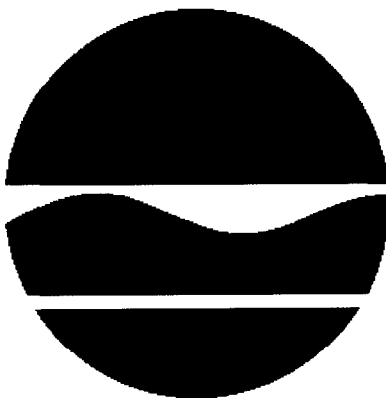


# DECISION DOCUMENT

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Webster Block  
Brownfield Cleanup Program  
Buffalo, Erie County  
Site No. C915270  
October 2014



Prepared by  
Division of Environmental Remediation  
New York State Department of Environmental Conservation

# **DECLARATION STATEMENT - DECISION DOCUMENT**

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Webster Block  
Brownfield Cleanup Program  
Buffalo, Erie County  
Site No. C915270  
October 2014

## **Statement of Purpose and Basis**

This document presents the remedy for the Webster Block site, a brownfield cleanup site. The remedial program was chosen in accordance with the New York State Environmental Conservation Law and Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR) Part 375.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (the Department) for the Webster Block site and the public's input to the proposed remedy presented by the Department.

## **Description of Selected Remedy**

During the course of the investigation certain actions, known as interim remedial measures (IRMs), were undertaken at the above referenced site. An IRM is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before completion of the remedial investigation (RI) or alternatives analysis (AA). The IRM(s) undertaken at this site are discussed in Section 6.2.

Based on the implementation of the IRM(s), the findings of the investigation of this site indicate that the site no longer poses a threat to human health or the environment; therefore No Further Action is the selected remedy. The remedy may include continued operation of a remedial system if one was installed during the IRM and the implementation of any prescribed institutional controls/engineering controls (ICs/ECs) that have been identified as being part of the proposed remedy for the site.

## **Declaration**

The remedy conforms to promulgated standards and criteria that are directly applicable, or that are relevant and appropriate and takes into consideration Department guidance, as appropriate. The remedy is protective of public health and the environment.

**Michael J Cruden**

Digitally signed by Michael J Cruden  
DN: cn=Michael J Cruden, o=DER, ou=RBE,  
email=mjcruden@gw.dec.state.ny.us, c=US  
Date: 2014.10.28 10:18:27 -04'00'

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Date

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Michael Cruden, Director  
Remedial Bureau E

# DECISION DOCUMENT

Webster Block  
Buffalo, Erie County  
Site No. C915270  
October 2014

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## **SECTION 1: SUMMARY AND PURPOSE**

The New York State Department of Environmental Conservation (the Department), in consultation with the New York State Department of Health (NYSDOH), has selected a remedy for the above referenced site. The disposal of contaminants at the site resulted in threats to public health and the environment that were addressed by actions known as interim remedial measures (IRMs), which were undertaken at the site. An IRM is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before completion of the remedial investigation (RI) or alternative analysis (AA). The IRMs undertaken at this site are discussed in Section 6.2.

Based on the implementation of the IRM(s), the findings of the investigation of this site indicate that the site no longer poses a threat to human health or the environment. The IRM(s) conducted at the site attained the remediation objectives identified for this site, which are presented in Section 6.5, for the protection of public health and the environment. No Further Action is the selected remedy. A No Further Action remedy may include continued operation of any remedial system installed during the IRM and the implementation of any prescribed controls that have been identified as being part of the remedy for the site. This Decision Document (DD) identifies the IRM(s) conducted and discusses the basis for No Further Action.

The New York State Brownfield Cleanup Program (BCP) is a voluntary program. The goal of the BCP is to enhance private-sector cleanups of brownfields and to reduce development pressure on "greenfields." A brownfield site is real property, the redevelopment or reuse of which may be complicated by the presence or potential presence of a contaminant.

The Department has issued this document in accordance with the requirements of New York State Environmental Conservation Law and 6 NYCRR Part 375. This document is a summary of the information that can be found in the site-related reports and documents.

## **SECTION 2: CITIZEN PARTICIPATION**

The Department seeks input from the community on all remedies. A public comment period was held, during which the public was encouraged to submit comment on the proposed remedy. All comments on the remedy received during the comment period were considered by the Department in selecting a remedy for the site. Site-related reports and documents were made available for review by the public at the following document repositories:

Buffalo & Erie County Public Library  
Attn: Reference Librarian  
1 Lafayette Square  
Buffalo, NY 14203-1887  
Phone: 716-858-8900

NY State Department of Environmental Conservation  
270 Michigan Avenue  
Buffalo, NY 14203-2915  
Phone: 716-851-7220

### **Receive Site Citizen Participation Information By Email**

Please note that the Department's Division of Environmental Remediation (DER) is "going paperless" relative to citizen participation information. The ultimate goal is to distribute citizen participation information about contaminated sites electronically by way of county email listservs. Information will be distributed for all sites that are being investigated and cleaned up in a particular county under the State Superfund Program, Environmental Restoration Program, Brownfield Cleanup Program, Voluntary Cleanup Program, and Resource Conservation and Recovery Act Program. We encourage the public to sign up for one or more county listservs at <http://www.dec.ny.gov/chemical/61092.html>

### **SECTION 3: SITE DESCRIPTION AND HISTORY**

**Location:** The site is located at 75 Main Street in the city of Buffalo, Erie County, and is approximately 2 acres in size. The site occupies an entire city block, bounded on the west by Main Street; on the east by Washington Street; on the north by Scott Street, on the south by Perry Street and is known locally as the Webster Block.

**Site Features:** The site is generally flat and level, and had been covered by an asphalt surface parking lot from the 1980s until 2013 when redevelopment construction began.

**Current Zoning and Land Use:** The property is located in a district of the local zoning map labeled as Institutional/Light industrial; in accordance with the zoning ordinances, residential uses would also be permitted in this district. Office buildings, a sports arena and hotel are located adjacent to the site. On the site itself, construction of a sports complex, hotel, restaurant and retail space is currently underway.

**Past Use of the Site:** The site had been used for warehousing and manufacturing purposes since the early 1820's, originally due to its location adjacent to the Erie Canal and the Buffalo Harbor. Prior uses that appear to have led to the site contamination include but are not limited to: paint and oil storage, oil refining, machine shops, copper and tin smiths, nickel plating shop, and iron works.

**Site Geology and Hydrogeology:** Overburden soils in the area consist of six inches of pavement and sub-base gravel, fill material varying in thickness from 8 to 14 feet, and native material consisting of alternating layers of silty clay, fine to sandy silt and gravel, and a layer of peat.

Bedrock is approximately 42 to 50 feet below ground surface (bgs).

Groundwater is present on site in two hydrogeologic zones. The first hydrogeologic zone is a perched surface water trapped within portions of the fill material (old foundations) extending downward to a clay layer that ranges from 8 to 16 feet bgs. This zone is affected by numerous foundations throughout the site. Water in the zone is discontinuous and limited in its nature both horizontally (by heterogeneous fill areas) and vertically by the confining clay beneath.

Beneath the fill and clay layer is a semi-confined aquifer extending into native material consisting of fine sandy silt overlaying silty clay and bedrock. This zone vertically extends from approximately 20 feet bgs (beneath the confining clay layer) to 40 feet bgs. Groundwater in both zones flows to the south, towards the Buffalo River.

A site location map is attached as Figure 1.

#### **SECTION 4: LAND USE AND PHYSICAL SETTING**

The Department may consider the current, intended, and reasonably anticipated future land use of the site and its surroundings when evaluating a remedy for soil remediation. For this site, an alternative that restricts the use of the site to residential use (which allows for restricted-residential use, commercial use and industrial use) as described in Part 375-1.8(g) was evaluated in addition to an alternative which would allow for unrestricted use of the site.

A comparison of the results of the investigation to the appropriate standards, criteria and guidance values (SCGs) for the identified land use and the unrestricted use SCGs for the site contaminants is available in the Remedial Investigation (RI) Report.

#### **SECTION 5: ENFORCEMENT STATUS**

The Applicant(s) under the Brownfield Cleanup Agreement is a/are Volunteer(s). The Applicant(s) does/do not have an obligation to address off-site contamination. However, the Department has determined that this site does not pose a significant threat to public health or the environment; accordingly, no enforcement actions are necessary.

#### **SECTION 6: SITE CONTAMINATION**

##### **6.1: Summary of the Remedial Investigation**

A remedial investigation (RI) serves as the mechanism for collecting data to:

- characterize site conditions;
- determine the nature of the contamination; and
- assess risk to human health and the environment.

The RI is intended to identify the nature (or type) of contamination which may be present at a site and the extent of that contamination in the environment on the site, or leaving the site. The RI

reports on data gathered to determine if the soil, groundwater, soil vapor, indoor air, surface water or sediments may have been contaminated. Monitoring wells are installed to assess groundwater and soil borings or test pits are installed to sample soil and/or waste(s) identified. If other natural resources are present, such as surface water bodies or wetlands, the water and sediment may be sampled as well. Based on the presence of contaminants in soil and groundwater, soil vapor will also be sampled for the presence of contamination. Data collected in the RI influence the development of remedial alternatives. The RI report is available for review in the site document repository and the results are summarized in section 6.3.

The analytical data collected on this site includes data for:

- groundwater
- soil

#### **6.1.1: Standards, Criteria, and Guidance (SCGs)**

The remedy must conform to promulgated standards and criteria that are directly applicable or that are relevant and appropriate. The selection of a remedy must also take into consideration guidance, as appropriate. Standards, Criteria and Guidance are hereafter called SCGs.

To determine whether the contaminants identified in various media are present at levels of concern, the data from the RI were compared to media-specific SCGs. The Department has developed SCGs for groundwater, surface water, sediments, and soil. The NYSDOH has developed SCGs for drinking water and soil vapor intrusion. For a full listing of all SCGs see: <http://www.dec.ny.gov/regulations/61794.html>

#### **6.1.2: RI Results**

The data have identified contaminants of concern. A "contaminant of concern" is a contaminant that is sufficiently present in frequency and concentration in the environment to require evaluation for remedial action. Not all contaminants identified on the property are contaminants of concern. The nature and extent of contamination and environmental media requiring action are summarized below. Additionally, the RI Report contains a full discussion of the data. The contaminant(s) of concern identified at this site is/are:

benz(a)anthracene	barium
benzo(a)pyrene	copper
benzo(b)fluoranthene	lead
dibenz[a,h]anthracene	mercury
indeno(1,2,3-cd)pyrene	nickel
arsenic	acetone

Based on the investigation results, comparison to the SCGs, and the potential public health and environmental exposure routes, certain media and areas of the site required remediation. These media were addressed by the IRM(s) described in Section 6.2. More complete information can be found in the RI Report and the Final Engineering Report.

## **6.2: Interim Remedial Measures**

An interim remedial measure (IRM) is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before issuance of the Decision Document.

The following IRM(s) has/have been completed at this site based on conditions observed during the RI.

### **IRM - Soil Removal**

To remove all disturbed soil and fill unsuitable for redevelopment construction and to remediate the site to residential SCOs, an Interim Remedial Measure ("IRM") was implemented. All soil/fill on site above the native material, across the entire site, was excavated and disposed at a landfill. The IRM was initiated in March 2013.

Following the demolition of the on-site lighting poles and removal of underground utilities, installation of the earth retention system commenced. The perimeter of the site was shored with a steel sheet pile wall system consisting of interconnected steel plates. The shoring system was sized for an estimated maximum excavation depth of 12 feet below ground surface (bgs), and extended to a depth of 24 feet bgs. Concurrent with the installation of shoring, remedial investigation activities including test pits, soil sampling, and groundwater sampling were conducted.

All on-site soils, within the bounds of the shoring system, which exceeded residential SCOs, as defined by 6 NYCRR Part 375-6.8, were excavated and transported off-site for disposal. A total of 52,839 tons or approximately 35,000 cubic yards of soil were removed from the site. In addition, 121 truckloads of concrete and asphalt (approximately 1,815 tons) were sent off-site for recycling and disposal during the excavation.

The native silt and clay layer was used as a marker for final excavation depth. Confirmatory soil samples were collected from the bottom of the excavation and as noted below the concentrations of contaminants remaining in the native soils were significantly less than the Residential SCOs. Over the entire site, the final depth of excavation was generally 10 feet along the northern half of the site and 11 feet along the southern half of the site.

Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) was brought in to complete the backfilling of the excavation and establish the designed grades at the site. A crushed rock backfill was used. The backfill material met the Residential and Protection of Groundwater SCOs with one exception; acetone was detected in one sample at a concentration of 0.48 parts per million (ppm), exceeding the Protection of Groundwater SCO of 0.05 ppm but well below the Residential SCO of 100 ppm. The presence of acetone in a stone quarry is an anomaly, most likely a lab or container contaminant and not actually present in the crushed stone backfill.

## **6.3: Summary of Environmental Assessment**

This section summarizes the assessment of existing and potential future environmental impacts presented by the site. Environmental impacts may include existing and potential future exposure pathways to fish and wildlife receptors, wetlands, groundwater resources, and surface water. The RI report presents a detailed discussion of any existing and potential impacts from the site to fish and wildlife receptors.

#### Nature and Extent of Contamination:

##### Groundwater:

The groundwater sampled from MW-05, was the only sample to contain SVOCs at concentrations above groundwater standards. The SVOCs benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, and chrysene were detected in relatively low concentrations ranging from 0.78 parts per billion (ppb) (benzo(k)fluoranthene) to 2.2 ppb (benzo(b)fluoranthene). The groundwater standard for these SVOCs is 0.002 ppb.

Only three VOCs were detected in the groundwater (all in MW-5), and none in concentrations above groundwater standards. One of the three VOCs detected was acetone.

Monitoring well MW-5 was located near the center of the site, in an area in which an oily fill material was encountered, and historical oil storage took place. All of the fill material was removed during the IRM. The remaining wells on the perimeter of the site indicate that the residual SVOCs impacts were limited to the immediate vicinity of MW-5.

Groundwater also exceeds standards for chemicals that are normally associated with naturally occurring compounds such as iron, manganese, magnesium and sodium. However, the area has long been served by a public drinking water source and the use of groundwater as a potable source is prohibited in the City of Buffalo. Due to these factors, no remedy is needed to address this medium.

##### Post-Remediation (IRM) - On-site Soil:

Some IRM confirmatory samples were taken concurrent with the RI to determine the required depth of excavation. The excavation of source materials and impacted soils remediated the site to unrestricted use SCOs, excluding some anomalous detections. See Figure 1-6 of the RI/IRM/AA report.

Confirmatory sampling detected acetone in all but one sample of the native soils. The detection of acetone in the native material was considered anomalous and additional sampling was completed to further assess the potential acetone presence. Twelve new samples were collected; 5 of the 12 re-samples did not have detectable amounts of acetone and the other seven had detections below the Unrestricted Use SCO, with detections ranging from 0.011 ppm to 0.028 ppm.

Previous on-site investigations did not identify acetone as a contaminant of concern based on either previous site usage or sampling. Furthermore, detectable acetone concentrations between the fill



and native soil are consistent for both the minimum and maximum detected values. If acetone were sourced from historical site usage, significantly higher acetone would be expected in the fill material (source layer) than in the underlying native soils.

No other VOCs or SVOCs were detected in any of the IRM confirmatory samples above Unrestricted Use SCOs.

Of the 43 confirmatory samples collected, one sample contained copper at a concentration above its Unrestricted Use SCO. One of the 43 samples contained mercury above the Unrestricted Use SCO and another sample above the Restricted Residential Use SCO; the locations of the three confirmatory samples were subsequently backfilled with clean fill and are currently 8 to 10 feet below grade. Twelve of the 43 confirmatory samples of the native material contained nickel slightly above Unrestricted Use SCO's.

The Unrestricted Use SCO for Nickel is 30 ppm. Nickel detections in the native material ranged from 30.2 to 39.8 ppm. The analysis of the fill undertaken for the RI had one detection above the Unrestricted Use SCO. Additionally, the 41 site perimeter samples of fill, which delineated the contamination left outside of the BCP site boundary, only had four detections of nickel above Unrestricted Use SCOs. The higher frequency of nickel detections in the native soil, compared to the site fill and site perimeter fill suggests that the nickel concentrations may be naturally occurring in the native material and not related to the contamination deposited above.

Three contaminants (copper, mercury and nickel) were detected in the confirmatory soil samples at concentrations above the Unrestricted Use SCOs, at depths ranging from 8 to 16 feet bgs. In all of the samples, copper and nickel were found at concentrations below the Residential Use SCOs. In only one sample was the concentration of mercury (0.93 ppm) above the Residential Use SCO (0.81 ppm).

#### Off-site Soil:

To develop a profile of the conditions that would remain off-site, soil samples were collected every 30 linear feet along the BCP boundary. Soil samples were collected during pre-trenching for the earth retention system. A total of 41 "sidewall" samples were collected at the BCP boundary and analyzed for VOCs, SVOCs and TAL Metals. Sidewall samples were collected at various depths ranging from 3 to 10 feet bgs.

The results of the sidewalls were similar to the results of the RI sampling of fill material within the site boundaries. The distribution of contaminants along the site boundary was as varied as it was on site, with no discernible source areas of contamination. It is assumed that the site boundary sampling results are more indicative of the fill material found in the vicinity surrounding the site than evidence of impact from the site itself.

Five PAHs were detected above Commercial Use SCOs:

- benz(a)anthracene at 3 locations
- benzo(a)pyrene at 10 locations
- benzo(b)fluoranthene at 3 location

- dibenz[a,h]anthracene at 8 locations and
- indeno(1,2,3-cd)pyrene at 2 locations.

There were a number of metal exceedances in these samples. Specifically, three metals were detected above Commercial Use SCOs:

- Arsenic at 3 locations,
- Copper at 2 locations,
- Lead at 3 locations,
- Mercury at 1 location, and
- Nickel at 1 location.

Special Resources Impacted/Threatened:  
None.

Significant Threat:

It has been determined that this site does not pose a significant threat to human health or the environment.

#### **6.4: Summary of Human Exposure Pathways**

This human exposure assessment identifies ways in which people may be exposed to site-related contaminants. Chemicals can enter the body through three major pathways (breathing, touching or swallowing). This is referred to as *exposure*.

Remedial activities undertaken at the site have effectively reduced the potential for exposure to site-related contaminants. Therefore, this site no longer poses a public health concern.

#### **6.5: Summary of the Remediation Objectives**

The objectives for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375. The goal for the remedial program is to restore the site to pre-disposal conditions to the extent feasible. At a minimum, the remedy shall eliminate or mitigate all significant threats to public health and the environment presented by the contamination identified at the site through the proper application of scientific and engineering principles.

The remedial action objectives for this site are:

##### **Groundwater**

###### **RAOs for Public Health Protection**

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.

##### **Soil**

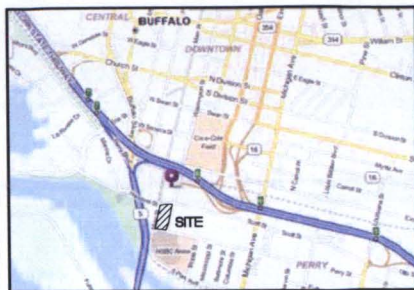
###### **RAOs for Public Health Protection**

- Prevent ingestion/direct contact with contaminated soil.

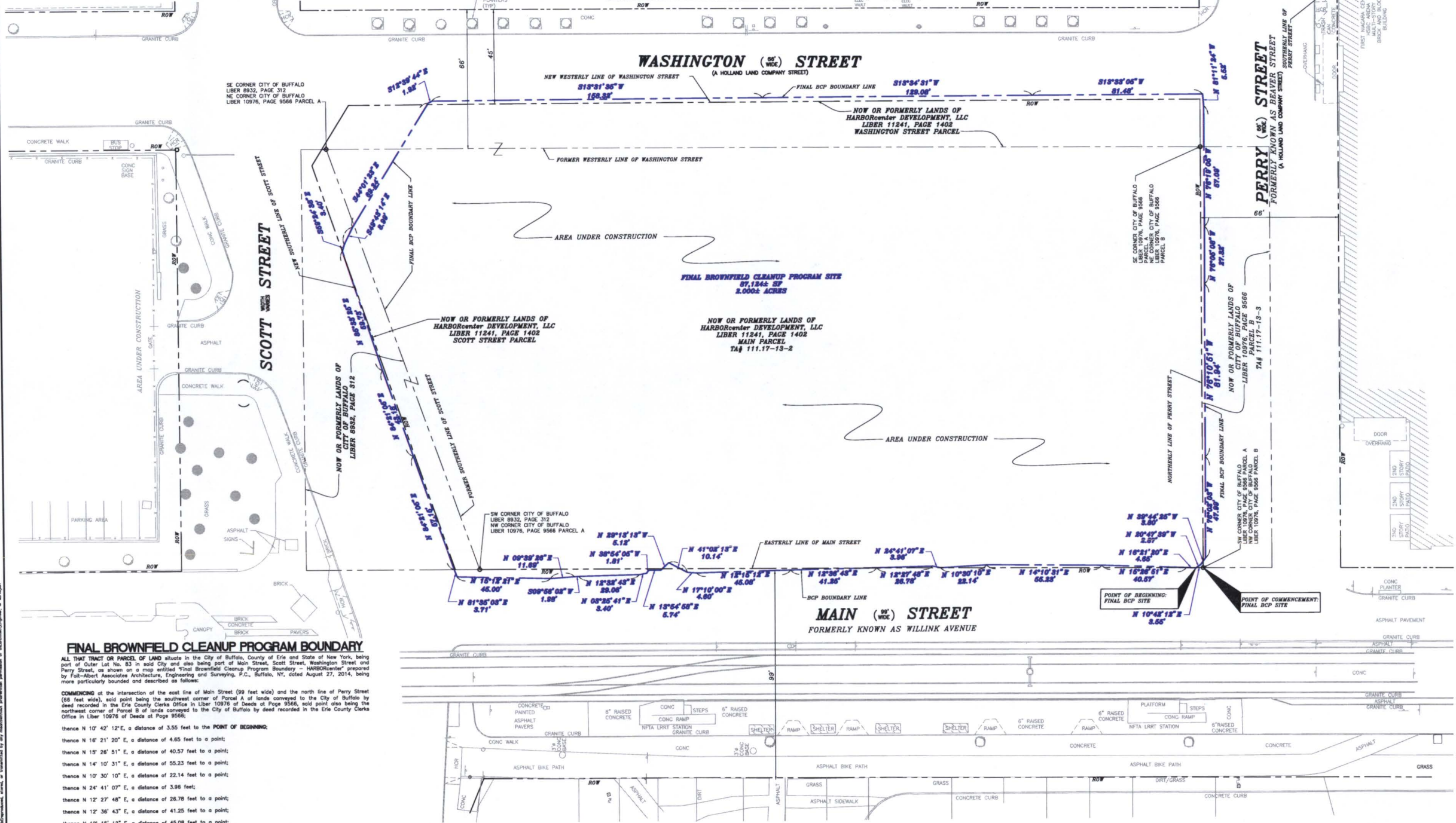
## **SECTION 7: ELEMENTS OF THE SELECTED REMEDY**

Based on the results of the investigations at the site, the IRM that has been performed, the fact that the area is served by public water and local groundwater use restrictions are in place, and the evaluation presented here, the Department is proposing No Further Action as the remedy for the site. The Department believes that this remedy is protective of human health and the environment and satisfies the remediation objectives described in Section 6.5.

The completed IRM met the requirements for a Track 2 Residential Use cleanup and does not require additional remedial action, including any institutional or engineering controls.



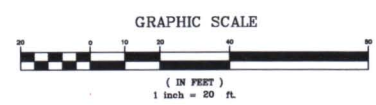
VICINITY MAP:  
NOT TO SCALE



**FINAL BROWNFIELD CLEANUP PROGRAM BOUNDARY**

ALL THAT TRACT OR PARCEL OF LAND situate in the City of Buffalo, County of Erie and State of New York, being part of Outer Lot No. 83 in said City and also being part of Main Street, Scott Street, Washington Street and Perry Street, as shown on a map entitled "Final Brownfield Cleanup Program Boundary - HARBOrcenter" prepared by Folt-Albert Associates Architecture, Engineering and Surveying, P.C., Buffalo, NY, dated August 27, 2014, being more particularly bounded and described as follows:

- COMMENCING at the intersection of the east line of Main Street (99 feet wide) and the north line of Perry Street (68 feet wide), said point being the southwest corner of Parcel A of lands conveyed to the City of Buffalo by deed recorded in the Erie County Clerk's Office in Liber 10976 of Deeds at Page 9566, said point also being the northwest corner of Parcel B of lands conveyed to the City of Buffalo by deed recorded in the Erie County Clerk's Office in Liber 10976 of Deeds at Page 9566;
- thence N 10° 42' 12" E, a distance of 3.55 feet to the POINT OF BEGINNING;
  - thence N 10° 21' 20" E, a distance of 4.65 feet to a point;
  - thence N 15° 26' 51" E, a distance of 40.57 feet to a point;
  - thence N 14° 10' 31" E, a distance of 55.23 feet to a point;
  - thence N 10° 30' 10" E, a distance of 22.14 feet to a point;
  - thence N 24° 41' 07" E, a distance of 3.98 feet;
  - thence N 12° 27' 48" E, a distance of 28.78 feet to a point;
  - thence N 12° 36' 43" E, a distance of 41.25 feet to a point;
  - thence N 12° 15' 12" E, a distance of 45.08 feet to a point;
  - thence N 17° 10' 00" E, a distance of 4.80 feet to a point;
  - thence N 41° 02' 13" E, a distance of 10.14 feet to a point;
  - thence N 29° 13' 13" W, a distance of 5.12 feet to a point;
  - thence N 13° 54' 58" E, a distance of 5.74 feet to a point;
  - thence N 38° 54' 05" W, a distance of 1.81 feet to a point;
  - thence N 03° 25' 41" E, a distance of 3.40 feet to a point;
  - thence N 13° 33' 05" W, a distance of 81.48 feet to a point;
  - thence N 12° 32' 43" E, a distance of 29.06 feet to a point;
  - thence N 09° 56' 02" E, a distance of 1.98 feet to a point;
  - thence N 09° 39' 26" E, a distance of 11.69 feet to a point;
  - thence N 15° 12' 21" E, a distance of 45.00 feet to a point;
  - thence N 81° 35' 03" E, a distance of 3.71 feet to a point;
  - thence N 84° 21' 05" E, a distance of 57.15 feet to a point;
  - thence N 84° 21' 05" E, a distance of 43.18 feet to a point;
  - thence N 85° 33' 25" E, a distance of 59.73 feet to a point;
  - thence S 59° 24' 38" E, a distance of 3.40 feet to a point;
  - thence S 49° 43' 14" E, a distance of 8.99 feet to a point;
  - thence S 44° 01' 23" E, a distance of 69.24 feet to a point;
  - thence S 12° 39' 44" E, a distance of 1.92 feet to a point;
  - thence S 13° 31' 35" W, a distance of 158.32 feet to a point;
  - thence S 13° 34' 31" W, a distance of 129.08 feet to a point;
  - thence S 13° 33' 05" W, a distance of 81.48 feet to a point;
  - thence N 81° 11' 24" W, a distance of 5.52 feet to a point;
  - thence N 78° 19' 05" W, a distance of 57.09 feet to a point;
  - thence N 78° 05' 08" W, a distance of 27.32 feet to a point;
  - thence N 78° 10' 51" W, a distance of 81.94 feet to a point;
  - thence N 78° 02' 03" W, a distance of 47.99 feet to a point;
  - thence N 39° 44' 25" W, a distance of 3.80 feet to a point;
  - thence N 20° 47' 39" W, a distance of 2.87 feet to the point or place of beginning, containing 87,124 square feet or 2,000 acres of land more or less.
- Bearings are referenced to True North at 78° 35' Meridian of West Longitude.



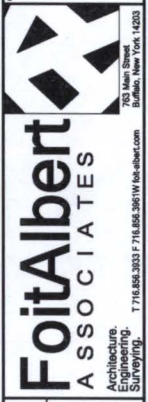
ADDRESS  
73 MAIN STREET  
BUFFALO, NY 14203

**LEGEND:**

**GENERAL NOTES:**

The survey for this map was completed on October 11, 2012 and updated November 9, 2012.  
Coordinates are referenced to the New York State Plane Coordinate System, West Zone NAD 83 (1995).  
The basis of bearings True North at 78° 35' Meridian of West Longitude.

**FIGURE 1**



FINAL BROWNFIELD CLEANUP PROGRAM BOUNDARY  
**HARBOrcenter**  
PART OF OUTER LOT 83, AND PART OF MAIN ST, SCOTT ST,  
WASHINGTON ST AND PERRY ST  
CITY OF BUFFALO, COUNTY OF ERIE, STATE OF NEW YORK



Revision Number	Revision Description
1	
2	
3	
4	

Date: 8/27/14  
Scale: 1"=20'  
Title: 14001.30  
Project Manager: M. POHL  
Checked By: M. POHL  
Project: 14001-30 Final BCP.dwg  
Sheet: 1 of 1  
**V-109**

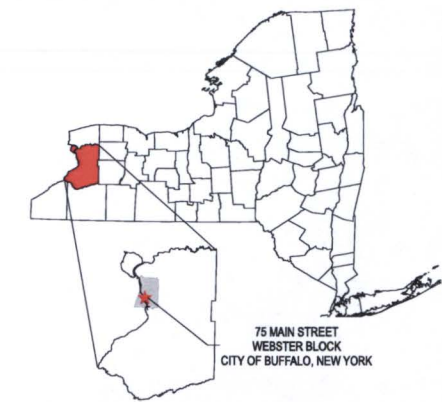




C&S Engineers, Inc.  
90 Broadway  
Buffalo, New York 14203  
Phone: 716-847-1630  
Fax: 716-847-1454  
www.cscos.com

**HARBORcenter  
Development LLC**  
1 Seymour H. Knox III  
Plaza  
Buffalo, NY 14203

**LOCATION MAP**

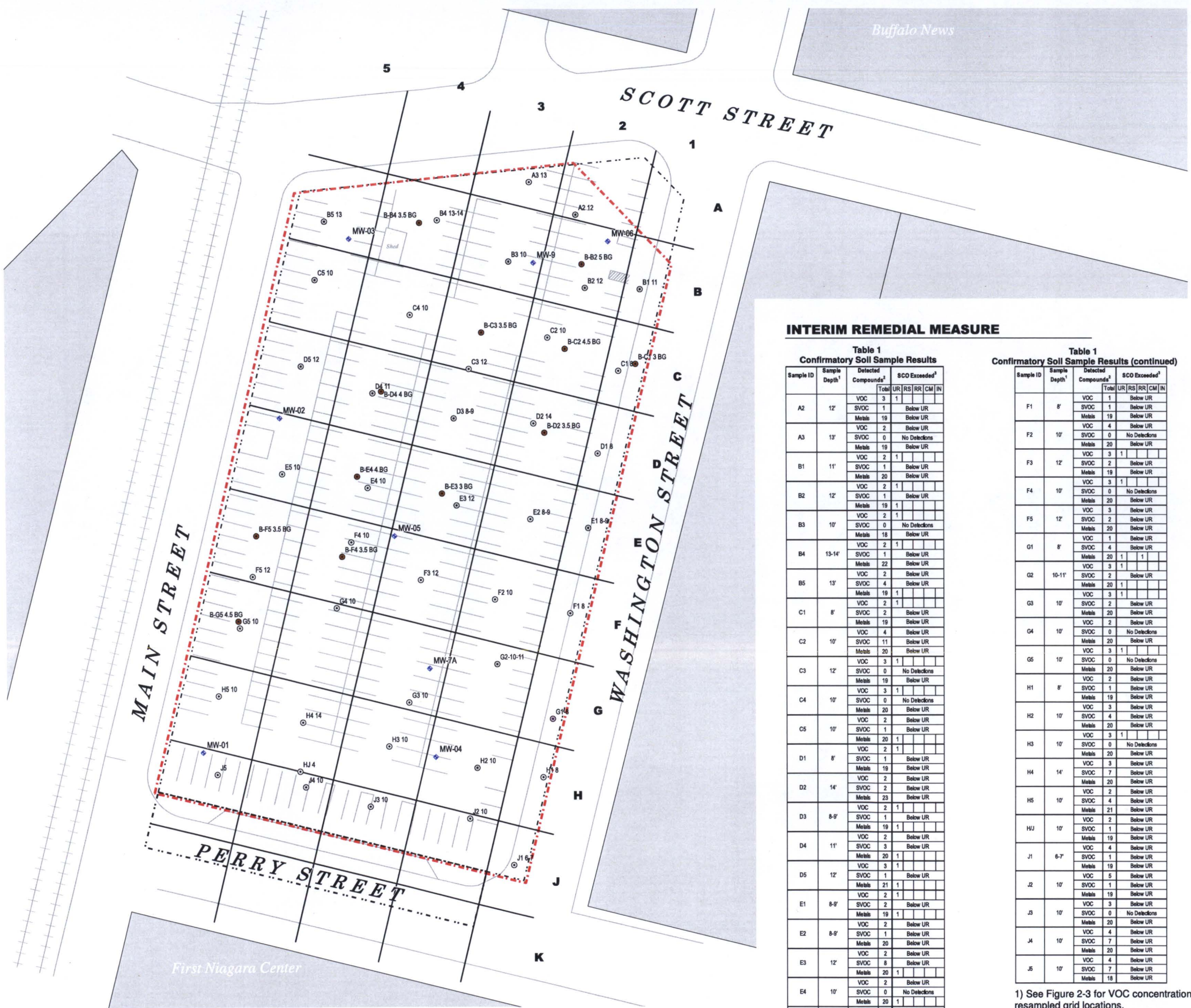


75 MAIN STREET  
WEBSTER BLOCK  
CITY OF BUFFALO, NEW YORK



**WEBSTER BLOCK - BROWNFIELD  
CLEANUP PROGRAM**

**CITY OF BUFFALO, NY**



**INTERIM REMEDIAL MEASURE**

**Table 1  
Confirmatory Soil Sample Results**

Sample ID	Sample Depth <sup>1</sup>	Detected Compounds <sup>2</sup>				SCO Exceeded <sup>3</sup>				
		Total	UR	RS	RR	CM	IN	CM	IN	
A2	12'	VOC	3	1						
		SVOC	1							
		Metals	19							
A3	13'	VOC	2							
		SVOC	0							
		Metals	19							
B1	11'	VOC	2	1						
		SVOC	1							
		Metals	20							
B2	12'	VOC	2	1						
		SVOC	1							
		Metals	19	1						
B3	10'	VOC	2	1						
		SVOC	0							
		Metals	18							
B4	13-14'	VOC	2	1						
		SVOC	1							
		Metals	22							
B5	13'	VOC	2	1						
		SVOC	4							
		Metals	19	1						
C1	8'	VOC	2	1						
		SVOC	2							
		Metals	19							
C2	10'	VOC	4							
		SVOC	11							
		Metals	20							
C3	12'	VOC	3	1						
		SVOC	0							
		Metals	19							
C4	10'	VOC	3	1						
		SVOC	0							
		Metals	20							
C5	10'	VOC	2	1						
		SVOC	1							
		Metals	20	1						
D1	8'	VOC	1							
		SVOC	1							
		Metals	19							
D2	14'	VOC	2							
		SVOC	2							
		Metals	23							
D3	8-9'	VOC	2	1						
		SVOC	1							
		Metals	19	1						
D4	11'	VOC	3							
		SVOC	3							
		Metals	20	1						
D5	12'	VOC	3	1						
		SVOC	1							
		Metals	21	1						
E1	8-9'	VOC	2	1						
		SVOC	2							
		Metals	19	1						
E2	8-9'	VOC	2							
		SVOC	1							
		Metals	20							
E3	12'	VOC	2							
		SVOC	8							
		Metals	20	1						
E4	10'	VOC	2							
		SVOC	0							
		Metals	20	1						
E5	10'	VOC	2							
		SVOC	3							
		Metals	20	1						

**Table 1  
Confirmatory Soil Sample Results (continued)**

Sample ID	Sample Depth <sup>1</sup>	Detected Compounds <sup>2</sup>				SCO Exceeded <sup>3</sup>				
		Total	UR	RS	RR	CM	IN	CM	IN	
F1	8'	VOC	1							
		SVOC	1							
		Metals	19							
F2	10'	VOC	4							
		SVOC	0							
		Metals	20							
F3	12'	VOC	3	1						
		SVOC	2							
		Metals	19							
F4	10'	VOC	3	1						
		SVOC	0							
		Metals	20							
F5	12'	VOC	3							
		SVOC	2							
		Metals	20							
G1	8'	VOC	1							
		SVOC	4							
		Metals	20	1						
G2	10-11'	VOC	3	1						
		SVOC	2							
		Metals	20	1						
G3	10'	VOC	3	1						
		SVOC	2							
		Metals	20							
G4	10'	VOC	2							
		SVOC	0							
		Metals	20							
G5	10'	VOC	3	1						
		SVOC	0							
		Metals	20							
H1	8'	VOC	2							
		SVOC	1							
		Metals	19							
H2	10'	VOC	3							
		SVOC	4							
		Metals	20							
H3	10'	VOC	3	1						
		SVOC	0							
		Metals	20							
H4	14'	VOC	3							
		SVOC	7							
		Metals	20							
H5	10'	VOC	2							
		SVOC	4							
		Metals	21							
HJ	10'	VOC	2							
		SVOC	1							
		Metals	19							
J1	6-7'	VOC	4							
		SVOC	1							
		Metals	19							
J2	10'	VOC	5							
		SVOC	1							
		Metals	19							
J3	10'	VOC	3							
		SVOC	0							
		Metals	20							
J4	10'	VOC	4							
		SVOC	7							
		Metals	20							
J5	10'	VOC	4							
		SVOC	7							
		Metals	18							

1) See Figure 2-3 for VOC concentrations of resampled grid locations.  
2) See Figure 2-5 for Chromium concentrations of resampled grid locations.

**LEGEND**

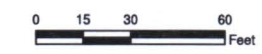
- BCP Boundary
- Parcel Boundary
- Erie County Tax Map Parcel Boundaries
- Exceedance of NYSDEC Soil Cleanup Objectives**
- Below Unrestricted Use
- Sample Exceeded Unrestricted Residential Use Criteria for at Least One Compound
- Sample Exceeded Restricted Residential Use Criteria for at Least One Compound
- Monitoring Well (Removed During Excavation)
- Resampled for Acetone and Hexavalent Chromium

**TABLE NOTES**

- 1) Sample depths in feet below ground surface.
- 2) "VOC" Volatile Organic Compounds  
"SVOC" Semi-volatile Organic Compounds
- 3) Soil Cleanup Objectives ("SCO"):  
"UR" Unrestricted Use Criteria  
"RS" Residential Use Criteria  
"RR" Restricted Residential Use Criteria  
"CM" Commercial Use Criteria  
"IN" Industrial Use Criteria

**NOTES**

- 1) Erie County parcel data from NYS GIS Clearinghouse, 2005.
- 2) Coordinate System: NAD 1983 StatePlane New York West FIPS 3103 Ft  
Projection: Transverse Mercator  
Datum: North American 1983  
Units: Foot US



PROJECT NO: M86.001.001  
DATE: OCT. 1, 2013  
SCALE: 1 IN = 30 FT  
DRAWN BY: CAM  
DESIGNED BY: CAM  
CHECKED BY: MJC

**NATIVE CLAY  
CONFIRMATORY  
SOIL SAMPLE RESULTS**

**FIGURE 1-6**