

DECISION DOCUMENT

Former Buffalo Forge Property
Brownfield Cleanup Program
Buffalo, Erie County
Site No. C915280
August 2018



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

DECLARATION STATEMENT - DECISION DOCUMENT

Former Buffalo Forge Property
Brownfield Cleanup Program
Buffalo, Erie County
Site No. C915280
August 2018

Statement of Purpose and Basis

This document presents the remedy for the Former Buffalo Forge Property 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 Former Buffalo Forge Property 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 contaminant source areas, including:

- grossly contaminated soil, as defined in 6 NYCRR Part 375-1.2(u);
- soils that create a nuisance condition, as defined in Commissioner Policy CP-51 Section G; and
- soil below the cover system exceeding the site-specific soil cleanup objectives (SCOs) below:
arsenic - 30 ppm, cadmium - 60 ppm, lead - 2200 ppm, and manganese - 10,000 ppm.
- black sand encountered during site remediation and development activities.

Approximately 23,184 cubic yards (cy) of contaminated soil will be removed from the site including excavation and removal of any underground storage tanks (USTs), fuel dispensers, underground piping or other structures associated with a source of contamination.

Following implementation of these remedial excavation conformance sampling will be required. If conformance sampling demonstrates site related contaminants have migrated off-site, and this off-site contamination may adversely impact public health and/or the environment, the Participant will be required to remediate those impacts.

3. Backfill

On-site soil which does not exceed the above excavation criteria may be used below the cover system described in remedy element 4 to backfill the excavation to establish the designed grades at the site.

Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) will be brought in to replace the excavated soil or complete the backfilling of the excavation and establish the designed grades at the site.

The site will be re-graded to accommodate installation of a cover system as described in remedy element 4.

4. Cover System

A site cover will be required to allow for restricted residential use and commercial use of the site in areas where the upper two feet, and upper one foot respectively, of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where a soil cover is to be used, it will be a minimum of two feet of soil in restricted residential use areas and one foot thick in commercial use areas. The soil cover will be 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.

5. Engineering and Institutional Controls

Imposition of an institutional control in the form of an environmental easement and a Site Management Plan, as described below, will be required. The remedy will achieve a Track 4 restricted residential cleanup at a minimum in the restricted residential use area and a Track 4 commercial cleanup at a minimum in the commercial use area, and will include an environmental easement, and site management plan as described below.

Institutional Control

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

- require 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);
- in the area achieving a Track 4 restricted residential use cleanup, allow the use and development of the controlled property for restricted residential use, commercial use and industrial use, as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- in the area achieving a Track 4 commercial use cleanup, allow the use and development of the controlled property for commercial use and industrial use, as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restrict 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
- require compliance with the Department approved Site Management Plan.

6. Site Management Plan

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

- 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 in Paragraph 5 above.
- Engineering Controls: The soil cover discussed in Paragraph 4 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 that should a building foundation or building slab be removed in the future, a cover system consistent with that described in Paragraph 4 above will be placed in any areas where the upper one foot (commercial use area) or two feet (restricted residential use area) of exposed surface soil exceed the applicable soil cleanup objectives (SCOs);
- 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.

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

Former Buffalo Forge Property
Buffalo, Erie County
Site No. C915280
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 and Erie County Public Library
Attn: Carol Ann Batt
1 Lafayette Square
Buffalo, NY 14203
Phone: 716-858-8900

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 Former Buffalo Forge site is a 12.48-acre site comprised of seven non-contiguous, adjacent parcels, located at 490 and 498 Broadway, 187, 213 and 233 Mortimer Street, and 298 and 516 Spring Street in the City of Buffalo.

Site Features: The site is relatively flat and vacant, with grass vegetation and asphalt parking areas. The site is comprised of seven parcels, each having a separate address, though the site is often identified as being located at 490 Broadway.

Current Zoning and Land Use: The site is currently inactive, and is zoned for commercial and industrial uses. There are currently no buildings on-site. The surrounding parcels are currently used for a combination of residential, commercial, light industrial, and utility right-of-way's. The site is immediately surrounded by residential development.

Past Use of the Site: Until the early 1990s the site was used for manufacturing including foundry operations. Prior uses that appear to have led to site contamination include a machine shop, blacksmith/foundry, and numerous underground storage tanks (USTs). Former investigations noted black foundry sand intermixed with fill from approximately 0.5 - 3.0 feet below ground surface (fbgs). Prior to decommissioning and demolition of site buildings in 2006/2007, all USTs identified were removed including limited contaminated soil excavation and disposal, on the 490 Broadway parcel of the site.

Site Geology and Hydrogeology: The site is generally overlain by 1 foot of miscellaneous cover material (soil, blacktop, foundations), underlain by up to 1.7 foot of fill/foundry sand followed by 3 feet of fill (silt, sand, gravel, brick, and wood), and 4.5 feet of native clay/silt. Depth to bedrock is approximately 2-11.5 fbgs. The depth of groundwater is approximately 6-9 fbgs and flows southeast.

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 restrict(s) the use of the site to restricted-residential use (which allows for commercial 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 restricted residential 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 Participant. The Applicant has an obligation to address on-site and off-site contamination. 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:

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	benzo(a)anthracene
antimony	benzo(a)pyrene
arsenic	benzo[k]fluoranthene
barium	benzo[b]fluoranthene
cadmium	dibenz[a,h]anthracene
chromium	indeno(1,2,3-CD) pyrene
copper	chrysene
mercury	1,2,4-trimethylbenzene
manganese	poly-chlorinated biphenyls (PCBs)
selenium	petroleum
zinc	

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.

Nature and Extent of Contamination:

Based upon investigations conducted to date, the primary contaminants of concern include grossly contaminated material (GCM) impacted with petroleum, metals (arsenic, cadmium, copper, chromium, lead, nickel, manganese, mercury, zinc), Poly-cyclic aromatic hydrocarbons (PAHs), and poly-chlorinated biphenyls (PCBs).

Soil

On-site upper fill (0 to 2 fbg) and lower fill (2 to 9- fbg) samples were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), pesticides/herbicides, polychlorinated biphenyls (PCBs), and metals.

The following PAHs were detected above Restricted Residential Soil Cleanup Objectives (RRSCOs) in the upper fill layer: benzo(a)anthracene (up to 20 parts per million [ppm] vs RRSCO 1 ppm), benzo(a)pyrene (up to 13 ppm vs RRSCO 1 ppm), benzo(b)fluoranthene (up to 19 ppm vs RRSCO 1 ppm), benzo(k)fluoranthene (up to 9.48 ppm vs RRSCO 1 ppm), dibenz[a,h]anthracene (up to 5.9 ppm vs RRSCO 0.33 ppm), indeno (1,2,3-CD) pyrene (up to 16 ppm vs RRSCO 0.5 ppm), and chrysene (up to 14.9 ppm vs RRSCO 3.9 ppm).

The following PAHs were detected above RRSCOs in the lower fill layer: benzo(a)anthracene (up to 31 parts per million [ppm] vs RRSCO 1 ppm), benzo(a)pyrene (up to 47 ppm vs RRSCO 1 ppm), benzo(b)fluoranthene (up to 72 ppm vs RRSCO 1 ppm), benzo(k)fluoranthene (up to 25 ppm vs RRSCO 1 ppm), dibenz[a,h]anthracene (up to 14 ppm vs RRSCO 0.33 ppm), indeno (1,2,3-CD) pyrene (up to 58 ppm vs RRSCO 0.5 ppm), and chrysene (up to 44 ppm vs RRSCO 3.9 ppm).

Total PAHs in all cases are below 500 ppm.

Metals detected above RRSCOs in the upper fill layer included arsenic (up to 20.9 ppm vs RRSCO 16 ppm), cadmium (up to 48.6 ppm vs RRSCO 4.3 ppm), barium (up to 1,190 ppm vs RRSCO 400 ppm), chromium (up to 3,710 ppm vs RRSCO 110 ppm), copper (up to 4,860 ppm vs RRSCO 270 ppm), lead (up to 5,590 ppm vs RRSCO 400 ppm), manganese (up to 31,800 ppm vs RRSCO 2,000 ppm), and mercury (up to 6.4 ppm vs RRSCO 0.81 ppm).

Metals detected above RRSCOs in the lower fill layer include arsenic (up to 391 ppm vs RRSCO 16 ppm), cadmium (up to 92.7 ppm vs RRSCO 4.3 ppm), barium (up to 1,210 ppm vs RRSCO 400 ppm), chromium (up to 389 ppm vs RRSCO 110 ppm), copper (up to 1,280 ppm vs RRSCO 270 ppm), lead (up to 1,020 ppm vs RRSCO 400 ppm), manganese (up to 3,530 ppm vs RRSCO 2,000 ppm), and mercury (up to 1.2 ppm vs RRSCO 0.81 ppm).

PCBs were detected (up to 4.03 ppm vs RRSCO 1 ppm) in the lower fill layer.

No VOCs, pesticides, or herbicides were detected above RRSCOs.

Existing data does not confirm no off-site impacts to soil from site related contaminants. Following implementation of the remedial excavations confirmatory samples will be collected along excavation sidewalls. Off-site impacts will be addressed by the Participant.

Groundwater:

Groundwater samples were collected and analyzed for VOCs, SVOCs, metals, PCBs, pesticides, and herbicides. Metals including antimony, lead, manganese, and selenium and the VOC 1,2,4-trimethylbenzene were detected above NYSDEC TOGS 1.1.1 Class GA Groundwater Quality Standards (GWQS).

1,2,4-trimethylbenzene (up to 6.6 parts per billion [ppb] vs 1 ppb GWQS), was detected above GWQS at one location. Metals, including antimony (up to 4.5 ppb vs 3.0 ppb GWQS), lead (up to 80.2 ppb vs 25.0 ppb GWQS), manganese (up to 831 ppb vs 300 ppb GWQS), and selenium (up to 21.6 ppb vs 10.0 ppb GWQS) were detected above GWQS.

No PCBs, pesticides, or herbicides were detected above GWQS.

Data does not indicate any off-site impacts in groundwater related to this site.

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*.

Access to the site is unrestricted. People can contact with contaminants in soil by walking on the site, digging or otherwise disturbing the soil. Contact with contaminated groundwater is unlikely unless they dig below the ground surface. People are not drinking the contaminated groundwater because the area is served by a public water supply that is not affected by this contamination.

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

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.

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

The elements of the selected remedy, as shown in Figure 2, 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;
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- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.

2. Excavation

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- grossly contaminated soil, as defined in 6 NYCRR Part 375-1.2(u);
- soils that create a nuisance condition, as defined in Commissioner Policy CP-51 Section G; and
- soil below the cover system exceeding the site-specific soil cleanup objectives (SCOs) below: arsenic - 30 ppm, cadmium - 60 ppm, lead - 2200 ppm, and manganese - 10,000 ppm.
- black sand encountered during site remediation and development activities.

Approximately 23,184 cubic yards (cy) of contaminated soil will be removed from the site including excavation and removal of any underground storage tanks (USTs), fuel dispensers, underground piping or other structures associated with a source of contamination.

Following implementation of these remedial excavation conformance sampling will be required.

If conformance sampling demonstrates site related contaminants have migrated off-site, and this off-site contamination may adversely impact public health and/or the environment, the Participant will be required to remediate those impacts.

3. Backfill

On-site soil which does not exceed the above excavation criteria may be used below the cover system described in remedy element 4 to backfill the excavation to establish the designed grades at the site.

Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) will be brought in to replace the excavated soil or complete the backfilling of the excavation and establish the designed grades at the site.

The site will be re-graded to accommodate installation of a cover system as described in remedy element 4.

4. Cover System

A site cover will be required to allow for restricted residential use and commercial use of the site in areas where the upper two feet, and upper one foot respectively, of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where a soil cover is to be used, it will be a minimum of two feet of soil in restricted residential use areas and one foot thick in commercial use areas. The soil cover will be 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.

5. Engineering and Institutional Controls

Imposition of an institutional control in the form of an environmental easement and a Site Management Plan, as described below, will be required. The remedy will achieve a Track 4 restricted residential cleanup at a minimum in the restricted residential use area and a Track 4 commercial cleanup at a minimum in the commercial use area, and will include an environmental easement, and site management plan as described below.

Institutional Control

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

- require 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);
- in the area achieving a Track 4 restricted residential use cleanup, allow the use and development of the controlled property for restricted residential use, commercial use and industrial use, as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- in the area achieving a Track 4 commercial use cleanup, allow the use and development of the controlled property for commercial use and industrial use, as defined by Part 375-1.8(g), although land use is subject to local zoning laws;

- restrict 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
- require compliance with the Department approved Site Management Plan.

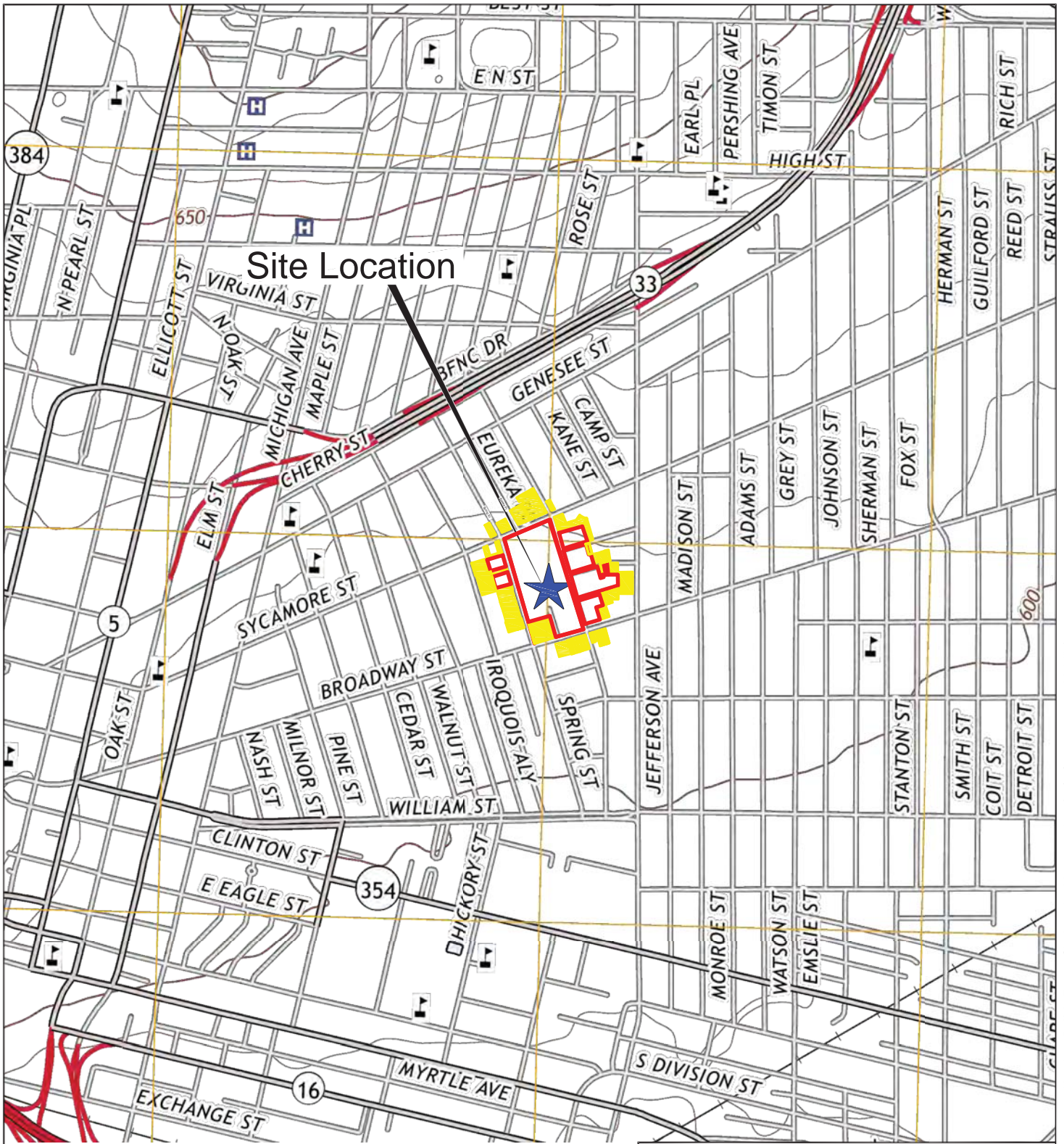
6. Site Management Plan

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

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- Institutional Controls: The Environmental Easement discussed in Paragraph 5 above.
- Engineering Controls: The soil cover discussed in Paragraph 4 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 that should a building foundation or building slab be removed in the future, a cover system consistent with that described in Paragraph 4 above will be placed in any areas where the upper one foot (commercial use area) or two feet (restricted residential use area) of exposed surface soil exceed the applicable soil cleanup objectives (SCOs);
- 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.



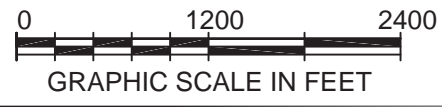
Site Location



Legend
 BCP Parcel Outline
 Adjoining Property to Site Parcels

ROAD CLASSIFICATION			
Interstate Route		State Route	
US Route		Local Road	
Ramp		4WD	
	Interstate Route		US Route
	State Route		

Source: Base Map - USGS Topo
 Buffalo NE Quad
 New York - Erie Co.
 7.5 Minute Series - 2013



TITLE			
Site Location Map Former Buffalo Forge Facility 490 Broadway, Buffalo, NY 14204			
PREPARED FOR			
Howden North America Inc.			
DRAWN BY		SCALE	DATE
EMF		GRAPHIC	23 DECEMBER 2013
JOB NO.		FIGURE	
0181805.0001		1	

DRAFT



Note:

- Sand sample designations ending with a letter represent discrete grab locations of one composite sample (e.g., composite sample SAND-104 was collected from discrete locations SAND-104A, SAND-104B, etc.).
- Perimeter grading excavation areas are not drawn to scale for illustration purpose.
- All excavations will be to depths required by site redevelopment plans or as determined by the QEP based on field inspection.
- A geotextile delineation fabric liner will be placed at the bottom of all excavations prior to any backfill placement to identify excavation extents.



- Legend**
- BCP Parcel Boundaries
 - Remedial Excavations**
 - Grossly Contaminated Media (GCM) - 4+ ft. Excavation
 - Site Specific Action Level Exceedance Locations, Sample Depth, and Analyte Concentration
 - Site Specific Action Level Exceedance Excavations (20x20 ft)
 - Site Redevelopment**
 - Foundation Excavation (10 ft. wide by 4 ft. deep)
 - Asphalt / Parking Lot Excavation and Cover System - 6 inch Excavation
 - Perimeter Grading - 4 ft. Wide Excavation
 - City-Compliant Restricted Residential - 2 ft. Excavation and Add 2 ft. Cover
 - City-Compliant Restricted Residential Use - Add 2 ft. Cover
 - Building Cover System
 - City-Compliant Commercial Use - Add 1 ft. Cover
 - Proposed Commercial Use - Add 1 ft. Cover in all Areas not Covered by Buildings or Pavement
- All studies, designs, reports and other work products generated by ERM as a result of this project are solely intended to be used for the benefit of Howden, SAAKC Buffalo Forge, LLC, and for the current project. No re-use by third-parties is authorized except as pre-approved by Howden and ERM. ERM will not retain any liability for the unauthorized use of ERM work products.*

Figure 2: Recommended Remedial Alternative - Alternative 3 - Remove GCM, Remediate Site to SSALs, and Place Cover Former Buffalo Forge Facility Buffalo, New York

C:\hammond\clients_e\howden\buffaloforge\report\redevelopment\figure2\figure2_interna..._BF_ExecutiveSummary_SitePlan\BuffaloForge_SitePlan\BuffaloForge_Cadastre_20180227.mxd - Dan Heckerhead - 5/23/2018