DECISION DOCUMENT

68 Tonawanda Street
Brownfield Cleanup Program
Buffalo, Erie County
Site No. C915316
August 2018

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

DECLARATION STATEMENT - DECISION DOCUMENT

68 Tonawanda Street
Brownfield Cleanup Program
Buffalo, Erie County
Site No. C915316
August 2018

Statement of Purpose and Basis

This document presents the remedy for the 68 Tonawanda Street 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 68 Tonawanda Street 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:

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. Excavation: Excavation and off-site disposal of contaminated soil and fill to 1-foot depth in areas where asphalt paving and concrete will be installed, 2-foot depth is areas where a clean soil

cover will be installed, and to native silty clay soils in areas where petroleum odors were documented during the Remedial Investigation. On-site soil and fill that does not exceed SCOs, excluding those materials that are grossly contaminated or exhibit nuisance odors, may be used to backfill the deeper excavations, and will be below the cover system described in Paragraph 3 below. Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) will be brought in to complete the backfilling of the excavations if necessary, and to establish the designed grades at the site. The site will be re-graded to accommodate the installation of a cover system described in Paragraph 3 below.

3. Cover System: A site cover will be required to allow for restricted residential, commercial or industrial use of the site in areas where the upper two feet of exposed surface soil exceeds the applicable soil cleanup objectives (SCOs). Where a soil cover is to be used it will be a minimum of two feet of soil placed over a demarcation layer, with the upper six inches of soil of sufficient quality to maintain a vegetative layer. Soil cover material, including any fill material brought to the site, will meet the SCOs for cover material for the use of the site as set forth in 6 NYCRR Part 375-6.7(d). Substitution of other materials and components may be allowed where such components already exist or are a component of the tangible property to be placed as part of site redevelopment. Such components may include, but are not necessarily limited to: pavement, concrete, paved surface parking areas, sidewalks, building foundations and building slabs.

4. Institutional Controls: Imposition of an institutional control in the form of an Environmental Easement for the controlled property that:

(a) 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);
(b) Allows the use and development of the controlled property for restricted residential, commercial or industrial use as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
(c) 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
(d) Requires compliance with the Department approved Site Management Plan.

5. 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 engineering controls remain in place and effective:

- Institutional Controls: The Environmental Easement discussed in Paragraph 4 above; and
- Engineering Controls: The site cover system discussed in Paragraph 3 above.

This plan includes, but may not be limited to:
- An Excavation Plan that 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 evaluating the potential for soil vapor intrusion prior to occupancy of any existing or future buildings constructed on the site, including the 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 periodic reviews and certification of the institutional and engineering controls.

(b) A Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:

- Monitoring of groundwater to assess the performance and effectiveness of the remedy;
- A schedule of monitoring and frequency of submittals to the Department; and
- Monitoring for vapor intrusion for any buildings on the site, as may be required by the Institutional and Engineering Control Plan discussed above.

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.

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: 2018.08.03 16:39:13 -04'00'

Date

Michael Cruden, Director
Remedial Bureau E

DECISION DOCUMENT

68 Tonawanda Street
Buffalo, Erie County
Site No. C915316
August 2018

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 repository:

Buffalo & Erie County Public Library, Riverside Branch
820 Tonawanda Street
Buffalo, NY 14207
Phone: 716-875-0562

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 68 Tonawanda Street Site is located on approximately 1.74 acres of land at 68 Tonawanda Street in the Black Rock section of the City of Buffalo, Erie County, New York. The site is bordered by rail lines and vacant undeveloped industrial and commercial properties to the west; a parcel of the 31 Tonawanda Street Site (Site No. C915299) to the north; Tonawanda Street, vacant commercial and industrial properties, the 57-71 Tonawanda Street Site (Site No. C915024) and Scajaquada Creek to the east; and a vacant residential/restaurant structure, a vehicle repair shop and Niagara Street to the south. The New York State Thruway and the Niagara River are located about 0.1 miles to the southwest.

Site Features:
The property contains the former New York Central Freight House and Office, a 1.5 story brick building constructed in the early 1900's. The building contains eight separate bays, does not have a basement, and is currently vacant. The building has been recommended as National Register Eligible for its association with the transportation and industrial history of the City of Buffalo at the local, national and international levels. North of the building is a lay-down area where steel and other materials were historically stored. This lay-down area extended north onto the adjoining vacant property.

The site is generally flat, but gently slopes from west to east and north to south. Surface drainage is primarily towards storm drains located along Tonawanda Street to the east.

Current Zoning and Land Use:
The property is currently zoned for commercial use and is vacant. Surrounding properties are zoned for commercial and industrial use, and are mostly vacant. Residential properties are located approximately 0.25 miles northwest of the site and approximately 0.25 miles to the southeast.

Past Use of the Site:
The property has been associated with rail operations since the mid-late 1800's. By the late 1800's the property contained freight platforms and separate freight depots. As a freight depot, much of the raw and manufactured products that supported the surrounding industry and residential community were on/off loaded to/from freight trains. By 1889, the Black Rock Passenger Station was located on the southern portion of the property with some sheds and other disconnected buildings including freight platforms and separate smaller freight houses extending north where the freight house is currently. By 1916 the freight house building had been constructed and rail lines extended across the adjacent northern property.

In February 2013, a Phase I Environmental Site Assessment (ESA) was completed for the property. This was followed by a limited Phase II ESA in March 2014, and a second Phase II ESA in January 2016 that added to the findings of the first assessment. The February Phase II ESA Report combined the findings of both assessments. These Phase II ESA's documented the presence of semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs) and metals at concentrations that exceeded the Department's Part 375 Residential and Restricted Residential soil cleanup objectives (SCOs). Volatile organic compounds and pesticides were also detected but at concentrations below the SCOs. Groundwater at the site was not evaluated during the Phase II ESA's.

Site Geology and Hydrogeology:
Fill material exists throughout the property to depths up to 6 feet below ground surface (bgs). The fill material consists mainly of black sand and ash with some silt, wood, brick and cement. Native reddish-brown clay or silty clay underlies the fill material. Bedrock was not encountered at the site; however, at the nearby Iroquois Gas/Westwood Pharmaceutical Site (Site No. 915141) depth to bedrock ranges from 72.3 to 89.2 feet bgs.

Four (4) overburden groundwater monitoring wells were installed at the 68 Tonawanda Street Site during the Remedial Investigation. Depth to groundwater at the site ranges from about 6 to 10 feet bgs. Groundwater flows to the southeast towards Scajaquada Creek. The site and surrounding area are serviced by a public water system not affected by site contamination; contaminated groundwater at the site and surrounding area is not used for drinking or other purposes.

A site location map is attached as Figure 1. The boundaries of the site are shown on Figure 2.

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, alternatives (or an alternative) that restrict(s) 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) were/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(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:

- air
- groundwater
- soil
- indoor air
- sub-slab vapor

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:

arsenic	acetone
benzo(a)anthracene	manganese
benzo(a)pyrene	selenium
benzo(b)fluoranthene	benzo[k]fluoranthene
chromium	dibenz[a,h]anthracene
chrysene	lead
copper	barium
indeno(1,2,3-CD)pyrene	polychlorinated biphenyls (PCB)
cadmium	

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.

There were no IRMs performed at this site during the RI.

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.

During the Phase II Environmental Site Assessments discussed above, and the BCP Remedial Investigation (RI) completed in February 2018, samples for analysis were collected from subsurface soil and fill, sub-slab soil vapor, indoor air, outdoor air, and groundwater. Surface soil samples were not collected for analysis as the site is covered with the building and parking lots. Surface water and sediment are not found at the site. Subsurface soil and fill were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), pesticides, polychlorinated biphenyls (PCBs), and metals. Groundwater was also analyzed for VOCs, SVOCs, pesticides, PCBs and metals. Sub-slab soil vapor, indoor air and outdoor air were analyzed for VOCs. These investigations determined that polycyclic aromatic hydrocarbons (PAHs) and select metals in fill were the primary contaminants of concern at the site. Petroleum odors in fill at a limited area of the site were also documented during the Remedial Investigation. Soil vapor intrusion is not a current concern at this site as the on-site building is vacant. Soil

vapor intrusion will be re-evaluated prior to occupancy of the building due to remaining TCE and other petroleum related vapors.

Remedial Investigation Results:

Soil:
Thirty-four (34) subsurface fill samples (1-6 feet depth) and three (3) native soil samples (6-12 feet depth) were collected from on-site and analyzed for VOCs, SVOCs, pesticides, PCBs, and metals. No VOCs or pesticides were detected above the Department's Part 375 Restricted Residential soil cleanup objectives (SCOs). PCBs were detected in two subsurface fill samples at concentrations (5.52 parts per million (ppm) and 5.6 ppm) that exceeded the Department's Part 375 Restricted Residential SCO of 1 ppm. These samples were collected from 1-6 feet depth and 2-4 feet depth, respectively.

Several SVOCs, specifically PAHs, were detected in on-site soils above the NYSDEC Part 375 Restricted Residential SCOs. These PAHs (with number of exceedances and highest concentrations) include the following:

benzo(a)anthracene (6 samples; 16.2 ppm; SCO = 1 ppm);
benzo(a)pyrene (5 samples; 18.9 ppm; SCO = 1 ppm);
benzo(b)fluoranthene (5 samples; 19.9 ppm; SCO = 1 ppm);
benzo(k)fluoranthene (2 samples; 9.9 ppm; SCO = 3.9 ppm);
chrysene (3 samples; 17.5 ppm; SCO = 3.9 ppm);
dibenz[a,h]anthracene (2 samples; 1.81 ppm; SCO = 0.33 ppm); and
indeno(1,2,3-cd)pyrene (6 samples; 6.14 ppm; SCO = 0.5 ppm).

Metals were detected in on-site soils above the Department's Part 375 Restricted Residential SCOs. These metals (with number of exceedances and highest concentrations) include the following:

arsenic (6 samples; 48.4 ppm; SCO = 16 ppm);
barium (1 sample; 404 ppm; SCO = 400 ppm);
cadmium (2 samples; 11.7 ppm; SCO = 4.3 ppm);
chromium (1 sample; 191 ppm; SCO = 180 ppm);
copper (7 samples; 1960 ppm; SCO = 270 ppm);
lead (3 samples; 1470 ppm; SCO = 400 ppm); and
manganese (1 samples; 2090 ppm; SCO = 2000 ppm).

Groundwater:
Four overburden groundwater samples were collected from on-site wells and analyzed for VOCs, SVOCs, pesticides, PCBs, and metals. Contaminants that exceeded the Department's groundwater standards (with number of exceedances and highest concentrations) include the following:

acetone (2 samples; 148 parts per billion (ppb); Groundwater Standard = 50 ppb);
naphthalene (2 samples; 118 ppb; Groundwater Standard = 10 ppb);

PCBs (1 sample; 0.24 ppb; Groundwater Standard = 0.09 ppb);
chromium (1 sample; 447 ppb; Groundwater Standard = 50 ppb);
manganese (3 samples; 585 ppb; Groundwater Standard = 300 ppb); and
selenium (2 samples; 33.3 ppb; Groundwater Standard = 10 ppb).

It is important to note that the two groundwater samples exhibiting the most exceedances had high turbidity. High turbidity often results in artificially elevated contaminant levels that may not represent the actual groundwater conditions at a site.

Sub-Slab Soil Vapor, Indoor Air, and Outdoor Air:
Five (5) sub-slab soil vapor samples below the freight house were collected during the RI. Contaminants detected in these samples (with highest concentrations) include the following:

benzene (5 samples; 69.0 micrograms per cubic meter (ug/m3));
ethylbenzene (2 samples; 0.82 ug/m3);
methyl ethyl ketone (5 samples; 16.0 ug/m3);
m&p-xylene (5 samples; 8.0 ug/m3);
o-xylene (1 sample; 1.1 ug/m3);
toluene (5 samples; 92.0 ug/m3); and
trichloroethene (5 samples; 6.1 ug/m3).

Two (2) indoor air samples from the freight house were collected and analyzed for VOCs. Contaminants detected in these samples (with highest concentrations) include the following:

benzene (2 samples; 1.5 ug/m3);
ethylbenzene (1 sample; 4.9 ug/m3);
methyl ethyl ketone (2 samples; 34.0 ug/m3);
m&p-xylene (2 samples; 20.0 ug/m3);
o-xylene (2 samples; 8.0 ug/m3);
toluene (2 samples; 130 ug/m3); and
trichloroethene (2 samples; 0.38 ug/m3).

One (1) outdoor air sample was collected and analyzed for VOCs. Contaminants detected in this sample (with highest concentrations) include the following:

benzene (1 sample; 0.48 ug/m3);
ethylbenzene (not detected);
methyl ethyl ketone (1 sample; 1.3 ug/m3);
m&p-xylene (1 sample; 0.61 ug/m3);
o-xylene (not detected);
toluene (1 sample; 4.6 ug/m3); and
trichloroethene (1 sample; 0.32 ug/m3).

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*.

People who enter the site may contact contaminants in soil by digging or otherwise disturbing the soil. People are not drinking the contaminated groundwater because the area is served by a public water supply that is not affected by this contamination. Volatile organic compounds in the soil and groundwater may move into soil vapor (air spaces within the soil), which in turn may move into overlying buildings. The site is vacant so inhalation of site contaminants in indoor air through vapor intrusion is not a current concern. However, the potential exists for inhalation of site contaminants due to soil vapor intrusion for any future on-site development/occupancy.

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.

RAOs for Environmental Protection

- Restore ground water aquifer to pre-disposal/pre-release conditions, to the extent practicable.

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 a Track 4: Restricted use with site-specific soil cleanup objectives remedy, and is referred to as the Cover System with Institutional Controls remedy.

The elements of the selected remedy, as shown in Figure 4, are as follows:

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. Excavation: Excavation and off-site disposal of contaminated soil and fill to 1-foot depth in areas where asphalt paving and concrete will be installed, 2-foot depth is areas where a clean soil cover will be installed, and to native silty clay soils in areas where petroleum odors were documented during the Remedial Investigation. On-site soil and fill that does not exceed SCOs, excluding those materials that are grossly contaminated or exhibit nuisance odors, may be used to backfill the deeper excavations, and will be below the cover system described in Paragraph 3 below. Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) will be brought in to complete the backfilling of the excavations if necessary, and to establish the designed grades at the site. The site will be re-graded to accommodate the installation of a cover system described in Paragraph 3 below.

3. Cover System: A site cover will be required to allow for restricted residential, commercial or industrial use of the site in areas where the upper two feet of exposed surface soil exceeds the applicable soil cleanup objectives (SCOs). Where a soil cover is to be used it will be a minimum of two feet of soil placed over a demarcation layer, with the upper six inches of soil of sufficient

quality to maintain a vegetative layer. Soil cover material, including any fill material brought to the site, will meet the SCOs for cover material for the use of the site as set forth in 6 NYCRR Part 375-6.7(d). Substitution of other materials and components may be allowed where such components already exist or are a component of the tangible property to be placed as part of site redevelopment. Such components may include, but are not necessarily limited to: pavement, concrete, paved surface parking areas, sidewalks, building foundations and building slabs.

4. Institutional Controls: Imposition of an institutional control in the form of an Environmental Easement for the controlled property that:

(a) 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);
(b) Allows the use and development of the controlled property for restricted residential, commercial or industrial use as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
(c) 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
(d) Requires compliance with the Department approved Site Management Plan.

5. 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 engineering controls remain in place and effective:

- Institutional Controls: The Environmental Easement discussed in Paragraph 4 above; and
- Engineering Controls: The site cover system discussed in Paragraph 3 above.

This plan includes, but may not be limited to:
- An Excavation Plan that 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 evaluating the potential for soil vapor intrusion prior to occupancy of any existing or future buildings constructed on the site, including the 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 periodic reviews and certification of the institutional and engineering controls.

(b) A Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:

- Monitoring of groundwater to assess the performance and effectiveness of the remedy;

- A schedule of monitoring and frequency of submittals to the Department; and
- Monitoring for vapor intrusion for any buildings on the site, as may be required by the Institutional and Engineering Control Plan discussed above.

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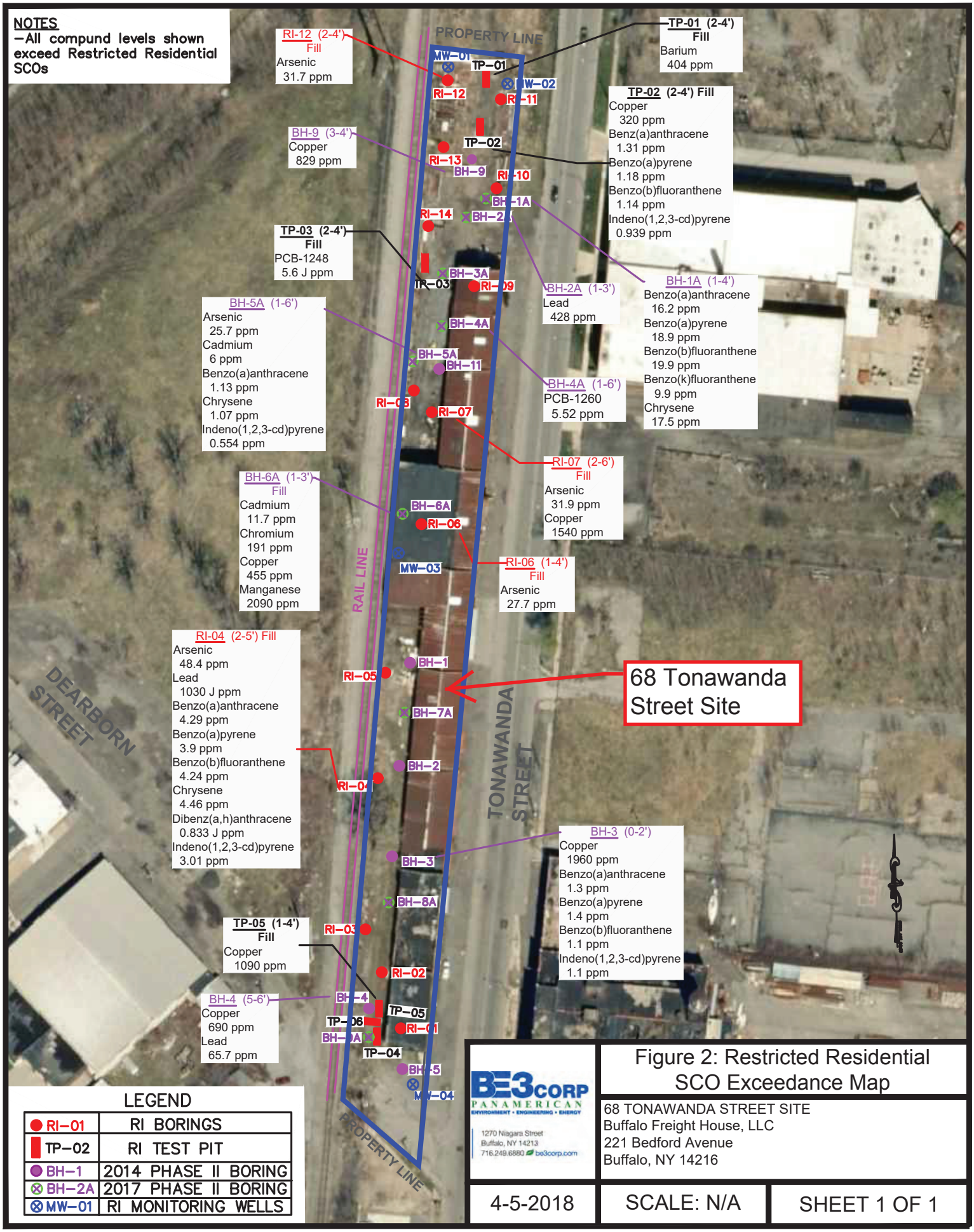
1270 Niagara Street
Buffalo, NY 14213
716.249.6880 be3corp.com

Figure 1: Site Location Map

68 TONAWANDA STREET SITE
Buffalo Freight House, LLC
221 Bedford Avenue
Buffalo, NY 14216

06-10-2017	SCALE: N/A	SHEET 1 OF 1



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1270 Niagara Street
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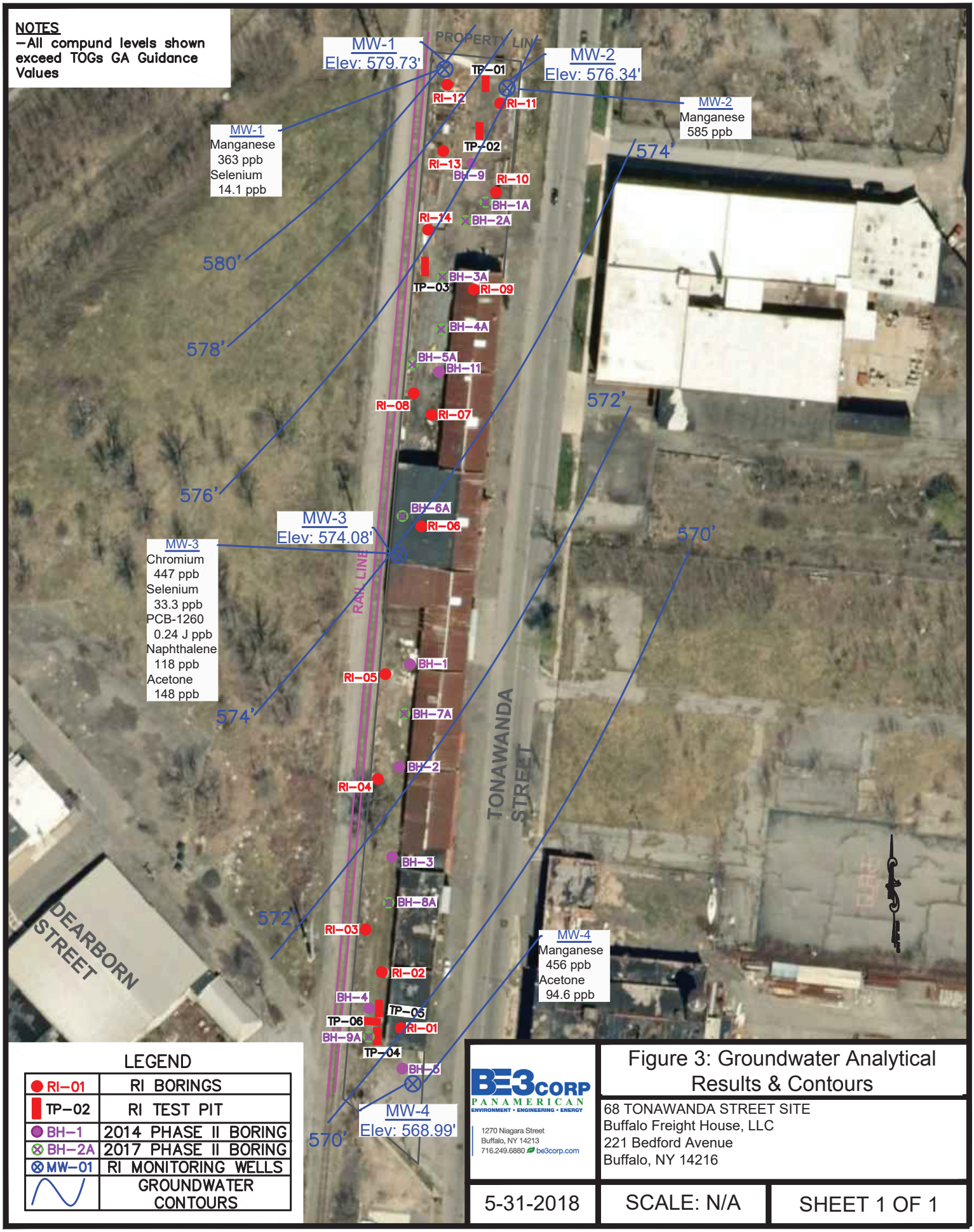
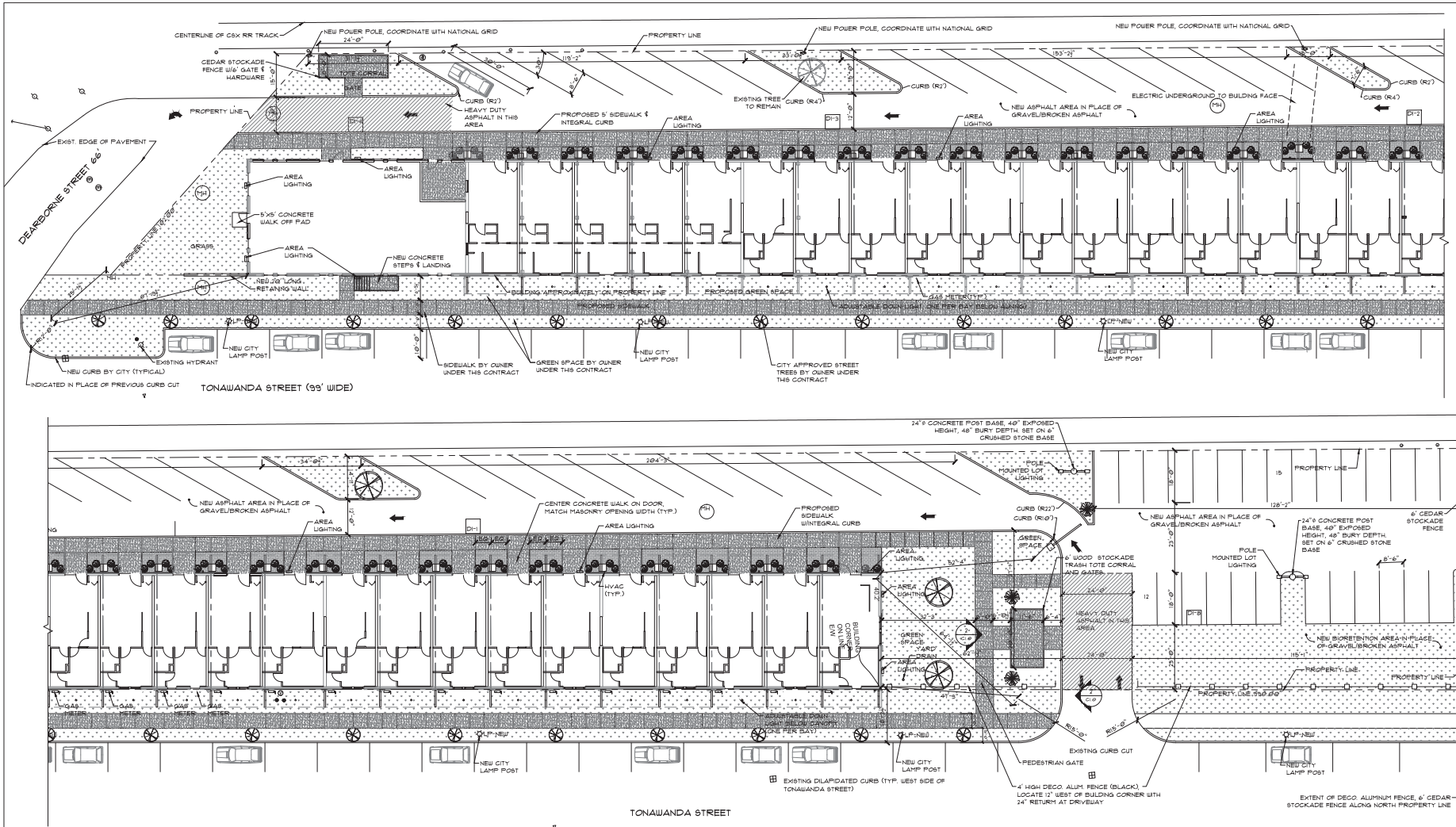
Figure 2: Restricted Residential SCO Exceedance Map

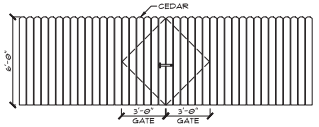
68 TONAWANDA STREET SITE
Buffalo Freight House, LLC
221 Bedford Avenue
Buffalo, NY 14216

4-5-2018 | SCALE: N/A | SHEET 1 OF 1

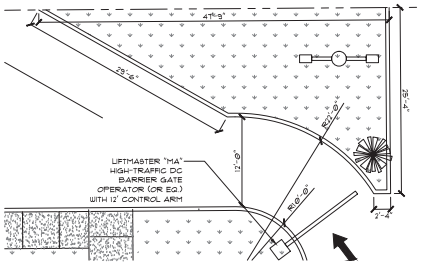

NOTES
–All compund levels shown exceed TOGs GA Guidance Values
MW-1
Elev: 579.73'
PROPERTY LINE
MW-2
Elev: 576.34'
TP–01
RI–12
RI–11
MW-1
Manganese
363 ppb
Selenium
14.1 ppb
MW-2
Manganese
585 ppb
TP–02
RI–13
BH–9
RI–10
BH–1A
RI–14
BH–2A
580'
574'
BH–3A
TP–03
RI–09
578'
BH–4A
BH–5A
BH–11
RI–08
RI–07
572'
576'
BH–6A
RI–06
MW-3
Elev: 574.08'
570'
MW-3
Chromium
447 ppb
Selenium
33.3 ppb
PCB-1260
0.24 J ppb
Naphthalene
118 ppb
Acetone
148 ppb
RAIL LINE
BH–1
RI–05
574'
BH–7A
TONAWANDA STREET
BH–2
RI–04
BH–3
BH–8A
572'
RI–03
MW-4
Manganese
456 ppb
Acetone
94.6 ppb
DEARBORN STREET
RI–02
BH–4
TP–05
TP–06
RI–01
BH–9A
TP–04
BH–5
MW-4
Elev: 568.99'
570'
LEGEND
RI–01 RI BORINGS
TP–02 RI TEST PIT
BH–1 2014 PHASE II BORING
BH–2A 2017 PHASE II BORING
MW–01 RI MONITORING WELLS
GROUNDWATER CONTOURS
BE3CORP
PANAMERICAN
ENVIRONMENT • ENGINEERING • ENERGY
1270 Niagara Street
Buffalo, NY 14213
716.249.6880 be3corp.com
Figure 3: Groundwater Analytical Results & Contours
68 TONAWANDA STREET SITE
Buffalo Freight House, LLC
221 Bedford Avenue
Buffalo, NY 14216
5-31-2018
SCALE: N/A
SHEET 1 OF 1



1 ARCHITECTURAL SITE PLAN
1/16"=1'-0"
SEE SURVEY & CIVIL PLANS FOR DIMENSIONS & FURTHER INFORMATION



2 TRASH TOTE CORRAL
1/4"=1'-0"



2 ENLARGED PARTIAL PLAN
1/8"=1'-0"

Figure 4: Site Cover System Map

THE FRIZLEN GROUP ARCHITECTS
257 LAFAYETTE AVENUE
SUITE 102
BUFFALO, NEW YORK 14213
TEL: (716) 854-0480 FAX: (716) 854-0310 EMAIL: info@tfgarch.com

ADAPTIVE RE-USE
68 TONAWANDA STREET
BUFFALO, NY 14207

ARCHITECTURAL SITE PLAN

TFG #: 2171

IFC Date:	APRIL 9, 2018
Designed by:	JPB
Drawn by:	JPB
Checked by:	KF
Approved by:	JPB

Revisions # Description

Sheet No. C1.0