

DECISION DOCUMENT

5 Flint Street
Brownfield Cleanup Program
Rochester, Monroe County
Site No. C828162B
November 2025



**Department of
Environmental
Conservation**

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

DECLARATION STATEMENT - DECISION DOCUMENT

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Statement of Purpose and Basis

This document presents the remedy for the 5 Flint 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 (NYSDEC) for the 5 Flint Street site and the public's input to the proposed remedy presented by NYSDEC.

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;
- 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 shall be

constructed, at a minimum, to meet the 2020 Energy Conservation Construction Code of New York (or most recent edition) to improve energy efficiency as an element of construction.

As part of the remedial design program, to evaluate the remedy with respect to green and sustainable remediation principles, an environmental footprint analysis will be completed. The environmental footprint analysis will be completed using an accepted environmental footprint analysis calculator such as SEFA (Spreadsheets for Environmental Footprint Analysis, USEPA), SiteWise(TM) (available in the Sustainable Remediation Forum [SURF] library) or similar NYSDEC accepted tool. Water consumption, greenhouse gas emissions, renewable and non-renewable energy use, waste reduction and material use will be estimated, and goals for the project related to these green and sustainable remediation metrics, as well as for minimizing community impacts, protecting habitats and natural and cultural resources, and promoting environmental justice, will be incorporated into the remedial design program, as appropriate. The project design specifications will include detailed requirements to achieve the green and sustainable remediation goals. Further, progress with respect to green and sustainable remediation metrics will be tracked during implementation of the remedial action and reported in the Final Engineering Report (FER), including a comparison to the goals established during the remedial design program.

Additionally, the remedial design program will include a climate change vulnerability assessment, to evaluate the impact of climate change on the project site and the proposed remedy. Potential vulnerabilities associated with extreme weather events (e.g., hurricanes, lightning, heat stress and drought), flooding, and sea level rise will be identified, and the remedial design program will incorporate measures to minimize the impact of climate change on potential identified vulnerabilities.

2. Excavation

The existing on-site building will be demolished and materials which cannot be beneficially reused on-site will be taken off-site for proper disposal in order to implement the remedy.

Excavation and off-site disposal of contaminant source areas, including:

- Grossly contaminated soil, as defined in 6 NYCRR Part 375-1.2(u);
- Concentrated solid or semi-solid hazardous substances per 6 NYCRR Part 375-1.2(au)(1);
- Non-aqueous phase liquids;
- Soil with visual waste material or non-aqueous phase liquid;
- Soil containing total SVOCs exceeding 500 ppm;
- Soils which exceed the protection of groundwater soil cleanup objectives (PGWSCOs), as defined by 6 NYCRR Part 375-6.8 for those contaminants found in site groundwater above standards; and
- Soils that create a nuisance condition, as defined in Commissioner Policy CP-51 Section G.

All soils in the upper two feet which exceed the restricted residential or protection of groundwater SCOs will be excavated and transported off-site for disposal or re-used on-site if it qualifies for use as backfill per Remedy Element 3 below.

All on-site soils below two feet which meet the above bulleted criteria, will be excavated as described below or addressed per remedial Remedy Element 5.

Approximately 6,500 cubic yards of contaminated soil will be removed from the site. Collection and analysis of confirmation samples at the remedial excavation depth will be used to verify that SCOs for the site have been achieved. If confirmation sampling indicates that SCOs were not achieved at the stated remedial depth, the Applicant must notify DEC, submit the sample results and, in consultation with DEC, determine if further remedial excavation is necessary. Further excavation for development will proceed after confirmation samples demonstrate that SCOs for the site have been achieved.

To ensure proper handling and disposal of excavated material, waste characterization sampling will be completed for all identified contaminated site material. Waste characterization sampling will be performed exclusively for the purposes of off-site disposal in a manner suitable to receiving facilities and in conformance with applicable federal, state and local laws, rules, and regulations and facility-specific permits.

Excavation and removal are required for any underground storage tanks (USTs), fuel dispensers, underground piping or other structures associated with a source of contamination.

Excavation of site soils to a depth of 4 feet below grade in the portion of the site subject to the in-situ solidification (ISS) treatment described in Remedy Element 5. Approximately 6,500 cubic yards of soil will be excavated to facilitate ISS implementation. All soils which exceed restricted-residential (unless used as backfill per Remedy Element 3 below) or protection of groundwater soil cleanup objectives (SCOs) will be disposed of off-site at a permitted facility.

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 the extent that a sufficient volume of on-site soil is available and establish the designed grades at the site.

On-site soil which does not exceed the above excavation criteria or the protection of groundwater SCOs for any constituent may be used anywhere beneath the cover system, including below the water table, to backfill the excavation or re-grade the site.

Backfill 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 in areas where the upper two feet of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs), to allow for future restricted residential use of the site. 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.

Where the soil cover is required over the ISS treatment area, it will consist of a minimum of four feet of soil to ensure the underlying monolith remains below the frost line and protected from the freeze-thaw cycle. A building and its foundation are considered suitable cover to protect the ISS monolith. Where a building and its foundation are considered part of the site cover, the ISS design should include considerations for drainage between the ISS and building foundation and the potential need to design the ISS for a higher strength. If the ISS monolith extends beyond the building footprint, the design shall include a soil cover consisting of a minimum of four feet of soil for that portion. Consistent with the remainder of the site cover, the upper two feet will meet the SCOs for restricted residential use outside the ISS monolith area. For areas where solidified material underlies the cover, the solidified material itself will serve as the demarcation layer due to the nature of the material.

5. Solidification/Stabilization - In-Situ Solidification

In-situ solidification (ISS) will be implemented in an approximately 1+ acre area of the site, as indicated on Figure 3. The treatment zone will extend from the top of the groundwater table, at approximately 4 feet below grade to approximately 12-15 feet below grade. An approximately 4-foot soil cut will need to be excavated in these areas to contain the ISS spoils and increased soil volume created by the soil mixing. ISS is a process that binds the soil particles in place creating a low permeability mass. The contaminated soil will be mixed in place together with solidifying reagents or other binding reagents using an excavator or augers. Often Portland cement is used as the primary binder, although less carbon-intensive amendments will be considered. The soil and binding reagents are mixed to produce a solidified mass resulting in a low permeability monolith. Prior to the full implementation of this technology, bench-scale laboratory testing and on-site pilot scale studies will be conducted to more clearly define design parameters, amendment types and dosages. Bench testing will consist of collecting soil from source area and mixing with a variety of amendments and doses in a controlled atmosphere followed by testing resulting hydraulic conductivity and unconfined-compressive strength. Pilot tests will then be conducted using successful amendment mixes from the bench test prior to full scale design.

Typical design requirements are that solidified mass would produce a hydraulic conductivity (K) of 1.0×10^{-6} cm/sec or less and would also result in an unconfined compressive strength of 50 psi, or higher pending future uses that may include construction above the solidified mass. The solidified mass will then be covered with a cover system as described in Remedy Element 4 to prevent direct exposure to the solidified mass. The resulting solid matrix reduces or eliminates mobility of contamination and reduces or eliminates the matrix as a source of groundwater contamination.

6. Groundwater - Monitored Natural Attenuation

Groundwater contamination (remaining after active remediation) will be addressed with monitored natural attenuation (MNA). Groundwater will be monitored for site related contamination, and for MNA indicators which will provide an understanding of the biological activity breaking down the contamination. It is anticipated that contamination will decrease by an order of magnitude in within 5 years. Reports of the attenuation will be provided at 5-year intervals, and active remediation will be proposed if it appears that natural processes alone will not address the contamination. The contingency remedial action will depend on the information collected, but it is currently anticipated that contingency technology, e.g., "oxygen injection" would be the expected contingency remedial action.

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. The remedy will achieve a Track 4, restricted residential cleanup, at a minimum.

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 NYSDEC 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 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 NYSDEC approved Site Management Plan.

8. Site Management Plan

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

1. 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 Remedy Element 7 above.

Engineering Controls: The soil cover discussed in Remedy Element 4 above.

This plan includes, but may not be limited to:

- An Excavation Work Plan which details the provisions for management of future excavations in areas of remaining or potential contamination;
- A provision for demolition of the on-site building if and when it becomes unsafe or inactive or vacant;
- A provision should redevelopment occur to ensure no soil exceeding protection of

groundwater concentrations will remain below storm water retention basin or infiltration structures.

- Descriptions of the provisions of the environmental easement including any land use, and groundwater use restrictions;
 - A provision for evaluation of the potential for soil vapor intrusion, including sub-slab and indoor air sampling, for any occupied buildings on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
 - A provision that should a building foundation or building slab be removed in the future, a cover system consistent with that described in Remedy Element 4 above will be placed in any areas where the upper two feet 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 NYSDEC notification; and
 - The steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.
2. 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 NYSDEC;
 - 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.

11/17/2025

Date



Michael Cruden, Director
Remedial Bureau E

DECISION DOCUMENT

5 Flint Street
Rochester, Monroe County
Site No. C828162B
November 2025

SECTION 1: SUMMARY AND PURPOSE

The New York State Department of Environmental Conservation (NYSDEC), 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, where a contaminant is present at levels exceeding the soil cleanup objectives or other health-based or environmental standards, criteria or guidance, based on the reasonably anticipated use of the property.

NYSDEC 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

NYSDEC 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 NYSDEC 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:

DECInfo Locator - Web Application
<https://gisservices.dec.ny.gov/gis/dil/index.html?rs=C828162B>

Phillis Wheatley Library
Attn: Lori Frankunas
33 Dr. Samuel McCree Way
Rochester, New York 14608
Phone: 585 428-8212

Plymouth-Exchange (PLEX) Neighborhood Association
Attn: Dorothy Hall
Carlson Commons
70 Coretta Scott Crossing
Rochester, New York 14608
585-328-6916
info@PL-EX.org

Receive Site Citizen Participation Information By Email

Please note that NYSDEC'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 site is a 1.61-acre site located in the City of Rochester, Monroe County. The site is located approximately 140 feet west of the Genesee River. The site is located on Flint Street and approximately 550 feet from the intersection of Exchange Street and Flint Street.

Site Features: The site is a wooded undeveloped parcel. An existing building, built between 1918 and 1930, is located on the northern end of the site. The building is currently vacant and abandoned.

Current Zoning and Land Use: The site is currently undeveloped and is zoned for high-density residential. The surrounding parcels are currently used for a combination of commercial, residential, and utility rights-of-way. The nearest residential parcel is approximately 500 feet to the west of the site.

Past Use of the Site: The site, along with several other contiguous and neighboring parcels, is within the footprint of the Former Vacuum Oil Refinery. The site was vacant land until approximately 1875 when developed into a refinery and operated until approximately 1935. The site also served as a shipping and receiving yard between two railroad corridors. Operations also included barrel and stave manufacturing. The refinery included a cooperage, drum washing and storage building, a paint shop, barrel stave, storage buildings and sheds, a storage building for barrel headings and iron, and support buildings.

Site Geology and Hydrogeology: The site geology consists of fill material from 0-6 feet below ground surface. Native soils consist of sand and silt with varying amounts of clay to approximately 17 ft. below ground surface. Bedrock depth at the site ranges from 12 to 17 ft. below ground surface. The site is in the Ontario Lowlands and is underlain by beds of shale, sandstone, limestone, and dolostone.

Groundwater depth ranges from 3 to 11 ft. below ground surface. Groundwater flow is generally in southeastern direction.

A site location map is attached as Figure 1 and 1A.

SECTION 4: LAND USE AND PHYSICAL SETTING

NYSDEC 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 that restrict the use of the site as described in Part 375-1.8(g) were 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 Applicants under the Brownfield Cleanup Agreement are Volunteers. The Volunteers do not have an obligation to address off-site contamination. NYSDEC has determined that this site poses a significant threat to human health and the environment. Off-site impacts that require remedial activities will be addressed by the Responsible Party under an Order on Consent.

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 wastes 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. NYSDEC 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 contaminants of concern identified at this site are:

1,1,1-trichloroethane	mercury
trichloroethene (TCE)	lead
cis-1,2-dichloroethene	polycyclic aromatic hydrocarbons (PAHS),
vinyl chloride	total
1,2,4-trimethylbenzene	chrysene
1,3,5-trimethylbenzene	ethylbenzene
arsenic	1,1-dichloroethane
barium	benzene

The contaminants 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.

Nature and Extent of Contamination: The nature and extent of contamination at the site has been defined under the remedial investigation completed as part of the Brownfield Cleanup Program. The primary contaminants of concern include volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and metals.

Surface Soil:

Surface soil samples were analyzed for TCL SVOCs, metals, PCBs, and pesticides. Surface soil sampling indicated that SVOCs and metals are the primary contaminants that exceed the restricted residential and protection of groundwater soil cleanup objectives (SCO).

SVOCs: Benzo(a)pyrene concentrations ranged from non-detect to 23 parts per million [ppm] (restricted residential SCO - 1 ppm). Benzo(a)anthracene concentrations ranged from non-detect to 28 ppm (protection of groundwater SCO - 1 ppm). Benzo(b)fluoranthene concentrations ranged from non-detect to 20 ppm (protection of groundwater SCO - 1.7 ppm). Chrysene concentrations ranged from non-detect to 30 ppm (protection of groundwater SCO - 1 ppm). Benzo(k)fluoranthene concentrations ranged from non-detect to 22 ppm (protection of groundwater SCO - 1.7 ppm). Indeno(1,2,3-cd)pyrene concentrations ranged from non-detect to 14 ppm (restricted residential SCO - 0.5 ppm). Dibenz(a,h)anthracene concentrations ranged from non-detect to 5.7 ppm (restricted residential SCO - 0.33 ppm).

Metals: Arsenic concentrations ranged from non-detect to 60.7 ppm (protection of groundwater SCO - 16 ppm).

Surface soil data does not indicate a potential for off-site impacts in soil.

Subsurface Soil:

Sub-surface soil samples were analyzed for TCL VOCs, TCL SVOCs, metals, PCBs, and pesticides. Subsurface soil sampling indicated that VOCs, SVOCs, and metals are the primary contaminants that exceed the restricted residential and protection of groundwater soil cleanup objectives (SCO).

VOCs: 1,2,4-trimethylbenzene concentrations ranged from non-detect to 67.5 ppm (protection of groundwater SCO - 3.6 ppm). 1,3,5-trimethylbenzene concentrations ranged from non-detect to 38.1 ppm (protection of groundwater SCO - 8.4 ppm). Xylene (mixed) concentrations ranged from non-detect to 101 ppm (protection of groundwater SCO - 1.6 ppm).

SVOCs: Benzo(a)pyrene concentrations ranged from non-detect to 530 ppm (restricted residential SCO - 1 ppm). Benzo(a)anthracene concentrations ranged from non-detect to 760 ppm (protection of groundwater SCO - 1 ppm). Benzo(b)fluoranthene concentrations ranged from non-detect to 480 ppm (protection of groundwater SCO - 1.7 ppm). Chrysene concentrations ranged from non-detect to 710 ppm (protection of groundwater SCO - 1 ppm). Indeno(1,2,3-cd)pyrene concentrations ranged from non-detect to 280 ppm (restricted residential SCO - 0.5 ppm). Fluoranthene concentrations ranged from non-detect to 1500 ppm (restricted residential SCO - 100 ppm). Naphthalene concentrations ranged from non-detect to 320 ppm (protection of groundwater SCO - 12 ppm). Phenanthrene concentrations ranged from non-detect to 1600 ppm (protection of groundwater SCO - 100 ppm). Pyrene concentrations ranged from non-detect to 960 ppm (protection of groundwater SCO - 100 ppm).

Metals: Arsenic concentrations ranged from 0.857 to 36.5 ppm (restricted residential SCO - 16 ppm). Barium concentrations ranged from 3.9 to 828 ppm (restricted residential SCO - 270 ppm). Lead concentrations ranged from non-detect to 578 ppm (restricted residential SCO - 400 ppm). Mercury concentrations ranged from non-detect to 9.02 ppm (restricted residential SCO - 0.81 ppm).

Subsurface soil data does not indicate a potential for off-site impacts in soil.

Groundwater:

Groundwater samples were analyzed for TCL VOCs, TCL SVOCs, TAL metals, PCBs, pesticides, PFOS, and PFOA. Groundwater sampling conducted indicated VOCs (chlorinated and petroleum), SVOCs, 1,4-dioxane, and metals that exceeded the State's standards and guidance values in overburden groundwater.

VOCs: 1,1-dichloroethane concentrations ranged from non-detect to 79.1 parts per billion [ppb] (groundwater standard - 5 ppb). 1,2,4-trimethylbenzene concentrations ranged from non-detect to 916 ppb (groundwater standard - 5 ppb). 1,3,5-trimethylbenzene concentrations ranged from non-detect to 378 ppb (groundwater standard - 5 ppb). Benzene concentrations ranged from non-detect to 397 (groundwater standard - 1 ppb). Toluene concentrations ranged from non-detect to 22 ppb (groundwater standard - 5 ppb). Trichloroethene concentrations ranged from non-detect to 59 ppb (groundwater standard - 5 ppb). Cis-1,2-dichloroethene concentrations ranged from non-detect to 38 ppb (groundwater standard - 5). Vinyl chloride concentrations ranged from non-detect to 21 ppb (groundwater standard - 2 ppb). 1,1,1-trichloroethane concentrations range from non-detect to 31 ppb (groundwater standard - 5 ppb). Xylenes (total) concentrations ranged from non-detect to 3830 ppb (groundwater standard - 5 ppb). Ethylbenzene concentrations ranged from non-detect to 2350 ppb (groundwater standard - 5 ppb). 1,4-dioxane concentrations ranged from non-detect to 3.3 ppb (groundwater standard - 1 ppb).

SVOCs: Benzo(a)anthracene concentrations ranged from non-detect to 45.7 ppb (groundwater standard - 0.002 ppb). Benzo(a)pyrene concentrations ranged from non-detect to 36.8 ppb (groundwater standard – non-detect). Benzo(b)fluoranthene concentrations ranged from non-detect to 33.1 ppb (groundwater standard - 0.002 ppb). Benzo(k)fluoranthene concentrations ranged from non-detect to 29 ppb (groundwater standard - 0.002 ppb). Chrysene concentrations ranged from non-detect to 43.1 ppb (groundwater standard - 0.002 ppb). Pyrene concentrations ranged from non-detect to 79.1 ppb (groundwater standard - 50 ppb).

Metals: Arsenic concentrations ranged from non-detect to 53.8 ppb (groundwater standard - 25 ppb). Lead concentrations ranged from non-detect to 123 ppb (groundwater standard - 25 ppb).

Groundwater data and flow direction does indicate a potential for off-site impacts in groundwater.

Soil Vapor:

Soil vapor sampling was not completed as part of the remedial investigation. However, groundwater concentrations and flow direction indicate a potential for off-site impacts to soil vapor. Actions to address the potential for soil vapor intrusion off-site will be addressed as part of the remedial actions for the adjacent sites.

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*.

The site is not fenced and people who enter the site could contact contaminants in the soil by walking on the soil, 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 groundwater and/or soil may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. Soil vapor intrusion is not a current concern on-site because the site is vacant; however, the potential exists for inhalation of contaminants from soil vapor intrusion in any future on-site buildings. The potential for soil vapor intrusion off-site will be evaluated as part of the adjacent sites.

6.5: Summary of the Remediation Objectives

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

The remedial action objectives for this site are:

Groundwater

RAOs for Public Health Protection

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of volatiles, from contaminated groundwater.

RAOs for Environmental Protection

- Restore ground water aquifer to pre-disposal/pre-release conditions, to the extent practicable.
- Prevent the discharge of contaminants to surface water.
- Remove the source of ground or surface water contamination.

Soil

RAOs for Public Health Protection

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

RAOs for Environmental Protection

- Prevent migration of contaminants that would result in groundwater or surface water contamination.
- Prevent impacts to biota from ingestion/direct contact with soil causing toxicity or impacts from bioaccumulation through the terrestrial food chain.

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.

The selected remedy is referred to as the remedy.

The elements of the selected remedy, as shown in Figure 3, 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;
- 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 shall be constructed, at a minimum, to meet the 2020 Energy Conservation Construction Code of New York (or most recent edition) to improve energy efficiency as an element of construction.

As part of the remedial design program, to evaluate the remedy with respect to green and sustainable remediation principles, an environmental footprint analysis will be completed. The environmental footprint analysis will be completed using an accepted environmental footprint analysis calculator such as SEFA (Spreadsheets for Environmental Footprint Analysis, USEPA), SiteWise(TM) (available in the Sustainable Remediation Forum [SURF] library) or similar NYSDEC accepted tool. Water consumption, greenhouse gas emissions, renewable and non-renewable energy use, waste reduction and material use will be estimated, and goals for the project related to these green and sustainable remediation metrics, as well as for minimizing community impacts, protecting habitats and natural and cultural resources, and promoting environmental justice, will be incorporated into the remedial design program, as appropriate. The project design specifications will include detailed requirements to achieve the green and sustainable remediation goals. Further, progress with respect to green and sustainable remediation metrics will be tracked during implementation of the remedial action and reported in the Final Engineering Report (FER), including a comparison to the goals established during the remedial design program.

Additionally, the remedial design program will include a climate change vulnerability assessment, to evaluate the impact of climate change on the project site and the proposed remedy. Potential vulnerabilities associated with extreme weather events (e.g., hurricanes, lightning, heat stress and drought), flooding, and sea level rise will be identified, and the remedial design program will incorporate measures to minimize the impact of climate change on potential identified vulnerabilities.

2. Excavation

The existing on-site building will be demolished and materials which cannot be beneficially reused on-site will be taken off-site for proper disposal in order to implement the remedy.

Excavation and off-site disposal of contaminant source areas, including:

- Grossly contaminated soil, as defined in 6 NYCRR Part 375-1.2(u);
- Concentrated solid or semi-solid hazardous substances per 6 NYCRR Part 375-1.2(a)(1);
- Non-aqueous phase liquids;
- Soil with visual waste material or non-aqueous phase liquid;
- Soil containing total SVOCs exceeding 500 ppm;
- Soils which exceed the protection of groundwater soil cleanup objectives (PGWSCOs), as defined by 6 NYCRR Part 375-6.8 for those contaminants found in site groundwater above standards; and
- Soils that create a nuisance condition, as defined in Commissioner Policy CP-51 Section G.

All soils in the upper two feet which exceed the restricted residential or protection of groundwater SCOs will be excavated and transported off-site for disposal or re-used on-site if it qualifies for use as backfill per Remedy Element 3 below.

All on-site soils below two feet which meet the above bulleted criteria, will be excavated as described below or addressed per remedial Remedy Element 5.

Approximately 6,500 cubic yards of contaminated soil will be removed from the site. Collection and analysis of confirmation samples at the remedial excavation depth will be used to verify that SCOs for the site have been achieved. If confirmation sampling indicates that SCOs were not achieved at the stated remedial depth, the Applicant must notify DEC, submit the sample results and, in consultation with DEC, determine if further remedial excavation is necessary. Further excavation for development will proceed after confirmation samples demonstrate that SCOs for the site have been achieved.

To ensure proper handling and disposal of excavated material, waste characterization sampling will be completed for all identified contaminated site material. Waste characterization sampling will be performed exclusively for the purposes of off-site disposal in a manner suitable to receiving facilities and in conformance with applicable federal, state and local laws, rules, and regulations and facility-specific permits.

Excavation and removal are required for any underground storage tanks (USTs), fuel dispensers, underground piping or other structures associated with a source of contamination.

Excavation of site soils to a depth of 4 feet below grade in the portion of the site subject to the in-situ solidification (ISS) treatment described in Remedy Element 5. Approximately 6,500 cubic yards of soil will be excavated to facilitate ISS implementation. All soils which exceed restricted-residential (unless used as backfill per Remedy Element 3 below) or protection of groundwater soil cleanup objectives (SCOs) will be disposed of off-site at a permitted facility.

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 the extent that a sufficient volume of on-site soil is available and establish the designed grades at the site.

On-site soil which does not exceed the above excavation criteria or the protection of groundwater SCOs for any constituent may be used anywhere beneath the cover system, including below the water table, to backfill the excavation or re-grade the site.

Backfill 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 in areas where the upper two feet of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs), to allow for future restricted residential use of the site. 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.

Where the soil cover is required over the ISS treatment area, it will consist of a minimum of four feet of soil to ensure the underlying monolith remains below the frost line and protected from the freeze-thaw cycle. A building and its foundation are considered suitable cover to protect the ISS monolith. Where a building and its foundation are considered part of the site cover, the ISS design should include considerations for drainage between the ISS and building foundation and the potential need to design the ISS for a higher strength. If the ISS monolith extends beyond the building footprint, the design shall include a soil cover consisting of a minimum of four feet of soil for that portion. Consistent with the remainder of the site cover, the upper two feet will meet the SCOs for restricted residential use outside the ISS monolith area. For areas where solidified material underlies the cover, the solidified material itself will serve as the demarcation layer due to the nature of the material.

5. Solidification/Stabilization - In-Situ Solidification

In-situ solidification (ISS) will be implemented in an approximately 1+ acre area of the site, as indicated on Figure 3. The treatment zone will extend from the top of the groundwater table, at approximately 4 feet below grade to approximately 12-15 feet below grade. An approximately 4-foot soil cut will need to be excavated in these areas to contain the ISS spoils and increased soil volume created by the soil mixing. ISS is a process that binds the soil particles in place creating a low permeability mass. The contaminated soil will be mixed in place together with solidifying reagents or other binding reagents using an excavator or augers. Often Portland cement is used as the primary binder, although less carbon-intensive amendments will be considered. The soil and binding reagents are mixed to produce a solidified mass resulting in a low permeability monolith.

Prior to the full implementation of this technology, bench-scale laboratory testing and on-site pilot scale studies will be conducted to more clearly define design parameters, amendment types and dosages. Bench test will consist of collecting soil from source area and mixing with a variety of amendments and doses in a controlled atmosphere followed by testing resulting hydraulic conductivity and unconfined-compressive strength. Pilot tests will then be conducted using successful amendment mixes from the bench test prior to full scale design.

Typical design requirements are that solidified mass would produce a hydraulic conductivity (K) of 1.0×10^{-6} cm/sec or less and would also result in an unconfined compressive strength of 50 psi, or higher pending future uses that may include construction above the solidified mass. The solidified mass will then be covered with a cover system as described in Remedy Element 4 to prevent direct exposure to the solidified mass. The resulting solid matrix reduces or eliminates mobility of contamination and reduces or eliminates the matrix as a source of groundwater contamination.

6. Groundwater - Monitored Natural Attenuation

Groundwater contamination (remaining after active remediation) will be addressed with monitored natural attenuation (MNA). Groundwater will be monitored for site related contamination, and for MNA indicators which will provide an understanding of the biological activity breaking down the contamination. It is anticipated that contamination will decrease by an order of magnitude in within 5 years. Reports of the attenuation will be provided at 5-year intervals, and active remediation will be proposed if it appears that natural processes alone will not address the contamination. The contingency remedial action will depend on the information collected, but it is currently anticipated that contingency technology, e.g., "oxygen injection" would be the expected contingency remedial action.

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. The remedy will achieve a Track 4, restricted residential cleanup, at a minimum.

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 NYSDEC 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 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 NYSDEC approved Site Management Plan.

8. Site Management Plan

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

1. 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 Remedy Element 7 above.

Engineering Controls: The soil cover discussed in Remedy Element 4 above.

This plan includes, but may not be limited to:

- An Excavation Work Plan which details the provisions for management of future excavations in areas of remaining or potential contamination;
 - A provision for demolition of the on-site building if and when it becomes unsafe or inactive or vacant;
 - A provision should redevelopment occur to ensure no soil exceeding protection of groundwater concentrations will remain below storm water retention basin or infiltration structures.
 - Descriptions of the provisions of the environmental easement including any land use, and groundwater use restrictions;
 - A provision for evaluation of the potential for soil vapor intrusion, including sub-slab and indoor air sampling, for any occupied buildings on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
 - A provision that should a building foundation or building slab be removed in the future, a cover system consistent with that described in Remedy Element 4 above will be placed in any areas where the upper two feet 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 NYSDEC notification; and
 - The steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.
2. 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 NYSDEC;
 - Monitoring for vapor intrusion for any buildings on the site, as may be required by the Institutional and Engineering Control Plan discussed above.

T:\GIS\PROJECTS\4694\0001\B\000\MXD\104\4694\0001P000_104.01 - SITE LOCATION MAP.MXD



QUADRANGLE LOCATION



1,000 0 1,000
FEET



Title:

SITE LOCATION MAP

BCP SITE NO. C828162B
5 FLINT STREET, ROCHESTER, NEW YORK

Prepared for:

5 FLINT STREET LLC



Compiled by: SB	Date: 01/30/25
Prepared by: SB	Scale: AS SHOWN
Project Mgr: ER	Project: 4694.0001P000
File: 4694.0001P000_104.01 - Site Location Map.mxd	

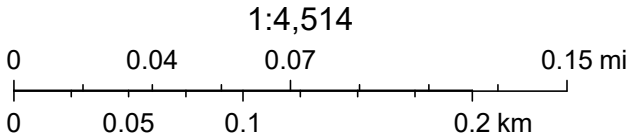
FIGURE

1

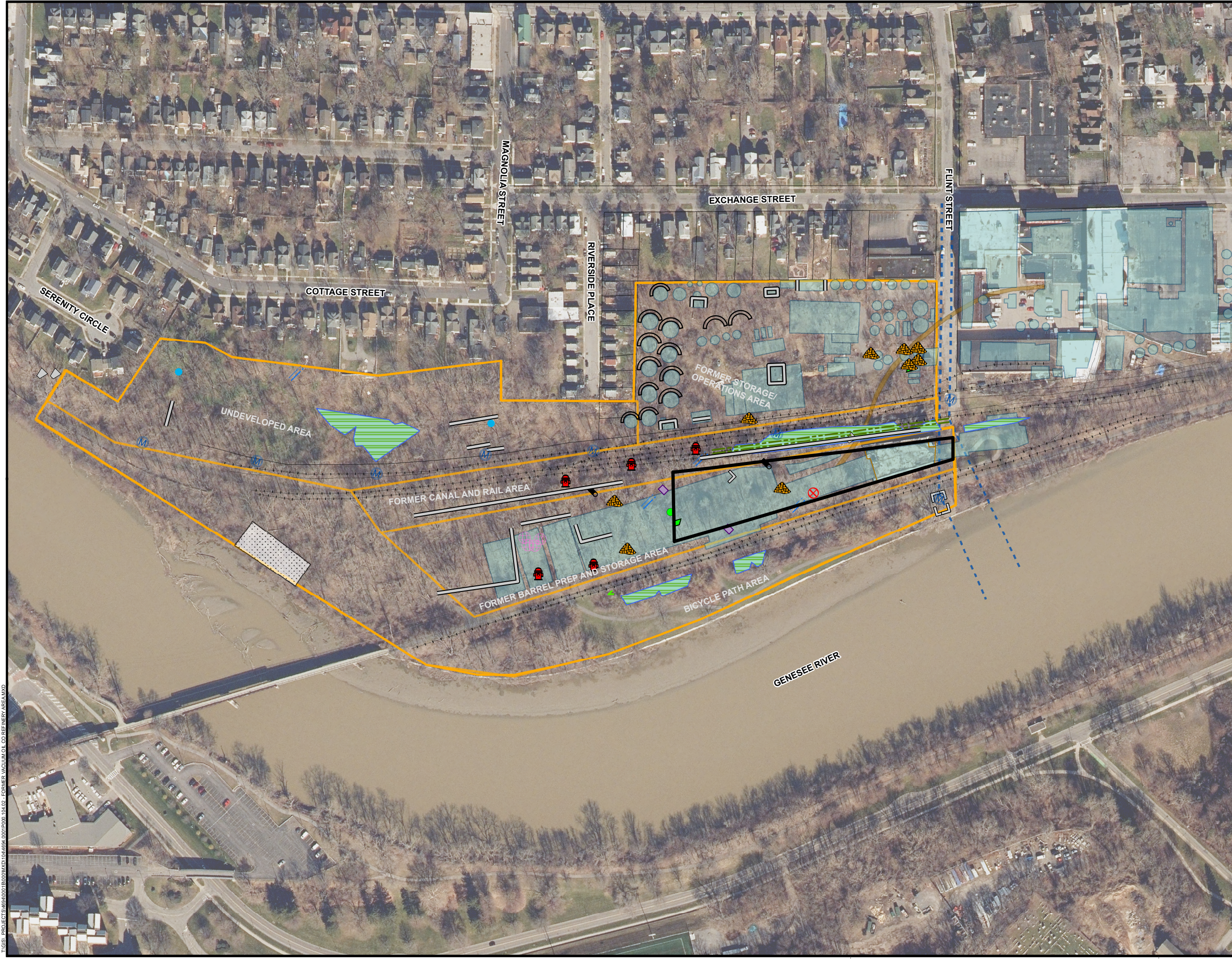
Figure 1A
5 Flint Street Site



October 21, 2025



Esri, HERE, Garmin, (c) OpenStreetMap contributors, New York State, Maxar, NYS ITS Geospatial Services, Westchester County GIS



LEGEND

5 FLINT STREET PROPERTY BOUNDARY

SUBDIVISION SITE AREAS

WETLANDS IDENTIFIED IN OBG RI 2019

WETLANDS

FEATURES IDENTIFIED AND DESCRIBED (NAMED) BY AMEC 2004

RETAINING WALL

CULVERT

DRAINAGE SWALE

WALL FOUNDATION/CONCRETE PILLARS / FOOTERS

SLAG MOUNDS/REEL-O-MATIC

SHALLOW FLOOR PITS

RUBBLE AND/OR TIRE

PIPES

SEWAGE PIPES

MOLTEN PLASTIC

MANHOLE

MACHINERY

FIRE HYDRANTS

DRUMS (55) GALLON

REMNANT OF CIRCULAR FOOTING

APPROXIMATE SLUDGE PITS AREA

HISTORIC FEATURES GEOREFERENCED FROM 1926 SANBORN

FORMER STRUCTURE (BUILDING, TANK, ETC)

FORMER BARREL CONVEYOR

PROPERTY BOUNDARIES

PIPES

RAILROAD

SOURCES

- AERIAL IMAGE SOURCE: NYS GIS CLEARINGHOUSE (www.nysgis.state.ny.us), 2005 AERIAL.
- THE PROPERTY BOUNDARY SHOWN FOR 5 FLINT STREET IS AS SURVEYED BY WENDEL FEBRUARY 22, 2024. NOTE THAT THERE HAVE BEEN PROPERTY BOUNDARY INCONSISTENCIES SHOWN ON PRIOR FIGURES FOR 5 FLINT STREET AND OTHER NEARBY PROPERTIES.

NOTES

- ALL FEATURES SHOWN ARE APPROXIMATE.

200

0

200

FEET

Title:

**FORMER VACUUM OIL COMPANY
REFINERY AREA**

BCP SITE NO. C828162B
5 FLINT STREET, ROCHESTER NEW YORK

Prepared for:

5 FLINT STREET, LLC

Compiled by: SB

Date: 01/30/25

Prepared by: SB

Scale: AS SHOWN

Project Mgr: ER

Project: 4694.0001P000

File: 4694.0001P000_104-02 - Former Vacuum Oil Co Refinery Area.mxd

FIGURE

2

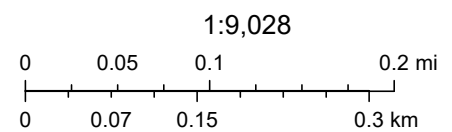
T:\GIS\PROJECTS\4694\0001P000\104-02 - FORMER VACUUM OIL CO REFINERY AREA.mxd

Vacuum Oil Refinery Sites Brownfield Cleanup Program Sites

Figure 2A

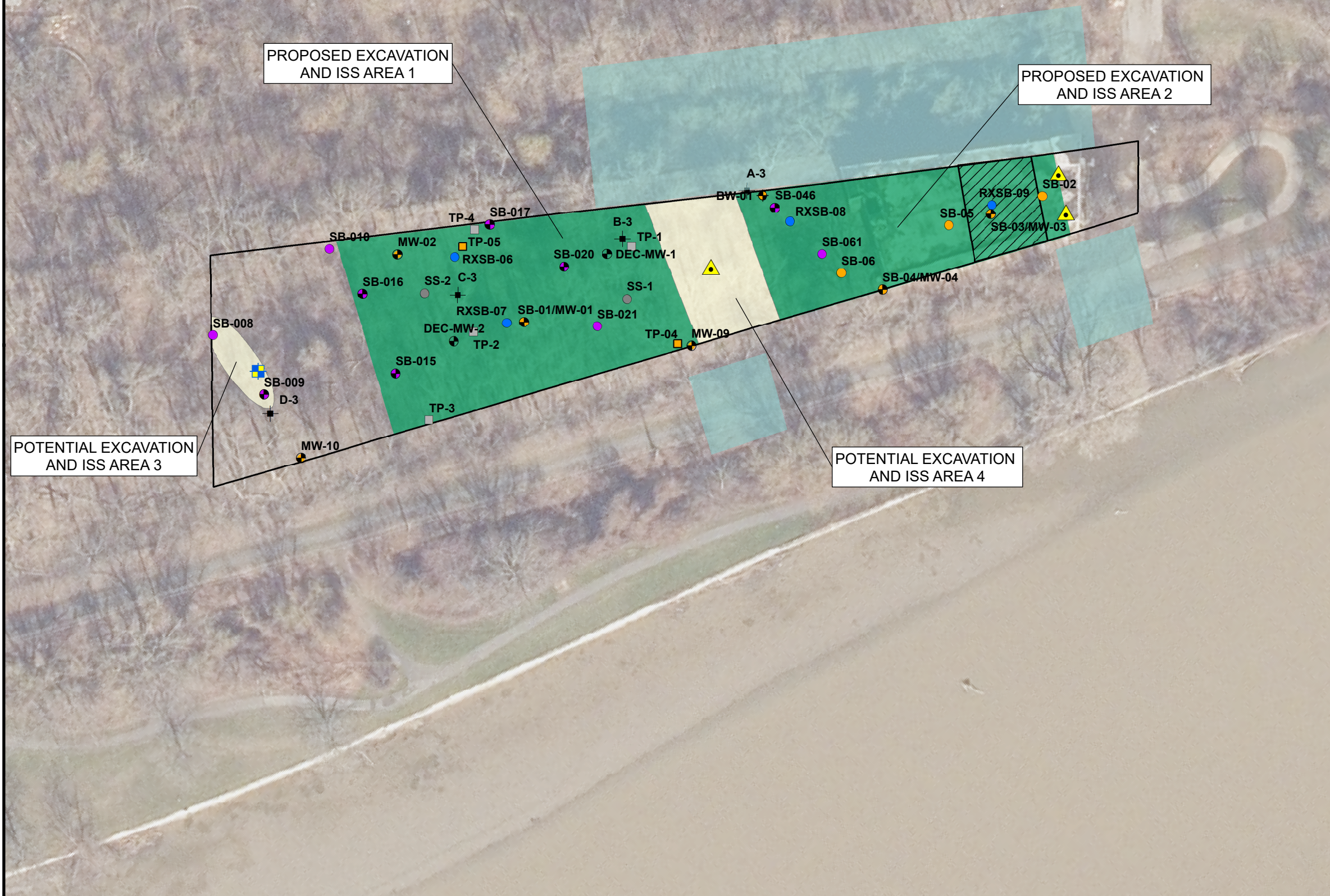


October 20, 2025



New York State, Maxar, Esri, HERE, Garmin, iPC

Figure 3 5 Flint Street Site Decision Document



LEGEND

-  NYSDEC SOIL GAS (2001)
-  NYSDEC SURFACE SOIL (2001)
-  NYSDEC TEST PIT (2001)
-  NYSDEC MONITORING WELL (2001)
-  RAVI BEDROCK WELL (2014-2015)
-  RAVI SOIL BORING (2014-2015)
-  RAVI SOIL BORING / MONITORING WELL (2014-2015)
-  RAVI TEST PIT (2014-2015)
-  ROUX SOIL BORING (2017)
-  ROUX SOIL BORING (2008)
-  ROUX SOIL BORING / FORMER MONITORING WELL (2008)

-  BCP BOUNDARY AND LIMITS OF SITE COVER
 APPROXIMATE LNAPL REMEDIATION AREA (UP TO 8 FT)
 PROPOSED EXCAVATION AND ISS
 POTENTIAL EXCAVATION AND
 TARGETED CITY EXCAVATIONS AS SHOWN IN APPROVED AAR FOR SITE C828190

PRE-DESIGN INVESTIGATION SAMPLE LOCATIONS

-  PHASE 1, SOIL BORING
-  PHASE 1, SOIL BORING / MONITORING WELL

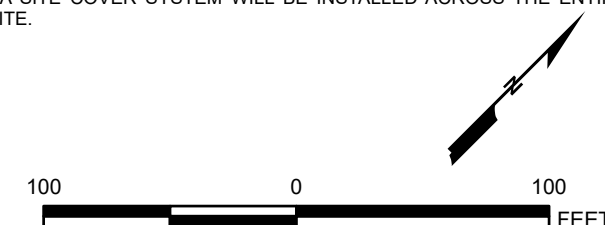
SOURCES

- AERIAL IMAGERY (2023) AND ELEVATION CONTOURS (2019) FROM CITY OF ROCHESTER'S OPEN DATA PORTAL.

- THE PROPERTY BOUNDARY SHOWN FOR 5 FLINT STREET IS AS SURVEYED BY WENDEL FEBRUARY 22, 2024. NOTE THAT THERE HAVE BEEN PROPERTY BOUNDARY INCONSISTENCIES SHOWN ON PRIOR FIGURES FOR 5 FLINT STREET AND OTHER NEARBY PROPERTIES.

NOTES

- NOTES
- ISS, IN-SITU SOLIDIFICATION.
 - ALL FEATURES SHOWN ARE APPROXIMATE.
 - 2008 ROUX SOIL BORING AND MONITORING WELL IDS SHOWN ON THIS FIGURE ARE THE ORIGINAL LOCATION ID (E.G., SB-016). THE IDS FOR SUBSEQUENT BORING ATTEMPTS DUE TO SHALLOW REFUSAL (E.G., SB-016A, SB-016B, ETC) ARE NOT DISPLAYED ON THIS FIGURE.
 - MW-1 AND MW-2 INSTALLED BY NYSDEC ARE DISPLAYED AS DEC MW-1 AND DEC MW-2, RESPECTIVELY, TO AVOID CONFUSION WITH MONITORING WELLS MW-1 AND MW-2 INSTALLED BY RAVI.
 - A SITE COVER SYSTEM WILL BE INSTALLED ACROSS THE ENTIRE SITE.



Title:

REMEDIAL ALTERNATIVE 2 PROPOSED PHASE 1 PRE-DESIGN SAMPLING AREAS

BCP SITE NO. C828162B
5 FLINT STREET, ROCHESTER, NEW YORK

Prepared For:

5 FLINT STREET LLC

	Compiled by: SB	Date: 30JAN25	FIGURE 6
	Prepared by: SB	Scale: AS SHOWN	
	Project Mgr: ER	Project: 4694.0001P000	
	File: 4694.0001P000.104.06-RA2PDL.mxd		