO SCALE DATE: DEC. 6, 2012



APPENDIX A – Metes and Bounds

C.T. MALE ASSOCIATES

Engineering, Surveying, Architecture and Landscape Architecture, D.P.C.

**DESCRIPTION
PARCEL A
LANDS NOW OR FORMERLY OF THE
CITY OF AMSTERDAM
CITY OF AMSTERDAM, COUNTY OF MONTGOMERY, STATE OF NEW YORK
AREA = 2.54± ACRES OF LAND**

All that certain tract, piece or parcel of land situate in the City of Amsterdam, County of Montgomery, State of New York, lying Northwest of Bridge Street and Northeast of Gilliland Avenue, and being more particularly bounded and described as follows:

BEGINNING at the point of intersection of the Northwesterly street boundary of Bridge Street with the Northeasterly street boundary of Gilliland Avenue and runs thence from said point of beginning along said Northeasterly street boundary of Gilliland Avenue the following three (3) courses: 1) North 61 deg. 39 min. 21 sec. West 86.00 feet to a point; 2) North 59 deg. 52 min. 21 sec. West 220.90 feet to a point; and 3) North 53 deg. 40 min. 21 sec. West 22.70 feet to its point of intersection with the common division line between the lands now or formerly of the City of Amsterdam as described in Instrument No. 2010-36646 on the Southeast and other lands now or formerly of the City of Amsterdam as described in Instrument No. 2010-36645 and lands of the People of the State of New York New York State Barge Canal on the Northwest; thence along said common division line North 39 deg. 33 min. 39 sec. East 343.70 feet to its point of intersection with the division line between the said lands now or formerly of the City of Amsterdam as described in Instrument No. 2010-36646 on the Southwest and said lands of the People of the State of New York New York State Barge Canal on the Northeast; thence along said division line South 51 deg. 29 min. 54 sec. East 361.39 feet to its point of intersection with the above mentioned Northwesterly street boundary of Bridge

C.T. MALE ASSOCIATES

Engineering, Surveying, Architecture and Landscape Architecture, D.P.C.

DESCRIPTION

AREA = 2.54± ACRES OF LAND

PAGE - 2

Street; thence along said Northwesterly street boundary the following two (2) courses:

1) South 40 deg. 12 min. 39 sec. West 54.40 feet to a point; and 2) South 47 deg. 58 min. 39 sec. West 244.40 feet to the point or place of beginning and containing 2.54 acres of land, more or less.

Subject to any covenants, easements or restrictions of record.

C.T. MALE ASSOCIATES

James F. Cook, P.L.S.

December 11, 2012

JFC/amb

C.T. Male Project No. 10.1580

C.T. MALE ASSOCIATES

Engineering, Surveying, Architecture and Landscape Architecture, D.P.C.

**DESCRIPTION
PARCEL B
LANDS NOW OR FORMERLY OF THE
CITY OF AMSTERDAM
CITY OF AMSTERDAM, COUNTY OF MONTGOMERY, STATE OF NEW YORK
AREA = 0.77± ACRE OF LAND**

All that certain tract, piece or parcel of land situate in the City of Amsterdam, County of Montgomery, State of New York, lying Northeast of Gilliland Avenue, and being more particularly bounded and described as follows:

COMMENCING at the point of intersection of the Northwesterly street boundary of Bridge Street with the Northeasterly street boundary of Gilliland Avenue; thence from said point of commencement along said Northeasterly street boundary of Gilliland Avenue the following three (3) courses: 1) North 61 deg. 39 min. 21 sec. West 86.00 feet to a point; 2) North 59 deg. 52 min. 21 sec. West 220.90 feet to a point; and 3) North 53 deg. 40 min. 21 sec. West 22.70 feet to the point or place of beginning of the herein described Parcel B and runs thence from said point of beginning continuing along said Northeasterly street boundary of Gilliland Avenue North 36 deg. 35 min. 10 sec. West 167.55 feet to its point of intersection with the common division line between the lands now or formerly of the City of Amsterdam as described in Instrument No. 2010-36645 on the Southeast and the lands now or formerly of Ralph S. Iannotti, Jr., Mary D. Pikul and Flora R. Iannotti as described in Book 1794 of Deeds at Page 56 and lands of the People of the State of New York New York State Barge Canal on the Northwest; thence along said common division line North 59 deg. 50 min. 55 sec. East 292.00 feet to its point of intersection with the division line between the said lands now or formerly of the City of Amsterdam as described in Instrument No. 2010-36645 on the Southwest

C.T. MALE ASSOCIATES

Engineering, Surveying, Architecture and Landscape Architecture, D.P.C.

DESCRIPTION

AREA 0.77± ACRE OF LAND

PAGE - 2

and lands of the People of the State of New York New York State Barge Canal on the Northeast; thence along said division line South 37 deg. 35 min. 54 sec. East 63.00 feet to its point of intersection with the division line between the said lands now or formerly of the City of Amsterdam as described in Instrument No. 2010-36645 on the Northwest and other lands now or formerly of the City of Amsterdam as described in Instrument No. 2010-36646 on the Southeast; thence along said division line South 39 deg. 33 min. 39 sec. West 300.00 feet to the point or place of beginning and containing 0.77 acre of land, more or less.

Subject to any covenants, easements or restrictions of record.

C.T. MALE ASSOCIATES

James F. Cook, P.L.S.

December 11, 2012

JFC/amb

C.T. Male Project No. 10.1580

APPENDIX B – Excavation Work Plan

APPENDIX B – EXCAVATION WORK PLAN

B-1 NOTIFICATION

At least 15 days prior to the start of any activity that is anticipated to encounter remaining contamination, the Site owner or their representative will notify the Department. This notification will be made to:

Larry Alden, P.E.
Environmental Engineer 2
New York State Department of Environmental Conservation
625 Broadway, 12th Floor
Albany, New York 12233
ljalden@gw.dec.state.ny.us

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, in electronic format,
- Identification of disposal facilities for potential waste streams,
- Identification of sources of any anticipated backfill, along with all required chemical testing results.

B-2 SOIL SCREENING METHODS

Visual, olfactory and instrument-based 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, material that can be returned to the subsurface, and material that can be used as cover soil.

B-3 STOCKPILE METHODS

Stockpiles of imported clean soil (i.e., soil from above the demarcation layer will be continuously encircled with a berm and/or silt fence to mitigate stormwater runoff/sediment transport. Hay bales or other acceptable erosion and sediment control devices/methods will be used as needed near catch basins, surface waters and other discharge points in accordance with applicable stormwater regulations.

Stockpiles of existing soil/fill will be kept covered at all times with appropriately anchored tarps. Stockpiles will be routinely inspected and damaged tarp covers will be promptly replaced.

Stockpiles of existing soil/fill and imported clean soil will be inspected at a minimum once each week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the Site in a construction trailer or at the City Engineer's office at City Hall and available for inspection by NYSDEC.

B-4 MATERIALS EXCAVATION AND LOAD OUT

A qualified environmental professional or person under their supervision 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 invasive and other work performed under this Plan.

The presence of utilities and easements on the Site will be investigated by the owner of the property and/or its contractor. It will be determined by the qualified environmental professional whether a risk or impediment to the planned work under this SMP is posed by utilities or easements on the Site.

Loaded vehicles leaving the Site will be appropriately lined, tarped, securely covered, manifested, and placarded in accordance with appropriate Federal, State, local, and NYSDOT requirements (and all other applicable transportation requirements).

A truck wash or other sediment removing devices/methods will be operated on-Site. The qualified environmental professional will be responsible for ensuring that all outbound trucks will be washed at the truck wash or by other measures before leaving the Site until the activities performed under this section are complete.

Locations where vehicles enter or exit the Site shall be inspected daily for evidence of off-Site soil tracking.

The qualified environmental professional will be responsible for ensuring that all egress points for truck and equipment transport from the Site are free of dirt and other materials derived from the Site during intrusive excavation activities. Cleaning of the adjacent streets will be performed as needed to maintain a clean condition with respect to Site-derived materials, returning the cleaned up material to the Site.

B-5 MATERIALS TRANSPORT OFF-SITE

Transport of existing site materials will be performed by licensed haulers in accordance with appropriate local, State, and Federal regulations, including 6 NYCRR Part 364. Haulers will be appropriately licensed and trucks properly placarded.

Existing soil material transported by trucks or roll-off containers exiting the Site will be secured with tight-fitting covers. Loose-fitting canvas-type truck covers will be

prohibited. If loads contain wet material capable of producing free liquid, truck liners will be used.

All trucks or components thereof that come into contact with existing site soils beneath the cover system will be washed prior to leaving the Site. Truck wash waters will be collected and disposed of off-Site in an appropriate manner.

Truck transport routes are to be considered prior to future development. Appropriate route takes into account: (a) limiting transport through residential areas and past sensitive Sites; (b) use of city mapped truck routes; (c) prohibiting off-Site queuing of trucks entering the facility; (d) limiting total distance to major highways; (e) promoting safety in access to highways; and (f) overall safety in transport.

Trucks will be prohibited from stopping and idling in the neighborhood outside the project Site. Egress points for truck and equipment transport from the Site will be kept clean of dirt and other materials during Site remediation and development.

Queuing of trucks will be performed on-Site in order to minimize off-Site disturbance. Off-Site queuing will be prohibited.

B-6 MATERIALS DISPOSAL OFF-SITE

Soil/fill/solid waste excavated from below the surface cover materials below the demarcation layer, if 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 purposes), 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, 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 minimum, as a Municipal Solid Waste per 6 NYCRR Part 360-1.2. Material that does not meet Track 1 unrestricted SCOs is prohibited from being taken to a New York State recycling facility (6 NYCRR Part 360-16 Registration Facility).

B-7 MATERIALS REUSE ON-SITE

Chemical criteria for on-Site reuse of material have been approved by NYSDEC and are listed in NYSDEC DER-10 and 6 NYCRR Part 375. The qualified environmental professional will document that procedures defined for materials reuse in this SMP are followed and that unacceptable material does not remain on-Site. Contaminated on-Site material, including historic fill and contaminated soil, that is acceptable for re-use on-Site will be placed below the demarcation layer or impervious surface, and will not be reused within a cover soil layer, within landscaping berms, or as backfill for subsurface utility lines.

Any demolition material proposed for reuse on-Site will be sampled for asbestos and the results will be reported to the 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.

B-8 FLUIDS MANAGEMENT

Liquids to be removed from the Site, including excavation dewatering and groundwater monitoring well purge and development waters, will be handled, transported and disposed in accordance with applicable local, State, and Federal regulations. Dewatering, purge and development 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 SPDES permit.

B-9 COVER SYSTEM RESTORATION

If the cover system is breached for 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 black geotextile filter fabric will be replaced with the same fabric, orange snow fencing material or equivalent material 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), this will constitute a modification of the cover element of the remedy and the upper surface of the 'Remaining Contamination. A figure showing the modified surface shall be included in the subsequent Periodic Review Report and in any updates to the SMP.

B-10 BACKFILL FROM OFF-SITE SOURCES

Materials proposed for import onto the Site will be approved by the qualified environmental professional and will be in compliance with provisions in this SMP, DER-10 and 6 NYCRR Part 375 prior to receipt at the Site.

The source of the imported backfill will be documented. Backfill from industrial sites, spill sites, or other environmental remediation Sites or potentially contaminated sites will not be imported to the Site.

Imported soils will meet the backfill and cover soil quality standards established in 6 NYCRR 375-6.7(d). Based on an evaluation of the land use, protection of groundwater and protection of ecological resources criteria, the resulting soil quality standards for imported backfill are listed in Appendix 5 of DER-10, under the Commercial Use column. 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.

Imported backfill shall be documented clean by analytical testing. Imported backfill will be analyzed according to the following schedule:

Recommended Number of Soil Samples for Soil Imported to the Site			
Contaminant	Volatile Organic Compounds	Semi-volatile Organic Compounds, Inorganics & PCBs/Pesticides	
Imported Backfill Quantity in Cubic Yards	Discrete Samples	Composite Samples	Discrete Samples/Composites
0 – 50	1	1	3-5 Discrete samples from different locations in the fill being provided will compromise a composite sample for analysis
51 – 100	2	1	
101 – 200	3	1	
201 – 300	4	1	
301 – 400	4	2	
401 – 500	5	2	
501 – 800	6	2	
801 – 1,000	7	2	
> 1,000	Add an additional two volatile organic compound discrete samples and one composite sample for each additional 1,000 cubic yards or consult with NYSDEC		

B-11 STORMWATER POLLUTION PREVENTION

Prior to implementing any Site disturbance greater than one acre, a Stormwater Pollution Prevention Plan (SWPPP) will be prepared in accordance with the regulations for erosion and sediment controls and water quantity/quality controls. This will provide guidance to the contractor doing the construction activities. With the preparation of the

SWPPP comes a requirement for submitting a Notice of Intent (NOI) to NYSDEC upon completion of the SWPPP to document the project exists and gain permit coverage. The NOI will be completed with direction and input from the Site owner and/or remedial party. In addition to the SWPPP, Erosion and Sediment Control (ESC) plans will be designed and prepared as applicable for implementing the construction activity in accordance with the current stormwater regulations.

For implementing construction activities with disturbance with less than one acre, erosion and sediment controls (i.e., silt fencing, hay bales, etc.) will be installed around the down gradient perimeter of the work areas and around temporary stockpiles of excavated soil and imported backfill. Erosion and sediment controls will be observed once a week, and corrective actions shall begin within one business day of contractor notification of deficiencies. Deficiencies include removal of accumulated sediments against silt fence, undercutting or erosion of the silt fence, and uncontrolled discharge off-site of turbid water. Corrective action shall be completed within a reasonable time frame. Results of inspections will be recorded in a logbook and maintained at the Site at the construction trailer or at the City Engineer's office at City Hall and available for review by NYSDEC.

B-12 CONTINGENCY PLAN

If underground tanks, buried drums or other previously unidentified contaminant sources are found during post-remedial subsurface excavations or development related construction, excavation activities will be suspended until NYSDEC is notified and properly trained personnel and equipment are mobilized to address the condition.

Sampling will be performed on tank or drum contents, sediment and surrounding soils, etc., as necessary, to determine the nature of the material and proper disposal method. Chemical analysis will be performed for full a full list of analytes (TAL metals; TCL volatiles and semi-volatiles, TCL pesticides and PCBs), or by the disposal facility's requirements, 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 be also included in the periodic reports prepared pursuant to Section 5 of the SMP.

B-13 COMMUNITY AIR MONITORING PLAN

A Community Air Monitoring Plan (CAMP) will be prepared and submitted to the NYSDEC for approval prior to any planned Site disturbance. The CAMP will be followed for any ground intrusive work in general accordance with the New York State Department of Health Generic CAMP dated June 2000, which is appended as Appendix E of this SMP.

Monitoring for particulate dust will be conducted during all ground intrusive activities based on generally prevailing wind conditions. These locations will be adjusted on a daily or more frequent basis based on actual wind directions to provide an upwind and at least one downwind monitoring station.

All readings must be recorded and be available for State (DEC and DOH) personnel to review. Exceedances of action levels listed in the CAMP will be reported to NYSDEC and NYSDOH Project Managers.

B-14 ODOR CONTROL PLAN

Nuisance odors were not encountered during the implementation of the remedy and during the disturbance of existing Site soils. Therefore, an odor control plan is not needed for future excavation at the Site. If nuisance odors are observed during future Site excavation work, actions should be implemented to mitigate off-site impacts from odors.

If needed, the odor control plan should be capable of controlling emissions of nuisance odors off-Site and on-Site, if there are residents or tenants on the property. Specific odor control methods to be used on a routine basis could include: a) limiting the area of open excavations; (b) shrouding open excavations with tarps and other covers; and (c) using foams to cover exposed odorous soils. If odors cannot be controlled by the

previous means, additional measures to control the odor may include: (a) direct load-out of soils for off-site disposal; (b) use of chemical odorants in spray or misting systems; and (c) implement monitoring of odors in surrounding neighborhoods.

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 odor events and odor complaints about the project. Implementation of odor controls, including the halt of work, is the responsibility of the property owner's Remediation Engineer, and any measures that are implemented will be discussed in the Periodic Review Report.

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.

B-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.

APPENDIX C – Site-wide Inspection Form

**CHALMERS BUILDING ERP SITE
Site Management Plan Inspection Form**

Date _____

Inspection Personnel: _____

Weather Conditions: _____

The site investigations determined that semi-volatile organic compounds (SVOCs), PCBs and metals were identified as contaminants of concern within the Site's surface soil; SVOCs and metals were identified as contaminants of concern within the Site's subsurface soil; volatile organic compounds (VOCs), SVOCs and metals were identified as contaminants of concern within the Site's groundwater; and VOCs (including petroleum hydrocarbons, chlorinated hydrocarbons and others) were identified within sub-slab vapor.

Currently, protection of public health and the environment to contaminated media is provided by an engineered soil cover system consisting of a one-foot thick soil cover system underlain by geotextile filter fabric.

This SMP Inspection Form will be utilized to observe the Chalmers Building parcels located at 21-41 Bridge Street and 32 Gilliland Avenue to document that the Engineering Controls are intact and are serving to protect public health and the environment from underlying contamination.

Attachments to this Inspection Form must include a Site Plan for the site.

Cover System Observation Questions

1. Has the overall condition of the cover system changed from the previous inspection (if first inspection, respond with N/A) Yes No

If Yes, provide detail below and identify on a Site Plan, and attach

**CHALMERS BUILDING ERP SITE
Site Management Plan Inspection Form (continued)**

2. Is soil cover system adequately vegetated to prevent erosion Yes No
If No, provide detail below and identify locations on a Site Plan, and attach

3. Is there evidence that the soil cover system has been eroded by wind and/or water Yes No

If Yes, provide detail below and identify locations on a Site Plan, and attach

4. Is there evidence that the soil cover system has been breached (i.e., areas where surface appears patched, signs of excavation) Yes No

If Yes, provide detail below and identify locations on a Site Plan, and attach

5. Is there evidence that the asphalt cover systems has been breached (i.e., areas where surface appears patched, signs of excavation) Yes No

If Yes, provide detail below and identify locations on a Site Plan, and attach

**CHALMERS BUILDING ERP SITE
Site Management Plan Inspection Form (continued)**

6. Have photographs been taken of the cover system for inclusion in the site inspection report. Yes No

If No, give reason below

List below other relevant information such as results of interview of person(s) familiar with the site and what activities may have breached the cover system since the last cover system inspection.
