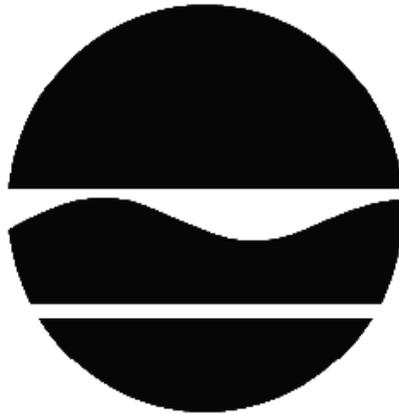


DECISION DOCUMENT

154 South Ogden Street Site
Brownfield Cleanup Program
Buffalo, Erie County
Site No. C915268
July 2014



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

DECLARATION STATEMENT - DECISION DOCUMENT

154 South Ogden Street Site
Brownfield Cleanup Program
Buffalo, Erie County
Site No. C915268
July 2014

Statement of Purpose and Basis

This document presents the remedy for the 154 South Ogden Street Site 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 154 South Ogden Street Site site and the public's input to the proposed remedy presented by the Department.

Description of Selected Remedy

The elements of the selected remedy are as follows:

Below are elements of the proposed remedy, performed in part, as an IRM (Figure 3):

1. Remedial Design

A remedial design program will be implemented to provide the details necessary for the construction, operation, optimization, maintenance, and monitoring of the remedial program. Green remediation principles and techniques will be implemented to the extent feasible in the design, implementation, and site management of the remedy as per DER-31. The major green remediation components are as follows;

- Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
- Reducing direct and indirect greenhouse gases and other emissions;
- Increasing energy efficiency and minimizing use of non-renewable energy;
- Conserving and efficiently managing resources and materials;
- Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste;
- Maximizing habitat value and creating habitat when possible;
- Fostering green and healthy communities and working landscapes which balance ecological, economic and social goals; and
- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.

2. Cover System

A site cover will be required to allow for restricted-residential use of the site. The cover will consist either of the structures such as buildings, pavement, sidewalks comprising the site development or a soil cover in areas where the upper two feet of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where the soil cover is required it will be a minimum of two feet of soil, meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for restricted residential use. The soil cover will be placed over a demarcation layer, with the upper layer of soil of sufficient quality to maintain a vegetation layer. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6 NYCRR Part 375-6.7(d).

3. Institutional Controls

Imposition of an institutional control in the form of an environmental easement for the controlled property that:

- requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
- allows the use and development of the controlled property for restricted residential uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH; and
- requires compliance with the Department approved Site Management Plan.

4. Site Management Plan

A Site Management Plan is required, which includes the following:

- a. an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:

Institutional Controls: the Environmental Easement discussed above.

Engineering Controls: the cover system discussed above.

This plan includes, but may not be limited to:

- an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
- descriptions of the provisions of the environmental easement including any land use, and groundwater use restrictions;
- a provision for evaluation of the potential for soil vapor intrusion for the on-site building and any new buildings developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;

- provisions for the management and inspection of the identified engineering controls;
- maintaining site access controls and Department notification; and
- the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

The operation of the components of the remedy will continue until the remedial objectives have been achieved, or until the Department determines that continued operation is technically impracticable or not feasible.

Declaration

The remedy conforms with 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.

Date

Michael Cruden, Director
Remedial Bureau E

DECISION DOCUMENT

154 South Ogden Street Site
Buffalo, Erie County
Site No. C915268
July 2014

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 has resulted in threats to public health and the environment that would be addressed by the remedy. The disposal or release of contaminants at this site, as more fully described in this document, has contaminated various environmental media. Contaminants include hazardous waste and/or petroleum.

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: Mary Jean Jakubowski
1 Lafayette Square
Buffalo, NY 14203
Phone: (716) 858-8900

Buffalo & Erie County Public Library
Attn: Susan Carson
East Clinton Branch
1929 Clinton Street

Buffalo, NY 14206
Phone: (716) 823-5626

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 154 South Ogden Street Site is located in an urban area. The site is near the intersection of Mineral Springs Road and South Ogden Street.

Site Features: The site is currently being developed with one school building, and bound by the Buffalo River to the north, South Ogden Street to the east, railroad tracks to the west, and vacant property, a cell tower, and Mineral Springs Road to the south.

Current Zoning and Land Use: The site is currently being developed, and is zoned for residential and commercial use. The surrounding parcels are currently used for a combination of residential, commercial, and rail right-of-ways. The nearest residential area is directly east of the Site across South Ogden Street.

Past Use of the Site: Until 2013, the site was vacant, vegetated with grasses, emergent trees and invasive species (e.g., knotweed). Prior uses that appear to have led to site contamination include past solid waste disposal over a majority of the site. Historic records indicate that the site was not previously developed. A portion of the property was historically traversed by the Buffalo River and this area was filled when the river channel was straightened to its current configuration.

Site Geology and Hydrogeology: The soil type at the site is generally described as sandy clay with silt intermingled with waste material (ash, black sand, brick, wood, glass), underlain by native poorly graded sand with silt. Groundwater depth is 15-20 feet below ground surface (fbgs), and flows north to northwest toward 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 restricted-residential use (which allows for

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 Remedial Investigation (RI) 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 RI Report.

SECTION 5: ENFORCEMENT STATUS

The Applicant under the Brownfield Cleanup Agreement is a Volunteer. The Applicant does 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:

lead	chrysene
arsenic	indeno(1,2,3-cd)pyrene
benzo(a)pyrene	benzo(b)fluoranthene
1,2-dichlorobenzene	dibenz[a,h]anthracene
chlorobenzene	cis-1,2-dichloroethene
1,2-dichloroethane	

The contaminant(s) of concern exceed the applicable SCGs for:

- groundwater
- soil

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.

Soil Excavation IRM (5/2013 - 12/2014)

- Limited excavation and off-site disposal of approximately 1,811 tons (1,132 cubic yards) of contaminated soil/fill 2 – 17 feet below ground surface (fbgs) impacted by metals, polycyclic aromatic hydrocarbons (PAHs), and petroleum in nine (9) discrete areas of concern (AOCs) shown in Figure 3.

The following soil/fill AOCs were defined as containing non-ubiquitous constituents significantly exceeding site wide concentrations of site specific parameters including grossly contaminated media (i.e., free product, significant staining, strong odor, elevated contaminant vapor levels):

- Excavation of 907 tons of non-hazardous petroleum and volatile organic compounds (VOC) impacted soil/fill was removed from AOC soil borings SB-4 and SB-14;
- Excavation of 268 tons of non-hazardous metals-impacted soil/fill was removed from AOC soil samples SS-6, SB-20, and SB-27;
- Excavation of 203 tons of non-hazardous PAH-impacted soil/fill was removed from AOC soil borings SB-16 and SB-36;
- Excavation of 409 tons of non-hazardous metals-impacted near-surface soil/fill was removed from AOC soil sample SS-69; and
- Excavation of 24 tons of non-hazardous asphalt mixed with soil/fill was removed from AOC known as Column Pile Line M5.

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: Prior to Remediation

Based on investigations conducted to date (Figure 2) the primary contaminants of concern in soil/fill include PAHs, metals, and petroleum contamination. In groundwater the primary contaminants of concern are VOCs.

Soil – The following is a description of fill/soils that were representative of the most impacted (contaminated) materials on the site. In each case these soils were removed during IRMs described in section 6.2.

SB-16 at 6-8 feet below ground surface (fbgs) contained a total PAH concentration of 591.6 parts per million (ppm), above the 500 ppm total PAH soil cleanup guidance contained in NYSDEC Policy CP-51. SB-14 (6-8 fbgs) located within the building footprint contained benzo(a)pyrene at 6.4 ppm. SB-27 (3-4 fbgs) contained concentrations of arsenic at 60 ppm and lead at 4,500 ppm. Surface soil sample SS-6 contained arsenic at 29 ppm. Based on PID results, visual and olfactory observations, a petroleum impacted area measuring 90 feet by 100 feet to depths of 14 feet below ground surface was also identified.

No fill materials (waste disposal areas) were noted in the northern most soil borings, test pits, and monitoring wells along the site border with the Buffalo River.

Groundwater - Three VOCs were detected in groundwater at concentrations above NYSDEC groundwater quality standards (GWQS). Chlorobenzene was detected at 24 parts per billion (ppb) in MW-2 at a concentration above its GWQS of 5 ppb; cis-1,2-dichloroethene was detected at 75 ppb in MW-4 above its GWQS of 5 ppb; and 1,2-dichlorobenzene was detected at 8.3 ppb in MW-2 above its GWQS of 3 ppb. Inorganic compounds detected in groundwater at concentrations above GWQS were generally limited to naturally occurring minerals such as iron, magnesium, manganese, and/or sodium. No groundwater contamination was noted in MW-1 and MW-3. MW-5 samples contained commonly observed dissolved inorganic compounds (iron, manganese, and sodium) above GWQS. Total lead was also detected in MW-5 at a concentration above the GWQS; however, dissolved lead was not detected, indicating the lead is associated with suspended solids. No pesticides, herbicides, or PCBs were detected in any groundwater samples taken.

Supplemental Groundwater Investigation

Two temporary wells (TW-4, TW-5) were advanced adjacent to the school building and downgradient of impacted MW-2 and the petroleum impacted soil/fill area to assess the groundwater quality in the vicinity of the school. No odors or sheen were noted during sampling and all VOC concentrations were below GWQS.

Three temporary wells (TW-6, TW-7, and TW-8), were advanced downgradient of well MW-4 toward the school building, where one VOC (cis-1,2-dichloroethene) was detected above the GWQS. No odors or sheen were noted during sampling and all VOC concentrations were below GWQS.

The groundwater impacts identified at MW-2 and MW-4 are considered localized to those locations based on downgradient groundwater quality.

Additionally, since no contamination was noted in MWs 1, 3, and 5, located alongside the downgradient site boundary, there was no evidence of off-site migration of contaminated groundwater towards the Buffalo River.

Off-site Areas

There is no indication of off-site contamination from existing soil or groundwater data.

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*.

Persons who enter the site could contact contaminants in the soil by digging or otherwise disturbing the soil. Contaminated groundwater at the site is not used for drinking or other purposes and the site is served by a public water supply that obtains water from a different source not affected by this contamination. Volatile organic compounds in the groundwater may move into the soil vapor (air spaces within the soil), which in turn may move into overlying

buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. The potential for soil vapor intrusion to occur on-site is considered low based on current data but warrants further evaluation prior to occupancy of the new on-site building and any on-site future construction. Environmental sampling indicates soil vapor intrusion is not a concern for off-site buildings.

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.
- Prevent contact with, or inhalation of volatiles, from contaminated groundwater.

RAOs for Environmental Protection

- Prevent the discharge of contaminants to surface water.
- Remove the source of ground or surface water contamination.

Soil

RAOs for Public Health Protection

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

RAOs for Environmental Protection

- Prevent migration of contaminants that would result in groundwater or surface water contamination.

Soil Vapor

RAOs for Public Health Protection

- Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at a site.

SECTION 7: ELEMENTS OF THE SELECTED REMEDY

The alternatives developed for the site and the evaluation of the remedial criteria are presented in the Alternative Analysis. The remedy is selected pursuant to the remedy selection criteria set

forth in DER-10, Technical Guidance for Site Investigation and Remediation and 6 NYCRR Part 375.

The selected remedy is referred to as Track 4 Restricted Residential remedy.

Below are elements of the proposed remedy, performed in part, as an IRM (Figure 3):

1. Remedial Design

A remedial design program will be implemented to provide the details necessary for the construction, operation, optimization, maintenance, and monitoring of the remedial program. Green remediation principles and techniques will be implemented to the extent feasible in the design, implementation, and site management of the remedy as per DER-31. The major green remediation components are as follows;

- Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
- Reducing direct and indirect greenhouse gases and other emissions;
- Increasing energy efficiency and minimizing use of non-renewable energy;
- Conserving and efficiently managing resources and materials;
- Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste;
- Maximizing habitat value and creating habitat when possible;
- Fostering green and healthy communities and working landscapes which balance ecological, economic and social goals; and
- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.

2. Cover System

A site cover will be required to allow for restricted-residential use of the site. The cover will consist either of the structures such as buildings, pavement, sidewalks comprising the site development or a soil cover in areas where the upper two feet of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where the soil cover is required it will be a minimum of two feet of soil, meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for restricted residential use. The soil cover will be placed over a demarcation layer, with the upper layer of soil of sufficient quality to maintain a vegetation layer. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6 NYCRR Part 375-6.7(d).

3. Institutional Controls

Imposition of an institutional control in the form of an environmental easement for the controlled property that:

- requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);

- allows the use and development of the controlled property for restricted residential uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH; and
- requires compliance with the Department approved Site Management Plan.

4. Site Management Plan

A Site Management Plan is required, which includes the following:

- a. an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:

Institutional Controls: the Environmental Easement discussed above.

Engineering Controls: the cover system discussed above.

This plan includes, but may not be limited to:

- an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
- descriptions of the provisions of the environmental easement including any land use, and groundwater use restrictions;
- a provision for evaluation of the potential for soil vapor intrusion for the on-site building and any new buildings developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
- provisions for the management and inspection of the identified engineering controls;
- maintaining site access controls and Department notification; and
- the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

The operation of the components of the remedy will continue until the remedial objectives have been achieved, or until the Department determines that continued operation is technically impracticable or not feasible.

FIGURE 1



SCALE: 1 INCH = 3000 FEET
 SCALE IN FEET
 (approximate)

SITE LOCATION AND VICINITY MAP

RI/AA REPORT
 154 SOUTH OGDEN STREET SITE

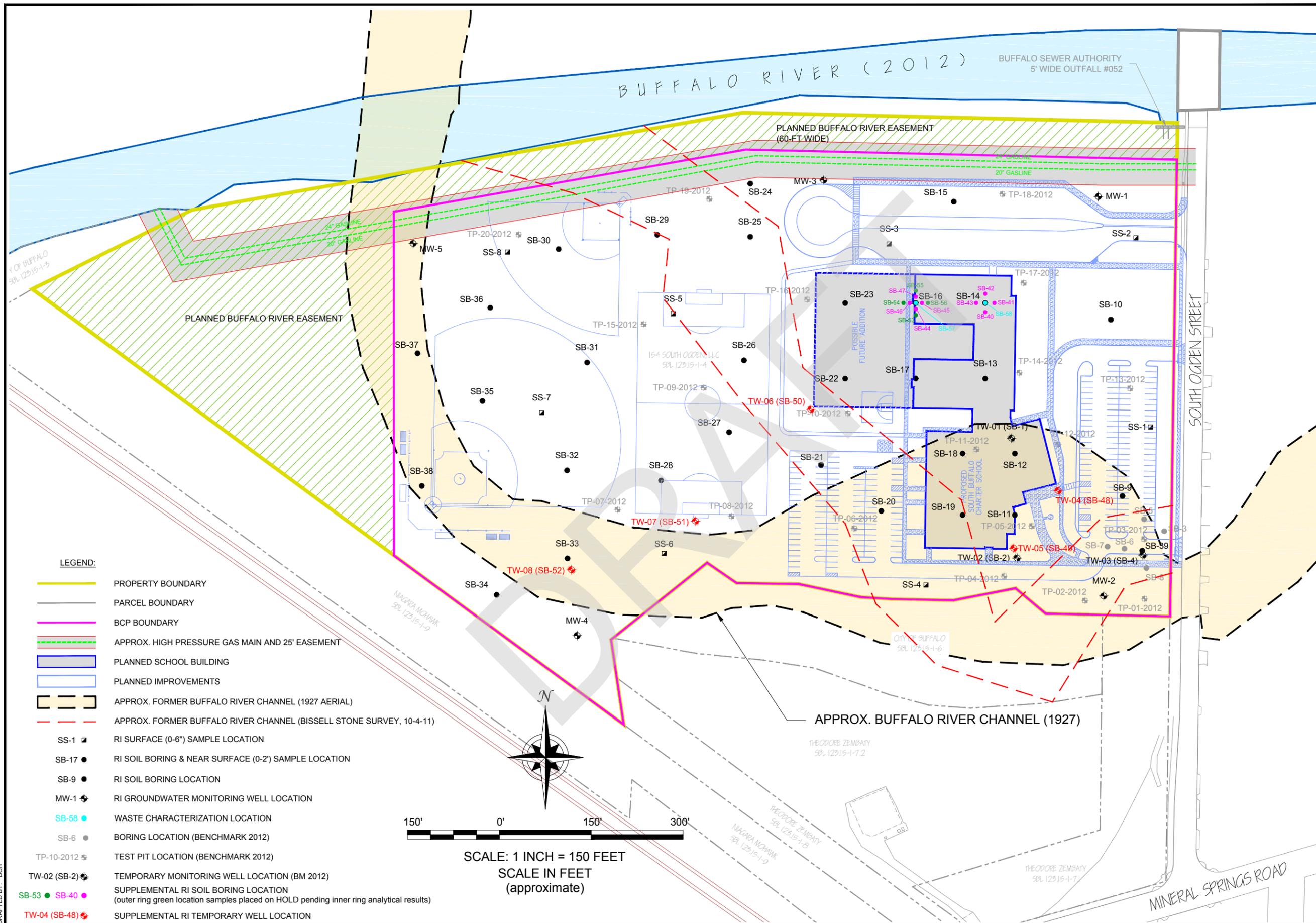
BUFFALO, NEW YORK
 PREPARED FOR
 154 SOUTH OGDEN, LLC



2558 HAMBURG TURNPIKE
 SUITE 300
 BUFFALO, NY 14218
 (716) 856-0599

PROJECT NO.: 0249-012-005
 DATE: MARCH 2013
 DRAFTED BY: AJZ

F:\CAD\Benchmark\154 South Ogden LLC (South Buffalo Charter School) (Site No. C915268)\Remedial Investigation Report\Figure 5, Supplemental RI Sample Locations.dwg



- LEGEND:**
- PROPERTY BOUNDARY
 - PARCEL BOUNDARY
 - BCP BOUNDARY
 - - - APPROX. HIGH PRESSURE GAS MAIN AND 25' EASEMENT
 - PLANNED SCHOOL BUILDING
 - PLANNED IMPROVEMENTS
 - - - APPROX. FORMER BUFFALO RIVER CHANNEL (1927 AERIAL)
 - - - APPROX. FORMER BUFFALO RIVER CHANNEL (BISELL STONE SURVEY, 10-4-11)
 - SS-1 ■ RI SURFACE (0-6") SAMPLE LOCATION
 - SB-17 ● RI SOIL BORING & NEAR SURFACE (0-2') SAMPLE LOCATION
 - SB-9 ● RI SOIL BORING LOCATION
 - MW-1 ⚡ RI GROUNDWATER MONITORING WELL LOCATION
 - SB-58 ● WASTE CHARACTERIZATION LOCATION
 - SB-6 ● BORING LOCATION (BENCHMARK 2012)
 - TP-10-2012 ⚡ TEST PIT LOCATION (BENCHMARK 2012)
 - TW-02 (SB-2) ⚡ TEMPORARY MONITORING WELL LOCATION (BM 2012)
 - SB-53 ● SB-40 ● SUPPLEMENTAL RI SOIL BORING LOCATION (outer ring green location samples placed on HOLD pending inner ring analytical results)
 - TW-04 (SB-48) ⚡ SUPPLEMENTAL RI TEMPORARY WELL LOCATION



SCALE: 1 INCH = 150 FEET
SCALE IN FEET (approximate)



DATE: MARCH 2013
DRAFTED BY: BCH

SUPPLEMENTAL RI SAMPLE LOCATIONS

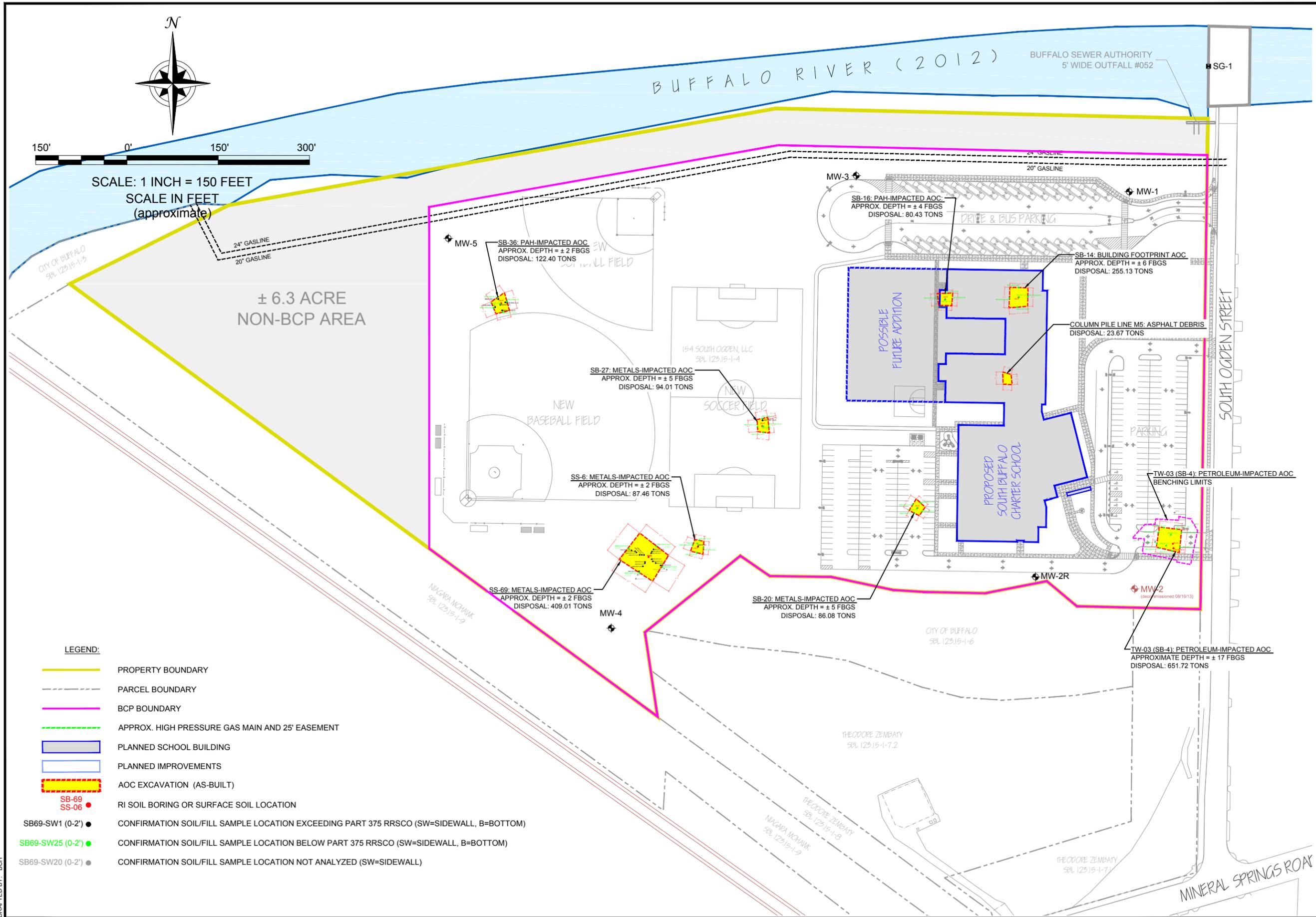
RI/AA REPORT
154 SOUTH OGDEN STREET SITE
BUFFALO, NEW YORK
PREPARED FOR
154 SOUTH OGDEN, LLC

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0599

JOB NO.: 0249-012-005

FIGURE 2



COMPLETED IRM ACTIVITIES

R/AA/IRM REPORT
 154 SOUTH OGDEN STREET SITE
 BUFFALO, NEW YORK
 PREPARED FOR
 154 SOUTH OGDEN, LLC

FIGURE 3