

# DECISION DOCUMENT

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Carlson Park  
Brownfield Cleanup Program  
Rochester, Monroe County  
Site No. C828199  
February 2026



**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 Carlson Park 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 Carlson Park 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. Pre-Design Investigation (PDI):

A PDI to further define the limits of remediation and support a detailed design of the remedy. Some aspects of the PDI include:

- Evaluating the Building 10 sump capture zone and general groundwater flow modeling;
- Conducting bedrock testing, such as pump testing, to gather information necessary for the number, spacing/design, pumping rates and groundwater concentrations, all necessary information to design the hydraulic control and treatment system; and
- Further delineation of oil-impact area excavation extent and delineation of localized PCB exceedances discovered during recent utility work.

### 2. 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. Remedial design of the remedy and procurement of required permits and approvals, as necessary, will be completed prior to implementing the remedy. The remedial design is anticipated to be presented in a Remedial Action Work Plan (RAWP), prepared in accordance with Section 5.3 of DER-10.

### 3. Cover System:

A site cover will be required in areas where the upper one foot of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs), to allow for future commercial or industrial use of the site. Where a soil cover is to be used, it will be a minimum of one foot of soil placed over a demarcation layer, with the upper six inches of soil of sufficient quality to maintain a vegetative layer. Soil cover material, including any fill material brought to the site, will meet the SCOs for cover material for the use of the site as set forth in 6 NYCRR Part 375-6.7(d). Substitution of other materials and components may be allowed where such components

already exist or are a component of the tangible property to be placed as part of site redevelopment. Such components may include, but are not necessarily limited to: pavement, concrete, paved surface parking areas, sidewalks, building foundations and building slabs.

#### 4. Groundwater Migration Control System:

A groundwater migration control system, which employs groundwater extraction and treatment, will be implemented to provide hydraulic control and containment of impacted overburden and bedrock groundwater. Groundwater extraction and treatment will be implemented to treat contaminants in groundwater and to prevent contaminated groundwater from migrating off-site.

The groundwater extraction system will be designed and installed so that the capture zone is sufficient to intercept the groundwater contaminant plume and to stop the potential for further off-site migration. The extraction system will create a depression of the water table so that contaminated groundwater is directed toward the extraction wells within the plume area. Groundwater will be extracted from the subsurface to capture groundwater from the area of the groundwater contaminant plume shown on Figure 3. Further details of the extraction system will be determined during the remedial design. Prior to the full implementation of this technology, studies will be conducted to more clearly define design parameters, including extraction well spacing. It is assumed that the Building 10 sump will be incorporated into the extraction system (with potential modifications or upgrades) and supplemented with approximately three new bedrock groundwater extraction wells to achieve sufficient capture. Extracted groundwater will be directed via force main to an on-Site groundwater treatment system (assumed to be located within Building 10C) for treatment to meet effluent limits (established in a discharge permit) prior to being discharged via the sanitary sewer system to the publicly owned treatment works (POTW).

#### 5. Excavation:

Excavation and off-site treatment/disposal of soil within the Oil-Impacted Soil Area. It is anticipated that the area will be further delineated, during the PDI, based on field screening for visual determination of oil impacts and the impacted soil will be physically removed through mechanical excavation, to the extent practicable. Utility conflicts, foundations, or other subsurface obstacles may limit the extent to which oil-impacted soil can be removed. Remaining impacts that are not accessible via excavation will be addressed by other components of the remedy. Monitoring and passive Non Aqueous Phase Liquid (NAPL) recovery may also be applicable to this area if the practicable extent of excavation leaves remaining, recoverable oil impacts. 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. 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.

#### 6. Monitored Natural Attenuation (MNA):

MNA, in accordance with EPA's guidance "Use of Monitored Natural Attenuation at Superfund, RCRA Corrective Action, and Underground Storage Tank Sites" (EPA, 1999), will be employed to address COCs in overburden groundwater that exceed Class GA Criteria and are outside the

capture zone of the hydraulic control system. MNA is anticipated to be applied to the off-site overburden groundwater impacts northeast of the Site. The MNA component of the remedy will include periodic groundwater monitoring of COCs and natural attenuation indicators to support ongoing evaluations of the effectiveness of MNA and confirm that potential receptors are not being impacted.

#### 7. Soil Vapor Intrusion Evaluation/Mitigation:

The existing sub-slab depressurization systems (SSDSs, both on-Site and off-site) will be incorporated into the comprehensive remedy and continue to operate to mitigate the potential for subsurface vapor intrusion into occupied building spaces. In addition, potential future on-Site buildings will also require SVI evaluations or the inclusion of vapor mitigation measures if occupied.

#### 8. Institutional Controls:

Imposition of institutional controls in the form of an environmental easement and a Site Management Plan, as described below, will be required.

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 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 NYSDEC approved Site Management Plan.

A Site Management Plan is required, which includes 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 8 above.

**Engineering Controls:** The cover system discussed in Remedy Element 3, the sub-slab depressurization system discussed in Remedy Element 7, and the groundwater migration control system discussed above in Remedial Element 4.

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 contamination;
- a provision for further investigation and remediation should large scale redevelopment occur, if any of the existing structures are demolished, or if the subsurface is otherwise made accessible. The nature and extent of contamination in areas where access was

previously limited or unavailable will be immediately and thoroughly investigated pursuant to a plan approved by the NYSDEC. Based on the investigation results and the NYSDEC determination of the need for a remedy, a Remedial Action Work Plan (RAWP) will be developed for the final remedy for the site, including removal and/or treatment of any source areas to the extent feasible. Citizen Participation Plan (CPP) activities will continue through this process. Any necessary remediation will be completed prior to, or in association with, redevelopment;

- descriptions of the provisions of the environmental easement including any land use, and groundwater use restrictions;
- a provision for evaluation of the potential for soil vapor intrusion for 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 3 above will be placed in any areas where the upper one foot 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.
- 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.
- an Operation and Maintenance (O&M) Plan to ensure continued operation, maintenance, optimization, monitoring, inspection, and reporting of any mechanical or physical components of the remedy. The plan includes, but is not limited to:
  - procedures for operating and maintaining the remedy;
  - compliance monitoring of treatment systems and mitigation systems to ensure proper O&M as well as providing the data for any necessary permit or permit equivalent reporting;
  - maintaining site access controls and NYSDEC notification; and
  - providing the NYSDEC access to the site and O&M records.

### **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.

2/26/2026

*Michael J Cruden*

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Date

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Michael Cruden, Director  
Remedial Bureau E

# DECISION DOCUMENT

Carlson Park  
Rochester, Monroe County  
Site No. C828199  
February 2026

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## **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=C828199>

Rochester Public Library - Winton Branch  
611 Winton Road North  
Rochester, NY 14609

**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**

#### Site Location:

The Site is in an urban setting characterized by adjacent industrial, commercial and residential development. The site is 38.81 acres in size. The Site is approximately 2 1/2 miles east of the Genesee River and one mile northeast of the Cobbs Hill Reservoir.

#### Site Features:

The site consists of a multi-story office/commercial/industrial building complex, with 11 separate but connected buildings, constituting an approximately 880,000 square foot building complex, and two other smaller separate buildings. Some of the buildings are currently vacant. Building 10, see Figure 2, has a basement with a sump and a carbon treatment system which, since 1998, has been treating groundwater captured by the sump before being discharged to the POTW. There are large parking lot areas surrounding the large on-site building, which is essentially situated in the center of the Site. The buildings are composed primarily of steel skeletal construction reinforced with concrete floors with a brick exterior. The Building 10 basement, which is only present on the northern portion of the site, is comprised of a boiler room, chiller pit, electrical meter/power rooms, a former recreation/leisure space, and elevator machine rooms.

#### Current Zoning and Land Use:

The site is located in the M-1 Industrial Zoning District, which promotes the retention and growth of employment opportunities by providing areas where a broad range of industrial uses may locate and where options for complementary uses exist in older two-story and multistory buildings. Currently, the Site is used by commercial tenants for the following uses: offices, dance and music schools, bowling alley and restaurant, comedy club, radio stations, storage, light manufacturing, outdoor parking, catering, print and design shops. Zoning Code section on the M-1 Industrial District: The obsolescence of many industrial buildings for traditional manufacturing purposes is recognized, and the re-occupancy and redevelopment of those buildings are encouraged through the allowance of retail sales and services, offices, eating and drinking establishments. Pursuant to Zoning Code, allowed uses are commercial, industrial and restricted residential; though the proposed environmental easement would preclude restricted residential uses.

#### Past Use of the Site:

The existing building construction was created in four main segments between 1925 and 1952. Buildings 1, 2, 3, and 4 were built around 1925. Buildings 5 and 7 were built by 1950. By 1971, all building components had been constructed. Building 10, a 120,000-square foot building, was built in 1957 as a light industrial/office building. Building 10 is found in the northeast corner of the Carlson Park facility, which is the lowest point on the property. Since 1925 there have been multiple uses, including manufacturing, office buildings, storage spaces, shipping/receiving areas, a dining room, and light industrial. Stromberg-Carlson Corporation operated on the Site from 1925 until approximately 1978. Manufacturing uses included circuit board manufacturing operations with trichloroethene (TCE), tool and die, heat treatment, chemical storage and treatment, radio tube assembly, and woodworking. Two former tenants were RCRA hazardous waste Large Quantity Generators, Rochester Circuits, Inc. and Eastman Kodak. Eastman Kodak was located in Buildings 2, 3, 4, 8, 10A, 10B, and 10C. Historical industrial activities led to chlorinated solvent contamination, most notably TCE and its break down products.

#### Site Geology and Hydrogeology:

The topography of the site is fairly level and at grade with some adjacent properties to the north and northeast portion of the property. There is a significant slope at the eastern edge to the higher elevated adjacent residences. The southwest portion of the property is slightly elevated compared to the building and eastern parking lot. There is a gentle south to north slope in the immediate area, with Carlson Road sloping from south to north, leveling off at Humboldt Street, north of the site. The elevation of the property is between 425 and 450 feet above mean sea level.

The Site is considered Urban Land, which consists of areas that have been so altered or obscured by urban works that identification of the soils is not feasible. Groundwater flow is generally to the northeast in overburden (where present) and in bedrock. The depth to groundwater is approximately five feet in most areas. Dry overburden is present in areas along Humboldt St. with groundwater flowing only in bedrock. The depth to bedrock at the Site ranges from approximately 8 to 30 feet below ground surface, with bedrock being shallowest along the northern parts of the site.

A site location map is attached as Figure 1.

### **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 to commercial use (which allows for industrial use) 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 and Remedial Alternatives Analysis report (RAAR).

### **SECTION 5: ENFORCEMENT STATUS**

The Applicant under the Brownfield Cleanup Agreement is a Volunteer. The Volunteer does 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 and there are off-site impacts that require remedial activities; accordingly, enforcement actions may be necessary. The applicant is currently volunteering to further evaluate the potential for off-site migration and has addressed the previously identified potential exposure due to soil vapor intrusion via installation of vapor mitigation systems as interim remedial measures (IRMs). A separate remedial program will be implemented for the off-site elements not covered by this decision document.

## **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
- soil vapor

#### **6.1.1: Standards, Criteria, and Guidance (SCGs)**

The remedy must conform to promulgated standards and criteria that are directly applicable or that are relevant and appropriate. The selection of a remedy must also take into consideration guidance, as appropriate. Standards, Criteria and Guidance are hereafter called SCGs.

To determine whether the contaminants identified in various media are present at levels of concern, the data from the RI were compared to media-specific SCGs. 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:

### **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 is/are:

benzo(a)anthracene	dieldrin
benzo(a)pyrene	mercury
benzo(b)fluoranthene	polychlorinated biphenyls (PCB)
dichloroethene (cis-1,2-)	lead
dichloroethene (trans-1,2-)	arsenic
dibenz[a,h]anthracene	trichloroethene (TCE)
indeno(1,2,3-cd)pyrene	

The contaminants of concern exceed the applicable SCGs for groundwater and 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 IRMs have been completed at this site based on conditions observed during the RI.

#### **IRM - On-Site Sub Slab Depressurization System (SSDS)**

A SSDS was installed, starting in 2008, in the onsite building to prevent potential soil vapor intrusion (SVI). Mitigation measures were taken at the on-site buildings to address potential indoor air contamination of volatile organic compounds associated with soil vapor intrusion. A construction completion report (which included operation, monitoring and maintenance) was subsequently submitted and approved by the Department in January 2015.

#### **IRM - Soil Removals**

Two soil removal IRMs were completed in 2010 under the Voluntary Cleanup Program (VCP) prior to the site entering the BCP. One area east of Building 2 loading dock area (Area A) and a second area in the rear parking lot (Area B) were excavated to remove shallow soils identified as source material and leading to groundwater impacts. Area A was excavated to a depth of over 6 ftbgs to remove PAH sludge impacts. Area B was excavated to between 2.5 and 3.5 ftbgs based on field observation and PID screening for fill/ash impacted with volatile organic compounds. In total, 175.5 tons of impacted material was removed as part of the IRM and

disposed of off-site at an appropriate facility. Both areas were subsequently backfilled with approved material and the area pavement restored. Additional information on this IRM is included in the site's Remedial Investigation Report, Appendix R.

### IRM - Off-site Vapor Mitigation

Several off-site IRMs were conducted by the applicant as part of the off-site investigation during both the VCP and BCP. The applicant installed six SSDS to prevent potential SVI concerns at adjacent properties.

### **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 and groundwater were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, polychlorinated biphenyls (PCBs), per- and polyfluoroalkyl substances (PFAS), and pesticides. Soil Vapor samples were analyzed for VOCs. Based upon investigations conducted to date, the primary contaminants of concern for the site include trichloroethene (TCE) and cis-1,2-dichloroethene (Cis-1,2-DCE) in groundwater and soil vapor, along with localized soil exceedances for Polycyclic Aromatic Hydrocarbons (PAHs) and some metals.

Soil - Sample results were compared against the commercial soil cleanup objectives (CSCO), and to the protection of groundwater soil cleanup objectives (PGSCOs) for those contaminants found in groundwater above applicable standards. VOCs, specifically TCE and its breakdown products, were detected at concentrations well above the CSCO of 54 ppm and the PGSCO of 0.47 ppm in some locations. There are three identified soil source areas; two areas with potential Dense Non Aqueous Phase Liquid present and the other with TCE concentrations up to 560 ppm in soil. On-site soil has been found to locally have elevated levels of heavy metals; including lead over 1000 ppm (CSCO of 1000), arsenic over 20 ppm (CSCO of 16), and cadmium at 12 ppm (CSCO of 3.7). A localized area of PCB contamination was identified in soil with concentrations over 50 ppm, above the CSCO of 1 ppm. Exceedances of the pesticide Dieldrin above CSCOs of .48 were also present in some areas of surface soil. Data does not indicate any off-site impacts in soil related to this site.

Groundwater - Groundwater concentrations are elevated for TCE and cis-1,2-DCE (groundwater standard is 5 ppb each), from source area concentrations over 1 million ppb with potential NAPL present and 430,000 ppb cis-1,2-DCE. Offsite TCE groundwater samples range from non-detect to 81 ppb with cis-1,2-DCE up to 29 ppb. SVOCs, PCBs, heavy metals and pesticides were not detected above their respective AWQSGVs. Data does indicate off-site impacts in groundwater-related to this site.

Soil Vapor - Soil vapor on and off-site are both impacted with Chlorinated Volatile Organic Compounds (CVOCs). On-site, a system has been installed to mitigate potential soil vapor intrusion and protect the indoor air.

Sub Slab Soil Vapor and Indoor Air - Off-site soil vapor is also impacted with site CVOCs in some areas adjacent to the site. The volunteer has sampled over 20 adjacent properties and installed six mitigation systems where necessary to address indoor air concerns.

#### **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*.

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 its water from a different source that is not affected by this contamination. People will not come into contact with contaminated soil since the site is covered with buildings, concrete, and pavement, unless they dig below the ground surface. Volatile organic compounds in the soil vapor 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. Actions have been taken to address exposures related to soil vapor intrusion in the on-site building and at six off-site buildings.

#### **6.5: Summary of the Remediation Objectives**

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

#### **Groundwater**

##### **RAOs for Public Health Protection**

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

##### **RAOs for Environmental Protection**

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

#### **Soil**

### **RAOs for Public Health Protection**

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

### **RAOs for Environmental Protection**

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

### **Soil Vapor**

#### **RAOs for Public Health Protection**

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

## **SECTION 7: ELEMENTS OF THE SELECTED REMEDY**

The alternatives developed for the site and the evaluation of the remedial criteria are presented in the Alternative Analysis. The remedy is selected pursuant to the remedy selection criteria set forth in DER-10, Technical Guidance for Site Investigation and Remediation and 6 NYCRR Part 375.

The selected remedy is Alternative 1 - Track 4 Commercial Use.

The selected remedy is referred to as the Cover System, Groundwater Migration Control System, Excavation, and Soil Vapor Intrusion Evaluation/Mitigation remedy.

The elements of the selected remedy, as shown in Figure 3, are as follows:

#### **1. Pre-Design Investigation (PDI):**

A PDI to further define the limits of remediation and support a detailed design of the remedy. Some aspects of the PDI include:

- Evaluating the Building 10 sump capture zone and general groundwater flow modeling;
- Conducting bedrock testing, such as pump testing, to gather information necessary for the number, spacing/design, pumping rates and groundwater concentrations, all necessary information to design the hydraulic control and treatment system; and
- Further delineation of oil-impact area excavation extent and delineation of localized PCB exceedances discovered during recent utility work.

#### **2. 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. Remedial design of the remedy and procurement of required permits and approvals, as necessary. The remedial design is anticipated to be presented in a Remedial Action Work Plan (RAWP), prepared in accordance with Section 5.3 of DER-10.

### 3. Cover System:

A site cover will be required in areas where the upper one foot of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs), to allow for future commercial or industrial use of the site. Where a soil cover is to be used it will be a minimum of one foot of soil placed over a demarcation layer, with the upper six inches of soil of sufficient quality to maintain a vegetative layer. Soil cover material, including any fill material brought to the site, will meet the SCOs for cover material for the use of the site as set forth in 6 NYCRR Part 375-6.7(d). Substitution of other materials and components may be allowed where such components already

exist or are a component of the tangible property to be placed as part of site redevelopment. Such components may include, but are not necessarily limited to: pavement, concrete, paved surface parking areas, sidewalks, building foundations and building slabs.

#### 4. Groundwater Migration Control System:

A groundwater migration control system, which employs groundwater extraction and treatment, will be implemented to provide hydraulic control and containment of impacted overburden and bedrock groundwater. Groundwater extraction and treatment will be implemented to treat contaminants in groundwater and to prevent contaminated groundwater from migrating off-site. The groundwater extraction system will be designed and installed so that the capture zone is sufficient to intercept the groundwater contaminant plume and to stop the potential for further off-site migration. The extraction system will create a depression of the water table so that contaminated groundwater is directed toward the extraction wells within the plume area. Groundwater will be extracted from the subsurface to capture groundwater from the area of the groundwater contaminant plume shown on Figure 3. Further details of the extraction system will be determined during the remedial design. Prior to the full implementation of this technology, studies will be conducted to more clearly define design parameters, including extraction well spacing. It is assumed that the Building 10 sump will be incorporated into the extraction system (with potential modifications or upgrades) and supplemented with approximately three new bedrock groundwater extraction wells to achieve sufficient capture. Extracted groundwater will be directed via force main to an on-Site groundwater treatment system (assumed to be located within Building 10C) for treatment to meet effluent limits (established in a discharge permit) prior to being discharged via the sanitary sewer system to the publicly owned treatment works (POTW).

#### 5. Excavation:

Excavation and off-site treatment/disposal of soil within the Oil-Impacted Soil Area. It is anticipated that the area will be delineated based on field screening for visual determination of oil impacts and the impacted soil will be physically removed through mechanical excavation to the extent practicable. Utility conflicts, foundations, or other subsurface obstacles may limit the extent to which oil-impacted soil can be removed. Remaining impacts that are not accessible via excavation will be addressed by other components of the remedy. Monitoring and passive Non Aqueous Phase Liquid recovery may also be applicable to this area if the practicable extent of excavation leaves remaining, recoverable oil impacts. 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. 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.

#### 6. Monitored natural Attenuation (MNA):

MNA, in accordance with EPA's guidance "Use of Monitored Natural Attenuation at Superfund, RCRA Corrective Action, and Underground Storage Tank Sites" (EPA, 1999), will be employed to address COCs in overburden groundwater that exceed Class GA Criteria and are outside the capture zone of the hydraulic control system. MNA is anticipated to be applied to the off-site overburden groundwater impacts northeast of the Site. The MNA component of the remedy will

include periodic groundwater monitoring of COCs and natural attenuation indicators to support ongoing evaluations of the effectiveness of MNA and confirm that potential receptors are not being impacted.

#### 7. Soil Vapor Intrusion Evaluation/Mitigation:

The existing sub-slab depressurization systems (SSDSs, both on-Site and off-site) will be incorporated into the comprehensive remedy and continue to operate to mitigate the potential for subsurface vapor intrusion into occupied building spaces. In addition, potential future on-Site buildings will also require SVI evaluations or the inclusion of vapor mitigation measures if occupied.

#### 8. Institutional Controls:

Imposition of institutional controls in the form of an environmental easement and a Site Management Plan, as described below, will be required.

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 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 NYSDEC approved Site Management Plan.

A Site Management Plan is required, which includes 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 8 above.

Engineering Controls: The cover system discussed in Remedy Element 3, the sub-slab depressurization systems discussed in remedy element 7 above the groundwater migration control discussed above in remedial element 4.

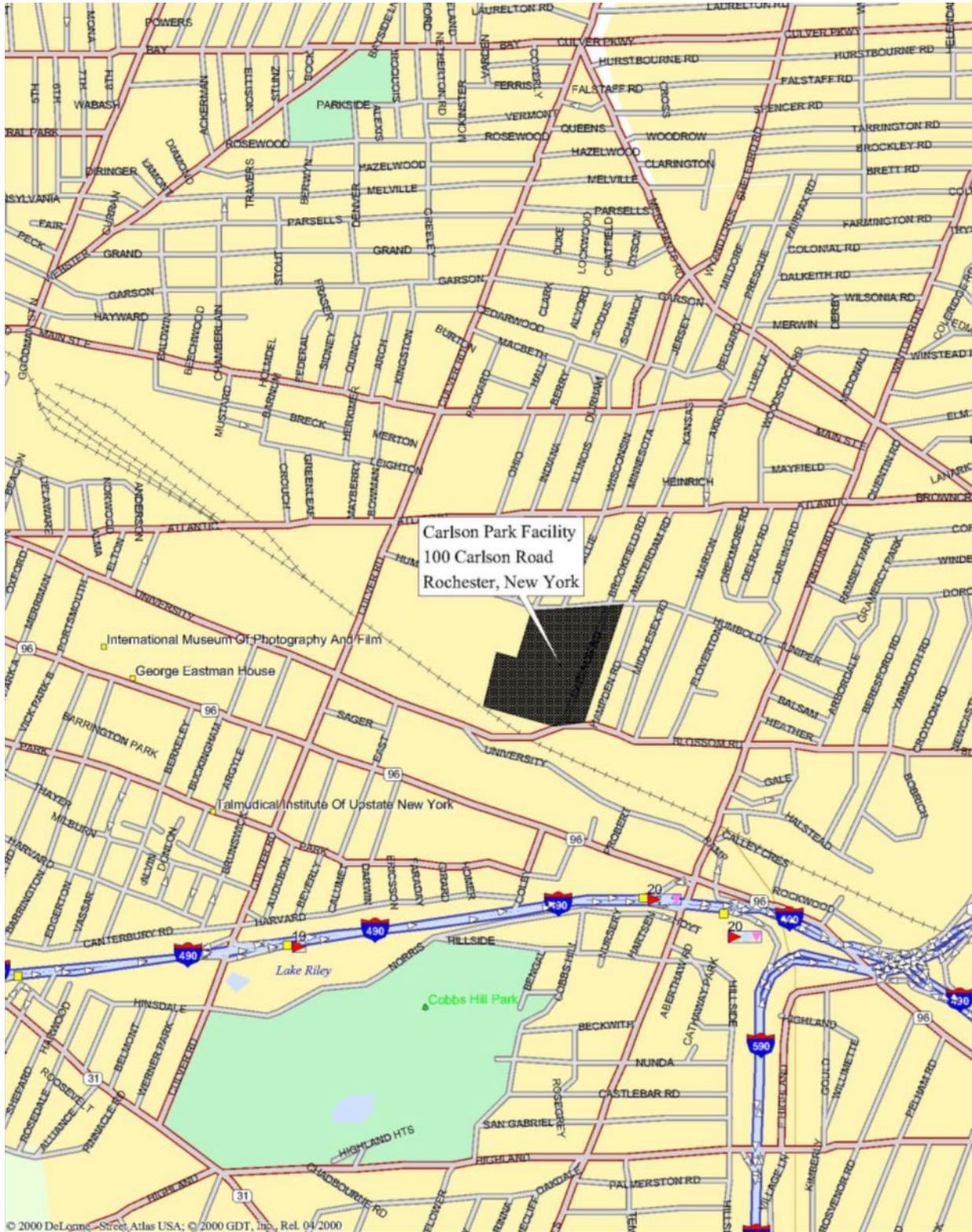
This plan includes, but may not be limited to:

- an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
- a provision for further investigation and remediation should large scale redevelopment occur, if any of the existing structures are demolished, or if the subsurface is otherwise made accessible. The nature and extent of contamination in areas where access was previously limited or unavailable will be immediately and thoroughly investigated pursuant to a plan approved by the NYSDEC. Based on the investigation results and the

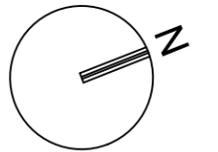
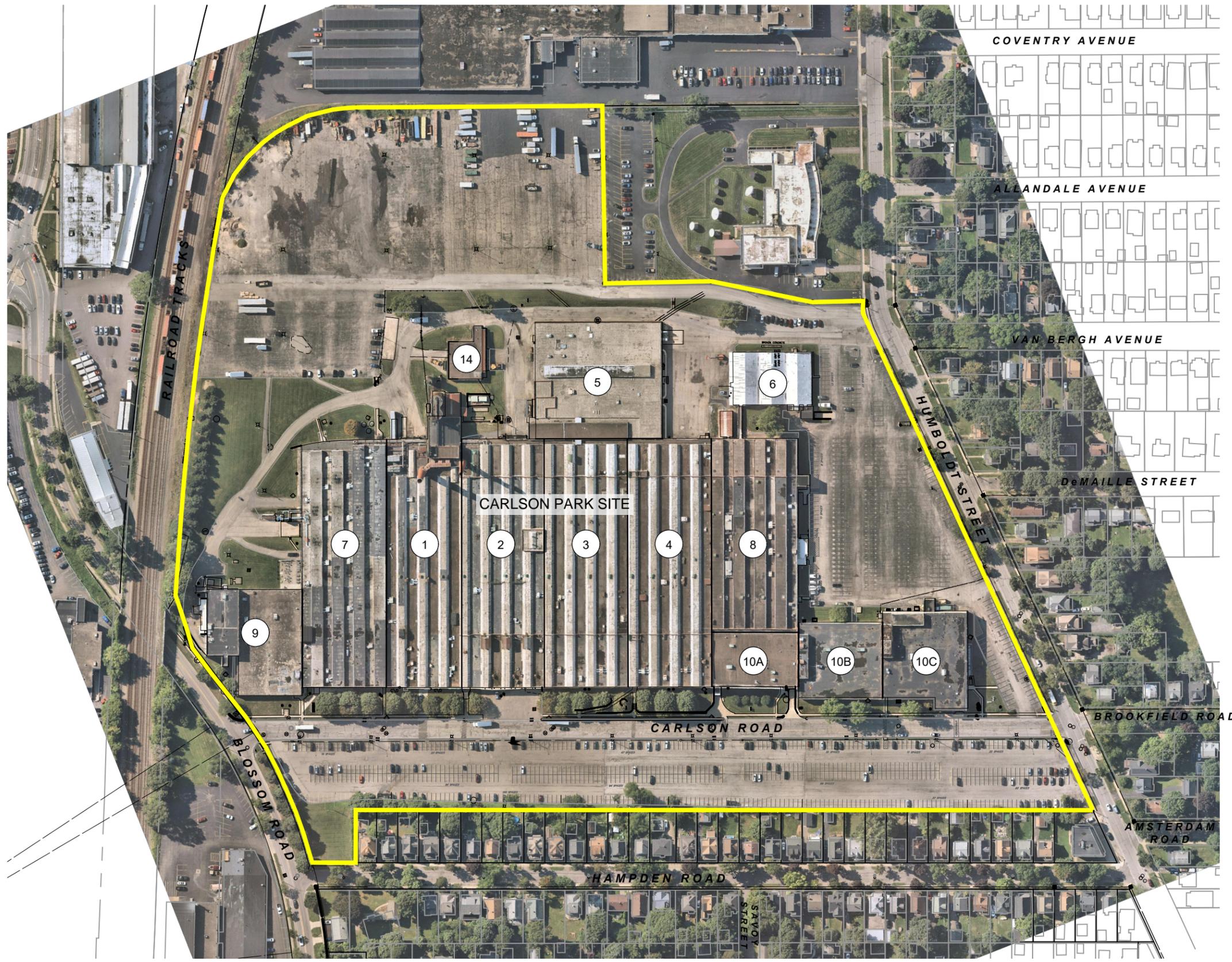
NYSDEC determination of the need for a remedy, a Remedial Action Work Plan (RAWP) will be developed for the final remedy for the site, including removal and/or treatment of any source areas to the extent feasible. Citizen Participation Plan (CPP) activities will continue through this process. Any necessary remediation will be completed prior to, or in association with, redevelopment;

- descriptions of the provisions of the environmental easement including any land use, and groundwater use restrictions;
- a provision for evaluation of the potential for soil vapor intrusion for any occupied buildings on the site, and off-site buildings in areas of site-related contamination, 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 3 above will be placed in any areas where the upper one foot 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.
- 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.
- an Operation and Maintenance (O&M) Plan to ensure continued operation, maintenance, optimization, monitoring, inspection, and reporting of any mechanical or physical components of the remedy. The plan includes, but is not limited to:
  - procedures for operating and maintaining the remedy;
  - compliance monitoring of treatment systems and mitigation systems to ensure proper O&M as well as providing the data for any necessary permit or permit equivalent reporting;
  - maintaining site access controls and NYSDEC notification; and
  - providing the NYSDEC access to the site and O&M records.

Figure 1: Site Location



## Figure 2: Site Boundary



**LEGEND**  
 ——— PROPERTY LINE/SITE BOUNDARY  
 (4) BUILDING IDENTIFICATION NUMBER

**NOTE**  
 REFER TO FIGURE 3 FOR BASE MAP LEGEND AND NOTES.



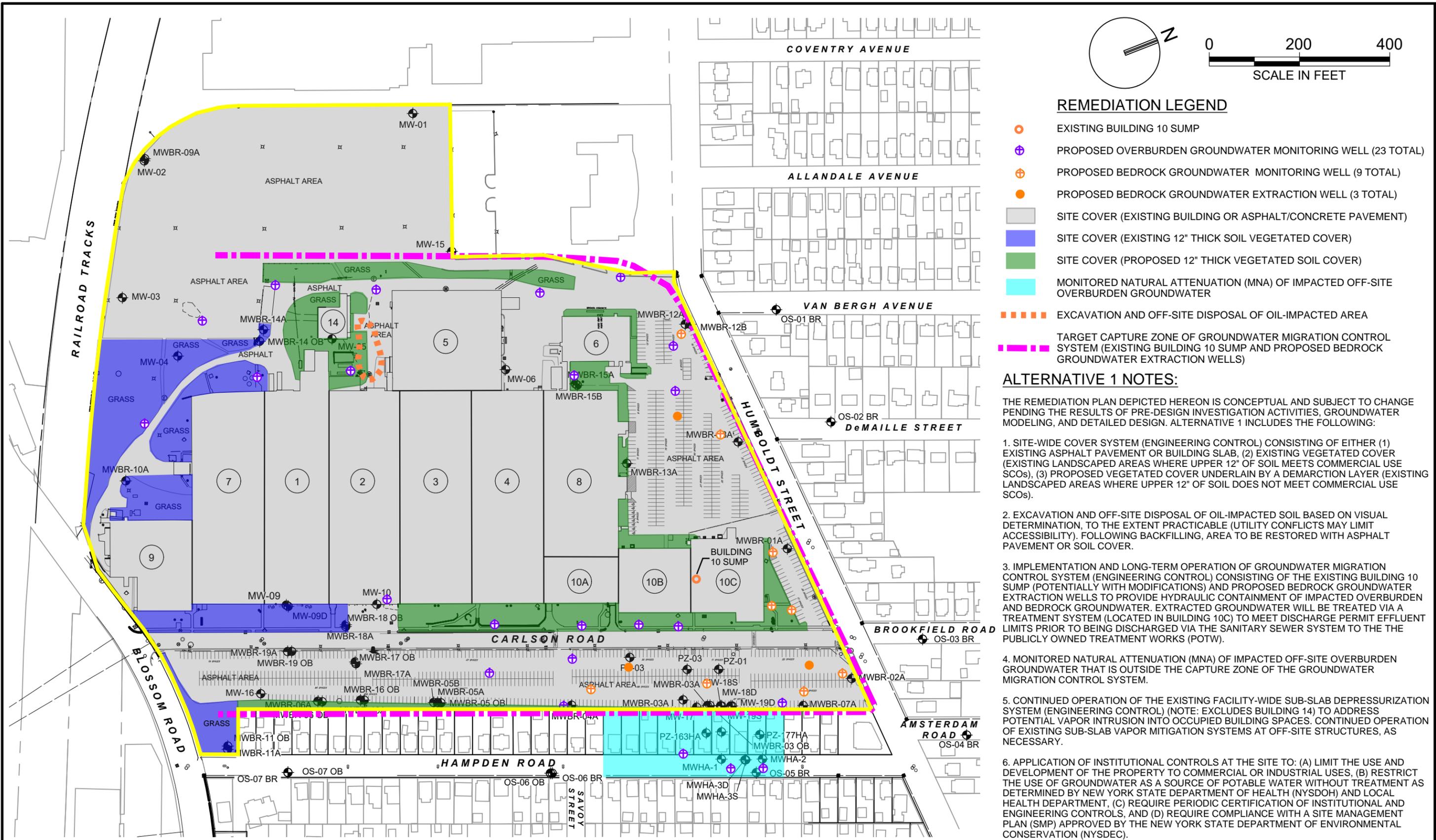
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CARLSON PARK SITE  
 ROCHESTER, NEW YORK

SITE AERIAL

FIGURE  
 2

**Figure 3: Elements of the Selected Remedy  
(RAAR Figure 4)**



**REMEDIATION LEGEND**

- EXISTING BUILDING 10 SUMP
- ⊕ PROPOSED OVERBURDEN GROUNDWATER MONITORING WELL (23 TOTAL)
- ⊕ PROPOSED BEDROCK GROUNDWATER MONITORING WELL (9 TOTAL)
- PROPOSED BEDROCK GROUNDWATER EXTRACTION WELL (3 TOTAL)
- SITE COVER (EXISTING BUILDING OR ASPHALT/CONCRETE PAVEMENT)
- SITE COVER (EXISTING 12" THICK SOIL VEGETATED COVER)
- SITE COVER (PROPOSED 12" THICK VEGETATED SOIL COVER)
- MONITORED NATURAL ATTENUATION (MNA) OF IMPACTED OFF-SITE OVERBURDEN GROUNDWATER
- EXCAVATION AND OFF-SITE DISPOSAL OF OIL-IMPACTED AREA
- TARGET CAPTURE ZONE OF GROUNDWATER MIGRATION CONTROL SYSTEM (EXISTING BUILDING 10 SUMP AND PROPOSED BEDROCK GROUNDWATER EXTRACTION WELLS)

**ALTERNATIVE 1 NOTES:**

THE REMEDIATION PLAN DEPICTED HEREON IS CONCEPTUAL AND SUBJECT TO CHANGE PENDING THE RESULTS OF PRE-DESIGN INVESTIGATION ACTIVITIES, GROUNDWATER MODELING, AND DETAILED DESIGN. ALTERNATIVE 1 INCLUDES THE FOLLOWING:

1. SITE-WIDE COVER SYSTEM (ENGINEERING CONTROL) CONSISTING OF EITHER (1) EXISTING ASPHALT PAVEMENT OR BUILDING SLAB, (2) EXISTING VEGETATED COVER (EXISTING LANDSCAPED AREAS WHERE UPPER 12" OF SOIL MEETS COMMERCIAL USE SCOs), (3) PROPOSED VEGETATED COVER UNDERLAIN BY A DEMARCTION LAYER (EXISTING LANDSCAPED AREAS WHERE UPPER 12" OF SOIL DOES NOT MEET COMMERCIAL USE SCOs).
2. EXCAVATION AND OFF-SITE DISPOSAL OF OIL-IMPACTED SOIL BASED ON VISUAL DETERMINATION, TO THE EXTENT PRACTICABLE (UTILITY CONFLICTS MAY LIMIT ACCESSIBILITY). FOLLOWING BACKFILLING, AREA TO BE RESTORED WITH ASPHALT PAVEMENT OR SOIL COVER.
3. IMPLEMENTATION AND LONG-TERM OPERATION OF GROUNDWATER MIGRATION CONTROL SYSTEM (ENGINEERING CONTROL) CONSISTING OF THE EXISTING BUILDING 10 SUMP (POTENTIALLY WITH MODIFICATIONS) AND PROPOSED BEDROCK GROUNDWATER EXTRACTION WELLS TO PROVIDE HYDRAULIC CONTAINMENT OF IMPACTED OVERBURDEN AND BEDROCK GROUNDWATER. EXTRACTED GROUNDWATER WILL BE TREATED VIA A TREATMENT SYSTEM (LOCATED IN BUILDING 10C) TO MEET DISCHARGE PERMIT EFFLUENT LIMITS PRIOR TO BEING DISCHARGED VIA THE SANITARY SEWER SYSTEM TO THE THE PUBLICLY OWNED TREATMENT WORKS (POTW).
4. MONITORED NATURAL ATTENUATION (MNA) OF IMPACTED OFF-SITE OVERBURDEN GROUNDWATER THAT IS OUTSIDE THE CAPTURE ZONE OF THE GROUNDWATER MIGRATION CONTROL SYSTEM.
5. CONTINUED OPERATION OF THE EXISTING FACILITY-WIDE SUB-SLAB DEPRESSURIZATION SYSTEM (ENGINEERING CONTROL) (NOTE: EXCLUDES BUILDING 14) TO ADDRESS POTENTIAL VAPOR INTRUSION INTO OCCUPIED BUILDING SPACES. CONTINUED OPERATION OF EXISTING SUB-SLAB VAPOR MITIGATION SYSTEMS AT OFF-SITE STRUCTURES, AS NECESSARY.
6. APPLICATION OF INSTITUTIONAL CONTROLS AT THE SITE TO: (A) LIMIT THE USE AND DEVELOPMENT OF THE PROPERTY TO COMMERCIAL OR INDUSTRIAL USES, (B) RESTRICT THE USE OF GROUNDWATER AS A SOURCE OF POTABLE WATER WITHOUT TREATMENT AS DETERMINED BY NEW YORK STATE DEPARTMENT OF HEALTH (NYSDOH) AND LOCAL HEALTH DEPARTMENT, (C) REQUIRE PERIODIC CERTIFICATION OF INSTITUTIONAL AND ENGINEERING CONTROLS, AND (D) REQUIRE COMPLIANCE WITH A SITE MANAGEMENT PLAN (SMP) APPROVED BY THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC).



SCALE: 1" = 200'  
DATE: APRIL 2025

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**CONCEPTUAL REMEDIATION PLAN FOR ALTERNATIVE 1  
TRACK 4 COMMERCIAL USE REMEDY**