NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Remedial Bureau E
625 Broadway, 12th Floor, Albany, NY 12233-7017
P: (518) 402-9813 I F: (518) 402-9819
www.dec.ny.gov

September 24, 2019

Mr. Joseph Hecht
Pierce Arrow LLC
4706 18th Street
Brooklyn, New York 11204

Pierce Arrow Kanaka LLC
2150 Wehrle Drive, Suite 400
Williamsville, New York 14221

RE: Pierce Arrow, Site No: C915308, City of Buffalo, Erie County
Remedial Investigation/Interim Remedial Measures/Alternatives Analysis Report & Decision Document

Dear Mr. Hecht:

The New York State Department of Environmental Conservation (Department) and the New York State Department of Health (NYSDOH) have reviewed the Remedial Investigation/Interim Remedial Measures/Alternatives Analysis Report (RI/IRM/AAR) for the Pierce Arrow site, revised July 9, 2019 and prepared by C&S Engineers, Inc., on behalf of Pierce Arrow. The RI/IRM/AAR is hereby approved. Please ensure that a copy of the approved RI/AAR is placed in the document repository. The draft plan should be removed.

Enclosed is a copy of the Department's Decision Document for the site. The remedy is to be implemented in accordance with this Decision Document. Please ensure that a copy of the Decision Document is placed in the document repository.

Please contact the Department's Project Manager, Anthony Lopes, 716-851-7220 at your earliest convenience to discuss next steps. Please recall the Department requires notice seven (7) days prior to the start of field work.

Sincerely,

Michael J. Cruden, P.E.
Director
Remedial Bureau E
Division of Environmental Remediation

Enclosure

ec: M. Ryan, NYSDEC
G. Heitzman, NYSDEC
C. Staniszewski, Region 9, NYSDEC
J. Dyber, NYSDEC
A Lopes, Region 9, NYSDEC
J. Dougherty, Region 9, NYSDEC
C. Vooris, NYSDOH
C. Bethoney, NYSDOH
W. Kuehner, NYSDOH
R. Murray, bmurray@harrisbeach.com
D. Riker, C&S Companies, DRiker@cscos.com
M. Romanowski, Esq., mromanowski@hsr-legal.com
Matt Gokey, matthew.gokey@tax.ny.gov
Matt Culotti, matthew.culotti@tax.ny.gov

DECISION DOCUMENT

Pierce Arrow
Brownfield Cleanup Program
Buffalo, Erie County
Site No. C915308
September 2019

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

DECLARATION STATEMENT - DECISION DOCUMENT

Pierce Arrow
Brownfield Cleanup Program
Buffalo, Erie County
Site No. C915308
September 2019

Statement of Purpose and Basis

This document presents the remedy for the Pierce Arrow 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 Pierce Arrow 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 gas 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;

- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development; and

- Additionally, to incorporate green remediation principles and techniques to the extent feasible in the future development at this site, any future on-site buildings will include, at a minimum, a 20-mil vapor barrier/waterproofing membrane on the foundation to improve energy efficiency as an element of construction

2. Removal of Transformers
Three transformers located inside the Administrative Building will be properly drained of fluids and disposed/recycled off-site. The drained fluids will be sampled and properly disposed off-site.

3. Tank Closure
The 500-gallon underground storage tank (UST) located west of the Garage Building used for heating oil will be emptied, cleaned and properly abandoned in-place. Any removed liquid and sediment will be properly disposed off-site.

4. Clean Pipes with Oily Sediment
Cast iron pipes containing oily sediment located in the southwest area of the Garage Building will be cleaned out and sediment/liquid properly disposed of.

5. Remove Remaining Fill Material Inside UST Vault
Remove all fill material inside the UST vault located outside the northeastern corner of the Administration Building. A sample will be collected underneath the vault to confirm Track 1 unrestricted soil cleanup objectives (SCOs) prior to backfilling vault in place.

6. Cover System
A site cover will be required over the Track 4 areas of the site only, to allow for restricted residential use of the site in areas where the upper two feet 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 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: concrete, paved surface parking areas, sidewalks, building foundations, and building slabs.

7. 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 over Track 4 areas of the site only. The remedy will achieve a Dual Track 1 unrestricted use and Track 4 restricted residential use cleanup at a minimum and will include an environmental easement, and site management plan as described below.

8. Institutional Control

Imposition of an institutional control for the Track 4 areas 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);

• allow the use and development of the controlled property for restricted residential, commercial use or 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.

9. Site Management Plan

A Site Management Plan is required for the Track 4 areas, 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 in Paragraph 6 above.

Engineering Controls:

The soil cover discussed in Paragraph 4.

This plan includes, but may not be limited to:

a • an Excavation Plan in the Track 4 areas 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/or 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 two foot of exposed surface soil exceeds 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.

9/20/2019

Date

Michael Cruden, Director
Remedial Bureau E

DECISION DOCUMENT

Pierce Arrow
Buffalo, Erie County
Site No. C915314
September 2019

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:

North Park Library
Attn: Paul Guminski
975 Hertel Avenue
Buffalo, NY 14216
Phone: 716-875-3748

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 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 Pierce Arrow site is 2.85 acres located in an urban area in the City of Buffalo. The site is located at the intersection of Elmwood Avenue and Great Arrow Avenue, bordered to the north by the Conrail railroad tracks, and to the east by additional buildings associated with the former Pierce Arrow Manufacturing Facility.

Site Features:
The site is relatively flat and includes two unoccupied buildings surrounded by a small parking lot and a private driveway. The site is currently vacant.

Current Zoning and Land Use:
The site is currently inactive and is zoned for mixed-use mid-rise development clusters defined by large-footprint structures (N-1S) consistent with the Buffalo Green Code. The surrounding parcels are currently used for a combination of residential, commercial, and light industrial uses. The nearest residential area is 500 feet to the south.

Past Use of the Site:
Until 1938 the site was used for administrative and manufacture/testing of automobile engines. After 1938 the site was used for tool and die manufacturing, a machine shop, dry cleaning, a garage, brazing and heat treatment operations. Prior uses that appear to have led to site contamination include automobile testing/manufacturing, aboveground and underground storage tanks used for oil and gasoline, coal storage, tool and die manufacturing, cleaning compound manufacturing, garage, brazing, heat treatment, and machine shop operations.

Site Geology and Hydrogeology:
The site contains 1-6 feet of urban fill underlain by native clay. Depth to groundwater is 9-18 feet below ground surface (fbgs) and flows south-southwest.

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, 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 under the Brownfield Cleanup Agreement is a Volunteer. The Applicant has an obligation to assess on-site and possible 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 are:

cadmium
copper
lead
mercury
PAHs
PCBs

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) have been completed at this site based on conditions observed during the Remedial Investigation.

IRM Soil Removal

Between July 2018 and March 2019, a total of 6,250 cubic yards of contaminated urban fill was excavated from the site and disposed of in an off-site permitted landfill. Previous site investigations defined the initial IRM excavation limits (both vertically and horizontally) using 38 soil boring samples into native soil. Sub-slab soil sample results collected underneath the basement floor of the existing Administrative Building all met Unrestricted Use Soil Cleanup Objectives (USCOs), except for a small approximately 5 cubic yard area of soil contaminated with lead which was removed and disposed. USCOs were also met in all areas outside the existing buildings except for a small area in the northeastern corner of the Administration Building that will have an asphalt cover. Unrestricted SCOs were not met under the Garage building but met the following site-specific action levels (SSALs):

Cadmium	4.0 parts per million (ppm)
Copper	400.0 ppm
Lead	1,100.0 ppm
Mercury	5.0 ppm
PAHs	500 ppm
PCBs	1.5 ppm

The areas outside of the existing buildings all met USCOs except for the small area in the northeastern corner of the Administrative Building (Track 4 area) that will have asphalt cover.

The extent of the IRM excavation is depicted in Figure 3.

Storage Tank Removal

A total of six heating oil storage tanks were removed from the site and properly disposed of between January 2019 and July 2019 including: one (1) 1,000-gallon aboveground storage tank (AST), four (4) empty and dry (200, 500, and two 10,000 gallons) underground storage tanks (USTs), and a portion of an empty UST. The depth of excavation ranged from 1 to 6 feet below ground surface (fbgs). All UST excavations were sampled as per DER-10 requirements prior to backfilling with clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d). The two 10,000-gallon UST excavations inside the Track 1 area met unrestricted SCOs. The other four storage tanks excavations inside the Track 4 areas met the site specific SCOs mentioned above.

Administration Building Trench Sediment

An open floor trench located inside the Administration Building containing condensate piping from the former heating system and a small amount of some sediment was noted. The sediment was sampled and contained low levels of metals and PCBs. All piping and sediment within the concrete trench were removed and properly disposed of. The trench was then filled with concrete.

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:

Soil was analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, polychlorinated biphenyls (PCBs), and pesticides. Based on the investigations conducted to date, the primary contaminants of concern in soil consist of SVOCs, PCBs and metals including arsenic, cadmium, copper, lead, and mercury.

Surface Soil (0-2 inches below ground):

Only four (4) surface soil samples were taken due to the lack of uncovered soil on site.

Metals exceeding unrestricted use soil cleanup objectives (USCOs) include arsenic (up to 14.6 ppm, USCO 13 ppm), cadmium (up to 3.4 ppm, USCO 2.5 ppm), chromium (up to 31 ppm, USCO 30 ppm), copper (up to 241 ppm, USCO 50 ppm), lead (up to 460.0 ppm, USCO 63 ppm), mercury (up to 0.44 ppm, USCO 0.18 ppm), and zinc (up to 698 ppm, USCO 109 ppm).

SVOCs exceeding USCOs include: benzo(a)anthracene (up to 140 ppm, USCO 1 ppm), benzo(a)pyrene (up to 110 ppm vs USCO 1 ppm), benzo(b)fluoranthene (up to 150 ppm vs USCO 1 ppm), benzo(k)fluoranthene (up to 29 ppm vs USCO 0.8 ppm) chrysene (up to 140 ppm vs USCO 3.9 ppm), dibenz[a,h]anthracene (up to 18 ppm vs USCO 0.33 ppm), and indeno (1,2,3-c,d) pyrene (up to 78 ppm vs USCO 0.5 ppm). Total SVOCs exceeded 500 ppm at one of the 4 surface soil locations.

The remaining metals, VOCs, pesticide, herbicide, and PCB concentrations were either not detected or were reported at low concentrations below USCOs in Track 1 areas and below SSALs in Track 4 areas.

Subsurface Soil:
Metals exceeding unrestricted soil cleanup objectives (USCOs) include arsenic (up to 20.4 ppm, USCO 13 ppm), cadmium (up to 3.9 ppm, USCO 2.5 ppm), chromium (up to 99.7 ppm, USCO 1 ppm), copper (up to 1870 ppm, USCO 50 ppm), lead (up to 1090 ppm, USCO 63 ppm), mercury (up to 4.8 ppm, USCO 0.18 ppm), and zinc (up to 850.0 ppm, USCO 109 ppm).

SVOCs exceeding USCOs include: benzo(a)anthracene (up to 70 ppm, USCO 1 ppm), benzo(a)pyrene (up to 66 ppm vs USCO 1 ppm), benzo(b)fluoranthene (up to 80 ppm vs USCO 1 ppm), benzo(k)fluoranthene (up to 30 ppm vs USCO 0.8 ppm), chrysene (up to 68 ppm vs USCO 3.9 ppm), dibenz[a,h]anthracene (up to 9.9 ppm vs USCO 0.33 ppm), and indeno (1,2,3-CD) pyrene (up to 45 ppm vs USCO 0.5 ppm). Total PAHs in all subsurface samples were below 500 ppm.

PCBs (up to 1.4 ppm, USCO 0.1 ppm) were detected in one (1) samples.

VOCs, pesticides and herbicides were either not detected or were reported at low concentrations below USCOs in Track 1 areas and below SSALs in Track 4 areas.

Contaminant distribution data does not indicate any off-site impacts to subsurface soil related to this site.

Groundwater
Samples were tested for VOCs, SVOCs, metals, polychlorinated biphenyls (PCBs), pesticides herbicides, perfluoro alkyl substances (PFAs) and 1,4 dioxane.

Metals exceeding GWQS's were either low and/or naturally occurring metals and therefore not COCs.

VOCs, SVOCs, PCBs, pesticides and herbicides were either not detected or reported at low concentrations with the exception of the VOC acetone (up to 6000 ppb, GWQS 50 ppb).

Perfluorooctanic acid (PFOA) and perfluorooctanesulfonic acid (PFOS) were reported at concentrations of up to 3.98 parts per trillion (ppt) and non-detect, respectively. The screening limit (limit to which if exceeded is of concern) for both compounds is 10 ppt. The groundwater is not used as a source of drinking water and the total concentrations of PFOA and PFOS were below the 500 ppt screening limit. 1, 4 dioxane was not detected.

Contaminant distribution data does not indicate any off-site impacts to 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.*

Direct contact with contaminants in the soil is unlikely because the majority of the site is covered with buildings and pavement. 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.

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.

RAOs for Environmental Protection

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

water contamination.

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 a Duel Track 1/4 Unrestricted/Restricted Residential Use remedy with Site Specific Soil Cleanup Objectives.

Based on the implementation of the IRM(s), the findings of the investigation of this site indicate that the site no longer poses a threat to human health or the environment. The remedy includes three (3) items not completed within the IRM (described in element 2-4 below) and the implementation of any prescribed institutional controls/engineering controls (ICs/ECs) that have been identified as being part of the proposed remedy for the site.

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 gas 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;
- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development; and
- Additionally, to incorporate green remediation principles and techniques to the extent feasible in the future development at this site, any future on-site buildings will include, at

a minimum, a 20-mil vapor barrier/waterproofing membrane on the foundation to improve energy efficiency as an element of construction

2. Removal of Transformers
Three transformers located inside the Administrative Building will be properly drained of fluids and disposed/recycled off-site. The drained fluids will be sampled and properly disposed off-site.

3. Tank Closure
The 500-gallon underground storage tank (UST) located west of the Garage Building used for heating oil will be emptied, cleaned and properly abandoned in-place. Any removed liquid and sediment will be properly disposed off-site.

4. Clean Pipes with Oily Sediment
Cast iron pipes containing oily sediment located in the southwest area of the Garage Building will be cleaned out and sediment/liquid properly disposed of.

5. Remove Remaining Fill Material Inside UST Vault
Remove all fill material inside the UST vault located outside the northeastern corner of the Administration Building. A sample will be collected underneath the vault to confirm Track 1 unrestricted soil cleanup objectives (SCOs) prior to backfilling vault in place.

6. Cover System
A site cover will be required over the Track 4 areas of the site only, to allow for restricted residential use of the site in areas where the upper two feet 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 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: concrete, paved surface parking areas, sidewalks, building foundations, and building slabs.

7. 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 over Track 4 areas of the site only. The remedy will achieve a Dual Track 1 unrestricted use and Track 4 restricted residential use cleanup at a minimum and will include an environmental easement, and site management plan as described below.

8. Institutional Control
Imposition of an institutional control for the Track 4 areas 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);
• allow the use and development of the controlled property for restricted residential, commercial

use or 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.

9. Site Management Plan
A Site Management Plan is required for the Track 4 areas, 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 in Paragraph 6 above.

Engineering Controls:
The soil cover discussed in Paragraph 4.

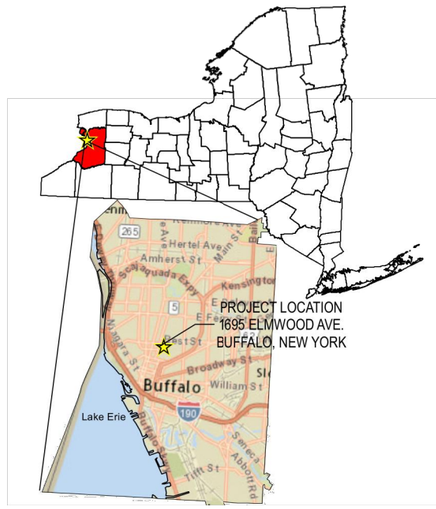
This plan includes, but may not be limited to:

a • an Excavation Plan in the Track 4 areas 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/or 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 two foot of exposed surface soil exceeds 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.

1721 ELMWOOD AVE.

1723 ELMWOOD AVE.

1695 ELMWOOD AVE.



BROWNFIELD CLEANUP PROGRAM (BCP) BOUNDARY

0 500 1,000 2,000 Feet

C&S COMPANIES®
C&S Engineers, Inc.
141 Elm Street.
Buffalo, New York 14203
Phone: 716-847-1630
Fax: 716-847-1454
www.cscos.com

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PIERCE ARROW SITE
BROWNFIELD CLEANUP PROGRAM
SITE NO. C915308
CITY OF BUFFALO, NEW YORK

MARK	DATE	DESCRIPTION
REVISIONS		

PROJECT NO:	Q69.001.002
DATE:	APRIL 3, 2018
DRAWN BY:	C. MARTIN
DESIGNED BY:	C. MARTIN
CHECKED BY:	D. RIKER

SITE LOCATION

FIGURE 1

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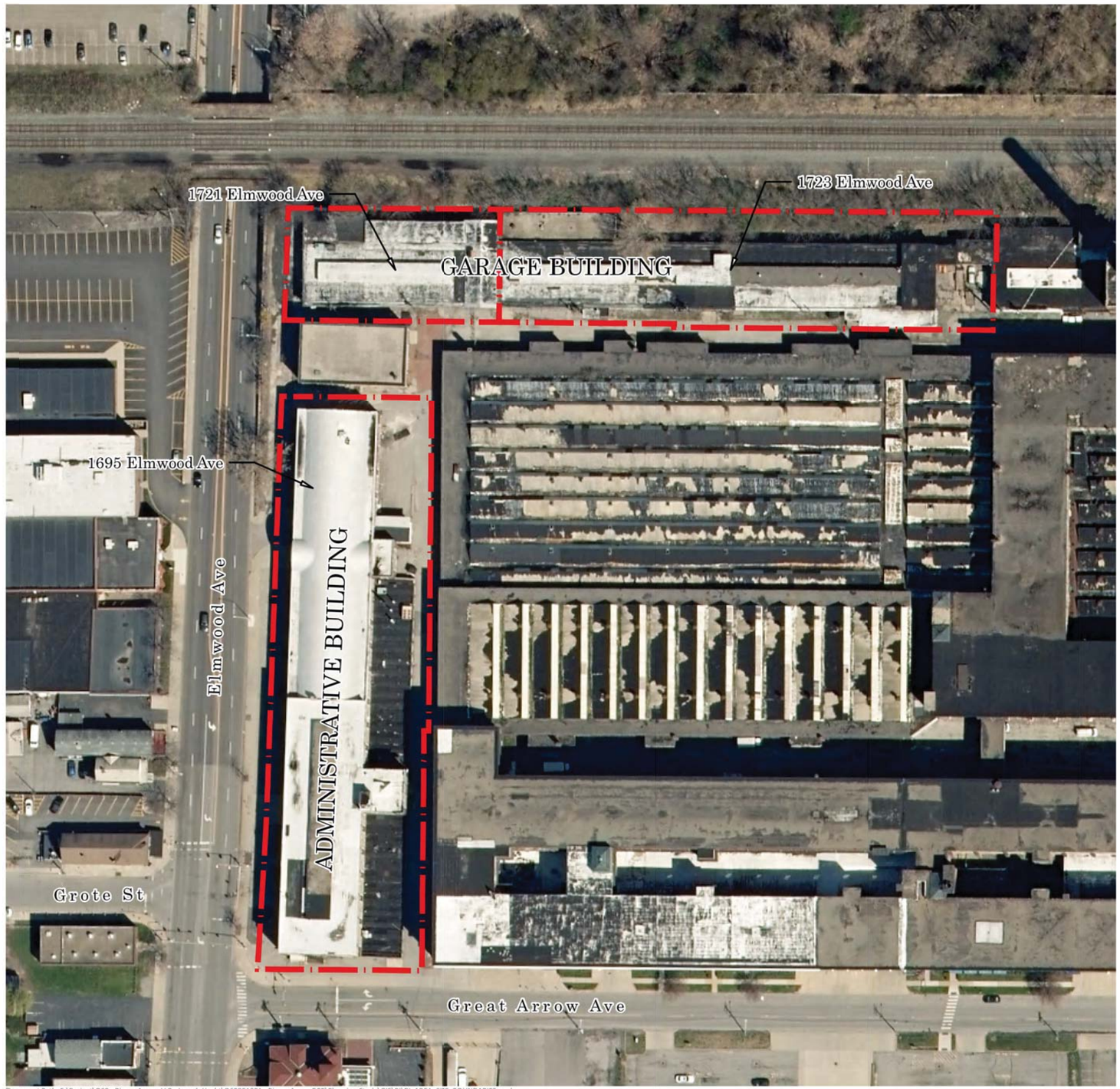

Legend

BROWNFIELD CLEANUP PROGRAM (BCP) BOUNDARY

0 50 100 200 Feet

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DESIGNED BY:	C. MARTIN
CHECKED BY:	D. RIKER

PROJECT AREA AND SITE BOUNDARIES

FIGURE 2

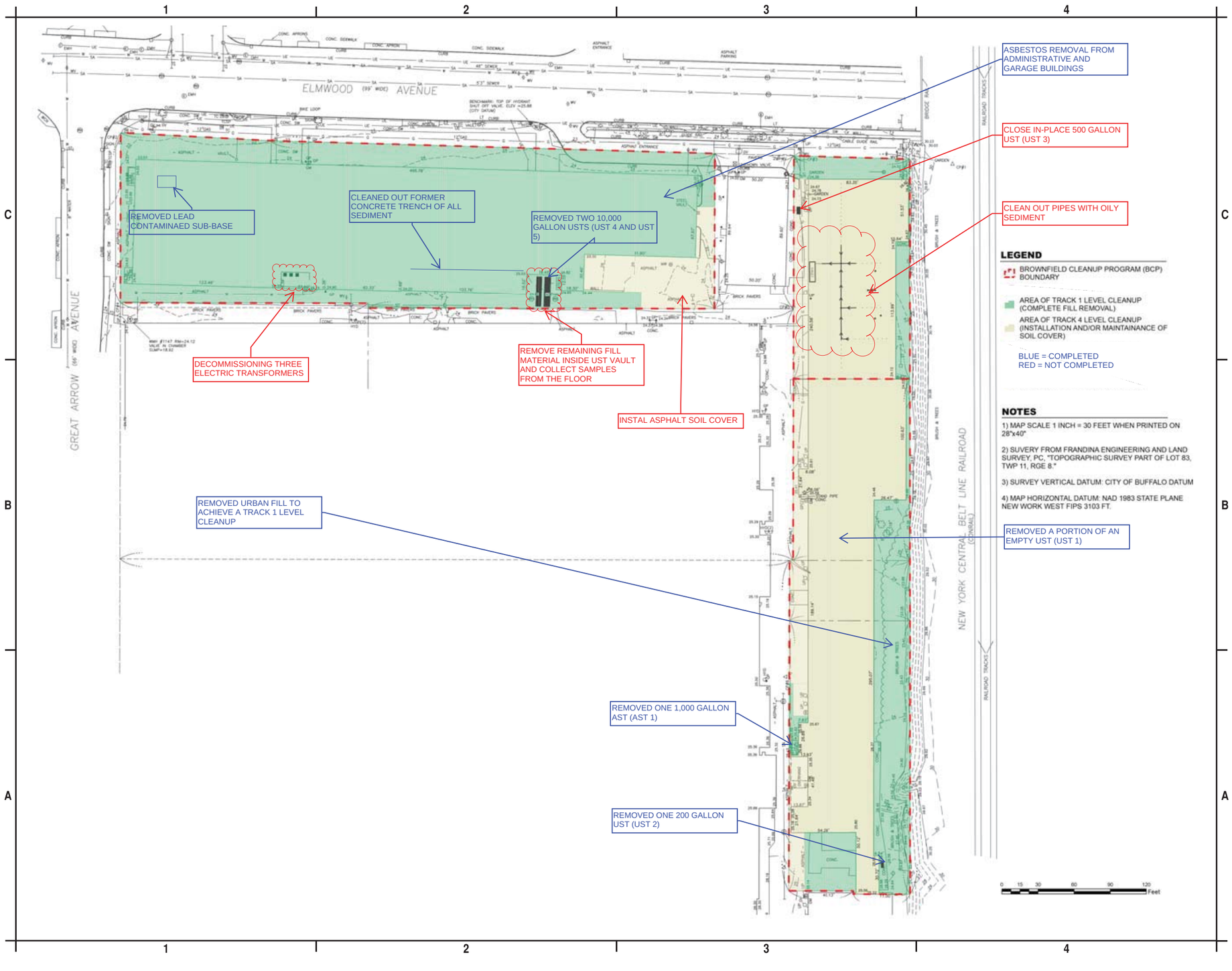

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FIGURE 3