USEPA ACTION MEMORANDUM
62-64 Scio Street
Rochester, New York
USEPA Assistance ID No. BF97219700 / NYSDEC Spill #0650898

August 2, 2012

I. Purpose

In accordance with the requirements of the City of Rochester's Cooperative Agreement with the United States Environmental Protection Agency (USEPA), the City of Rochester has prepared this Action Memorandum. The Action Memo is for the environmental cleanup of the City owned Site located at 62-64 Scio Street, City of Rochester, Monroe County, New York. Hereinafter, this parcel will be referred to as "the Site." The City of Rochester's authorized representative under the terms of the Cooperative Agreement has signed the Action Memo in accordance with USEPA grant requirements. This Action Memo serves as the primary decision document for federal grant compliance and substantiates the need for remedial action, identifying the proposed remedial actions, and explaining the rationale for the specific cleanup alternative selected to remediate the site. The Action Memo provides the following required information:

a) A description of the proposed selected environmental cleanup plan.
b) An explanation of why the cleanup is authorized by the regulatory agency.
c) An explanation of the rationale for selecting that particular action and how the plan meets cleanup goals.
d) A response to any public comments on the Analysis of Brownfield Cleanup Alternatives.
e) An explanation of how the selected cleanup will conform to all applicable or relevant and appropriate requirements including federal and state laws or regulations.

This Action Memo relies upon several sources of information including:

- Rizzo Associates Inc. Preliminary Site Assessment Update/Limited Subsurface Investigation Report, dated May 1993;
- DAY Environmental Inc. (DAY) Phase I Environmental Site Assessment Report, dated May 1995;
- DAY Environmental Inc. (DAY) Phase II Environmental Site Assessment Report, dated August 1995;
- DAY Underground Storage Tank Closure and Limited Subsurface Study Report, dated December 2006;
- DAY Data Package Limited Groundwater Study Report dated June 2007;
- Lu Engineers Phase I Environmental Site Assessment Report, dated October 2009;
- Analysis of Brownfield Cleanup Alternatives (ABCA) dated June 2012;
- Corrective Action Plan (CAP) dated July 2012; and
- NYSDEC Division of Environmental Remediation (DER) CP-51 / Soil Cleanup Guidance.

The Action Memo considers the Analysis of Brownfields Cleanup Alternatives (ABCA) evaluation of alternatives for the remediation of impacts identified at the site. The June 2012 ABCA report contains extensive information regarding previous environmental investigations, subsurface environmental conditions, assessment of potential cleanup alternatives, and plans and specifications to implement the proposed remedy. The ABCA report for the site specifies the potential future uses of the site, general site characteristics, and contains an evaluation of potential remedial alternatives and associated estimated costs to clean up the Site. The ABCA report also includes a specific recommended cleanup alternative to remediate the Site. The Corrective Action Plan (CAP) for the site contains the procedures, plans, specifications, and methodologies to remediate the

impacted media associated with former underground storage tanks (USTs) at the Site. The remedial measures, engineering controls, and institutional controls specified in the CAP are consistent with the proposed future use of the Site.

The environmental cleanup activities at the Site will be performed under the oversight of the New York State Department of Environmental Conservation (NYSDEC) Region 8, Division of Environmental Remediation. It is anticipated that the environmental cleanup will be completed under a Stipulation Agreement between the City and NYSDEC for this project.

II. Site Conditions and Background

A. Site Description

The Site is located in the City's desirable East End District, and is owned by the City of Rochester. The Site measures approximately 55 ft X 200 ft (~0.25 acres) and is currently vacant (Figure 2). Formerly, a 22,000 square foot, two-story, brick building constructed around 1920 occupied the Site. The building was mainly used as a warehouse from the date of construction, until approximately 1990. The City of Rochester took ownership of the property in 1996, at which time the building was mainly used as a storage unit until it was demolished in November 2002. The Site has remained vacant since demolition.

B. Previous Environmental Studies

- Rizzo Associates Inc. Preliminary Site Assessment Update/Limited Subsurface Investigation Report, dated May 1993;
- DAY Environmental Inc. (DAY) Phase I Environmental Site Assessment Report, dated May 1995;
- DAY Environmental Inc. (DAY) Phase II Environmental Site Assessment Report, dated August 1995;
- DAY Underground Storage Tank Closure and Limited Subsurface Study Report, dated December 2006;
- DAY Data Package Limited Groundwater Study Report dated June 2007; and
- Lu Engineers Phase I Environmental Site Assessment Report, dated October 2009.

C. Land Use History

The Site has been developed since the early 1920's when a 22,000 square foot, two-story, brick building occupied the Site. The building was mainly used as a warehouse from the date of construction, until approximately 1990. The City of Rochester took ownership of the property in 1996, at which time the building was mainly used as a storage unit until it was demolished in November 2002. The Site has remained vacant since demolition.

Detailed development plans for the Site have not been developed. However, it is anticipated that the redevelopment of the Site will include both green/recreational space and/or commercial expansion with a mixed use commercial facility and residential housing consistent with other development within the Center City District (CCD). If possible, the City would like to keep part of the Site as open space to provide possible bike parking and an access corridor from Mathews Street to Scio Street. This would potentially involve a paved walking trail, landscaped areas and bike parking.

D. Site Characteristics and Environmental Conditions

The results of the previous Environmental Studies revealed the following Recognized Environmental Concerns (RECs) associated with the Site and/ or adjacent properties that may be impacting the Site:

Underground Storage Tank(s)- Two underground storage tanks (USTs) were used on the Site to store petroleum products. These tanks (5,000 gallon and 2,000 gallon) were removed in 2006 and 2003, respectively. Subsurface investigations that began in 2006 showed the presence of petroleum compounds in site soils and groundwater.

Adjacent NYSDEC Active Spills- The NYSDEC's spills database was reviewed and identified eight active spills within a 0.5 mile radius of the Site. The distance and location of these spills from the Site suggest no environmental impact on the assessed properties.

Adjacent NYSDEC Spill – A spill was identified at 86 Scio Street. An Underground Storage Tank (UST) containing gasoline was removed in 1991, and the soil surrounding the tank was found to be contaminated. A soil venting system and three (3), groundwater monitoring wells were installed on the property. The only monitoring well to contain a detectable level of contamination was the well closest to 62-64 Scio Street. The spill was closed in 1995.

Groundwater Contamination at Adjacent Property Monitoring Wells- Petroleum contamination was identified at an adjacent property, located at 200 East Avenue, where groundwater flows north/northeast. Review of the NYSDEC Petroleum Bulk Storage (PBS) database identified six former storage tanks at 200 East Avenue. One 4,000 gasoline UST installed in 1986, three 1,000 gallon USTs with unknown contents, one 2,000 gallon gasoline UST installed in 1987, and one 1,000 gallon Aboveground Storage Tank (AST) with unknown contents. The tanks were closed and removed in 1997. A well located east/southeast of the Site contained seven VOCs ranging in concentration from 1.1-4.3 µg/l or ppb.

General Site Conditions – The Site is underlain by fill consisting primarily of sand, silt and gravel intermixed with lesser amounts of ash, cinders, brick, asphalt, concrete and wood from near the ground surface to depths ranging between about 2.0 feet and 8.0 feet below the ground surface. Indigenous soils generally consisting of sandy silts, clayey silts, and silty sands were encountered beneath the fill materials. Depth to groundwater across the Site ranges from approximately 9 to 12 feet below ground surface (bgs). Petroleum-type odors and/or staining were noted in soils collected from test borings during previous environmental investigations. In general, petroleum-impacted soils are present on the eastern half of the Site.

III. Known or Suspected Releases or Threatened Releases of a Hazardous Substance, Pollutant or Contaminant into the Environment

A. Known or Suspected Sources of Contamination

Listed below is a summary of known or suspected sources of site contamination, including analytical testing of multi-media samples (e.g., soil, groundwater, etc.). The results of previous Site Investigations were utilized to confirm the presence or absence of a specific contaminant source, and the conclusions are summarized below.

- *Summary – Underground Storage Tanks:*
  Field observations for soil and groundwater samples collected from the former UST area on the eastern portion of the Site indicated that soil and groundwater in this area are impaired by petroleum compounds. Moderate to strong petroleum odors, soil staining and elevated PID readings were noted in soil samples from several soil borings. The analytical results for soil samples collected from the borings revealed the presence of several gasoline-related VOCs and the Semi-VOC naphthalene at concentrations exceeding their associated NYSDEC Groundwater Standards. Based upon the field observations and analytical results, petroleum impairment of soil and groundwater is a significant concern in this area.

- *Summary – Adjacent NYSDEC Active Spills:*
  Eight (8) NYSDEC listed spills located within 0.5 miles from the Site were reviewed. The distance and location of four (4) of these spills suggest no environmental impact on the assessed property. However, an active spill was identified at 86 Scio Street. A leaking Underground Storage Tank (UST) containing gasoline was removed in 1991, and the soil surrounding the tank was found to be contaminated. A soil venting system and three (3), groundwater monitoring wells were installed on the property. The only monitoring well to contain a detectable level of contamination was the well closest to 62-64 Scio Street. The spill was closed in 1995. Based on the actions taken to remediate contamination to the soil and groundwater at the adjacent property and the subsequent NYSDEC spill file closure, petroleum impairment of soil and groundwater at the subject Site associated with off-Site contamination is not

considered a significant concern.

- *Summary - Groundwater Contamination at Adjacent Property Monitoring Wells:*
  Petroleum contamination associated with numerous former petroleum storage tanks was identified at an adjacent property, located at 200 East Avenue, where groundwater flows north/northeast. All USTs were removed from the adjacent property by 1997 and a remediation system was installed. Due to the distance from the subject Site and the direction of groundwater flow away from the subject Site, petroleum impairment of soil and groundwater at the subject Site associated with contamination at 200 East Avenue is not considered a significant concern.

- *Summary - General Site Conditions:*
  Petroleum-type odors and/or staining were noted in soils collected from test borings during previous environmental investigations. In general, petroleum-impacted soils are present on the eastern half of the Site encompassing an area of approximately 5,000 square feet and generally present at depths ranging from 8 to 12 feet below grade. The average thickness of petroleum contaminated soil over the eastern portion of the Site appears to be approximately two feet. Bedrock interface groundwater wells installed at the Site indicate that one area of relatively high VOC contaminated groundwater is present in the southeastern corner of the Site in relatively close proximity to the former gasoline UST. Total VOCs detected in well MW-3 were 11,019 µg/L (ppb) and benzene was detected at 1,660 µg/L in this well (NYSDEC groundwater standard = 1.0 µg/L). A second monitoring well (MW-2) installed approximately 95 feet west of MW-3 did not contain any detectable VOCs, indicating the areal extent of VOC-contaminated groundwater appears defined in the southwestern direction. Based upon the field observations and analytical results, petroleum impairment of soil and groundwater does appear to be a significant concern in these areas.

Figure 3 illustrates the sample locations and aerial extent of suspected petroleum contamination at the Site.

B. Potential Threats to Public Health or the Environment

The Site is located in an urban environment and is currently vacant. The Site does not contain any federal or State wetlands. The Site does not contain any surface water bodies. The Site and adjacent properties are serviced by public water supply system managed by the City of Rochester, and the Site does not contain any drinking water wells. The installation of new drinking water wells within the City of Rochester municipal limits are restricted by existing City Code requirements.

1. Potential Contaminant Exposure Pathways and Receptors

The primary source of contamination is petroleum contaminated soil and groundwater associated with the former on-Site USTs. The resulting secondary sources of contamination also present at the Site are:

- Contaminated Surface and Subsurface Soils
- Dissolved Phase Groundwater Contamination
- Contaminated Soil Gas Vapors and Odors

Potential transport mechanisms at the Site include:

- Wind and Atmospheric Dispersion
- Volatilization to Enclosed Spaces (e.g., indoor air entering future on-site buildings or adjacent buildings)
- Leaching of Contaminants to Groundwater and Transport/Migration via Groundwater.

Complete or potentially complete exposure pathways and routes of exposure at the Site include:

- Soil via dermal contact or ingestion, including direct contact during the remedial work
- Air via inhalation of vapors or particulates from soil or groundwater

- Groundwater via dermal contact during the cleanup
- Soil, air or groundwater contact during utility excavations for maintenance and/ or repairs,

Currently the Site contains a vacant grass lot and does not contain any buildings or structures. Based on the Site's current land use, potential receptors include construction or utility workers during subsurface excavation activities. If the Site is developed in the future, potential receptors include construction workers, utility workers, and depending upon the final redevelopment potential commercial users of the Site.

Given the Site's current use a vacant grass lot, dermal contact with contaminated surface soils and volatilization to indoor air are not considered completed exposure pathways at the Site. However inhalation of vapors within adjacent structures represents a completed exposure pathway. Since the Site is in an urban setting and groundwater at the Site and adjacent properties are serviced by the City's municipal water supply, it is not anticipated that ingestion of groundwater is a completed exposure pathway. The potential exposure pathways and routes of exposure identified above can be mitigated and properly managed during the remedial work through the use of a Health and Safety Plan (HASP) and Community Air Monitoring Plan (CAMP), designed to protect and prevent exposures to Site workers and the public.

C. Environmental Database Status

1. The Site is not listed on the National Priorities List (NPL). The Site is not proposed to be added to the NPL list, and the proposed remedial activities planned for the Site should not result in the Site being added to the NPL list.

2. The Site is not listed in Comprehensive Environmental Response, Compensation, and Liability Information System database.

3. The Site is the listed as a Resource, Conservation, and Recovery Act (RCRA) Treatment, Storage, and Disposal (TSD) database.

4. The Site is not listed in the York State Department of Environmental Conservation (NYSDEC) Inactive Hazardous Waste Disposal Site or the NYSDEC Hazardous Substance Waste Disposal Site databases.

5. The Site is listed as an "Active" NYSDEC petroleum spill site (Spill No. 0650898).

D. State and Local Authorities' Roles

The City of Rochester is performing the cleanup under the oversight of the NYSDEC Department of Environmental Remediation (DER). The City entered into a Stipulation Agreement with the NYSDEC on August 9, 2012 committing the City to effectuate the remediation of the Site. The CAP received NYSDEC approval on August 2, 2012.

IV. Proposed Corrective Actions and Estimated Costs

A. Proposed Actions

1. Proposed Action Description

In accordance with the July 2006 Brownfield Grant Cleanup Work Plan prepared by the City and approved by the EPA, the City developed an Analysis of Brownfields Cleanup Alternatives (ABCA) report dated October 2006 for the Site. The ABCA report identified and evaluated eight (8) alternatives to remediate petroleum-contaminated soil and groundwater at the Site. The City evaluated each of the four alternatives based on established criteria, including:

- Technical feasibility, constructability, and implementability;
- Short-term and long-term effectiveness;

- Reduction in toxicity, mobility, and volume;
- Compliance with anticipated applicable or relevant and appropriate requirements (ARARs);
- Protection of human health and the environment;
- Duration;
- Estimated cost

2. Applicable or Relevant and Appropriate Requirements (ARARs)

The proposed or anticipated applicable or relevant and appropriate requirements (ARARs) for the Site are identified below:

Soil ARARs: Generally, impacted soil will be remediated to the Recommended Soil Cleanup Objectives (RSCOs) referenced in the NYSDEC CP-51 / Soil Cleanup Guidance document (effective December 3, 2010). Impacted soil or fill containing contaminants above RSCOs that are left in-place will be managed with a Site Management Plan (SMP) for potential future disturbances (e.g., utility repair work), and with environmental engineering and institutional controls (e.g., flagging the Site in the City's Building Information System).

Groundwater ARARs: Contamination in groundwater will be evaluated using NYSDEC *Technical and Operational Guidance Series 1.1.1: Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations* (TOGS 1.1.1) dated June 1998.

Soil Gas Vapors ARARs: Evaluation of post-remedial soil gas sampling results will be based on provisions set forth in the Human Health Risk Assessment guidelines outlined in NYSDEC DER-10 and/or the New York State Department of Health (NYSDOH) *Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York* dated October 2006.

3. Description of Cleanup Alternatives Evaluated

Additional details regarding the technical scope of each cleanup alternative are included in the City's June 2012 Analysis of Brownfield Cleanup Alternatives (ABCA) report. Listed below are the four cleanup alternatives evaluated for the Site:

1. No Action
2. Soil Removal and Off-Site Disposal
3. Soil Removal and Off-Site Disposal and In-Situ Groundwater Treatment Through Direct Oxygen Injection
4. In-Situ Air Sparging and Soil Vapor Extraction

For each of the alternatives identified above, the proposed remedy also includes development and implementation of a Site Environmental Management Plan (EMP) in order to manage potential future disturbances of residual contamination left in-place.

I. Cleanup Alternative #1 - No Action

The No Action alternative does not include any active remedial actions, and leaves the Site in its current condition. This alternative does not significantly reduce toxicity, mobility or volume of contamination, would not meet ARARs, and therefore would not be protective of the environmental or human health if the Site is disturbed or redeveloped. Under this alternative, some limited natural attenuation of contamination may occur in portions of the Site to reduce contaminant concentrations over very long periods of time; however, the timeframe, degree and extent of natural attenuation would be unknown and difficult to quantify.

Under this alternative, any redevelopment of the Site would encounter contamination above ARARs, and thus have the potential to expose construction workers and the public to contaminants. If remedial actions and/or institutional and engineering controls are not developed and properly implemented, potential migration of contaminants off-site may occur under this alternative. Therefore, while the No Action alternative

is the least costly alternative, it does not appear to be protective of human health or the environment, will not meet ARARs, and will limit or restrict redevelopment and use of the Site. The estimated cost range to implement this alternative is $0.

II. Cleanup Alternative #2 - Soil Removal and Off-site Disposal

The Soil Removal and Disposal alternative includes the excavation of petroleum impacted soil and fill materials present between an average depths of 8 to 12 feet below ground surface (bgs) from an area encompassing approximately 5,000 square feet (Primary Source Area). The average thickness of the impacted soil over the eastern portion of the Site is two (2) feet. Approximately 1,000 to 1,500 tons of petroleum-impacted soil will be removed from the Site and disposed of off-Site at a permitted landfill. Due to the relatively small size of the Site and close proximity of off-site receptors, on-site treatment of contaminated soil was determined to be impractical and cost prohibitive. If groundwater is encountered during soil removal activities, dewatering of the excavation will be conducted as necessary, which would assist in remediating contaminated groundwater in the Primary Source area. Post-removal confirmatory soil samples would be collected in order to ensure that the soil removal has adequately meet ARARs, and to evaluate concentrations of contaminants left in-place. During the soil removal work, air monitoring would be performed as specified in a HASP and a CAMP to ensure that off-site receptors will not be impacted by vapors, odors, or particulates.

Under this alternative, the removal of the primary source of contamination leaching to groundwater should result in a significant improvement in groundwater quality. However, limitations to the extent of full excavation of the Primary Source Area are encountered at the eastern, northern and southern property borders where public right-of-way and adjacent property surface parking lots' integrity could be potentially compromised. It is also possible that contamination may exist beneath these areas that would not be addressed by this alternative.

After the removal of the primary source area, monitoring of Site groundwater will be conducted in order to evaluate and track trends in groundwater quality over time. This alternative includes the installation of several groundwater monitoring wells and four rounds of sampling over a period of one year. Based on the laboratory results of the post source removal groundwater sampling, groundwater remediation may be recommended. Residual soil vapor intrusion issues would also need to be controlled with the installation of a sub-slab depressurization system (SSDS) or equivalent engineering control.

Excavation and Off-site Disposal is a well-established cleanup alternative for petroleum-impacted soils. This alternative is easily implemented, permanently removes the greatest amount of contaminant volume and mass, reduces toxicity and mobility of contaminants, can be completed in a relatively short period of time, and is cost competitive with other remedial alternatives. However, the physical limitations of the Site, specifically, the proximity of neighboring properties and right-of-way, necessitates incomplete removal of source area soils that could continue to impact groundwater and soil vapor at the Site and surrounding properties in the future. Total costs for the Excavation and Off-site Disposal alternative are estimated to be approximately $155,000. Additional costs for installation, operation and maintenance of a SSDS could range from $50,000. The estimated cost range to implement this alternative is approximately $205,000.

III. Cleanup Alternative #3 – Alternative #2 and In-Situ Groundwater Treatment Through Direct Oxygen Injection

The Soil Removal and Off-Site Disposal (Alternative #2) with Oxygen Injection alternative includes all activities described in Alternative #2. Subsequent to source area soil removal, a direct Oxygen Injection system would be designed, based on post-source removal groundwater quality sampling and analysis, and installed to treat approximately 5,000 square feet of the Site saturated zone. The Oxygen Injection system can be designed to remediate groundwater present in both the overburden and within the upper 5 feet of bedrock. Since dissolved phase oxygen can be dispersed via molecular diffusion as well as groundwater advection, the Oxygen Injection system can also be designed to remediate contaminated groundwater near property lines, acting as an effective bioremediation barrier to address contaminated groundwater that may be migrating off-site. The injection of pure oxygen into groundwater using oxygen generators is a patented groundwater remediation process (US. Patent No. 5,874,001) developed by Matrix Environmental. Oxygen injection rapidly enhances the

biodegradation of organic contaminants such as petroleum hydrocarbons and most chlorinated solvents that are biodegradable under aerobic conditions. The O2 injection method does not require groundwater extraction and/ or off-site treatment and disposal and does not generate any vapors or odors. It is a proven remediation technique for Sites in which physical remediation processes are not practical or efficient. The estimated cost range to implement this alternative is approximately $230,000.

This process is a proven remedial option, is easily implemented, permanently removes the greatest amount of contaminant volume and mass, reduces toxicity and mobility of contaminants, and is cost competitive with other remedial alternatives. This Alternative is protective of human health and the environment, but would require a longer timeframe than Alternative #2 (Soil Removal and Disposal). However, continued use of the property as a surface parking lot would be possible while the Oxygen Injection system is operating. Access to the Site would be required for periodic operation, maintenance and monitoring throughout the cleanup process, which may impede or limit other redevelopment options during the groundwater treatment period, which may be one to two years.

IV. Cleanup Alternative #4 - In-Situ Air Sparging and Soil Vapor Extraction

The In-Situ Air Sparging and Soil Vapor Extraction (AS/SVE) alternative is a proven cleanup alterative used at petroleum-contaminated sites to remediate soil, and to a lesser degree, groundwater impacted with petroleum contamination. This alternative involves the construction of an air sparging system to inject atmospheric air under pressure to volatilize or strip volatile organic compounds (VOCs) present in petroleum-contaminated soil. The soil vapor extraction system SVE system contains a series of perforated pipes connected to a blower and operating under a vacuum to collect or extract the VOCs and vapors from the contaminated subsurface media. The system would consist of a series of air injection and vapor extraction wells throughout the petroleum-impacted area and would be operated for approximately five years until asymptotic conditions are documented. Monitoring of the groundwater would be conducted in order to evaluate the effects of the remedial work on the concentrations of contaminants in the groundwater. The estimated cost range to implement this alternative is approximately $260,000.

Several factors would limit the applicability, effectiveness, and desirability of this alterative at the Site. Site soils contain relatively low permeability glacial till and some of the contamination is present in or near the saturated zone. These conditions will likely limit the overall effectiveness of AS/SVE process (i.e., reduction in the radius of influence) and may not result in a decrease in leaching of contamination to groundwater. Heterogeneous fill materials at the Site (i.e., fill materials/debris, potential former building basements, etc.) may lead to channeling of the AS/SVE (i.e., preferential pathways), which may result in contamination left in-place that will not meet ARARs. SVE systems require the discharge or emission of VOCs to atmospheric air, which can produce nuisance odors and noise from the SVE equipment. Some SVE systems require costly treatment of emissions prior to discharge. This process would require a longer timeframe than Alternative #2 and Alternative #3.

Redevelopment of the property would be possible while the AS/SVE system is operating; however, redevelopment would be limited in certain areas since the AS/SVE system requires an underground piping network, a small building or sheds to house the working components of the AS/SVE system. Access to the Site would be required for periodic operation, maintenance and monitoring throughout the cleanup process, which may impede or limit redevelopment options.

4. Comparison of Cleanup Alternatives

Table 4.1 details a comparison of the four (4) proposed remedial alternative approaches.

Remediation Criteria	Alternative #1 (No Action)	Alternative #2 (Impacted Soil Removal)	Alternative #3 (Impacted Soil Removal & GW Remediation)	Alternative #4 (Air Sparging and Soil Vapor Extraction)
Implementability	Easy	Easy	Moderate	Difficult
Short Term Impacts & Effectiveness	Impacts – No Effectiveness - No	Impacts – Yes Effectiveness - No	Impacts – Yes Effectiveness - Yes	Impacts – No Effectiveness - Yes
Long Term Effectiveness & Permanence	No	No	Yes	Yes
Reduction of Toxicity, mobility and volume	No	Some	Yes	Yes
Compliance with ARARs	No	No	Yes	Yes
Protection of Human Health and the Environment	No	Yes	Yes	Yes
Acceptable for Planned Future Use	No	No	Yes	No
Estimated Cost	$0	$205.000	$230.000	$260.000

Alternative #1 (No Action) will not remediate contamination at the Site, will not meet ARARs, and will limit or prohibit redevelopment activities.

Alternative #2 (Soil Removal and Off-Site Disposal) is a proven remedial option and is protective of human health and the environment. This alternative permanently removes the greatest amount of contaminant mass and volume, which in turn will immediately reduce contaminant toxicity and mobility. Soil Excavation and Disposal can be implemented in a relatively short period of time which will facilitate the timely redevelopment and reuse of the Site. The Removal and Off-site Disposal alternative effectively physically removes the primary source of contamination leaching to groundwater, and will ultimately assist in attenuation of contaminants in groundwater, and has the greatest potential to meet both soil and groundwater ARARs. However, the physical limitations of the Site, specifically, the proximity of neighboring improved surface lots and the public right-of-way, necessitates incomplete removal of source area soils that could continue to impact groundwater and soil vapor at the Site and surrounding properties in the future.

Alternative #4 (In-Situ Air Sparging and Soil Vapor Extraction) does not include the excavation and removal of grossly contaminated soils and instead employs a combination of In-Situ Air Sparging and Soil Vapor Extraction (AS/SVE). While this alternative is a proven remedial option, protective of human health and the environment, the effectiveness of the option may be limited by subsurface and/or other physical Site conditions. In addition, this alternative requires a longer timeframe than the Soil Removal and Disposal Alternative or the Soil Removal and Disposal and In-Situ Groundwater Treatment Through Direct Oxygen Injection Alternative and may greatly increase the risk of soil vapor intrusion impacts at the neighboring buildings. The effectiveness of the option to degrade source area contamination in the saturated zone may be limited, potentially leaving portions of the Primary Source untreated, resulting in pockets of contamination left in-place. The uncertainty of the effectiveness of Alternative #4 could necessitate that additional remedial measures be completed increasing the final cost of Site remediation.

5. Recommended Cleanup Alternative

Based on the location and extent of contamination, the remedial objectives and the intended future use of the Site, Alternative #2 - Soil Removal and Off-Site Disposal with Oxygen Injection is the recommended cleanup alternative.

Oxygen injection rapidly enhances the biodegradation of organic contaminants such as petroleum hydrocarbons and most chlorinated solvents that are biodegradable under aerobic conditions. The system produces oxygen at purity up to 95%, which is injected at low pressure to disperse oxygen into the formation without causing contaminant volatilization. The primary mechanisms of oxygen transport are advection and dispersion, the same mechanisms that facilitated contaminant migration. Oxygen injection is suitable for shallow groundwater conditions since there is no generation of hazardous vapors or the need for vapor control.

Oxygen injection provides a very efficient process to stimulate the aerobic biodegradation of groundwater contaminants. The high solubility of oxygen gas overcomes the mass transfer limitation of air injection and other oxygen supplying techniques. This technology produces dissolved oxygen concentrations significantly higher than the total oxygen demand, consequently resulting in oxygen transport and geochemical conditions that are ideal for biodegradation. The oxygen injection rates and intervals are automated and fully adjustable for optimization to the Site-specific conditions. Dissolved oxygen and oxidation-reduction potential (ORP are monitored for system optimization and as indicators of biomass growth and contaminant utilization.

Dissolved inorganic compounds, such as ferrous iron, are often found at high concentrations at contaminated Sites and will precipitate in an aerobic environment. However, ferrous iron is formed by obligate anaerobic bacteria that are intolerant of oxygen and become inhibited once oxygen is introduced to groundwater. The available ferrous iron that precipitates in the formation does not result in fouling because the mass is not concentrate as with pumping systems.

Interim use use of the property as a surface parking lot or green space would be possible while the Oxygen Injection system is operating. Access to the Site would be required for periodic operation, maintenance and monitoring throughout the cleanup process, which may impede or limit other redevelopment options.

V. PUBLIC COMMENTS ON THE ABCA

The City posted a copy of the ABCA report on its website on June 13, 2012. In addition, the City presented the ABCA report and the draft Public Participation Plan (PIP), at meetings of the East and Alexander Neighborhood and Business Association and the Upper East End Business Association meetings on June 13, 2012 and July 12, 2012, respectively. Copies of the meeting sign-in sheets as well as copies of the "question and answers" from the meetings are included herein.

VI. SUMMARY OF PROPOSED CORRECTIVE ACTION PLAN

A. Corrective Action Plan Overview

Lu Engineers (Lu) prepared a Corrective Action Plan (CAP) dated July 2012, to be implemented at the 0.25 acre vacant parcel located at 62-64 Scio Street, City of Rochester, and County of Monroe, New York (Site). The location of the Site is shown on Figure 1 (Project Location Map).

The Project is being performed as part of the City of Rochester's (City's) 2010 Brownfield Cleanup Grant from the United States Environmental Protection Agency (EPA). The CAP will be completed under a Stipulation Agreement between the City of Rochester (City) and the New York State Department of Environmental Conservation (NYSDEC). The CAP details the proposed remedial actions to be implemented at the Site which is consistent with the recommended cleanup alternative for the Site.

The remedial activities in the CAP include the following:

- Waste characterization;
- Removal and off-site disposal of petroleum-contaminated soil associated with former on-site USTs;
- Environmental monitoring;
- Confirmatory soil sampling and analytical laboratory testing;
- Backfilling the excavation;
- Post-source removal groundwater monitoring;
- Design and Installation of the Oxygen Injection System for groundwater remediation;
- Development and implementation of a Health and Safety Plan;
- Quality assurance /quality control;
- Remedial construction/closure report;
- Environmental management plan;

B. Waste Characterization

Based on previous site characterization data, approximately 1,370 tons of source area soil/fill/fractured rock will be removed from the Site for off-site disposal. Prior to conducting the soil removal work, a backhoe or equivalent piece of exploratory equipment will be mobilized to the Site to obtain representative samples for laboratory analysis and preparation of source soil waste profiles. A total of six (6) test pits will be advanced to a depth of approximately twelve (12) feet bgs, in the areas of suspected highest contamination in order to obtain appropriate sample(s) for waste characterization analysis. The location of each test pit will be recorded using a hand-held Geo-XT (or similar) global positioning system (GPS) unit for data transfer to a Geographical Information System (GIS).

Soil samples collected and will be submitted to, a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified analytical laboratory. The samples will be analyzed for the following parameters:

- STARS Volatiles (EPA 8260);
- Total Lead; and
- Flashpoint.

Laboratory test results will be used in the preparation of a waste profile with assistance from the City in order to obtain approval from a regulated disposal facility.

C. Soil Removal, Community Air Monitoring and Waste Disposal

The CAP includes tasks to remove petroleum-impacted soil at the Site, and transport and dispose of the petroleum impacted soil at an approved off-site landfill facility, and document the work completed. Heavy equipment will be used to excavation, stage, and transport materials, including trucks, excavators, bulldozers, loaders and a tampers or rollers. Consultants and/ or City staff will be on-site full-time to document and monitor the CAP work. Health and Safety air monitoring for VOCs and particulates will be conducted during the removal work. Figure 4 illustrates the approximate locations of soil excavation areas, soil staging areas, fencing and site access controls, and the proposed decontamination pad.

Source removal work will be conducted at the eastern portion of the Site in the area of the former gasoline USTs, which is an approximate 5,000 square-foot area. Approximately 1,370 tons of petroleum contaminated soil will be transported off-site by NYSDEC Part 364 permitted trucks for disposal at a landfill. It is anticipated that the petroleum-contaminated soil will be used as cover at a NYSDEC-approved landfill facility. Uncontaminated soils are anticipated to be available from an area approximately 52-ft by 30-ft by 6.0-ft deep for a total of approximately 700 tons of potentially reusable soil.

Currently, it is anticipated that the removal activities may be completed in sections or cells, and that these cells will be backfilled on a periodic basis until the source removal is complete. The source removal will be limited to the boundaries of the Site. If deemed necessary materials will be used during the excavation process to suppress petroleum odors and vapors during excavation activities involving petroleum-contamination.

D. Potential Dewatering of the Excavation

A 20,000-gallon capacity frac tank will be mobilized to the Site for temporary storage of all water removed from the excavation as necessary to allow excavation and backfilling to progress unimpeded. Once all water has been collected, sampling will be conducted and treatment and/ or disposal will be coordinated with Monroe County Division of Pure Waters to obtain a permit to discharge the water after treatment as necessary into the nearest sanitary sewer access point available in the area of the Site. Any free-phase petroleum observed in the tank will be removed and handled and disposed of accordingly.

E. Confirmatory Soil Sampling and Analysis

As stated in NYSDEC CP-51 Soil Cleanup Guidance, the goal of remediation within the Spills Program is to achieve, to the extent feasible, Unrestricted Use Soil Cleanup Objectives (SCOs) for petroleum-related contaminants listed in 6 NYCRR Part 375-6.8(a). Limits of excavation will be determined using a combination of previous analytical results, PID readings obtained during excavation and field observations made during the soil source removal activities.

Once it has been determined that all impacted source area soil has been removed, confirmation soil samples will be collected from excavation sidewalls, in accordance with NYSDEC CP-51 Soil Cleanup Guidance. No bottom samples are proposed since excavation is expected to terminate on bedrock. Sidewall samples will be collected approximately every 30 feet. A total of 11 confirmatory sidewall soil samples are anticipated. An additional three (3) QA/QC samples will be obtained for STARS VOCs (EPA Method 8260) and Total Lead analyses. The confirmation soil samples will be sent to Paradigm Environmental for analysis. A hand-held Geo-XT (or similar) GPS unit will be used to record the locations of confirmatory soil samples.

It is anticipated that soil exceeding Unrestricted Use SCOs will remain along the property boundary, sidewalks, trees, and adjacent buildings. For areas where soil removal is not feasible, it is anticipated that the Restricted-Residential or Commercial Use SCOs will apply. Since some petroleum-impacted soil will be left in-place, other corrective actions such as in-situ remediation, engineering controls and/or institutional controls will in order to meet final Site cleanup objectives. The anticipated in-situ remediation approach is detailed further in Section 4.0 of this CAP.

F. Assessment of residual Groundwater Impacts, Treatment System Design and Installation

Assessment of baseline Site groundwater conditions will include a detailed review of existing data supplemented with additional characterization including conditions at the newly installed groundwater monitoring wells. These wells will be installed through the bedrock-overburden interface and will be constructed such that the screened interval will be above the potential highest anticipated groundwater elevations to allow detection of light non-aqueous phase liquids that may be present. Six (6) viable monitoring wells are considered necessary for adequate characterization and remedial monitoring. If additional wells are required due to destruction or damage during the source removal process, they will be installed in locations agreed upon with City officials to be reasonably representative of previous well locations. Groundwater samples will be collected and submitted to a New York State Department of Health (NYSDOH) certified laboratory for STARS VOC analysis, by USEPA Method 8260B compounds. Laboratory QAIQC will include analysis of sample blanks as follows: one trip, one field, and one method blank will be analyzed for both soil and groundwater samples.

The groundwater analytical data will be compared to the existing data gathered during the remedial investigation. If the analytical results indicate that source removal of has had a significant effect on the levels of contaminants of concern (COCs) in a portion or all of the overburden groundwater, the groundwater treatment system will be re-designed to accommodate the changes in COCs.

The remediation system will inject pure oxygen into groundwater through a series of vertical injection points and oxygen generators. Each injection point will be connected to the oxygen delivery system with %-inch diameter 125 pounds per square inch (PSI) high-density polyethylene (HDPE) tubing. The tubing will be installed below ground in shallow trenches and terminated in a two-foot square well vault located beneath the trailer. The tubing will be connected to the injection points using a PVC tee, male adapter and hose clamp. A backhoe will be used to remove soil to a depth of 24 to 30 inches below grade for the installation of tubing. The tubing will be placed in a bedding of stone approximately 12 inches thick prior to backfilling and tamping.

Surface access to the injection points will be constructed for groundwater data collection and periodic flushing to remove fines. A limited access flush mount curb box will be set over each injection point and monitoring well and embedded in the new concrete at the time of construction. The curb box cover plate was secured with bolts and a rubber gasket. A screw-down well plug will be used to seal the top of the injection points.

The oxygen injection system includes an 80 standard cubic feet per hour (SCFH) pressure-swing adsorption (PSA) oxygen generator, rotary screw compressor, refrigerated air dryer and oxygen delivery system equipped for up to 32 injection points. The system will operate on a 230-volt single-phase electric supply. The oxygen generator separates nitrogen using clean dry air from the compressor. The nitrogen is purged to the atmosphere and the resulting gas stream, containing 90 to 95% oxygen gas, is stored in a 120-gallon American Society of Mechanical Engineers (ASME) rated (200 PSI) steel tank. The pressure in the tank is self-regulated by the oxygen generator at a maximum of 58 PSI and the oxygen pressure leaving the tank is set to approximately 30 PSI using a manual regulator valve.

Baseline groundwater data will be collected prior to startup of the system including DO and ORP measurements from the injection points and on-Site monitoring well. Groundwater samples will be collected from the Site monitoring wells for laboratory analysis to establish baseline contaminant concentrations.

Startup of the system will consist of testing and monitoring all of the electrical and mechanical components until operating within a defined set of parameters. The oxygen purity will be measured using real time instrumentation and operating data at startup will be recorded.

G. Groundwater Monitoring Program and System Operation and Maintenance

Groundwater samples will be collected monthly from the injection points and monitoring wells to record field parameters including DO and ORP with real time instrumentation. The frequency of DO and ORP data collection will be reduced to quarterly following the first three months of operation. Groundwater monitoring wells will be gauged and sampled quarterly for laboratory analysis. The results will be utilized to evaluate the effectiveness of the remediation system.

The system will be checked twice per month by a qualified technician to record operating parameters, perform routine maintenance and collect monitoring data. Routine warranty maintenance will be performed by manufacturer's representative on the compressor and oxygen generator per manufacturer specifications.

H. Quality Assurance/ Quality Control

As part of the CAP, quality assurance/quality control (QA/QC) protocols and procedures will be utilized including:

- Field Notebooks - Field personnel will maintain a bound field notebook, which will document dates, times and duration of pertinent field occurrences. Notebook entries will be made on consecutive pages.
- Project Photographs - Photographs will be taken of field activities on a per visit basis.
- Calibration Records - Calibration records for field instrumentation will be maintained in the field notebook.

- Geologic Logs - Observations pertaining to Site geology and hydrogeology made during the remedial excavation will be recorded in the field notebook. Boring logs of monitoring well installations will also be recorded.
- HASP and CAMP Forms - Sign-in forms, air monitoring results, and other safety related documentation will be maintained.
- Chain-of-Custody Forms - Sample handling will be recorded on chain-of custody forms with associated labels.

The analytical laboratory test results for confirmatory soil samples and groundwater monitoring samples will be reported in NYSDEC ASP Category B deliverable reports. The laboratory that performs the ASP analyses will provide internal quality assurance/quality control (QA/QC) data that are required by NYSDEC ASP protocol, such as analyses performed on method blanks, and surrogate recovery results.

I. Remedial Construction/ Closure Report

A Remedial Construction/Closure Report will be developed for the project and a draft report will be submitted for review and comment by the NYSDEC after the source removal and one round of groundwater monitoring has been performed. The report will be prepared in accordance with Section 5.8 of DER-10 and any other contractual requirements. The report will include the following:

- A description of remedial activities;
- A data usability summary report (DUSR) for final delineation samples (i.e., closure samples);
- Drawings showing all remedial work;
- Site survey map with metes and bounds description. The limits of excavation, sample locations, well locations and remedial system components will be reported using the US State Plain 1983 (New York Western Zone);
- Description of any institutional controls;
- Environmental easement, if required; and;
- Site Management Plan for future development, if required, and;
- NYSPE Certification.

The Corrective Action Closure Report will include daily photographs, data tables summarizing the analytical data generated during the implementation of the CAP (including excavation closure samples), waste stream characterizations, designed and as built drawings, and waste disposal confirmations.

After one year of operation of the groundwater remediation system, a separate groundwater report will be completed.

J. Environmental Management Plan

Subsequent to completing the soil source removal and disposal work, an Environmental Management Plan (EMP) will be developed for the Site. The purpose of the EMP is to address the handling, management, disposal or re-use of impacted soil, fill material and groundwater remaining in the subsurface at the Site. Specifically, the EMP will address how to identify, characterize, handle, and dispose or re-use these media during construction or post-development activities. The EMP will establish goals, procedures, and appropriate response actions to be used by on-site personnel if petroleum contaminated soil, fill material, or groundwater is encountered or disturbed.

The plan will be prepared in accordance with NYSDEC guidance and will follow the general template established by the Department. The plan will be site-specific incorporating conditions remaining after soils removal and will consider potential future uses of the property. Components of the plan will include:

- Objectives of the Plan;
- Identification of contaminants and their potential exposure pathways as it relates to development;

- Potential future uses of the site;
- Identification and required maintenance of institutional controls and groundwater monitoring systems;
- Long term management of remedial systems and if necessary soil cover; and
- Sub-grade material controls as necessary.

K. Regulatory Approval of Proposed Cleanup Plan

In July 2012, the City submitted the CAP to the NYSDEC and to the NYSDOH, for review and approval. In a letter dated August 3, 2012 the NYSDEC stated that CAP was determined to be acceptable. A copy of the NYSDEC letter is included with this document.

VII. Cleanup Project Schedule

The project is scheduled to commence on August 13, 2012. On-site remedial construction activities including mobilization, site preparation, source soil excavation, confirmatory testing, backfilling, and site restoration are expected to be completed by September 1, 2012. Source soil removal activities will be followed by completion of a groundwater quality evaluation, remedial system design and installation and approximately 18 months of in-situ groundwater treatment.

VIII. Signature of City of Rochester Representative

The following individual is an authorized representative of the City of Rochester as the USEPA Cooperative Agreement Recipient.

Mark D. Gregor, CHMM
Manager, Division of Environmental Quality
City of Rochester, New York

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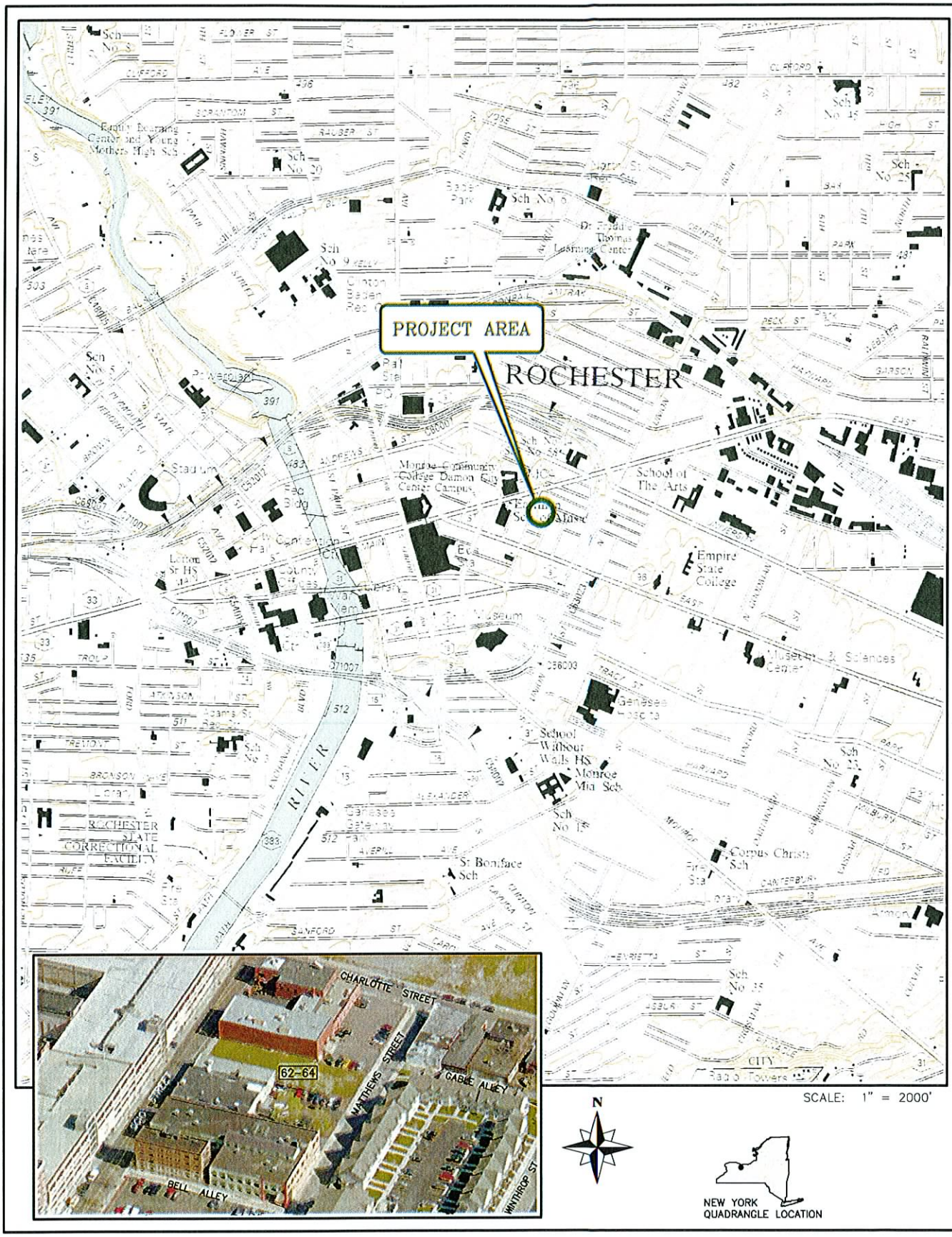

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FIGURE 1. SITE LOCATION MAP

CITY OF ROCHESTER | BROWNFIELD SITE CLEAN-UP

62-64 SCIO STREET

ROCHESTER – MONROE COUNTY – NEW YORK

DATE:	JANUARY 2012
SCALE:	1:24,000
DRAWN BY:	DLS

MAP SOURCE: NYS DOT RASTER QUADRANGLES – ROCHESTER WEST & ROCHESTER EAST / NEW YORK, MONROE COUNTY DOT EDITION DATE: 1997 / USGS CONTOUR DATA: 1971. 2009 MICROSOFT CORPORATION, 2009 NAVTEQ AND 2009 PICTOMETRY INTERNATIONAL CORP.

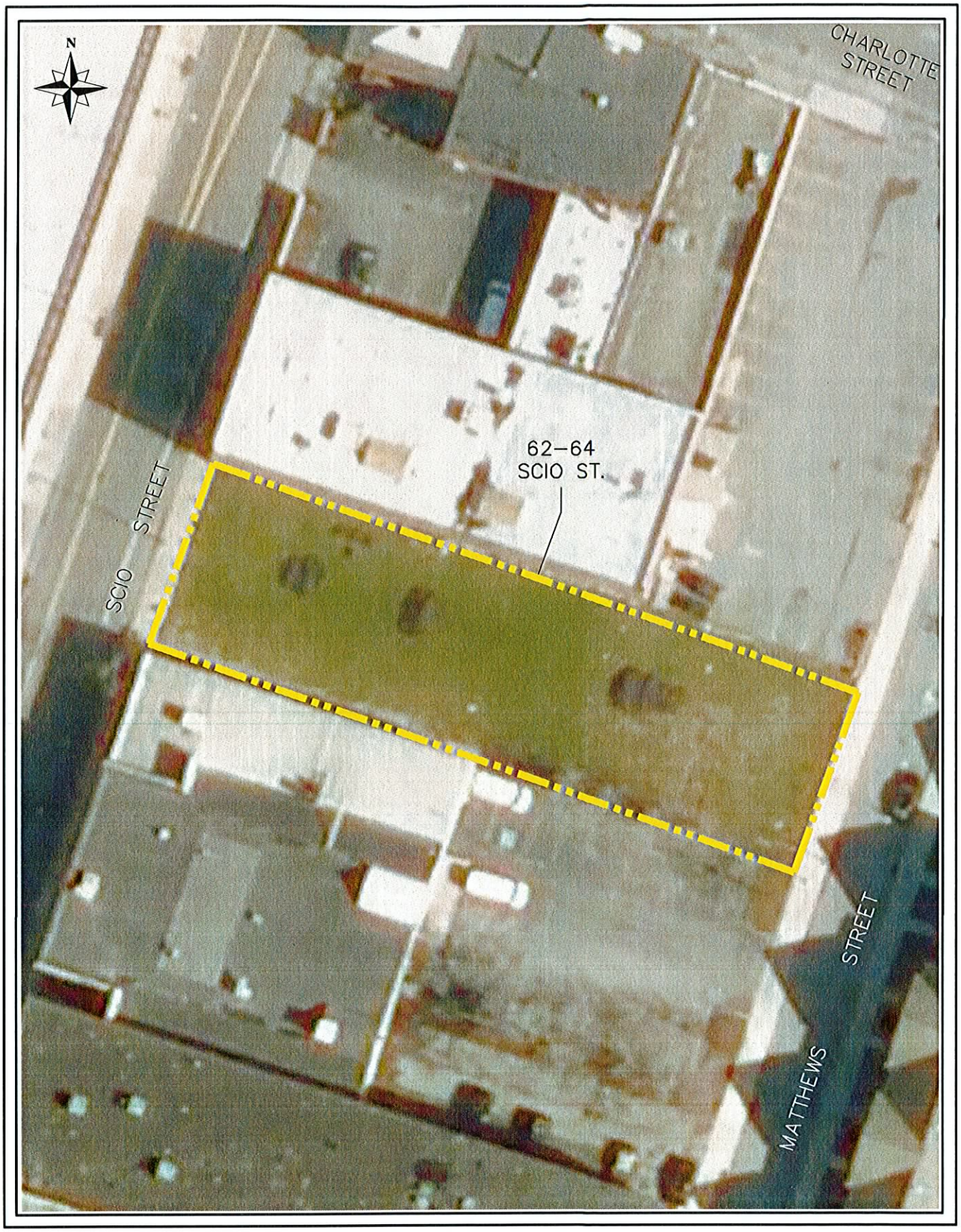

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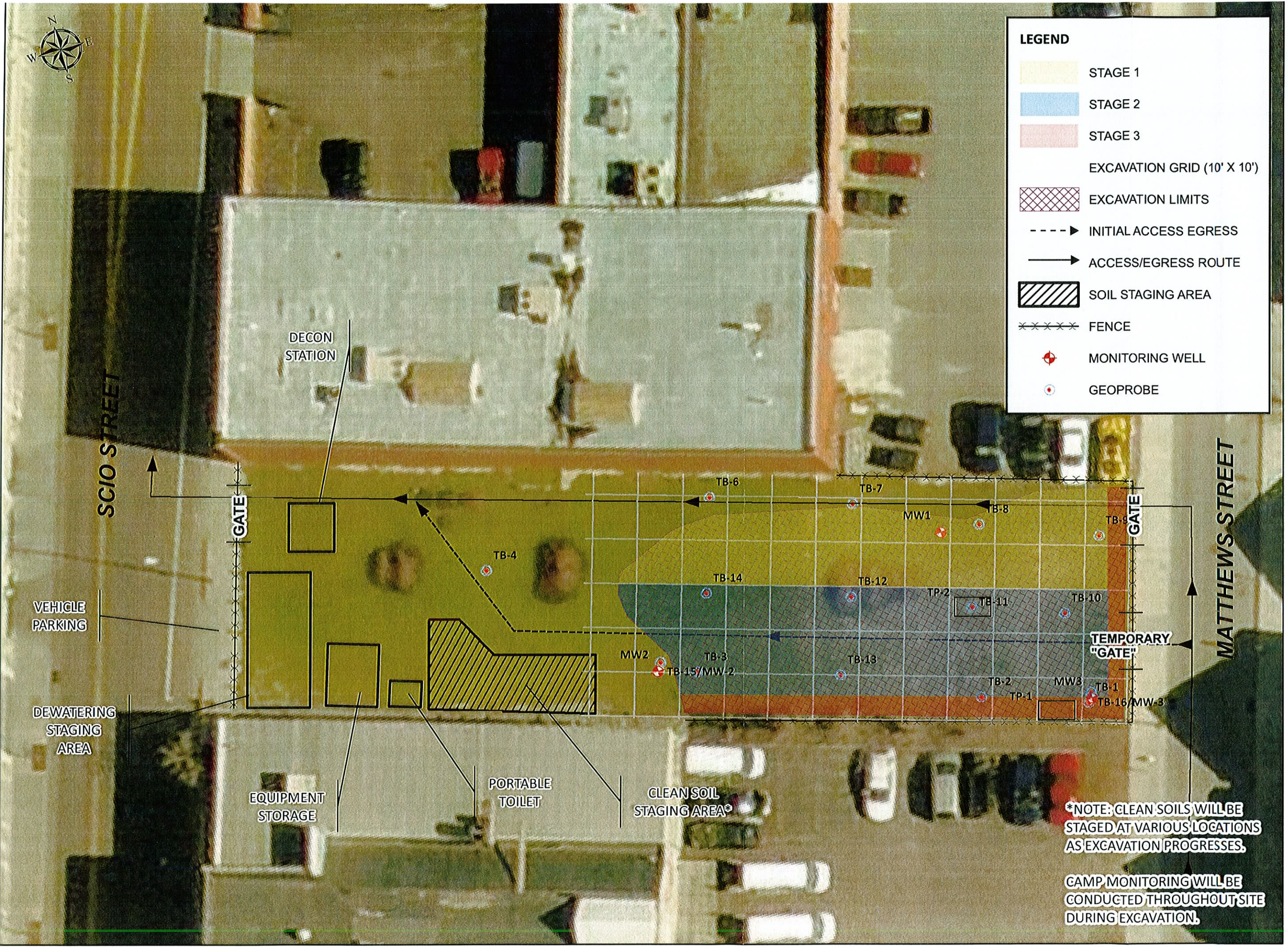
FIGURE 2. SITE PLAN (AERIAL)

CITY OF ROCHESTER | BROWNFIELD SITE CLEAN-UP
62–64 SCIO STREET
ROCHESTER – MONROE COUNTY – NEW YORK

DATE:	JANUARY 2012
SCALE:	1" = 40'
DRAWN BY:	DLS

MAP SOURCE:
NEW YORK STATE GIS CLEARINGHOUSE
NYSDOP HIGH RESOLUTION IMAGERY 2000 – 2010



DESIGNED BY	DATE
GLA	07-2012
DRAWN BY	DATE DRAWN
CAC/JSB	07-2012
SCALE	DATE ISSUED
1 inch = 20 feet	07-20-2012

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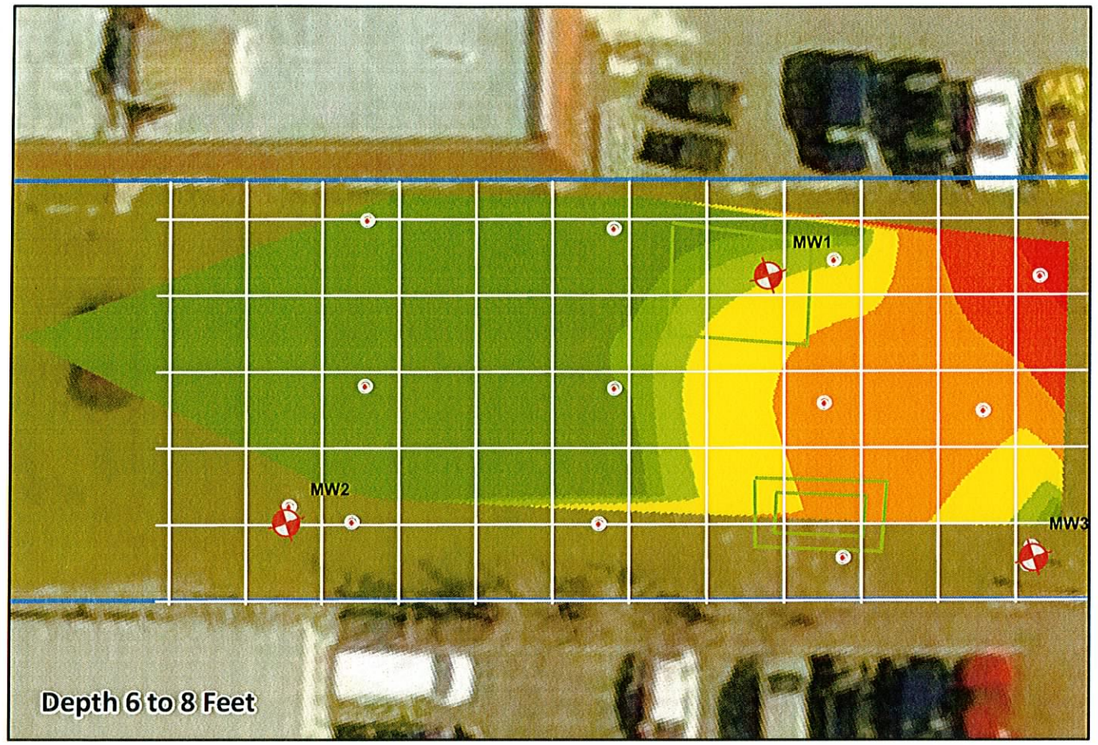
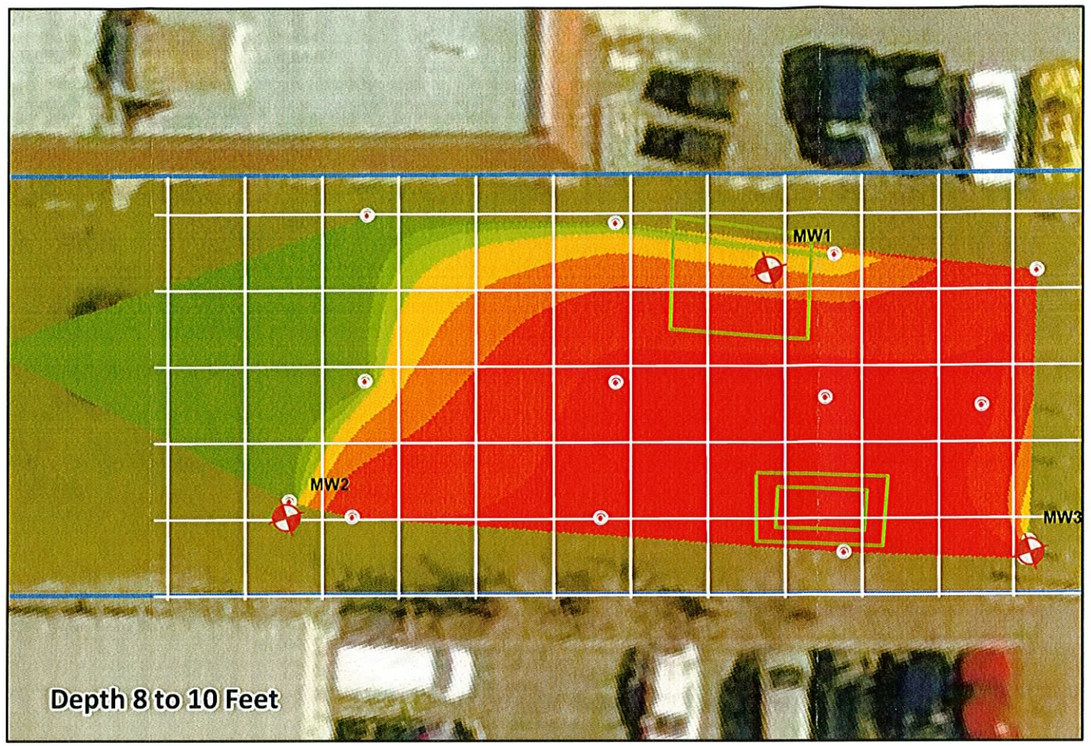
175 Sullys Trail, Suite 202
Pittsford, New York 14534

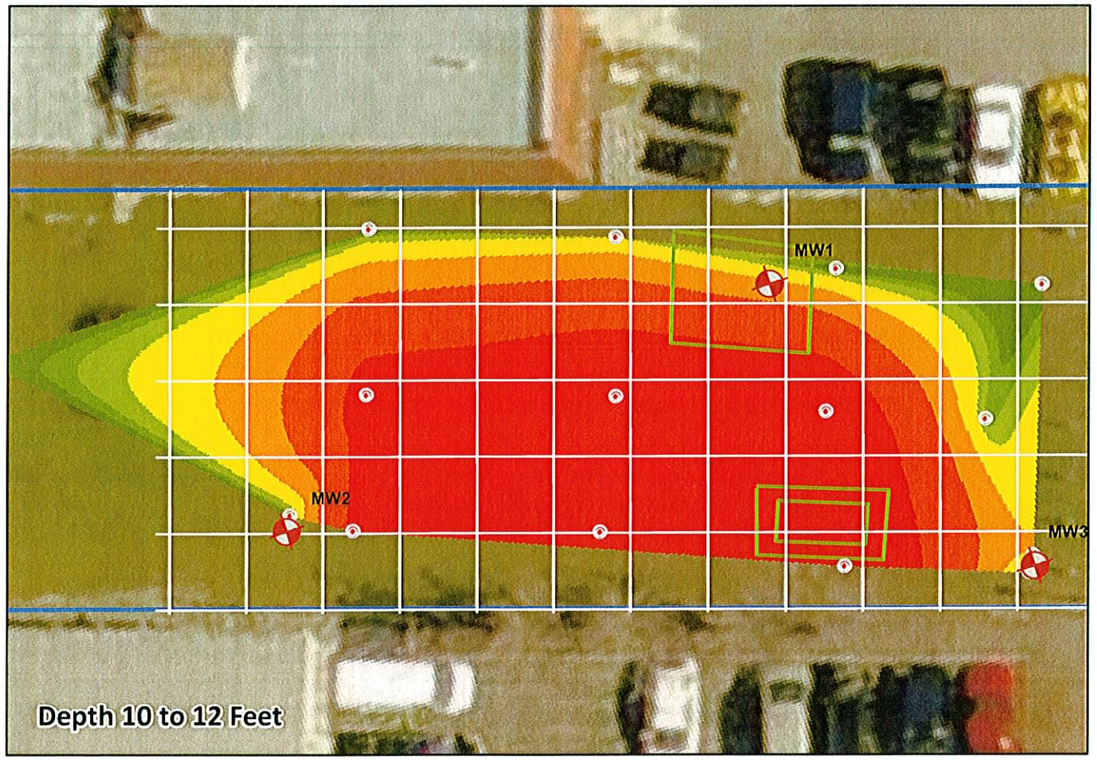
PROJECT TITLE

BROWNFIELD SITE CLEAN-UP
62-64 SCIO STREET
CITY OF ROCHESTER, MONROE COUNTY

FIGURE 3
IRM LAYOUT AND EXCAVATION SEQUENCING







62-64 SCIO STREET

Monitoring Well	25 - 50
DAY Test Locations for GIS	50 - 100
Excavation Grid	100 - 250
Former USTs & Excavations	250 - 500
Site Parcel	500 - 1,000
0 - 25	1,000 - 1,250

NOTE:
Excavation limits determined through the use of PID data.

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S

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Pittsford, New York 14534

DESIGNED BY	GLA	DATE	07-2012
DRAWN BY	JSB/CAC	DATE DRAWN	07-2012
SCALE	1 inch = 20 feet	DATE ISSUED	07-20-2012

PROJECT TITLE

BROWNFIELD SITE CLEAN-UP
62-64 SCIO STREET
CITY OF ROCHESTER, MONROE COUNTY

FIGURE 4
PROPOSED SOURCE AREA REMOVAL (BY DEPTH)

Upper East End/Alexander Street
June 13, 2012

Sign In Sheet:

Name	Business/Organization/Property	E-mail
CARL O'CONNELL	NYSUT	COCONNELL@NYSUTMAIL.ORG
Greg Andrus	L.U. Engineers	gregandrus@luengineers.com
JANE FORBES	City of Rochester	forbesj@cityofrochester.gov
FRANCES PALEY	RESIDENT	frances paley@yahoo
Ronald A DAVIS	Genius	
CAPT WIC JOHNSON	RPD	WJ0231@cityofrochester.gov
LT. FRANK ALBERTI	RPD	FA2772@cityof " "
Tim Tompkins	ONE/Benefactor	timntompkins@aol.com
Susan LINDSEY	City	No charge
Nancy Johns Price	City	No charge
Allison Mayer	Acanthus Cafe	amayer2@rochester.rr.com
JOHN S. FAZACKERLEY	PEARL	JFAZACK1@Rochester.RR.com
Patrick Giuliano	Gusto	patrickgiuliano@rocketmail.com
Jenn Brake	East Ave Inn	jbrake@eastaveinn.com
Doug Yager	Doug's Tattoo Co	[illegible]@rochester.rr.com
DAVE PENNINGTON	PITA PIT	rocpitapit@gmail.com

6/12/12 Upper East End Neighborhood Mtg.
10:30 mtg adjourned (for us) 11:20 +/-

Jane: Discussed project background, alternatives reviewed, selected alternative

Jane: Discussed review/comment process and anticipated schedule

Potentially conflicting activities:

July 13, August 10 - E. end fest

September 19-23 - private "fringe" fest?

Greg: Mentioned disturbance due to 80+ large trucks coming into/out of the site

Jane: Mentioned odors

Jane/Greg: Project duration (for most potentially disturbing activities 2-3 weeks, but will be weather dependent

Several Questions:

① Sue: Charlotte Street project status
Jane: not sure (Joe B. project), possible that off site source to north will be addressed soon so project can be complete

② ?: Cost recovery, why use tax dollars?
Jane: explained that NYS + EPA may seek cost recovery at some point and that the contam. happened prior to the current regs

③ ?: Will City get money back from sale?
Jane: explained that the City will get tax revenue eventually, but that the sale will not likely offset the cleanup $

Meeting with the Upper East End Business Association

Meeting held regarding the planned remediation work for 62-64 Scio Street

10:00 AM - 7/12/12

Location: 2 Vine Restaurant, 24 Winthrop Street Rochester, NY

Attendees: Neil Hellman – Speedy's
Jerry Serafine – 2 Vine
Amanda Norsen – Visit Rochester
Susan Lyndsey Welk – COR
Jane Forbes – COR
Anne Aquilina – COR
Greg Andrus – Lu Engineers

Jane Forbes led a general discussion regarding the purpose of the meeting, the nature of the project and associated potential short-term inconvenience and disturbance due to noise and possible odors. Jane also discussed potential end use(s) of the site. Greg Andrus assisted this discussion with some details on time frame and logistics. The meeting was an open discussion and included the following questions asked by attendees:

Question: When is project starting?

Response: Soon after 8/11/12, the end of the public comment period and after NYSDEC review of the work plan and associated documents

Question: How long will project last?

Response: Initial work including excavation and backfilling will require approximately two weeks. Following that will be the in-situ remedial work which will last approximately one year.

Question: How much dust will be created (asked by Mr. Hellman)? He expressed concern that it could negatively impact his cleaning operations if excessive dust was present in the air.

Response: We will be employing dust suppression methods using water on dusty surfaces and taking particulate measurements during all excavation activities. We will also be available to him on site if there are any concerns. Jane Forbes also provided further detail at this point regarding logistics and disposal of contaminated materials.

Question: Why does the environmental condition of the site affect the status of the title?

Response: With this site and other similarly affected properties, vapor intrusion is a concern for redevelopment and groundwater conditions do not meet the applicable standards.

Question: The movement of large trucks around the site was questioned.

Response: Trucks will enter the site from Matthews Street, travel west through the site and exit northward onto Scio Street. They will then reach the inner loop via Charlotte Street. We have reviewed accessibility and this appears to be the best way to avoid complications due to the large turning radii required by large trucks. We will not allow trucks to block Matthews Street while loading or other activities are in-progress.

Question: Mr. Hellman is happy to help with the electrical service issue and suggested installing a "sub-meter" on a line to be tied into the site when power is needed.

Response: The City will review the legalities, but ideally would not want to use a private service to assist with the in-situ remedial phase. This requirement is several months away and will be evaluated in the meantime as to the best approach. The City appreciates Mr. Hellman's willingness to help.

Question: Will there be a light on the site?

Response: Street lighting is bright in the area and several other lights are usually on at night. Mr. Serafine suggested using "light up the night", which is a free service, provided by the City. The site will be fenced during the excavation and backfilling process and will be regarded afterwards. The remediation system (O2 generator) will be enclosed with a chain-link fence while on-site.

Question: Will access to the site be restricted sufficiently for grass to grow before being opened back up to pedestrians? Will a pathway be put in?

Response: Site access will be restricted for a sufficient period following backfilling to allow grass to grow. The City will consider a pathway through the site, but it was noted that pedestrians often prefer not to follow pathways and that there are possible liability concerns on the part of the City.

End of meeting – 11:15 AM