Site Management Plan

399 Ohio Street Site
(C915287)
Buffalo, New York

December 2016 0136-013-011

Prepared for:

1093 Group, LLC

Prepared By:

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

In Association With:

TURNKEY
ENVIRONMENTAL
RESTORATION, LLC

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BROWNFIELD CLEANUP PROGRAM

SITE MANAGEMENT PLAN

399 OHIO STREET SITE
NYSDEC SITE NUMBER: C915287
BUFFALO, NEW YORK

December 2016 0136-013-011

Prepared for:

1093 Group, LLC

Prepared By:

Benchmark Environmental Engineering & Science, PLLC
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Revisions to Final Approved Site Management Plan:

Revision #	Submitted Date	Summary of Revision	DEC Approval Date

SITE MANAGEMENT PLAN
399 OHIO STREET SITE

Certification Statement

I, Thomas H. Forbes, certify that I am currently a NYS registered professional engineer and that this December 2016 Site Management Plan for the 399 Ohio Street Site (C915287) was prepared in general accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

_____ Signature

12-19-16 Date

SITE MANAGEMENT PLAN
399 OHIO STREET SITE

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SITE MANAGEMENT PLAN
399 OHIO STREET SITE

List of Acronyms

ASP	Analytical Services Protocol
BCA	Brownfield Cleanup Agreement
BCP	Brownfield Cleanup Program
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CAMP	Community Air Monitoring Plan
C/D	Construction and Demolition
CFR	Code of Federal Regulation
CLP	Contract Laboratory Program
COC	Certificate of Completion
CO2	Carbon Dioxide
CP	Commissioner Policy
DER	Division of Environmental Remediation
EC	Engineering Control
ECL	Environmental Conservation Law
ELAP	Environmental Laboratory Approval Program
EWP	Excavation Work Plan
FOP	Field Operating Procedure
GHG	Green House Gas
HASP	Health and Safety Plan
IC	Institutional Control
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
NYCRR	New York Codes, Rules, and Regulations
O&M	Operations and Maintenance
OM&M	Operation, Maintenance and Monitoring
OSHA	Occupational Safety and Health Administration
OU	Operable Unit
PID	Photoionization Detector
PRP	Potentially Responsible Party
PRR	Periodic Review Report
QA/QC	Quality Assurance/Quality Control
QAPP	Quality Assurance Project Plan
RAO	Remedial Action Objective
RAWP	Remedial Action Work Plan
RCRA	Resource Conservation and Recovery Act
RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
RP	Remedial Party

SITE MANAGEMENT PLAN
399 OHIO STREET SITE

List of Acronyms

RSO	Remedial System Optimization
SAC	State Assistance Contract
SCG	Standards, Criteria, and Guidelines
SCO	Soil Cleanup Objective
SOP	Standard Operating Procedures
SOW	Statement of Work
SPDES	State Pollutant Discharge Elimination System
SVI	Soil Vapor Intrusion
SVMS	Soil Vapor Mitigation System
TAL	Target Analyte List
TCL	Target Compound List
TCLP	Toxicity Characteristic Leachate Procedure
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank

EXECUTIVE SUMMARY

The following provides a brief summary of the controls implemented for the Site, as well as the inspections, monitoring, maintenance and reporting activities required by this Site Management Plan:

Site Identification: 399 Ohio Street Site - C915287

Institutional Controls:	1. The property may be used for restricted residential, commercial, and industrial use as described in 6 NYCRR Part 375-1.8(g), although land is subject to local zoning laws;
	2. All ECs must be inspected at a frequency and in a manner defined in the SMP.
	3. The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the Erie County Department of Health to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department.
	4. Compliance with the Department approved Site Management Plan and Periodic Review Reporting is required.
	5. The remedial party or site owner is required to complete and submit a periodic certification of institutional and engineering controls to the Department in accordance with 6NYCRR Part 375-1.8(h)(3).
Engineering Controls:	1. A site cover has been placed over the site in all areas exceeding applicable SCOs. The cover is either a hardscape (asphalt and concrete, building) and/or a minimum of 24-inches of depth of material meeting the requirements as set forth in 6NYCRR Part 375—6.7(d) for restricted residential use.

Inspections:	Frequency
1. Cover inspection	Annually
Reporting:	
1. Annual Site Inspection	Annually
2. Periodic Review Report	Annually

Further descriptions of the above requirements are provided in detail in the latter sections of this Site Management Plan

1.0 INTRODUCTION

This Site Management Plan (SMP) is a required element of the remedial program for the 399 Ohio Street Site (hereinafter referred to as the "Site") under the New York State (NYS) Brownfield Cleanup Program (BCP) administered by New York State Department of Environmental Conservation (NYSDEC). The site was remediated in accordance with Brownfield Cleanup Agreement (BCA) Index #C915287-09-14, which was executed on October 15, 2014.

1.1 General

1093 Group, LLC, entered into a BCA with the NYSDEC to remediate the Site, located in Buffalo, New York. A figure showing the site location and boundaries of this site is provided in Figures 1 and 2. The boundaries of the site are more fully described in the metes and bounds site description that is part of the Environmental Easement provided in Appendix A.

After completion of the remedial work, some contamination was left at this site, which is hereafter referred to as "remaining contamination." Institutional and Engineering Controls (ICs and ECs) have been incorporated into the site remedy to control exposure to remaining contamination to ensure protection of public health and the environment. An Environmental Easement granted to the NYSDEC, and recorded with the Erie County Clerk, requires compliance with this SMP and all ECs and ICs placed on the site.

This SMP was prepared by Benchmark Environmental Engineering & Science, PLLC in affiliation with Turnkey Environmental Restoration, LLC, to manage remaining contamination at the site until the Environmental Easement is extinguished in accordance with ECL Article 71, Title 36. This plan has been approved by the NYSDEC, and compliance with this plan is required by the grantor of the Environmental Easement and the grantor's successors and assigns. This SMP may only be revised with the approval of the NYSDEC.

It is important to note that:

- This SMP details the site-specific implementation procedures that are required by the Environmental Easement. Failure to properly implement the SMP is a violation of the Environmental Easement, which is grounds for revocation of the Certificate of Completion (COC);

- Failure to comply with this SMP is also a violation of Environmental Conservation Law, 6NYCRR Part 375 and the BCA (Index #C915287-09-14; Site #C915287) for the site, and thereby subject to applicable penalties.

All reports associated with the site can be viewed by contacting the NYSDEC or its successor agency managing environmental issues in New York State.

This SMP was prepared by Benchmark Environmental Engineering & Science, PLLC, in association with Turnkey Environmental Restoration, LLC, on behalf of 1093 Group, LLC, in accordance with the requirements of the NYSDEC's DER-10 ("Technical Guidance for Site Investigation and Remediation"), dated May 2010, and the guidelines provided by the NYSDEC. This SMP addresses the means for implementing the ICs and/or ECs that are required by the Environmental Easement for the site.

1.2 Revisions

Revisions to this plan will be proposed in writing to the NYSDEC's project manager. Revisions will be necessary upon, but not limited to, the following occurring: a change in media monitoring requirements, upgrades to or shut-down of a remedial system, post-remedial removal of contaminated sediment or soil, or other significant change to the site conditions. In accordance with the Environmental Easement for the site, the NYSDEC will provide a notice of any approved changes to the SMP, and append these notices to the SMP that is retained in its files.

1.3 Notifications

Notifications will be submitted by the property owner to the NYSDEC, as needed, in accordance with NYSDEC's DER – 10 for the following reasons:

- 60-day advance notice of any proposed changes in site use that are required under the terms of the BCA, 6NYCRR Part 375 and/or Environmental Conservation Law.
- 7-day advance notice of any field activity associated with the remedial program.
- 15-day advance notice of any proposed ground-intrusive activity pursuant to the Excavation Work Plan.

- Notice within 48-hours of any damage or defect to the foundation, structures, or EC that reduces or has the potential to reduce the effectiveness of an EC, and likewise, any action to be taken to mitigate the damage or defect.
- Verbal notice by noon of the following day of any emergency, such as a fire; flood; or earthquake that reduces or has the potential to reduce the effectiveness of ECs in place at the site, with written confirmation within 7 days that includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public.
- Follow-up status reports on actions taken to respond to any emergency event requiring ongoing responsive action submitted to the NYSDEC within 45 days describing and documenting actions taken to restore the effectiveness of the ECs.

The owner of the site parcel at the time of issuance of this SMP is:

1093 Group, LLC

295 Main Street, Suite 210

Buffalo, New York 14203

Any change in the ownership of the site or the responsibility for implementing this SMP will include the following notifications:

- At least 60 days prior to the change, the NYSDEC will be notified in writing of the proposed change. This will include a certification that the prospective purchaser/Remedial Party has been provided with a copy of the Brownfield Cleanup Agreement (BCA) and all approved work plans and reports, including this SMP.
- Within 15 days after the transfer of all or part of the site, the new owner's name, contact representative, and contact information will be confirmed in writing to the NYSDEC.

Table 1 below includes contact information for the above notification. The information on this table will be updated as necessary to provide accurate contact information.

Table 1: Notifications*

Name	Contact Information
NYSDEC Project Manager Mr. Anthony Lopes, P.E.	716-851-7220 Anthony.lopes@dec.ny.gov
NYSDEC Regional HW Engineer Mr. Chad Staniszewski, P.E.	716-851-7220 Chad.staniszewski@dec.ny.gov
NYSDEC Site Control Ms. Kelly Lewandowski, P.E.	518-402-9543 Kelly.lewandowski@dec.ny.gov

* Note: Notifications are subject to change and will be updated as necessary.

2.0 SUMMARY OF PREVIOUS INVESTIGATION & REMEDIAL ACTIONS

2.1 Site Location and Description

The site is located in County of Erie, Buffalo, New York and is identified as S.B.L No., 122.10-2-7.21 on the Erie County Tax Map. The 5.0 acre Site is bounded by recreational property to the north (River Fest Park) and south (Rowing boathouse), Ohio Street to the east, and the Buffalo River to the west (see Figures 1 and 2). The boundaries of the site are more fully described in Appendix A – Environmental Easement.

2.2 Physical Setting

2.2.1 Land Use

The 399 Ohio Street Site is located in a highly developed mixed use industrial, commercial, residential, and recreational area of the City of Buffalo, Erie County, New York. The site is currently improved with a mix use residential and commercial building with the remainder of the Site currently covered by asphalt/concrete. The Site is zoned commercial/light industrial/residential property use. The site occupant currently includes a mix use commercial/residential property.

The properties adjoining the Site and in the neighborhood surrounding the Site primarily include highly developed mixed use industrial, commercial, residential, and recreational properties. The properties immediately south of the Site include commercial properties; the properties immediately north of the Site include recreational properties; the properties immediately east of the Site include vacant, industrial and commercial properties; and the properties to the west of the Site is the Buffalo River with commercial and industrial properties beyond.

2.2.2 Geology

The geology of the site is generally described as asphalt and/or concrete and subbase, underlain by non-native fill material generally present at varying thicknesses at depth ranging

from 8-12 fbgs, with a native layer of lean clay at depths ranging from 10 to greater than 25 fbgs.

Based on the bedrock geologic map of Erie County, the Site is situated over the Onondaga Formation of the Middle Devonian Series. The Onondaga Formation is comprised of varying texture from course to very finely crystalline with a dark gray to tan color and chert and fossils within. The unit has an approximate thickness of 110 to 160 feet. Structurally, the bedrock formation strike in an east-west direction and exhibit a regional dip that approximates 40 feet per mile (3 to 5 degrees) toward the south and southwest. Bedrock was not encountered during the RI.

2.2.3 Hydrogeology

Groundwater from the underlying native lean clay was typically encountered between 15 and 20 fbgs. In general, on-Site groundwater was estimated to flow in a western direction towards the Buffalo River. Figure 4 depicts the estimated groundwater isopotential map based on the water level measurements collected in July 2015 gauging event. Using well installation and water level information collected during the RI (June 2015), the estimated hydraulic gradient was calculated to be an average of 0.0079 ft./ft.

A groundwater isopotential map, including groundwater elevation data, is shown in Figure 3. Monitoring well construction logs are provided in Appendix C.

2.3 Investigation History

The following narrative provides a remedial history timeline and a brief summary of the available project records to document key investigative milestones for the Site. Full titles for each of the reports referenced below are provided in Section 8.0 - References.

2.3.1 June 1995 – Site Inspection Report

Buffalo Drilling Company, Inc. completed a Site Inspection Report on several Ohio Street Properties, including the 399 Ohio Street Site. Findings for the 399 Ohio Street Site inspection completed in June 1995 are summarized below.

- Potential field evidence of petroleum contaminated soil.
- Railroad spurs were located on Site.

2.3.2 November 2005 – Phase I Environmental Site Assessment

Construction Lending Services, Inc. (CLS) completed a Phase I Environmental Site Assessment (ESA) on the southern portion of the Site, and the findings are summarized below.

- Past use of the property included automotive repair operations, including multiple USTs, a pump island, and ASTs.
- Storage of 55-gallon drums of suspect oil.
- Presence of floor drain in the maintenance pit and trench drains in the floor, with unknown discharge points.
- Staining noted proximate to waste oil/grease storage area.
- Railroad spurs were noted historically on Site. Rail operations are frequently associated with elevated levels of semi-volatile organic compounds (SVOCs) and metals.
- City of Buffalo historic permit records indicate the potential for at least three (3) USTs on Site. NYSDEC PBS database records show two (2) ATSs had been located on Site.

2.3.3 November 2013 – Limited Phase II Environmental Investigation Report

TurnKey completed a Limited Phase II Environmental Investigation Report in November 2013. Findings of the Limited Phase II investigation are listed below.

- Seven (7) test pits were advanced to further investigate the site (399 Ohio).
- Some of the soils exhibited visible (black staining) olfactory (petroleum odors) evidence of subsurface contamination;
- Subsurface soil analytical results indicate elevated polycyclic aromatic hydrocarbons (PAHs) above Part 375 Commercial Use Soil Cleanup Objectives (CSCOs) and metals, above their respective Part 375 Unrestricted (USCO), Restricted-Residential (RRSCO) and/or CSCOs across the Site.

2.3.4 Remedial Investigation/Alternatives Analysis Report (RI/AAR)

A Remedial Investigation was completed to more fully characterize the Site in accordance with the BCP requirements. The RI included the advancement of test pits and soil

borings, and installation of monitoring wells to assess soil and groundwater at greater depths than previous investigations, and the collection of soil and groundwater samples.

Based on the results of the previous investigations and the RI, it was determined that remediation of the Site was necessary. A RI/AAR was prepared to provide a summary of the investigations, and complete and assessment of remedial alternatives capable of achieving the Remedial Action Objectives (RAOs) for the Site. Details of the environmental conditions and RAOs are provided below.

Summary of RI Findings by Media

Subsurface Soil

- No VOCs were detected above RRSCOs, with the vast majority of results being reported as non-detect or estimated values by the laboratory. Only one (1) constituent was detected above USCOs, at one location, TP-20 (2-5').
- SVOCs were detected above CSCOs in seven (7) of the RI subsurface sample locations, including; SB-2, TP-9, TP-14, TP-18, TP-19, TP-20, and TP-21. Primarily polycyclic aromatic hydrocarbons (PAHs) were detected above their respective USCOs, RRSCOs, and CSCOs.
- Two (2) metal analytes were detected above their respective CSCOs including arsenic and cadmium. Arsenic was detected above CSCOs at TP-2 (1-3') and TP-9 (2-5'). Lead; TP-2 (1-3'), TP-9 (2-5'), TP-14 (1-5'), TP-21 (2-5'), manganese TP-14 (1-5') and zinc TP-14 (1-5') were detected above their respective RRSCOs. Certain naturally occurring metals were also detected above their respective USCOs.
- No PCBs were detected above CSCOs and RRSCOs. PCBs were detected slightly above its USCO in TP-21 (2-5').
- No pesticides or herbicides were detected above CSCOs or RRSCOs. Select pesticides were detected above their respective USCOs in TP-9 (2-5'). No herbicides were detected above their respective USCOs.

Groundwater

- No VOCs were detected above GWQS/GVs.

- Five (5) PAHs (benzo(a)anthracene, benzo(a)pyrene, benzo(b) fluoranthene, Bis (2-ethylhexyl), phthalate, and chrysene exceeded their respective GWQSs.
- Three (3) metals (lead, manganese, and selenium) exceeded their respective GWQS/GVs.
- One (1) pesticide (4,4'-DDT) and one (1) herbicide (Chlordane) exceeded their respective GWQS/GVs in one location each.

2.4 Remedial History

Based on the findings of the RI-AAR, as described above, remedial activities were completed in accordance with the Department approved Remedial Action Work Plan (June 2016. Details of the completed remedial activities are presented below, and more fully documented in the Final Engineering Report (FER).

2.4.1 TP-9 Area

In June 2016, 168 tons of non-hazardous petroleum impacted soil/fill was excavated and transported offsite for disposal at WM's Chaffee Landfill. Post-excavation samples were collected from the sidewall and floor (see Table 3 and Figure 4). Post-excavation VOC analytical results were all below RRSCOs, with no elevated PID readings. Certain PAHs exceeded RRSCOs, however, the excavation was limited by the presence of subgrade structures (concrete wall to the west), utilities to the south and north, and property boundary (Ohio Road Project) to the east. NYSDEC representative was present during excavation and deemed complete. This area of the Site is covered by hardscape (new asphalt and concrete) cover.

2.4.2 TP-2 Area

In October 2016, 123 tons of shallow non-hazardous metal contaminated soil in the vicinity of TP-2 was excavated and transported offsite for disposal at WM's Chaffee Landfill. Post-excavation samples were collected from the sidewall and floor (see Table 4 and Figure 5). Post-excavation analytical results were below RRSCOs.

2.4.3 TP-18 Area

In October 2016, 194 tons of shallow non-hazardous PAH contaminated soil in the vicinity of TP-18 was excavated and transported offsite by for disposal at WM's Chaffee Landfill. Post-excavation samples were collected from the sidewall and floor (see Table 5 and Figure 5). Post-excavation analytical results were below RRSCOs/SSALs.

2.5 Remedial Action 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 (RAOs) for the Site as listed in the Decision Document dated December 9, 2015 are as follows:

2.5.1 Soil:

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.

RAOs for Environmental Protection

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

2.5.2 Groundwater:

RAOs for Public Health Protection

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

RAOs for Environmental Protection

- Remove the source of ground or surface water contamination.

2.6 Remaining Contamination

The 399 Ohio Street Site was remediated to address petroleum impacted soil in the vicinity of TP-9, and elevated PAH and metal impacted soil/fill in the vicinity of TP-2 and TP-18 to achieve a Track IV Restricted Residential Use cleanup, which is consistent with the intended use of the Site.

Residual contamination remaining at the Site includes soil/fill located beneath the cover system site wide, though potential exposure is mitigated due to the depth of the contaminant, completion of the remedial activities, and placement of a Site cover system, including buildings, concrete, asphalt covered areas, and vegetated soil cover areas.

2.6.1 Soil/Fill

Residual contamination remaining on-Site soil/fill above Unrestricted SCOs, includes PAHs located beneath the cover system which includes hardscape (buildings, asphalt and concrete) areas, and 24-inches of approved cover material above the demarcation layer. Table 6 summarizes the remaining on-Site soil/fill sample locations with constituents above USCOs and RRSCOs, and Figure 6 identifies the locations.

Constituents above regulatory guidelines are located site-wide beneath the cover system, though potential exposure to the remaining contamination is mitigated due to the depth of the remaining contamination after the completion of the remedial excavation, and depth to on-Site groundwater, and the placement of a cover system.

2.6.2 Groundwater

RI results identified five (5) SVOC, three (3) metals, one (1) pesticide, and one (1) herbicide were detected above GWQS (see Table 2). Depth to water ranges from 15 to 20 fbgs. Due to the depth of contamination and the placement of a cover system, potential exposure to the remaining contamination is unlikely.

3.0 INSTITUTIONAL & ENGINEERING CONTROL PLAN

3.1 General

Since remaining contamination exists at the site, Institutional Controls (ICs) and Engineering Controls (ECs) are required to protect human health and the environment. This IC/EC Plan describes the procedures for the implementation and management of all IC/ECs at the site. The IC/EC Plan is one component of the SMP and is subject to revision by the NYSDEC.

This plan provides:

- A description of all IC/ECs on the site;
- The basic implementation and intended role of each IC/EC;
- A description of the key components of the ICs set forth in the Environmental Easement;
- A description of the controls to be evaluated during each required inspection and periodic review;
- A description of plans and procedures to be followed for implementation of IC/ECs, such as the implementation of the Excavation Work Plan (EWP) (as provided in Appendix B) for the proper handling of remaining contamination that may be disturbed during maintenance or redevelopment work on the site; and
- Any other provisions necessary to identify or establish methods for implementing the IC/ECs required by the site remedy, as determined by the NYSDEC.

3.2 Institutional Controls

A series of ICs is required by the Decision Document to: (1) maintain and monitor the Site; (2) prevent future exposure to remaining contamination; and, (3) limit the use and development of the site to restricted residential uses only. Adherence to these ICs on the site is required by the Environmental Easement and will be implemented under this SMP. ICs identified in the Environmental Easement may not be discontinued without an amendment to or extinguishment of the Environmental Easement. The ICs are:

- Allows the use and development of the controlled property for restricted residential uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- Requires compliance with the Department approved Site Management Plan;
- Restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or the Erie County Department of Health;
- Requires compliance with the Department approved Site Management Plan; and
- Requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8(h)(3).

3.3 Engineering Controls

3.3.1 Cover System

Exposure to remaining contamination at the site is prevented by a cover system placed over the site. This cover system is comprised of a minimum of 24 inches of soil/stone material that meets the SCOs for the Site in accordance with Part 375 and DER-10, and buildings, pavement, and sidewalks comprising the site development. Figure 7 presents the location of the cover system and applicable cover system cross-section details. Construction drawings, prepared by others, related to the hardscape elements of the redevelopment are provided electronically in Appendix D for reference.

The Excavation Work Plan (EWP) provided in Appendix B outlines the procedures required to be implemented in the event the cover system is breached, penetrated, or temporarily removed, and any underlying remaining contamination is disturbed. Procedures for the inspection of this cover are provided in the Monitoring and Sampling Plan included in Section 4.0 of this SMP. Any work conducted pursuant to the EWP must also be conducted in accordance with the procedures defined in a Health and Safety Plan (HASP) and associated Community Air Monitoring Plan (CAMP) prepared for the site and provided in Appendix E.

3.3.2 Criteria for Completion of Remediation/Termination of Remedial Systems

Generally, remedial processes are considered completed when monitoring indicates that the remedy has achieved the remedial action objectives identified by the decision document. The framework for determining when remedial processes are complete is provided in Section 6.4 of NYSDEC DER-10.

3.3.2.1 Cover System

The cover system is a permanent control and the quality and integrity of this system will be inspected at defined, regular intervals in accordance with this SMP in perpetuity.

4.0 MONITORING PLAN

4.1 General

This Monitoring Plan describes the measures for evaluating the overall performance and effectiveness of the remedy. This Monitoring Plan may only be revised with the approval of the NYSDEC.

This Monitoring Plan describes the methods to be used for:

- Monitoring the performance and effectiveness of the site cover;
- A schedule of monitoring and frequency of submittals to the Department.
- Assessing compliance with applicable NYSDEC standards, criteria and guidance (SCGs), and
- Evaluating site information periodically to confirm that the remedy continues to be effective in protecting public health and the environment;

To adequately address these issues, this Monitoring Plan provides information on:

- Annual inspection and periodic certification.

Reporting requirements are provided in Section 7.0 of this SMP.

4.2 Site-Wide Inspection

Site-wide inspections will be performed at a minimum of once per year (annually), and/or at a lesser frequency as approved by the Department. Modification to the frequency or duration of the inspections will require approval from the NYSDEC. Site-wide inspections will also be performed after all severe weather conditions that may affect ECs or monitoring devices. During these inspections, an inspection form will be completed as provided in Appendix F – Site Management Forms. The form will compile sufficient information to assess the following:

- Compliance with all ICs, including site usage;
- An evaluation of the condition and continued effectiveness of ECs;
- General site conditions at the time of the inspection;

- The site management activities being conducted including, where appropriate, confirmation sampling and a health and safety inspection; and
- Confirm that site records are up to date.

Inspections of all remedial components installed at the site will be conducted. A comprehensive site-wide inspection will be conducted and documented according to the SMP schedule, regardless of the frequency of the Periodic Review Report. The inspections will determine and document the following:

- Whether ECs continue to perform as designed;
- If these controls continue to be protective of human health and the environment;
- Compliance with requirements of this SMP and the Environmental Easement;
- Achievement of remedial performance criteria; and
- If site records are complete and up to date; and

Reporting requirements are outlined in Section 7.0 of this plan.

Inspections will also be performed in the event of an emergency. If an emergency, such as a natural disaster or an unforeseen failure of any of the ECs occurs that reduces or has the potential to reduce the effectiveness of ECs in place at the site, verbal notice to the NYSDEC must be given by noon of the following day. In addition, an inspection of the site will be conducted within 5 days of the event to verify the effectiveness of the IC/ECs implemented at the site by a qualified environmental professional, as determined by the NYSDEC. Written confirmation must be provided to the NYSDEC within 7 days of the event that includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public.

5.0 OPERATION & MAINTENANCE PLAN

5.1 General

The site remedy does not rely on any mechanical systems to protect public health and the environment. Therefore, the operation and maintenance of such components is not included in this SMP.

6.0 PERIODIC ASSESSMENTS/EVALUATIONS

6.1 Climate Change Vulnerability Assessment

Increases in both the severity and frequency of storms/weather events, an increase in sea level elevations along with accompanying flooding impacts, shifting precipitation patterns and wide temperature fluctuation, resulting from global climactic change and instability, have the potential to significantly impact the performance, effectiveness and protectiveness of a given site and associated remedial systems. Vulnerability assessments provide information so that the site and associated remedial systems are prepared for the impacts of the increasing frequency and intensity of severe storms/weather events and associated flooding.

The subject site is considered to have low vulnerability related to climatic conditions. There are FEMA floodplains and national wetlands located on the western portion of the Site, per the Erie County GIS system. The site will not employ any remedial systems reliant upon electrical power; the site is serviced by municipal sewer system (combined storm and sanitary); and will not incorporate any petroleum or bulk storage in the redevelopment. The site will be improved with a new building and hardscape/green space cover. As such, acute cover system erosion resultant in potential exposure to remaining contamination, a minimum of 24-inches below surface, is highly unlikely.

6.2 Green Remediation Evaluation

NYSDEC's DER-31 Green Remediation requires that green remediation concepts and techniques be considered during all stages of the remedial program including site management, with the goal of improving the sustainability of the cleanup and summarizing the net environmental benefit of any implemented green technology. This section of the SMP provides a summary of any green remediation evaluations to be completed for the site during site management, and as reported in the Periodic Review Report (PRR).

No mechanical engineering systems are included in the SMP. The only engineering control established for the Site is the cover system. The maintenance of cover system is not anticipated to generate additional waste, use energy, produce emissions, require substantial water to promote vegetative cover growth, and/or affect any ecosystem (Site is located in a highly developed urban area in the City of Buffalo.

6.3 Remedial System Optimization

A Remedial Site Optimization (RSO) study will not be required as there are not active remedial systems. The only engineering control at the Site is the cover system.

7.0 REPORTING REQUIREMENTS

7.1 Site Management Reports

All site management inspection, maintenance, and monitoring events will be recorded on the appropriate site management forms provided in Appendix F. These forms are subject to NYSDEC revision.

All applicable inspection forms and other records, including media sampling data and system maintenance reports, generated for the site during the reporting period will be provided in electronic format to the NYSDEC in accordance with the requirements of Table 7 and summarized in the Periodic Review Report.

Table 7: Schedule of Interim Monitoring/Inspection Reports

Task/Report	Reporting Frequency*
Site Inspection Report	**Annually**
Periodic Review Report	**Annually**, after the submittal of the initial PRR.

* The frequency of events will be conducted as specified until otherwise approved by the NYSDEC.

All interim monitoring/inspections reports will include, at a minimum:

- Date of event or reporting period;
- Name, company, and position of person(s) conducting monitoring/inspection activities;
- Description of the activities performed;
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents noted (included either on the checklist/form or on an attached sheet);
- Copies of all field forms completed (e.g., well sampling logs, chain-of-custody documentation, etc.);
- Any observations, conclusions, or recommendations; and

Routine maintenance event reporting forms will include, at a minimum:

- Date of event;
- Name, company, and position of person(s) conducting maintenance activities;
- Description of maintenance activities performed;
- Any modifications to the system;
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents noted (included either on the checklist/form or on an attached sheet); and,
- Other documentation such as copies of invoices for maintenance work, receipts for replacement equipment, etc., (attached to the checklist/form).

Non-routine maintenance event reporting forms will include, at a minimum:

- Date of event;
- Name, company, and position of person(s) conducting non-routine maintenance/repair activities;
- Description of non-routine activities performed;
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents (included either on the form or on an attached sheet); and
- Other documentation such as copies of invoices for repair work, receipts for replacement equipment, etc. (attached to the checklist/form).

7.2 Periodic Review Report

A Periodic Review Report (PRR) will be submitted to the Department beginning sixteen (16) months after the Certificate of Completion is issued. After submittal of the initial Periodic Review Report, the next PRR shall be submitted triennially to the Department or at another frequency as may be required by the Department. In the event that the site is subdivided into separate parcels with different ownership, a single Periodic Review Report will be prepared that addresses the site described in Appendix A - Environmental Easement. The report will be prepared in accordance with NYSDEC's DER-10 and submitted within 30 days

of the end of each certification period. Media sampling results will also be incorporated into the Periodic Review Report. The report will include:

- Identification, assessment, and certification of all ECs/ICs required by the remedy for the site.
- Results of the required annual site inspections and severe condition inspections, if applicable.
- All applicable site management forms and other records generated for the site during the reporting period in the NYSDEC-approved electronic format, if not previously submitted.
- A summary of any discharge monitoring data and/or information generated during the reporting period, with comments and conclusions.
- A site evaluation, which includes the following:
    - The compliance of the remedy with the requirements of the site-specific Decision Document;
    - The operation and the effectiveness of all treatment units, etc., including identification of any needed repairs or modifications;
    - Any new conclusions or observations regarding site contamination based on inspections or data generated by the Monitoring Plan for the media being monitored;
    - Recommendations regarding any necessary changes to the remedy and/or Monitoring Plan; and
    - Trends in contaminant levels in the affected media will be evaluated to determine if the remedy continues to be effective in achieving remedial goals as specified by the Decision Document.
    - The overall performance and effectiveness of the remedy.

7.2.1 Certification of Institutional and Engineering Controls

Following the last inspection of the reporting period, a qualified environmental professional will prepare, and include in the Periodic Review Report, the following certification as per the requirements of NYSDEC DER-10:

"For each institutional or engineering control identified for the site, I certify that all of the following statements are true:

- *The inspection of the site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under my direction;*
- *The institutional control and/or engineering control employed at this site is unchanged from the date the control was put in place, or last approved by the Department;*
- *Nothing has occurred that would impair the ability of the control to protect the public health and environment;*
- *Nothing has occurred that would constitute a violation or failure to comply with any site management plan for this control;*
- *Access to the site will continue to be provided to the Department to evaluate the remedy, including access to evaluate the continued maintenance of this control;*
- *If a financial assurance mechanism is required under the oversight document for the site, the mechanism remains valid and sufficient for the intended purpose under the document;*
- *Use of the site is compliant with the environmental easement;*
- *The engineering control systems are performing as designed and are effective;*
- *To the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program; and*
- *The information presented in this report is accurate and complete.*

I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, [name], of [business address], am certifying as [Owner/Remedial Party or Owner's/Remedial Party's Designated Site Representative] for the site."

No new information has come to my attention, including groundwater monitoring data from wells located at the site boundary, if any, to indicate that the assumptions made in the qualitative exposure assessment of off-site contamination are no longer valid; and

In addition, every five years the following certification will be added:

- *The assumptions made in the qualitative exposure assessment remain valid.*

The signed certification will be included in the Periodic Review Report.

The Periodic Review Report will be submitted, in electronic format, to the NYSDEC Regional Office in which the site is located, and the NYSDOH Bureau of Environmental Exposure Investigation. The Periodic Review Report may need to be submitted in hard-copy format, as requested by the NYSDEC project manager.

7.3 Corrective Measures Work Plan

If any component of the remedy is found to have failed, or if the periodic certification cannot be provided due to the failure of an institutional or engineering control, a Corrective Measures Work Plan will be submitted to the NYSDEC for approval. This plan will explain the failure and provide the details and schedule for performing work necessary to correct the failure. Unless an emergency condition exists, no work will be performed pursuant to the Corrective Measures Work Plan until it has been approved by the NYSDEC.

8.0 REFERENCES

1. 6NYCRR Part 375, Environmental Remediation Programs. December 14, 2006.
2. New York State Department of Environmental Conservation. *DER-10 - Technical Guidance for Site Investigation and Remediation*, dated May 2010
3. New York State Department of Environmental Conservation. *Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1.* June 1998 (April 2000 addendum).
4. Buffalo Drilling Company, Inc., *Site Inspection Report*, 282-301 Ohio Street, Buffalo, New York, prepared for Paul Moretta, June 1995.
5. CLS Construction Lending Services, Inc., *Phase I Environmental Site Assessment Report*, Vacant Commercial Building 301 Ohio Street (Portion of 399 Ohio Street), Buffalo, New York, September 2005.
6. Turnkey Environmental Restoration, LLC, *Limited Phase II Environmental Investigation Report*, 301 Ohio Street Site, Buffalo, New York, prepared for Ellicott Development Company, November 2013.
7. Benchmark Environmental Engineering & Science, PLLC in association with Turnkey Environmental Restoration, LLC, *Remedial Action Work Plan,* 399 Ohio Street Site, Buffalo, New York, prepared for 1093 Group, LLC, June 2016.
8. Benchmark Environmental Engineering & Science, PLLC in association with Turnkey Environmental Restoration, LLC, *Remedial Investigation/Alternatives Analysis Report,* 399 Ohio Street Site, Buffalo, New York, prepared for 1093 Group, LLC. revised December 2015.

TABLES

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TURNKEY ENVIRONMENTAL RESTORATION, LLC

TABLE 2

SUMMARY OF REMEDIAL INVESTIGATION GROUNDWATER ANALYTICAL RESULTS

399 OHIO STREET SITE

BUFFALO, NEW YORK

Parameters [1]	Class GA GWQS[2]	Sample Location				
		MW-1	MW-2	MW-3	MW-4	MW-5
		6/24-25/2015				
Volatile Organic Compounds (VOCs) - ug/L						
1,2,4-Trimethylbenzene	**5**	ND	ND	ND	ND	1.2 J
4-Methyl-2-pentanone	**--**	1.7 J	ND	ND	ND	ND
2-Butanone	**50**	19	3.2 J	2.6 J	5	5.8
2-Hexanone	**50**	10	2.3 J	1.4 J	3.4 J	2.8 J
Acetone	**50**	45	8.4	6.1	12	12
Benzene	**1**	ND	ND	ND	ND	0.89
Carbon disulfide	**--**	4 J	2 J	1.9 J	3.2 J	2 J
Cyclohexane	**--**	ND	ND	ND	ND	3.1 J
Methyl Acetate	**--**	0.49 J	ND	ND	ND	ND
Methylcyclohexane	**--**	ND	ND	ND	ND	3.1 J
p-Isopropyltoluene	**--**	ND	28	ND	ND	ND
Toluene	**5**	ND	ND	ND	ND	1.8 J
Total Xylenes	**5**	ND	ND	ND	ND	2.9 J
Semivolatile Organic Compounds (SVOCs) - ug/L						
2-Methylnaphthalene	**--**	0.27	0.65	0.41	0.45	0.44
2-Chloronapthalene	**--**	ND	ND	ND	0.34	ND
Acenaphthene	**20**	ND	0.64	0.37	ND	0.3
Acenaphthylene	**--**	ND	ND	0.11 J	ND	ND
Acetophenone	**--**	17	9.6	3.8 J	ND	3.9 J
Anthracene	**--**	ND	0.29	0.18 J	0.11 J	0.07 J
Benzo(a)anthracene	**0.002**	ND	**0.35**	**0.33**	ND	ND
Benzo(a)pyrene	**ND**	ND	**0.39**	**0.37**	ND	ND
Benzo(b)fluoranthene	**0.002**	ND	**0.5**	**0.48**	ND	ND
Benzo(ghi)perylene	**--**	ND	0.23	0.22	ND	ND
Benzo(k)fluoranthene	**--**	ND	0.19 J	0.18 J	ND	ND
Bis(2-ethylhexyl) phthalate	**5**	1 J	**6.7**	2.2 J	ND	ND
Chrysene	**0.002**	ND	**0.35**	**0.33**	ND	ND
Dibenzo(a,h)anthracene	**--**	ND	0.07 J	ND	ND	ND
Fluoranthene	**50**	ND	0.85	0.8	ND	0.12 J
Fluorene	**50**	0.27	0.76	0.5	0.32	0.31
Indeno(1,2,3-cd)pyrene	**--**	ND	0.27	0.26	ND	ND
Naphthalene	**10**	0.1 J	0.94	0.55	0.19 J	0.5
Phenanthrene	**50**	0.81	1.8	1.3	0.88	0.79
Pyrene	**50**	ND	0.68	0.62	ND	0.09 J
Polychlorinated Biphenyls - ug/L						
Total PCBs	**0.09**	ND	ND	ND	ND	ND
Dissolved Metals - ug/L [3]						
Arsenic	**25**	20.8	9.6	8.7	1.7	4.6
Barium	**1000**	367.9	129.6	126	48.4	108.3
Beryllium	**--**	1.9	0.6	0.6	ND	0.2 J
Cadmium	**5**	0.9	0.4	0.5	0.1 J	0.1 J
Chromium	**50**	31.2	23.2	22.7	4.4	9.3
Copper	**200**	49.4	63.8	61.1	6.7	14.4
Lead	**25**	**36.4**	**55.9**	**55.1**	2.2	8.5
Manganese	**300**	**1,662**	**1,010**	**931.9**	**395.6**	**1,673**
Mercury	**0.7**	0.1 J	0.1 J	ND	ND	ND
Nickel	**100**	83.8	29.7	30.3	7.8	12.4
Selenium	**10**	**18**	7	4 J	0.1 J	2 J
Silver	**50**	0.1 J	0.1 J	0.1 J	ND	ND
Zinc	**2000**	209.2	122.8	118.6	25.6	30.9
Pesticides- ug/L						
4,4'-DDD	**0.3**	ND	ND	ND	0.018 J,P,I,	ND
4,4'-DDE	**0.2**	ND	ND	ND	0.038 J	ND
4,4'-DDT	**0.2**	ND	ND	ND	**0.484**	ND
Herbicides - ug/L						
Chlordane	**0.05**	ND	ND	ND	ND	**0.199 J,P,I,**
cis-Chlordane	**--**	ND	ND	ND	ND	0.017 J,I
trans-Chlordane	**--**	ND	ND	ND	ND	0.02 J,P,I,

Notes:

1. Only parameters detected at a minimum of one sample location are presented in this table; all other compounds were reported as non-detect.
2. Values per NYSDEC TOGS 1.1.1 Class GA Groundwater Quality Standards.
3. Sample results were reported by the laboratory in mg/L and converted to ug/L for comparisons to GWQSs

Qualifiers:

ND = Parameter not detected above laboratory detection limit.
"--" = Sample not analyzed for parameter or no GWQS available for the parameter.
J = Estimated Value - Below calibration range
P = The dual column RPD's are above the acceptance criteria, the lower of the two results is reported.
I = The lower value for the two columns has been reported due to obvious interference.

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TURNKEY ENVIRONMENTAL RESTORATION, LLC

TABLE 3

SUMMARY OF TP-9 POST-EXCAVATION CONFIRMATORY SOIL ANALYTICAL RESULTS

399 OHIO STREET SITE

BUFFALO, NEW YORK

PARAMETER [1]	Unrestricted Use SCOs[2]	Restricted Residential Use SCOs[2]	SAMPLE LOCATION				
			NW (3')	SW (3')	EW (3')	WW (3')	Bottom (6')
			11/16/2015				
Volatile Organic Compounds (VOCs) - mg/Kg [3]							
1,2,4-Trimethylbenzene	**3.6**	**52**	ND	ND	ND	0.00042 J	ND
2-Butanone (MEK)	**0.12**	**100**	ND	ND	ND	ND	0.0047 J
Acetone	**0.05**	**100**	0.0032 J	0.0029 J	0.0023 J	0.0032 J	0.024
p-Isopropyltoluene	**--**	**--**	ND	ND	ND	ND	0.0024
Semi-Volatile Organic Compounds (SVOCs) - mg/Kg [3]							
2-Methylnaphthalene	**--**	**--**	1.1	1.1	1.1	2.7	ND
4-Methylphenol	**--**	**--**	0.2	0.42	0.23	ND	ND
Acenaphthene	**20**	**100**	2.3	2.1	2.2	4.4	0.28
Acenaphthylene	**100**	**100**	3	6	3.6	3.9	0.8
Anthracene	**100**	**100**	7	8.2	7.3	15	1.6
Benzo(a)anthracene	**1**	**1**	**19**	**24**	**20**	**31**	**4.2**
Benzo(a)pyrene	**1**	**1**	**14**	**18**	**15**	**22**	**3.1**
Benzo(b)fluoranthene	**1**	**1**	**20**	**23**	**22**	**31**	**4.4**
Benzo(ghi)perylene	**100**	**100**	8.5	13	10	15	2
Benzo(k)fluoranthene	**0.8**	**3.9**	**6.2**	**11**	**7.8**	**11**	**1.7**
Biphenyl	**--**	**--**	0.26	ND	0.4	0.7	ND
Carbazole	**--**	**--**	3.1	3.8	3.6	7.1	0.59
Chrysene	**1**	**3.9**	**17**	**20**	**17**	**27**	**3.5**
Dibenzo(a,h)anthracene	**0.33**	**0.33**	**2.6**	**3.7**	**2.9**	**4.4**	**0.62**
Dibenzofuran	**7**	**59**	1.3	1.6	1.8	3.4	0.18
Di-n-butyl phthalate	**--**	**--**	ND	ND	ND	4.8	ND
Fluoranthene	**100**	**100**	34	38	38	55	7.6
Fluorene	**30**	**100**	2.8	3	3	6.4	0.41
Indeno(1,2,3-cd)pyrene	**0.5**	**0.5**	**9**	**13**	**11**	**16**	**2.3**
Naphthalene	**12**	**100**	1.5	2.6	2.1	3.8	ND
Pentachlorophenol	**0.8**	**6.7**	ND	ND	ND	**0.99**	ND
Phenanthrene	**100**	**100**	18	21	20	41	3.3
Pyrene	**100**	**100**	30	33	33	45	6

Notes:

1. Only those parameters detected at a minimum of one sample location are presented in this table; all other compounds were reported as non-detect.
2. Values per 6NYCRR Part 375 Soil Cleanup Objectives (SCOs).
3. Sample results were reported by the laboratory in ug/kg and converted to mg/kg for comparisons to SCOs.

Definitions:

ND = Parameter not detected above laboratory detection limit.

J = Estimated value; result is less than the sample quantitation limit but greater than zero.

Bold	= Result exceeds Unrestricted Use SCOs.
Bold	= Results exceed Restricted Residential Use SCOs.

TABLE 4

SUMMARY OF TP-2 POST EXCAVATION ANALYITCAL RESULTS

399 OHIO STREET SITE

BUFFALO, NEW YORK

PARAMETER [1]	Unrestricted Use SCOs [2]	Restricted Residential Use SCOs [2]	TP-2 SAMPLE LOCATION (DEPTH)						
			NW-1 (2')	NW-2 (2')	SW-1 (2')	SW-2 (2')	EW-1 (2')	WW-1 (2')	F1 (4')
			10/12/2016						
Metals - mg/Kg									
Arsenic	**13**	**16**	5.8	8.3	4	3.1	6.1	8	9.9
Cadmium	**2.5**	**4.3**	ND	ND	1.7	1.8	ND	0.07 J	ND
Lead	**63**	**400**	**68**	32	**360**	**150**	20	**100**	61

Notes:

1. Only those parameters detected at a minimum of one sample location are presented in this table; all other compounds were reported as non-detect.
2. Values per 6NYCRR Part 375 Soil Cleanup Objectives (SCOs).
3. Sample results were reported by the laboratory in ug/kg and converted to mg/kg for comparisons to SCOs

Definitions:

ND = Parameter not detected above laboratory detection limit.

J = Estimated value; result is less than the sample quantitation limit but greater than zero.

Bold	= Result exceeds Unrestricted Use SCOs.
Bold	= Result exceeds Restricted Residential Use SCOs.

TABLE 5

SUMMARY OF TP-18 POST-EXCAVATION CONFIRMATORY SOIL ANALYTICAL RESULTS

399 OHIO STREET SITE

BUFFALO, NEW YORK

PARAMETER [1]	Unrestricted Use SCOs [2]	Restricted Residential Use SCOs [2]	TP-18 SAMPLE LOCATION (DEPTH)									
			NW-1 (2')	NW-2 (2')	SW-1 (2')	SW-2 (2')	EW-1 (2')	EW-2 (2')	WW-1 (2')	WW-2 (2')	F1 (4')	F2 (4')
			10/12/2016					10/26/2016	10/12/2016			
Semi-Volatile Organic Compounds (SVOCs) - mg/Kg [3]												
Acenaphthene	**20**	**100**	0.044 J	0.045 J	0.22	0.51	0.032 J	ND	0.088 J	0.49	0.056 J	0.044 J
Acenaphthylene	**100**	**100**	0.1 J	0.48	0.64	0.98	0.063 J	0.17	0.26	1.9	0.063 J	0.093 J
Anthracene	**100**	**100**	0.21	0.66	1.8	2.9	0.22	0.23	0.53	2.7	0.19	0.21
Benzo(a)anthracene	**1**	**1**	0.55	**2.6**	**3.2**	**6.1**	0.57	**1.1**	**1.4**	**9.4**	0.38	0.4
Benzo(a)pyrene	**1**	**1**	0.47	**2.4**	**2.5**	**5.2**	0.51	**1.1**	**1.2**	**6.7**	0.3	0.31
Benzo(b)fluoranthene	**1**	**1**	0.55	**2.9**	**3.1**	**6.5**	0.61	**1.4**	**1.5**	**8.5**	0.38	0.37
Benzo(ghi)perylene	**100**	**100**	0.25	1.6	1.2	2.7	0.34	0.52	0.65	2.7	0.15	0.14 J
Benzo(k)fluoranthene	**0.8**	**3.9**	0.21	**0.91**	**1.2**	**2**	0.22	0.51	0.55	**2.7**	0.13	0.14
Chrysene	**1**	**3.9**	0.48	**2.3**	**2.8**	**5.4**	0.52	0.99	**1.3**	**6.8**	0.34	0.34
Dibenzo(a,h)anthracene	**0.33**	**0.33**	0.063 J	**0.36**	**0.39**	**0.84**	0.09 J	0.15	0.21	**0.99**	0.045 J	0.045 J
Fluoranthene	**100**	**100**	1	4.9	7.6	14	1.2	1.7	2.6	16	0.81	0.84
Fluorene	**30**	**100**	0.11 J	0.1 J	0.46	1.1	0.077 J	0.04 J	0.15 J	0.8	0.091 J	0.093 J
Indeno(1,2,3-cd)pyrene	**0.5**	**0.5**	0.28	**1.5**	**1.4**	**3.1**	0.35	**0.63**	**0.73**	**3.3**	0.17	0.17
Phenanthrene	**100**	**100**	0.43	2	6	13	0.68	0.51	1.5	5.8	0.55	0.52
Pyrene	**100**	**100**	0.88	4.2	6	12	1	1.6	2.1	13	0.68	0.68
Total PAHs	**--**	**100**	5.63	26.96	38.51	76.33	6.48	10.65	14.77	81.78	4.34	4.40

Notes:

1. Only those parameters detected at a minimum of one sample location are presented in this table; all other compounds were reported as non-detect.
2. Values per 6NYCRR Part 375 Soil Cleanup Objectives (SCOs).
3. Sample results were reported by the laboratory in ug/kg and converted to mg/kg for comparisons to SCOs

Definitions:

ND = Parameter not detected above laboratory detection limit.

J = Estimated value; result is less than the sample quantitation limit but greater than zero.

Bold	= Result exceeds Unrestricted Use SCOs.
Bold	= Result exceeds Restricted Residential Use SCOs.

TABLE 6

SUMMARY OF REMAINING ON-SITE SOIL/FILL ABOVE USCOs

399 OHIO STREET SITE

BUFFALO, NEW YORK

Parameter[1]	Unrestricted Use SCOs[2]	Restricted Residential Use SCOs[2]	Historic Sample Locations (Depth)		RI Sample Locations (Depth)									TP-9 Remedial Action Sample Locations (Depth)					TP-2 Remedial Action Sample Locations (Depth)				TP-18 Remedial Action Sample Location (Depth)					
			TP-3 (1-3)	TP-5 (2-4)	SB-2 (2-6)	TP-9 (2-5)	TP-10 (1-3)	TP-11 (1-5)	TP-14 (1-5)	TP-15 (1-2)	TP-19 (1.5-7)	TP-20 (2-5)	TP-21 (2-5)	NW (3)	SW (3)	EW (3)	WW (3)	Bottom (6)	NW-1 (2)	SW-1 (2)	SW-2 (2)	WW-1 (2)	NW-2 (2)	SW-1 (2)	SW-2 (2)	EW-2 (2)	WW-1 (2)	WW-2 (2)
			10/15/13		6/18/2015	6/26/2015			6/25/2015		6/26/2015		6/25/2015	11/16/2015					10/12/2016				10/12/2016			10/26/2016	10/12/2016	
Volatile Organic Compounds (VOCs) - mg/Kg [3]																												
1,2,4-Trimethylbenzene	**3.6**	**47**	--	ND	ND	ND	--	--	ND	--	--	ND	0.019	ND	ND	ND	0.00042 J	ND	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane (EDC)	**0.02**	**2.3**	--	ND	ND	ND	--	--	ND	--	--	0.0073 J	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	**8.4**	**47**	--	ND	ND	ND	--	--	ND	--	--	ND	0.088 J	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--
2-Butanone (MEK)	**0.12**	**100**	--	ND	ND	ND	--	--	0.0029 J	--	--	0.027	0.05	ND	ND	ND	ND	0.0047 J	--	--	--	--	--	--	--	--	--	--
Acetone	**0.05**	**100**	--	ND	0.0087 J	ND	--	--	0.017 J	--	--	**0.16**	**0.21**	0.0032 J	0.0029 J	0.0023 J	0.0032 J	0.024	--	--	--	--	--	--	--	--	--	--
Benzene	**0.06**	**2.9**	--	ND	ND	ND	--	--	ND	--	--	0.00059 J	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--
Carbon disulfide	**--**	**--**	--	ND	ND	ND	--	--	ND	--	--	0.0044 J	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--
Chlorobenzene	**1.1**	**100**	--	ND	ND	ND	--	--	ND	--	--	0.0016 J	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	**1**	**30**	--	ND	ND	ND	--	--	ND	--	--	0.0018	0.0022 J	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene (Cumene)	**--**	**--**	--	ND	ND	ND	--	--	ND	--	--	0.0029	0.0012 J	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--
Methylcyclohexane	**--**	**--**	--	ND	ND	ND	--	--	ND	--	--	ND	0.00089 J	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--
Toluene	**0.7**	**100**	--	ND	ND	ND	--	--	0.00061 J	--	--	0.0032	0.0017 J	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--
Trichloroethene	**0.47**	**10**	--	ND	ND	ND	--	--	0.00077 J	--	--	ND	0.00069 J	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--
Trichlorofluoromethane (Freon-11)	**--**	**--**	--	ND	ND	ND	--	--	ND	--	--	0.46	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--
Total Xylene	**0.26**	**100**	--	ND	ND	ND	--	--	0.00037 J	--	--	0.021	0.016	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--
Semi-Volatile Organic Compounds (SVOCs) - mg/Kg [3]																												
2-Methylnaphthalene	--	**--**	0.52	ND	ND	4.4	ND	ND	0.81 J	ND	ND	4.9	1	1.1	1.1	1.1	2.7	ND	--	--	--	--	ND	ND	ND	ND	ND	ND
3-Methylphenol/4-Methylphenol	**--**	**--**	ND	ND	0.1 J	0.39	ND	ND	0.27 J	ND	ND	ND	ND	0.2 J	0.42	0.23	ND	ND	--	--	--	--	ND	ND	ND	ND	ND	ND
Acenaphthene	**20**	**100**	0.078 J	ND	ND	5.8	ND	0.12 J	0.08 J	ND	0.2 J	7	1.4	2.3	2.1	2.2	4.4	0.28	--	--	--	--	0.045 J	0.22	0.51	ND	0.088 J	0.49
Acenaphthylene	**100**	**100**	ND	0.93 J	0.35	2.8	ND	0.24	0.24	ND	0.12 J	0.81	0.84	3	6	3.6	3.9	0.8	--	--	--	--	0.48	0.64	0.98	0.17	0.26	1.9
Anthracene	**100**	**100**	ND	1.8	1.4	12 D	ND	0.52	0.49	ND	0.56	3.9	2.3	7	8.2	7.3	15	1.6	--	--	--	--	0.66	1.8	2.9	0.23	0.53	2.7
Benzo(a)anthracene	**1**	**1**	0.13 J	**7.8**	**4.5**	**21**	ND	**2.2**	**1.8**	ND	**1.2**	**2.8**	**5.5**	**19**	**24**	**20**	**31**	**4.2**	--	--	--	--	**2.6**	**3.2**	**6.1**	**1.1**	**1.4**	**9.4**
Benzo(a)pyrene	**1**	**1**	0.092 J	**7.4**	**3.7**	**19**	ND	**2.4**	**2.4**	ND	**1**	**1.6**	**5**	**14**	**18**	**15**	**22**	**3.1**	--	--	--	--	**2.4**	**2.5**	**5.2**	**1.1**	**1.2**	**6.7**
Benzo(b)fluoranthene	**1**	**1**	0.24	**9.9**	**4.9**	**23**	ND	**3.1**	**3.1**	ND	**1.4**	**2.4**	**6.8**	**20**	**23**	**22**	**31**	**4.4**	--	--	--	--	**2.9**	**3.1**	**6.5**	**1.4**	**1.5**	**8.5**
Benzo(g,h,i)perylene	**100**	**100**	0.099 J	4.7	1.9	12 D	ND	1.5	1.6 J	ND	0.6	0.72	2.7	8.5	13	10	15	2	--	--	--	--	1.6	1.2	2.7	0.52	0.65	2.7
Benzo(k)fluoranthene	**0.8**	**3.9**	0.069 J	**4.1**	**1.7**	**7.5**	ND	**1.2**	**1.2**	ND	0.52	**0.99**	**2.6**	**6.2**	**11**	**7.8**	**11**	**1.7**	--	--	--	--	**0.91**	**1.2**	**2**	0.51	0.55	**2.7**
Biphenyl	**--**	**--**	ND	ND	ND	1	ND	ND	ND	ND	ND	1	0.18 J	0.26	ND	0.4	0.7	ND	--	--	--	--	ND	ND	ND	ND	ND	ND
Bis(2-ethylhexyl) phthalate	**--**	**--**	ND	ND	ND	ND	ND	0.061	0.48	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	ND	ND	ND	ND	ND	ND
Carbazole	**--**	**--**	ND	ND	0.53	4.8	ND	0.26	0.34	ND	0.28	2.5	1	3.1	3.8	3.6	7.1	0.59	--	--	--	--	ND	ND	ND	ND	ND	ND
Chrysene	**1**	**3.9**	0.24	**7.9**	**4.1**	**22**	ND	**2.2**	**1.9**	ND	**1.1**	**2.8**	**5.5**	**17**	**20**	**17**	**27**	**3.5**	--	--	--	--	**2.3**	**2.8**	**5.4**	0.99	**1.3**	**6.8**
Dibenzo(a,h)anthracene	**0.33**	**0.33**	ND	**1.1**	**0.6**	**2.7**	ND	**0.35**	**0.41**	ND	0.15 J	0.21 J	**0.78**	**2.6**	**3.7**	**2.9**	**4.4**	**0.62**	--	--	--	--	**0.36**	**0.39**	**0.84**	0.15	0.21	**0.99**
Dibenzofuran	**7**	**--**	ND	ND	0.15 J	5.3	ND	0.084	ND	ND	0.15 J	4.7	1	1.3	1.6	1.8	3.4	0.18	--	--	--	--	ND	ND	ND	ND	ND	ND
Di-n-butyl phthalate	**--**	**--**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.8	ND	--	--	--	--	ND	ND	ND	ND	ND	ND
Fluoranthene	**100**	**100**	0.29	19	7.4	60 D	ND	4.7	4	ND	2.4	11	11	34	38	38	55	7.6	--	--	--	--	4.9	7.6	14	1.7	2.6	16
Fluorene	**30**	**100**	ND	ND	0.16 J	7.8	ND	0.014	0.12 J	ND	0.27	5.6	1.6	2.8	3	3	6.4	0.41	--	--	--	--	0.1 J	0.46	1.1	0.04 J	0.15 J	0.8
Indeno(1,2,3-cd)pyrene	**0.5**	**0.5**	0.091 J	**5.3**	**2.3**	**12**	ND	**1.7**	**2**	ND	**0.72**	**0.89**	**3.3**	**9**	**13**	**11**	**16**	**2.3**	--	--	--	--	**1.5**	**1.4**	**3.1**	**0.63**	**0.73**	**3.3**
Naphthalene	**12**	**100**	0.57	ND	0.07 J	8.5 D	ND	ND	0.13 J	ND	0.1 J	**15 D**	2.7	1.5	2.6	2.1	3.8	ND	--	--	--	--	ND	ND	ND	ND	ND	ND
Pentachlorophenol	**0.8**	**2.4**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.99**	ND	--	--	--	--	ND	ND	ND	ND	ND	ND
Phenanthrene	**100**	**100**	0.7	7.5	4.6	60 D	ND	1.6	1.4	ND	1.9	16 D	7.5	18	21	20	41	3.3	--	--	--	--	2	6	13	0.51	1.5	5.8
Phenol	**0.33**	**100**	ND	ND	ND	0.19 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	ND	ND	ND	ND	ND	ND
Pyrene	**100**	**100**	0.22	16	6.1	54 D	ND	4	3.3	ND	1.8	7	8.6	30	33	33	45	6	--	--	--	--	4.2	6	12	1.6	2.1	13
Total Metals - mg/Kg																												
Arsenic	**13**	**16**	7.3	3.9	3.4	**33**	6.2	4.9	ND	2.1	5.8	6.2	**14**	--	--	--	--	--	5.8	4	3.1	8	--	--	--	--	--	--
Barium	**350**	**400**	110	73	88	91	80	62	150	35	97	160	190	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	**7.2**	**14**	ND	ND	0.37	0.39	2.1	1	0.78	0.29	1.2	1.1	0.86	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	**2.5**	**4.3**	**32**	**4.8**	ND	**2.9**	0.63	**5.1**	**22**	ND	0.49 J	ND	2	--	--	--	--	--	ND	1.7	1.8	0.07 J	--	--	--	--	--	--
Chromium	**30**	**180**	**110**	27	9.4	14	**35**	29	**79**	8.3	7.4	19	51	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper	**50**	**270**	ND	ND	17	**260**	20	**57**	**150**	18	84	47	**230**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	**63**	**400**	**1300**	**230**	12	**410**	47	**230**	**860**	23	93	**100**	**440**	--	--	--	--	--	**68**	**360**	**150**	**100**	--	--	--	--	--	--
Manganese	**1600**	**2000**	ND	ND	390	280	1100	1000	**2100**	170	500	400	500	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	**0.18**	**0.81**	**0.39**	**0.22**	0.17	**0.51**	0.1	ND	**0.35**	**0.25**	**0.26**	**0.73**	**0.6**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nickel	**30**	**140**	ND	ND	11	20	6.7	12	27	13	7.2	18	34	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	**3.9**	**180**	ND	0.13 J	ND	1.3 J	1.1	0.72 J	1.5	ND	1.1 J	1.1 J	1.3 J	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Silver	**2**	**180**	**7.3**	0.82	ND	0.52 J	0.25 J	1.5	**4.6**	ND	ND	ND	0.34	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	**109**	**2200**	ND	ND	41	**630**	**160**	**760**	**2300**	43	**190**	**190**	**900**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pesticides and Herbicides - mg/Kg [3]																												
4,4'-DDD	**0.0033**	**2.6**	--	--	--	**1.21 D**	ND	ND	ND	ND	--	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4,4'-DDE	**0.0033**	**1.8**	--	--	--	**0.103**	ND	ND	ND	ND	--	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4,4'-DDT	**0.0033**	**1.7**	--	--	--	**0.454 DJ**	ND	ND	ND	ND	--	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

1. Only those parameters detected at a minimum of one sample location are presented in this table; all other compounds were reported as non-detect.
2. Values per 6NYCRR Part 375 Soil Cleanup Objectives (December 2006)
3. Sample results were reported by the laboratory in ug/kg and converted to mg/kg for comparison to SCOs.

Definitions:

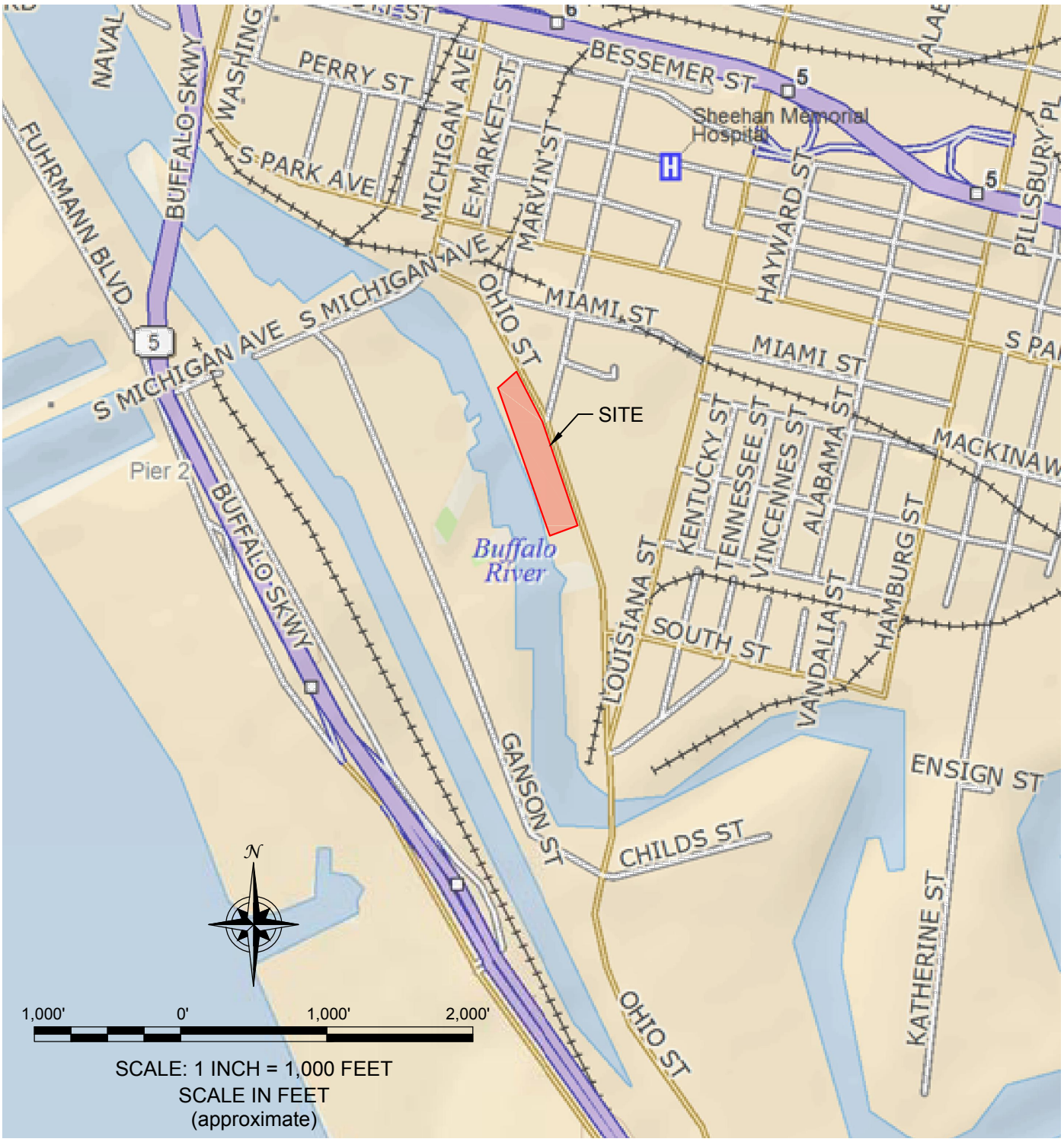
ND = Parameter not detected above laboratory detection limit.
"--" = Sample not analyzed for parameter or no SCO available for the parameter.
J = Estimated value; result is less than the sample quantitation limit but greater than zero.
D = Compounds were identified in an analysis at the secondary dilution factor.

BOLD	= Result exceeds 6NYCRR Part 375 Unrestricted Use SCOs.
BOLD	= Result exceeds 6NYCRR Part 375 Restricted Residential Use SCOs.

FIGURES

F:\CAD\TurnKey\Ellicott Development\399 Ohio Street BCP\SMP\Figure 1; Site Location and Vicinity Map.dwg

FIGURE 1



BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC
TURNKEY ENVIRONMENTAL RESTORATION, LLC
2558 HAMBURG TURNPIKE, SUITE 300, BUFFALO, NY 14218, (716) 856-0599

PROJECT NO.: 0136-013-011

DATE: NOVEMBER 2016

DRAFTED BY: CMC

SITE LOCATION AND VICINITY MAP

SITE MANAGEMENT PLAN

399 OHIO STREET SITE

BUFFALO, NEW YORK

PREPARED FOR

1093 GROUP, LLC

F:\CAD\TurnKey\Ellicott Development\399 Ohio Street BCP\SMP\Figure 2; Site Plan (Aerial).dwg

DATE: NOVEMBER 2016
DRAFTED BY: CMC

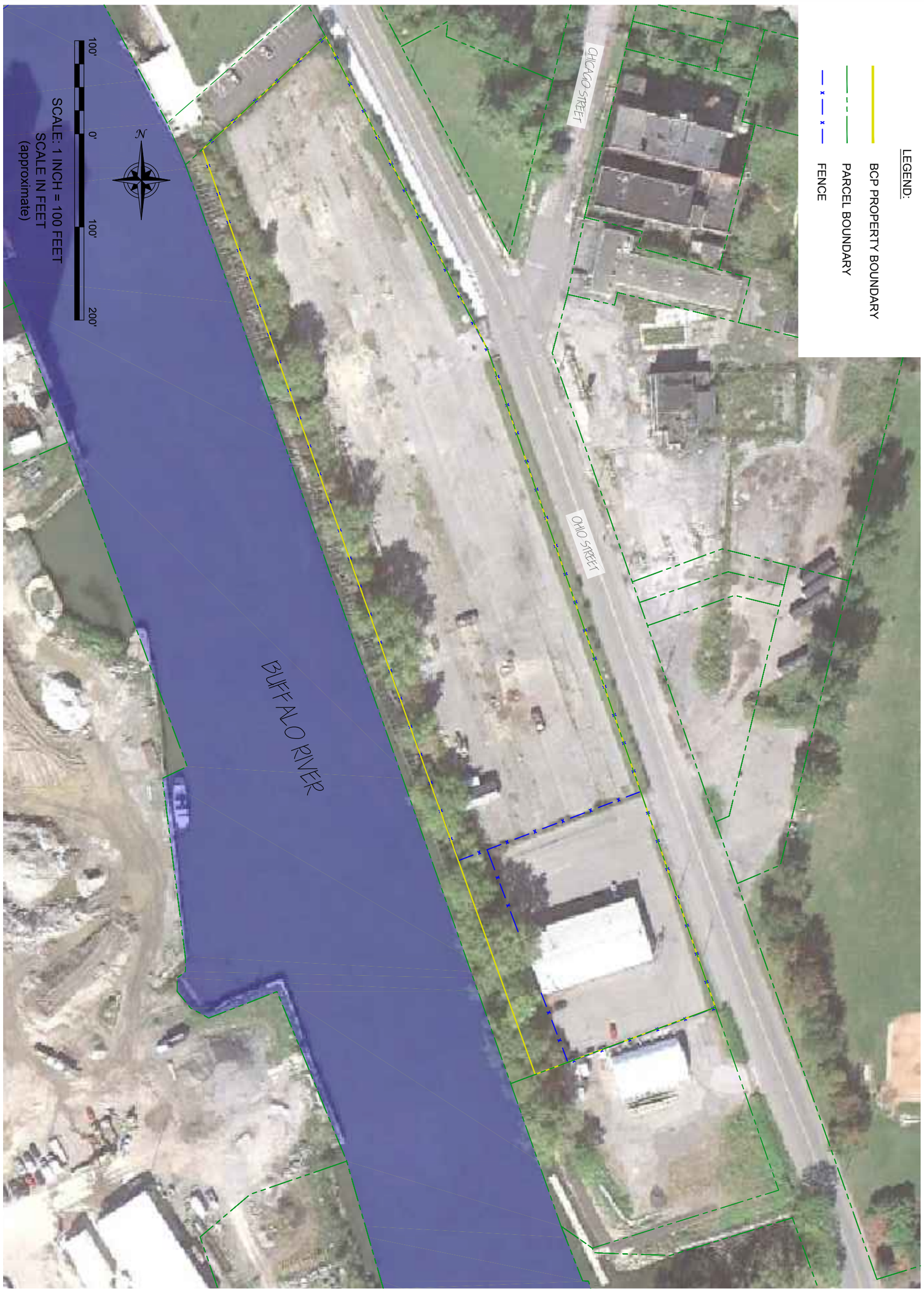


FIGURE 2

SITE PLAN (AERIAL)

SITE MANAGEMENT PLAN

399 OHIO STREET SITE

BUFFALO, NEW YORK

PREPARED FOR

1093 GROUP, LLC

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TURNKEY ENVIRONMENTAL RESTORATION, LLC

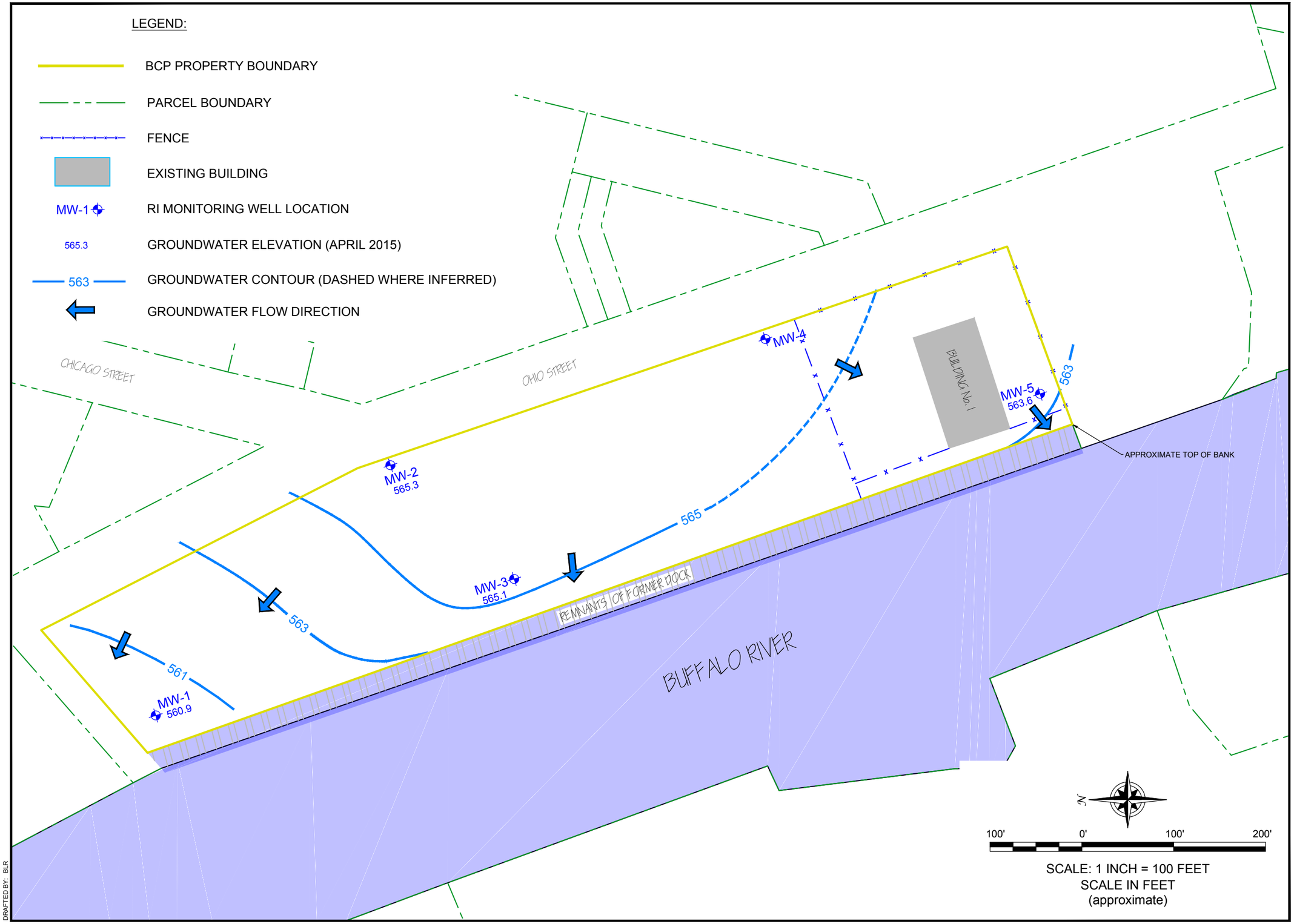
2558 HAMBURG TURNPIKE, SUITE 300, BUFFALO, NY 14218, (716) 856-0599

JOB NO.: 0136-013-011

F:\CAD\TurnKey\Ellicott Development\399 Ohio Street BCP\SMP\Figure 3; Groundwater Isopotential Map - April 2015.dwg

LEGEND:

- BCP PROPERTY BOUNDARY
- PARCEL BOUNDARY
- FENCE
- EXISTING BUILDING
- MW-1 — RI MONITORING WELL LOCATION
- 565.3 — GROUNDWATER ELEVATION (APRIL 2015)
- 563 — GROUNDWATER CONTOUR (DASHED WHERE INFERRED)
- GROUNDWATER FLOW DIRECTION



SCALE: 1 INCH = 100 FEET
SCALE IN FEET
(approximate)

DATE: NOVEMBER 2016
DRAFTED BY: BLR

2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0635

TURNKEY ENVIRONMENTAL RESTORATION, LLC

JOB NO.: 0136-013-011

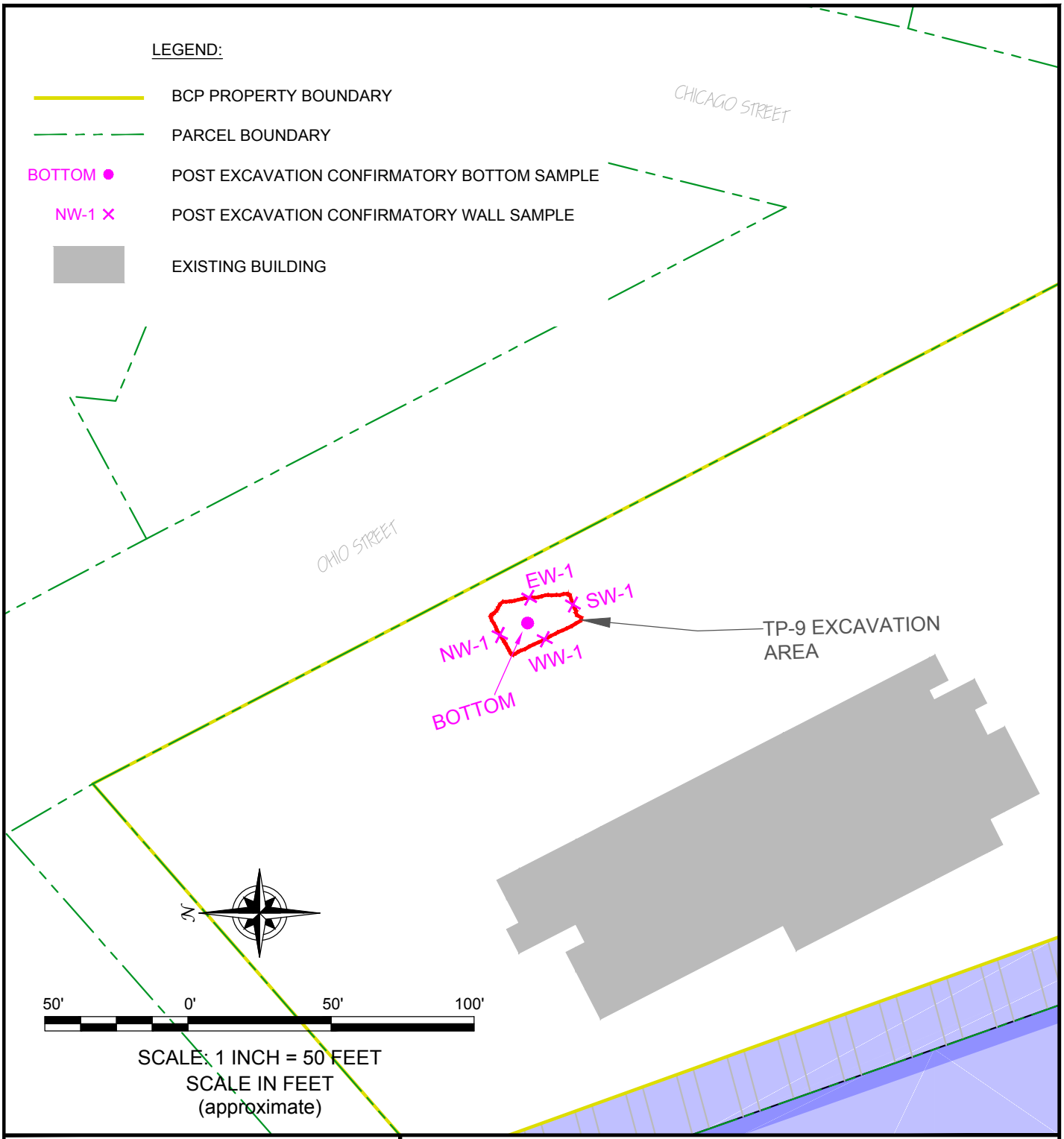
GROUNDWATER ISOPOTENTIAL MAP - APRIL 2015

SITE MANAGEMENT PLAN
399 OHIO STREET SITE
BUFFALO, NEW YORK
PREPARED FOR
1093 GROUP, LLC

FIGURE 3

F:\CAD\TurnKey\Ellicott Development\399 Ohio Street BCP\SMP\Figure 4_5; Remedial Excavation Areas.dwg

FIGURE 4



BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TURNKEY ENVIRONMENTAL RESTORATION, LLC

2558 HAMBURG TURNPIKE, SUITE 300, BUFFALO, NY 14218, (716) 856-0599

PROJECT NO.: 0136-013-011

DATE: NOVEMBER 2016

DRAFTED BY: CMC

TP-9 REMEDIAL EXCAVATION

SITE MANAGEMENT PLAN

399 OHIO STREET SITE

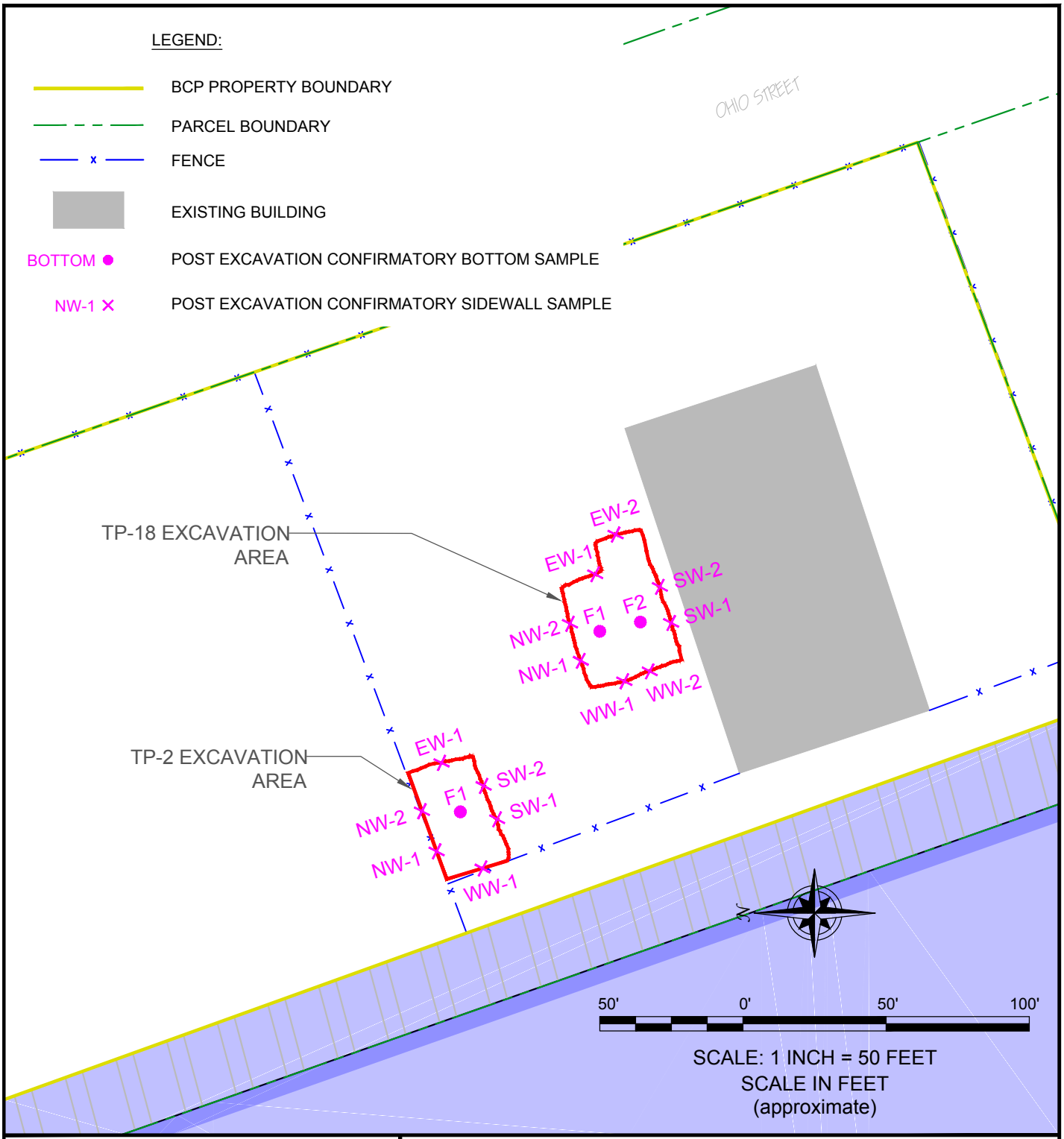
BUFFALO, NEW YORK

PREPARED FOR

1093 GROUP, LLC

F:\CAD\TurnKey\Ellicott Development\399 Ohio Street BCP\SMP\Figure 4_5; Remedial Excavation Areas.dwg

FIGURE 5



BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TURNKEY ENVIRONMENTAL RESTORATION, LLC

2558 HAMBURG TURNPIKE, SUITE 300, BUFFALO, NY 14218, (716) 856-0599

PROJECT NO.: 0136-013-011

DATE: NOVEMBER 2016

DRAFTED BY: CMC

TP-2 AND TP-18 REMEDIAL EXCAVATION

SITE MANAGEMENT PLAN

399 OHIO STREET SITE

BUFFALO, NEW YORK

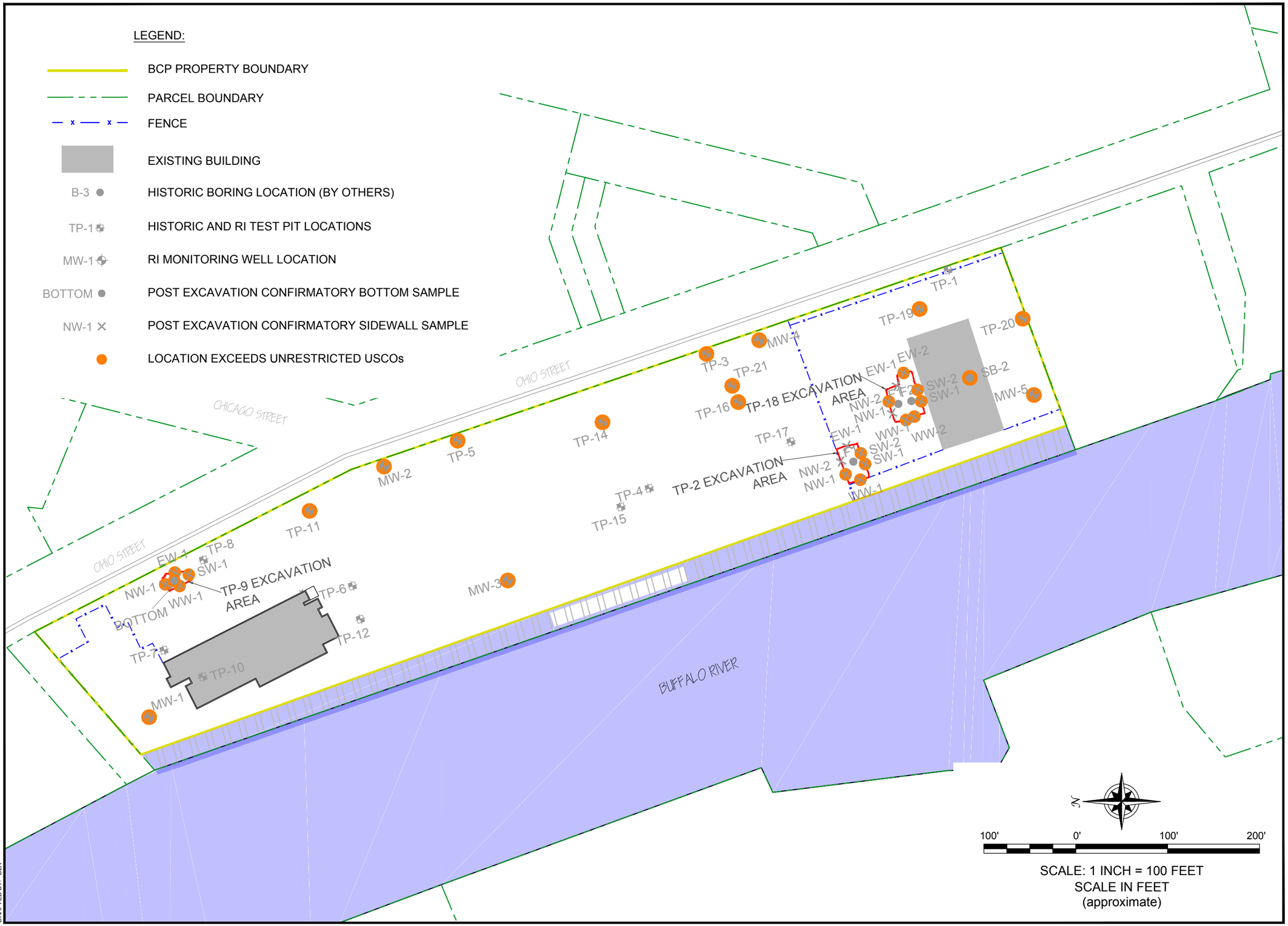
PREPARED FOR

1093 GROUP, LLC

F:\CAD\TurnKey\Ellicott Development\399 Ohio Street BCP\SMP\Figure 6; Remaining Soil_Fill Above USCOs.dwg

LEGEND:

- BCP PROPERTY BOUNDARY
- PARCEL BOUNDARY
- FENCE
- EXISTING BUILDING
- B-3 — HISTORIC BORING LOCATION (BY OTHERS)
- TP-1 — HISTORIC AND RI TEST PIT LOCATIONS
- MW-1 — RI MONITORING WELL LOCATION
- BOTTOM — POST EXCAVATION CONFIRMATORY BOTTOM SAMPLE
- NW-1 — POST EXCAVATION CONFIRMATORY SIDEWALL SAMPLE
- LOCATION EXCEEDS UNRESTRICTED USCOs



SCALE: 1 INCH = 100 FEET
SCALE IN FEET
(approximate)

DATE: JULY 2015
DRAFTED BY: BLR

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC
TURNKEY ENVIRONMENTAL RESTORATION, LLC
2558 HAMBURG TURNPIKE, SUITE 300, BUFFALO, NY 14218, (716) 856-0599

JOB NO.: 0136-013-011

REMAINING SOIL/FILL ABOVE USCOs

SITE MANAGEMENT PLAN
399 OHIO STREET SITE
BUFFALO, NEW YORK
PREPARED FOR
1093 GROUP, LLC

FIGURE 6

F:\CAD\TurnKey Ellicot Development\399 Ohio Street BCP\SMP Figure 7- Planned Cover System Layout and Detail rev NTM.dwg

LEGEND:

BCP SITE BOUNDARY

PARCEL BOUNDARY

FENCE

N

80' 0' 80' 160'

SCALE: 1 INCH = 80 FEET
SCALE IN FEET
(approximate)

CHICAGO STREET

OHIO STREET

NEW ELECTRICAL SERVICE INSTALLED PER NATIONAL GRID SPECS

EXISTING PAVEMENT (REPAIRED AS NEEDED)

PAVEMENT

NEW ELECTRICAL SERVICE INSTALLED PER NATIONAL GRID SPECS

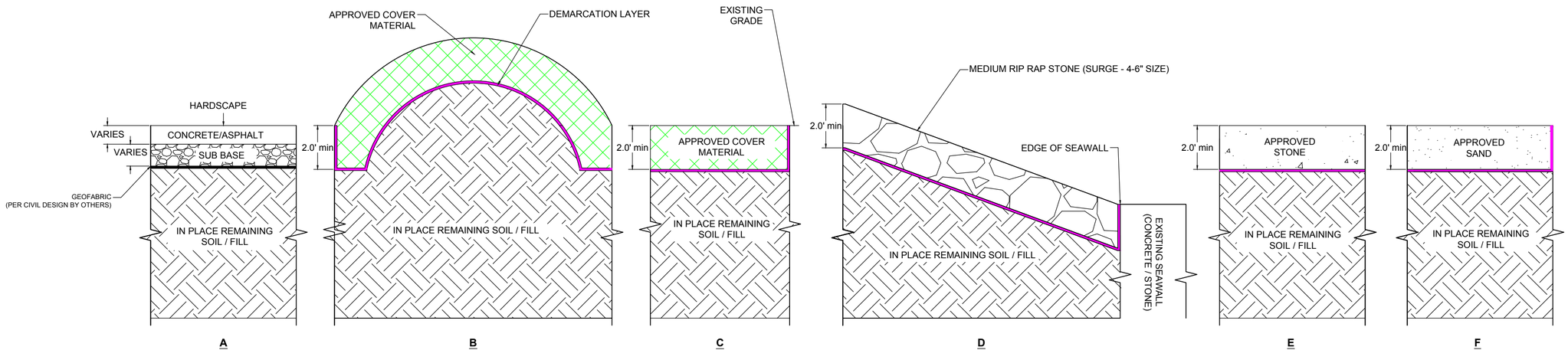
VOLLEYBALL COURT

REMNANTS OF FORMER DOCK

BUFFALO RIVER

A B C D E F

COVER SYSTEM DETAILS



NOTE A: THICKNESS VARIES BY COVER TYPE AND DESIGNATED USE PER CIVIL CONSTRUCTION DETAILS (BY OTHERS);

NOTE D: TOP OF EXISITNG SEAWALL SUPPLEMENTED WITH LARGE (>2') APPROVED BLOCK TO ACHIEVE FINAL GRADE, AS NEEDED.

NOTE F: VOLLEYBALL COURT DESIGN DETAILS (BY OTHERS)

NOTE: COVER SYSTEM KEYED-IN AT TRANSITIONS FROM HARDSCAPE AND/OR SITE BOUNDARY (24-INCH MINIMUM PER DER-10)

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TURNKEY ENVIRONMENTAL RESTORATION, LLC

2558 HAMBURG TURNPIKE, SUITE 300, BUFFALO, NY 14218, (716) 856-0599

JOB NO.: 0136-013-011

DRAWN BY: CMC
DATE: DECEMBER 2016
CHECKED BY: NTM
APPROVED BY: THF

COVER SYSTEM LAYOUT AND DETAILS

SITE MANAGEMENT PLAN
399 OHIO STREET SITE
BCP SITE NO. C915287
BUFFALO, NEW YORK

PREPARED FOR
1093 GROUP, LLC

FIGURE 7

APPENDIX A

ENVIRONMENTAL EASEMENT
METES AND BOUNDS

County: Erie Site No: C915287 Brownfield Cleanup Agreement Index : C915287-09-14

ENVIRONMENTAL EASEMENT GRANTED PURSUANT TO ARTICLE 71, TITLE 36 OF THE NEW YORK STATE ENVIRONMENTAL CONSERVATION LAW

THIS INDENTURE made this 10th day of June, 2016, between Owner(s) 1093 Group, LLC, having an office at 295 Main Street, Suite 210, Buffalo, NY 14203, County of Erie, State of New York (the "Grantor"), and The People of the State of New York (the "Grantee."), acting through their Commissioner of the Department of Environmental Conservation (the "Commissioner", or "NYSDEC" or "Department" as the context requires) with its headquarters located at 625 Broadway, Albany, New York 12233,

WHEREAS, the Legislature of the State of New York has declared that it is in the public interest to encourage the remediation of abandoned and likely contaminated properties ("sites") that threaten the health and vitality of the communities they burden while at the same time ensuring the protection of public health and the environment; and

WHEREAS, the Legislature of the State of New York has declared that it is in the public interest to establish within the Department a statutory environmental remediation program that includes the use of Environmental Easements as an enforceable means of ensuring the performance of operation, maintenance, and/or monitoring requirements and the restriction of future uses of the land, when an environmental remediation project leaves residual contamination at levels that have been determined to be safe for a specific use, but not all uses, or which includes engineered structures that must be maintained or protected against damage to perform properly and be effective, or which requires groundwater use or soil management restrictions; and

WHEREAS, the Legislature of the State of New York has declared that Environmental Easement shall mean an interest in real property, created under and subject to the provisions of Article 71, Title 36 of the New York State Environmental Conservation Law ("ECL") which contains a use restriction and/or a prohibition on the use of land in a manner inconsistent with engineering controls which are intended to ensure the long term effectiveness of a site remedial program or eliminate potential exposure pathways to hazardous waste or petroleum; and

WHEREAS, Grantor, is the owner of real property located at the address of 399 Ohio Street in the City of Buffalo, County of Erie and State of New York, known and designated on the tax map of the County Clerk of Erie as tax map parcel numbers: Section 122.10 Block 2 Lot 7.21, being a portion of the property conveyed to Grantor by deed dated March 14, 2014 and recorded in the Erie County Clerk's Office in Liber and Page 11261/6631. The property subject to this Environmental Easement (the "Controlled Property") comprises approximately 5.0 +/- acres, and is hereinafter more fully described in the Land Title Survey dated February 17, 2015 prepared by Millard, MacKay & Delles Land Surveyors, LLP, which will be attached to the Site Management Plan. The Controlled Property description is set forth in and attached hereto as Schedule A; and

WHEREAS, the Department accepts this Environmental Easement in order to ensure the protection of public health and the environment and to achieve the requirements for remediation established for the Controlled Property until such time as this Environmental Easement is extinguished pursuant to ECL Article 71, Title 36; and

NOW THEREFORE, in consideration of the mutual covenants contained herein and the terms and conditions of Brownfield Cleanup Agreement Index Number: C915287-09-14, Grantor conveys to Grantee a permanent Environmental Easement pursuant to ECL Article 71, Title 36 in, on, over, under, and upon the Controlled Property as more fully described herein ("Environmental Easement")

1. Purposes. Grantor and Grantee acknowledge that the Purposes of this Environmental Easement are: to convey to Grantee real property rights and interests that will run with the land in perpetuity in order to provide an effective and enforceable means of encouraging the reuse and redevelopment of this Controlled Property at a level that has been determined to be safe for a specific use while ensuring the performance of operation, maintenance, and/or monitoring requirements; and to ensure the restriction of future uses of the land that are inconsistent with the above-stated purpose.

2. Institutional and Engineering Controls. The controls and requirements listed in the Department approved Site Management Plan ("SMP") including any and all Department approved amendments to the SMP are incorporated into and made part of this Environmental Easement. These controls and requirements apply to the use of the Controlled Property, run with the land, are binding on the Grantor and the Grantor's successors and assigns, and are enforceable in law or equity against any owner of the Controlled Property, any lessees and any person using the Controlled Property.

A. (1) The Controlled Property may be used for:

Restricted Residential as described in 6 NYCRR Part 375-1.8(g)(2)(ii), Commercial as described in 6 NYCRR Part 375-1.8(g)(2)(iii) and Industrial as described in 6 NYCRR Part 375-1.8(g)(2)(iv)

(2) All Engineering Controls must be operated and maintained as specified in the Site Management Plan (SMP);

(3) All Engineering Controls must be inspected at a frequency and in a manner defined in the SMP;

(4) The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the Erie County Department of Health to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department;

(5) Groundwater and other environmental or public health monitoring must be performed as defined in the SMP;

(6) Data and information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in the SMP;

(7) All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the SMP;

(8) Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in the SMP;

(9) Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy shall be performed as defined in the SMP;

(10) Access to the site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by this Environmental Easement.

B. The Controlled Property shall not be used for Residential purposes as defined in 6NYCRR 375-1.8(g)(2)(i), and the above-stated engineering controls may not be discontinued without an amendment or extinguishment of this Environmental Easement.

C. The SMP describes obligations that the Grantor assumes on behalf of Grantor, its successors and assigns. The Grantor's assumption of the obligations contained in the SMP which may include sampling, monitoring, and/or operating a treatment system, and providing certified reports to the NYSDEC, is and remains a fundamental element of the Department's determination that the Controlled Property is safe for a specific use, but not all uses. The SMP may be modified in accordance with the Department's statutory and regulatory authority. The Grantor and all successors and assigns, assume the burden of complying with the SMP and obtaining an up-to-date version of the SMP from:

Site Control Section
Division of Environmental Remediation
NYSDEC
625 Broadway
Albany, New York 12233
Phone: (518) 402-9553

D. Grantor must provide all persons who acquire any interest in the Controlled Property a true and complete copy of the SMP that the Department approves for the Controlled Property and all Department-approved amendments to that SMP.

E. Grantor covenants and agrees that until such time as the Environmental Easement is extinguished in accordance with the requirements of ECL Article 71, Title 36 of the ECL, the property deed and all subsequent instruments of conveyance relating to the Controlled Property shall state in at least fifteen-point bold-faced type:

This property is subject to an Environmental Easement held by the New York State Department of Environmental Conservation pursuant to Title 36 of Article 71 of the Environmental Conservation

Law.

F. Grantor covenants and agrees that this Environmental Easement shall be incorporated in full or by reference in any leases, licenses, or other instruments granting a right to use the Controlled Property.

G. Grantor covenants and agrees that it shall, at such time as NYSDEC may require, submit to NYSDEC a written statement by an expert the NYSDEC may find acceptable certifying under penalty of perjury, in such form and manner as the Department may require, that:

(1) the inspection of the site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under the direction of the individual set forth at 6 NYCRR Part 375-1.8(h)(3).

(2) the institutional controls and/or engineering controls employed at such site:

(i) are in-place;

(ii) are unchanged from the previous certification, or that any identified changes to the controls employed were approved by the NYSDEC and that all controls are in the Department-approved format; and

(iii) that nothing has occurred that would impair the ability of such control to protect the public health and environment;

(3) the owner will continue to allow access to such real property to evaluate the continued maintenance of such controls;

(4) nothing has occurred that would constitute a violation or failure to comply with any site management plan for such controls;

(5) the report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

(6) to the best of his/her knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and

(7) the information presented is accurate and complete.

3. Right to Enter and Inspect. Grantee, its agents, employees, or other representatives of the State may enter and inspect the Controlled Property in a reasonable manner and at reasonable times to assure compliance with the above-stated restrictions.

4. Reserved Grantor's Rights. Grantor reserves for itself, its assigns, representatives, and successors in interest with respect to the Property, all rights as fee owner of the Property, including:

A. Use of the Controlled Property for all purposes not inconsistent with, or limited by the terms of this Environmental Easement;

B. The right to give, sell, assign, or otherwise transfer part or all of the underlying fee interest to the Controlled Property, subject and subordinate to this Environmental Easement;

5. Enforcement

A. This Environmental Easement is enforceable in law or equity in perpetuity by Grantor, Grantee, or any affected local government, as defined in ECL Section 71-3603, against

the owner of the Property, any lessees, and any person using the land. Enforcement shall not be defeated because of any subsequent adverse possession, laches, estoppel, or waiver. It is not a defense in any action to enforce this Environmental Easement that: it is not appurtenant to an interest in real property; it is not of a character that has been recognized traditionally at common law; it imposes a negative burden; it imposes affirmative obligations upon the owner of any interest in the burdened property; the benefit does not touch or concern real property; there is no privity of estate or of contract; or it imposes an unreasonable restraint on alienation.

B. If any person violates this Environmental Easement, the Grantee may revoke the Certificate of Completion with respect to the Controlled Property.

C. Grantee shall notify Grantor of a breach or suspected breach of any of the terms of this Environmental Easement. Such notice shall set forth how Grantor can cure such breach or suspected breach and give Grantor a reasonable amount of time from the date of receipt of notice in which to cure. At the expiration of such period of time to cure, or any extensions granted by Grantee, the Grantee shall notify Grantor of any failure to adequately cure the breach or suspected breach, and Grantee may take any other appropriate action reasonably necessary to remedy any breach of this Environmental Easement, including the commencement of any proceedings in accordance with applicable law.

D. The failure of Grantee to enforce any of the terms contained herein shall not be deemed a waiver of any such term nor bar any enforcement rights.

6. Notice. Whenever notice to the Grantee (other than the annual certification) or approval from the Grantee is required, the Party providing such notice or seeking such approval shall identify the Controlled Property by referencing the following information:

County, NYSDEC Site Number, NYSDEC Brownfield Cleanup Agreement, State Assistance Contract or Order Number, and the County tax map number or the Liber and Page or computerized system identification number.

Parties shall address correspondence to:

Site Number: C915287
Office of General Counsel
NYSDEC
625 Broadway
Albany New York 12233-5500

With a copy to:

Site Control Section
Division of Environmental Remediation
NYSDEC
625 Broadway
Albany, NY 12233

All notices and correspondence shall be delivered by hand, by registered mail or by Certified mail and return receipt requested. The Parties may provide for other means of receiving and communicating notices and responses to requests for approval.

7. Recordation. Grantor shall record this instrument, within thirty (30) days of execution of this instrument by the Commissioner or her/his authorized representative in the office of the

recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

8. Amendment. Any amendment to this Environmental Easement may only be executed by the Commissioner of the New York State Department of Environmental Conservation or the Commissioner's Designee, and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

9. Extinguishment. This Environmental Easement may be extinguished only by a release by the Commissioner of the New York State Department of Environmental Conservation, or the Commissioner's Designee, and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

10. Joint Obligation. If there are two or more parties identified as Grantor herein, the obligations imposed by this instrument upon them shall be joint and several.

Remainder of Page Intentionally Left Blank

IN WITNESS WHEREOF, Grantor has caused this instrument to be signed in its name.

1093 Group, LLC:

By: _____

Print Name: WILLIAM A. PALADINO

Title: MANAGER Date: 5/26/16

Grantor's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF ERIE)

On the 26th day of MAY, in the year 2016 before me, the undersigned, personally appeared WILLIAM A. PALADINO personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

_____
Notary Public - State of New York

KATHLEEN A. LINHARDT
Notary Public, State of New York
Qualified in Erie County
My Commission Expires March 25, 2018

THIS ENVIRONMENTAL EASEMENT IS HEREBY ACCEPTED BY THE PEOPLE OF THE STATE OF NEW YORK, Acting By and Through the Department of Environmental Conservation as Designee of the Commissioner,

By: _____
Robert W. Schick, Director
Division of Environmental Remediation

Grantee's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF ALBANY)

On the 10th day of June, in the year 2016, before me, the undersigned, personally appeared Robert W. Schick, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/ executed the same in his/her/ capacity as Designee of the Commissioner of the State of New York Department of Environmental Conservation, and that by his/her/ signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

_____
Notary Public - State of New York

David J. Chiusano
Notary Public, State of New York
No. 01CH5032146
Qualified in Schenectady County
Commission Expires August 22, 2018

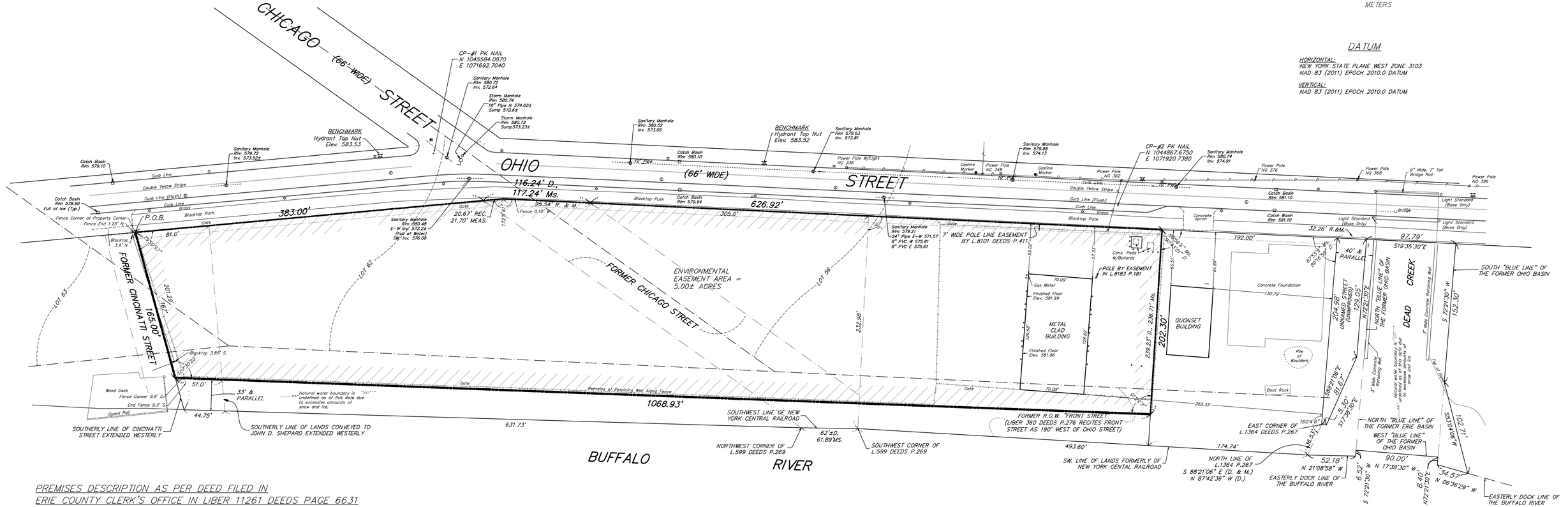
SCHEDULE "A" PROPERTY DESCRIPTION

Environmental Easement Description
For 399 Ohio Street Site
BCP Site No. C915287

ALL THAT PLOT OF LAND SITUATE in the City of Buffalo, County of Erie and State of New York, being part of Outer Lot Numbers Fifty-Six (56), Sixty-Two (62), and Sixty-Three (63) and former Front Street, bounded and described as follows:

BEGINNING at the point of intersection of the southeasterly line of the former Cincinnati Street with the southwesterly line of Ohio Street; running thence easterly along the southwesterly line of Ohio Street a distance of 383 feet to the westerly line of former Chicago Street; thence continuing southwesterly along the present southwesterly line of Ohio Street 116.24 feet Deed, 117.24 feet Meas. to its intersection with the easterly line of former Chicago Street; thence continuing along the southwesterly line of Ohio Street 626.92 feet to a point; thence southwesterly at an exterior angle of 90° 50' 06", a distance of 202.30 feet to a point; thence northwesterly at an interior angle of 91° 29' 07", a distance of 1068.93 to a point in the south line of former Cincinnati Street; thence northwesterly along said south line of former Cincinnati Street at an interior angle of 107° 30' 22", 165.00 feet to the point of beginning.

This parcel containing 5.00 Acres of land more or less.



LEGEND

⌀	UTILITY / SERVICE POLE	R.O.W.	RIGHT OF WAY
WV	WATER LINE VALVE	CONC.	CONCRETE
FH	FIRE HYDRANT	INV.	INVERT
D.I.	D.I. (DROP INLET – STORM)	M.H.	MANHOLE
S	MANHOLE (STORM)	—G—	GAS LINE
E	MANHOLE (ELECTRIC)	—W—	WATER LINE
T	MANHOLE (TRAFFIC)	—T—	TELEPHONE LINE
S	MANHOLE (SANITARY)	—E—	ELECTRIC LINE
LDR	LDR (LIGHT DUTY RECEIVER – STORM)	—P—	UTILITY LINES
BYD	BYD (BACKYARD DRAIN INLET – STORM)	—C—	CABLE LINES
GV	GAS LINE VALVE	D.	DEED
	LIGHT STANDARD	M.	MEASURED
—o—	SIGN	L.	LIBER
H.C.	HANDICAP	P.	PAGE

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

0 25 50 100

METERS

DATUM

HORIZONTAL:
NEW YORK STATE PLANE WEST ZONE 3103
NAD 83 (2011) EPOCH 2010.0 DATUM

VERTICAL:
NAD 83 (2011) EPOCH 2010.0 DATUM

PREMISES DESCRIPTION AS PER DEED FILED IN ERIE COUNTY CLERK'S OFFICE IN LIBER 11261 DEEDS PAGE 6631

ALL THAT TRACT OR PARCEL OF LAND, situate in the City of Buffalo, County of Erie and State of New York, being part of Outer Lots Nos. 56, 62 and 63 and former Front Street, bounded and described as follows:

BEGINNING at the point of intersection of the southeasterly line of Former Cincinnati Street with the southwesterly line of Ohio Street; thence easterly along the southwesterly line of Ohio Street 383 feet to the westerly line of former Chicago Street; thence continuing southeasterly along the present southwesterly line of Ohio Street 116.24 feet to its intersection with the easterly line of former Chicago Street; thence continuing along the westerly line of Ohio Street 818.92 feet to its intersection with the northerly line of an unnamed street (40') wide which line is 40 feet north of the "Blue Line" for The Ohio Basin; thence westerly along the north line of said unnamed street and parallel with the aforementioned "Blue Line" 204.98 feet to the easterly corner of a triangular parcel of land appropriated by the State of New York, said Notice of Appropriation map and description being recorded in the Erie County Clerk's Office in Liber 1,364 of Deeds at page 267; thence north 87° 42' 36" west along the northerly line of lands so taken by the State of New York 36.53 feet to the east line of Buffalo River; thence northwesterly along the southwesterly line of lands of New York Central Railroad, being also the easterly line of Buffalo River 493.60 feet to the southwesterly corner of lands conveyed to the New York Central and Hudson River Railroad Company by deed recorded in Liber 599 of Deeds at page 269, thence continuing northwesterly along the southwesterly line of lands so conveyed to said Railroad Company by last above mentioned deed, said line also being the southwesterly line of former Chicago Street 62 feet more or less to the northwest corner of said lands being in the west line of former Chicago Street; thence continuing northwesterly in a straight line 631.73 feet to its intersection with the extension westerly of the southerly line of lands conveyed to John D. Shepard by deed recorded in Liber 99 of Deeds at page 221 at a point 33 feet west of the northwest corner of Shepard's lands as aforesaid; thence continuing northwesterly parallel with the west line of lands so conveyed to John D. Shepard and 33 feet westerly therefrom 44.75 feet to the extension westerly of the south line of former Cincinnati Street; thence northeasterly along said westerly extension of said south line of former Cincinnati Street and the south line of said former Cincinnati Street 201.29 feet to the point of beginning.

And also ALL THAT TRACT OR PARCEL OF LAND situate in the City of Buffalo, County of Erie and State of New York, being part of Outer Lot No. 56 and part of Subdivision Lot No. 1 of Block 3 as shown on a map filed in the Erie County Clerk's Office in Liber 49 of Deeds at page 165 and in Liber 229 of Deeds at page 221, and being more particularly bounded and described as follows:

BEGINNING at the intersection of the westerly boundary line of Ohio Street (as a 66.00 feet wide public right-of-way) and the northerly boundary line of lands conveyed by the City of Buffalo to Carl Paladino and Louis Magnano by deed dated June 7, 1993 and recorded in the Erie County Clerk's Office in Liber 10678 of Deeds at page 806 on June 17, 1993; thence south 72° 21' 30" West, along said northerly boundary line of lands conveyed to Paladino and Magnano by the aforesaid deed, a distance of 129.05 feet to an angle point therein; thence north 88° 21' 06" west, continuing along said northerly boundary line of lands conveyed to Paladino and Magnano by the aforesaid deed, a distance of 81.67 feet to an angle point therein; thence north 17° 38' 30" west, along an easterly boundary line of lands conveyed to Paladino and Magnano by the aforesaid deed, a distance of 5.30 feet to a point on a southerly line of lands conveyed by Laidlaw Transport, Inc. to Carl P. Paladino and Louis A. Magnano by deed dated April 22, 1983 and recorded in the Erie County Clerk's Office in Liber 9219 of Deeds at page 505 on April 25, 1983; thence easterly, along the said southerly boundary line of lands conveyed to Paladino and Magnano by the aforesaid deed recorded in Liber 9219 of Deeds at page 505 a distance of 204.98 feet to a point in the aforesaid westerly boundary line of Ohio Street; thence southerly, along the westerly boundary line of Ohio Street, a distance of 32.26 feet to the point and place of beginning.

And also ALL THAT TRACT OR PARCEL OF LAND situate in the City of Buffalo, County of Erie and State of New York, being part of Outer Lot 56, in Township 11, Range 8 of the former Village of New Amsterdam, being part of the former Erie Canal lands known as the Dead Creek portion of the Ohio Basin which were conveyed to The City of Buffalo by the People of the State of New York by Deed filed in Liber 2964 at Page 296 in the Erie County Clerk's Office and being more particularly described as follows:

BEGINNING at the intersection of the west line of Ohio Street with the south "Blue Line" of the former Ohio Basin and running south 72 degrees, 21 minutes, 30 seconds west and along said "Blue Line" one hundred fifty two and thirty hundredths (152.30) feet, more-or-less, to a point in said "Blue Line"; running thence south 53 degrees, 4 minutes, 6 seconds west one hundred two and seventy-one hundredths (102.71) feet, to a point of intersection with the easterly dock line of the Buffalo River; running thence north 6 degrees, 36 minutes, 29 seconds west thirty-four and fifty-seven hundredths (34.57) feet to a point in the south "Blue Line" of the Ohio Basin; running thence north 72 degrees, 21 minutes, 30 seconds east along the south "Blue Line" of the former Ohio Basin, eight and forty hundredths (8.40) feet to a point of intersection with the westerly "Blue Line" of the former Ohio Basin, running thence north 17 degrees, 38 minutes, 30 seconds west along the westerly "Blue Line" of the former Ohio Basin ninety (90.00) feet to a point of intersection with the northerly "Blue Line" former Erie Basin; running thence south 72 degrees, 21 minutes, 30 seconds west along the northerly "Blue Line" of the former Erie Basin six and fifty two hundredths (6.52) feet to a point of intersection with the easterly dock line of the Buffalo River; running thence north 21 degrees, 8 minutes, 58 seconds west along the easterly dock line of the Buffalo River fifty-two and eighteen hundredths (52.18) feet to a point; running thence south 88 degrees, 21 minutes, 6 seconds, east thirty-six and fifty-three (36.53) feet to a point; running thence south 17 degrees, 38 minutes, 30 seconds, east five and thirty hundredths (5.30) feet to a point; running thence south 88 degrees, 21 minutes, 6 seconds east, eighty-one and sixty-seven hundredths (81.67) feet to a point; running thence north 72 degrees, 21 minutes, 30 seconds east, one hundred twenty-nine and five hundredths (129.05) feet to a point in the westerly line of Ohio Street; running thence south 19 degrees, 35 minutes, 30 seconds east, ninety-seven and seventy-nine hundredths (97.79) feet to the point or place of beginning, containing 26,615 square feet or 0.6109 acres of land more or less.

EXCEPTING THEREROM ALL THAT TRACT OR PARCEL OF LAND, situate in the City of Buffalo, County of Erie and State of New York, being part of Outer Lot No. 56 and former Front Street, bounded and described as follows:

BEGINNING at a point on the southwesterly line of Ohio Street, distant 40.00 feet northwesterly from the intersection of said southwesterly line of Ohio Street with the north "Blue Line" of the former Ohio Basin, thence southwesterly on a line forming an interior angle of 89° 16' 59" with said southwesterly line of Ohio Street, a distance of 204.98 feet to the easterly corner of a triangular parcel of land appropriated by the State of New York, said Notice of Appropriation map and description being recorded in the Erie County Clerk's Office in Liber 1,364 of Deeds at page 267; thence north 87° 42' 36" west along the northerly line of lands so taken by the State of New York, a distance of 36.53 feet to the northeasterly line of the Buffalo River; thence northwesterly, along the northeasterly line of the Buffalo River, a distance of 174.74 feet, more or less, to a point; thence northeasterly, along a line forming an interior angle with the southwesterly line of Ohio Street of 90° 43' 01", a distance of 239.23 feet, more or less, to a point on said southwesterly line of Ohio Street, thence southeasterly, along said southwesterly line of Ohio Street, a distance of 192.00 feet to the point and place of beginning.

ENVIRONMENTAL EASEMENT AREA LEGAL DESCRIPTION

ALL THAT TRACT OR PARCEL OF LAND, situate in the City of Buffalo, County of Erie and State of New York, being part of Outer Lot Numbers Fifty-Six (56), Sixty-Two (62) and Sixty-Three (63) and former Front Street, bounded and described as follows:

BEGINNING at the point of intersection of the southeasterly line of the former Cincinatti Street with the southwesterly line of Ohio Street; running thence easterly along the southwesterly line of Ohio Street a distance of 383 feet to the westerly line of former Chicago Street; thence continuing southwesterly along the present southwesterly line of Ohio Street 116.24 feet Deed, 117.24 feet Meas. to its intersection with the easterly line of former Chicago Street; thence continuing along the southwesterly line of Ohio Street 626.92 feet to a point; thence southwesterly at an exterior angle of 90°56'06", a distance of 202.30 feet to a point; thence northwesterly at an interior angle of 91°29'07", a distance of 1068.93 to a point in the south line of former Cincinatti Street; thence northwesterly along said south line of former Cincinnati Street at an interior angle of 107°30'22", 165.00 feet to the point of beginning;

This parcel containg 5.00 Acres or land more or less.

THIS PROPERTY IS SUBJECT TO AN ENVIRONMENTAL EASEMENT HELD BY THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION PURSUANT TO TITLE 36 OF ARTICLE 71 OF THE NEW YORK ENVIRONMENTAL CONSERVATION LAW.

THE ENGINEERING AND INSTUTIONAL CONTROLS FOR THIS EASEMENT ARE SET FORTH IN THE SITE MANAGEMENT PLAN (SMP). A COPY OF THE SMP MUST BE OBTAINED BY ANY PARTY WITH AN INTEREST IN THE PROPERTY. THE SMP CAN BE OBTAINED FROM NYS DEPARTMENT OF ENVIRONMENTAL CONSERVATION, DIVISION OF ENVIRONMENTAL REMEDIATION, SITE CONTROL SECTION, 625 BROADWAY, ALBANY, N.Y. 12233 OR AT derweb@gw.dec.state.ny.us

ENVIRONMENTAL EASEMENT AREA

INSTRUMENT(S) UTILIZED IN DETERMINING LOCATION OF BOUNDARY LINES: Liber 11261 Deeds P.6631

THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A CURRENT ABSTRACT OF TITLE AND IS SUBJECT TO ANY STATE OF FACTS THAT MAY BE REVEALED IN SAID ABSTRACT.

NOTE: PROPERTY CORNER MONUMENTS WERE NOT PLACED AS PART OF THIS SURVEY. NOTE: THIS SURVEY WAS PERFORMED UNDER SEVERE SNOW AND ICE CONDITIONS.

I HEREBY CERTIFY TO THE PEOPLE OF THE STATE OF NEW YORK ACTING THROUGH ITS COMMISSIONER OF THE DEPARTMENT OF ENVIRONMENTAL CONSERVATION THAT THIS SURVEY MAP WAS PREPARED IN ACCORDANCE WITH THE CURRENT STANDARD FOR LAND SURVEYS ADOPTED BY THE ERIE COUNTY ENVIRONMENTAL EASEMENT AREA AND IS CERTIFIED ONLY TO THE ENTITIES LISTED HEREIN AND TO THE ASSESSOR AND/OR ASSIGNEES OF THE LENDING INSTITUTION. THIS CERTIFICATION IS NOT TRANSFERABLE TO ADDITIONAL INSTITUTIONS OR SUBSEQUENT OWNERS OTHER THAN STATED ABOVE

FRANCIS R. DELLES NYSPLS No. 050477

Millard, MacKay & Delles
LAND SURVEYORS, LLP
150 AERO DRIVE
BUFFALO, NEW YORK 14225
PHONE (716) 631-5140 ~ FAX 631-3811

AMEND: "B"
SURVEY DATE: 2-17-15
DRAWING DATE: 4-9-15
SCALE: 1" = 50'

PART OF OUTER LOTS 56, 62 & 63 AND FORMER FRONT STREET R.O.W.
PART OF DEAD CREEK PORTION OF THE OHIO RIVER BASIN BY L.2964 DEEDS P.296

PART OF LOT ____ SECTION ____ TOWNSHIP ____ RANGE ____ OF THE: Outer Lots SURVEY – Erie COUNTY, N.Y.

SURVEY OF: 399 Ohio Street, City of Buffalo

THIS MAP VOID UNLESS EMBOSSED WITH NEW YORK STATE LICENSED LAND SURVEYOR'S SEAL. ALTERING ANY ITEM ON THIS MAP IS A VIOLATION OF THE LAW EXCEPT AS PROVIDED IN SECTION 7209, PART 2, OF THE NEW YORK STATE EDUCATION LAW.

SBL No. 122.10-2-7.21

APPENDIX B

EXCAVATION WORK PLAN

BROWNFIELD CLEANUP PROGRAM
SITE MANAGEMENT PLAN

APPENDIX B
EXCAVATION WORK PLAN

399 OHIO STREET SITE
NYSDEC SITE NUMBER: C915287
BUFFALO, NEW YORK

December 2016 0136-013-011

Prepared for:

1093 Group, LLC

295 Main Street, Suite 210

Buffalo, New York

Prepared By:

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

SITE MANAGEMENT PLAN
APPENDIX B: EXCAVATION PLAN
399 OHIO STREET SITE

Table of Contents

B-1: NOTIFICATION

At least 15 days prior to the start of any activity that is anticipated to encounter remaining contamination, the site owner or their representative will notify the NYSDEC. Table 1 includes contact information for the above notification. The information on this table will be updated as necessary to provide accurate contact information.

Table 1: Notifications*

Mr. Anthony Lopes, P.E. (NYSDEC Project Manager – Region 9)	716-851-7220 Anthony.lopes@dec.ny.gov
Mr. Chad Staniszewski, P.E. (NYSDEC Regional HW Engineer – Region 9)	716-851-7220 Chad.staniszewski@dec.ny.gov

* Note: Notifications are subject to change and will be updated as necessary.

This notification will include:

- A detailed description of the work to be performed, including the location and areal extent of excavation, plans/drawings for site re-grading, intrusive elements or utilities to be installed below the soil cover, estimated volumes of contaminated soil to be excavated and any work that may impact an engineering control;
- A summary of environmental conditions anticipated to be encountered in the work areas, including the nature and concentration levels of contaminants of concern, potential presence of grossly contaminated media, and plans for any pre-construction sampling;
- A schedule for the work, detailing the start and completion of all intrusive work;
- A summary of the applicable components of this EWP;
- A statement that the work will be performed in compliance with this EWP and 29 CFR 1910.120;
- A copy of the contractor's health and safety plan (HASP), in electronic format, if it differs from the HASP provided in Appendix F of this SMP;
- Identification of disposal facilities for potential waste streams; and

- Identification of sources of any anticipated backfill, along with all required chemical testing results.

B-2: SOIL SCREENING METHODS

Visual, olfactory and instrument-based (e.g. photoionization detector) soil screening will be performed by a qualified environmental professional during all excavations into known or potentially contaminated material (remaining contamination). Soil screening will be performed when invasive work is done and will include all excavation and invasive work performed during development, such as excavations for foundations and utility work, after issuance of the COC.

Soils will be segregated based on previous environmental data and screening results into material that requires off-site disposal and material that requires testing to determine if the material can be reused on-site as soil beneath a cover or if the material can be used as cover soil. Further discussion of off-site disposal of materials and on-site reuse is provided below.

B-3: SOIL STAGING METHODS

Soil stockpiles will be continuously encircled with a berm and/or silt fence. Hay bales will be used as needed near catch basins, surface waters and other discharge points.

Stockpiles will be kept covered at all times with appropriately anchored tarps. Stockpiles will be routinely inspected and damaged tarp covers will be promptly replaced.

Stockpiles will be inspected at a minimum once each week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the site and available for inspection by the NYSDEC.

B-4: MATERIALS EXCAVATION AND LOAD-OUT

A qualified environmental professional or person under their supervision will oversee all invasive work and the excavation and load-out of all excavated material.

The owner of the property and remedial party (if applicable) and its contractors are responsible for safe execution of all invasive and other work performed under this Plan.

The presence of utilities and easements on the site will be investigated by the qualified environmental professional. It will be determined whether a risk or impediment to the planned work under this SMP is posed by utilities or easements on the site.

Loaded vehicles leaving the site will be appropriately lined, tarped, securely covered, manifested, and placarded in accordance with appropriate Federal, State, local, and NYSDOT requirements (and all other applicable transportation requirements).

A truck wash will be operated on-site, as appropriate. The qualified environmental professional will be responsible for ensuring that all outbound trucks will be washed at the truck wash before leaving the site until the activities performed under this section are complete Truck wash waters will be collected and disposed of off-site in an appropriate manner.

Locations where vehicles enter or exit the site shall be inspected daily for evidence of off-site soil tracking.

The qualified environmental professional will be responsible for ensuring that all egress points for truck and equipment transport from the site are clean of dirt and other materials derived from the site during intrusive excavation activities. Cleaning of the adjacent streets will be performed as needed to maintain a clean condition with respect to site-derived materials.

B-5: MATERIALS TRANSPORT OFF-SITE

All transport of materials will be performed by licensed haulers in accordance with appropriate local, State, and Federal regulations, including 6 NYCRR Part 364. Haulers will be appropriately licensed and trucks properly placarded.

Material transported by trucks exiting the site will be secured with tight-fitting covers. Loose-fitting canvas-type truck covers will be prohibited. If loads contain wet material capable of producing free liquid, truck liners will be used.

Truck transport routes shall be selected to involve the shortest commute through residential neighborhoods as feasible. are as follows: All trucks loaded with site materials will exit the vicinity of the site using the most appropriate route and takes into account: This is: (a) limiting transport through residential areas and past sensitive sites; (b) use of city mapped truck routes; (c) prohibiting off-site queuing of trucks entering the facility; (d) limiting total distance to major highways; (e) promoting safety in access to highways; and (f) overall safety in transport;

Trucks will limit idling in the neighborhood outside the project site.

Egress points for truck and equipment transport from the site will be kept clean of dirt and other materials during site remediation and development.

Queuing of trucks will be performed on-site in order to minimize off-site disturbance. Off-site queuing will be prohibited.

B-6: MATERIALS DISPOSAL OFF-SITE

All material excavated and removed from the site will be treated as contaminated and regulated material and will be transported and disposed in accordance with all local, State (including 6NYCRR Part 360) and Federal regulations. If disposal of material from this site is proposed for unregulated off-site disposal (i.e. clean soil removed for development purposes), a formal request with an associated plan will be made to the NYSDEC. Unregulated off-site management of materials from this site will not occur without formal NYSDEC approval.

Off-site disposal locations for excavated soils will be identified in the pre-excavation notification. This will include estimated quantities and a breakdown by class of disposal facility if appropriate, i.e. hazardous waste disposal facility, solid waste landfill, petroleum treatment facility, C/D recycling facility, etc. Actual disposal quantities and associated documentation will be reported to the NYSDEC in the Periodic Review Report. This documentation will include: waste profiles, test results, facility acceptance letters, manifests, bills of lading and facility receipts.

Non-hazardous historic fill and contaminated soils taken off-site will be handled, at minimum, as a Municipal Solid Waste per 6NYCRR Part 360-1.2. Material that does not meet Unrestricted SCOs is prohibited from being taken to a New York State recycling facility (6NYCRR Part 360-16 Registration Facility).

B-7: MATERIALS REUSE ON-SITE

'Reuse on-site' means reuse on-site of material that originates at the site and which does not leave the Site during the excavation. The criteria under which soil/fill originating on-Site may be used on-Site are presented below.

- **Excavated, Non-Impacted On-Site Soil/Fill:** Non-impacted soil/fill (i.e., soil/fill that does not exhibit visible or olfactory evidence of contamination, and is not grossly contaminated (as described in Part 375), and does not exhibit PID readings that exceed 10 parts per million (ppm) that is excavated from the Site may be used on-Site as

backfill beneath the cover systems without special handling. The qualified environmental professional will ensure that procedures defined for materials reuse in this SMP are followed and that unacceptable material does not remain on-Site.

- **Excavated, Potentially Impacted on-Site Soil/Fill:** Potentially impacted soil/fill (i.e., soils that exhibit field visual and/or olfactory evidence of contamination, or with elevated PID readings (above 25 ppm) may not be used on-Site unless tested and determined to meet the chemical criteria for Restricted Residential Use SCOs per 6NYCRR Part 375. Potentially impacted material will be segregated, as described above, and sampled to determine acceptance for reuse. The material reuse analyses will be discussed with the Department, and may include those constituents identified in 6NYCRR Part 375 for VOCs, SVOCs, metals, PCBs, pesticides and herbicides, in accordance with applicable USEPA SW846 analytical methodology.

The qualified environmental professional will ensure that procedures defined for materials reuse in this SMP are followed and that unacceptable material does not remain on-site. Contaminated on-site material, including historic fill and contaminated soil, that is acceptable for reuse on-site will be placed below the demarcation layer or impervious surface, and will not be reused within a cover soil layer, within landscaping berms, or as backfill for subsurface utility lines. No grossly-impacted materials shall be reused onsite; such materials must be disposed of offsite in accordance with applicable local, state, and federal regulations.

Any demolition material proposed for reuse on-site will be sampled for asbestos and the results will be reported to the NYSDEC for acceptance. Concrete crushing or processing on-site will not be performed without prior NYSDEC approval. Organic matter (wood, roots, stumps, etc.) or other solid waste derived from clearing and grubbing of the site will not be reused on-site.

B-8: FLUIDS MANAGEMENT

All liquids to be removed from the site, including but not limited to, excavation dewatering, decontamination waters and groundwater monitoring well purge and development waters, will be handled, transported and disposed in accordance with applicable local, State, and Federal regulations. Dewatering, purge, and development fluids will not be recharged back

to the land surface or subsurface of the site, and will be managed off-site, unless prior approval is obtained from NYSDEC.

Discharge of water generated during large-scale construction activities to surface waters (i.e. a local pond, stream, or river) will be performed under a SPDES permit.

B-9: COVER SYSTEM RESTORATION

After the completion of soil removal and any other invasive activities the cover system will be restored in a manner that complies with the Decision Document. The existing cover system is comprised of a minimum of 24 inches of clean soil, asphalt pavement, concrete covered sidewalks and concrete building elements. The demarcation layer will be replaced to provide a visual reference to the top of the remaining contamination zone, the zone that requires adherence to special conditions for disturbance of remaining contaminated soils defined in this SMP.

If the type of cover system changes from that which exists prior to the excavation (i.e., a soil cover is replaced by asphalt), this will constitute a modification of the cover element of the remedy and the upper surface of the remaining contamination. A figure showing the modified surface will be included in the subsequent Periodic Review Report and in an updated SMP.

B-10: BACKFILL FROM OFF-SITE SOURCES

All materials proposed for import onto the site will be approved by the qualified environmental professional and will be in compliance with provisions in this SMP prior to receipt at the site. A Request to Import/Reuse Fill or Soil form, which can be found at **http://www.dec.ny.gov/regulations/67386.html**, will be prepared and submitted to the NYSDEC project manager allowing a minimum of 5 business days for review.

Material from industrial sites, spill sites, or other environmental remediation sites or potentially contaminated sites will not be imported to the site.

All imported soils will meet the backfill and cover soil quality standards established in 6NYCRR 375-6.7(d).

The criteria under which off-site material may be used as backfill are presented below:

- **Off-Site Soil/Fill:** Off-Site soil/fill may be used as backfill provided that it originates from known sources having no evidence of disposal or releases of

hazardous substances; hazardous, toxic or radioactive wastes; or petroleum, and is tested and meet all of the criteria in accordance with Appendix 5 of DER-10. In addition, no off-Site materials meeting the definition of a solid waste as defined in 6NYCRR, Part 360-1.2 (a) shall be used as backfill.

- **Other Off-Site Material:** Material other than soil may be imported as backfill, without chemical testing, provided it contains less than 10% (by weight) material that would pass through a size 80 sieve: 1) Rock or stone, consisting of virgin material from a permitted mine or quarry, 2) Recycled concrete, brick, or asphalt from a NYSDEC registered or permitted C&D debris processing facility (as specified in Section 304 of the New York State Department of Transportation Standard Specifications Construction and Materials Volume 1 (2002). As stated in Section 360-16.4(b)(2), the facility may only accept recognizable, uncontaminated, non-pulverized C&D debris or C&D debris from other authorized C&D processing facilities. According to Section 360-16.2(c), "uncontaminated" means C&D debris that is not mixed or commingled with other solid waste at the point of generation, processing, or disposal, and this is not contaminated with spills or a petroleum product, hazardous waste, or industrial waste.

Off-Site borrow soils shall be tested to assure conformance with the criteria identified above. If an off-Site soil/fill borrow source is of unknown origin or originates from a commercial or urban site, then a tiered approach based on the volume of impacted soil/fill being excavated will be used to determine the frequency of characterization sampling in accordance with DER-10, Section 5.4 and Table 5.4(3)10.

Trucks entering the site with imported soils will be securely covered with tight fitting covers. Imported soils will be stockpiled separately from excavated materials and covered to prevent dust releases.

B-11: STORMWATER POLLUTION PREVENTION

If future site activities include large excavation, details of storm water pollution prevention will be included in the applicable notification provided to the Department. If required by the Department as part of the planned future excavation activities, barriers and hay bale checks will be installed and inspected once a week and after every storm event. Results

of inspections will be recorded in a logbook and maintained at the site and available for inspection by the NYSDEC. All necessary repairs shall be made immediately.

Accumulated sediments will be removed as required to keep the barrier and hay bale check functional.

All undercutting or erosion of the silt fence toe anchor shall be repaired immediately with appropriate backfill materials.

Manufacturer's recommendations will be followed for replacing silt fencing damaged due to weathering.

Erosion and sediment control measures identified in the SMP shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters.

Silt fencing or hay bales will be installed around the entire perimeter of the construction area.

B-12: EXCAVATION CONTINGENCY PLAN

If underground tanks or other previously unidentified contaminant sources are found during post-remedial subsurface excavations or development related construction, excavation activities will be suspended until sufficient equipment is mobilized to address the condition.

Sampling will be performed on product, sediment and surrounding soils, etc. as necessary to determine the nature of the material and proper disposal method. Chemical analysis will be performed in accordance with 6NYCRR Part 375 and consultation with the Department.

Identification of unknown or unexpected contaminated media identified by screening during invasive site work will be promptly communicated by phone to NYSDEC's Project Manager. Reportable quantities of petroleum product will also be reported to the NYSDEC spills hotline. These findings will be also included in the Periodic Review Report.

B-13: COMMUNITY AIR MONITORING PLAN

The Community Air Monitoring Plan (CAMP) will follow the guidance provided in the New York State Department of Health (NYSDOH) Generic Community Air Monitoring Plan found in Appendix 1A of NYSDEC's DER-10 *Technical Guidance for Site Investigation and*

Remediation. The CAMP for this Site is included as Appendix C of this SMP. The CAMP will be implemented for all intrusive activities performed at the site. The upwind and downwind monitoring locations required in the generic CAMP will be determined based on the prevailing wind direction at the start of work. Air sampling locations will be adjusted on a daily or more frequent basis based on actual wind directions and work locations. VOC monitoring will be performed using a PID or other equipment that is capable of calculating 15-minute running average concentrations. All air monitoring equipment will be calibrated at least daily. The 15-minute average concentration will be compared to the levels specified below.

Alternatively, the upwind monitoring location may be removed, as long as the background contribution is considered to be 0.0 ppm.

B-14: ODOR CONTROL PLAN

This odor control plan is capable of controlling emissions of nuisance odors off-site and on-site. Specific odor control methods may include: limiting exposed face of the excavation area, reduction in work hours and/or specific work activities (e.g. load out of material), proof rolling excavation, and application of odor control agents (e.g. spray-foam).

If nuisance odors are identified at the Site boundary, or if odor complaints are received, work will be halted and the source of odors will be identified and corrected. Work will not resume until all nuisance odors have been abated. NYSDEC and NYSDOH will be notified of all odor events and of any other complaints about the project. Implementation of all odor controls, including the halt of work, is the responsibility of the property owner's Remediation Engineer, and any measures that are implemented will be discussed in the Periodic Review Report.

All necessary means will be employed to prevent on- and off-site nuisances. At a minimum, these measures will include: (a) limiting the area of open excavations and size of soil stockpiles; (b) shrouding open excavations with tarps and other covers; and (c) using foams to cover exposed odorous soils. If odors develop and cannot be otherwise controlled, additional means to eliminate odor nuisances will include: (d) direct load-out of soils to trucks for off-site disposal; (e) use of chemical odorants in spray or misting systems; and, (f) use of staff to monitor odors in surrounding neighborhoods.

If nuisance odors develop during intrusive work that cannot be corrected, or where the control of nuisance odors cannot otherwise be achieved due to on-site conditions or close

proximity to sensitive receptors, odor control will be achieved by sheltering the excavation and handling areas in a temporary containment structure equipped with appropriate air venting/filtering systems.

B-15: DUST CONTROL PLAN

A dust suppression plan that addresses dust management during invasive on-site work will include, at a minimum, the items listed below:

- Dust suppression will be achieved through the use of a dedicated on-site water truck for road wetting. The truck will be capable of spraying water directly onto off-road areas including excavations and stockpiles.
- Clearing and grubbing of larger sites will be done in stages to limit the area of exposed, unvegetated soils vulnerable to dust production.
- Gravel will be used on roadways to provide a clean and dust-free road surface.
- On-site roads will be limited in total area to minimize the area required for water truck sprinkling.
- Covering or proof-rolling excavated areas and materials after excavation activity ceases.
- Reducing the excavation size and/or number of excavations

B-16: OTHER NUISANCES

A plan for rodent control will be developed and utilized by the contractor prior to and during site clearing and site grubbing, and during all remedial work.

A plan will be developed and utilized by the contractor for all remedial work to ensure compliance with local noise control ordinances.

APPENDIX C

MONITORING WELL BORING
&
CONSTRUCTION LOGS

Project No: 0136-013-011

Borehole Number: MW-1

Project: 399 Ohio Street Site Remedial Investigation

A.K.A.: NA

Client: Ellicott Development Company

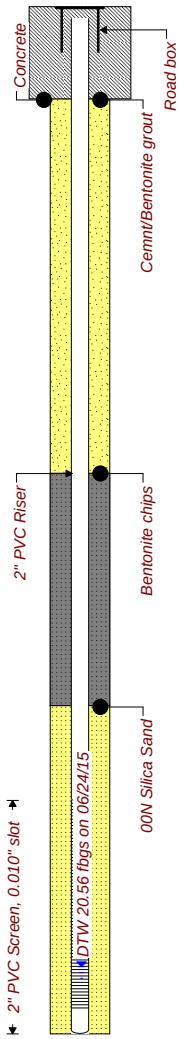
Logged By: JJR

Site Location: Buffalo, New York

Checked By: NTM

TurnKey Environmental Restoration, LLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0635

SUBSURFACE PROFILE			SAMPLE						
Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Sample No.	SPT N-Value	Recovery (ft)	Symbol	PID VOCs (ppm)	Lab Sample	Well Completion Details or Remarks
0.0	0.0	Ground Surface					0 / 12.5 / 25		
	0.0	***Fill Material*** Gray, dry, mostly fine sand with slag and fine gravel (sub-rounded), loose							
	-1.0 / 1.0	***Fill Material*** Light brown with black and red, mostly fine sand, moist, lens of red brick from 4 to 5 fbgs, lens of black cinders from 3.75 to 4.0 fbgs, loose	MC-1	NA	3.2		0.0		
5.0	-5.0 / 5.0	***Lean Clay with Sand*** Gray, light brown mottling, moist, mostly medium plasticity fines, few fine sand, firm, medium drey strength, medium toughness	MC-2	NA	4.9		0.0		
	-8.0 / 8.0	***Poorly Graded Sand*** Light brown, wet, mostly fine sand with little brick and trace cinders, loose					0.0		
10.0	-12.0 / 12.0	***Lean Clay*** Reddish brown, moist, medium to high plasticity fines, high dry strength, massive, very stiff	MC-3	NA	4.8		0.0	Sample Collected	
15.0	-18.0 / 18.0	***Lean Clay*** Reddish brown, wet, mostly medium to high plasticity fines, high dry strength, medium toughness, soft, massive	MC-4	NA	5.0		0.0		
20.0	-22.0 / 22.0	End of Borehole	Auger	NA	NA		0.0		
25.0									



Drilled By: Trec Environmental, Inc.
Drill Rig Type: Geoprobe 6620 DT
Drill Method: Vibratory direct-push with 5' macro-core sampler
Comments: MW Installed with 10" augers on 06/19/15
Drill Date(s): 06/18/15 and 6/19/15

Hole Size: 2.25"
Stick-up: NA
Datum: NA

Sheet: 1 of 1

Project No: 0136-013-011

Borehole Number: MW-2

Project: 399 Ohio Street Site Remedial Investigation

A.K.A.: NA

Client: Ellicott Development Company

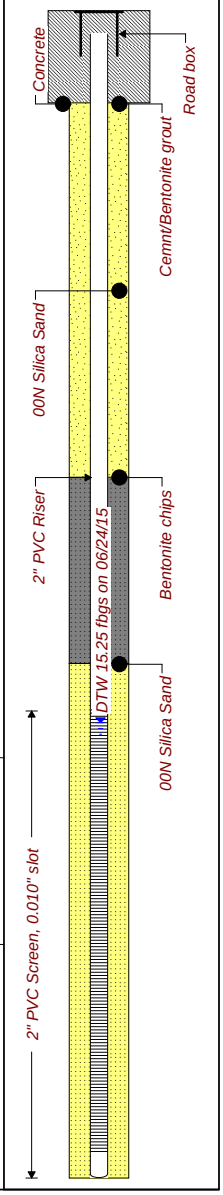
Logged By: JJR

Site Location: Buffalo, New York

Checked By: NTM

TurnKey Environmental Restoration, LLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0635

Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Sample No.	SPT N-Value	Recovery (ft)	Symbol	PID VOCs (ppm)	Lab Sample	Well Completion Details or Remarks
0.0	0.0	Ground Surface							
	0.0	***Topsoil/Loam material***							
		Fill Material Black, moist, wet at 5 fbgs, mostly fine sand with brick and cinders ash and wood, loose	MC-1	NA	2.3		0.0		
5.0	-6.0						0.0		
	6.0	***Poorly Graded Sand*** Light brown, wet, mostly fine sand, trace brick and cinders, loose	MC-2	NA	4.7		0.0		
10.0	-11.0						0.0		
	11.0	***Lean Clay*** Reddish brown, moist, mostly medium to high plasticity fines, medium dry strength, medium toughness, massive	MC-3	NA	2.1		0.0		
15.0	-17.0						0.0		
	17.0	***Lean Clay*** Reddish brown, wet, mostly medium to high plasticty fines, high dry strength, medium toughness, soft, massive	MC-4	NA	4.1		0.0	Sample Collected	
20.0	-20.0						0.0		
	20.0	Augered to 25.0 fbgs	Auger	NA	NA				
25.0	-25.0								
	25.0								



Drilled By: Trec Environmental, Inc.
Drill Rig Type: Geoprobe 6620 DT
Drill Method: Vibratory direct-push with 5' macro-core sampler
Comments: MW Installed with 10" augers on 6/22/15
Drill Date(s): 06/18/15 and 06/22/15

Hole Size: 2.25"
Stick-up: NA
Datum: NA

Sheet: 1 of 1

Project No: 0136-013-011

Borehole Number: MW-3

Project: 399 Ohio Street Site Remedial Investigation

A.K.A.: NA

Client: Ellicott Development Company

Logged By: JJR

Site Location: Buffalo, New York

Checked By: NTM

TurnKey Environmental Restoration, LLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0635

Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Sample No.	SPT N-Value	Recovery (ft)	Symbol	PID VOCs (ppm)	Lab Sample	Well Completion Details or Remarks
0.0	0.0	Ground Surface							
	0.0	***Fill Material*** Gray, dry, mostly fien gravel (sub-angular) with slag, loose					0.0		
		Fill Material Black, moist, wet at 5fbgs, mostly fine sand with brick and cinders ash and wood at 4 fbgs, loose	MC-1	NA	2.3		0.0		
	-4.5 4.5								
5.0		***Lean Clay with Sand*** Reddish brown with black staining, moist, mostly medium plasticity fines, little fine sand, trace brick and cinders, firm, medium dry strength, medium toughness	MC-2	NA	4.7		0.0		
	-9.5 9.5								
10.0		***Poorly Graded Sand*** Light brown, wet, mostly fine sand, trace plastic fines, loose	MC-3	NA	2.1		0.0		
	-12.0 12.0								
		Lean Clay Reddish brown, moist, mostly medium to high plasticty fines, high dry strength, medium toughness, stiff, massive					0.0		
15.0			MC-4	NA	4.1		0.0	Sample Collected	
	-18.0 18.0								
		Lean Clay Reddish brown, wet, mostly medium to high plasticity fines, high dry strength, medium toughness, firm to soft, massive					0.0		
20.0	-20.0 20.0	Augered to 22 fbgs	Auger	NA	NA				
25.0	-25.0 25.0								

Well Completion Details: Concrete; Road box; Cemnt/Bentonite grout; 00N Silica Sand; 2" PVC Riser; Bentonite chips; DTW 16.52 fbgs on 06/24/15; 00N Silica Sand; 2" PVC Screen, 0.010" slot

Drilled By: Trec Environmental, Inc.
Drill Rig Type: Geoprobe 6620 DT
Drill Method: Vibratory direct-push with 5' macro-core sampler
Comments: MW Installed with 10" augers on 06/19/15
Drill Date(s): 6/18/15 and 6/19/15

Hole Size: 2.25"
Stick-up: NA
Datum: NA

Sheet: 1 of 1

Project No: 0136-013-011

Borehole Number: MW-4

Project: 399 Ohio Street Site Remedial Investigation

A.K.A.: NA

Client: Ellicott Development Company

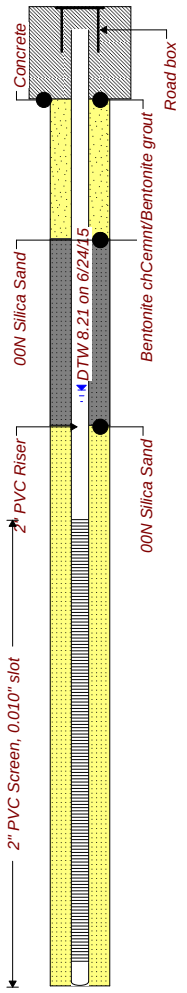
Logged By: JJR

Site Location: Buffalo, New York

Checked By: NTM

TurnKey Environmental Restoration, LLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0635

SUBSURFACE PROFILE			SAMPLE						
Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Sample No.	SPT N-Value	Recovery (ft)	Symbol	PID VOCs ppm (0 / 12.5 / 25)	Lab Sample	Well Completion Details or Remarks
0.0	0.0	Ground Surface							
	0.0	***Fill Material*** Gray, dry, mostly fine gravel (sub-angular) with slag, loose					0.0		
		Fill Material Black, moist, wet at 5fbgs, mostly fine sand with brick at 3.5 to 4.5 fbgs and cinders at 4.5 to 5 fbgs, loose	MC-1	NA	2.1		0.0		
5.0	-5.5								
	5.5	***Lean Clay with Sand and Fill*** Gray with light brown mottling, moist, mosly medium plasticity fines, few to little fine sand, trace brick and cinders, stiff					0.0		
	-8.0		MC-2	NA	4.1				
	8.0	***Poorly Graded Sand*** Light brown, wet, mostly fine sand, trace non-plastic fines, loose					0.0		
10.0	-10.0								
	10.0	***Lean Clay*** Reddish brown, moist, mostly medium to high plasticty fines, high dry strength, medium toughness, stiff, massive					0.0		
			MC-3	NA	4.8		0.0		
15.0							0.0		
	-17.0								
	17.0	***Lean Clay*** Reddish brown, wet, mostly medium to high plasticity fines, high dry strength, medium toughness, firm to soft, massive	MC-4	NA	4.9		0.0	Sample Collected	
20.0	-20.0								
	20.0	Augered to 21 fbgs					0.0		
25.0	-25.0								
	25.0								



Drilled By: Trec Environmental, Inc.
Drill Rig Type: Geoprobe 6620 DT
Drill Method: Vibratory direct-push with 5' macro-core sampler
Comments: MW Installed with 10" augers on 6/22/15
Drill Date(s): 06/18/15 and 6/22/15

Hole Size: 2.25"
Stick-up: NA
Datum: NA

Sheet: 1 of 1

Project No: 0136-013-011

Borehole Number: MW-5

Project: 399 Ohio Street Site Remedial Investigation

A.K.A.: NA

Client: Ellicott Development Company

Logged By: JJR

Site Location: Buffalo, New York

Checked By: NTM

TurnKey Environmental Restoration, LLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0635

SUBSURFACE PROFILE			SAMPLE						
Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Sample No.	SPT N-Value	Recovery (ft)	Symbol	PID VOCs ppm (0 / 25 / 50)	Lab Sample	Well Completion Details or Remarks
0.0	0.0	Ground Surface							
	0.0	***Fill Material***							
	-2.0 / 2.0	***Slag Sub Base Material*** Gray, dry, mostly rounded slag 1 to 2 inch diameter, little fine sand, loose							
		Fill Material Black stained, moist, wet at 5fbgs, mostly fine sand, little cinders and ash	MC-1	NA	2.1		0.0		
	-4.8 / 4.8						0.0		
5.0		***Fill Material*** Black stained, wet, slight petroleum odor, mostly coarse sand and fine gravel, little fine sand, medium dense					30.9	Sample Collected	
	-7.0 / 7.0		MC-2	NA	4.1		17.8 / 9.2 / 5.7 / 3.1 / 1.2		
		Lean Clay with Sand Gray with light brown mottling, moist, mostly medium plasticity fines, little fine sand, slight petroleum odor at 7 fbgs, medium dry strength, medium toughness							
10.0									
	-11.5 / 11.5								
		Lean Clay Reddish brown, moist, mostly medium to high plasticty fines, high dry strength, medium toughness, stiff, massive	MC-3	NA	4.8		0.0		
15.0							0.0		
			MC-4	NA	4.9		0.0	Sample Collected	
	-18.0 / 18.0						0.0		
		Lean Clay Reddish brown, wet, mostly medium to high plasticity fines, high dry strength, medium toughness, firm to soft, massive							
20.0	-20.0 / 20.0								
		Augered to 22 fbgs							
25.0	-25.0 / 25.0								

Well Completion Details: *Concrete*; *Road box*; *Cemnt/Bentonite grout*; *00N Silica Sand*; *Bentonite chips*; *DTW 17.81 fbgs on 6/24/15*; *00N Silica Sand*; *2" PVC Screen, 0.010" slot*

Drilled By: Trec Environmental, Inc.
Drill Rig Type: Geoprobe 6620 DT
Drill Method: Vibratory direct-push with 5' macro-core sampler
Comments: MW Installed with 10" augers on 06/18/15
Drill Date(s): 06/18/15

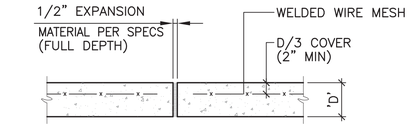
Hole Size: 2.25"
Stick-up: NA
Datum: NA

Sheet: 1 of 1

APPENDIX D

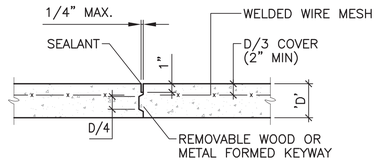
CONSTRUCTION DOCUMENT

(PROVIDED ELECTRONICALLY)

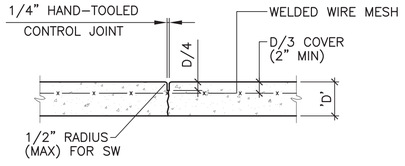


MAX. SPACING = 30' O.C.

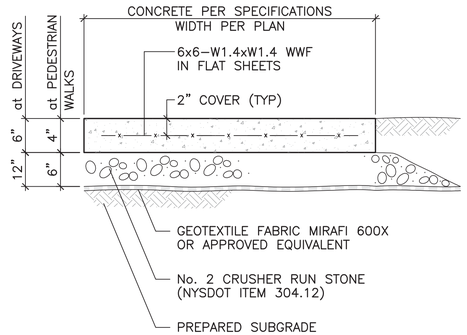
7 EXPANSION JOINT IN EXTERIOR CONC PAVEMENT



8 CONSTRUCTION JOINT IN EXTERIOR CONC PAVEMENT

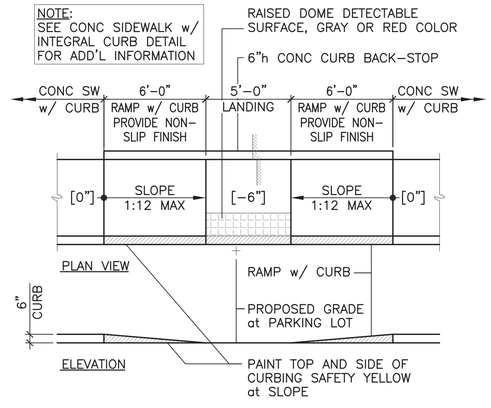


9 CONTROL JOINT IN EXTERIOR CONC PAVEMENT

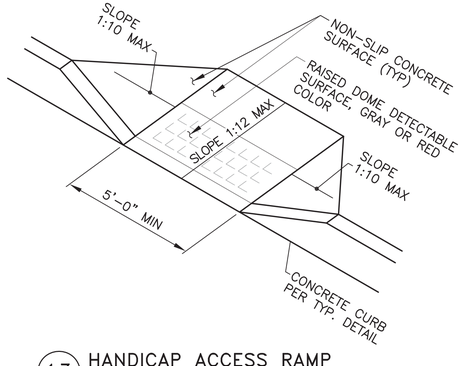


NOTE: CONC. SHALL BE 4000 PSI at 28-DAYS, 6% AIR-ENTRAINED, 4" MAX. SLUMP-PROVIDE LT. BROOM FINISH PERPENDICULAR TO DIRECTION OF TRAFFIC

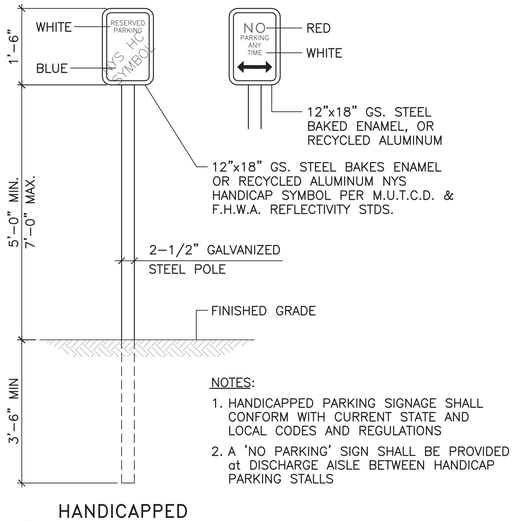
3 TYPICAL CONCRETE SIDEWALK



6 HANDICAP ACCESS RAMP

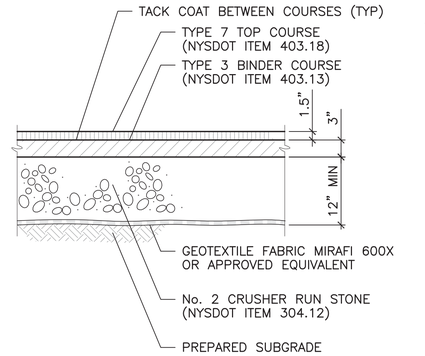


13 HANDICAP ACCESS RAMP

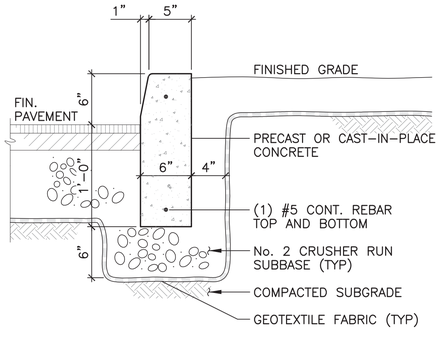


NOTES:
1. HANDICAPPED PARKING SIGNAGE SHALL CONFORM WITH CURRENT STATE AND LOCAL CODES AND REGULATIONS
2. A 'NO PARKING' SIGN SHALL BE PROVIDED at DISCHARGE AISLE BETWEEN HANDICAP PARKING STALLS

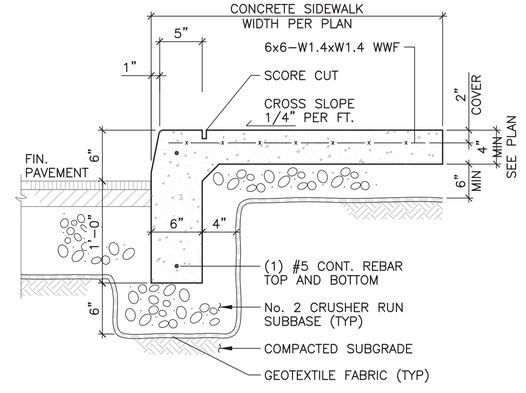
12 HANDICAPPED PARKING SIGNAGE
LOCATED IN LAWN AREAS



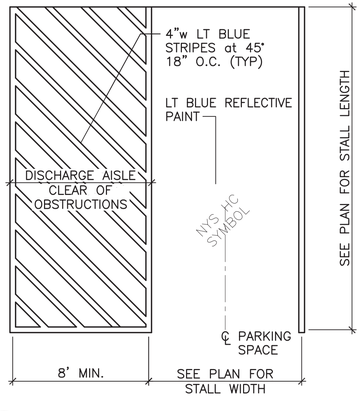
2 TYPICAL TYPE I BITUMINOUS PAVEMENT SECTION



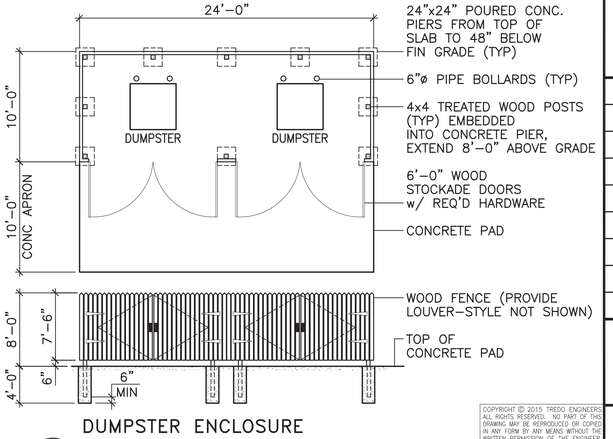
5 TYPICAL CONCRETE CURB



4 CONCRETE SIDEWALK WITH INTEGRAL CURB



11 HANDICAP SYMBOL DETAIL



10 DUMPSTER ENCLOSURE WITH CONCRETE PAD

1. GENERAL SITE NOTES

1. ALL WATERLINE, SANITARY SEWER AND OTHER WORK WITHIN THE R.O.W. SHALL BE IN ACCORDANCE WITH THE LATEST RULES AND REGULATIONS OF THE CITY OF BUFFALO.
2. INSTALL ALL MATERIALS TO THE MANUFACTURER'S RECOMMENDATIONS AND BEST STANDARDS OF THE TRADE INVOLVED.
3. SUBSTITUTIONS SHALL BE MADE ONLY WITH OWNER APPROVAL AND SHALL BE EQUIVALENT QUALITY TO WHAT IS SPECIFIED.
4. WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND OSHA SAFETY RULES AND REGULATIONS.
5. VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT THE SITE. NOTIFY OWNER OF ANY DISCREPANCIES IN CONDITIONS SHOWN ON THE DRAWINGS PRIOR TO PROCEEDING WITH THE WORK.
6. CONTRACTORS SHALL BE RESPONSIBLE FOR THE PROTECTION OF ANY EXISTING STRUCTURES TO REMAIN AND ANY FINISH MATERIAL INSTALLED WHILE WORKING ON OTHER COMPONENTS.
7. CONTRACTOR SHALL KEEP THE JOB SITE FREE OF DEBRIS AND MAKE FINAL CLEANUP TO THE SATISFACTION OF THE OWNER.
8. CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION SO THAT THIS WORK DOES NOT DISTURB EXISTING LINES AND/OR INSTALLATIONS. COORDINATE ALL WORK WITH THE APPLICABLE UTILITY COMPANIES.
9. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS NECESSARY TO PERFORM THE WORK.
10. DURING CONSTRUCTION, THE CONTRACTOR SHALL MAINTAIN CONTROL OF EROSION FROM THE SITE. SEE PROJECT EROSION CONTROL PLAN AND SWPPP MANUAL.
11. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT BUILDING DIMENSIONS, FEATURES AND UTILITY CONNECTIONS.
12. ALL UTILITY TRENCHES UNDER PAVEMENT, CURBS, SIDEWALKS, AND DRIVEWAYS SHALL BE FULLY BACKFILLED WITH No 2 CRUSHER RUN STONE AND PROPERLY COMPACTED TO AVOID SETTLEMENT.
13. CONTRACTOR SHALL REPLACE IN KIND ANY EXISTING IMPROVEMENTS TO REMAIN THAT ARE DAMAGED DURING CONSTRUCTION. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO, CURBS, ROAD PAVEMENTS, SIDEWALKS, AND EXISTING UTILITIES.

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MIXED-USE FACILITY

301 OHIO STREET
BUFFALO, NEW YORK

DRAWING TITLE

SITE DETAILS

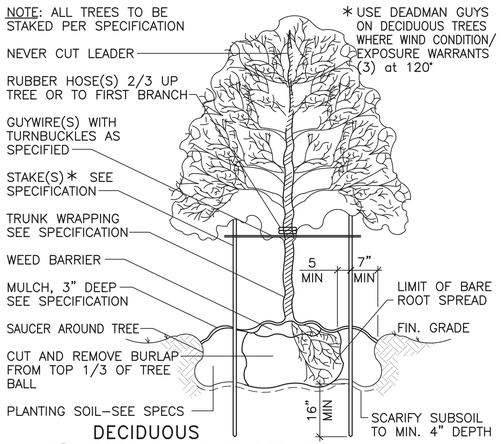
JOB NO.	15.07
SCALE	AS NOTED
DATE	6.04.2015
DRAWN BY	avm
CHECKED BY	AVM
REVISIONS	

THIS IS A SINGLE SHEET OF A COHESIVE SET OF CONSTRUCTION DOCUMENTS (INCLUDING DRAWINGS AND SPECIFICATIONS). INTERPRETATION OF THE INFORMATION AS PRESENTED SHOULD BE BASED ON THE ENTIRE SET OF DOCUMENTS.

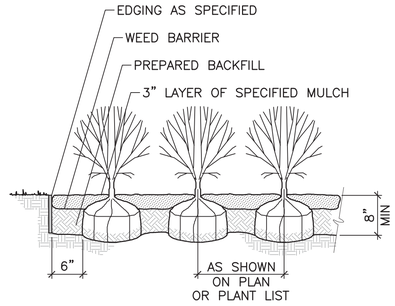
DRAWING NO.

C-201

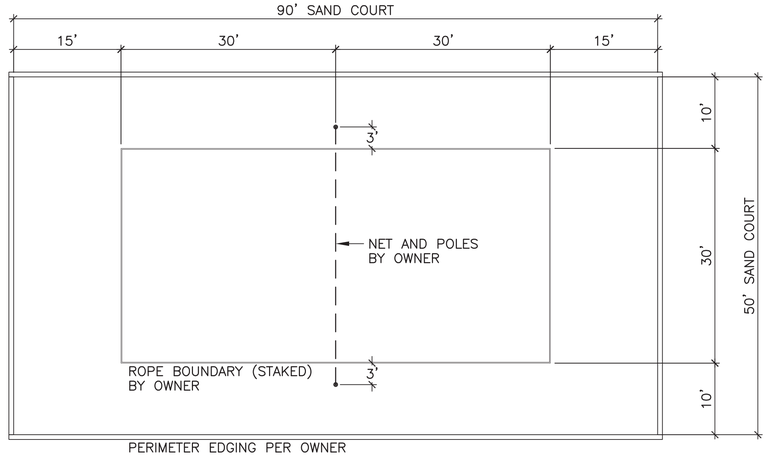
PERMIT SUBMISSION



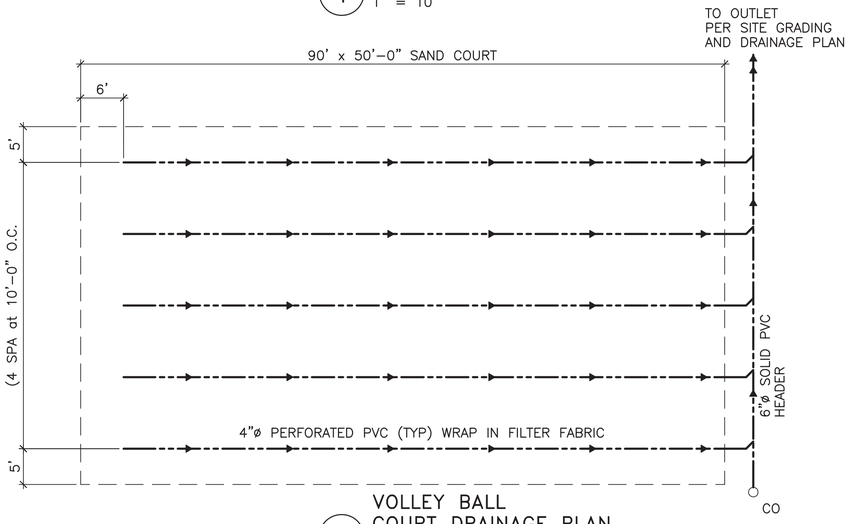
5 DECIDUOUS TREE PLANTING DETAIL



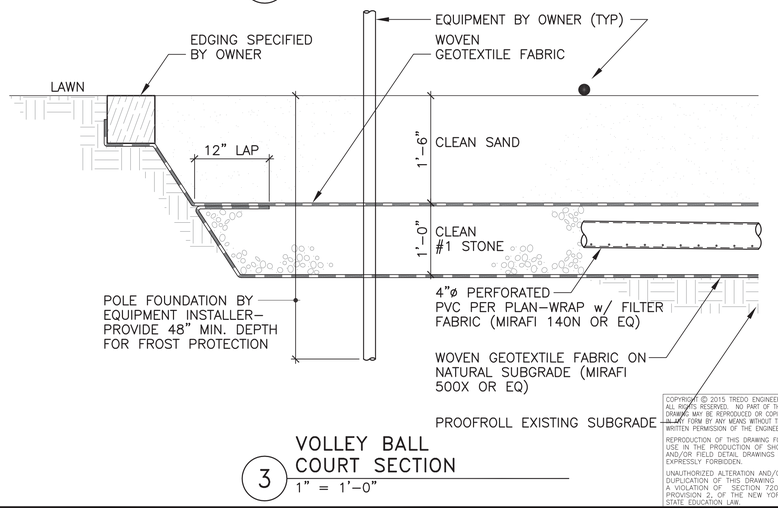
4 SHRUB PLANTING DETAIL



1 VOLLEY BALL COURT LAYOUT PLAN
1" = 10'



2 VOLLEY BALL COURT DRAINAGE PLAN
1" = 10'



3 VOLLEY BALL COURT SECTION
1" = 1'–0"

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MIXED-USE FACILITY

301 OHIO STREET
BUFFALO, NEW YORK

DRAWING TITLE

SITE DETAILS

JOB NO.	15.07
SCALE	AS NOTED
DATE	6.04.2015
DRAWN BY	avm
CHECKED BY	AVM
REVISIONS	

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DRAWING NO.

C-202

PERMIT SUBMISSION

APPENDIX E

HEALTH & SAFETY PLAN (HASP)

SITE HEALTH AND SAFETY PLAN
for
BROWNFIELD CLEANUP PROGRAM
POST REMEDIAL ACTIVITIES

399 OHIO STREET SITE

BUFFALO, NEW YORK

November 2016 0136-013-011

Prepared for:

1093 GROUP, LLC

399 OHIO STREET SITE
HEALTH AND SAFETY PLAN FOR POST REMEDIAL ACTIVITIES

ACKNOWLEDGEMENT

Plan Reviewed by (initial):

Corporate Health and Safety Director: Thomas H. Forbes, P.E.

Project Manager: Thomas H. Forbes, P.E.

Designated Site Safety and Health Officer: Nathan T. Munley

Acknowledgement:
I acknowledge that I have reviewed the information contained in this site-specific Health and Safety Plan, and understand the hazards associated with performance of the field activities described herein. I agree to comply with the requirements of this plan.

NAME (PRINT)	SIGNATURE	DATE

BENCHMARK TURNKEY

399 OHIO STREET SITE
HEALTH AND SAFETY PLAN FOR POST REMEDIAL ACTIVITIES

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399 OHIO STREET SITE
HEALTH AND SAFETY PLAN FOR POST REMEDIAL ACTIVITIES

TABLE OF CONTENTS

399 OHIO STREET SITE
HEALTH AND SAFETY PLAN FOR POST REMEDIAL ACTIVITIES

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ATTACHMENTS

1.0 INTRODUCTION

1.1 General

In accordance with OSHA requirements contained in 29 CFR 1910.120, this Health and Safety Plan (HASP) describes the specific health and safety practices and procedures to be employed by Benchmark Environmental Engineering & Science, PLLC and TurnKey Environmental Restoration, LLC employees (referred to jointly hereafter as "Benchmark-TurnKey") during Brownfield Cleanup Program (BCP) post remedial activities at the 399 Ohio Street Site (Site) located in the City of Buffalo, Erie County, New York (see Figure 1). This HASP presents procedures for Benchmark-TurnKey employees who will be involved with BCP redevelopment; it does not cover the activities of other contractors, subcontractors or other individuals on the Site. These firms will be required to develop and enforce their own HASPs as discussed in Section 2.0. Benchmark-TurnKey accepts no responsibility for the health and safety of contractor, subcontractor or other personnel.

This HASP presents information on known Site health and safety hazards using available historical information, and identifies the equipment, materials and procedures that will be used to eliminate or control these hazards. Environmental monitoring will be performed during the course of field activities to provide real-time data for on-going assessment of potential hazards.

1.2 Background

The Site consists of an approximate 5.0 acre portion of a larger 7.26 acre property, located in a highly developed mixed use industrial, commercial, residential, and recreational area of the City of Buffalo, Erie County, New York (see Figures 1 and 2). The Site is currently improved with an approximately 10,000 square foot vehicle maintenance and office building with the remainder of the Site currently covered by asphalt/concrete.

The Site has a long history of industrial and commercial operation, which has contaminated the Site. The Site has been utilized for various industrial and commercial operations since at least 1889. Operations included rail lines, material handling and shipping equipment maintenance, and the use and storage of paints, solvents, thinners, greases, hydraulic oils and lubricants common among former commercial operations. More recent property uses have included the operation of bus and trucking terminal and maintenance

operations, including the placement of underground storage tanks (USTs), aboveground storage tanks (ASTs) and fuel dispensing pump(s), and the likely use and storage of automotive lubricants, oils, degreasers, solvents, grease, paints, thinners, and waste oils common for vehicle maintenance operations.

Previous environmental investigations completed across the Site have revealed evidence of environmental contamination related to the former use of the Site. Evidence of petroleum contamination, elevated polycyclic aromatic hydrocarbons (PAHs), and metals have been detected on Site exceeding 6NYCRR Part 375 Commercial Soil Cleanup Objectives (SCOs).

Known and Suspected Environmental Conditions

Benchmark-TurnKey completed a Remedial Investigation (RI) of the 399 Ohio Street Site. The RI, in addition, to previous investigations, identified contamination at the Site requiring remediation in order to satisfy the requirements for Restricted Residential Track 4 cleanup. Contaminates identified that require remedial action include:

- No VOCs were detected above RRSCOs, with the vast majority of results being reported as non-detect or estimated values by the laboratory. Only one (1) constituent was detected above USCOs, at one location, TP-20 (2-5').
- SVOSs were detected above CSCOs in seven (7) of the RI subsurface sample locations, including; SB-2, TP-9, TP-14, TP-18, TP-19, TP-20, and TP-21. Primarily polycyclic aromatic hydrocarbons (PAHs) were detected above their respective USCOs, RRSCOs, and CSCOs.
- Two (2) metal analytes were detected above their respective CSCOs including arsenic and cadmium. Arsenic was detected above CSCOs at TP-2 (1-3') and TP-9 (2-5'). Lead; TP-2 (1-3'), TP-9 (2-5'), TP-14 (1-5'), TP-21 (2-5'), manganese TP-14 (1-5') and zinc TP-14 (1-5') were detected above their respective RRSCOs. Certain naturally occurring metals were also detected above their respective USCOs.
- No PCBs were detected above CSCOs and RRSCOs. PCBs were detected slightly above its USCO in TP-21 (2-5').
- No pesticides or herbicides were detected above CSCOs or RRSCOs. Select pesticides were detected above their respective USCOs in TP-9 (2-5'). No herbicides were detected above their respective USCOs.

1.3 Parameters of Interest

Based on the previous investigations, constituents of potential concern (COPCs) in soil and, potentially groundwater, at the Site include:

- **Semi-Volatile Organic Compounds (SVOCs) –** SVOCs were detected above CSCOs in seven (7) of the RI subsurface sample locations, including; SB-2, TP-9, TP-14, TP-18, TP-19, TP-20, and TP-21. Primarily polycyclic aromatic hydrocarbons (PAHs) were detected above their respective USCOs, RRSCOs, and CSCOs. Five (5) PAHs benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, Bis(2-ethylexyl), phthalate, and chrysene exceeded their respective GWQS/GVs.
- **Inorganic Compounds** – Two (2) metal analytes were detected above their respective CSCOs including arsenic and cadmium. Arsenic was detected above CSCOs at TP-2 (1-3') and TP-9 (2-5'). Lead; TP-2 (1-3'), TP-9 (2-5'), TP-14 (1-5'), and zinc TP-14 (1-5') were detected above their respective RRSCOs. Certain naturally occurring metals were also detected above their respective USCOs.

1.4 Overview of BCP Activities

BCP remedial activities were conducted in 2015 and 2016. The work involved removal/offsite disposal of impacted soils from TP-2, TP-9, and TP-18 to meet the Part 375 Commercial Use SCOs, and placement of a cover system over the site in all areas exceeding applicable SCOs.

Benchmark-TurnKey personnel will be on-site to observe post remedial activities involving soil/fill disturbance. Activities of this nature that are reasonably expected to occur during the post-remedial period are described below.

<u>Remedial Action Activities</u>

- **Subgrade Utility Installation or Repair –** Installation or repair of new subgrade utilities (gas, electric, telecom, etc. may be required to service existing or new buildings.

- **Subgrade Foundation Construction –** It may be necessary or desirable to construct a new structure (e.g., shed or other support building) on the property, in which case subgrade soil/fill would be encountered for foundation work.

- **Cover System Repair –** It may be necessary to remove or repair a portion of the cover system (asphalt pavement, soil cover, etc.). Subgrade soil/fill may be exposed as part of that effort.

2.0 ORGANIZATIONAL STRUCTURE

This section of the HASP describes the lines of authority, responsibility and communication as they pertain to health and safety functions at the Site. The purpose of this chapter is to identify the personnel who impact the development and implementation of the HASP and to describe their roles and responsibilities. This chapter also identifies other contractors and subcontractors involved in work operations and establish the lines of communications among them for health and safety matters. The organizational structure described in this chapter is consistent with the requirements of 29 CFR 1910.120(b)(2). This section will be reviewed by the Project Manager and updated as necessary to reflect the current organizational structure at this Site.

2.1 Roles and Responsibilities

All Benchmark-Turnkey personnel on the Site must comply with the minimum requirements of this HASP. The specific responsibilities and authority of management, safety and health, and other personnel on this Site are detailed in the following paragraphs.

2.1.1 Corporate Health and Safety Director

The Benchmark-TurnKey Corporate Health and Safety Director is ***Mr. Thomas H. Forbes, P.E.*** The Corporate Health and Safety Director responsible for developing and implementing the Health and Safety program and policies for Benchmark Environmental Engineering & Science, PLLC and TurnKey Environmental Restoration, LLC, and consulting with corporate management to ensure adequate resources are available to properly implement these programs and policies. The Corporate Health and Safety Director coordinates Benchmark-TurnKey's Health and Safety training and medical monitoring programs and assists project management and field staff in developing site-specific health and safety plans.

2.1.2 Project Manager

The Project Manager for this Site is ***Mr. Michael Lesakowski.*** The Project Manager has the responsibility and authority to direct all Benchmark-TurnKey work operations at the Site. The Project Manager coordinates safety and health functions with the Site Safety and Health Officer, and bears ultimate responsibility for proper implementation of this HASP.

He may delegate authority to expedite and facilitate any application of the program, including modifications to the overall project approach as necessary to circumvent unsafe work conditions. Specific duties of the Project Manager include:

- Preparing and coordinating the Site work plan.
- Providing Benchmark-TurnKey workers with work assignments and overseeing their performance.
- Coordinating health and safety efforts with the Site Safety and Health Officer (SSHO).
- Reviewing the emergency response coordination plan to assure its effectiveness.
- Serving as the primary liaison with Site contractors and the property owner.

2.1.3 Site Safety and Health Officer

The Site Safety and Health Officer (SSHO) for this Site is ***Mr. Nathan Munley***. The qualified alternate SSHO is ***Mr. Bryan C. Hann.*** The SSHO reports to the Project Manager. The SSHO is on-site or readily accessible to the Site during all work operations and has the authority to halt Site work if unsafe conditions are detected. The specific responsibilities of the SSHO are:

- Managing the safety and health functions for Benchmark-TurnKey personnel on the Site.
- Serving as the point of contact for safety and health matters.
- Ensuring that Benchmark-TurnKey field personnel working on the Site have received proper training (per 29 CFR Part 1910.120(e)), that they have obtained medical clearance to wear respiratory protection (per 29 CFR Part 1910.134), and that they are properly trained in the selection, use and maintenance of personal protective equipment, including qualitative respirator fit testing.
- Performing or overseeing Site monitoring as required by the HASP.
- Assisting in the preparation and review of the HASP.

- Maintaining site-specific safety and health records as described in this HASP.
- Coordinating with the Project Manager, Site Workers, and Contractor's SSHO as necessary for safety and health efforts.

2.1.4 Site Workers

Site workers are responsible for: complying with this HASP or a more stringent HASP, if appropriate (i.e., Contractor and Subcontractor's HASP); using proper PPE; reporting unsafe acts and conditions to the SSHO; and following the safety and health instructions of the Project Manager and SSHO.

2.1.5 Other Site Personnel

Other Site personnel who will have health and safety responsibilities will include the Drilling Contractor, who will be responsible for developing, implementing and enforcing a Health and Safety Plan equally stringent or more stringent than Benchmark-TurnKey's HASP. Benchmark-TurnKey assumes no responsibility for the health and safety of anyone outside its direct employ. Each Contractor's HASP shall cover all non-Benchmark/TurnKey Site personnel. Each Contractor shall assign a SSHO who will coordinate with Benchmark-TurnKey's SSHO as necessary to ensure effective lines of communication and consistency between contingency plans.

In addition to Benchmark-TurnKey and Contractor personnel, other individuals who may have responsibilities in the work zone include subcontractors and governmental agencies performing Site inspection work (i.e., the New York State Department of Environmental Conservation). The Contractor shall be responsible for ensuring that these individuals have received OSHA-required training (29 CFR 1910.120(e)), including initial, refresher and site-specific training, and shall be responsible for the safety and health of these individuals while they are on-Site.

3.0 HAZARD EVALUATION

Due to the presence of certain contaminants at the Site, the possibility exists that workers will be exposed to hazardous substances during field activities. The principal points of exposure would be through direct contact with and incidental ingestion of soil, and through the inhalation of contaminated particles or vapors. Other points of exposure may include direct contact with groundwater. In addition, the use of drilling and/or medium to large-sized construction equipment (e.g., excavator) will also present conditions for potential physical injury to workers. Further, since work will be performed outdoors, the potential exists for heat/cold stress to impact workers, especially those wearing protective equipment and clothing. Adherence to the medical evaluations, worker training relative to chemical hazards, safe work practices, proper personal protection, environmental monitoring, establishment work zones and Site control, appropriate decontamination procedures and contingency planning outlined herein will reduce the potential for chemical exposures and physical injuries.

3.1 Chemical Hazards

As discussed in Section 1.3, historical activities have potentially resulted in impacts to Site soils and groundwater. Table 1 lists exposure limits for airborne concentrations of the COPCs identified in Section 1.4 of this HASP. Brief descriptions of the toxicology of the prevalent COPCs and related health and safety guidance and criteria are provided below.

- **Arsenic (CAS #7440-38-2)** is a naturally occurring element and is usually found combined with one or more elements, such as oxygen or sulfur. Inhalation is a more important exposure route than ingestion. First phase exposure symptoms include nausea, vomiting, diarrhea and pain in the stomach. Prolonged contact is corrosive to the skin and mucus membranes. Arsenic is considered a Group A human carcinogen by the USEPA. Exposure via inhalation is associated with an increased risk of lung cancer. Exposure via the oral route is associated with an increased risk of skin cancer.

- **Cadmium (CAS #7440-43-9)** is a natural element and is usually combined with one or more elements, such as oxygen, chloride or sulfur. Breathing high levels of cadmium severely damages the lungs and can cause death. Ingestion of high levels of cadmium severely irritates the stomach, leading to vomiting and diarrhea. Long term exposure to lower levels of cadmium leads to a buildup of this substance in the kidneys and possible kidney disease. Other potential long term

effects are lung damage and fragile bones. Cadmium is suspected to be a human carcinogen.

- **Lead (CAS #7439-92-1)** can affect almost every organ and system in our bodies. The most sensitive is the central nervous system, particularly in children. Lead also damages kidneys and the immune system. The effects are the same whether it is breathed or swallowed. Lead may decrease reaction time, cause weakness in fingers, wrists, or ankles, and possibly affect memory. Lead may cause anemia.

- **Polycyclic Aromatic Hydrocarbons (PAHs)** are formed as a result of the pyrolysis and incomplete combustion of organic matter such as fossil fuel. PAH aerosols formed during the combustion process disperse throughout the atmosphere, resulting in the deposition of PAH condensate in soil, water and on vegetation. In addition, several products formed from petroleum processing operations (e.g., roofing materials and asphalt) also contain elevated levels of PAHs. Hence, these compounds are widely dispersed in the environment. PAHs are characterized by a molecular structure containing three or more fused, unsaturated carbon rings. Seven of the PAHs are classified by USEPA as probable human carcinogens (USEPA Class B2). These are: benzo(a)pyrene; benzo(a)anthracene; benzo(b)fluoranthene; benzo(k)fluoranthene; chrysene; dibenzo(a,h)anthracene; and indeno(1,2,3-cd)pyrene. The primary route of exposure to PAHs is through incidental ingestion and inhalation of contaminated particulates. PAHs are characterized by an organic odor, and exist as oily liquids in pure form. Acute exposure symptoms may include acne-type blemishes in areas of the skin exposed to sunlight.

With respect to the anticipated BCP redevelopment activities discussed in Section 1.4, possible routes of exposure to the above-mentioned contaminants are presented in Table 2. The use of proper respiratory equipment, as outlined in Section 7.0 of this HASP, will minimize the potential for exposure to airborne contamination. Exposure to contaminants through dermal and other routes will also be minimized through the use of protective clothing (Section 7.0), safe work practices (Section 6.0), and proper decontamination procedures (Section 12.0).

3.2 Physical Hazards

Redevelopment activities at the 399 Ohio Street Site may present the following physical hazards:

- The potential for physical injury during heavy construction equipment use, such as backhoes, excavators and drilling equipment.

- The potential for heat/cold stress to employees during the summer/winter months (see Section 10.0).

- The potential for slip and fall injuries due to rough, uneven terrain and/or open excavations.

These hazards represent only some of the possible means of injury that may be present during redevelopment activities at the Site. Since it is impossible to list all potential sources of injury, it shall be the responsibility of each individual to exercise proper care and caution during all phases of the work.

4.0 TRAINING

4.1 Site Workers

All personnel performing BCP related activities at the Site (such as, but not limited to, equipment operators, general laborers, and drillers) and who may be exposed to hazardous substances, health hazards, or safety hazards and their supervisors/managers responsible for the Site shall receive training in accordance with 29 CFR 1910.120(e) before they are permitted to engage in operations in the exclusion zone or contaminant reduction zone. This training includes an initial 40-hour Hazardous Waste Site Worker Protection Course, an 8-hour Annual Refresher Course subsequent to the initial 40-hour training, and 3 days of actual field experience under the direct supervision of a trained, experienced supervisor. Additional site-specific training shall also be provided by the SSHO prior to the start of field activities. A description of topics to be covered by this training is provided below.

4.1.1 Initial and Refresher Training

Initial and refresher training is conducted by a qualified instructor as specified under OSHA 29 CFR 1910.120(e)(5), and is specifically designed to meet the requirements of OSHA 29 CFR 1910.120(e)(3) and 1910.120(e)(8). The training covers, as a minimum, the following topics:

- OSHA HAZWOPER regulations.
- Site safety and hazard recognition, including chemical and physical hazards.
- Medical monitoring requirements.
- Air monitoring, permissible exposure limits, and respiratory protection level classifications.
- Appropriate use of personal protective equipment (PPE), including chemical compatibility and respiratory equipment selection and use.
- Work practices to minimize risk.

- Work zones and Site control.
- Safe use of engineering controls and equipment.
- Decontamination procedures.
- Emergency response and escape.
- Confined space entry procedures.
- Heat and cold stress monitoring.
- Elements of a Health and Safety Plan.
- Spill containment.

Initial training also incorporates workshops for PPE and respiratory equipment use (Levels A, B and C), and respirator fit testing. Records and certification received from the course instructor documenting each employee's successful completion of the training identified above are maintained on file at Benchmark-TurnKey's Buffalo, NY office. Contractors and Subcontractors are required to provide similar documentation of training for all their personnel who will be involved in on-site work activities.

Any employee who has not been certified as having received health and safety training in conformance with 29 CFR 1910.120(e) is prohibited from working in the exclusion and contamination reduction zones, or to engage in any on-site work activities that may involve exposure to hazardous substances or wastes.

4.1.2 Site Training

Site workers are given a copy of the HASP and provided a site-specific briefing prior to the commencement of work to ensure that employees are familiar with the HASP and the information and requirements it contains. The Site briefing shall be provided by the SSHO prior to initiating field activities and shall include:

- Names of personnel and alternates responsible for Site safety and health.
- Safety, health and other hazards present on the Site.

- The site lay-out including work zones and places of refuge.
- The emergency communications system and emergency evacuation procedures.
- Use of PPE.
- Work practices by which the employee can minimize risks from hazards.
- Safe use of engineering controls and equipment on the site.
- Medical surveillance, including recognition of symptoms and signs of over-exposure as described in Chapter 5 of this HASP.
- Decontamination procedures as detailed in Chapter 12 of this HASP.
- The emergency response plan as detailed in Chapter 15 of this HASP.
- Confined space entry procedures, if required, as detailed in Chapter 13 of this HASP.
- The spill containment program as detailed in Chapter 9 of this HASP.
- Site control as detailed in Chapter 11 of this HASP.

Supplemental health and safety briefings will also be conducted by the SSHO on an as-needed basis during the course of the work. Supplemental briefings are provided as necessary to notify employees of any changes to this HASP as a result of information gathered during ongoing Site characterization and analysis. Conditions for which the SSHO may schedule additional briefings include, but are not limited to: a change in Site conditions (e.g., based on monitoring results); changes in the work schedule/plan; newly discovered hazards; and safety incidents occurring during Site work.

4.2 Supervisor Training

On-site safety and health personnel who are directly responsible for or who supervise the safety and health of workers engaged in hazardous waste operations (i.e., SSHO) shall receive, in addition to the appropriate level of worker training described in Section 4.1,

above, 8 additional hours of specialized supervisory training, in compliance with 29 CFR 1910.120(e)(4).

4.3 Emergency Response Training

Emergency response training is addressed in Attachment A of this HASP, Emergency Response Plan.

4.4 Site Visitors

Each Contractor's SSHO will provide a site-specific briefing to all Site visitors and other non-Benchmark/TurnKey personnel who enter the Site beyond the Site entry point. The site-specific briefing will provide information about Site hazards, the Site layout including work zones and places of refuge, the emergency communications system and emergency evacuation procedures, and other pertinent safety and health requirements as appropriate.

Site visitors will not be permitted to enter the exclusion zone or contaminant reduction zones unless they have received the level of training required for Site workers as described in Section 4.1.

5.0 MEDICAL MONITORING

Medical monitoring examinations are provided to Benchmark-TurnKey employees as stipulated under 29 CFR Part 1910.120(f). These exams include initial employment, annual and employment termination physicals for all Benchmark-TurnKey employees involved in hazardous waste site field operations. Post-exposure examinations are also provided for employees who may have been injured, received a health impairment, or developed signs or symptoms of over-exposure to hazardous substances or were accidentally exposed to substances at concentrations above the permissible exposure limits without necessary personal protective equipment. Such exams are performed as soon as possible following development of symptoms or the known exposure event.

Medical evaluations are performed by Health Works, an occupational health care provider under contract with Benchmark-TurnKey. Health Works is located in Seneca Square Plaza, 1900 Ridge Road, West Seneca, New York 14224. The facility can be reached at (716) 823-5050 to schedule routine appointments or post-exposure examinations.

Medical evaluations are conducted according to the Benchmark-TurnKey Medical Monitoring Program and include an evaluation of the workers' ability to use respiratory protective equipment. The examinations include:

- Occupational/medical history review.
- Physical exam, including vital sign measurement.
- Spirometry testing.
- Eyesight testing.
- Audio testing (minimum baseline and exit, annual for employees routinely exposed to greater than 85db).
- EKG (for employees >40 yrs age or as medical conditions dictate).
- Chest X-ray (baseline and exit, and every 5 years).
- Blood biochemistry (including blood count, white cell differential count, serum multiplastic screening).
- Medical certification of physical requirements (i.e., sight, musculoskeletal,

cardiovascular) for safe job performance and to wear respiratory protection equipment.

The purpose of the medical evaluation is to determine an employee's fitness for duty on hazardous waste sites; and to establish baseline medical data.

In conformance with OSHA regulations, Benchmark-TurnKey will maintain and preserve medical records for a period of 30 years following termination of employment. Employees are provided a copy of the physician's post-exam report, and have access to their medical records and analyses.

6.0 SAFE WORK PRACTICES

All Benchmark-TurnKey employees shall conform to the following safe work practices during all on-site work activities conducted within the exclusion and contamination reduction zones:

- Eating, drinking, chewing gum or tobacco, smoking, or any practice that increases the probability of hand-to-mouth contact is strictly prohibited.
- The hands and face must be thoroughly washed upon leaving the work area and prior to engaging in any activity indicated above.
- Respiratory protective equipment and clothing must be worn by all personnel entering the Site as required by the HASP or as modified by the Site safety officer. Excessive facial hair (i.e., beards, long mustaches or sideburns) that interferes with the satisfactory respirator-to-face seal is prohibited.
- Contact with surfaces/materials either suspected or known to be contaminated will be avoided to minimize the potential for transfer to personnel, cross contamination and need for decontamination.
- Medicine and alcohol can synergize the effects of exposure to toxic chemicals. Due to possible contraindications, use of prescribed drugs should be reviewed with the Benchmark-TurnKey occupational physician. Alcoholic beverage and illegal drug intake are strictly forbidden during the workday.
- All personnel shall be familiar with standard operating safety procedures and additional instructions contained in this Health and Safety Plan.
- On-site personnel shall use the "buddy" system. No one may work alone (i.e., out of earshot or visual contact with other workers) in the exclusion zone.
- Personnel and equipment in the contaminated area shall be minimized, consistent with effective Site operations.
- All employees have the obligation to immediately report and if possible, correct unsafe work conditions.
- Use of contact lenses on-site will not be permitted. Spectacle kits for insertion into full-face respirators will be provided for Benchmark-TurnKey employees, as requested and required.

The recommended specific safety practices for working around the contractor's equipment (e.g., backhoes, bulldozers, excavators, drill rigs etc.) are as follows:

- Although the Contractor and subcontractors are responsible for their equipment and safe operation of the Site, Benchmark-TurnKey personnel are also responsible for their own safety.
- Subsurface work will not be initiated without first clearing underground utility services.
- Heavy equipment should not be operated within 20 feet of overhead wires. This distance may be increased if windy conditions are anticipated or if lines carry high voltage. The Site should also be sufficiently clear to ensure the project staff can move around the heavy machinery safely.
- Care should be taken to avoid overhead wires when moving heavy-equipment from location to location.
- Hard hats, safety boots and safety glasses should be worn at all times in the vicinity of heavy equipment. Hearing protection is also recommended.
- The work Site should be kept neat. This will prevent personnel from tripping and will allow for fast emergency exit from the Site.
- Proper lighting must be provided when working at night.
- Construction activities should be discontinued during an electrical storm or severe weather conditions.
- The presence of combustible gases should be checked before igniting any open flame.
- Personnel shall stand upwind of any construction operation when not immediately involved in sampling/logging/observing activities.
- Personnel will not approach the edge of an unsecured trench/excavation closer than 2 feet.

7.0 PERSONAL PROTECTIVE EQUIPMENT

7.1 Equipment Selection

Personal protective equipment (PPE) will be donned when work activities may result in exposure to physical or chemical hazards beyond acceptable limits, and when such exposure can be mitigated through appropriate PPE. The selection of PPE will be based on an evaluation of the performance characteristics of the PPE relative to the requirements and limitations of the Site, the task-specific conditions and duration, and the hazards and potential hazards identified at the Site.

Equipment designed to protect the body against contact with known or suspect chemical hazards are grouped into four categories according to the degree of protection afforded. These categories designated A through D consistent with United States Environmental Protection Agency (USEPA) Level of Protection designation, are:

- **Level A:** Should be selected when the highest level of respiratory, skin and eye protection is needed.

- **Level B:** Should be selected when the highest level of respiratory protection is needed, but a lesser level of skin protection is required. Level B protection is the minimum level recommended on initial Site entries until the hazards have been further defined by on-site studies. Level B (or Level A) is also necessary for oxygen-deficient atmospheres.

- **Level C:** Should be selected when the types of airborne substances are known, the concentrations have been measured and the criteria for using air-purifying respirators are met. In atmospheres where no airborne contaminants are present, Level C provides dermal protection only.

- **Level D:** Should not be worn on any Site with elevated respiratory or skin hazards. This is generally a work uniform providing minimal protection.

OSHA requires the use of certain PPE under conditions where an immediate danger to life and health (IDLH) may be present. Specifically, OSHA 29 CFR 1910.120(g)(3)(iii) requires use of a positive pressure self-contained breathing apparatus, or positive pressure air-line respirator equipped with an escape air supply when chemical exposure levels present a substantial possibility of immediate serious injury, illness or death, or impair the ability to

escape. Similarly, OSHA 29 CFR 1910.120(g)(3)(iv) requires donning totally-encapsulating chemical protective suits (with a protection level equivalent to Level A protection) in conditions where skin absorption of a hazardous substance may result in a substantial possibility of immediate serious illness, injury or death, or impair the ability to escape.

In situations where the types of chemicals, concentrations, and possibilities of contact are unknown, the appropriate level of protection must be selected based on professional experience and judgment until the hazards can be further characterized. The individual components of clothing and equipment must be assembled into a full protective ensemble to protect the worker from site-specific hazards, while at the same time minimizing hazards and drawbacks of the personal protective gear itself. Ensemble components are detailed below for levels A/B, C, and D protection.

7.2 Protection Ensembles

7.2.1 Level A/B Protection Ensemble

Level A/B ensembles include similar respiratory protection, however Level A provides a higher degree of dermal protection than Level B. Use of Level A over Level B is determined by: comparing the concentrations of identified substances in the air with skin toxicity data, and assessing the effect of the substance (by its measured air concentrations or splash potential) on the small area of the head and neck unprotected by Level B clothing.

The recommended PPE for level A/B is:

- Pressure-demand, full-face piece self-contained breathing apparatus (MSHA/-NIOSH approved) or pressure-demand supplied-air respirator with escape self-contained breathing apparatus (SCBA).
- Chemical-resistant clothing. For Level A, clothing consists of totally-encapsulating chemical resistant suit. Level B incorporates hooded one-or two-piece chemical splash suit.
- Inner and outer chemical resistant gloves.
- Chemical-resistant safety boots/shoes.
- Hardhat.

7.2.2 Level C Protection Ensemble

Level C protection is distinguished from Level B by the equipment used to protect the respiratory system, assuming the same type of chemical-resistant clothing is used. The main selection criterion for Level C is that conditions permit wearing an air-purifying device. The device (when required) must be an air-purifying respirator (MSHA/NIOSH approved) equipped with filter cartridges. Cartridges must be able to remove the substances encountered. Respiratory protection will be used only with proper fitting, training and the approval of a qualified individual. In addition, an air-purifying respirator can be used only if: oxygen content of the atmosphere is at least 19.5% in volume; substances are identified and concentrations measured; substances have adequate warning properties; the individual passes a qualitative fit-test for the mask; and an appropriate cartridge/canister is used, and its service limit concentration is not exceeded.

Recommended PPE for Level C conditions includes:

- Full-face piece, air-purifying respirator equipped with MSHA and NIOSH approved organic vapor/acid gas/dust/mist combination cartridges or as designated by the SSHO.
- Chemical-resistant clothing (hooded, one or two-piece chemical splash suit or disposable chemical-resistant one-piece suit).
- Inner and outer chemical-resistant gloves.
- Chemical-resistant safety boots/shoes.
- Hardhat.

An air-monitoring program is part of all response operations when atmospheric contamination is known or suspected. It is particularly important that the air be monitored thoroughly when personnel are wearing air-purifying respirators. Continual surveillance using direct-reading instruments is needed to detect any changes in air quality necessitating a higher level of respiratory protection.

7.2.3 Level D Protection Ensemble

As indicated above, Level D protection is primarily a work uniform. It can be worn in areas where only boots can be contaminated, where there are no inhalable toxic substances

and where the atmospheric contains at least 19.5% oxygen.

Recommended PPE for Level D includes:

- Coveralls.
- Safety boots/shoes.
- Safety glasses or chemical splash goggles.
- Hardhat.
- Optional gloves; escape mask; face shield.

7.2.4 Recommended Level of Protection for Site Tasks

Based upon current information regarding both the contaminants suspected to be present at the Site and the various tasks that are included in the BCP related activities, the minimum required levels of protection for these tasks shall be as identified in Table 3.

8.0 EXPOSURE MONITORING

8.1 General

Based on the results of historic sample analysis and the nature of the redevelopment activities at the Site, the possibility exist that organic vapors and/or particulates may be released to the air during intrusive activities that penetrate the cover system that was installed as part of the BCP remedial work. Ambient breathing zone concentrations may at times, exceed the permissible exposure limits (PELs) established by OSHA for the individual compounds (see Table 1), in which case respiratory protection will be required. Respiratory and dermal protection may be modified (upgraded or downgraded) by the SSHO based upon real-time field monitoring data.

8.1.1 On-Site Work Zone Monitoring

Benchmark-TurnKey personnel will conduct routine, real-time air monitoring during all intrusive construction phases such as excavation, backfilling, drilling, etc. The work area will be monitored at regular intervals using a photo-ionization detector (PID), combustible gas meter and a particulate meter. Observed values will be recorded and maintained as part of the permanent field record.

Additional air monitoring measurements may be made by Benchmark-TurnKey personnel to verify field conditions during subcontractor oversight activities. Monitoring instruments will be protected from surface contamination during use. Additional monitoring instruments may be added if the situations or conditions change. Monitoring instruments will be calibrated in accordance with manufacturer's instructions before use.

8.1.2 Off-Site Community Air Monitoring

In addition to on-site monitoring within the work zone(s), monitoring at the down-wind portion of the Site perimeter will be conducted. This will provide a real-time method for determination of vapor and/or particulate releases to the surrounding community as a result of ground intrusive investigation work.

Ground intrusive activities are defined in the Generic Community Air Monitoring Plan and attached as Attachment C. Ground intrusive activities that involve the penetration

of the cover system include soil/waste excavation and handling, test pitting or trenching, and the removal of building foundations and basement floors.

Continuous monitoring is required for ground intrusive activities and periodic monitoring is required for non-intrusive activities. Periodic monitoring consists of taking a reading upon arrival at a sample location, monitoring while opening a well cap or overturning soil, monitoring while bailing a well, and taking a reading prior to leaving a sampling location. This may be upgraded to continuous if the sampling location is in close proximity to individuals not involved in the Site activity (i.e., on a curb of a busy street). The action levels below will be used during periodic monitoring.

8.2 Monitoring Action Levels

8.2.1 On-Site Work Zone Action Levels

The PID, or other appropriate instrument(s), will be used by Benchmark-TurnKey personnel to monitor organic vapor concentrations as specified in this HASP. Combustible gas will be monitored with the "combustible gas" option on the combustible gas meter or other appropriate instrument(s). In addition, fugitive dust/particulate concentrations will be monitored during major soil intrusion (viz., well/boring installation) using a real-time particulate monitor as specified in this plan. In the absence of such monitoring, appropriate respiratory protection for particulates shall be donned. Sustained readings obtained in the breathing zone may be interpreted (with regard to other Site conditions) as follows for Benchmark-TurnKey personnel:

- Total atmospheric concentrations of unidentified vapors or gases ranging from 0 to 1 ppm above background on the PID) - Continue operations under Level D (see Appendix A).

- Total atmospheric concentrations of unidentified vapors or gases yielding sustained readings from >1 ppm to 5 ppm above background on the PID (vapors not suspected of containing high levels of chemicals toxic to the skin) - Continue operations under Level C.

- Total atmospheric concentrations of unidentified vapors or gases yielding sustained readings of >5 ppm to 50 ppm above background on the PID - Continue operations under Level B, re-evaluate and alter (if possible) construction

methods to achieve lower vapor concentrations.

- Total atmospheric concentrations of unidentified vapors or gases above 50 ppm on the PID - Discontinue operations and exit the work zone immediately.

The particulate monitor will be used to monitor respirable dust concentrations during all intrusive activities and during handling of Site soil/fill. Action levels based on the instrument readings shall be as follows:

- Less than 50 mg/m^3 - Continue field operations.
- 50-150 mg/m^3 - Don dust/particulate mask or equivalent
- Greater than 150 mg/m^3 - Don dust/particulate mask or equivalent. Initiate engineering controls to reduce respirable dust concentration (viz., wetting of excavated soils or tools at discretion of Site Health and Safety Officer).

Readings from the field equipment will be recorded and documented on the appropriate Project Field Forms. All instruments will be calibrated before use on a daily basis and the procedure will be documented on the appropriate Project Field Forms.

8.2.2 Community Air Monitoring Action Levels

In addition to the action levels prescribed in Section 8.2.1 for Benchmark-TurnKey personnel on-site, the following criteria shall also be adhered to for the protection of downwind receptors consistent with NYSDOH requirements (Attachment C):

- **ORGANIC VAPOR PERIMETER MONITORING:**
  - If the sustained ambient air concentration of organic vapors at the downwind perimeter of the exclusion zone exceeds 5 ppm above background for the 15-minute average, work activities will be temporarily halted and monitoring continued. If the sustained organic vapor decreases below 5 ppm over background, work activities can resume with continued monitoring.
  - If the sustained ambient air concentration of organic vapors at the downwind perimeter of the exclusion zone are greater than 5 ppm over background but less than 25 ppm for the 15-minute average, activities can resume provided

that: the organic vapor level 200 feet downwind of the working site or half the distance to the nearest off-site residential or commercial structure, whichever is less, but in no case less than 20 feet, is below 5 ppm over background; and more frequent intervals of monitoring, as directed by the Site Health and Safety Officer, are conducted.

- If the sustained organic vapor level is above 25 ppm at the perimeter of the exclusion zone for the 15-minute average, the Site Health and Safety Officer must be notified and work activities shut down. The Site Health and Safety Officer will determine when re-entry of the exclusion zone is possible and will implement downwind air monitoring to ensure vapor emissions do not impact the nearest off-site residential or commercial structure at levels exceeding those specified in the ***Organic Vapor Contingency Monitoring Plan*** below. All readings will be recorded and will be available for New York State Department of Environmental Conservation (DEC) and Department of Health (DOH) personnel to review.

o **ORGANIC VAPOR CONTINGENCY MONITORING PLAN:**

- If the sustained organic vapor level is greater than 5 ppm over background 200 feet downwind from the work area or half the distance to the nearest off-site residential or commercial property, whichever is less, all work activities must be halted.

- If, following the cessation of the work activities or as the result of an emergency, sustained organic levels persist above 5 ppm above background 200 feet downwind or half the distance to the nearest off-site residential or commercial property from the work area, then the air quality must be monitored within 20 feet of the perimeter of the nearest off-site residential or commercial structure (20-foot zone).

- If efforts to abate the emission source are unsuccessful and if sustained organic vapor levels approach or exceed 5 ppm above background within the 20-foot zone for more than 30 minutes, or are sustained at levels greater than 10 ppm above background for longer than one minute, then the ***Major Vapor Emission Response Plan*** (see below) will automatically be placed into effect.

o **MAJOR VAPOR EMISSION RESPONSE PLAN:**

Upon activation, the following activities will be undertaken:

1. All Emergency Response Contacts as listed in this Health and Safety Plan and the Emergency Response Plan (Attachment A) will be advised.

2. The local police authorities will immediately be contacted by the Site Health and Safety Officer and advised of the situation.

3. Frequent air monitoring will be conducted at 30-minute intervals within the 20-foot zone. If two sustained successive readings below action levels are measured, air monitoring may be halted or modified by the Site Health and Safety Officer.

The following personnel are to be notified in the listed sequence in the event that a Major Vapor Emission Plan is activated:

Responsible Person	Contact	Phone Number
SSHO	Police	911
SSHO	State Emergency Response Hotline	(800) 457-7362

Additional emergency numbers are listed in the Emergency Response Plan included as Attachment A.

- **EXPLOSIVE VAPORS:**
  - Sustained atmospheric concentrations of greater than 10% LEL in the work area - Initiate combustible gas monitoring at the downwind portion of the Site perimeter.
  - Sustained atmospheric concentrations of greater than 10% LEL at the downwind Site perimeter – Halt work and contact local Fire Department.

- **AIRBORNE PARTICULATE COMMUNITY AIR MONITORING**

Respirable (PM-10) particulate monitoring will be performed on a continuous basis at the upwind and downwind perimeter of the exclusion zone. The monitoring will be performed using real-time monitoring equipment capable of measuring PM-10 and integrating over a period of 15-minutes for comparison to the airborne particulate action levels. The equipment will be equipped with an audible alarm to indicate exceedance of the action level. In

addition, fugitive dust migration will be visually assessed during all work activities. All readings will be recorded and will be available for NYSDEC and NYSDOH review. Readings will be interpreted as follows:

- If the downwind PM-10 particulate level is 100 micrograms per cubic meter (ug/m^3) greater than the background (upwind perimeter) reading for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression provided that the downwind PM-10 particulate levels do not exceed 150 ug/m^3 above the upwind level and that visible dust is not migrating from the work area.

- If, after implementation of dust suppression techniques downwind PM-10 levels are greater than 150 ug/m^3 above the upwind level, work activities must be stopped and dust suppression controls re-evaluated. Work can resume provided that supplemental dust suppression measures and/or other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 ug/m^3 of the upwind level and in preventing visible dust migration.

Pertinent emergency response information including the telephone number of the Fire Department is included in the Emergency Response Plan (Attachment A).

9.0 SPILL RELEASE/RESPONSE

This chapter of the HASP describes the potential for and procedures related to spills or releases of known or suspected petroleum and/or hazardous substances on the Site. The purpose of this Section of the HASP is to plan appropriate response, control, counter-measures and reporting, consistent with OSHA requirements in 29 CFR 1910.120(b)(4)(ii)(J) and (j)(1)(viii). The spill containment program addresses the following elements:

- Potential hazardous material spills and available controls.
- Initial notification and evaluation.
- Spill response.
- Post-spill evaluation.

9.1 Potential Spills and Available Controls

An evaluation was conducted to determine the potential for hazardous material and oil/petroleum spills at this Site. For the purpose of this evaluation, hazardous materials posing a significant spill potential are considered to be:

- CERCLA Hazardous Substances as identified in 40 CFR Part 302, where such materials pose the potential for release in excess of their corresponding Reportable Quantity (RQ).

- Extremely Hazardous Substances as identified in 40 CFR Part 355, Appendix A, where such materials pose the potential for release in excess of their corresponding Reportable Quantity (RQ).

- Hazardous Chemicals as defined under Section 311(e) of the Emergency Planning and Community Right-To-Know Act of 1986, where such chemicals are present or will be stored in excess of 10,000 lbs.

- Toxic Chemicals as defined in 40 CFR Part 372, where such chemicals are present or will be stored in excess of 10,000 lbs.

- Chemicals regulated under 6NYCRR Part 597, where such materials pose the potential for release in excess of their corresponding Reportable Quantity (RQ).

Oil/petroleum products are considered to pose a significant spill potential whenever the following situations occur:

- The potential for a "harmful quantity" of oil (including petroleum and non-petroleum-based fuels and lubricants) to reach navigable waters of the U.S. exists (40 CFR Part 112.4). Harmful quantities are considered by USEPA to be volumes that could form a visible sheen on the water or violate applicable water quality standards.

- The potential for any amount of petroleum to reach any waters of NY State, including groundwater, exists. Petroleum, as defined by NY State in 6NYCRR Part 612, is a petroleum-based heat source, energy source, or engine lubricant/maintenance fluid.

- The potential for any release, to soil or water, of petroleum from a bulk storage facility regulated under 6NYCRR Part 612. A regulated petroleum storage facility is defined by NY State as a site having stationary tank(s) and intra-facility piping, fixtures and related equipment with an aggregate storage volume of 1,100 gallons or greater.

The evaluation indicates that, based on Site history and decommissioning records, a hazardous material spill and/or a petroleum product spill is not likely to occur during redevelopment efforts.

9.2 Initial Spill Notification and Evaluation

Any worker who discovers a hazardous substance or oil/petroleum spill will immediately notify the Project Manager and SSHO. The worker will, to the best of his/her ability, report the material involved, the location of the spill, the estimated quantity of material spilled, the direction/flow of the spill material, related fire/explosion incidents, if any, and any associated injuries. The Emergency Response Plan presented in Attachment A of this HASP will immediately be implemented if an emergency release has occurred.

Following initial report of a spill, the Project Manager will make an evaluation as to whether the release exceeds RQ levels. If an RQ level is exceeded, the Project Manager will notify the Site owner and NYSDEC at 1-800-457-7362 within 2 hours of spill discovery. The Project Manager will also determine what additional agencies (e.g., USEPA) are to be contacted regarding the release, and will follow-up with written reports as required by the applicable regulations.

9.3 Spill Response

For all spill situations, the following general response guidelines will apply:

- Only those personnel involved in overseeing or performing containment operations will be allowed within the spill area. If necessary, the area will be roped, ribboned, or otherwise blocked off to prevent unauthorized access.
- Appropriate PPE, as specified by the SSHO, will be donned before entering the spill area.
- Ignition points will be extinguished/removed if fire or explosion hazards exist.
- Surrounding reactive materials will be removed.
- Drains or drainage in the spill area will be blocked to prevent inflow of spilled materials or applied materials.

For minor spills, the Contractor will maintain a Spill Control and Containment Kit in the Field Office or other readily accessible storage location. The kit will consist of, at a minimum, a 50 lb. bag of "speedy dry" granular absorbent material, absorbent pads, shovels, empty 5-gallon pails and an empty open-top 55-gallon drum. Spilled materials will be absorbed, and shoveled into a 55-gallon drum for proper disposal (NYSDEC approval will be secured for on-site treatment of the impacted soils/absorbent materials, if applicable). Impacted soils will be hand-excavated to the point that no visible signs of contamination remains, and will be drummed with the absorbent.

In the event of a major release or a release that threatens surface water, a spill response contractor will be called to the Site. The response contractor may use heavy equipment (e.g., excavator, backhoe, etc.) to berm the soils surrounding the spill Site or create diversion trenching to mitigate overland migration or release to navigable waters. Where feasible, pumps will be used to transfer free liquid to storage containers. Spill control/cleanup contractors in the Western New York area that may be contacted for assistance include:

- The Environmental Service Group of NY, Inc.: (716) 695-6720
- Environmental Products and Services, Inc.: (716) 447-4700
- Op-Tech: (716) 873-7680

9.4 Post-Spill Evaluation

If a reportable quantity of hazardous material or oil/petroleum is spilled as determined by the Project Manager, a written report will be prepared as indicated in Section 9.2. The report will identify the root cause of the spill, type and amount of material released, date/time of release, response actions, agencies notified and/or involved in cleanup, and procedures to be implemented to avoid repeat incidents. In addition, all re-useable spill cleanup and containment materials will be decontaminated, and spill kit supplies/disposable items will be replenished.

10.0 HEAT/COLD STRESS MONITORING

Since some of the work activities at the Site will be scheduled for both the summer and winter months, measures will be taken to minimize heat/cold stress to Benchmark-TurnKey employees. The Site Safety and Health Officer and/or his or her designee will be responsible for monitoring Benchmark-TurnKey field personnel for symptoms of heat/cold stress.

10.1 Heat Stress Monitoring

Personal protective equipment may place an employee at risk of developing heat stress, a common and potentially serious illnesses often encountered at construction, landfill, waste disposal, industrial or other unsheltered sites. The potential for heat stress is dependent on a number of factors, including environmental conditions, clothing, workload, physical conditioning and age. Personal protective equipment may severely reduce the body's normal ability to maintain temperature equilibrium (via evaporation and convection), and require increased energy expenditure due to its bulk and weight.

Proper training and preventive measures will mitigate the potential for serious illness. Heat stress prevention is particularly important because once a person suffers from heat stroke or heat exhaustion, that person may be predisposed to additional heat related illness. To avoid heat stress, the following steps should be taken:

- Adjust work schedules.
- Modify work/rest schedules according to monitoring requirements.
- Mandate work slowdowns as needed.
- Perform work during cooler hours of the day if possible or at night if adequate lighting can be provided.
- Provide shelter (air-conditioned, if possible) or shaded areas to protect personnel during rest periods.
- Maintain worker's body fluids at normal levels. This is necessary to ensure that the cardiovascular system functions adequately. Daily fluid intake must approximately equal the amount of water lost in sweat (i.e., eight fluid ounces must be ingested for approximately every 1 lb of weight lost). The normal thirst

mechanism is not sensitive enough to ensure that enough water will be consumed to replace lost perspiration. When heavy sweating occurs, workers should be encouraged to drink more.

- Train workers to recognize the symptoms of heat related illness.

Heat-Related Illness - Symptoms:

- Heat rash may result from continuous exposure to heat or humid air.

- Heat cramps are caused by heavy sweating with inadequate electrolyte replacement. Signs and symptoms include: muscle spasms; pain in the hands, feet and abdomen.

- Heat exhaustion occurs from increased stress on various body organs including inadequate blood circulation due to cardiovascular insufficiency or dehydration. Signs and symptoms include: pale, cool, moist skin; heavy sweating; dizziness; nausea; fainting.

- Heat stroke is the most serious form of heat stress. Temperature regulation fails and the body temperature rises to critical levels. Immediate action must be taken to cool the body before serious injury and death occur. Competent medical help must be obtained. Signs and symptoms are: red, hot, usually dry skin; lack of or reduced perspiration; nausea; dizziness and confusion; strong, rapid pulse; coma.

The monitoring of personnel wearing protective clothing should commence when the ambient temperature is 70 degrees Fahrenheit or above. For monitoring the body's recuperative ability to excess heat, one or more of the following techniques should be used as a screening mechanism.

- Heart rate may be measured by the radial pulse for 30 seconds as early as possible in the resting period. The rate at the beginning of the rest period should not exceed 100 beats per minute. If the rate is higher, the next work period should be shortened by 10 minutes (or 33%), while the length of the rest periods stay the same, if the pulse rate is 100 beats per minute at the beginning of the nest rest period, the following work cycle should be further shortened by 33%.

- Body temperature may be measured orally with a clinical thermometer as early as possible in the resting period. Oral temperature at the beginning of the rest period

should not exceed 99.6 degrees Fahrenheit. If it does, the next work period should be shortened by 10 minutes (or 33%), while the length of the rest period remains the same. However, if the oral temperature exceeds 99.6 degrees Fahrenheit at the beginning of the next period, the work cycle may be further shortened by 33%. Oral temperature should be measured at the end of the rest period to make sure that it has dropped below 99.6 degrees Fahrenheit. No Benchmark-TurnKey employee will be permitted to continue wearing semi-permeable or impermeable garments when his/her oral temperature exceeds 100.6 degrees Fahrenheit.

10.2 Cold Stress Monitoring

Exposure to cold conditions may result in frostbite or hypothermia, each of which progresses in stages as shown below.

- **Frostbite** occurs when body tissue (usually on the extremities) begins to freeze. The three states of frostbite are:

    1) **Frost nip** - This is the first stage of the freezing process. It is characterized by a whitened area of skin, along with a slight burning or painful sensation. Treatment consists of removing the victim from the cold conditions, removal of boots and gloves, soaking the injured part in warm water (102 to 108 degrees Fahrenheit) and drinking a warm beverage. Do not rub skin to generate friction/ heat.

    2) **Superficial Frostbite** - This is the second stage of the freezing process. It is characterized by a whitish gray area of tissue, which will be firm to the touch but will yield little pain. The treatment is identical for Frost nip.

    3) **Deep Frostbite** - In this final stage of the freezing process the affected tissue will be cold, numb and hard and will yield little to no pain. Treatment is identical to that for Frost nip.

- **Hypothermia** is a serious cold stress condition occurring when the body loses heat at a rate faster than it is produced. If untreated, hypothermia may be fatal. The stages of hypothermia may not be clearly defined or visible at first, but generally include:

    1) Shivering
    2) Apathy (i.e., a change to an indifferent or uncaring mood)

3) Unconsciousness
4) Bodily freezing

Employees exhibiting signs of hypothermia should be treated by medical professionals. Steps that can be taken while awaiting help include:

1) Remove the victim from the cold environment and remove wet or frozen clothing. (Do this carefully as frostbite may have started.)

2) Perform active re-warming with hot liquids for drinking (Note: do not give the victim any liquid containing alcohol or caffeine) and a warm water bath (102 to 108 degrees Fahrenheit).

3) Perform passive re-warming with a blanket or jacket wrapped around the victim.

In any potential cold stress situation, it is the responsibility of the Site Health and Safety Officer to encourage the following:

- Education of workers to recognize the symptoms of frostbite and hypothermia.
- Workers should dress warmly, with more layers of thin clothing as opposed to one thick layer.
- Personnel should remain active and keep moving.
- Personnel should be allowed to take shelter in a heated area, as necessary.
- Personnel should drink warm liquids (no caffeine or alcohol if hypothermia has set in).
- For monitoring the body's recuperation from excess cold, oral temperature recordings should occur:
  - At the Site Safety Technicians discretion when suspicion is based on changes in a worker's performance or mental status.
  - At a workers request.
  - As a screening measure, two times per shift, under unusually hazardous conditions (e.g., wind chill less than 20 degrees Fahrenheit or wind chill

less than 30 degrees Fahrenheit with precipitation).

- As a screening measure, whenever anyone worker on-site develops hypothermia.

Any person developing moderate hypothermia (a core body temperature of 92 degrees Fahrenheit) will not be allowed to return to work for 48 hours without the recommendation of a qualified medical doctor.

11.0 WORK ZONES AND SITE CONTROL

Work zones around the areas designated for BCP related activities will be established on a daily basis and communicated to all employees and other Site users by the SSHO. It shall be each Contractor's Site Safety and Health Officer's responsibility to ensure that all Site workers are aware of the work zone boundaries and to enforce proper procedures in each area. The zones will include:

- Exclusion Zone ("Hot Zone") - The area where contaminated materials may be exposed, excavated or handled and all areas where contaminated equipment or personnel may travel. Flagging tape will delineate the zone. All personnel entering the Exclusion Zone must wear the prescribed level of personal protective equipment identified in Section 7.

- Contamination Reduction Zone - The zone where decontamination of personnel and equipment takes place. Any potentially contaminated clothing, equipment and samples must remain in the Contamination Reduction Zone until decontaminated.

- Support Zone - The part of the site that is considered non-contaminated or "clean." Support equipment will be located in this zone, and personnel may wear normal work clothes within this zone.

In the absence of other task-specific work zone boundaries established by the SSHO, the following boundaries will apply to all investigation and construction activities involving disruption or handling of Site soils or groundwater:

- Exclusion Zone: 50 foot radius from the outer limit of the sampling/construction activity.

- Contaminant Reduction Zone: 100 foot radius from the outer limit of the sampling/construction activity.

- Support Zone: Areas outside the Contaminant Reduction Zone.

Access of non-essential personnel to the Exclusion and Contamination Reduction Zones will be strictly controlled by the SSHO. Only personnel who are essential to the

completion of the task will be allowed access to these areas and only if they are wearing the prescribed level of protection. Entrance of all personnel must be approved by the SSHO.

The SSHO will maintain a Health and Safety Logbook containing the names of Benchmark-TurnKey workers and their level of protection. The zone boundaries may be changed by the SSHO as environmental conditions warrant, and to respond to the necessary changes in work locations on-site.

12.0 DECONTAMINATION

12.1 Decontamination for Benchmark-TurnKey Employees

The degree of decontamination required is a function of a particular task and the environment within which it occurs. The following decontamination procedure will remain flexible, thereby allowing the decontamination crew to respond appropriately to the changing environmental conditions that may arise at the Site. All Benchmark-TurnKey personnel on-site shall follow the procedure below, or the Contractor's procedure (if applicable), whichever is more stringent.

Station 1 - Equipment Drop: Deposit visibly contaminated (if any) re-useable equipment used in the contamination reduction and exclusion zones (tools, containers, monitoring instruments, radios, clipboards, etc.) on plastic sheeting.

Station 2 - Boots and Gloves Wash and Rinse: Scrub outer boots and outer gloves. Deposit tape and gloves in waste disposal container.

Station 3 - Tape, Outer Boot and Glove Removal: Remove tape, outer boots and gloves. Deposit tape and gloves in waste disposal container.

Station 4 - Canister or Mask Change: If worker leaves exclusive zone to change canister (or mask), this is the last step in the decontamination procedure. Worker's canister is exchanged, new outer gloves and boot cover donned, and worker returns to duty.

Station 5 - Outer Garment/Face Piece Removal: Protective suit removed and deposited in separate container provided by Contractor. Face piece or goggles are removed if used. Avoid touching face with fingers. Face piece and/or goggles deposited on plastic sheet. Hard hat removed and placed on plastic sheet.

Station 6 - Inner Glove Removal: Inner gloves are the last personal protective equipment to be removed. Avoid touching the outside of the gloves with bare fingers. Dispose of these gloves in waste disposal container.

Following PPE removal, personnel shall wash hands, face and forearms with absorbent wipes. If field activities proceed for duration of 6 consecutive months or longer, shower facilities will be provided for worker use in accordance with OSHA 29 CFR 1910.120(n).

12.2 Decontamination for Medical Emergencies

In the event of a minor, non-life threatening injury, personnel should follow the decontamination procedures as defined, and then administer first-aid.

In the event of a major injury or other serious medical concern (e.g., heat stroke), immediate first-aid is to be administered and the victim transported to the hospital in lieu of further decontamination efforts unless exposure to a Site contaminant would be considered "Immediately Dangerous to Life or Health."

12.3 Decontamination of Field Equipment

The Contractor in accordance with his approved Health and Safety Plan in the Contamination Reduction Zone will conduct decontamination of heavy equipment. As a minimum, this will include manually removing heavy soil contamination, followed by steam cleaning on an impermeable pad.

Benchmark-TurnKey personnel will conduct decontamination of all tools used for sample collection purposes. It is expected that all tools will be constructed of nonporous, nonabsorbent materials (i.e., metal), which will aid in the decontamination effort. Any tool or part of a tool made of porous, absorbent material (i.e., wood) will be placed into suitable containers and prepared for disposal.

Decontamination of bailers, split-spoons, spatula knives, and other tools used for environmental sampling and examination shall be as follows:

- Disassemble the equipment
- Water wash to remove all visible foreign matter.
- Wash with detergent.
- Rinse all parts with distilled-deionized water.
- Allow to air dry.
- Wrap all parts in aluminum foil or polyethylene.

13.0 CONFINED SPACE ENTRY

OSHA 29 CFR 1910.146 identifies a confined space as a space that is large enough and so configured that an employee can physically enter and do assigned work, has limited or restricted means for entry and exit, and is not intended for continuous employee occupancy. Confined spaces include, but are not limited to, trenches, storage tanks, process vessels, pits, sewers, tunnels, underground utility vaults, pipelines, sumps, wells, and excavations.

Confined space entry by Benchmark-TurnKey employees is not anticipated to be necessary to complete the BCP activities identified in Section 2.0. In the event that the scope of work changes or confined space entry appears necessary, the Project Manager will be consulted to determine if feasible engineering alternatives to confined space entry can be implemented. If confined space entry by Benchmark-TurnKey employees cannot be avoided through reasonable engineering measures, task-specific confined space entry procedures will be developed and a confined-space entry permit will be issued through Benchmark-TurnKey's corporate Health and Safety Director. Benchmark-TurnKey employees shall not enter a confined space without these procedures and permits in place.

14.0 FIRE PREVENTION AND PROTECTION

14.1 General Approach

Recommended practices and standards of the National Fire Protection Association (NFPA) and other applicable regulations will be followed in the development and application of Project Fire Protection Programs. When required by regulatory authorities, the project management will prepare and submit a Fire Protection Plan for the approval of the contracting officers, authorized representative or other designated official. Essential considerations for the Fire Protection Plan will include:

- Proper Site preparation and safe storage of combustible and flammable materials.
- Availability of coordination with private and public fire authorities.
- Adequate job-site fire protection and inspections for fire prevention.
- Adequate indoctrination and training of employees.

14.2 Equipment and Requirements

Fire extinguishers will be provided by each Contractor and are required on all heavy equipment and in each field trailer. Fire extinguishers will be inspected, serviced, and maintained in accordance with the manufacturer's instructions. As a minimum, all extinguishers shall be checked monthly and weighed semi-annually, and recharged if necessary. Recharge or replacement shall be mandatory immediately after each use.

14.3 Flammable and Combustible Substances

All storage, handling or use of flammable and combustible substances will be under the supervision of qualified persons. All tanks, containers and pumping equipment, whether portable or stationary, used for the storage and handling of flammable and combustible liquids, will meet the recommendations of the National Fire Protection Association.

14.4 Hot Work

If the scope of work necessitates welding or blowtorch operation, the hot work permit presented in Attachment B will be completed by the SSHO and reviewed/issued by the Project Manager.

15.0 EMERGENCY INFORMATION

In accordance with OSHA 29 CFR Part 1910, an Emergency Response Plan is attached to this HASP as Attachment A. The hospital route map is presented within Attachment A as Figure 1.

16.0 REFERENCES

1. New York State Department of Environmental Conservation. *DER-10; Technical Guidance for Site Investigation and Remediation.* May 2010.

TABLES

TABLE 1

TOXICITY DATA FOR CONSTITUENTS OF POTENTIAL CONCERN

399 Ohio Street Site
Buffalo, New York

Parameter	Synonyms	CAS No.	Code	Concentration Limits [1]		
				PEL	TLV	IDLH
Semi-volatile Organic Compounds (SVOCs)[2]: ppm						
Benzo(a)anthracene	*none*	56-55-3	*none*	--	--	--
Benzo(a)pyrene	*none*	50-32-8	*none*	--	--	--
Benzo(b)fluoranthene	*none*	205-99-2	*none*	--	--	--
Benzo(k)fluoranthene	*none*	207-08-9	*none*	--	--	--
Chrysene	*none*	218-01-9	*none*	--	--	--
Dibenzo(a,h)anthracene	*none*	53-70-3	*none*	--	--	--
Indeno(1,2,3-cd)pyrene	*none*	193-39-5	*none*	--	--	--
Inorganic Compounds: mg/m [2]						
Arsenic	*none*	7440-38-2	Ca	0.01	0.01	5
Cadmium	*none*	7440-43-9	Ca	0.005	0.01	9
Lead	*none*	7439-92-1	*none*	0.05	0.15	100

Ca = NIOSH considers constituent to be a potential occupational carcinogen.
C-## = Ceiling Level equals the maximum exposure concentration allowable during the work day.
ND indicates that an IDLH has not as yet been determined.
TLV = Threshold Limit Value, established by American Conference of Industrial Hygienists (ACGIH), equals the maximum exposure concentration allowable for 8 hours/day @ 40 hours/week.

TLVs are the amounts of chemicals in the air that almost all healthy adult workers are predicted to be able to tolerate without adverse effects. There are three types.

TLV-TWA (TLV-Time-Weighted Average) which is averaged over the normal eight-hour day/forty-hour work week. (Most TLVs.)

TLV-STEL or Short Term Exposure Limits are 15 minute exposures that should not be exceeded for even an instant. It is not a stand alone value but is accompanied by the TLV-TWA.

TLV-C or Ceiling limits are the concentration that should not be exceeded during any part of the working exposure.

Unless the initials "STEL" or "C" appear in the Code column, the TLV value should be considered to be the eight-hour TLV-TWA.

PEL = Permissible Exposure Limit, established by OSHA, equals the maximium exposure conconcentration allowable for 8 hours per day @ 40 hours per week

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TURNKEY ENVIRONMENTAL RESTORATION, LLC

TABLE 2

POTENTIAL ROUTES OF EXPOSURE TO THE CONSTITUENTS OF POTENTIAL CONCERN

399 Ohio Street Site
Buffalo, New York

Activity [1]	Direct Contact with Soil/Fill	Inhalation of Vapors or Dust	Direct Contact with Groundwater
Redevelopment Activities That May Penetrate the Cover System			
Test Pit or Excavation that penetrate the Cover System to Remove Soil Beneath	x	x	x
Removal of Concrete Foundation and Basement Floors	x	x	x
Import of Backfill Materials for use as Fill at the Site requiring Analytical Sampling	x	x	
Export of Materials from the Site that will require Analytical Sampling	x	x	
Community Air Monitoring while Excavating Potentially Impacted Materials	x	x	

Notes:

1. Activity as described in Section 1.4 of the Health and Safety Plan.

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TURNKEY ENVIRONMENTAL RESTORATION, LLC

TABLE 3

REQUIRED LEVELS OF PROTECTION
FOR REMEDIAL ACTIVITIES

441 Ohio Street Site
Buffalo, New York

Activity	Respiratory Protection [1]	Clothing	Gloves [2]	Boots [2, 3]	Other Required PPE/Modifications [2, 4]
Redevelopment Tasks					
Test Pit or Excavations that penetrate the Cover System to Remove Soil Beneath	Level D (upgrade to Level C if necessary)	Work Uniform or Tyvek	L/N	outer: L inner: STSS	HH SGSS
Removal of Concrete Foundation and Basement Floors	Level D (upgrade to Level C if necessary)	Work Uniform or Tyvek	L/N	outer: L inner: STSS	SGSS
Import of Backfill Materials for use as Fill at the Site requiring Analytical Sampling	Level D (upgrade to Level C if necessary)	Work Uniform or Tyvek	L/N	outer: L inner: STSS	SGSS
Export of Materials from the Site that will require Analytical Sampling	Level D (upgrade to Level C if necessary)	Work Uniform or Tyvek	L/N	outer: L inner: STSS	HH SGSS
Community Air Monitoring while Excavating Potentially Impacted Materials	Level D (upgrade to Level C if necessary)	Work Uniform or Tyvek	L/N	outer: L inner: STSS	HH SGSS

Notes:

1. Respiratory equipment shall conform to guidelines presented in Section 7.0 of this HASP. The Level C requirement is an air-purifying respirator equiped with organic compound/acid gas/dust cartridge.

2. HH = hardhat; L= Latex; L/N = latex inner glove, nitrile outer glove; N = Nitrile; SGSS = safety glasses with sideshields; STSS = steel toe safety shoes.

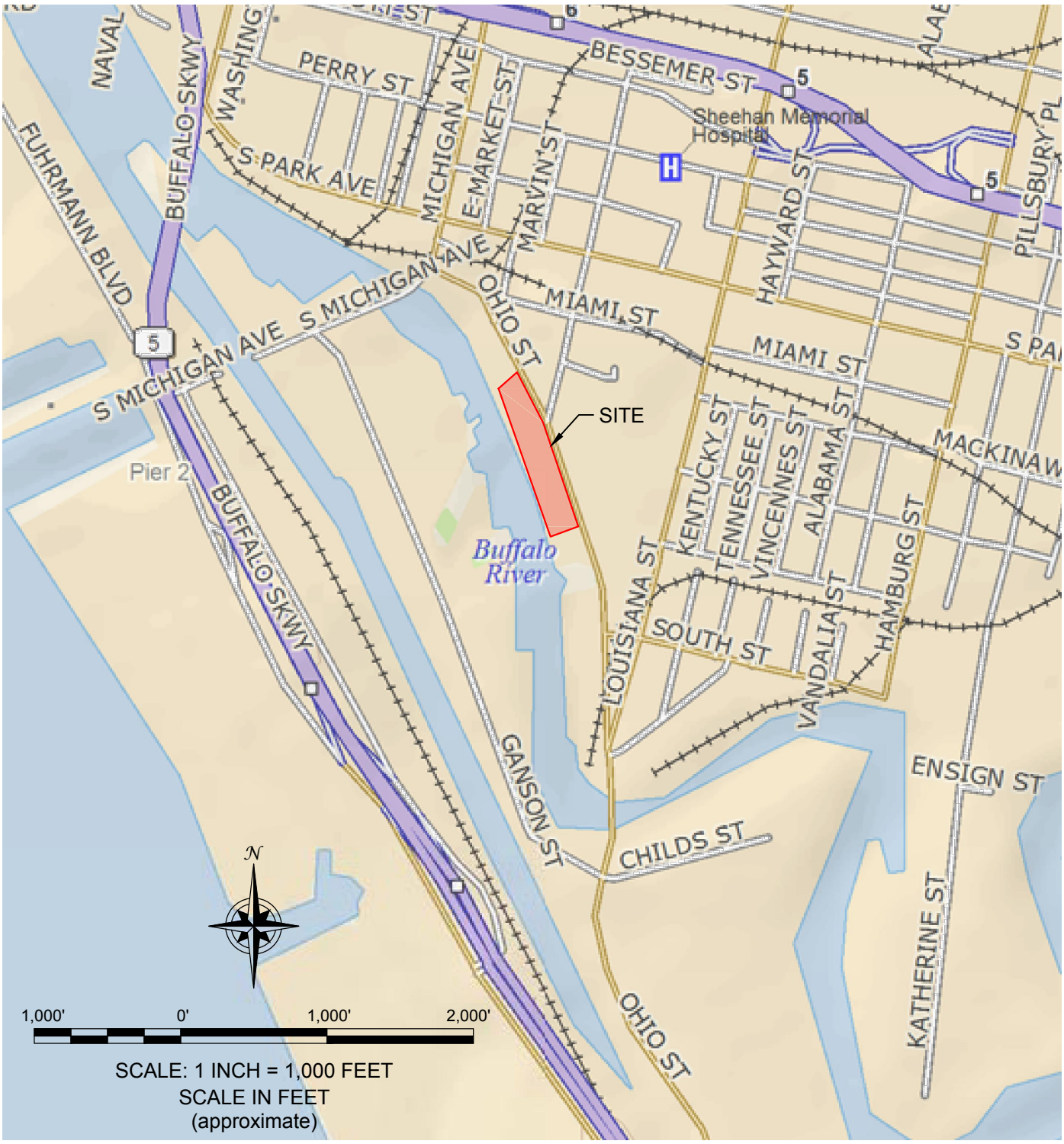
3. Latex outer boot (or approved overboot) required whenever contact with contaminated materials may occur. SSHO may downgrade to STSS (steel-toed safety shoes) if contact will be limited to cover/replacement soils.

4. Dust masks shall be donned as directed by the SSHO (site safety and health officer) or site safety technician whenever potentially contaminated airborne particulates (i.e., dust) are present

FIGURES

F:\CAD\TurnKey\Ellicott Development\399 Ohio Street BCP\RAWP\Figure 1; Site Location and Vicinity Map.dwg

FIGURE 1



TurnKey Environmental Restoration, LLC
2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0635

SITE LOCATION AND VICINITY MAP

HEALTH AND SAFETY PLAN

399 OHIO STREET SITE

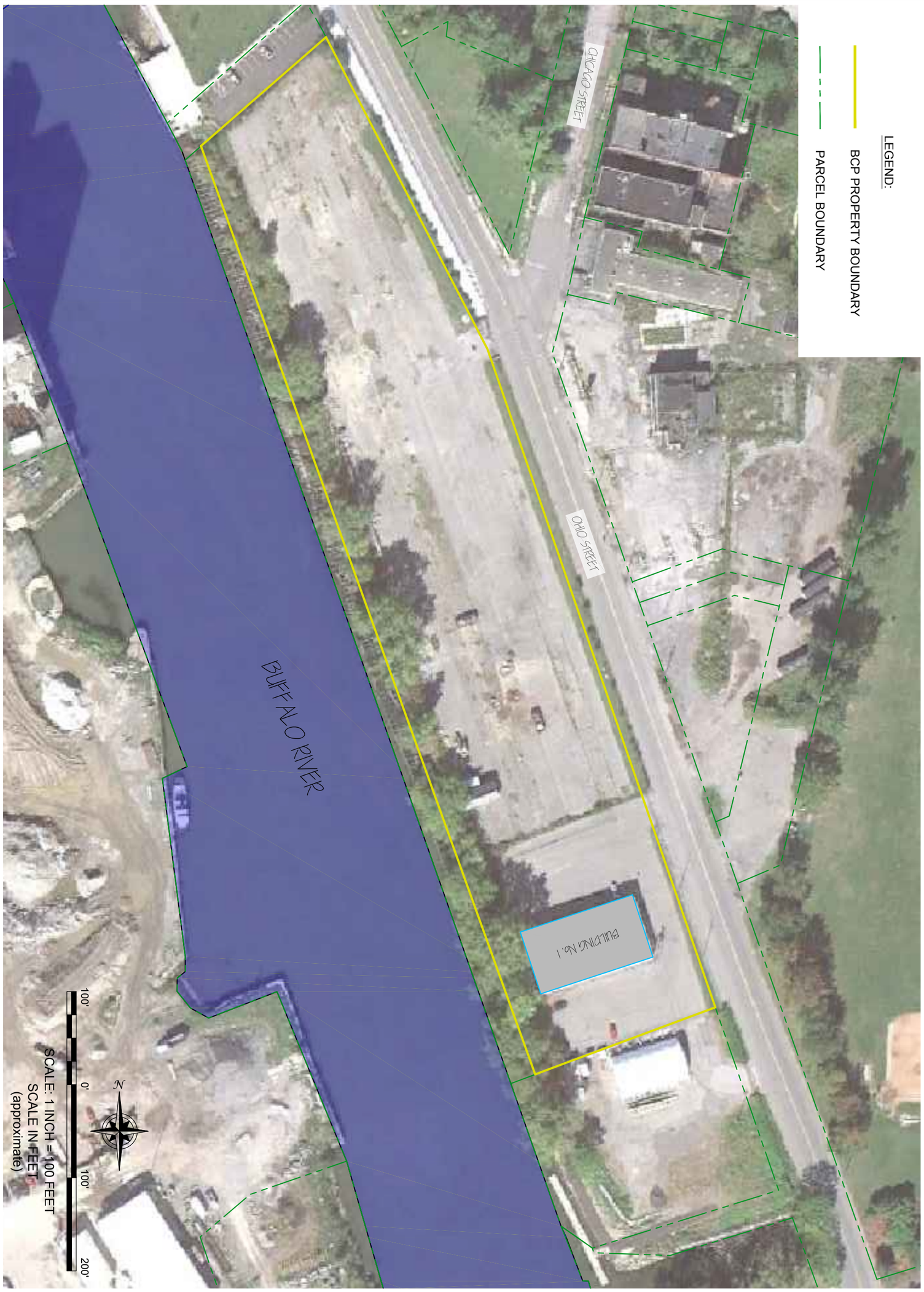
BUFFALO, NEW YORK

PREPARED FOR

1093 GROUP, LLC

PROJECT NO.:	0136-013-011
DATE:	MAY 2016
DRAFTED BY:	KRR

DATE: MAY 2016
DRAFTED BY: KRR



SITE PLAN (AERIAL)

HEALTH AND SAFETY PLAN

399 OHIO STREET SITE

BUFFALO, NEW YORK

PREPARED FOR

1093 GROUP, LLC

FIGURE 2

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TURNKEY ENVIRONMENTAL RESTORATION, LLC

2558 HAMBURG TURNPIKE, SUITE 300, BUFFALO, NY 14218, (716) 856-0599

JOB NO.: 0136-013-011

ATTACHMENT A

EMERGENCY RESPONSE PLAN

EMERGENCY RESPONSE PLAN
for
BROWNFIELD CLEANUP PROGRAM ACTIVITIES

399 OHIO STREET SITE
BUFFALO, NEW YORK

May 2016 0136-013-011

Prepared for:

1093 GROUP, LLC

399 OHIO STREET SITE
HEALTH AND SAFETY PLAN FOR POST REMEDIAL ACTIVITIES
ATTACHMENT A: EMERGENCY RESPONSE PLAN

TABLE OF CONTENTS

LIST OF FIGURES

1.0 GENERAL

This report presents the site-specific Emergency Response Plan (ERP) referenced in the Site Health and Safety Plan (HASP) prepared for Brownfield Cleanup Program related activities at the 441 Ohio Street Site in Buffalo, New York. This attachment of the HASP describes potential emergencies that may occur at the Site; procedures for responding to those emergencies; roles and responsibilities during emergency response; and training all workers must receive in order to follow emergency procedures. This ERP also describes the provisions this Site has made to coordinate its emergency response planning with other contractors on-site and with off-site emergency response organizations.

This ERP is consistent with the requirements of 29 CFR 1910.120(l) and provides the following site-specific information:

- Pre-emergency planning.
- Personnel roles, lines of authority, and communication.
- Emergency recognition and prevention.
- Safe distances and places of refuge.
- Evacuation routes and procedures.
- Decontamination procedures.
- Emergency medical treatment and first aid.
- Emergency alerting and response procedures.
- Critique of response and follow-up.
- Emergency personal protective equipment (PPE) and equipment.

2.0 PRE-EMERGENCY PLANNING

This Site has been evaluated for potential emergency occurrences, based on site hazards, the required work tasks, the site topography, and prevailing weather conditions. The results of that evaluation indicate the potential for the following site emergencies to occur at the locations indicated.

Type of Emergency:

1. Medical, due to physical injury

Source of Emergency:

1. Slip/trip/fall

Location of Source:

1. Non-specific

3.0 ON-SITE EMERGENCY RESPONSE EQUIPMENT

Emergency procedures may require specialized equipment to facilitate worker rescue, contamination control and reduction, or post-emergency clean up. Emergency response equipment available on the Site is listed below. The equipment inventory and storage locations are based on the potential emergencies described above. This equipment inventory is designed to meet on-site emergency response needs and any specialized equipment needs that off-site responders might require because of the hazards at this Site but not ordinarily stocked.

Any additional personal protective equipment (PPE) required and stocked for emergency response is also listed in below. During an emergency, the Emergency Response Coordinator (ERC) is responsible for specifying the level of PPE required for emergency response. At a minimum, PPE used by emergency responders will comply with Section 7.0, Personal Protective Equipment, of this HASP. Emergency response equipment is inspected at regular intervals and maintained in good working order. The equipment inventory is replenished as necessary to maintain response capabilities.

Emergency Equipment	Quantity	Location
First Aid Kit	1	Site Vehicle
Chemical Fire Extinguisher	2 (minimum)	All heavy equipment and Site Vehicle

Emergency PPE	Quantity	Location
Full-face respirator	1 for each worker	Site Vehicle
Chemical-resistant suits	4 (minimum)	Site Vehicle

4.0 EMERGENCY PLANNING MAPS

An area-specific map of the Site will be developed on a daily basis during performance of field activities. The map will be marked to identify critical on-site emergency planning information, including: emergency evacuation routes, a place of refuge, an assembly point, and the locations of key site emergency equipment. Site zone boundaries will be shown to alert responders to known areas of contamination. There are no major topographical features, however the direction of prevailing winds/weather conditions that could affect emergency response planning are also marked on the map. The map will be posted at site-designated place of refuge and inside the Benchmark personnel field vehicle.

5.0 EMERGENCY CONTACTS

The following identifies the emergency contacts for this ERP.

Emergency Telephone Numbers:

Project Manager: Thomas H. Forbes, P.E.
Work: (716) 856-0599
Mobile: (716) 848-0599

Corporate Health and Safety Director: *Thomas H. Forbes, P.E.*
Work: (716) 856-0599
Mobile: (716) 848-0599

Site Safety and Health Officer (SSHO): *Bryan C. Hann*
Work: (716) 856-0635
Mobile: (716) 870-1165

Alternate SSHO: *Nathan Munley*
Work: (716) 856-0635
Mobile: (716) 289-1072

BUFFALO GENERAL HOSPITAL (ER):	(716) 859-5600
FIRE:	911
AMBULANCE:	911
BUFFALO POLICE:	911
STATE EMERGENCY RESPONSE HOTLINE:	(800) 457-7362
NATIONAL RESPONSE HOTLINE:	(800) 424-8802
NYSDOH:	(716) 847-4385
NYSDEC:	(716) 851-7220
NYSDEC 24-HOUR SPILL HOTLINE:	(800) 457-7252

The Site location is:

441 Ohio Street
Buffalo, New York 14204
Site Phone Number: (Insert Cell Phone or Field Trailer): _____

6.0 EMERGENCY ALERTING & EVACUATION

Internal emergency communication systems are used to alert workers to danger, convey safety information, and maintain site control. Any effective system can be employed. Two-way radio headsets or field telephones are often used when work teams are far from the command post. Hand signals and air-horn blasts are also commonly used. Every system must have a backup. It shall be the responsibility of each contractor's Site Health and Safety Officer to ensure all personnel entering the site understand an adequate method of internal communication. Unless all personnel are otherwise informed, the following signals shall be used.

1) Emergency signals by portable air horn, siren, or whistle: two short blasts, personal injury; continuous blast, emergency requiring site excavation.

2) Visual signals: hand gripping throat, out of air/cannot breathe; hands on top of head, need assistance; thumbs up, affirmative/ everything is OK; thumbs down, no/negative; grip partner's wrist or waist, leave area immediately.

If evacuation notice is given, site workers leave the worksite with their respective buddies, if possible, by way of the nearest exit. Emergency decontamination procedures detailed in Section 12.0 of the HASP are followed to the extent practical without compromising the safety and health of site personnel. The evacuation routes and assembly area will be determined by conditions at the time of the evacuation based on wind direction, the location of the hazard source, and other factors as determined by rehearsals and inputs from emergency response organizations. Wind direction indicators are located so that workers can determine a safe up wind or cross wind evacuation route and assembly area if not informed by the emergency response coordinator at the time the evacuation alarm sounds. Since work conditions and work zones within the site may be changing on daily basis, it shall be the responsibility of the construction Site Health and Safety Officer to review evacuation routes and procedures as necessary and to inform all Benchmark-TurnKey workers of any changes.

Personnel exiting the site will gather at a designated assembly point. To determine that everyone has successfully exited the site, personnel will be accounted for at the assembly

site. If any worker cannot be accounted for, notification is given to the SSHO (***Bryan Hann*** or ***Nathan Munley***) so that appropriate action can be initiated. Contractors and subcontractors on this site have coordinated their emergency response plans to ensure that these plans are compatible and that source(s) of potential emergencies are recognized, alarm systems are clearly understood, and evacuation routes are accessible to all personnel relying upon them.

7.0 EXTREME WEATHER CONDITIONS

In the event of adverse weather conditions, the Site Safety and Health Officer in conjunction with the Contractor's SSHO will determine if engineering operations can continue without sacrificing the health and safety of site personnel. Items to be considered prior to determining if work should continue include but are not limited to:

- Potential for heat/cold stress.
- Weather-related construction hazards (e.g., flooding or wet conditions producing undermining of structures or sheeting, high wind threats, etc).
- Limited visibility.
- Potential for electrical storms.
- Limited site access/egress (e.g., due to heavy snow)

8.0 EMERGENCY MEDICAL TREATMENT & FIRST AID

Personnel Exposure:

The following general guidelines will be employed in instances where health impacts threaten to occur acute exposure is realized:

- Skin Contact: Use copious amounts of soap and water. Wash/rinse affected area for at least 15 minutes. Decontaminate and provide medical attention. Eyewash stations will be provided on site. If necessary, transport to Buffalo General Hospital.

- Inhalation: Move to fresh air and, if necessary, transport to Hospital.

- Ingestion: Decontaminate and transport to Hospital.

Personal Injury:

Minor first-aid will be applied on-site as deemed necessary. In the event of a life threatening injury, the individual should be transported to Hospital via ambulance. The Site Health and Safety Officer will supply available chemical specific information to appropriate medical personnel as requested.

First aid kits will conform to Red Cross and other applicable good health standards, and shall consist of a weatherproof container with individually sealed packages for each type of item. First aid kits will be fully equipped before being sent out on each job and will be checked weekly by the SSHO to ensure that the expended items are replaced.

Directions to Buffalo General Hospital (see Figure 1):

The following directions describe the best route from the Site to Buffalo General Hospital:

- Head north on Ohio Street toward South Street
- Turn right on Michigan Avenue
- Turn left onto High Street
- Hospital on the right (100 High Street)

9.0 EMERGENCY RESPONSE CRITIQUE & RECORD KEEPING

Following an emergency, the SSHO and Project Manager shall review the effectiveness of this Emergency Response Plan (ERP) in addressing notification, control and evacuation requirements. Updates and modifications to this ERP shall be made accordingly. It shall be the responsibility of each contractor to establish and assure adequate records of the following:

- Occupational injuries and illnesses.
- Accident investigations.
- Reports to insurance carrier or State compensation agencies.
- Reports required by the client.
- Records and reports required by local, state, federal and/or international agencies.
- Property or equipment damage.
- Third party injury or damage claims.
- Environmental testing logs.
- Explosive and hazardous substances inventories and records.
- Records of inspections and citations.
- Safety training.

10.0 EMERGENCY RESPONSE TRAINING

All persons who enter the worksite, including visitors, shall receive a site-specific briefing about anticipated emergency situations and the emergency procedures by the SSHO. Where this site relies on off-site organizations for emergency response, the training of personnel in those off-site organizations has been evaluated and is deemed adequate for response to this site.

FIGURES

F:\CAD\TurnKey\Ellicott Development\399 Ohio Street BCP\HASP\ERP Figure A-1; Hospital Route Map.dwg

TURNKEY ENVIRONMENTAL RESTORATION, LLC

2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0635

PROJECT NO.: 0136-013-011

DATE: MAY 2016

DRAFTED BY: JJR

HOSPITAL ROUTE MAP

HASP: EMERGENCY REPSPONSE PLAN

399 OHIO STREET SITE
BUFFALO, NEW YORK

PREPARED FOR

1093 GROUP, LLC

FIGURE A-1

ATTACHMENT B

HOT WORK PERMIT FORM

HOT WORK PERMIT

PART 1 - INFORMATION

Issue Date:	
Date Work to be Performed: Start:	Finish (permit terminated):
Performed By:	
Work Area:	
Object to be Worked On:	

PART 2 - APPROVAL

(for 1, 2 or 3: mark Yes, No or NA)*

Will working be on or in:	Finish (permit terminated):	
1. Metal partition, wall, ceiling covered by combustible material?	yes	no
2. Pipes, in contact with combustible material?	yes	no
3. Explosive area?	yes	no

* = If any of these conditions exist (marked "yes"), a permit will not be issued without being reviewed and approved by Thomas H. Forbes (Corporate Health and Safety Director). Required Signature below.

PART 3 - REQUIRED CONDITIONS**

(Check all conditions that must be met)

	PROTECTIVE ACTION		PROTECTIVE EQUIPMENT
	Specific Risk Assessment Required		Goggles/visor/welding screen
	Fire or spark barrier		Apron/fireproof clothing
	Cover hot surfaces		Welding gloves/gauntlets/other:
	Move movable fire hazards, specifically		Wellintons/Knee pads
	Erect screen on barrier		Ear protection: Ear muffs/Ear plugs
	Restrict Access		B.A.: SCBA/Long Breather
	Wet the ground		Respirator: Type:
	Ensure adequate ventilation		Cartridge:
	Provide adequate supports		Local Exhaust Ventilation
	Cover exposed drain/floor or wall cracks		Extinguisher/Fire blanket
	Fire watch (must remain on duty during duration of permit)		Personal flammable gas monitor
	Issue additional permit(s):		

Other precautions:

** Permit will not be issued until these conditions are met.

SIGNATURES

Orginating Employee:	Date:
Project Manager:	Date:
Part 2 Approval:	Date:

ATTACHMENT C

NYSDOH GENERIC COMMUNITY AIR MONITORING PLAN

BENCHMARK TURNKEY

Appendix C1
New York State Department of Health
Generic Community Air Monitoring Plan

Overview

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

The generic CAMP presented below will be sufficient to cover many, if not most, sites. Specific requirements should be reviewed for each situation in consultation with NYSDOH to ensure proper applicability. In some cases, a separate site-specific CAMP or supplement may be required. Depending upon the nature of contamination, chemical- specific monitoring with appropriately-sensitive methods may be required. Depending upon the proximity of potentially exposed individuals, more stringent monitoring or response levels than those presented below may be required. Special requirements will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with co-located residences or facilities. These requirements should be determined in consultation with NYSDOH.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

Community Air Monitoring Plan

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for VOCs and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring. If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate DEC/NYSDOH staff.

Continuous monitoring will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

Periodic monitoring for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. “Periodic” monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or

overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions, particularly if wind direction changes. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

1. If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

2. If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

3. If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

4. All 15-minute readings must be recorded and be available for State (DEC and NYSDOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

1. If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m^3 above the upwind level and provided that no visible dust is migrating from the work area.

2. If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m^3 above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m^3 of the upwind level and in preventing visible dust migration.

3. All readings must be recorded and be available for State (DEC and NYSDOH) and County Health personnel to review.

December 2009

Appendix C2
Fugitive Dust and Particulate Monitoring

A program for suppressing fugitive dust and particulate matter monitoring at hazardous waste sites is a responsibility on the remedial party performing the work. These procedures must be incorporated into appropriate intrusive work plans. The following fugitive dust suppression and particulate monitoring program should be employed at sites during construction and other intrusive activities which warrant its use:

1. Reasonable fugitive dust suppression techniques must be employed during all site activities which may generate fugitive dust.

2. Particulate monitoring must be employed during the handling of waste or contaminated soil or when activities on site may generate fugitive dust from exposed waste or contaminated soil. Remedial activities may also include the excavation, grading, or placement of clean fill. These control measures should not be considered necessary for these activities.

3. Particulate monitoring must be performed using real-time particulate monitors and shall monitor particulate matter less than ten microns (PM10) with the following minimum performance standards:

(a) Objects to be measured: Dust, mists or aerosols;
(b) Measurement Ranges: 0.001 to 400 mg/m3 (1 to 400,000 :ug/m3);
(c) Precision (2-sigma) at constant temperature: +/- 10 :g/m3 for one second averaging; and +/- 1.5 g/m3 for sixty second averaging;
(d) Accuracy: +/- 5% of reading +/- precision (Referred to gravimetric calibration with SAE fine test dust (mmd= 2 to 3 :m, g= 2.5, as aerosolized);
(e) Resolution: 0.1% of reading or 1g/m3, whichever is larger;
(f) Particle Size Range of Maximum Response: 0.1-10;
(g) Total Number of Data Points in Memory: 10,000;
(h) Logged Data: Each data point with average concentration, time/date and data point number
(i) Run Summary: overall average, maximum concentrations, time/date of maximum, total number of logged points, start time/date, total elapsed time (run duration), STEL concentration and time/date occurrence, averaging (logging) period, calibration factor, and tag number;
(j) Alarm Averaging Time (user selectable): real-time (1-60 seconds) or STEL (15 minutes), alarms required;
(k) Operating Time: 48 hours (fully charged NiCd battery); continuously with charger;
(l) Operating Temperature: -10 to 50^{o} C (14 to 122^{o} F);
(m) Particulate levels will be monitored upwind and immediately downwind at the working site and integrated over a period not to exceed 15 minutes.

4. In order to ensure the validity of the fugitive dust measurements performed, there must be appropriate Quality Assurance/Quality Control (QA/QC). It is the responsibility of the remedial party to adequately supplement QA/QC Plans to include the following critical features: periodic instrument calibration, operator training, daily instrument performance (span) checks, and a record keeping plan.

5. The action level will be established at 150 ug/m3 (15 minutes average). While conservative,

this short-term interval will provide a real-time assessment of on-site air quality to assure both health and safety. If particulate levels are detected in excess of 150 ug/m3, the upwind background level must be confirmed immediately. If the working site particulate measurement is greater than 100 ug/m3 above the background level, additional dust suppression techniques must be implemented to reduce the generation of fugitive dust and corrective action taken to protect site personnel and reduce the potential for contaminant migration. Corrective measures may include increasing the level of personal protection for on-site personnel and implementing additional dust suppression techniques (see paragraph 7). Should the action level of 150 ug/m3 continue to be exceeded work must stop and DER must be notified as provided in the site design or remedial work plan. The notification shall include a description of the control measures implemented to prevent further exceedances.

6. It must be recognized that the generation of dust from waste or contaminated soil that migrates off-site, has the potential for transporting contaminants off-site. There may be situations when dust is being generated and leaving the site and the monitoring equipment does not measure PM10 at or above the action level. Since this situation has the potential to allow for the migration of contaminants off-site, it is unacceptable. While it is not practical to quantify total suspended particulates on a real-time basis, it is appropriate to rely on visual observation. If dust is observed leaving the working site, additional dust suppression techniques must be employed. Activities that have a high dusting potential--such as solidification and treatment involving materials like kiln dust and lime--will require the need for special measures to be considered.

7. The following techniques have been shown to be effective for the controlling of the generation and migration of dust during construction activities:

(a) Applying water on haul roads;
(b) Wetting equipment and excavation faces;
(c) Spraying water on buckets during excavation and dumping;
(d) Hauling materials in properly tarped or watertight containers;
(e) Restricting vehicle speeds to 10 mph;
(f) Covering excavated areas and material after excavation activity ceases; and
(g) Reducing the excavation size and/or number of excavations.

Experience has shown that the chance of exceeding the 150ug/m3 action level is remote when the above-mentioned techniques are used. When techniques involving water application are used, care must be taken not to use excess water, which can result in unacceptably wet conditions. Using atomizing sprays will prevent overly wet conditions, conserve water, and provide an effective means of suppressing the fugitive dust.

8. The evaluation of weather conditions is necessary for proper fugitive dust control. When extreme wind conditions make dust control ineffective, as a last resort remedial actions may need to be suspended. There may be situations that require fugitive dust suppression and particulate monitoring requirements with action levels more stringent than those provided above. Under some circumstances, the contaminant concentration and/or toxicity may require additional monitoring to protect site personnel and the public. Additional integrated sampling and chemical analysis of the dust may also be in order. This must be evaluated when a health and safety plan is developed and when appropriate suppression and monitoring requirements are established for protection of health and the environment.

APPENDIX F

SITE MANAGEMENT FORMS

New York State Department of Environmental Conservation
Division of Environmental Remediation, 11th Floor
625 Broadway, Albany, New York 12233-7011
Phone: (518) 402-9553 **Fax:** (518) 402-9577
Website: www.dec.ny.gov

45-Day Reminder Notice: Site Management Periodic Review

,

September 29, 2009
Site Name:
Site No.:
Site Address:
, NY

Dear :

This is a reminder that as part of the last phase of a site's remedial program (i.e., "Site Management" (SM)), a progress report for your site is to be submitted by you, the site owner or Remedial Party, to the New York State Department of Environmental Conservation (Department) by . This report, now referred to as the Periodic Review Report (PRR) documents the implementation of and compliance with the Site Management requirements for this site. SM is a concept defined in regulation (6 NYCRR 375-1.2(at)). A suggested outline for the PRR is enclosed. If the site is comprised of multiple properties or parcels, then you as the owner or Remedial Party must arrange to submit one PRR for all parcels that comprise the site.

Depending on the age of the remedial program for your site, the document(s) governing SM for your site will be different. Previously, SM requirements were contained in separate documents with specific titles (e.g., Operation, Maintenance, and Monitoring Plan or Soil Management Plan) and are now being incorporated into one comprehensive "Site Management Plan" (SMP). A SMP may contain one or all of the following elements as applicable to the site; a plan to maintain institutional and/or engineering controls ("IC/EC Plan"), a plan for monitoring the performance and effectiveness of the selected remedy ("Monitoring Plan"), and/or a plan for the operation and maintenance of the selected remedy ("O&M Plan"). Additionally, the requirements for SM are normally stated in the decision document (e.g., Record of Decision) and/or the legal agreement directing the remediation of the site (e.g., order on consent, voluntary agreement, etc.).

When you submit the PRR (by the due date above), please sign and include the enclosed forms documenting that all SM requirements are being met. If there is some reason you cannot certify that all SM requirements are being met, you should indicate this and include a statement of explanation in the PRR with a schedule for addressing the problem(s). The Periodic Review process will not be considered complete until all necessary corrective measures are completed and any required controls are certified. Instructions for completing the certifications are enclosed.

Enclosures

ec: , Project Manager
, Bureau Director
Hazardous Waste Remediation Engineer, Region
Gary Litwin, DOH

cc:

Enclosure
Periodic Review Report (PRR) General Guidance

I. Introduction: (½-page or less)

A. Provide a brief summary of site, nature and extent of contamination, and remedial history.

B. Effectiveness of the Remedial Program - Provide overall conclusions regarding;
   1. progress made during the reporting period toward meeting the remedial objectives for the site
   2. the ultimate ability of the remedial program to achieve the remedial objectives for the site.

C. Compliance
   1. Identify any areas of non-compliance regarding the major elements of the Site Management Plan (SMP, i.e., the Institutional/Engineering Control (IC/EC) Plan, the Monitoring Plan, and the Operation & Maintenance (O&M) Plan).
   2. Propose steps to be taken and a schedule to correct any areas of non-compliance.

D. Recommendations
   1. recommend whether any changes to the SMP are needed
   2. recommend any changes to the frequency for submittal of PRRs (increase, decrease)
   3. recommend whether the requirements for discontinuing site management have been met.

II. Site Overview (one page or less)

A. Describe the site location, boundaries (figure), significant features, surrounding area, and the nature and extent of contamination prior to site remediation.

B. Describe the chronology of the main features of the remedial program for the site, the components of the selected remedy, cleanup goals, site closure criteria, and any significant changes to the selected remedy and site that have been made since remedy selection.

III. Evaluate Remedy Performance, Effectiveness, and Protectiveness

A. Using tables, graphs, charts and bulleted text to the extent practicable, describe the effectiveness of the remedy in achieving the remedial goals for the site. Base findings, recommendations, and conclusions on objective data. Evaluations should be presented simply and concisely.

IV. IC/EC Plan Compliance Report (if applicable)

A. IC/EC Requirements and Compliance
   1. Describe each control, its objective, and how performance of the control is evaluated.
   2. Summarize the status of each goal (whether it is fully in place and its effectiveness).
   3. Corrective Measures: describe steps proposed to address any deficiencies in ICECs.
   4. Conclusions and recommendations for changes.

B. IC/EC Certification
   1. The certification must be complete (even if there are IC/EC deficiencies), and certified by the appropriate party as set forth in a Department-approved certification form(s).

V. **Monitoring Plan Compliance Report (if applicable)**

A. Components of the Monitoring Plan (tabular presentations preferred) - Describe the requirements of the monitoring plan by media (i.e., soil, groundwater, sediment, etc.) and by any remedial technologies being used at the site.

B. Summary of Monitoring Completed During Reporting Period - Describe the monitoring tasks actually completed during this PRR reporting period. Tables and/or figures should be used to show all data.

C. Comparisons with Remedial Objectives - Compare the results of all monitoring with the remedial objectives for the site. Include trend analyses where possible.

D. Monitoring Deficiencies - Describe any ways in which monitoring did not fully comply with the monitoring plan.

E. Conclusions and Recommendations for Changes - Provide overall conclusions regarding the monitoring completed and the resulting evaluations regarding remedial effectiveness.

VI. **Operation & Maintenance (O&M) Plan Compliance Report (if applicable)**

A. Components of O&M Plan - Describe the requirements of the O&M plan including required activities, frequencies, recordkeeping, etc.

B. Summary of O&M Completed During Reporting Period - Describe the O&M tasks actually completed during this PRR reporting period.

C. Evaluation of Remedial Systems - Based upon the results of the O&M activities completed, evaluated the ability of each component of the remedy subject to O&M requirements to perform as designed/expected.

D. O&M Deficiencies - Identify any deficiencies in complying with the O&M plan during this PRR reporting period.

E. Conclusions and Recommendations for Improvements - Provide an overall conclusion regarding O&M for the site and identify problems, their severity, and any suggested improvements requiring changes in the O&M Plan.

VII. **Overall PRR Conclusions and Recommendations**

A. Compliance with SMP - For each component of the SMP (i.e., IC/EC, monitoring, O&M), summarize;

1. whether all requirements of each plan were met during the reporting period
2. any requirements not met such as new completed exposure pathways resulting in unacceptable risk
3. proposed plans and a schedule for coming into full compliance.

B. Performance and Effectiveness of the Remedy - Based upon your evaluation of the components of the SMP, form conclusions about the performance of each component and the ability of the remedy to achieve the remedial objectives for the site.

C. Future PRR Submittals

1. Recommend, with supporting justification, whether the frequency of the submittal of PRRs should be changed (either increased or decreased).
2. If the requirements for site closure have been achieved, contact the Department's Project Manager for the site to determine what, if any, additional documentation is needed to support a decision to discontinue site management.

VIII. **Additional Guidance**

A. Additional guidance regarding the preparation and submittal of an acceptable PRR can be obtained from the Department's Project Manager for the site.

WHERE to mail the signed Certification Form by :

New York State Department of Environmental Conservation

Attn: , Project Manager

Please note that extra postage may be required.

Enclosure 1

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No.

Site Name

Site Address: Zip Code:
City/Town:
County:
Allowable Use(s) (if applicable, does not address local zoning):
Site Acreage:
Owner:
, , NY

Reporting Period: to

Verification of Site Details **Box 2**

	YES	NO
1. Is the information in Box 1 correct?	☐	☐
If NO, are changes handwritten above or included on a separate sheet?	☐	
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	☐
If YES, is documentation or evidence that documentation has been previously submitted included with this certification?	☐	
3. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	☐
If YES, is documentation (or evidence that documentation has been previously submitted) included with this certification?	☐	
4. If use of the site is restricted, is the current use of the site consistent with those restrictions?	☐	☐
If NO, is an explanation included with this certification?	☐	
5. For non-significant-threat Brownfield Cleanup Program Sites subject to ECL 27-1415.7(c), has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid?	☐	☐
If YES, is the new information or evidence that new information has been previously submitted included with this Certification?	☐	
6. For non-significant-threat Brownfield Cleanup Program Sites subject to ECL 27-1415.7(c), are the assumptions in the Qualitative Exposure Assessment still valid (must be certified every five years)?	☐	☐
If NO, are changes in the assessment included with this certification?	☐	

SITE NO. Box 3

Description of Institutional Controls

Box 4

Description of Engineering Controls

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
☐	☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

   (a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
☐	☐

3. If this site has an Operation and Maintenance (O&M) Plan (or equivalent as required in the Decision Document);

   I certify by checking "YES" below that the O&M Plan Requirements (or equivalent as required in the Decision Document) are being met.

YES	NO
☐	☐

4. If this site has a Monitoring Plan (or equivalent as required in the remedy selection document);

   I certify by checking "YES" below that the requirements of the Monitoring Plan (or equivalent as required in the Decision Document) is being met.

YES	NO
☐	☐

IC CERTIFICATIONS
SITE NO.

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 2 and/or 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I _____ at _____,
print name print business address

am certifying as _____(Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

_____ _____
Signature of Owner or Remedial Party Rendering Certification Date

IC/EC CERTIFICATIONS

Box 7

QUALIFIED ENVIRONMENTAL PROFESSIONAL (QEP) SIGNATURE

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I _____ at _____,
print name print business address

am certifying as a Qualified Environmental Professional for the _____

(Owner or Remedial Party) for the Site named in the Site Details Section of this form.

_____ _____ _____
Signature of Qualified Environmental Professional, for the Owner or Remedial Party, Rendering Certification Stamp (if Required) Date

Enclosure 2

Certification Instructions

I. Verification of Site Details (Box 1 and Box 2):

Answer the six questions in the Verification of Site Details Section. Questions 5 and 6 only refer to sites in the Brownfield Cleanup Program. The Owner and/or Qualified Environmental Professional (QEP) may include handwritten changes and/or other supporting documentation, as necessary.

II. Certification of Institutional / Engineering Controls (Boxes 3, 4, and 5)

1. Review the listed IC/ECs, confirming that all existing controls are listed, and that all existing controls are still applicable. If there is a control that is no longer applicable the Owner / Remedial Party is to petition the Department requesting approval to remove the control.

2. In Box 5, complete certifications for all Plan components, as applicable, by checking the corresponding checkbox.

3. If you cannot certify "YES" for each Control and/or certify the other SM Plan components that are applicable, continue to complete the remainder of this **Certification** form. Attach supporting documentation that explains why the **Certification** cannot be rendered, as well as a statement of proposed corrective measures, and an associated schedule for completing the corrective measures. Note that this **Certification** form must be submitted even if an IC or EC cannot be certified; however, the certification process will not be considered complete until corrective action is completed.

   If the Department concurs with the explanation, the proposed corrective measures, and the proposed schedule, a letter authorizing the implementation of those corrective measures will be issued by the Department's Project Manager. Once the corrective measures are complete, a new Periodic Review Report (with IC/EC Certification) is to be submitted within 45 days to the Department. If the Department has any questions or concerns regarding the PRR and/or completion of the IC/EC Certification, the Project Manager will contact you.

III. IC/EC Certification by Signature (Box 6 and Box 7):

If you certified "YES" for each Control, please complete and sign the IC/EC Certifications page. Where the only control is an Institutional Control on the use of the property the certification statement in Box 6 shall be completed and may be made by the property owner. Where the site has Institutional and Engineering Controls, the certification statement in Box 7 must be completed by a Professional Engineer or Qualified Environmental Professional (see table below).

Table 1. Signature Requirements for Control Certification Page

Type of Control	Example of IC/EC	Required Signatures
EC which does not include a treatment system or engineered caps.	Fence, Clean Soil Cover, Individual House Water Treatment System, Vapor Mitigation System	A site or property owner or remedial party, and a QEP. (P.E. license not required)
EC that includes treatment system or an engineered cap.	Pump & Treat System providing hydraulic control of a plume, Part 360 Cap.	A site or property owner or remedial party, and a QEP with a P.E. license.

APPENDIX G

RESPONSIBILITIES OF OWNER & REMEDIAL PARTY

G-1: RESPONSIBILITIES

The owner and remedial party, and the associated responsibilities for implementing the Site Management Plan ("SMP") for the 399 Ohio Street Site (the "Site"), number C915287, is:

1093 Group, LLC
295 Main Street, Suite 210
Buffalo, New York 14203

Nothing on this page shall supersede the provisions of an Environmental Easement, Consent Order, Consent Decree, agreement, or other legally binding document that affects rights and obligations relating to the site.

Future site owners and responsible parties (RPs) and their successors and assigns are required to carry out the activities set forth above.

APPENDIX H

ELECTRONIC COPY