



**Department of  
Environmental  
Conservation**

**KATHY HOCHUL**  
Governor

**AMANDA LEFTON**  
Commissioner

January 29, 2026

William H. Goodrich  
Morgan-LeChase Development, LLC et al, Canandaigua Lakefront  
205 Indigo Creek Drive  
Rochester, New York 14626

Re: Site Management  
Site Management Plan  
Canandaigua Multi-Brownfield Site Redevel. Project  
Site No.: C835025  
Canandaigua (C), Ontario (C)

Dear Mr. Goodrich:

The New York State Department of Environmental Conservation (Department) and the New York State Department of Health (NYSDOH) have completed a review of the revised Site Management Plan (SMP), dated August 1, 2025, for the *Canandaigua Multi-Brownfield Site Redevel. Project* site (Site), located at 24, 50, 60, 100, 150 Lakeshore Drive and 40 Muar Street, the city of Canandaigua, Ontario County. Based on the information presented, the August 1, 2025, SMP is approved.

Please place a copy of the August 1, 2025, Site Management Plan with this letter attached to be placed in the Site's document repository **within 7-days of the date of this letter**. The Department requests that a notification of the document's placement is submitted – electronic notification is acceptable.

If you have any questions or concerns regarding this letter or need further assistance with the Site, please feel free to contact me at (585) 226-5349 or via email at [Joshua.Ramsey@dec.ny.gov](mailto:Joshua.Ramsey@dec.ny.gov).

Sincerely,

Joshua J. Ramsey  
Project Manager

ec:

Michael Silberberg (Pinnacle North)  
Robert Brenner (Canandaigua Area Devel.)  
Frank Pavia (Harris Beach)  
Dan Noll (LaBella)  
Michael Pelychaty (LaBella)  
Justin Deming (NYSDOH)  
Julia Kenney (NYSDOH)

David Pratt (NYSDEC)  
Michael Ormanoski (NYSDEC)

**Canandaigua Multi-Brownfield Site**  
**ONTARIO COUNTY,**  
**CANANDAIGUA, NEW YORK**

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**SITE MANAGEMENT PLAN**

**NYSDEC Site Number: C835025**

**Prepared for:**  
Canandaigua Lakefront, LLC  
205 Indigo Creek Drive  
Rochester, New York 14626

**Prepared by:**  
LaBella Associates, D.P.C.  
300 State Street  
Rochester New York 14614  
585-295-6110

**Revisions to Final Approved Site Management Plan:**

<b>Revision No.</b>	<b>Date Submitted</b>	<b>Summary of Revision</b>	<b>NYSDEC Approval Date</b>
1	11.02.2020	Updated As-Built of Engineering Control Systems (Cover & SSDS) & Owner Contact Information	
2	06.15.2021	SSDS Update. Updated As-Built Cross Sections Figures 3B and 3C & As-Built Engineering Controls Figure 4, 4A, 4B	
3	05.15.2024	SSDS Update. Update As-Built for Building B-2 in Appendix K to show entire floor slab has been poured.	

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**APRIL 2025**

## CERTIFICATION STATEMENT

I MICHAEL F. PELYCHATY certify that I am currently a Qualified Environmental Professional as in defined in 6 NYCRR Part 375 and that this Site Management Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10) and Green Remediation (DER-31).

Michael F. Pelychaty P.G., QEP

April 14, 2025 DATE



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**Ontario County**  
**Canandaigua, New York**  
**SITE MANAGEMENT PLAN**

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## **List of Acronyms**

AS	Air Sparging
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
ERP	Environmental Restoration Program
EWP	Excavation Work Plan
GHG	Green House Gas
GWE&T	Groundwater Extraction and Treatment
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	Operation 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
RSO	Remedial System Optimization
SAC	State Assistance Contract
SCG	Standards, Criteria and Guidelines

SCO	Soil Cleanup Objective
SMP	Site Management Plan
SOP	Standard Operating Procedures
SOW	Statement of Work
SPDES	State Pollutant Discharge Elimination System
SSD	Sub-slab Depressurization
SVE	Soil Vapor Extraction
SVI	Soil Vapor Intrusion
TAL	Target Analyte List
TCL	Target Compound List
TCLP	Toxicity Characteristic Leachate Procedure
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
VCA	Voluntary Cleanup Agreement
VCP	Voluntary Cleanup Program

## ES 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: C835025 Canandaigua Multi-Brownfield Site

Institutional Controls:	1. The property may be used for restricted residential use;	
	2. Use of groundwater at the Site is prohibited	
	3. Future subsurface work must be completed in accordance with this SMP	
	4. All engineering controls (ECs) must be inspected at a frequency and in a manner defined in the SMP.	
	5. Vegetable gardens and farming at the Site are prohibited.	
Engineering Controls:	1. Cover system	
	2. SSD System	
	3. Utility Trench Plugs	
Inspections:		Frequency
1. Cover inspection		Annually
Monitoring:		
1. SSD System operation (per Section 3.3.2)		Annually
Maintenance:		
1. SSD System (per Section 3.3.2)		As needed
Reporting:		
1. Periodic Review Report		Annually

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

The site is located in Canandaigua, Ontario County, New York and is identified as the following Ontario County Tax Map numbers (see Figure 2) (note the parcel boundaries have been changed during the BCP, as noted below):

<b>Current Tax Map ID (Former Tax Map ID)</b>	<b>Current Street Address (Former Street Address)</b>
84.18-1-10.1 - (Formerly part of 84.18-1-10)	150 Lakeshore Drive – (Formerly part of 158 Lakeshore Drive)
84.18-1-10.2 – (Formerly 84.18-1-10)	40 Maur Street – (Formerly 158 Lakeshore Drive)
84.18-1-46 – (Formerly part of 84.18-1-15 & all of 84.18-1-13)	100 Lakeshore Drive – (Formerly part of 30 Lakeshore & all of 130 Lakeshore Drive)
84.18-1-47 – (Formerly part of 84.18-1-17; part of 84.18-1-15 part of 84.18-1- 18 & all of 84.18-1-19)	50 Lakeshore Drive – (Formerly part of 25 Booth, part of 30 Lakeshore Drive part of 26 Lakeshore Drive & all of 28 Lakeshore Drive)
84.18-1-48 – (Formerly all of 84.18-1-20 & part of 84.18-1-19)	24 Lakeshore Drive – (Formerly part of 24 & 26 Lakeshore Drive)
84.18-1-49 – (Formerly part of 84.18-1-17 & all of 84.18-1-15)	60 Lakeshore Drive – (Formerly part of 25 Booth Street & 30 Lakeshore Drive)

## **1.0 INTRODUCTION**

### **1.1 General**

This Site Management Plan (SMP) is a required element of the remedial program for the Canandaigua Multi-Brownfield Site located in Canandaigua, New York (hereinafter referred to as the “Site”). See Figure 1. The Site is currently in the New York State (NYS) Brownfield Cleanup Program (BCP), Site No. C835025 which is administered by New York State Department of Environmental Conservation (NYSDEC).

Sarah Frank, LLC entered into a Brownfield Cleanup Agreement (BCA), on October 5, 2012 with the NYSDEC to remediate the site. Ownership was transferred to Canandaigua Lakefront, LLC in April 2015 which resulted in a change in remedial party. A figure showing the site location and boundaries of this site is provided in Figure 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 Ontario County Clerk, requires compliance with this SMP and all ICs and ECs placed on the site.

This SMP was prepared 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 Site #C835025 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. A list of contacts for persons involved with the site is provided in Appendix A of this SMP.

This SMP was prepared by LaBella Associated, D.P.C., on behalf of Canandaigua Lakefront, 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.

The SMP was initially developed/approved by NYSDEC in December 2016. A list of revisions is provided below:

1. November 2020 (this version) – The plan was updated to account for modifications to the cover system. Details on the cover system

modifications (import of materials and other details) are provided in the Periodic Review Report dated November 2020.

2. Updated January 2021 – Updated As-Built Cross Sections Figures 3B and 3C with the cover addition completed in November 2020. Additionally, made minor update to asphalt pavement cover system on Lakeshore Drive asphalt within the As-Built Engineering Controls Figure 4.

### **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.

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 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.

Changes in Site use include construction of new buildings, infrastructure or major changes to the cover system. A change of use notice should be submitted to the Site Control Section and DEC Central Office.

Table A below includes contact information for the above notification. The information on this table will be updated as necessary to provide accurate contact information. A full listing of site-related contact information is provided in Appendix A.

**Table A- Notifications\***

<b>Name</b>	<b>Contact Information</b>
NYSDEC Project Manager- Joshua Ramsey	585-226-5349, <a href="mailto:joshua.ramsey@dec.ny.gov">joshua.ramsey@dec.ny.gov</a>
NYSDEC Regional HW Engineer- Bernette Schilling	585-226-5315, <a href="mailto:bernette.schilling@dec.ny.gov">bernette.schilling@dec.ny.gov</a>
NYSDEC Site Control- Kelly A. Lewandowski, P.E.	518-402-9547, <a href="mailto:kelly.lewandowski@dec.ny.gov">kelly.lewandowski@dec.ny.gov</a>

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

## **2.0 SUMMARY OF PREVIOUS INVESTIGATIONS AND REMEDIAL ACTIONS**

### **2.1 Site Location and Description**

The site is located in Canandaigua, Ontario County, New York and is identified as the following Ontario County Tax Map numbers (see Figure 2) (note the parcel boundaries have been changed during the BCP, as noted below):

<b>Current Tax Map ID (Former Tax Map ID)</b>	<b>Current Street Address (Former Street Address)</b>
84.18-1-10.1 - (Formerly part of 84.18-1-10)	150 Lakeshore Drive – (Formerly part of 158 Lakeshore Drive)
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84.18-1-48 – (Formerly all of 84.18-1-20 & part of 84.18-1-19)	24 Lakeshore Drive – (Formerly part of 24 & 26 Lakeshore Drive)
84.18-1-49 – (Formerly part of 84.18-1-17 & all of 84.18-1-15)	60 Lakeshore Drive – (Formerly part of 25 Booth Street & 30 Lakeshore Drive)

The site is an approximately 15.5-acre area and is bounded by Lakeshore Drive to the south, Booth Street to the west, Parkway Plaza to the north, and Muar Street to the east (see Figure 2 – Site Layout Map). The boundaries of the site are more fully described in Appendix D –Environmental Easement. The owner(s) of the site parcel(s) at the time of issuance of this SMP is/are:

## **Canandaigua Lakefront, LLC**

### **2.2 Physical Setting**

#### **2.2.1 Land Use**

The Site consists of the following: three (3) mixed use commercial/ residential buildings, several parking areas, and vacant land. Additional buildings and parking areas are planned for construction in the future and this SMP will be updated subsequent to such construction. The Site is zoned commercial and vacant land and is currently unoccupied; however, the Site is being marketed and future occupants will include residents and commercial businesses.

The properties adjoining the Site and in the neighborhood surrounding the Site primarily include commercial properties. The property immediately south of the Site includes a public park; the properties immediately north of the Site include commercial properties; the properties immediately east of the Site include commercial and vacant land; and the properties to the west of the Site include commercial properties.

#### **2.2.2 Geology**

The following summarizes the geology at the Site based on a review of the April 2014 RI report by Stantec.

Surface materials at the Site generally consisted of topsoil, sand, silt, gravel, mixtures of asphalt and stone sub-base. Fill material beneath surface material generally consisted of silt, sand, gravel, with varying amounts of ash and cinders. Fill material consisting of trace amounts of brick and glass was identified in some locations containing ash and cinders. Fill material was generally encountered beginning at depths between 0 and 6-inches below ground surface (bgs) and ranged from approximately 0.2 to 6-feet in thickness. Fill material was primarily identified in the western portion of the Site. Beneath the fill material, a swamp deposit consisting of silt or organic silt with varying

amounts of wood or organic materials was encountered beneath the fill material. Alluvial deposits consisting of sand and shells were also encountered beneath the fill or swamp deposits from approximately 5 to 9-ft. bgs. Beneath the fill and swamp deposits or alluvial deposits was a glaciolacustrine silt and clay, encountered at depths ranging from 4 to 13-ft. bgs and extending to 23 to 54-ft. bgs. This deposit contained variable amounts of sand, sometimes in seams and layers. In the center portion of the Site, this deposit was not encountered; rather a glacial till ridge was encountered from the ground surface to 50-ft. bgs. Glacial till was encountered beneath the lacustrine deposits in two borings at 73-ft. bgs. Intact bedrock was not identified in any locations. Apparent weathered shale was encountered in some of the borings. According to the Geologic Map of New York, bedrock underlying the Site is shale and limestone of the Skaneateles formation.

Geologic cross sections are shown as Figures 3A, 3B, and 3C. Site specific boring logs are provided in Appendix E.

### **2.2.3 Hydrogeology**

The following summarizes the hydrogeology at the Site based on a review of the April 2014 RI report by Stantec.

Static water levels were measured at depths ranging from 2.3 to 5.9-ft. bgs across the Site. Groundwater flow direction is generally towards the north in the eastern portion of the Site, and varies between north and south, seasonally, at the western portion of the Site.

Groundwater contour maps completed by Stantec as part of the April 2014 RI Report for groundwater elevation data collected in August 2013 and October 2013 are included as Figure 7 and Figure 8, respectively. Groundwater elevation data is provided in Table 2, attached. Groundwater monitoring well construction logs are provided in Appendix E.

## **2.3 Investigation and Remedial History**

According to the Remedial Investigation Report prepared by Stantec in 2014, the Site appears to have been developed in the early 1900s and 1920s. A City of Canandaigua

landfill was present on the western portion of the Site in at least 1938. Lakeshore Drive was previously part of Canandaigua Lake prior to filling in the 1930s. Historic used of the Site include a landfill, various gasoline filling stations, laundry, restaurants, trailer park, motel, and bike shop.

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

*Phase I Environmental Site Assessments (all 7 parcels)*

Day Environmental Inc. (Day) conducted Phase I ESAs for 30 Lakeshore Drive in 1995 and in 2004. Additionally, Day conducted Phase I ESAs for each individual tax parcel in 2007. The following table summarizes Recognized Environmental Condition (RECs) identified during each Phase I ESA.

**Table B- Phase I ESA RECs**

<b>Address</b>	<b>RECs</b>
25 Booth Street	<u>Phase I ESA by Day, 2007</u> <ul style="list-style-type: none"> <li>• Possible petroleum contamination from current/former ASTs</li> <li>• Potential landfill and fill materials</li> <li>• Potential contamination from off-site sources</li> </ul>
24 Lakeshore Drive	<u>Phase I ESA by Day, 2007</u> <ul style="list-style-type: none"> <li>• Possible landfill and fill materials</li> <li>• Contamination from off-site sources</li> </ul>
26 Lakeshore Drive	<u>Phase I ESA by Day, 2007</u> <ul style="list-style-type: none"> <li>• Possible landfill and fill materials</li> <li>• Contamination from off-site sources</li> </ul>
28 Lakeshore Drive	<u>Phase I ESA by Day, 2007</u> <ul style="list-style-type: none"> <li>• Historical use of the assessed property as a dry cleaning facility and gasoline filling station</li> </ul>

	<ul style="list-style-type: none"> <li>• Possible landfill and fill materials</li> <li>• Potential contamination from off-site sources</li> </ul>
30 Lakeshore Drive	<p><u>Phase I ESA by Day, 1995</u></p> <ul style="list-style-type: none"> <li>• Former presence of a service station</li> </ul> <p><u>Phase I ESA by Day, 2004</u></p> <ul style="list-style-type: none"> <li>• Former presence of a service station</li> <li>• Petroleum contamination and fill identified during the 1996 subsurface investigation</li> </ul> <p><u>Phase I ESA by Day, 2007</u></p> <ul style="list-style-type: none"> <li>• Historical use of the assessed property which include a gasoline filling station and motor home</li> <li>• Potential contamination from off-site sources</li> </ul>
130 Lakeshore Drive	<p><u>Phase I ESA by Day, 2007</u></p> <ul style="list-style-type: none"> <li>• Possible fuel storage tanks- unknown status</li> <li>• Possible landfill and fill materials</li> <li>• Potential contamination from off-site sources</li> </ul>
158 Lakeshore Drive	<p><u>Phase I ESA by Day, 2007</u></p> <ul style="list-style-type: none"> <li>• Possible release from electric transformer</li> <li>• Possible landfill and fill materials</li> <li>• Contamination from off-site sources</li> </ul>

*Subsurface Investigation (30 Lakeshore Drive) Day 1996*

Based on the Phase I ESA conducted by Day in 1995 for 30 Lakeshore Drive, a subsurface Investigation was conducted by Day at 30 Lakeshore Drive in 1996. This investigation identified petroleum contamination north of the right-of-way along Lakeshore Drive with the greatest impacts identified near a subsurface anomaly (presumably an underground storage tank) identified during a magnetic locator survey.

*Limited Phase II ESAs (all 7 parcels) Stantec 2012*



Stantec conducted a Limited Phase II ESA at all seven (7) parcels comprising the Site in 2012. The ESA included the following:

- Advancement of 11 test pits
- Advancement of 16 overburden soil borings
- Analysis of 21 soil samples
- Installation of 7 groundwater monitoring wells
- Analysis of 7 groundwater samples

The Limited Phase II ESA identified exceedances of applicable Standards, Criteria, and Guidance (SCGs) in one (1) or more samples from each of the seven (7) parcels as follows:

- Petroleum compounds exceeded SCGs at 25 Booth Street, 24, 26, and 30 Lakeshore Drive
- Metals exceeded SCGs at 25 Booth Street, 24, 26, 28, 30, 130, and 158 Lakeshore Drive
- Pesticides exceeded SCGs at 24, 28, 30, and 158 Lakeshore Drive

In addition, Groundwater SCGs were exceeded at all seven (7) parcels as follows:

- Petroleum compounds exceeded SCGs at 28 and 30 Lakeshore Drive
- Metals exceeded SCGs at 25 Booth Street, 24, 26, 28, 30, 130, and 158 Lakeshore Drive
- Pesticides exceeded SCGs 130 Lakeshore Drive

*Remedial Investigation (all 7 parcels), Stantec 2013*

A Remedial Investigation (RI) was conducted at the Site by Stantec in 2013 consisting of the following:

- Analysis of 65 passive soil gas (PSG) samples
- Analysis of 33 surface soil samples
- Advancement of 46 soil borings
- Advancement of 11 groundwater monitoring wells

- Analysis of 17 groundwater samples
- Ecological survey

Seven (7) AOIs were identified during the RI. The AOIs are summarized below:

**Table C- Remedial Investigation Areas of Interest**

<b>AOI</b>	<b>Impacts</b>
1	Historic fill material at 25 Booth Street and 30 Lakeshore Drive
2	Petroleum compounds along southern edge of 30 Lakeshore Drive
3	Petroleum Compounds at 130 Lakeshore Drive
4	Pesticides at 130 Lakeshore Drive
5	PCBs in surface soils at 25 Booth Street
6	CVOCs in the Parkway Dry Cleaners Plume (adjacent to the north) at 30 Lakeshore Drive
7	Petroleum compounds at 158 Lakeshore Drive near Hess Station (adjacent to the east)

*IRM Work Plan, Stantec April 2014*

Four (4) AOIs were recommended for IRMs in a NYSDEC-approved IRM Work Plan dated April 2014. The IRM Work Plan proposed that the remainder (i.e., not part of an AOI) of the Site be covered with two (2) feet (ft.) of imported clean fill material to meet the BCP requirements and increase the elevation at areas of the Site, providing an altitude one foot higher than the FEMA flood zone. The details for the cover system were further defined in the Interim Site Management Plan (ISMP) by Stantec dated April 2014.

*Interim Site Management Plan, Stantec April 2014*

An ISMP was developed by Stantec for use during implementation of the work detailed in the IRM Work Plan and redevelopment of the Site. The ISMP provides a detailed description of all procedures required to manage contamination at the Site during completion of IRMs including implementation and management of all Engineering Controls (ECs) and Institutional Controls (ICs) and media monitoring. ISMP activities were implemented during Phase I of redevelopment. Some HFM from the western

portion of the Site and from installation of the sanitary sewer was relocated only within the confines of HFM (i.e., beneath newly constructed buildings). It is noted that approximately 4-inches of asphalt millings generated from milling the former asphalt surfaces in areas AOI 7, IRM 2, and the former trailer park area on the west side of the site, were placed beneath portions of building B-1. The relocated millings totaled approximately 350 cubic yards. These millings were then covered by approximately 2-ft. of HFM to bring the building footprint area up to the appropriate grade for slab construction. SSD system components were installed in Buildings A, B-1 and B-2. The SSD system components installed include sub-slab 4-inch perforated PVC piping connected to solid PVC header pipes, and sub-slab 1/4-inch stainless steel monitoring points for pressure monitoring. Buildings will be evaluated for SVI, or systems will be activated prior to building occupancy.

*Design Phase Investigation Work Plan, LaBella August 2014*

A Design Phase Investigation Work Plan was submitted to the NYSDEC on August 6<sup>th</sup>, 2014 to provide further testing in an effort to reduce the volume of fill material necessary to meet BCP requirements at 130 and 158 Lakeshore Drive. Based on the results of the RI at 130 and 158 Lakeshore Drive, the following five (5) locations were selected for further testing during the Design Phase Investigation:

- Locations within the top 2-ft. that exceeded Part 375 Restricted Residential SCOs:
  - TP-12-10 at 1.5 feet bgs for arsenic (7.3 ppm above Restricted Residential SCOs) and barium (4 ppm above Restricted Residential SCOs)
- Locations at depths greater than 2-ft. that exceeded Part 375 Restricted Residential SCOs:
  - GP-12-1 at 2-4 feet bgs for barium (166 ppm above Restricted Residential SCOs)
- Passive Soil Gas (PSG) samples with high concentrations of total petroleum hydrocarbon (TPH)
  - PSG-63 for TPH, diesel range organics (DRO) (5,818 ng)
- In addition to the above locations, the following samples from depths greater than

2-ft. also identified elevated concentrations of metals (although not above a Part 375-6 SCO):

- GP-28 at 12-13 feet for calcium (40,600 ppm) and magnesium (16,000 ppm)
- GP-12-1 at 2-4 feet bgs for calcium (246,000 ppm)
- TP-12-8 at 6 feet bgs for aluminum (11,300 ppm), calcium (38,000 ppm) and iron (14,000 ppm)

A shallow soil boring investigation was implemented in which thirteen (13) and sixteen (16) soil borings were advanced to 2-feet below ground surface (bgs) at 130 and 158 Lakeshore Drive, respectively to identify areas where the top two feet of material met soil SCGs and did not require a cover system.

Soil borings were advanced to 2-ft. bgs and samples were composited from the 0-2-ft. interval for analyses of TPH, metals, PAHs, pesticides, and PCBs. Samples for VOC analysis were collected from the depth emitting the highest PID reading; otherwise from the bottom of the core sleeve using a TerraCore Soil Sampler to prevent loss of volatiles. Soil borings completed during the Design Phase Investigation were located using a handheld Global Positioning System (GPS) with an accuracy of 10-20 centimeters (Trimble GeoXH with Real Time corrections using a Verizon MiFi Hotspot).

Three (3) locations from the Design Phase Investigation exceeded Part 375 Restricted Residential SCOs; LABSB11 and LABSB12 for barium and LABSB29 for various PAHs. The remaining twenty-six (26) locations did not exceed NYCRR Part 375 Soil Cleanup Objectives and CP-51 Soil Cleanup Guidance for Restricted Residential Use or Protection of Groundwater.

Three (3) additional IRMs were proposed for the three (3) locations of exceedances identified during the Design Phase Investigation, IRM 1, IRM 2, and IRM 3. Refer to Figure 5 for boring locations and IRMs.

The Design Phase Investigation work was detailed in the first IRM Work Plan Addendum dated December 22, 2014, which was approved by the NYSDEC/ NYSDOH in an email dated December 23, 2014.

IRM Work Plan Addendum, LaBella December 22, 2014

The findings of the Design Phase Investigation were summarized in an IRM Work Plan Addendum which proposed three (3) additional IRMs as follows:

<b>IRM</b>	<b>Impacts</b>
1	Metals at 130 Lakeshore Drive
2	PAHs at 158 Lakeshore Drive
3	Metals at 158 Lakeshore Drive

IRM 1 was proposed for excavation to depths of up to 2-ft. bgs and backfill will clean imported material. IRM 2 was proposed to be covered with 2-ft. of imported material. IRM 3 was proposed for excavation to depths of up to 2-ft. bgs and backfill with clean imported material. This Addendum was approved by the NYSDEC in an email on December 23<sup>rd</sup>, 2014.

It is noted that during construction and IRM activities in the summer and fall of 2015, two (2) additional IRMs, IRM 4 and IRM 5, were identified at the Site, as follows:

<b>IRM</b>	<b>Impacts</b>
4	Petroleum at 28 and 30 Lakeshore Drive
5	Petroleum at 158 Lakeshore Drive

In July and August 2015, four (4) underground storage tanks (USTs) were uncovered during Building B-2 construction activities in close proximity to the southern property boundary where the 28 Lakeshore Drive and 30 Lakeshore Drive parcels meet. This area was identified as IRM 4. In December 2015, two (2) USTs were uncovered during the advancements of test pits immediately south of IRM 3. This area was identified as IRM 5. Both IRMs included closure of each UST by removal, associated contaminated soil removal and confirmatory sampling per the requirements specified in the NYSDEC DER-10 guidance document. Refer to Figure 5 for locations of all AOIs and IRMs.

IRM Work Plan Addendum No. 2, LaBella May 20, 2015

A parcel to the north of the Site is identified as NYSDEC Site # #V00238. There is a known chlorinated VOC (CVOC) plume emanating from this adjacent parcel. A planned sewer line for the redevelopment extends along the norther property line. As such, an addendum to properly excavate and dispose of soil from the known CVOC groundwater plume area in conjunction with the installation of a sanitary sewer across 30 Lakeshore Drive was submitted to the NYSDEC. The sewer was installed through the area of CVOC contamination known as AOI 6. AOI6 was identified during the RI which indicated the presence of CVOCs migrating on Site from the northern adjacent property. This addendum proposed installation of clay plugs and anti-seep collars within the sewer trench up and down gradient of the Parkway Plaza Dry Cleaners CVOC plume to prevent to the extent possible further lateral migration of contaminants in groundwater along the sewer line.

Sub-Slab Vapor Mitigation System Specifications- Buildings B-1 and B-2, LaBella July 21, 2015

LaBella submitted sub-slab depressurization (SSD) system designs and specifications for installation at Building B-1 and Building B-2 to the NYSDEC and NYSDOH on July 21, 2015. The designs were subsequently approved in an email from the NYSDEC dated July 30, 2015. The work is incomplete in accordance with the approved work plans and only the sub-slab portions of the SSD systems were installed. A copy of the SSD As-Builts, documenting the sub-slab installed portions, are included in Appendix K and are also included in the CCR and FER. Additional work will need to be completed in order to activate the systems prior to building occupancy and that work will be completed in accordance with the approved design and in accordance with SMP Section 3.3.2.

IRM Work Plan Addendum No. 3, LaBella January 2016

A third IRM Work Plan Addendum was submitted on January 19<sup>th</sup> 2016 to provide an alternative remedial approach for slag, ash, coal and cinders identified in the excavation of IRM 3 at 158 Lakeshore Drive. Twenty-three (23) test pits were advanced proximate IRM 3 to delineate the aerial extent of ash and cinders. An area of approximately 12,000

ft<sup>2</sup> was proposed for 2-ft. of cover material. This addendum was approved in an email on January 28<sup>th</sup>, 2016.

*Sub-Slab Vapor Mitigation System Specifications- Building A, LaBella June 20, 2016*

LaBella submitted SSD system designs and specifications for installation at Building A to the NYSDEC and NYSDOH on June 20<sup>th</sup>, 2016. SSD system as-built drawings are included in the CCR and Supplemental RIR. The design was subsequently approved in an email from the NYSDOH dated September 1, 2016. The work is incomplete in accordance with the approved work plans and only the sub-slab portions of the SSD systems were installed. A copy of the SSD As-Built, documenting the sub-slab installed portions, are included in Appendix K and are also included in the CCR and FER. Additional work will need to be completed in order to activate the systems prior to building occupancy and that work will be completed in accordance with the approved design and in accordance with SMP Section 3.3.2.

*Construction Completion Report, LaBella December, 2016*

LaBella submitted a Construction Completion Report (CCR) in December 2016 documenting the completed IRMs. This document was approved in December 2016.

*Supplemental Remedial Investigation Report, LaBella December, 2016*

LaBella submitted a draft Supplemental RI Report in December 2016 documenting investigative and IRM activities that took place after completion of the RI Report by Stantec (i.e., IRMs and associated addenda and the Design Phase Investigation). This document was approved in December 2016.

## **2.4 Remedial Action Objectives**

The Remedial Action Objectives (RAOs) for the Site as listed in the Decision Document dated December 2016 are as follows:

### **Groundwater**

RAOs for Public Health Protection

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

### **Soil**

RAOs for Public Health Protection

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

### **Soil Vapor**

RAOs for Public Health Protection

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

## **2.5 Remaining Contamination**

### **2.5.1 Soil**

The following table includes remaining soil contamination at the Site.



### Remaining Contamination Samples

AOI/ IRM	Parcel	# Documentation Samples Collected	Samples that Exceed SCGs	Exceedances	# Exceeds POGW <sup>(2)</sup>	# Exceeds Restricted Residential
AOI 1	24, 26, 30 Lakeshore Drive and 25 Booth Street	NA	<ul style="list-style-type: none"> <li>• GP-12-10</li> <li>• GP-12-11</li> <li>• GP-19</li> <li>• GP-34</li> <li>• GP-39</li> <li>• GP-42</li> <li>• GP-44</li> <li>• GP-48</li> <li>• GP-53</li> <li>• GP-78</li> <li>• GP-12-13</li> <li>• GP-13-7<sup>(3)</sup></li> </ul>	<u>Metals:</u> Lead, arsenic, copper, cadmium, mercury <u>SVOCs:</u> benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, beno(k)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, chrysene, dibenzofuran, fluoranthene, phenanthrene, pyrene	NA	12
AOI 2	30 Lakeshore Drive	30	<ul style="list-style-type: none"> <li>• CAN-AOI2-SW4<sup>(1)</sup></li> <li>• CAN-AOI2-SW5<sup>(1)</sup></li> <li>• CAN-AOI2-SW6</li> <li>• CAN-AOI2-SW7</li> <li>• CAN-AOI2-SW8</li> <li>• CAN-AOI2-SW10</li> <li>• CAN-AOI2-SW14<sup>(1)</sup></li> <li>• CAN-AOI2-SW27<sup>(1)</sup></li> </ul>	<u>VOCs:</u> Benzene, ethylbenzene, toluene, m,p-xylene, o-xylene, sec-butylbenzene, methyl tert-butyl ether, n-propylbenzene, isopropylbenzene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene <u>SVOCs:</u> benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, beno(k)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, chrysene, dibenzofuran	8	5
AOI 3	130 Lakeshore Drive	7	None	None	0	0
AOI 4	130 Lakeshore Drive	42	None	None	NA	0

AOI/IRM	Parcel	# Documentation Samples Collected	Samples that Exceed SCGs	Exceedances	# Exceeds POGW <sup>(2)</sup>	# Exceeds Restricted Residential
AOI 5	25 Booth Street	4	None	None	NA	0
AOI 7	158 Lakeshore Drive	4	• <b>TP-12-11</b>	<u>SVOCs</u> : Indeno(1,2,3-cd)pyrene	NA	1
IRM 1	130 Lakeshore Drive	24	None	None	NA	3
IRM 2	158 Lakeshore Drive		• <b>LABSB29</b>	<u>SVOCs</u> : benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene	NA	1
IRM 3	158 Lakeshore Drive	1	None	None	NA	0
IRM 4	28 Lakeshore Drive	24	None	None	0	0
IRM 5	158 Lakeshore Drive	13	• <b>Can-UST 16 Side-1</b>	<u>Metals</u> : Cadmium	0	1

This table includes investigation sample locations and confirmatory sample locations. All Part 375 Restricted Residential SCO exceedances are below cover material (i.e., 2-ft. clean cover, asphalt, or concrete.).

**Bold font indicates the sample exceeds Restricted Residential Use SCOs.**

NA indicates Not Applicable.

(1) Denotes the sample was collected from off-Site.

(2) Per discussions with NYSDEC, Acetone is not a site contaminant of concern and as such acetone detections are not included in the above table.

In addition, the following table represents field screening results greater than 200 ppm.

AOI	# PID Readings Collected	Readings > 200 ppm	PID Reading (ppm)
AOI 2	72	FS-37	395

Nineteen (19) existing on-Site endpoint soil sample locations exceed Site-specific SCGs (i.e., Restricted Residential and Protection of Groundwater where groundwater impacts were present) for SVOCs, metals, and/or VOCs. Acetone is not considered to be a Site contaminant and is not included as remaining contamination. Note that a cover system has been placed over areas of remaining contamination.

Table 1 and Figure 5 summarize the results of all soil samples collected that exceed the Site-specific SCGs at the site after completion of remedial action.

The existing conditions at the Site and off-site are described below:

#### **On-Site**

Historic Fill Materials between 3 and 11 feet in depth exist over a majority of the western portion of the Site. Specifically beneath the 24, 50, 60 and a portion of 100 Lakeshore Drive parcels (former 25 Booth Street, 24, 26, 28 and 30 Lakeshore Drive parcels). In addition HFM was also identified beneath a portion of the 150 Lakeshore Drive parcel (former 158 Lakeshore Drive). The HFM has been identified to contain heavy metals (most notably cadmium, lead, mercury, nickel and copper) and SVOCs and may contain PCBs, pesticides and VOCs. The highest documented concentrations of SVOCs and lead are located beneath the parking garage structure (Building B-1). The highest documented concentrations of cadmium and copper are located east of buildings. In addition, HFM was also identified in the southeastern portion of the Site on the 150 Lakeshore Drive (former 158 Lakeshore Drive) that also identified cadmium and SVOCs.

In addition to the HFM (and it's associated SVOCs and metals), some low-level VOCs and SVOCs were left in-place in the southern central portion of the Site in the Area of AOI 2.

All these material are located beneath the cover material (refer to Figure 4).

#### **Off-Site**

Petroleum impacts were left in-place off-site to the south of AOI-2 as noted in the table above.

## **Utilities**

Utilities necessary to support the development have been installed around western portion of the Site on the 24, 50 and 60 Lakeshore Drive parcels. The utilities include: storm sewer, sanitary sewer, electric, gas, etc. All utilities within these parcels are within or in proximity to HFM and associated SVOCs and metals. In addition a sanitary sewer line is located along the northern portion of the 100 Lakeshore Drive Parcel and there is also HFM (with SVOCs and heavy metals) within this area and in addition, VOCs are also present in the area of the Parkway Cleaners plume.

### **2.5.2 Groundwater**

The on-site groundwater conditions are summarized into two sub-sections below. Specifically, groundwater conditions from on-site sources and groundwater conditions from off-site sources.

#### **On-Site Sources**

Six (6) post-IRM groundwater monitoring wells were installed on February 10-11 and February 26, 2016, developed on March 3, 2016 and sampled on March 22, 2016, and June 22-23, 2016. It should be noted that all pre-IRM monitoring wells have been removed to facilitate IRM excavations and/ or redevelopment. Pre-IRM groundwater monitoring data (i.e., wells installed during the Phase II ESA and/or RI) do not represent conditions post-source removal and are; therefore, not included as remaining contamination. Detected compounds did not exceed NYSDEC Part 703 Groundwater Quality Standards in any of the samples collected during the most recent groundwater sampling in June 2016.

In AOI 2 the pre-IRM well CAN-MW-12-3 identified 1,130.2 ppb total volatile organic compounds (VOCs) in October 2013 and post-IRM well CAN-IRM-MW-12-3 identified 30.88 ppb total VOCs in June 2016. This equates to an approximately 97% decrease in total VOCs. Pre-IRM well CAN-MW-20 identified 254.7 ppb total VOCs in October 2013 and post-IRM well CAN-IRM-MW-20 was non-detect for VOCs in June 2016. This is a 100% decrease in total VOCs.

Groundwater samples from the most recent testing do not exceed the SCGs after completion of the remedial action.

### **Off-Site Source**

The northern adjacent Parkway Cleaners VCP Site #V00238 has been documented to have groundwater VOC impacts migrating onto the Site in the north-central portion of the 100 Lakeshore Drive parcel (former 30 Lakeshore Drive parcel). VOCs identified were, cis-1,2-Dichloroethene (cis-1,2-DCE) and Vinyl Chloride (VC) at concentrations up to 1,100 ppb in a sample collected on October 4, 2013 from MW-69. Groundwater on the date of sampling this well was documented at approximately 7.5 ft. below the ground with the bottom of the well at 13 ft. (note, this equates to a groundwater depth of 9.5 ft. and bottom of well of 13 ft. with current cover material in this area). The extent of this plume is well defined, IRM activities have been undertaken in 2015 to control further plume migration (impervious utility trench plugs, refer to Section 3.3.3). Figure 5A illustrates the impacts from the Parkway Cleaners VCP Site that were identified on Site and these are also summarized in Table 1A, attached.

#### **2.5.3 Soil Vapor**

The potential for remaining soil vapor contamination exists at the Site based on the Remedial Investigation work which identified soil vapor and groundwater contamination through groundwater sampling (refer to Section 2.5.2 above) and soil vapor screening information. Passive soil gas sampling was completed during the RI. There are currently no NYSDEC or NYSDOH soil gas criteria for comparison. However, the following summarizes the passive soil gas sampling data for locations outside of the IRM areas. The RI Report should be referenced for additional details (specifically, Section 3.3, 4.2.2 and Appendix F of the RI Report).

- VOCs were identified in soil gas samples collected along the northern property line of the 100 Lakeshore Drive parcel (former 30 and 130 Lakeshore Drive parcels) in proximity to the Parkway Plaza Dry Cleaner site. Specifically, the following VOCs were identified: Tetrachloroethene (PCE), Trichloroethene (TCE), cis-1,2-Dichloroethene (cis-1,2-DCE), trans-1,2-DCE, Vinyl Chloride and Benzene. In addition, total petroleum hydrocarbon (TPH) results indicated C<sub>5</sub>-C<sub>9</sub> and C<sub>10</sub>-C<sub>15</sub> hydrocarbons as present.

- VOCs and one SVOC were detected in soil gas samples in the southwest portion of the Site, 24 and 50 Lakeshore Drive parcels (former 24, 26 and 28 Lakeshore Drive parcels and former 25 Booth Street parcel). Specifically, the following compounds were detected: TCE, C<sub>10</sub>-C<sub>15</sub> hydrocarbons and Phenanthrene.
- VOCs were detected in soil gas samples in the eastern portion of the Site on the 150 Lakeshore Drive and 40 Muar Street parcels (former 158 Lakeshore Drive parcel) adjacent to the off-site gas station at 162 Lakeshore Drive. Specifically, the following compounds were detected: Benzene, Toluene, and C<sub>5</sub>-C<sub>9</sub> and C<sub>10</sub>-C<sub>15</sub> hydrocarbons.

It should be noted that the IRM soil removal work and off-site remedial work at the Parkway Cleaners site (refer to 2.5.2 above) should reduce and may eliminate the potential for remaining soil vapor contamination.

### **3.0 INSTITUTIONAL AND 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. The following site uses are consistent with the Environmental Easement: Restricted Residential (per 6 NYCRR Part 375-1.8(g)(2)(ii)), Commercial (per 6 NYCRR Part 375-1.8(g)(2)(iii)) and Industrial (per 6 NYCRR Part 375-1.8(g)(2)(iv)). 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) implement, maintain and monitor Engineering Control systems; (2) prevent future exposure to remaining contamination; and, (3) limit the use and development of the site to restricted residential, commercial and industrial 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 IC boundaries include the entire Site and are shown on Figure 6. These ICs are:

- The property may be used for: Restricted Residential (per 6 NYCRR Part 375-1.8(g)(2)(ii)), Commercial (per 6 NYCRR Part 375-1.8(g)(2)(iii)) and Industrial (per 6 NYCRR Part 375-1.8(g)(2)(iv)).;
- All ECs must be operated and maintained as specified in this SMP;
- All ECs must be inspected at a frequency and in a manner defined in the SMP.
- The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the Ontario 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.

- Groundwater and other environmental or public health monitoring must be performed as defined in this SMP;
- Data and information pertinent to site management must be reported at the frequency and in a manner as defined in this SMP;
- All future activities that will disturb remaining contaminated material must be conducted in accordance with this SMP;
- Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in this SMP;
- Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical component of the remedy shall be performed as defined in this SMP;
- 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 the Environmental Easement;
- The potential for vapor intrusion must be evaluated for any buildings developed in the area within the IC boundaries noted on Figure 6, and any potential impacts that are identified must be monitored or mitigated. SSD systems may be installed and activated in accordance with SMP Section 3.3.2 in lieu of evaluation;
- Vegetable gardens and farming on the site are prohibited;

### **3.3 Engineering Controls**

#### **3.3.1 Cover**

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 clean soil, stone, asphalt pavement, concrete-covered sidewalks, and concrete building slabs. Figure 4 presents the location of the final cover system and applicable demarcation layers. A demarcation layer was placed beneath all placed soil/ stone cover (i.e., portions of the Site with existing Site cover do not have a demarcation layer).

A portion of existing soils at former 130 and 158 Lakeshore Drive (portions of current 100 Lakeshore Drive and 150 Lakeshore Drive parcels) tested during the Design



Phase Investigation remains as the final cover. This area was determined to meet Restricted Residential Use SCOs in the top 2-ft. and did not require additional cover material. Refer to Figure 4 for the area of existing topsoil as the final cover. It should be noted that the modifications to the cover system in 2020 included placing some additional stone over the area of existing topsoil (refer to Figure 4). The remainder of the Site received added cover (i.e., 2-ft. imported material, asphalt, and/or concrete).

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) prepared for the site and NYSDOH Generic Community Air Monitoring Plan (CAMP) utilized for the Site are provided in Appendix G.

### 3.3.2 Provisions for Evaluating and Assessing Potential Soil Vapor Intrusion

An evaluation of the potential for soil vapor intrusion will be conducted for future buildings developed on the Site, including provisions for implementing actions recommended to address exposures related to soil vapor prior to occupancy. For the occupied buildings across the Site where there will be a first floor at grade, open air parking garage, additional mitigation measures are not necessary at this time to address the potential for soil vapor intrusion. Should that use change, then Agencies should be notified and a soil vapor intrusion evaluation should be implemented. If an evaluation is completed then concurrent sub-slab, indoor air and outdoor air samples should be collected during the heating season and once the buildings are operating under normal conditions to determine the potential for exposures associated with SVI. If SSD systems are installed in lieu of an evaluation then pressure field extension testing should be performed once the systems are installed and operational to demonstrate that the system, as constructed, is effectively depressurizing beneath the entire building. Either option should be implemented prior to occupying the building and documentation provided to the Agencies.

Sub-slab portions of the SSD system components are installed in Buildings A, B-1, and B-2. As Built drawings of the documented sub-slab portions installed, signed and sealed by a professional engineer, are included in Appendix K. Procedures for operating and maintaining the SSD systems (if completed/activated) are documented in the Operation and Maintenance Plan (refer to Section 5.0 of this SMP). Figure 4 shows the location of the ECs for the site. SSD systems will be installed in future Site buildings, or soil vapor intrusion (SVI) testing will be completed to determine the need for mitigation in each building. SSD system layouts and specifications will be submitted to the NYSDEC and NYSDOH for review and approval prior to construction. Alternatively, a SVI sampling plan will be submitted to NYSDEC and NYSDOH for review and approval.

The SSD systems will remain in place and operational until they are no longer needed to address current or potential exposures related to SVI. The active SSD systems will not be discontinued unless prior written approval is granted by the NYSDEC and the NYSDOH. In the event that SVI monitoring data indicates that the SSD systems may no longer be required, a proposal to discontinue the SSD system will be submitted by the remedial party to the NYSDEC and NYSDOH.

### 3.3.3 Utility Trench Plugs (100 Lakeshore)

A sanitary sewer was installed across the northern portion of the Site in close proximity to the northern property line. The sewer transects the property from west to east and reached a maximum depth of approximately fifteen (15) ft. bgs. The sewer alignment also transected AOI 6, a known area of CVOC contamination migrating on Site from an off Site source to the north. Specifically, the area of CVOC groundwater contamination is on the 100 Lakeshore Drive parcel (former 30 Lakeshore Drive). The sewer was installed at a depth of approximately thirteen (13) feet bgs. in this portion of the Site. In an effort to minimize or eliminate lateral migration of CVOC contaminants along the sewer bedding materials, a clay plug was placed at each end of the AOI 6 area as shown on Figures 4 and 4A.

An IRM Work Plan Addendum was submitted on May 20, 2015 detailing the proposed construction details of each plug and clay source. The clay material and installation method was approved by NYSDEC and did not require chemical testing prior

to import to the Site. The plugs were placed approximately 110 feet apart. Beginning at the trench floor, approximately six (6) vertical feet of flowable fill material was placed surrounding the sewer pipe with an anti-seep collar placed against the outer edges of each flowable fill block. A 2" x 4" keyway was carved into the top of each block of flowable fill to help the overlying clay mate to it. Approximately four (4) vertical feet of compacted clay was placed on top of each flowable fill block and compacted to approximately 95%. Compaction testing of the clay was conducted by CME Associates on August 31, 2015. Testing was performed multiple times on each plug during installation. Compaction results ranged between 95.0-95.3% on the eastern plug and between 94.2-95.3% on the western plug. The moisture content of the clay plugs ranged between 7.2-11.4%. The top of the clay material was installed approximately one (1) foot above the shallow groundwater table. Figure 4 and 4A illustrates the sewer plug as-built details.

#### 3.3.4 Provision for Storm Water Structures

Should redevelopment occur, no soil exceeding protection of groundwater concentrations will remain below stormwater retention basin or infiltration structures. Three (3) storm water filter structures were installed as part of Phase I of development (Underground Sand Filter #1, #2, and #3) installed to depths of approximately 3.5-ft., 2-ft., and 4-ft. bgs, respectively. HFM was identified during the RI in each of the three (3) storm water filter locations to depths of up to 3.2-ft., 1.9-ft., and 2.4-ft. bgs, respectively. Fill material was removed during installation of the storm water filter structures extending to the depths of the structures. Based on the depths of documented HFM and depths of storm water filter structures, all HFM noted in soil borings within the footprint of the storm water filter structures was removed during installation of the structures. In addition, a dry swale was also installed in the new street located on 60 Lakeshore Drive. HFM located in this area area was also excavated and the dry swale includes a waterproof membrane to capture stormwater prior to conveying off-site to the storm sewer system. All stormwater structures (including associated waterproof membranes) were installed in substantial conformance with the ISMP and development drawings which were provided in the IRM Work Plan, specifically Appendix A of the IRMWP.

### 3.3.5 Criteria for Completion of Remediation/Termination of Remedial Systems

Generally, remedial processes are considered complete 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.

#### 3.3.5.1 Cover

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

#### 3.3.5.2 Sub-Slab Depressurization System

Any active SSD system will not be discontinued unless prior written approval is granted by the NYSDEC and NYSDOH. In the event that monitoring data indicates that the SSD system may no longer be required, a proposal to discontinue the SSD system will be submitted by the remedial party to the NYSDEC and NYSDOH. SSD systems are currently operating in Buildings A, B-1 and B-2. Refer to Figure 4B for building locations and Appendix K for as-built drawings of the SSD systems.

## **4.0 MONITORING AND SAMPLING PLAN**

### **4.1 General**

This Monitoring and Sampling Plan describes the measures for evaluating the overall performance and effectiveness of the remedy. This Monitoring and Sampling Plan may only be revised with the approval of the NYSDEC. Details regarding the sampling procedures, data quality usability objectives, analytical methods, etc. for all samples collected as part of site management for the site are included in the Quality Assurance Project Plan provided in Appendix F.

This Monitoring and Sampling Plan describes the methods to be used for:

- Sampling and analysis of all appropriate media (e.g., groundwater, indoor air, soil vapor, soils);
- Assessing compliance with applicable NYSDEC standards, criteria and guidance (SCGs), particularly groundwater standards and Part 375 SCOs for soil; 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 and Sampling Plan provides information on:

- Information on all designed monitoring systems;
- Monitoring well decommissioning procedures; and
- 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 annually. 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 H– 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.

### 4.3 Activated SSD System Monitoring

#### 4.3.1 Activated System Monitoring

Monitoring of the activated SSD system will be performed on a routine basis, as identified in Table D Remedial System Monitoring Requirements and Schedule (see below). Modification to the frequency or sampling requirements will require approval from the NYSDEC. A visual inspection of the complete system will be conducted during each monitoring event. In addition, the SSD system vacuum on the suction side of the fan will be monitored and compared to historic results to confirm proper operation. Unscheduled inspections and/or sampling may take place when a suspected failure of the SSD system has been reported or an emergency occurs that is deemed likely to affect the operation of the system. An alarm system will be installed for each activated SSD system which will provide a visible and audible warning if there is a loss of pressure to the system for any reason. SSD system components to be monitored include, but are not limited to, the components included in Table D below.

**Table D – Activated Remedial System Monitoring Requirements and Schedule**

<b>Remedial System Component</b>	<b>Monitoring Parameter</b>	<b>Operating Range</b>	<b>Monitoring Schedule</b>
SSD System	Pressure	>0.004 "wc	Annual

"wc"= inches of water column

A complete list of components to be inspected is provided in the Inspection Checklist, provided in Appendix H - Site Management Forms. If any equipment readings are not within their specified operation range, any equipment is observed to be malfunctioning or the system is not performing within specifications; maintenance and repair, as per the Operation and Maintenance Plan, is required immediately.

In lieu of activating the SSD systems, a soil vapor intrusion assessment may be conducted to evaluate the need to activate the SSD system, prior to building occupancy. If an evaluation is to be completed, a work plan will be submitted to the NYSDEC and

NYSDOH for review and approval and air samples will be collected during the heating season once the buildings are operating under normal conditions to determine the potential for exposures associated with SVI. If sub-slab SSD systems are activated, pressure field extension testing will be performed once the systems are installed and operational to demonstrate that the system, as constructed, is effectively depressurizing beneath the entire building. Implementation of either option will be documented and provided to the NSYDEC and NYSDOH.

#### **4.4 Post-Remediation Media Monitoring and Sampling**

##### **4.4.3 Well Decommissioning**

The NYSDEC will be notified prior to any repair or decommissioning of any monitoring well for the purpose of replacement, and the repair or decommissioning and replacement process will be documented in the subsequent Periodic Review Report. Well decommissioning without replacement will be done only with the prior approval of the NYSDEC. Well abandonment will be performed in accordance with NYSDEC's guidance entitled "CP-43: Groundwater Monitoring Well Decommissioning Procedures." Monitoring wells that are decommissioned because they have been rendered unusable will be replaced in kind in the nearest available location, unless otherwise approved by the NYSDEC.



## **5.0 OPERATION AND MAINTENANCE PLAN**

### **5.1 General**

This Operation and Maintenance Plan provides a brief description of the measures necessary to operate, monitor and maintain the mechanical components of the remedy selected for the site. This Operation and Maintenance Plan:

- Includes the procedures necessary to allow individuals unfamiliar with the site to operate and maintain the SSD systems;
- Will be updated periodically to reflect changes in site conditions or the manner in which the SSD systems are operated and maintained.

Further detail regarding the Operation and Maintenance of the SSD systems are provided in Appendix I - Operation and Maintenance Manual. A copy of this Operation and Maintenance Manual, along with the complete SMP, is to be maintained at the site. This Operation and Maintenance Plan is not to be used as a stand-alone document, but as a component document of this SMP.

The BCP applicant will be responsible for ensuring the system is operating and that maintenance personnel are trained on the system components and operation. Agency reporting requirements are provided in Section 7.0.

### **5.2 Operation and Maintenance of SSD System**

The following sections provide a description of the operations and maintenance of the SSD systems. As-built drawings of the SSD system installed components are included as Appendix K.

#### **5.2.1 Routine System Operation and Maintenance**

Annual monitoring of the Site's SSD systems will be performed to ensure that the systems are operating properly. A visual inspection of the accessible portions of the

systems will be conducted during each monitoring event. SSD system components to be visually inspected include: the vent fans (if accessible), system piping, system wiring, and system alarms. In addition, the SSD system vacuum on the suction side of the fan will be monitored to confirm operation is consistent with historic readings.

In the event that a vent fan appears to be malfunctioning, or if piping or wiring appears damaged, the component(s) in question should be promptly repaired or replaced, following the manufacturer's recommendations and instructions. Vent fan failure(s), repair(s), replacement(s), and/or operational problems should be documented and included with the annual certification. Installation and operating instructions for RadonAway GP series fans are included in Appendix I- Operation and Maintenance Plan.

#### 5.2.2 Non-Routine Operation and Maintenance

In the event that the alarm system is activated, applicable maintenance and repairs will be conducted as specified in the Operation and Maintenance Plan. Any interruptions to operation of the SSD system and any repairs made will be noted in the PRR.

#### 5.2.3 System Monitoring Devices and Alarms

Each SSD system has its own warning device to indicate that the system is not operating properly. In the event that warning device is activated, applicable maintenance and repairs will be conducted, as specified in the Operation and Maintenance Plan, and the SSD system will be restarted. In the event the alarm continues, the fan should be evaluated and the manufacturer contacted or a mitigation contractor (e.g., radon mitigation specialist) should be contacted for servicing the fan. Operational problems will be noted in the Periodic Review Report to be prepared for that reporting period.

## **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.

This section provides a summary of vulnerability assessments that will be conducted for the site during periodic assessments, and briefly summarizes the vulnerability of the site and/or engineering controls to severe storms/weather events and associated flooding.

### **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).

#### 6.2.1 Timing of Green Remediation Evaluations

For major remedial system components, green remediation evaluations and corresponding modifications will be undertaken as part of a formal Remedial System Optimization (RSO), or at any time that the Project Manager feels appropriate, e.g. during significant maintenance events or in conjunction with storm recovery activities.

Modifications resulting from green remediation evaluations will be routinely implemented and scheduled to occur during planned/routine operation and maintenance activities. Reporting of these modifications will be presented in the PRR.

#### 6.2.2. Remedial Systems

Remedial systems will be operated properly considering the current site conditions to conserve materials and resources to the greatest extent possible. Consideration will be given to operating rates and use of reagents and consumables. Spent materials will be sent for recycling, as appropriate.

#### 6.2.3 Building Operations

Structures including buildings and sheds will be operated and maintained to provide for the most efficient operation of the remedy, while minimizing energy, waste generation and water consumption.

#### 6.2.4 Frequency of System Checks, Sampling and Other Periodic Activities

Transportation to and from the Site and use of consumables in relation to visiting the Site in order to conduct system checks and or collect samples and shipping samples to a laboratory for analyses have direct and/or inherent energy costs. The schedule and/or means of these periodic activities have been prepared so that these tasks can be

accomplished in a manner that does not impact remedy protectiveness but reduces expenditure of energy or resources.

#### 6.2.5 Metrics and Reporting

As discussed in Section 7.0 and as shown in Appendix H– Site Management Forms, information on energy usage, solid waste generation, transportation and shipping, water usage and land use and ecosystems will be recorded to facilitate and document consistent implementation of green remediation during site management and to identify corresponding benefits; a set of metrics has been developed.

### **6.3 Remedial System Optimization**

A Remedial Site Optimization (RSO) study will be conducted any time that the NYSDEC or the remedial party requests in writing that an in-depth evaluation of the remedy is needed. An RSO may be appropriate if any of the following occur:

- The remedial actions have not met or are not expected to meet RAOs in the time frame estimated in the Decision Document;
- The management and operation of the remedial system is exceeding the estimated costs;
- The remedial system is not performing as expected or as designed;
- Previously unidentified source material may be suspected;
- Plume shift has potentially occurred;
- Site conditions change due to development, change of use, change in groundwater use, etc.;
- There is an anticipated transfer of the site management to another remedial party or agency; and
- A new and applicable remedial technology becomes available.

An RSO will provide a critique of a site's conceptual model, give a summary of past performance, document current cleanup practices, summarize progress made toward the site's cleanup goals, gather additional performance or media specific data and information and provide recommendations for improvements to enhance the ability of the present system to reach RAOs or to provide a basis for changing the remedial strategy.

The RSO study will focus on overall site cleanup strategy, process optimization and management with the intent of identifying impediments to cleanup and improvements to site operations to increase efficiency, cost effectiveness and remedial time frames. Green remediation technology and principals are to be considered when performing the RSO.

## **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 H. 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 E and summarized in the Periodic Review Report.

**Table E- Schedule of Interim Monitoring/Inspection Reports**

<b>Task/Report</b>	<b>Reporting Frequency*</b>
Periodic Review Report	Annually, or as otherwise determined by the Department

\* 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);
- Type of samples collected (e.g., sub-slab vapor, indoor air, outdoor air, etc);
- Copies of all field forms completed (e.g., well sampling logs, chain-of-custody documentation, etc.);
- Sampling results in comparison to appropriate standards/criteria;
- A figure illustrating sample type and sampling locations;
- Copies of all laboratory data sheets and the required laboratory data deliverables required for all points sampled (to be submitted electronically in the NYSDEC-identified format);
- Any observations, conclusions, or recommendations; and
- A determination as to whether contaminant conditions have changed since the last reporting event.

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).

Data will be reported in digital format as determined by the NYSDEC. Currently, data is to be supplied electronically and submitted to the NYSDEC EQuIS™ database in accordance with the requirements found at this link <http://www.dec.ny.gov/chemical/62440.html>.

## **7.2 Periodic Review Report**

A Periodic Review Report (PRR) will be submitted to the Department beginning eighteen (18) months after the Certificate of Completion is issued. After submittal of the initial Periodic Review Report, the next PRR shall be submitted annually 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 D -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.
- Data summary tables and graphical representations of contaminants of concern by media (groundwater, soil vapor, etc.), which include a listing of all compounds analyzed, along with the applicable standards, with all exceedances highlighted. These will include a presentation of past data as part of an evaluation of contaminant concentration trends.
- Results of all analyses, copies of all laboratory data sheets, and the required laboratory data deliverables for all samples collected during the reporting period will be submitted in digital format as determined by the NYSDEC. Currently, data is supplied electronically and submitted to the NYSDEC EQuIS™ database in accordance with the requirements found at this link: <http://www.dec.ny.gov/chemical/62440.html>.
- A site evaluation, which includes the following:
  - The compliance of the remedy with the requirements of the site-specific RAWP, ROD or 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 for the media being monitored;
  - Recommendations regarding any necessary changes to the remedy and/or Monitoring; 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 Professional Engineer licensed to practice in New York State 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 generally accepted engineering practices; and*
- *The information presented in this report is accurate and complete.*
- *The assumptions made in the qualitative exposure assessment remain valid.*

*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.”*

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

The Periodic Review Report will be submitted, in electronic format, to the NYSDEC Central Office, 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.

### **7.4 Remedial Site Optimization Report**

In the event that an RSO is to be performed (see Section 6.3, upon completion of an RSO, an RSO report must be submitted to the Department for approval. A general outline for the RSO report is provided in Appendix J. The RSO report will document the research/ investigation and data gathering that was conducted, evaluate the results and facts obtained, present a revised conceptual site model and present recommendations. RSO recommendations are to be implemented upon approval from the NYSDEC. Additional work plans, design documents, HASPs etc., may still be required to implement the

recommendations, based upon the actions that need to be taken. A final engineering report and update to the SMP may also be required.

The RSO report will be submitted, in electronic format, to the NYSDEC Central Office, Regional Office in which the site is located, Site Control and the NYSDOH Bureau of Environmental Exposure Investigation.

## **8.0 REFERENCES**

6NYCRR Part 375, Environmental Remediation Programs. December 14, 2006.

NYSDEC DER-10 – “Technical Guidance for Site Investigation and Remediation”.

NYSDEC, 1998. 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).

Interim Site Management Plan, Prepared by Stantec Consulting Services, Inc. dated April 2014

Interim Remedial Measures Work Plan Prepared by Stantec Consulting Services, Inc. dated April 2014

Remedial Investigation Report, Prepared by Stantec Consulting Services, Inc. dated April 2014

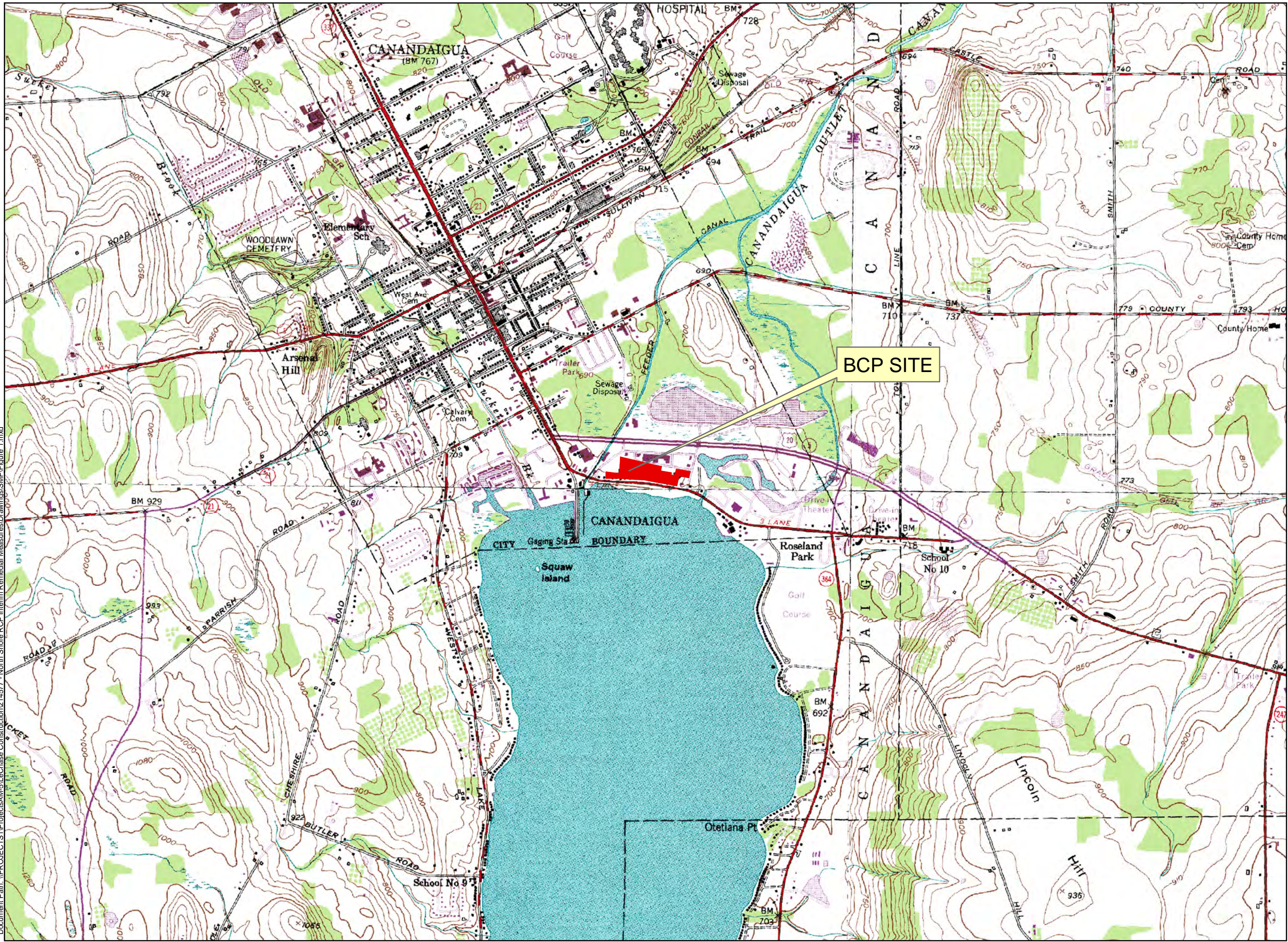
Construction Completion Report, Prepared by LaBella dated December 2016

Supplemental Remedial Investigation Report, Prepared by LaBella dated December 2016

## FIGURES



Document Path: \\PROJECTS\\Projects\\AM\\S\\LeChase Construction\\214577 - North Shore BCP Interim Remedial Measures\\Drawings\\SMP\\Figure 1.mxd



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**Site Management Plan**  
  
**Canandaigua  
Multi-Brownfield Site,  
New York**  
  
**NYSDEC  
BCP #C835025**

**Site Location Map**  
  
DECEMBER 14, 2016

02,000  
Feet  
1 inch = 2,000 feet  
Intended to print as 11x17

FIGURE 1

214577



Document Path: \\PROJECTS\\Projects\\AM-5\\LeChase Construction\\214577 - North Shore RCP Interim Remedial Measures\\Drawings\\SMP\\Figure 2- BCP Site.mxd



Current Tax Map ID (Former Tax Map ID)	Current Street Address (Former Street Address)
84.18-1-10.1 - (Formerly part of 84.18-1-10)	150 Lakeshore Drive - (Formerly part of 158 Lakeshore Drive)
84.18-1-10.2 - (Formerly 84.18-1-10)	40 Muar Street - (Formerly 158 Lakeshore Drive)
84.18-1-46 - (Formerly part of 84.18-1-15 & all of 84.18-1-13)	100 Lakeshore Drive - (Formerly part of 30 Lakeshore & all of 130 Lakeshore Drive)
84.18-1-47 - (Formerly part of 84.18-1-17; part of 84.18-1-15 part of 84.18-1- 18 & all of 84.18-1-19)	50 Lakeshore Drive - (Formerly part of 25 Booth, part of 30 Lakeshore Drive part of 26 Lakeshore Drive & all of 28 Lakeshore Drive)
84.18-1-48 - (Formerly all of 84.18-1-20 & part of 84.18-1-19)	24 Lakeshore Drive - (Formerly part of 24 & 26 Lakeshore Drive)
84.18-1-49 - (Formerly part of 84.18-1-17 & all of 84.18-1-15)	60 Lakeshore Drive - (Formerly part of 25 Booth Street & 30 Lakeshore Drive)

Site Management Plan

Canandaigua  
Multi-Brownfield Site,  
New York

NYSDEC  
BCP #C835025

Site Layout Map

DECEMBER 14, 2016

0 75 150  
Feet  
1 inch = 75 feet  
Intended to print on ARCH D

Site boundaries obtained from survey  
completed by Venezia dated August 12, 2015.

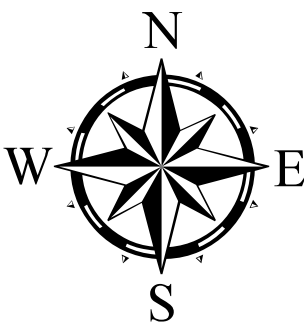


FIGURE 2

214577



Document Path: \\PROJECTS\\1\\Projects\\AM-5\\LeChase Construction\\214577 - North Shore RCP Interim Remedial Measures\\Drawings\\SMP\\Figure 3 - Cross Section Key.mxd

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Site Management Plan

Canandaigua  
Multi-Brownfield Site,  
New York

NYSDEC  
BCP #C835025

Cross Section Key

AS-BUILT  
DECEMBER 14, 2016



It is a violation of New York Education Law Article 145 Sec.7209, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered, the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

0 75 150  
Feet

1 inch = 75 feet  
Intended to print on ARCH D

Site boundaries obtained from survey  
completed by Venezia dated August 12, 2015.

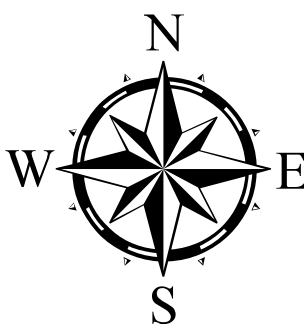


FIGURE 3A

214577

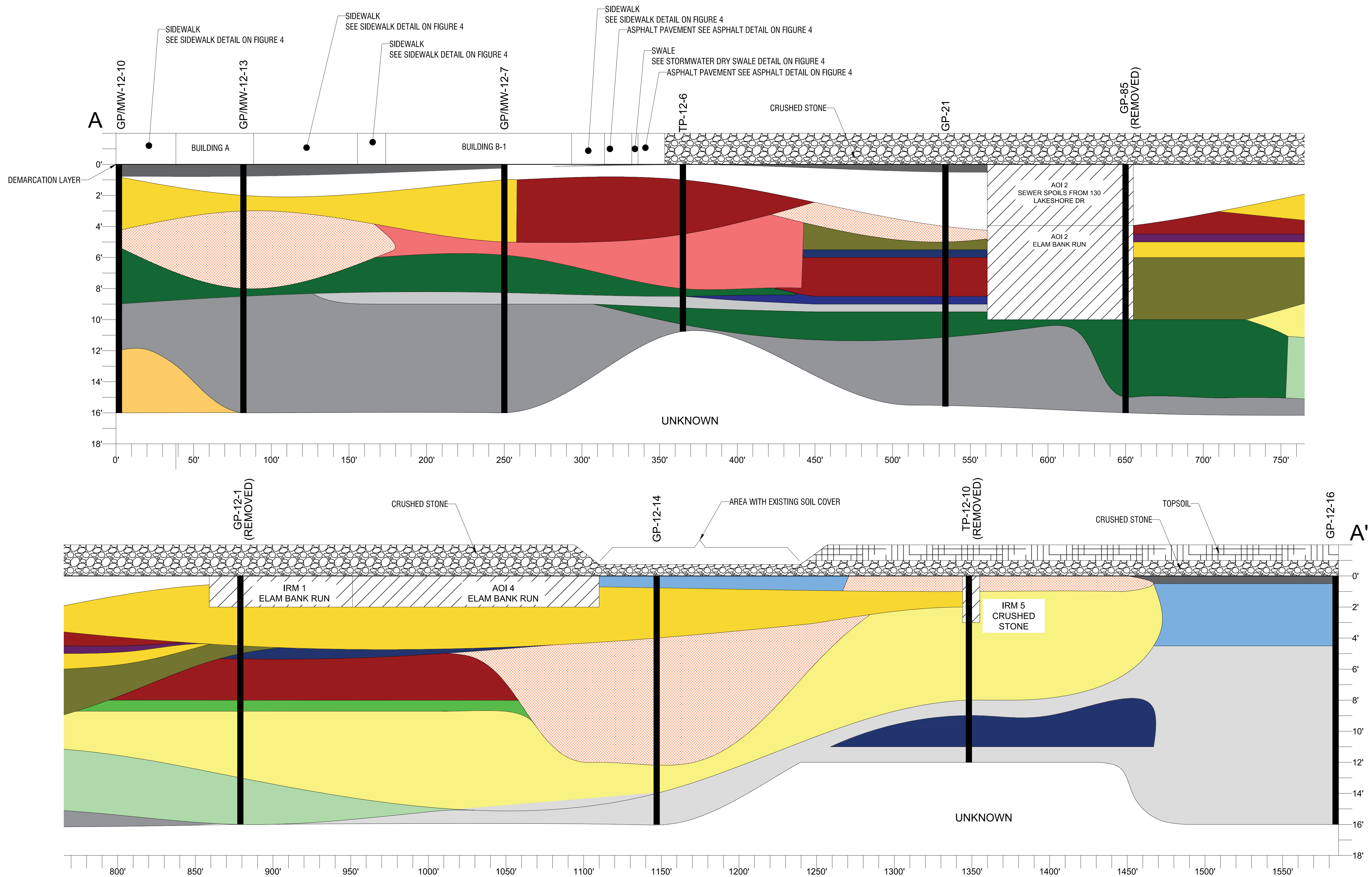
Legend

- Boring/ Well (RI, Stantec)
- ▲ Excavation Sample (RI, Stantec)
- Product Sample (RI, Stantec)
- Soil Boring (RI, Stantec)
- ◆ Soil Gas (RI, Stantec)
- Surface Soil (RI, Stantec)
- Test Pit (RI, Stantec)
- ◆ Soil Boring (Design Phase Investigation, LaBella)
- IRM Documentation Sample (Floor)
- IRM Documentation Sample (Sidewall)
- Interim Remedial Measure Excavation
- Area of Concern Excavation
- BCP Site Parcels
- BCP Parcel Boundaries

Notes:

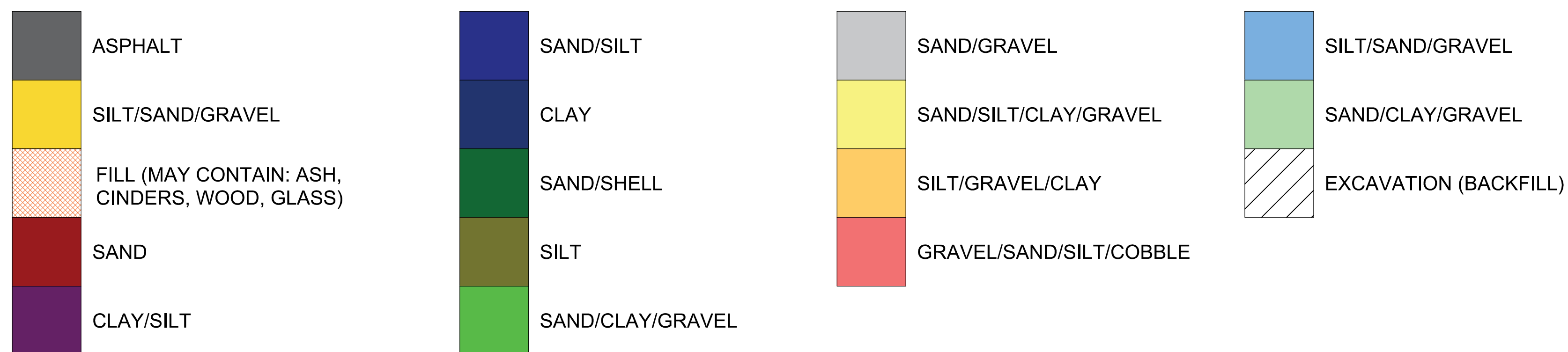
- 1) Confirmatory soil sample identification nomenclature is "CAN-AOI/IRM#-SW#" for sidewall samples and "CAN-AOI/IRM#-F#" for floor samples. The figure excludes the "CAN-AOI/IRM#" prefix for all samples.
- 2) Sample locations and excavation limits were collected using a Carlson S320 GPS with horizontal and vertical accuracy of 0.1-ft. and 0.2-ft., respectively.
- 3) Aerial image obtained from Ontario County 2012 and may not represent current site conditions.
- 4) Site boundaries obtained from survey completed by Venezia dated August 12, 2015.
- 5) Refer to Figures 3B and 3C for cross sections.



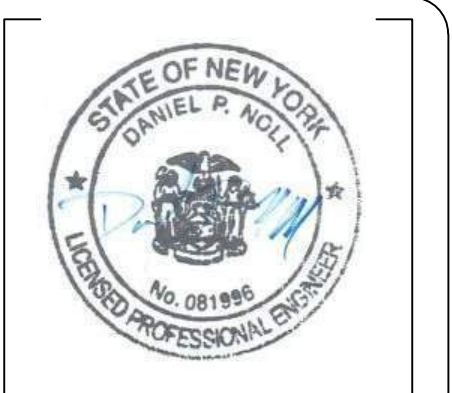


NOTES:

- 1) VERTICAL DEPTHS IN FEET BELOW GROUND SURFACE (BGS) PRE-COVER.
- 2) HORIZONTAL DEPTHS IN FEET FROM FIRST REFERENCED SOIL BORING.
- 3) CROSS SECTIONS REPRESENT AN INTERPRETATION OF CUMULATIVE REMEDIAL INVESTIGATION ACTIVITIES BT STANTEC AS SUMMARIZED IN THE APRIL 2014 REMEDIAL INVESTIGATION REPORT, AND POST-INTERIM REMEDIAL MEASURE CONDITIONS.



NO.	REVISION	BY	DATE



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PROJECT/CLIENT  
SITE MANAGEMENT PLAN  
CANANDAIGUA MULTI-BROWNFIELD SITE,  
NEW YORK  
NYSDEC  
BCP #C835025

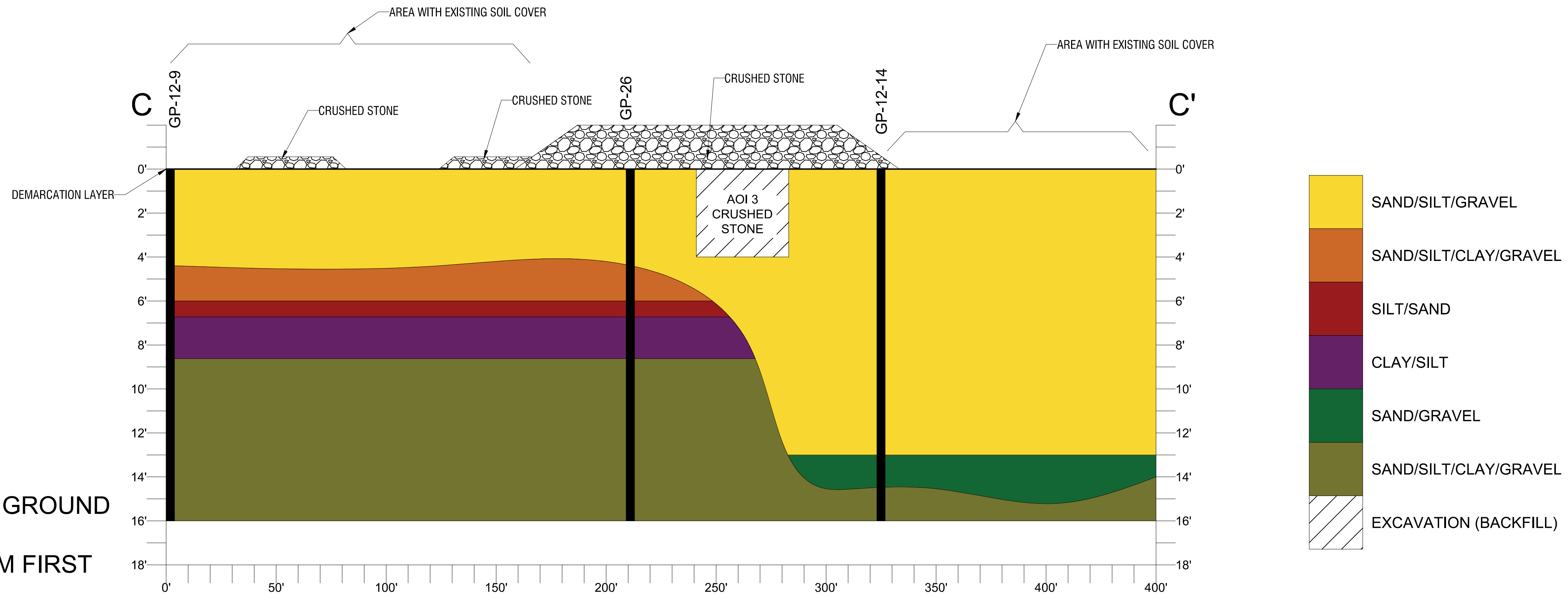
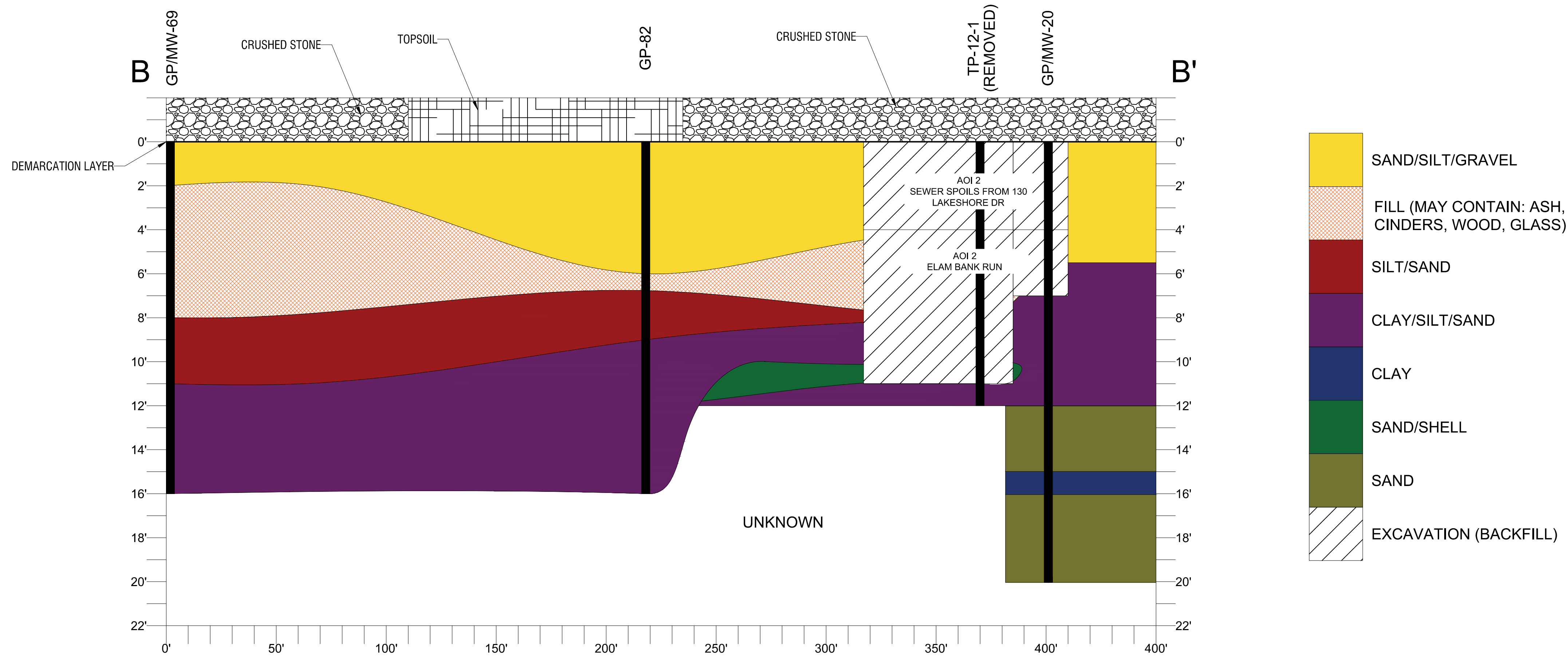
DRAWING TITLE  
AS-BUILT CROSS SECTION A-A'  
ISSUED FOR  
AS-BUILT  
DESIGNED BY: DRP  
DRAWN BY: DRP  
REVIEWED BY: DRP  
DATE: NOVEMBER 2, 2020  
PROJECT: CANANDAIGUA MULTI-BROWNFIELD SITE, NEW YORK  
SCALE: AS SHOWN

PROJECT/DRAWING NUMBER  
214577  
FIGURE 3B



NOTES:

- 1) VERTICAL DEPTHS IN FEET BELOW GROUND SURFACE (BGS) PRE-COVER.
- 2) HORIZONTAL DEPTHS IN FEET FROM FIRST REFERENCED SOIL BORING.
- 3) CROSS SECTIONS REPRESENT AN INTERPRETATION OF CUMULATIVE REMEDIAL INVESTIGATION ACTIVITIES BT STANTEC AS SUMMARIZED IN THE APRIL 2014 REMEDIAL INVESTIGATION REPORT, AND POST-INTERIM REMEDIAL MEASURE CONDITIONS.



NO.	REVISION	BY	DATE
1			
2			
3			
4			
5			
6			
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PROJECT/CLIENT

SITE MANAGEMENT PLAN

CANANDAIGUA MULTI-BROWNFIELD SITE,  
NEW YORK  
NYSDEC  
BCP #C835025

DRAWING TITLE

AS-BUILT CROSS SECTION B-B' & C-C'

ISSUED FOR

AS-BUILT

DESIGNED BY: ---

DRAWN BY: ---

DATE: NOVEMBER 2, 2020

REVIEWED BY: ---

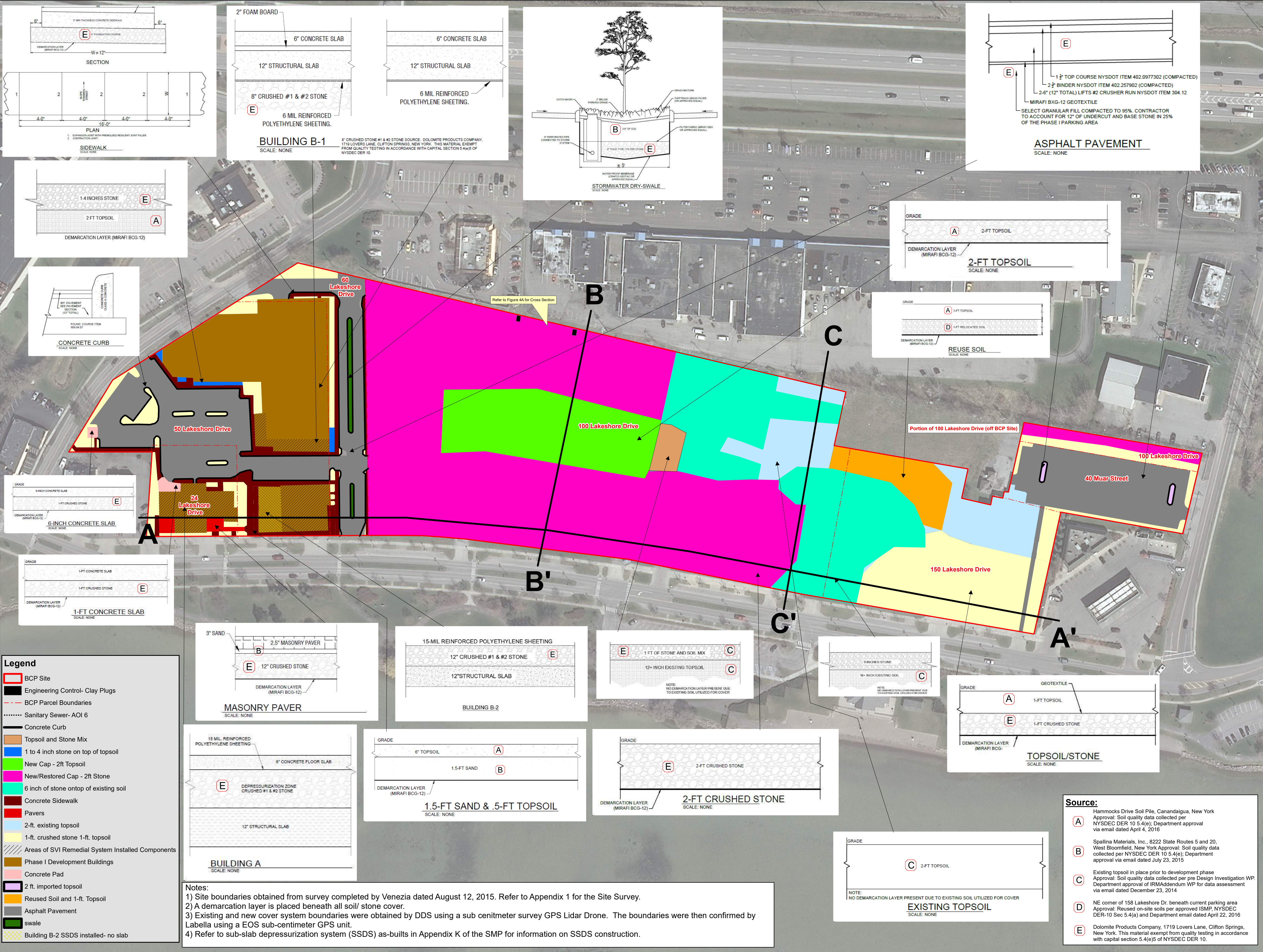
DATE: ---

PROJECT/DRAWING NUMBER

214577

FIGURE 3C





**Site Management Plan**

**Canandaigua  
Multi-Brownfield Site,  
New York**

**NYSDEC  
BCP #C835025**

**Engineering Controls  
Cover Systems**

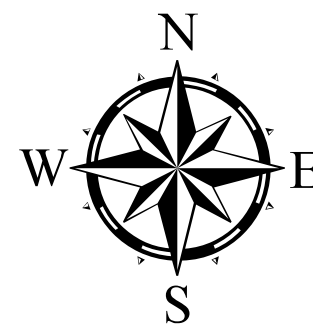
**AS-BUILT  
NOVEMBER 2, 2020**



It is a violation of New York Education Law Article 145 Sec.7209, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered; the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

0 75 150  
Feet

1 inch = 75 feet  
Intended to print as ARCH D  
Site boundaries obtained from survey  
completed by Venezia dated August 12, 2015.



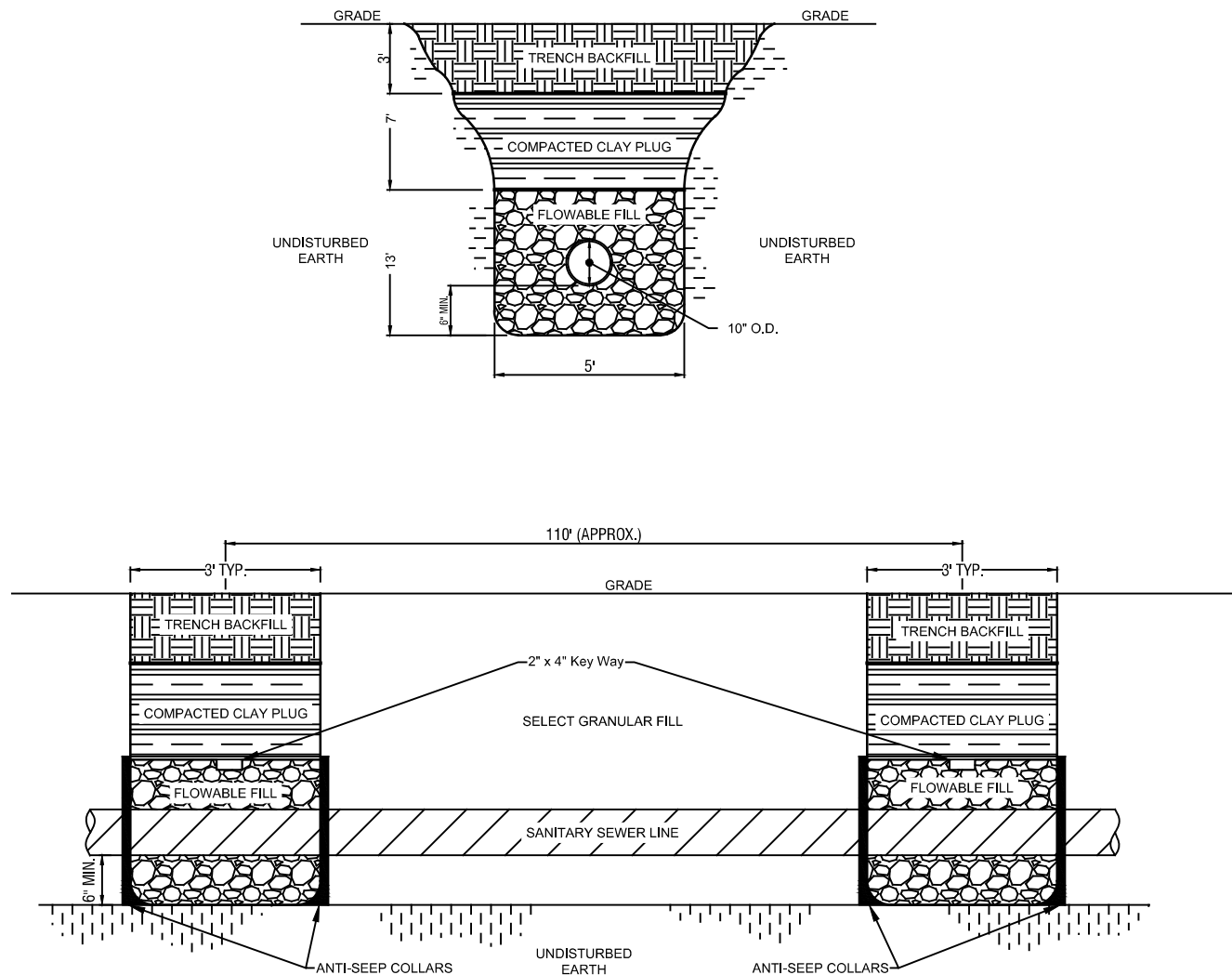
**FIGURE 4**

**214577**

**Source:**

- A** Hammocks Drive Soil Pile, Canandaigua, New York Approval: Soil quality data collected per NYSDEC DER 10.5.4(e); Department approval via email dated April 4, 2016
- B** Spallina Materials, Inc., 8222 State Routes 5 and 20, West Bloomfield, New York Approval: Soil quality data collected per NYSDEC DER 10.5.4(e); Department approval via email dated July 23, 2015
- C** Existing topsoil in place prior to development phase Approval: Soil quality data collected per pre Design Investigation WP. Department approval of IRMAAddendum WP for data assessment via email dated December 23, 2014
- D** NE corner of 158 Lakeshore Dr. beneath current parking area Approval: Reused on-site soils per approved ISMP. NYSDEC DER-10 Sec 5.4(a) and Department email dated April 22, 2016
- E** Dolomite Products Company, 1719 Lovers Lane, Clifton Springs, New York. This material exempt from quality testing in accordance with capital section 5.4(e)S of NYSDEC DER 10.





1 SANITARY SEWER LINE BEDDING DETAILS  
SCALE: NONE

NO.	REVISIONS

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CANANDAIGUA NORTH SHORE BCP SITE  
NYSDEC SITE #C835025  
**SITE MANAGEMENT PLAN**

ENGINEERING CONTROLS -  
TRENCH PLUGS  
ISSUED FOR  
**AS-BUILT**  
DATE: MARCH, 2016  
DESIGNED BY: [ ]  
DRAWN BY: [ ]  
CHECKED BY: [ ]

PROJECT/DRAWING NUMBER  
2151037  
**FIGURE 4A**



Document Path: \\PROJECTS\\Projects\\AM-5\\LeChase Construction\\2181278 - Pinnacle North Ph II Dev\\Drawings\\SMP Update\\Figure 4B Engineering Controls SSDS.mxd



**Site Management Plan**

**Canandaigua  
Multi-Brownfield Site,  
New York**

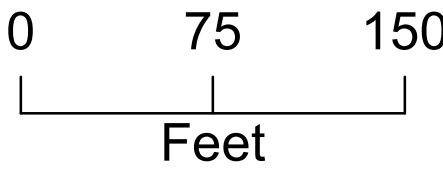
**NYSDEC  
BCP #C835025**

**Engineering Control -  
Sub-Slab  
Depressurization Systems**

**AS-BUILT  
NOVEMBER 2, 2020**

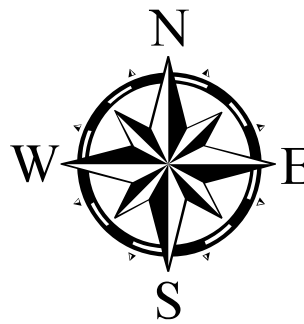


It is a violation of New York Education Law Article 145 Sec.7209, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered; the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.



**1 inch = 75 feet  
Intended to print as ARCH D**

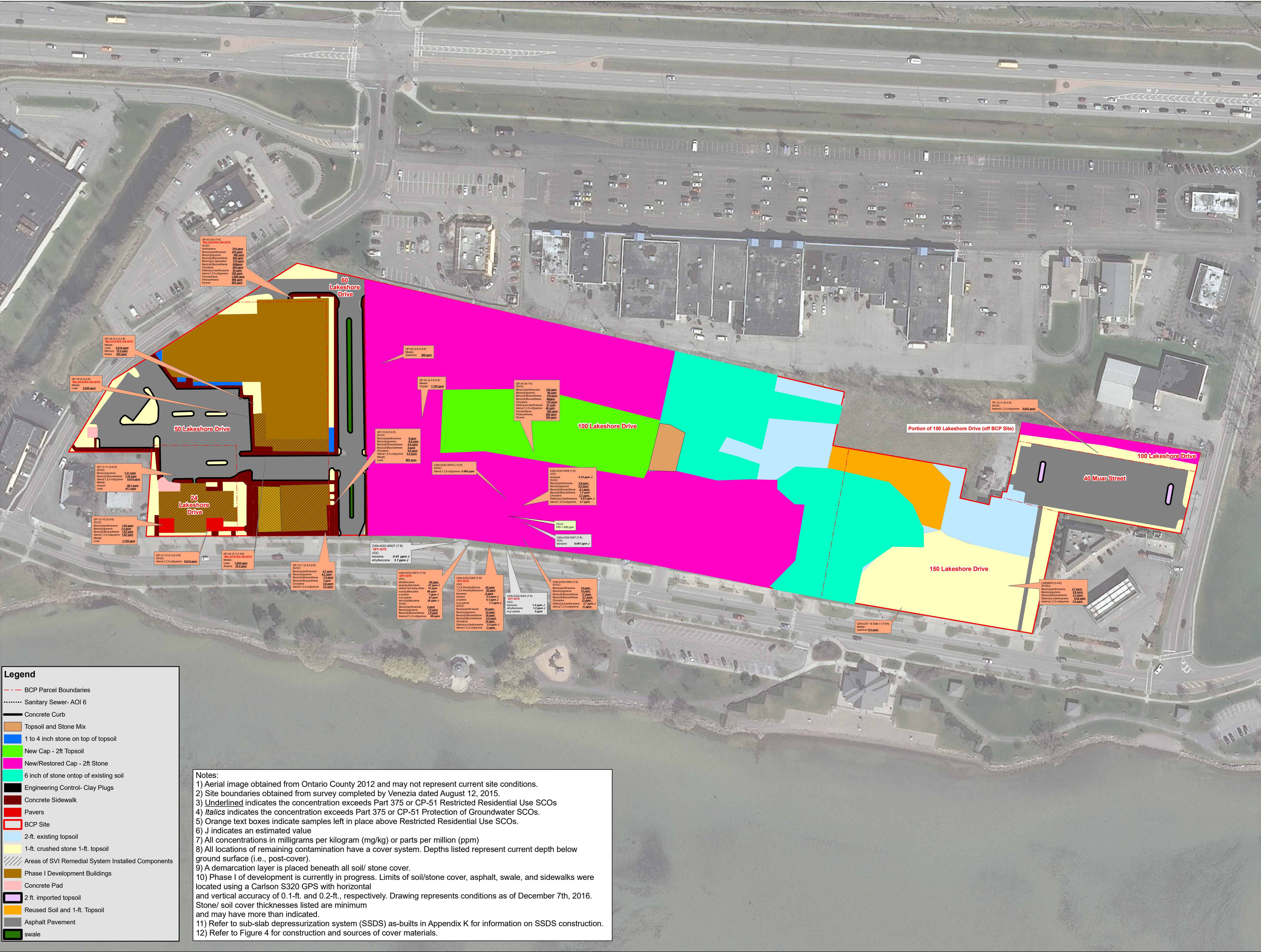
Site boundaries obtained from survey completed by Venezia dated August 12, 2015.



**FIGURE 4B**

**214577**





Site Management Plan

Canandaigua  
Multi-Brownfield Site,  
New York

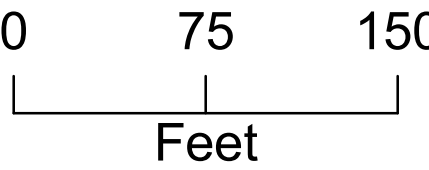
NYSDEC  
BCP #C835025

Remaining Contamination - Soil

AS-BUILT  
NOVEMBER 2, 2020



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1 inch = 75 feet  
Intended to print as ARCH D  
Site boundaries obtained from survey completed by Venezia dated August 12, 2015.

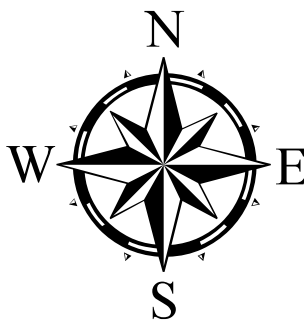


FIGURE 5

214577






- 1) Aerial image obtained from Ontario County 2012 and may not represent current site conditions.
- 2) Site boundaries obtained from survey completed by Venezia dated August 12, 2015.
- 3) Concentrations in micrograms per liter (ug/L) or parts per billion (ppb).
- 4) Figure represents detected chlorinated volatile organic compounds (CVOCs) during the most recent sampling of each monitoring well shown. Figure does not include results for parameters other than CVOCs. ND indicates non-detect for CVOCs.



Document Path: \\PROJECTS\\1\\Projects\\AM-5\\LeChase Construction\\214577 - North Shore RCP Interim Remedial Measures\\Drawings\\SMP\\Figure 6 - ICs ECs.mxd



**Legend**

-  Institutional Control Boundaries
-  BCP Site
-  BCP Parcel Boundaries

**Notes:**

- 1) Aerial image obtained from Ontario County 2012 and may not represent current site conditions.
- 2) Site boundaries obtained from survey completed by Venezia dated August 12, 2015.
- 3) Institutional Controls apply to the entire BCP site.

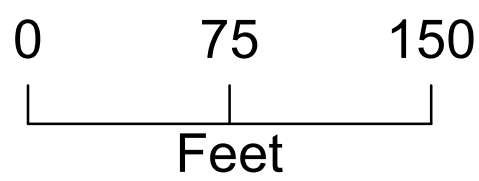
**Site Management Plan**

**Canandaigua  
Multi-Brownfield Site,  
New York**

**NYSDEC  
BCP #C835025**

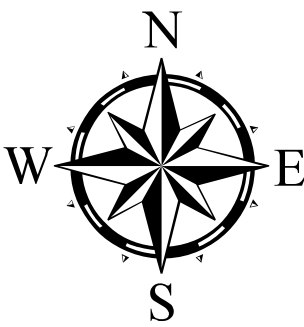
**Institutional Control Boundaries**

**DECEMBER 14, 2016**

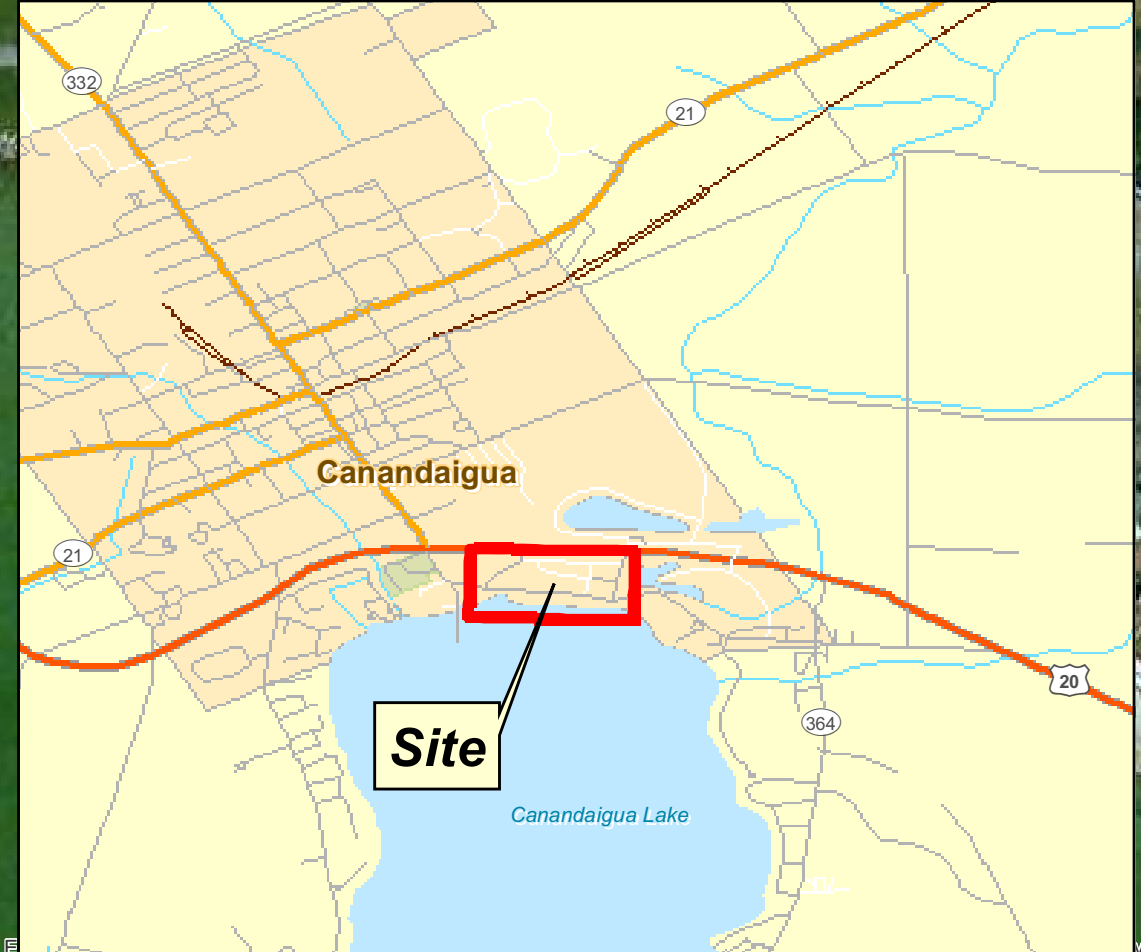


1 inch = 71 feet  
Intended to print on ARCH D

Site boundaries obtained from survey  
completed by Venezia dated August 12, 2015.







Note:

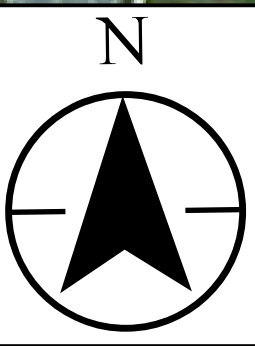
1. Response to NYSDEC Comments 02-2014

**Figure 7 -  
Groundwater Elevation Contour Map - August 26, 2013  
Canandaigua Multi-Brownfield Site Redevelopment Project**



0 40 80 160 240 Feet





**Geographic Information Systems**

Stantec Consulting  
61 Commercial Street - Suite 100  
Rochester, NY 14614  
Phone 585.475.1440 Fax 585.272.1814  
www.stantec.com  
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0 40 80 160 240  
Feet

NOTE:  
1. RESPONSE TO NYSDEC COMMENTS 02-2014

**Figure 8 -**  
**Groundwater Elevation Contour Map - October 23, 2013**  
**Canandaigua Multi-Brownfield Site Redevelopment Project**



Document Path: \\PROJECTS\\Projects\\AM-5\\eChase Construction\\214577 - North Shore BCP Interim Remedial Measures\\Drawings\\SMP\\Figure 9- Air Monitoring Locations.mxd



**Legend**

BCP Site

BCP Parcel Boundaries

- Notes:
- 1) Aerial image obtained from Ontario County 2012 and may not represent current site conditions.

2) Site boundaries obtained from survey completed by Venezia dated August 12, 2015.

3) Wind direction is generally towards the southeast. Air monitoring locations to be determined prior to initiating work.

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Site Management Plan

Canandaigua  
Multi-Brownfield Site,  
New York

NYSDEC  
BCP #C835025

Air Monitoring Locations

DECEMBER 14, 2016

0

150

Feet

1 inch = 150 feet

Intended to print as 11x17

Site boundaries obtained from survey  
completed by Venezia dated August 12, 2015.

N

E

S

W

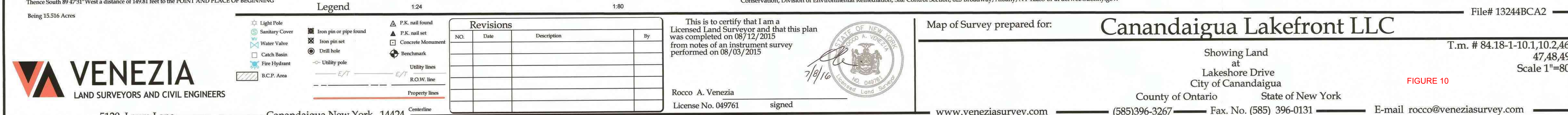
FIGURE 9

214577



Lands of Domenica Cusimano by Jack Anderson being  
Ontario County filed map # 2740.

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## TABLES

Canandaigua Multi Brownfield Site  
Lakeshore Drive and Booth Street, Canandaigua, New York  
NYSDEC BCP Site #C835025  
LaBella Project No. 214577  
Table 1  
Remaining Soil Contamination

FORMER PROPERTY ADDRESS	6NYCRR - 375-6.8(b) Soil Cleanup - Protection of Groundwater	6NYCRR - 375-6.8(b) Soil Cleanup - Restricted Residential Use	25 Booth Street				24 Lakeshore Drive		26 Lakeshore Drive	158 Lakeshore Drive		
CURRENT PROPERTY ADDRESS			50 Lakeshore Drive		60 Lakeshore Drive		24 Lakeshore Drive			150 Lakeshore Drive		100 Lakeshore Drive
SAMPLE ID			GP-34	GP-39	GP-78	GP-53	GP-12-10	GP-12-11	GP-12-13	CAN-UST Side-1	LABSB29	TP-12-11
SAMPLE DEPTH (FT. BGS)			3.7-4.3	3.2-4.2	3-3.5	6.5-7	3-5	3-5	4.3-6.3	7-8	2-4	6.3
METALS												
Arsenic	16	16	16.5	--	--	--	--	58.1	--	--	--	--
Barium	820	400	--	--	--	--	--	--	--	--	--	--
Chromium	N/A	180	--	--	--	--	--	--	--	--	--	--
Lead	450	400	1,040	2,510	2,850	--	1750	417	--	--	--	--
Cadmium	7.5	4.3	--	--	--	--	--	--	--	6.3	--	--
Copper	1,720	270	--	--	--	--	--	--	--	--	--	--
Mercury	0.73	0.81	--	12	--	--	--	--	--	--	--	--
Nickel	130	310	--	545	--	--	--	--	--	--	--	--
VOCs			--	--	--	--	--	--	--	--	--	--
1,2,4-trimethylbenzene	3.6	52	--	--	--	--	--	--	--	--	--	--
1,3,5-trimethylbenzene	8.4	52	--	--	--	--	--	--	--	--	--	--
Benzene	0.06	4.8	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	1	41	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene	2.3*	N/A	--	--	--	--	--	--	--	--	--	--
Methyl tert-butyl ether	0.93	100	--	--	--	--	--	--	--	--	--	--
n-propylbenzene	3.9	100	--	--	--	--	--	--	--	--	--	--
o-xylene	1.6	100	--	--	--	--	--	--	--	--	--	--
m,p-xylene	1.6	100	--	--	--	--	--	--	--	--	--	--
sec-butylbenzene	11	100	--	--	--	--	--	--	--	--	--	--
toluene	0.7	100	--	--	--	--	--	--	--	--	--	--
SVOCs			--	--	--	--	--	--	--	--	--	--
Anthracene	1,000	100	--	--	--	210	--	--	--	--	--	--
Benzo(a)anthracene	1	1	--	--	--	470	1.02	--	--	--	2.7	--
Benzo(a)pyrene	22	1	--	--	--	390	1.40	1.21	--	--	--	--
Benzo(b)fluoranthene	1.7	1	--	--	--	540	1.03	1.35	--	--	3.2	--
Benzo(k)fluoranthene	1.7	3.9	--	--	--	200	--	--	--	--	--	--
Benzo(g,h,i)perylene	1,000	100	--	--	--	210	--	--	--	--	--	--
Chrysene	1	3.9	--	--	--	450	--	--	--	--	--	--
Dibenz(a,h)anthracene	1,000	0.33	--	--	--	22	--	--	--	--	--	--
Dibenzofuran	210	59	--	--	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	8.2	0.5	--	--	--	190	1.82	0.618	0.618	--	1.5	0.642
Fluoranthene	1,000	100	--	--	--	1,000	--	--	--	--	--	--
Phenanthrene	1,000	100	--	--	--	800	--	--	--	--	--	--
Pyrene	1,000	100	--	--	--	830	--	--	--	--	--	--

**Notes:**  
Only endpoint samples that exceed Site Specific SCGs are included in this table. "--" indicates no exceedance.  
Protection of groundwater exceedances are only applied to AOI2, AOI3, IRM 4, and IRM5  
Concentrations in bold exceed the 6NYCRR Part 375-6.8(b) Restricted Residential Use SCO  
Concentrations underlined exceed the 6NYCRR Part 375-6.8(b) Protection of Groundwater SCO  
N/A indicates not applicable  
Concentrations in milligrams per kilogram (mg/Kg) or parts per million (ppm)  
Grey shading indicates sample collected off-Site  
\* Indicates no Part 375 SCO; CP-51 Supplemental SCO was used  
Acetone is not considered to be a Site contaminant; therefore, acetone exceedances are not considered remaining contamination.  
Sample depths listed in feet below ground surface and reflect their current depth, post-cover.

Canandaigua Multi Brownfield Site  
Lakeshore Drive and Booth Street, Canandaigua, New York  
NYSDEC BCP Site #C835025  
LaBella Project No. 214577  
Table 1  
Remaining Soil Contamination

FORMER PROPERTY ADDRESS	6NYCRR - 375-6.8(b) Soil Cleanup - Protection of Groundwater	6NYCRR - 375-6.8(b) Soil Cleanup - Restricted Residential Use	30 Lakeshore Drive												
CURRENT PROPERTY ADDRESS			100 Lakeshore Drive			50 Lakeshore Drive	60 Lakeshore Drive	100 Lakeshore Drive							
SAMPLE ID			GP-48	GP-42	GP-44	GP-13-7	GP-19	CAN-AOI2-SW4	CAN-AOI2-SW5	CAN-AOI2-SW6	CAN-AOI2-SW7	CAN-AOI2-SW8	CAN-AOI2-SW10	CAN-AOI2-SW14	CAN-AOI2-SW27
			3.6-4.5	4.2-6.5	6-7	2.8-4.6	5-5.6	7	7	7	7	7	7	7	7
SAMPLE DEPTH (FT. BGS)															
METALS							--			--		--		--	
Arsenic	16	16	--	--	--	--	--	--	--	--	--	--	--	--	
Barium	820	400	--	--	--	--	--	--	--	--	--	--	--	--	
Chromium	N/A	180	--	--	--	--	--	--	--	--	--	--	--	--	
Lead	450	400	--	--	--	--	695	--	--	--	--	--	--	--	
Cadmium	7.5	4.3	288	--	--	--	--	--	--	--	--	--	--	--	
Copper	1,720	270	--	7160	--	--	--	--	--	--	--	--	--	--	
Mercury	0.73	0.81	--	--	--	--	--	--	--	--	--	--	--	--	
Nickel	130	310	--	--	--	--	--	--	--	--	--	--	--	--	
VOCs			--	--	--	--	--	--	--	--	--	--	--	--	
1,2,4-trimethylbenzene	3.6	52	--	--	--	--	--	62	--	--	--	--	--	--	
1,3,5-trimethylbenzene	8.4	52	--	--	--	--	--	55	--	--	--	--	--	--	
Benzene	0.06	4.8	--	--	--	--	--	1.4	8	--	0.067	0.35	--	0.43	
Ethylbenzene	1	41	--	--	--	--	--	1.2	110	--	--	--	94	3.1	
Isopropylbenzene	2.3*	N/A	--	--	--	--	--	--	--	--	--	--	47	--	
Methyl tert-butyl ether	0.93	100	--	--	--	--	--	--	--	--	--	--	12	--	
n-propylbenzene	3.9	100	--	--	--	--	--	--	--	--	--	--	88	--	
o-xylene	1.6	100	--	--	--	--	--	--	6.3	--	--	--	7	--	
m,p-xylene	1.6	100	--	--	--	--	--	2000	73000	--	--	--	43,000	--	
sec-butylbenzene	11	100	--	--	--	--	--	--	--	--	--	--	26	--	
toluene	0.7	100	--	--	--	--	--	--	2.4	--	--	--	--	--	
SVOCs			--	--	--	--	--	--	--	--	--	--	--	--	
Anthracene	1,000	100	--	--	--	--	--	--	--	--	--	--	--	--	
Benzo(a)anthracene	1	1	--	--	120	4.70	8.0	--	16	14	--	2.8	--	2.0	
Benzo(a)pyrene	22	1	--	--	85	--	--	--	12	14	--	--	--	1.6	
Benzo(b)fluoranthene	1.7	1	--	--	110	7.50	9.8	--	19	17	--	4.1	--	1.9	
Benzo(k)fluoranthene	1.7	3.9	--	--	46	--	5	--	5.5	5.7	--	--	--	--	
Benzo(g,h,i)perylene	1,000	100	--	--	--	--	--	--	--	--	--	--	--	--	
Chrysene	1	3.9	--	--	110	5.90	6.9	--	14	13	--	2.7	--	--	
Dibenz(a,h)anthracene	1,000	0.33	--	--	21	--	--	--	2.4	2.7	--	--	--	--	
Dibenzofuran	210	59	--	--	--	--	--	--	--	--	--	--	--	--	
Indeno(1,2,3-cd)pyrene	8.2	0.5	--	--	46	--	--	--	11	11	--	--	0.68	0.99	
Fluoranthene	1,000	100	--	--	250	--	--	--	--	--	--	--	--	--	
Phenanthrene	1,000	100	--	--	260	--	--	--	--	--	--	--	--	--	
Pyrene	1,000	100	--	--	180	--	--	--	--	--	--	--	--	--	

**Notes:**  
Only endpoint samples that exceed Site Specific SCGs are included in this table. "--" indicates no exceedance.  
Protection of groundwater exceedances are only applied to AOI2, AOI3, IRM 4, and IRM5  
Concentrations in bold exceed the 6NYCRR Part 375-6.8(b) Restricted Residential Use SCO  
Concentrations underlined exceed the 6NYCRR Part 375-6.8(b) Protection of Groundwater SCO  
N/A indicates not applicable  
Concentrations in milligrams per kilogram (mg/Kg) or parts per million (ppm)  
Grey shading indicates the location is off-site  
\* Indicates no Part 375 SCO; CP-51 Supplemental SCO was used  
Acetone is not considered to be a Site contaminant; therefore, acetone exceedances are not considered ren  
Sample depths listed in feet below ground surface and reflect their current depth, post-cover.



Canandaigua Multi Brownfield Site  
 Lakeshore Drive and Booth Street, Canandaigua, New York  
 NYSDEC BCP Site #C835025  
 LaBella Project No. 214577  
 Table 1A  
 Remaining Groundwater Contamination

FORMER PROPERTY ADDRESS	NYSDEC Technical and Operational Guidance Series (TOGS 1.1.1) Groundwater Standards	30 Lakeshore Drive	
CURRENT PROPERTY ADDRESS		100 Lakeshore Drive	
SAMPLE ID		MW-69	Parkway Dry Cleaner Well
Sample Date		10/4/2013	
VOCs			
cis-1,2-Dichloroethene	5.0	1,100	3.1
Vinyl Chloride	2.0	1,100	5.1

**Notes:**

Concentrations in bold exceed the NYSDEC TOGS 1.1.1 Groundwater Standard  
 Only compounds identified to exceed NYSDEC TOGS 1.1.1 Groundwater Standard are shown.  
 Concentrations in micrograms per Liter (µg/L) or about parts per billion (ppb)

**Canandaigua Multi Brownfield Site**  
**Lakeshore Drive and Booth Street, Canandaigua, New York**  
**NYSDEC BCP Site #C835025**  
**LaBella Project No. 214577**  
**Table 2**  
**IRM Monitoring Well Datum**

Well ID	X	Y	Z (Surface Elevation)	Screened Interval (ft. bgs)	Screened Interval (fmsl)	Static Water Level (ft. bgs)	Static Water Level (fmsl)
IRM-MW-12-3	636742.0	1048528.9	692.3	3.5 to 13.5	678.8 to 688.8	5.5	686.8
IRM-MW-20	636700.7	1048525.6	691.5	3 to 13	678.5 to 688.5	4.4	687.1
IRM-MW-24	637300.4	1048499.8	693.1	3.5 to 13.5	679.6 to 689.6	2.3	690.8
IRM4-MW-1	636343.9	1048525.9	690.4	3 to 8	682.4 to 687.4	3.3	687.1
IRM4-MW-2	636390.9	1048526.3	690.4	3.5 to 13.5	676.9 to 686.9	3.38	687.0
IRM4-MW-3	636405.1	1048526.0	690.7	3.5 to 13.5	677.2 to 687.2	3.4	687.3

IRM Monitoring wells surveyed using a Carlson S320 GPS with horizontal and vertical accuracy of 0.1-ft. and 0.2-ft., respectively.

fmsl = feet above mean sea level

ft. bgs = feet below ground surface

Horizontal datum: NAD83

Vertical datum: NAVD88

Canandaigua Multi Brownfield Site  
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Table 3  
Standards, Criteria, and Guidance Values

VOLATILE ORGANIC COMPOUNDS (VOCs)		
ANALYTE	6NYCRR - 375-6.8(b) Soil Cleanup - Protection of Groundwater (ppm)	6NYCRR - 375-6.8(b) Soil Cleanup - Restricted Residential (ppm)
Acetone	0.05	100
Benzene	0.06	4.8
Bromochloromethane	N/A	N/A
Bromodichloromethane	N/A	N/A
Bromoform	N/A	N/A
Bromomethane	N/A	N/A
2-Butanone	0.3*	N/A
n-Butylbenzene	N/A	N/A
tert-Butylbenzene	5.9	100
sec-Butylbenzene	11	100
Carbon Disulfide	2.7*	N/A
Carbon Tetrachloride	0.76	2.4
Chlorobenzene	1.1	100
Chlorodibromomethane	N/A	N/A
Chloroethane	1.9*	N/A
Chloroform	0.37	49
Chloromethane	N/A	N/A
Cyclohexane	N/A	N/A
1,2-Dibromo-3-chloropropane	N/A	N/A
1,2-Dibromoethane	N/A	N/A
1,2-Dichlorobenzene	1.1	100
1,3-Dichlorobenzene	2.4	49
1,4-Dichlorobenzene	1.8	13
Dichlorodifluoromethane	N/A	N/A
1,1-Dichloroethane	0.27	26
1,2-Dichloroethane	0.02	3.1
1,1-Dichloroethene	0.33	100
cis-1,2-Dichloroethene	0.25	100
trans-1,2-Dichloroethene	0.19	100
1,2-Dichloropropane	N/A	N/A
cis-1,3-Dichloropropene	N/A	N/A
trans-1,3-Dichloropropene	N/A	N/A
1,4-Dioxane	0.1	13
Ethylbenzene	1	41
Freon 113	6*	N/A
2-Hexanone	N/A	N/A
Isopropylbenzene	2.3*	N/A
p-Isopropyltoluene	10*	N/A
Methyl acetate	N/A	N/A
Methyl cyclohexane	N/A	N/A
Methyl t-Butyl Ether	0.93	100
4-Methyl-2-Pentanone(MIBK)	1.0*	N/A
Methylene Chloride	0.05	100
n-Propylbenzene	3.9	100
Styrene	N/A	N/A
1,1,2,2-Tetrachloroethane	0.6*	N/A
Tetrachloroethene	1.3	19
Toluene	0.7	100
1,2,3-Trichlorobenzene	N/A	N/A
1,2,4-Trichlorobenzene	3.4*	N/A
1,1,1-Trichloroethane	0.68	100
1,1,2-Trichloroethane	N/A	N/A
Trichloroethene	0.47	21
Trichlorofluoromethane	N/A	N/A
1,2,4-Trimethylbenzene	3.6	52
1,3,5-Trimethylbenzene	8.4	52
Vinyl Chloride	0.02	0.9
o-Xylene	1.6	100
mp-Xylene		

N/A indicates not available

\* Indicates no NYCRR Part 375 SCO; NYSDEC Commissioner Policy (CP)-51 Supplemental SCO issued October 21, 2010 is listed

Canandaigua Multi Brownfield Site  
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NYSDEC BCP Site #C835025  
LaBella Project No. 214577

Table 3  
Standards, Criteria, and Guidance Values

SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs)		
ANALYTE	6NYCRR - 375-6.8(b) Soil Cleanup - Protection of Groundwater (ppm)	6NYCRR - 375- 6.8(b) Soil Cleanup - Restricted Residential (ppm)
Acenaphthene	98	100
Acenaphthylene	107	100
Acetophenone	N/A	N/A
Anthracene	1000	100
Atrazine	N/A	N/A
Benzaldehyde	N/A	N/A
Benzo(a)anthracene	1	1
Benzo(a)pyrene	22	1
Benzo(b)fluoranthene	1.7	1
Benzo(g,h,i)perylene	1000	100
Benzo(k)fluoranthene	1.7	3.9
Biphenyl	N/A	N/A
4-Bromophenyl-phenylether	N/A	N/A
Butylbenzylphthalate	122*	N/A
Caprolactam	N/A	N/A
Carbazole	N/A	N/A
4-Chloro-3-methylphenol	N/A	N/A
4-Chloroaniline	0.22*	N/A
bis(2-Chloroethoxy)methane	N/A	N/A
bis(2-Chloroethyl)ether	N/A	N/A
bis(2-Chloroisopropyl)ether	N/A	N/A
2-Chloronaphthalene	N/A	N/A
2-Chlorophenol	N/A	N/A
4-Chlorophenyl-phenylether	N/A	N/A
Chrysene	1	3.9
mp-Cresol	0.33	100
o-Cresol	0.33	100
Di-n-Butylphthalate	8.1*	N/A
Di-n-Octylphthalate	120*	N/A
Dibenzo(a,h)anthracene	1000	0.33
Dibenzofuran	210	59
3,3-Dichlorobenzidine	N/A	N/A
2,4-Dichlorophenol	N/A	N/A
Diethylphthalate	7.1*	N/A
2,4-Dimethylphenol	N/A	N/A
Dimethylphthalate	27*	N/A
2,4-Dinitrophenol	0.2*	N/A
2,4-Dinitrotoluene	N/A	N/A
2,6-Dinitrotoluene	1*	N/A
bis(2-Ethylhexyl)phthalate	N/A	N/A
Fluoranthene	1000	100
Fluorene	386	100
Hexachlorobenzene	3.2	1.2
Hexachlorobutadiene	N/A	N/A
Hexachlorocyclopentadiene	N/A	N/A
Hexachloroethane	N/A	N/A
Indeno(1,2,3-cd)pyrene	8.2	0.5
Isophorone	4.4*	N/A
2-Methyl-4,6-dinitrophenol	N/A	N/A
2-Methylnaphthalene	36.4*	N/A
Naphthalene	12	100
2-Nitroaniline	0.4*	N/A
3-Nitroaniline	0.5*	N/A
4-Nitroaniline	N/A	N/A
Nitrobenzene	0.17*	15*
2-Nitrophenol	0.3*	N/A
4-Nitrophenol	0.1*	N/A
N-Nitroso-di-n-propylamine	N/A	N/A
N-Nitrosodiphenylamine	N/A	N/A
Pentachlorophenol	N/A	N/A
Phenanthrene	1000	100
Phenol	0.33	100
Pyrene	1000	100
1,2,4,5-Tetrachlorobenzene	N/A	N/A
2,3,4,6-Tetrachlorophenol	N/A	N/A
2,4,5-Trichlorophenol	0.1*	N/A
2,4,6-Trichlorophenol	N/A	N/A

N/A indicates not available

\* Indicates no NYCRR Part 375 SCO; NYSDEC Commissioner Policy (CP)-51 Supplementatl SCO issued October 21, 2010 is listed

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<b>METALS</b>		
<b>ANALYTE</b>	<b>6NYCRR - 375-6.8(b) Soil Cleanup - Protection of Groundwater (ppm)</b>	<b>6NYCRR - 375-6.8(b) Soil Cleanup - Restricted Residential (ppm)</b>
Aluminum	N/A	N/A
Antimony	N/A	N/A
Arsenic	16	16
Barium	820	400
Beryllium	47	72
Cadmium	7.5	4.3
Calcium	N/A	N/A
Chromium	N/A	180
Cobalt	N/A	N/A
Copper	1720	270
Iron	N/A	N/A
Lead	450	400
Magnesium	N/A	N/A
Manganese	2000	2000
Nickel	130	310
Potassium	N/A	N/A
Selenium	4	180
Silver	8.3	180
Sodium	N/A	N/A
Thallium	N/A	N/A
Vanadium	N/A	N/A
Zinc	2480	10000
Mercury	0.73	0.81
Cyanide	40	27

N/A indicates not available

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 Table 3  
 Standards, Criteria, and Guidance Values

**POLYCHLORINATED BIPHENYLS (PCBs)**

<b>ANALYTE</b>	<b>6NYCRR - 375-6.8(b) Soil Cleanup - Protection of Groundwater (ppm)</b>	<b>6NYCRR - 375-6.8(b) Soil Cleanup - Restricted Residential (ppm)</b>
Aroclor-1016	N/A	N/A
Aroclor-1221	N/A	N/A
Aroclor-1232	N/A	N/A
Aroclor-1242	N/A	N/A
Aroclor-1248	N/A	N/A
Aroclor-1254	N/A	N/A
Aroclor-1260	N/A	N/A
Aroclor-1262	N/A	N/A
Aroclor-1268	N/A	N/A
<b>Total</b>	<b>3.2</b>	<b>1</b>

N/A indicates not available

Canandaigua Multi Brownfield Site  
Lakeshore Drive and Booth Street, Canandaigua, New York  
NYSDEC BCP Site #C835025  
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Table 3  
Standards, Criteria, and Guidance Values

**PESTICIDES**

<b>ANALYTE</b>	<b>6NYCRR - 375-6.8(b) Soil Cleanup - Protection of Groundwater (ppm)</b>	<b>6NYCRR - 375-6.8(b) Soil Cleanup - Restricted Residential (ppm)</b>
Aldrin	0.19	0.097
alpha-BHC	0.02	0.48
beta-BHC	0.09	0.36
delta-BHC	0.25	100
gamma-BHC	0.1	1.3
alpha-Chlordane	2.9	4.2
gamma-Chlordane	14*	N/A
4,4'-DDD	14	13
4,4'-DDE	17	8.9
4,4'-DDT	136	7.9
Dieldrin	0.1	0.2
Endosulfan I	102	24
Endosulfan II	102	24
Endosulfan Sulfate	1000	24
Endrin	0.06	11
Endrin Aldehyde	N/A	N/A
Endrin Ketone	N/A	N/A
Heptachlor	0.38	2.1
Heptachlor Epoxide	0.02*	N/A
Methoxychlor	900*	N/A
Toxaphene	N/A	N/A

N/A indicates not available

\* Indicates no NYCRR Part 375 SCO; NYSDEC Commissioner Policy (CP)-51 Supplemental SCO issued October 21, 2010 is listed

## APPENDIX A – LIST OF SITE CONTACTS

<b>Name</b>	<b>Phone/Email Address</b>
*Site Owner- Canandaigua Lakefront, LLC- William H. Goodrich.	585-254-3510 <a href="mailto:Bill.Goodrich@leCHASE.com">Bill.Goodrich @leCHASE.com</a>
Remedial Party- Canandaigua Lakefront, LLC- William H. Goodrich.	585-254-3510 <a href="mailto:Bill.Goodrich@leCHASE.com">Bill.Goodrich @leCHASE.com</a>
Qualified Environmental Professional- Dan Noll, P.E.	585-295-6611 <a href="mailto:dnoll@labellapc.com">dnoll@labellapc.com</a>
NYSDEC DER Project Manager- Joshua Ramsey	585-226-5349 <a href="mailto:joshua.ramsey@dec.ny.gov">joshua.ramsey@dec.ny.gov</a>
NYSDEC Regional HW Engineer- Bernette Schilling	585-226-5315 <a href="mailto:bernette.schilling@dec.ny.gov">bernette.schilling@dec.ny.gov</a>
NYSDEC Site Control- Kelly A. Lewandowski, P.E.	518-402-9547 <a href="mailto:kelly.lewandowski@dec.ny.gov">kelly.lewandowski@dec.ny.gov</a>
Remedial Party Attorney –Harris Beach PLLC- Frank Pavia	585-419-8800 <a href="mailto:fpavia@HarrisBeach.com">fpavia@HarrisBeach.com</a>

\*The following entities are all site owners: Morgan-LeChase Development, LLC et al, Canandaigua Lakefront Development LLC, North Shore P1 LLC, North Shore P1A LLC, North Shore P2 LLC, North Shore P3 LLC, North Shore P4 LLC. The contact information is the same for all entities.



## APPENDIX B – EXCAVATION WORK PLAN (EWP)

### B-1 NOTIFICATION

At least 15 days prior to the start of any activity that is anticipated to encounter remaining contamination including historic fill material (HFM), the site owner or their representative will notify the NYSDEC. Table F includes contact information for the above notification. The information on this table will be updated as necessary to provide accurate contact information. A full listing of site-related contact information is provided in Appendix A.

**Table F: Notifications\***

NYSDEC Project Manager- Joshua Ramsey	585-226-5349, <a href="mailto:joshua.ramsey@dec.ny.gov">joshua.ramsey@dec.ny.gov</a>
NYSDEC Site Control- Kelly A. Lewandowski, P.E.	518-402-9547, <a href="mailto:kelly.lewandowski@dec.ny.gov">kelly.lewandowski@dec.ny.gov</a>

\* 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 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 G 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 in Section B-5 of this Appendix.

### **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 are as follows: all trucks will enter and exit the Site from Booth Street at 60 Lakeshore Drive (which is the new North Shore Boulevard), Muar Street at 100 Lakeshore Drive. Trucks will not enter or exit the Site from Lakeshore Drive to the south of the Site. All trucks loaded with site materials will exit the vicinity of the site using only these approved truck routes. This is the most appropriate route and takes into account: (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; (g) community input.

Trucks will be prohibited from stopping and 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**

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.

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. HFM will require additional testing for reuse at the Site.

Material reuse on-site will comply with the requirements of NYSDEC DER-10 Section 5.4(e)4.

## **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. The demarcation layer, consisting of orange snow fencing material, orange geotextile or equivalent material 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. Any changes in the cover system will be documented on revised as-built figures in a revised 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). Based on an evaluation of the land use, protection of groundwater

and protection of ecological resources criteria, the resulting soil quality standards are listed in Table 3. Soils that meet 'exempt' fill requirements under 6 NYCRR Part 360, but do not meet backfill or cover soil objectives for this site, will not be imported onto the site without prior approval by NYSDEC. Solid waste will not be imported onto the site.

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**

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 for a full list of analytes (TAL metals; TCL volatiles and semi-volatiles, TCL pesticides and PCBs), unless the site history and previous sampling results provide a sufficient justification to limit the list of analytes. In this case, a reduced list of analytes will be proposed to the NYSDEC for approval prior to sampling.

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**

A figure showing the location of air sampling stations based on generally prevailing wind conditions observed during completion of IRMs by LaBella is shown in Figure 9. These locations will be adjusted on a daily or more frequent basis based on actual wind directions to provide an upwind and at least two downwind monitoring stations.

Exceedances of action levels listed in the CAMP will be reported to NYSDEC and NYSDOH Project Managers.

## **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 are not anticipated to be warranted on a routine basis. 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 remedial party'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 equipped with a water cannon 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.

## **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**  
**RESPONSIBILITIES of**  
**OWNER and REMEDIAL PARTY**

## **Responsibilities**

The responsibilities for implementing the Site Management Plan (“SMP”) for the Canandaigua Multi-Brownfield Site (the “site”), number C835025, are divided between the site owner(s) and a Remedial Party, as defined below. The owner(s) is/are currently listed as:

Canandaigua Lakefront, LLC (the “owner”)

**Contact:**

William H. Goodrich  
205 Indigo Creek Drive  
Rochester, New York 14626  
585-254-3510  
[Bill.Goodrich @leCHASE.com](mailto:Bill.Goodrich@leCHASE.com)

**Solely for the purposes of this document and based upon the facts related to a particular site and the remedial program being carried out,** the term Remedial Party (“RP”) refers to any of the following: certificate of completion holder, volunteer, applicant, responsible party, and, in the event the New York State Department of Environmental Conservation (“NYSDEC”) is carrying out remediation or site management, the NYSDEC and/or an agent acting on its behalf. The RP is:

Canandaigua Lakefront, LLC

**Contact:**

William H. Goodrich  
205 Indigo Creek Drive  
Rochester, New York 14626  
585-254-3510  
[Bill.Goodrich @leCHASE.com](mailto:Bill.Goodrich@leCHASE.com)

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.

## **Site Owner’s Responsibilities:**

- 1) The owner shall follow the provisions of the SMP as they relate to future construction and excavation at the site.

- 2) In accordance with a periodic time frame determined by the NYSDEC, the owner shall periodically certify, in writing, that all Institutional Controls set forth in a(n) Environmental Easement remain in place and continue to be complied with. The owner shall provide a written certification to the RP, upon the RP's request, in order to allow the RP to include the certification in the site's Periodic Review Report (PRR) certification to the NYSDEC.
- 3) In the event the site is delisted, the owner remains bound by the Environmental Easement and shall submit, upon request by the NYSDEC, a written certification that the Environmental Easement is still in place and has been complied with.
- 4) The owner shall grant access to the site to the RP and the NYSDEC and its agents for the purposes of performing activities required under the SMP and assuring compliance with the SMP.
- 5) The owner is responsible for assuring the security of the remedial components located on its property to the best of its ability. In the event that damage to the remedial components or vandalism is evident, the owner shall notify the site's RP and the NYSDEC in accordance with the timeframes indicated in Section 1.3-Notifications.
- 6) In the event some action or inaction by the owner adversely impacts the site, the owner must notify the site's RP and the NYSDEC in accordance with the time frame indicated in 1.3- Notifications and (ii) coordinate the performance of necessary corrective actions with the RP.
- 7) The owner must notify the RP and the NYSDEC of any change in ownership of the site property (identifying the tax map numbers in any correspondence) and provide contact information for the new owner of the site properties. 6 NYCRR Part contains notification requirements applicable to any construction or activity changes and changes in ownership. Among the notification requirements is the following: Sixty days prior written notification must be made to the NYSDEC. Notification is to be submitted to the NYSDEC Division of Environmental Remediation's Site Control Section. Notification requirements for a change in use are detailed in Section 2.4 of the SMP. A 60-Day Advance Notification Form and Instructions are found at <http://www.dec.ny.gov/chemical/76250.html>.
- 8) Until such time as the NYSDEC deems the vapor mitigation system unnecessary, the owner shall operate the system, pay for the utilities for the system's operation, and report any maintenance issues to the RP and the NYSDEC.
- 9) In accordance with the tenant notification law, within 15 days of receipt, the owner must supply a copy of any vapor intrusion data, that is produced with respect to structures and that exceeds NYSDOH or OSHA guidelines on the site, whether

produced by the NYSDEC, RP, or owner, to the tenants on the property. The owner must otherwise comply with the tenant and occupant notification provisions of Environmental Conservation Law Article 27, Title 24.

### **Remedial Party Responsibilities**

- 1) The RP must follow the SMP provisions regarding any construction and/or excavation it undertakes at the site.
- 2) The RP shall report to the NYSDEC all activities required for remediation, operation, maintenance, monitoring, and reporting. Such reporting includes, but is not limited to, periodic review reports and certifications, electronic data deliverables, corrective action work plans and reports, and updated SMPs.
- 3) Before accessing the site property to undertake a specific activity, the RP shall provide the owner advance notification that shall include an explanation of the work expected to be completed. The RP shall provide to (i) the owner, upon the owner's request, (ii) the NYSDEC, and (iii) other entities, if required by the SMP, a copy of any data generated during the site visit and/or any final report produced.
- 4) If the NYSDEC determines that an update of the SMP is necessary, the RP shall update the SMP and obtain final approval from the NYSDEC. Within 5 business days after NYSDEC approval, the RP shall submit a copy of the approved SMP to the owner(s).
- 5) The RP shall notify the NYSDEC and the owner of any changes in RP ownership and/or control and of any changes in the party/entity responsible for the operation, maintenance, and monitoring of and reporting with respect to any remedial system (Engineering Controls). The RP shall provide contact information for the new party/entity. Such activity constitutes a Change of Use pursuant to 375-1.11(d) and requires 60-days prior notice to the NYSDEC. A 60-Day Advance Notification Form and Instructions are found at <http://www.dec.ny.gov/chemical/76250.html>.
- 6) The RP shall notify the NYSDEC of any damage to or modification of the systems as required under Section 1.3- Notifications of the SMP.
- 7) The RP is responsible for the proper maintenance of any installed vapor intrusion mitigation systems associated with the site, as required in Section 5.0 or Appendix I (Operation , Monitoring and Maintenance Manual) of the SMP.

- 8) The RP is responsible for the proper monitoring and maintenance of any installed drinking water treatment system associated with the site, as required in Section 5.0 or Appendix I (Operation , Monitoring and Maintenance Manual).
- 9) Prior to a change in use that impacts the remedial system or requirements and/or responsibilities for implementing the SMP, the RP shall submit to the NYSDEC for approval an amended SMP.
- 10) Any change in use, change in ownership, change in site classification (*e.g.*, delisting), reduction or expansion of remediation, and other significant changes related to the site may result in a change in responsibilities and, therefore, necessitate an update to the SMP and/or updated legal documents. The RP shall contact the Department to discuss the need to update such documents.

Change in RP ownership and/or control and/or site ownership does not affect the RP's obligations with respect to the site unless a legally binding document executed by the NYSDEC releases the RP of its obligations.

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



## **APPENDIX D– ENVIRONMENTAL EASEMENT**



## Ontario County Clerk Recording Page

**Return To**

HARRIS BEACH PLLC  
99 GARNSEY ROAD  
PITTSFORD, NY 14534

**Matthew J. Hoose, County Clerk**

Ontario County Clerk  
20 Ontario Street  
Canandaigua, New York 14424  
(585) 396-4200

Document Type: **EASEMENT**

Receipt Number: 264347

**Grantor (Party 1)**

CANANDAIGUA LAKEFRONT LLC

**Grantee (Party 2)**

NYS PEOPLE

**Fees**

Recording Fee	\$20.00
TP-584 Form Fee	\$5.00
Pages Fee	\$55.00
State Surcharge	\$20.00
<b>Total Fees Paid:</b>	<b>\$100.00</b>

Consideration: \$0.00

Control #: 201609070044  
Ref #: TX 2016 000497

Property located in **City of Canandaigua**

State of New York  
County of Ontario

Recorded on September 7th, 2016 at 10:12:38 AM  
in Liber **01369** of **Deeds**  
beginning at page **0477**, ending at page **0487**,  
with a total page count of **11**.

Ontario County Clerk

*This sheet constitutes the Clerk's endorsement required by section 319 of the Real Property Law of the State of New York*

County: Ontario Site No: C835025 Brownfield Cleanup Agreement Index : C835025-09-12  
as amended September 4, 2014

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

**THIS INDENTURE** made this 15<sup>th</sup> day of August, 2016, between Owner(s) Canandaigua Lakefront LLC, having an office at 205 Indigo Creek Drive, Rochester, New York 14626, County of Monroe, 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 150 Lakeshore Drive, 40 Muar Street, 100 Lakeshore Drive, 50 Lakeshore Drive, 24 Lakeshore Drive and 60 Lakeshore Drive in the City of Canandaigua, County of Ontario and State of New York, known and designated on the tax map of the County Clerk of Ontario as tax map parcel numbers: Section 84.18 Block 1 Lots 10.1, 10.2, 46, 47, 48 and 49, being the same as that property conveyed to Grantor by deeds dated March 10, 2015, May 11, 2015 and May 14, 2015 and recorded in the Ontario County Clerk's Office in Liber and Page 1338/743, 1338/724 and 1338/728, respectively. The property subject to this Environmental Easement (the "Controlled Property") comprises approximately 15.516 +/- acres, and is hereinafter more fully described in the Land Title Survey dated August 12, 2015 prepared by Rocco A. Venezia, L.L.S. of Venezia Land Surveyors and Civil Engineers, which will be attached to the Site Management Plan. The Controlled Property description is set forth in and attached hereto as Schedule A; and

HARRIS BEACH PLLC  
99 GRANSEY ROAD  
PITTSFORD, NY 14534

Stewart Title Insurance Company  
Order # 26-310315

County: Ontario Site No: C835025 Brownfield Cleanup Agreement Index : C835025-09-12  
as amended September 4, 2014

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**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: C835025-09-12 as amended September 4, 2014, 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 Ontario 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;

County: Ontario Site No: C835025 Brownfield Cleanup Agreement Index : C835025-09-12  
as amended September 4, 2014

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(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:

County: Ontario Site No: C835025 Brownfield Cleanup Agreement Index : C835025-09-12  
as amended September 4, 2014

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**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;

County: Ontario Site No: C835025 Brownfield Cleanup Agreement Index : C835025-09-12  
as amended September 4, 2014

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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: C835025  
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

County: Ontario Site No: C835025 Brownfield Cleanup Agreement Index : C835025-09-12  
as amended September 4, 2014

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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**



County: Ontario Site No: C835025 Brownfield Cleanup Agreement Index : C835025-09-12  
as amended September 4, 2014

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

**Canandaigua Lakefront LLC:**

By: Charles L. Casner

Print Name: Charles L. Caranci, Jr.

Title: EXP / CFO Date: 7/22/16

### Grantor's Acknowledgment

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

On the 22<sup>nd</sup> day of July, in the year 2016, before me, the undersigned, personally appeared Charles L. Brown 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.

person upon behalf of which the ind

Angela Pearson  
Notary Public - State of New York

ANGELA BORSA  
Notary Public, State of New York  
Qualified in Monroe Co., No. 01806120045  
My Commission Expires Dec. 13, 2016

County: Ontario Site No: C835025 Brownfield Cleanup Agreement Index : C835025-09-12  
as amended September 4, 2014

**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,

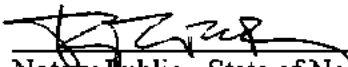
By: 

Robert W. Schick, Director  
Division of Environmental Remediation

**Grantee's Acknowledgment**

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

On the 16<sup>th</sup> day of August, 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

**PATRICK EUGENE FOSTER**  
NOTARY PUBLIC, STATE OF NEW YORK  
QUALIFIED IN KINGS COUNTY  
NO. 02FO6278032  
COMMISSION EXPIRES 03/18/2017

County: Ontario Site No: C835025 Brownfield Cleanup Agreement Index : C835025-09-12  
as amended September 4, 2014

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**SCHEDULE "A" PROPERTY DESCRIPTION**

All that tract or parcel of land situate in the City of Canandaigua, County of Ontario, State of New York and being more particularly described as follows:

BEGINNING at an iron pin in the east line of Booth Street, said pin also being the northwest corner of lands now or formerly owned by Brian Zerges as filed in the Ontario County Clerk's Office in Liber 1065 of Deeds at Page 102;

Thence in the east line of Booth Street the following calls:

North 31 29'01" East a distance of 153.89 feet to a point

North 57 36'31" East a distance of 393.66 feet to an iron pin

Thence South 76 43'29" East through lands of North Shore Subdivision a distance of 125.12 feet to a point

Thence in the north line of North Shore Subdivision the following calls:

South 76 43'29" East a distance of 887.14 feet to an iron pin

South 12 40'21" West a distance of 99.78 feet to a point

South 80 05'49" East a distance of 244.90 feet to a point

Thence through lands of North Shore Subdivision the following calls

South 12 40'21" West a distance of 55.00 feet

South 77 19'40" East a distance of 53.51 feet to a point

North 12 40'21" East a distance of 16.87 feet to a point

South 77 19'40" East a distance of 18.50 feet to a point

North 12 40'21" East a distance of 12.00 feet to a point

South 77 19'40" East a distance of 8.00 feet to a point

North 12 40'21" East a distance of 30.00 feet to a point

Thence continuing in the north line of North Shore Subdivision the following calls:

North 12 40'21" East a distance of 100.00 feet to an iron pin

South 80 05'49" East a distance of 324.97 feet to a point in the west line of Muar Street

Thence in the west line of Muar Street the following calls:

South 15 17'51" West a distance of 50.00 feet to a point

South 13 09'21" West a distance of 100.02 feet to an iron pin

Thence North 80 06'59" West a distance of 221.85 feet to an iron pin

South 12 40'24" West a distance of 225.12 feet to a point in the north line of Lake Shore Drive

Thence in the north line of Lake Shore Drive the following calls:

North 80 05'49" West a distance of 424.99 feet to a point

North 78 46'39" West a distance of 318.06 feet to a point

North 78 38'13" West a distance of 7.82 feet to a point

North 82 52'29" West a distance of 278.96 feet to a point

Along a curve to the left with an arc radius of 972.00 feet a distance of 124.40 feet to a

County: Ontario Site No: C835025 Brownfield Cleanup Agreement Index : C835025-09-12  
as amended September 4, 2014

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point

South 89 47'31"West a distance of 155.81 feet to a point

South 89 47'27"West a distance of 300.00 feet to a point

North 03 53'31"East a distance of 153.00 feet to a point

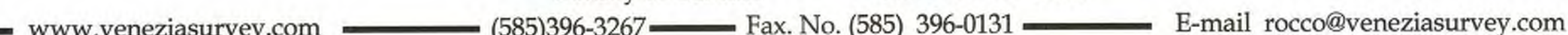
Thence South 89 47'31"West a distance of 149.81 feet to the POINT AND PLACE OF  
BEGINNING

BEING 15.516 ACRES




Lands of Domenica Cusimano by Jack Anderson being  
Ontario County filed map # 2740.


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violation of all applicable laws"







## **APPENDIX E – FIELD LOGS**


 <b>300 STATE STREET, ROCHESTER, NY</b> <b>ENVIRONMENTAL ENGINEERING CONSULTANTS</b>			<b>PROJECT</b> North Shore BCP 130 and 158 Lakeshore Drive, Canandaigua NY			<b>BORING: LABSB-01</b> <b>SHEET 1 OF 29</b> <b>JOB:</b> <b>CHKD BY:</b>		
CONTRACTOR: LaBella LLC DRILLER: N. Wall LABELLA REPRESENTATIVE: A. Aquilina			BORING LOCATION: 130 Lakeshore Drive GROUND SURFACE ELEVATION START DATE: 8/22/2014 END DATE: 8/22/2014			DATUM:		
TYPE OF DRILL RIG: Geoprobe AUGER SIZE AND TYPE: NA OVERBURDEN SAMPLING METHOD: Macrocore			DRIVE SAMPLER TYPE: INSIDE DIAMETER: 2" OTHER:					
D E P T H	SAMPLE			VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS		
	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE					
0	0-2	90%		Dark brown/grey GRAVEL and SILT and SAND, moist	0	Sample 0-2'		
			1'	Light brown/grey SILTY fine SAND, some coarse GRAVEL, moist	0			
2				End of boring @ 2' bgs				
4								
6								
8								
10								
12								
14								
16								
			DEPTH (FT)			NOTES:		
WATER LEVEL DATA			BOTTOM OF	BOTTOM OF	GROUNDWATER			
DATE	TIME	ELAPSED TIME	CASING	BORING	ENCOUNTERED			
GENERAL NOTES 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL. 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE								
<div style="text-align: right;"><b>BORING: LABSB-01</b></div>								


 <b>300 STATE STREET, ROCHESTER, NY</b> <b>ENVIRONMENTAL ENGINEERING CONSULTANTS</b>			<b>PROJECT</b> North Shore BCP 130 and 158 Lakeshore Drive, Canandaigua NY			<b>BORING: LABSB-02</b> <b>SHEET 2 OF 29</b> <b>JOB:</b> <b>CHKD BY:</b>		
CONTRACTOR: LaBella LLC DRILLER: N. Wall LABELLA REPRESENTATIVE: A. Aquilina			BORING LOCATION: 130 Lakeshore Drive GROUND SURFACE ELEVATION START DATE: 8/22/2014 END DATE: 8/22/2014			DATUM:		
TYPE OF DRILL RIG: Geoprobe AUGER SIZE AND TYPE: NA OVERBURDEN SAMPLING METHOD: Macrocore			DRIVE SAMPLER TYPE: INSIDE DIAMETER: 2" OTHER:					
D E P T H	SAMPLE			VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS		
	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE					
0	0-2	100%	0.75'	Dark brown/black coarse GRAVEL, some SILT and SAND, moist Light brown SILTY SAND, some coarse GRAVEL, moist	0	Sample 0-2'		
2				End of boring @ 2' bgs	0			
4								
6								
8								
10								
12								
14								
16								
			DEPTH (FT)		NOTES:			
WATER LEVEL DATA			BOTTOM OF	BOTTOM OF	GROUNDWATER			
DATE	TIME	ELAPSED TIME	CASING	BORING	ENCOUNTERED			
GENERAL NOTES 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL. 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE								
<div style="text-align: right;"><b>BORING: LABSB-02</b></div>								





 <b>300 STATE STREET, ROCHESTER, NY</b> <b>ENVIRONMENTAL ENGINEERING CONSULTANTS</b>			<b>PROJECT</b> North Shore BCP 130 and 158 Lakeshore Drive, Canandaigua NY			<b>BORING: LABSB-03</b> <b>SHEET 3 OF 29</b> <b>JOB:</b> <b>CHKD BY:</b>		
CONTRACTOR: LaBella LLC DRILLER: N. Wall LABELLA REPRESENTATIVE: A. Aquilina			BORING LOCATION: 130 Lakeshore Drive GROUND SURFACE ELEVATION START DATE: 8/22/2014 END DATE: 8/22/2014			DATUM:		
TYPE OF DRILL RIG: Geoprobe AUGER SIZE AND TYPE: NA OVERBURDEN SAMPLING METHOD: Macrocore			DRIVE SAMPLER TYPE: INSIDE DIAMETER: 2" OTHER:					
D E P T H	SAMPLE			VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS		
	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE					
0	0-2	100%	1'	Topsoil- dark brown SILT and SAND, and vegetation, moist	0	Sample 0-2'		
				Dark brown SILTY coarse SAND, some coarse GRAVEL	0			
2				End of boring @ 2' bgs				
4								
6								
8								
10								
12								
14								
16								
			DEPTH (FT)			NOTES:		
WATER LEVEL DATA			BOTTOM OF	BOTTOM OF	GROUNDWATER			
DATE	TIME	ELAPSED TIME	CASING	BORING	ENCOUNTERED			
GENERAL NOTES 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL. 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE								
<div style="text-align: right;"><b>BORING: LABSB-03</b></div>								


 <b>300 STATE STREET, ROCHESTER, NY</b> <b>ENVIRONMENTAL ENGINEERING CONSULTANTS</b>			<b>PROJECT</b> North Shore BCP 130 and 158 Lakeshore Drive, Canandaigua NY			<b>BORING: LABSB-04</b> <b>SHEET 4 OF 29</b> <b>JOB:</b> <b>CHKD BY:</b>		
CONTRACTOR: LaBella LLC DRILLER: N. Wall LABELLA REPRESENTATIVE: A. Aquilina			BORING LOCATION: 130 Lakeshore Drive GROUND SURFACE ELEVATION START DATE: 8/22/2014 END DATE: 8/22/2014			DATUM:		
TYPE OF DRILL RIG: Geoprobe AUGER SIZE AND TYPE: NA OVERBURDEN SAMPLING METHOD: Macrocore			DRIVE SAMPLER TYPE: INSIDE DIAMETER: 2" OTHER:					
D E P T H	SAMPLE			VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS		
	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE					
0	0-2	100%	0.75'	Topsoil- dark brown SILT and SAND, and coarse gravel, moist Light brown SILTY SAND, trace coarse GRAVEL, moist	0	Sample 0-2'		
2				End of boring @ 2' bgs	0			
4								
6								
8								
10								
12								
14								
16								
			DEPTH (FT)		NOTES:			
WATER LEVEL DATA			BOTTOM OF	BOTTOM OF			GROUNDWATER	
DATE	TIME	ELAPSED TIME	CASING	BORING			ENCOUNTERED	
GENERAL NOTES 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL. 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE								
							<b>BORING: LABSB-04</b>	


 <b>300 STATE STREET, ROCHESTER, NY</b> <b>ENVIRONMENTAL ENGINEERING CONSULTANTS</b>			<b>PROJECT</b> North Shore BCP 130 and 158 Lakeshore Drive, Canandaigua NY			<b>BORING: LABSB-05</b> <b>SHEET 5 OF 29</b> <b>JOB:</b> <b>CHKD BY:</b>		
CONTRACTOR: LaBella LLC DRILLER: N. Wall LABELLA REPRESENTATIVE: A. Aquilina			BORING LOCATION: 130 Lakeshore Drive GROUND SURFACE ELEVATION START DATE: 8/22/2014 END DATE: 8/22/2014			DATUM:		
TYPE OF DRILL RIG: Geoprobe AUGER SIZE AND TYPE: NA OVERBURDEN SAMPLING METHOD: Macrocore			DRIVE SAMPLER TYPE: INSIDE DIAMETER: 2" OTHER:					
D E P T H	SAMPLE			VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS		
	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE					
0	0-2	100%	0.75'	Dark brown SILT and SAND, and vegetation, moist	0	Sample 0-2'		
				Light brown SILTY SAND, trace coarse GRAVEL, moist				
2				End of boring @ 2' bgs	0			
4								
6								
8								
10								
12								
14								
16								
WATER LEVEL DATA			DEPTH (FT)		NOTES:			
			BOTTOM OF CASING	BOTTOM OF BORING			GROUNDWATER ENCOUNTERED	
DATE	TIME	ELAPSED TIME						
GENERAL NOTES 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL. 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE								
						<b>BORING: LABSB-05</b>		

 <b>300 STATE STREET, ROCHESTER, NY</b> <b>ENVIRONMENTAL ENGINEERING CONSULTANTS</b>			<b>PROJECT</b> North Shore BCP 130 and 158 Lakeshore Drive, Canandaigua NY			<b>BORING: LABSB-06</b> <b>SHEET 6 OF 29</b> <b>JOB:</b> <b>CHKD BY:</b>		
CONTRACTOR: LaBella LLC DRILLER: N. Wall LABELLA REPRESENTATIVE: A. Aquilina			BORING LOCATION: 130 Lakeshore Drive GROUND SURFACE ELEVATION START DATE: 8/22/2014 END DATE: 8/22/2014			DATUM:		
TYPE OF DRILL RIG: Geoprobe AUGER SIZE AND TYPE: NA OVERBURDEN SAMPLING METHOD: Macrocore			DRIVE SAMPLER TYPE: INSIDE DIAMETR: 2" OTHER:					
D E P T H	SAMPLE			VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS		
	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE					
0	0-2	100%	0.5'	Top soil- Brown SILT and SAND, some vegetation, moist Light brown SILTY fine SAND, some coarse GRAVEL, moist	0	Sample 0-2'		
2				End of boring @ 2' bgs	0			
4								
6								
8								
10								
12								
14								
16								
			DEPTH (FT)		NOTES:			
WATER LEVEL DATA			BOTTOM OF	BOTTOM OF	GROUNDWATER			
DATE	TIME	ELAPSED TIME	CASING	BORING	ENCOUNTERED			
GENERAL NOTES 1) STRATIFICATION LINES REPRESENT APPROXMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL. 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE								
						<b>BORING: LABSB-06</b>		


 <b>300 STATE STREET, ROCHESTER, NY</b> <b>ENVIRONMENTAL ENGINEERING CONSULTANTS</b>			<b>PROJECT</b> North Shore BCP 130 and 158 Lakeshore Drive, Canandaigua NY			<b>BORING: LABSB-07</b> <b>SHEET 7 OF 29</b> <b>JOB:</b> <b>CHKD BY:</b>		
CONTRACTOR: LaBella LLC DRILLER: N. Wall LABELLA REPRESENTATIVE: A. Aquilina			BORING LOCATION: 130 Lakeshore Drive GROUND SURFACE ELEVATION START DATE: 8/22/2014 END DATE: 8/22/2014			DATUM:		
TYPE OF DRILL RIG: Geoprobe AUGER SIZE AND TYPE: NA OVERBURDEN SAMPLING METHOD: Macrocore			DRIVE SAMPLER TYPE: INSIDE DIAMETR: 2" OTHER:					
D E P T H	SAMPLE			VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS		
	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE					
0	0-2	100%	1'	Top soil- Brown SILT and SAND, some vegetation, moist Light brown SILTY SAND, some coarse GRAVEL, moist	0	Sample 0-2'		
2				End of boring @ 2' bgs	0			
4								
6								
8								
10								
12								
14								
16								
			DEPTH (FT)		NOTES:			
WATER LEVEL DATA			BOTTOM OF	BOTTOM OF	GROUNDWATER			
DATE	TIME	ELAPSED TIME	CASING	BORING	ENCOUNTERED			
GENERAL NOTES 1) STRATIFICATION LINES REPRESENT APPROXMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL. 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE								
						<b>BORING: LABSB-07</b>		


 <b>300 STATE STREET, ROCHESTER, NY</b> <b>ENVIRONMENTAL ENGINEERING CONSULTANTS</b>			<b>PROJECT</b> North Shore BCP 130 and 158 Lakeshore Drive, Canandaigua NY			<b>BORING: LABSB-08</b> <b>SHEET 8 OF 29</b> <b>JOB:</b> <b>CHKD BY:</b>		
CONTRACTOR: LaBella LLC DRILLER: N. Wall LABELLA REPRESENTATIVE: A. Aquilina			BORING LOCATION: 130 Lakeshore Drive GROUND SURFACE ELEVATION START DATE: 8/22/2014 END DATE: 8/22/2014			DATUM:		
TYPE OF DRILL RIG: Geoprobe AUGER SIZE AND TYPE: NA OVERBURDEN SAMPLING METHOD: Macrocore			DRIVE SAMPLER TYPE: INSIDE DIAMETER: 2" OTHER:					
D E P T H	SAMPLE			VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS		
	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE					
0	0-2	100%	0.25' 1'	Black/grey ASPHALT and coarse GRAVEL Light brown SILTY SAND, some coarse GRAVEL, moist ...lesser amounts of coarse GRAVEL	0	Sample 0-2'		
2				End of boring @ 2' bgs	0			
4								
6								
8								
10								
12								
14								
16								
			DEPTH (FT)		NOTES:			
WATER LEVEL DATA			BOTTOM OF	BOTTOM OF	GROUNDWATER			
DATE	TIME	ELAPSED TIME	CASING	BORING	ENCOUNTERED			
GENERAL NOTES 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL. 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE								
						<b>BORING: LABSB-08</b>		


 <b>300 STATE STREET, ROCHESTER, NY</b> <b>ENVIRONMENTAL ENGINEERING CONSULTANTS</b>			<b>PROJECT</b> North Shore BCP 130 and 158 Lakeshore Drive, Canandaigua NY			<b>BORING: LABSB-09</b> <b>SHEET 9 OF 29</b> <b>JOB:</b> <b>CHKD BY:</b>		
CONTRACTOR: LaBella LLC DRILLER: N. Wall LABELLA REPRESENTATIVE: A. Aquilina			BORING LOCATION: 130 Lakeshore Drive GROUND SURFACE ELEVATION START DATE: 8/22/2014 END DATE: 8/22/2014			DATUM:		
TYPE OF DRILL RIG: Geoprobe AUGER SIZE AND TYPE: NA OVERBURDEN SAMPLING METHOD: Macrocore			DRIVE SAMPLER TYPE: INSIDE DIAMETER: 2" OTHER:					
D E P T H	SAMPLE			VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS		
	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE					
0	0-2	100%	1'	Top soil- Dark brown SILT and SAND, and grey/black GRAVEL, moist Light brown SILTY SAND, trace fine GRAVEL, moist	0	Sample 0-2'		
2				End of boring @ 2' bgs	0			
4								
6								
8								
10								
12								
14								
16								
			DEPTH (FT)		NOTES:			
WATER LEVEL DATA			BOTTOM OF	BOTTOM OF	GROUNDWATER			
DATE	TIME	ELAPSED TIME	CASING	BORING	ENCOUNTERED			
GENERAL NOTES 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL. 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE								
						<b>BORING: LABSB-09</b>		


 <b>300 STATE STREET, ROCHESTER, NY</b> <b>ENVIRONMENTAL ENGINEERING CONSULTANTS</b>			<b>PROJECT</b> North Shore BCP 130 and 158 Lakeshore Drive, Canandaigua NY			<b>BORING: LABSB-10</b> <b>SHEET 10 OF 29</b> <b>JOB:</b> <b>CHKD BY:</b>		
CONTRACTOR: LaBella LLC DRILLER: N. Wall LABELLA REPRESENTATIVE: A. Aquilina			BORING LOCATION: 130 Lakeshore Drive GROUND SURFACE ELEVATION START DATE: 8/22/2014 END DATE: 8/22/2014			DATUM:		
TYPE OF DRILL RIG: Geoprobe AUGER SIZE AND TYPE: NA OVERBURDEN SAMPLING METHOD: Macrocore			DRIVE SAMPLER TYPE: INSIDE DIAMETER: 2" OTHER:					
D E P T H	SAMPLE			VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS		
	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE					
0	0-2	100%	1'	Top soil- Dark brown SILT and SAND, and grey/black GRAVEL, moist	0	Sample 0-2'		
2				Light brown SILTY SAND, trace fine GRAVEL, moist				
4				End of boring @ 2' bgs				
6								
8								
10								
12								
14								
16								
			DEPTH (FT)			NOTES:		
WATER LEVEL DATA			BOTTOM OF	BOTTOM OF	GROUNDWATER			
DATE	TIME	ELAPSED TIME	CASING	BORING	ENCOUNTERED			
GENERAL NOTES 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL. 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE								
<div style="text-align: right;"><b>BORING: LABSB-10</b></div>								





 <b>300 STATE STREET, ROCHESTER, NY</b> <b>ENVIRONMENTAL ENGINEERING CONSULTANTS</b>			<b>PROJECT</b> North Shore BCP 130 and 158 Lakeshore Drive, Canandaigua NY			<b>BORING: LABSB-11</b> <b>SHEET 11 OF 29</b> <b>JOB:</b> <b>CHKD BY:</b>		
CONTRACTOR: LaBella LLC DRILLER: N. Wall LABELLA REPRESENTATIVE: A. Aquilina			BORING LOCATION: 130 Lakeshore Drive GROUND SURFACE ELEVATION START DATE: 8/22/2014 END DATE: 8/22/2014			DATUM:		
TYPE OF DRILL RIG: Geoprobe AUGER SIZE AND TYPE: NA OVERBURDEN SAMPLING METHOD: Macrocore			DRIVE SAMPLER TYPE: INSIDE DIAMETER: 2" OTHER:					
D E P T H	SAMPLE			VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS		
	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE					
0	0-2	100%	0.25' 1'	Black/grey ASPHALT and coarse GRAVEL, moist Dark brown SILTY SAND, and coarse GRAVEL, moist Dark brown SILTY SAND, moist	0  0	Sample 0-2'		
2				End of boring @ 2' bgs				
4								
6								
8								
10								
12								
14								
16								
			DEPTH (FT)		NOTES:			
WATER LEVEL DATA			BOTTOM OF	BOTTOM OF			GROUNDWATER	
DATE	TIME	ELAPSED TIME	CASING	BORING			ENCOUNTERED	
GENERAL NOTES 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL. 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE								
							<b>BORING: LABSB-11</b>	


 <b>300 STATE STREET, ROCHESTER, NY</b> <b>ENVIRONMENTAL ENGINEERING CONSULTANTS</b>			<b>PROJECT</b> North Shore BCP 130 and 158 Lakeshore Drive, Canandaigua NY			<b>BORING: LABSB-12</b> <b>SHEET 12 OF 29</b> <b>JOB:</b> <b>CHKD BY:</b>		
CONTRACTOR: LaBella LLC DRILLER: N. Wall LABELLA REPRESENTATIVE: A. Aquilina			BORING LOCATION: 130 Lakeshore Drive GROUND SURFACE ELEVATION START DATE: 8/22/2014 END DATE: 8/22/2014			DATUM:		
TYPE OF DRILL RIG: Geoprobe AUGER SIZE AND TYPE: NA OVERBURDEN SAMPLING METHOD: Macrocore			DRIVE SAMPLER TYPE: INSIDE DIAMETR: 2" OTHER:					
D E P T H	SAMPLE			VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS		
	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE					
0	0-2	100%	1'	Top soil- Dark brown SILT and SAND, trace vegetation, moist Light brown SILTY SAND, trace wood chips, moist	0	Sample 0-2'		
2				End of boring @ 2' bgs	0			
4								
6								
8								
10								
12								
14								
16								
			DEPTH (FT)		NOTES:			
WATER LEVEL DATA			BOTTOM OF	BOTTOM OF	GROUNDWATER			
DATE	TIME	ELASPED TIME	CASING	BORING	ENCOUNTERED			
GENERAL NOTES 1) STRATIFICATION LINES REPRESENT APPROXMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL. 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE								
						<b>BORING: LABSB-12</b>		


 <b>300 STATE STREET, ROCHESTER, NY</b> <b>ENVIRONMENTAL ENGINEERING CONSULTANTS</b>			<b>PROJECT</b> North Shore BCP 130 and 158 Lakeshore Drive, Canandaigua NY			<b>BORING: LABSB-13</b> <b>SHEET 13 OF 29</b> <b>JOB:</b> <b>CHKD BY:</b>		
CONTRACTOR: LaBella LLC DRILLER: N. Wall LABELLA REPRESENTATIVE: A. Aquilina			BORING LOCATION: 130 Lakeshore Drive GROUND SURFACE ELEVATION START DATE: 8/22/2014 END DATE: 8/22/2014			DATUM:		
TYPE OF DRILL RIG: Geoprobe AUGER SIZE AND TYPE: NA OVERBURDEN SAMPLING METHOD: Macrocore			DRIVE SAMPLER TYPE: INSIDE DIAMETER: 2" OTHER:					
D E P T H	SAMPLE			VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS		
	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE					
0	0-2	100%		Brown SILTY SAND, and coarse GRAVEL, moist	0	Sample 0-2'		
2				End of boring @ 2' bgs	0			
4								
6								
8								
10								
12								
14								
16								
WATER LEVEL DATA			DEPTH (FT)		NOTES:			
			BOTTOM OF CASING	BOTTOM OF BORING			GROUNDWATER ENCOUNTERED	
DATE	TIME	ELAPSED TIME						
GENERAL NOTES 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL. 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE								
<div style="text-align: right;"><b>BORING: LABSB-13</b></div>								

 <b>300 STATE STREET, ROCHESTER, NY</b> <b>ENVIRONMENTAL ENGINEERING CONSULTANTS</b>			<b>PROJECT</b> North Shore BCP 130 and 158 Lakeshore Drive, Canandaigua NY			<b>BORING: LABSB-14</b> <b>SHEET 14 OF 29</b> <b>JOB:</b> <b>CHKD BY:</b>		
CONTRACTOR: LaBella LLC DRILLER: N. Wall LABELLA REPRESENTATIVE: A. Aquilina			BORING LOCATION: 130 Lakeshore Drive GROUND SURFACE ELEVATION START DATE: 8/22/2014 END DATE: 8/22/2014			DATUM:		
TYPE OF DRILL RIG: Geoprobe AUGER SIZE AND TYPE: NA OVERBURDEN SAMPLING METHOD: Macrocore			DRIVE SAMPLER TYPE: INSIDE DIAMETER: 2" OTHER:					
D E P T H	SAMPLE			VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS		
	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE					
0	0-2	100%	0.5'	Top soil- Dark brown SILT and SAND, moist	0	Sample 0-2'		
				Light brown SILTY fine SAND, trace fine GRAVEL, moist				
2				End of boring @ 2' bgs	0			
4								
6								
8								
10								
12								
14								
16								
WATER LEVEL DATA			DEPTH (FT)		NOTES:			
			BOTTOM OF CASING	BOTTOM OF BORING			GROUNDWATER ENCOUNTERED	
DATE	TIME	ELAPSED TIME						
GENERAL NOTES 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL. 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE								
						<b>BORING: LABSB-14</b>		


 <b>300 STATE STREET, ROCHESTER, NY</b> <b>ENVIRONMENTAL ENGINEERING CONSULTANTS</b>			<b>PROJECT</b> North Shore BCP 130 and 158 Lakeshore Drive, Canandaigua NY			<b>BORING: LABSB-15</b> <b>SHEET 15 OF 29</b> <b>JOB:</b> <b>CHKD BY:</b>		
CONTRACTOR: LaBella LLC DRILLER: N. Wall LABELLA REPRESENTATIVE: A. Aquilina			BORING LOCATION: 130 Lakeshore Drive GROUND SURFACE ELEVATION START DATE: 8/22/2014 END DATE: 8/22/2014			DATUM:		
TYPE OF DRILL RIG: Geoprobe AUGER SIZE AND TYPE: NA OVERBURDEN SAMPLING METHOD: Macrocore			DRIVE SAMPLER TYPE: INSIDE DIAMETER: 2" OTHER:					
D E P T H	SAMPLE			VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS		
	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE					
0	0-2	100%	0.5'	Top soil- Dark brown SILT and SAND, and vegetation moist  Dark brown SILTY fine SAND, trace coarse GRAVEL, moist	0	Sample 0-2'		
2				End of boring @ 2' bgs	0			
4								
6								
8								
10								
12								
14								
16								
			DEPTH (FT)			NOTES:		
WATER LEVEL DATA			BOTTOM OF	BOTTOM OF	GROUNDWATER			
DATE	TIME	ELAPSED TIME	CASING	BORING	ENCOUNTERED			
GENERAL NOTES 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL. 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE								
<div style="text-align: right;"><b>BORING: LABSB-15</b></div>								


 <b>300 STATE STREET, ROCHESTER, NY</b> <b>ENVIRONMENTAL ENGINEERING CONSULTANTS</b>			<b>PROJECT</b> North Shore BCP 130 and 158 Lakeshore Drive, Canandaigua NY			<b>BORING: LABSB-16</b> <b>SHEET 16 OF 29</b> <b>JOB:</b> <b>CHKD BY:</b>		
CONTRACTOR: LaBella LLC DRILLER: N. Wall LABELLA REPRESENTATIVE: A. Aquilina			BORING LOCATION: 130 Lakeshore Drive GROUND SURFACE ELEVATION START DATE: 8/22/2014 END DATE: 8/22/2014			DATUM:		
TYPE OF DRILL RIG: Geoprobe AUGER SIZE AND TYPE: NA OVERBURDEN SAMPLING METHOD: Macrocore			DRIVE SAMPLER TYPE: INSIDE DIAMETER: 2" OTHER:					
D E P T H	SAMPLE			VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS		
	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE					
0	0-2	100%	1.5'	Top soil- Dark brown SILT and SAND, trace coarse GRAVEL, moist	0	Sample 0-2'		
2				Light brown SILTY fine SAND, trace fine GRAVEL, moist	0			
4				End of boring @ 2' bgs				
6								
8								
10								
12								
14								
16								
			DEPTH (FT)		NOTES:			
WATER LEVEL DATA			BOTTOM OF	BOTTOM OF				GROUNDWATER
DATE	TIME	ELAPSED TIME	CASING	BORING				ENCOUNTERED
GENERAL NOTES 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL. 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE								
<div style="text-align: right;"><b>BORING: LABSB-16</b></div>								


 <b>300 STATE STREET, ROCHESTER, NY</b> <b>ENVIRONMENTAL ENGINEERING CONSULTANTS</b>			<b>PROJECT</b> North Shore BCP 130 and 158 Lakeshore Drive, Canandaigua NY			<b>BORING: LABSB-17</b> <b>SHEET 17 OF 29</b> <b>JOB:</b> <b>CHKD BY:</b>		
CONTRACTOR: LaBella LLC DRILLER: N. Wall LABELLA REPRESENTATIVE: A. Aquilina			BORING LOCATION: 130 Lakeshore Drive GROUND SURFACE ELEVATION START DATE: 8/22/2014 END DATE: 8/22/2014			DATUM:		
TYPE OF DRILL RIG: Geoprobe AUGER SIZE AND TYPE: NA OVERBURDEN SAMPLING METHOD: Macrocore			DRIVE SAMPLER TYPE: INSIDE DIAMETR: 2" OTHER:					
D E P T H	SAMPLE			VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS		
	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE					
0	0-2	100%	1'	Top soil- Dark brown SILT and SAND, and coarse GRAVEL, moist Dark brown/grey SILTY fine SAND, some coarse GRAVEL, moist	0	Sample 0-2'		
2				End of boring @ 2' bgs	0			
4								
6								
8								
10								
12								
14								
16								
			DEPTH (FT)		NOTES:			
WATER LEVEL DATA			BOTTOM OF	BOTTOM OF	GROUNDWATER			
DATE	TIME	ELAPSED TIME	CASING	BORING	ENCOUNTERED			
GENERAL NOTES 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL. 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE								
						<b>BORING: LABSB-17</b>		


 <b>300 STATE STREET, ROCHESTER, NY</b> <b>ENVIRONMENTAL ENGINEERING CONSULTANTS</b>			<b>PROJECT</b> North Shore BCP 130 and 158 Lakeshore Drive, Canandaigua NY			<b>BORING: LABSB-18</b> <b>SHEET 18 OF 29</b> <b>JOB:</b> <b>CHKD BY:</b>		
CONTRACTOR: LaBella LLC DRILLER: N. Wall LABELLA REPRESENTATIVE: A. Aquilina			BORING LOCATION: 130 Lakeshore Drive GROUND SURFACE ELEVATION START DATE: 8/22/2014 END DATE: 8/22/2014			DATUM:		
TYPE OF DRILL RIG: Geoprobe AUGER SIZE AND TYPE: NA OVERBURDEN SAMPLING METHOD: Macrocore			DRIVE SAMPLER TYPE: INSIDE DIAMETR: 2" OTHER:					
D E P T H	SAMPLE			VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS		
	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE					
0	0-2	100%	1'	Top soil- Dark brown SILT and SAND, and vegetation, moist Dark brown SILTY fine SAND, some coarse GRAVEL, moist	0	Sample 0-2'		
2				End of boring @ 2' bgs	0			
4								
6								
8								
10								
12								
14								
16								
			DEPTH (FT)		NOTES:			
WATER LEVEL DATA			BOTTOM OF	BOTTOM OF	GROUNDWATER			
DATE	TIME	ELAPSED TIME	CASING	BORING	ENCOUNTERED			
GENERAL NOTES 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL. 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE								
						<b>BORING: LABSB-18</b>		





 <b>300 STATE STREET, ROCHESTER, NY</b> <b>ENVIRONMENTAL ENGINEERING CONSULTANTS</b>			<b>PROJECT</b> North Shore BCP 130 and 158 Lakeshore Drive, Canandaigua NY			<b>BORING: LABSB-19</b> <b>SHEET 19 OF 29</b> <b>JOB:</b> <b>CHKD BY:</b>		
CONTRACTOR: LaBella LLC DRILLER: N. Wall LABELLA REPRESENTATIVE: A. Aquilina			BORING LOCATION: 130 Lakeshore Drive GROUND SURFACE ELEVATION START DATE: 8/22/2014 END DATE: 8/22/2014			DATUM:		
TYPE OF DRILL RIG: Geoprobe AUGER SIZE AND TYPE: NA OVERBURDEN SAMPLING METHOD: Macrocore			DRIVE SAMPLER TYPE: INSIDE DIAMETER: 2" OTHER:					
D E P T H	SAMPLE			VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS		
	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE					
0	0-2	100%	0.75'	Top soil- Dark brown SILT and SAND, and vegetation, moist	0	Sample 0-2'		
				Light brown SILTY fine SAND, trace vegetation, moist				
2				End of boring @ 2' bgs	0			
4								
6								
8								
10								
12								
14								
16								
WATER LEVEL DATA			DEPTH (FT)		NOTES:			
			BOTTOM OF CASING	BOTTOM OF BORING				
DATE	TIME	ELAPSED TIME		GROUNDWATER ENCOUNTERED				
GENERAL NOTES 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL. 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE								
						<b>BORING: LABSB-19</b>		


 <b>300 STATE STREET, ROCHESTER, NY</b> <b>ENVIRONMENTAL ENGINEERING CONSULTANTS</b>			<b>PROJECT</b> North Shore BCP 130 and 158 Lakeshore Drive, Canandaigua NY			<b>BORING: LABSB-20</b> <b>SHEET 20 OF 29</b> <b>JOB:</b> <b>CHKD BY:</b>		
CONTRACTOR: LaBella LLC DRILLER: N. Wall LABELLA REPRESENTATIVE: A. Aquilina			BORING LOCATION: 130 Lakeshore Drive GROUND SURFACE ELEVATION START DATE: 8/22/2014 END DATE: 8/22/2014			DATUM:		
TYPE OF DRILL RIG: Geoprobe AUGER SIZE AND TYPE: NA OVERBURDEN SAMPLING METHOD: Macrocore			DRIVE SAMPLER TYPE: INSIDE DIAMETER: 2" OTHER:					
D E P T H	SAMPLE			VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS		
	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE					
0	0-2	100%	1'	Top soil- Dark brown SILT and SAND, and coarse GRAVEL, moist Light brown SILTY fine SAND, trace fine GRAVEL, moist	0	Sample 0-2'		
2				End of boring @ 2' bgs	0			
4								
6								
8								
10								
12								
14								
16								
			DEPTH (FT)		NOTES:			
WATER LEVEL DATA			BOTTOM OF	BOTTOM OF	GROUNDWATER			
DATE	TIME	ELAPSED TIME	CASING	BORING	ENCOUNTERED			
GENERAL NOTES 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL. 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE								
						<b>BORING: LABSB-20</b>		


 <b>300 STATE STREET, ROCHESTER, NY</b> <b>ENVIRONMENTAL ENGINEERING CONSULTANTS</b>			<b>PROJECT</b> North Shore BCP 130 and 158 Lakeshore Drive, Canandaigua NY			<b>BORING: LABSB-21</b> <b>SHEET 21 OF 29</b> <b>JOB:</b> <b>CHKD BY:</b>		
CONTRACTOR: LaBella LLC DRILLER: N. Wall LABELLA REPRESENTATIVE: A. Aquilina			BORING LOCATION: 130 Lakeshore Drive GROUND SURFACE ELEVATION START DATE: 8/22/2014 END DATE: 8/22/2014			DATUM:		
TYPE OF DRILL RIG: Geoprobe AUGER SIZE AND TYPE: NA OVERBURDEN SAMPLING METHOD: Macrocore			DRIVE SAMPLER TYPE: INSIDE DIAMETER: 2" OTHER:					
D E P T H	SAMPLE			VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS		
	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE					
0	0-2	100% 75% 50%		Top soil- Dark brown SILTY and SAND, trace fine GRAVEL, moist	0	Sample 0-2' 3 borings advanced and composited except for VOC sample MS/MSD Collected		
2				End of boring @ 2' bgs	0			
4								
6								
8								
10								
12								
14								
16								
			DEPTH (FT)		NOTES:			
WATER LEVEL DATA			BOTTOM OF	BOTTOM OF			GROUNDWATER	
DATE	TIME	ELAPSED TIME	CASING	BORING			ENCOUNTERED	
GENERAL NOTES 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL. 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE								
							<b>BORING: LABSB-21</b>	

 <b>300 STATE STREET, ROCHESTER, NY</b> <b>ENVIRONMENTAL ENGINEERING CONSULTANTS</b>			<b>PROJECT</b> North Shore BCP 130 and 158 Lakeshore Drive, Canandaigua NY			<b>BORING: LABSB-22</b> <b>SHEET 22 OF 29</b> <b>JOB:</b> <b>CHKD BY:</b>		
CONTRACTOR: LaBella LLC DRILLER: N. Wall LABELLA REPRESENTATIVE: A. Aquilina			BORING LOCATION: 130 Lakeshore Drive GROUND SURFACE ELEVATION START DATE: 8/22/2014 END DATE: 8/22/2014			DATUM:		
TYPE OF DRILL RIG: Geoprobe AUGER SIZE AND TYPE: NA OVERBURDEN SAMPLING METHOD: Macrocore			DRIVE SAMPLER TYPE: INSIDE DIAMETR: 2" OTHER:					
D E P T H	SAMPLE			VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS		
	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE					
0	0-2	100%		Top soil- Dark brown SILT and SAND, trace fine GRAVEL, trace vegetation	0	Sample 0-2'		
2				End of boring @ 2' bgs	0			
4								
6								
8								
10								
12								
14								
16								
			DEPTH (FT)		NOTES:			
WATER LEVEL DATA			BOTTOM OF	BOTTOM OF	GROUNDWATER			
DATE	TIME	ELAPSED TIME	CASING	BORING	ENCOUNTERED			
GENERAL NOTES 1) STRATIFICATION LINES REPRESENT APPROXMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL. 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE								
						<b>BORING: LABSB-22</b>		


 <b>300 STATE STREET, ROCHESTER, NY</b> <b>ENVIRONMENTAL ENGINEERING CONSULTANTS</b>			<b>PROJECT</b> North Shore BCP 130 and 158 Lakeshore Drive, Canandaigua NY			<b>BORING: LABSB-23</b> <b>SHEET 23 OF 29</b> <b>JOB:</b> <b>CHKD BY:</b>		
CONTRACTOR: LaBella LLC DRILLER: N. Wall LABELLA REPRESENTATIVE: A. Aquilina			BORING LOCATION: 130 Lakeshore Drive GROUND SURFACE ELEVATION START DATE: 8/22/2014 END DATE: 8/22/2014			DATUM:		
TYPE OF DRILL RIG: Geoprobe AUGER SIZE AND TYPE: NA OVERBURDEN SAMPLING METHOD: Macrocore			DRIVE SAMPLER TYPE: INSIDE DIAMETR: 2" OTHER:					
D E P T H	SAMPLE			VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS		
	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE					
0	0-2	100%		Top soil- Dark brown SILT and SAND, trace fine GRAVEL, moist	0	Sample 0-2'		
2				End of boring @ 2' bgs	0			
4								
6								
8								
10								
12								
14								
16								
			DEPTH (FT)		NOTES:			
WATER LEVEL DATA			BOTTOM OF	BOTTOM OF	GROUNDWATER			
DATE	TIME	ELAPSED TIME	CASING	BORING	ENCOUNTERED			
GENERAL NOTES 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL. 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE								
<div style="text-align: right;"><b>BORING: LABSB-23</b></div>								


 <b>300 STATE STREET, ROCHESTER, NY</b> <b>ENVIRONMENTAL ENGINEERING CONSULTANTS</b>			<b>PROJECT</b> North Shore BCP 130 and 158 Lakeshore Drive, Canandaigua NY			<b>BORING: LABSB-24</b> <b>SHEET 24 OF 29</b> <b>JOB:</b> <b>CHKD BY:</b>		
CONTRACTOR: LaBella LLC DRILLER: N. Wall LABELLA REPRESENTATIVE: A. Aquilina			BORING LOCATION: 130 Lakeshore Drive GROUND SURFACE ELEVATION START DATE: 8/22/2014 END DATE: 8/22/2014			DATUM:		
TYPE OF DRILL RIG: Geoprobe AUGER SIZE AND TYPE: NA OVERBURDEN SAMPLING METHOD: Macrocore			DRIVE SAMPLER TYPE: INSIDE DIAMETER: 2" OTHER:					
D E P T H	SAMPLE			VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS		
	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE					
0	0-2	70%		Top soil- Dark brown SILT and SAND, trace fine GRAVEL, moist	0	Sample 0-2'		
2				End of boring @ 2' bgs	0			
4								
6								
8								
10								
12								
14								
16								
			DEPTH (FT)		NOTES:			
WATER LEVEL DATA			BOTTOM OF	BOTTOM OF	GROUNDWATER			
DATE	TIME	ELAPSED TIME	CASING	BORING	ENCOUNTERED			
GENERAL NOTES 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL. 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE								
							<b>BORING: LABSB-24</b>	


 <b>300 STATE STREET, ROCHESTER, NY</b> <b>ENVIRONMENTAL ENGINEERING CONSULTANTS</b>			<b>PROJECT</b> North Shore BCP 130 and 158 Lakeshore Drive, Canandaigua NY			<b>BORING: LABSB-25</b> <b>SHEET 25 OF 29</b> <b>JOB:</b> <b>CHKD BY:</b>		
CONTRACTOR: LaBella LLC DRILLER: N. Wall LABELLA REPRESENTATIVE: A. Aquilina			BORING LOCATION: 130 Lakeshore Drive GROUND SURFACE ELEVATION START DATE: 8/22/2014 END DATE: 8/22/2014			DATUM:		
TYPE OF DRILL RIG: Geoprobe AUGER SIZE AND TYPE: NA OVERBURDEN SAMPLING METHOD: Macrocore			DRIVE SAMPLER TYPE: INSIDE DIAMETER: 2" OTHER:					
D E P T H	SAMPLE			VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS		
	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE					
0	0-2	50%		Top soil- Dark brown SILT and SAND, trace fine GRAVEL, moist	0	Sample 0-2'		
2				End of boring @ 2' bgs	0			
4								
6								
8								
10								
12								
14								
16								
			DEPTH (FT)		NOTES:			
WATER LEVEL DATA			BOTTOM OF	BOTTOM OF	GROUNDWATER			
DATE	TIME	ELAPSED TIME	CASING	BORING	ENCOUNTERED			
GENERAL NOTES 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL. 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE								
							<b>BORING: LABSB-25</b>	

 <b>300 STATE STREET, ROCHESTER, NY</b> <b>ENVIRONMENTAL ENGINEERING CONSULTANTS</b>			<b>PROJECT</b> North Shore BCP 130 and 158 Lakeshore Drive, Canandaigua NY			<b>BORING: LABSB-26</b> <b>SHEET 26 OF 29</b> <b>JOB:</b> <b>CHKD BY:</b>		
CONTRACTOR: LaBella LLC DRILLER: N. Wall LABELLA REPRESENTATIVE: A. Aquilina			BORING LOCATION: 130 Lakeshore Drive GROUND SURFACE ELEVATION START DATE: 8/22/2014 END DATE: 8/22/2014			DATUM:		
TYPE OF DRILL RIG: Geoprobe AUGER SIZE AND TYPE: NA OVERBURDEN SAMPLING METHOD: Macrocore			DRIVE SAMPLER TYPE: INSIDE DIAMETER: 2" OTHER:					
D E P T H	SAMPLE			VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS		
	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE					
0	0-2	100%	1'	Top soil- Dark brown SILT and SAND, some fine GRAVEL, moist Dark brown/black SILTY SAND, some black/grey CINDERS and ASH	0	Sample 0-2'		
2				End of boring @ 2' bgs	0			
4								
6								
8								
10								
12								
14								
16								
			DEPTH (FT)		NOTES:			
WATER LEVEL DATA			BOTTOM OF	BOTTOM OF			GROUNDWATER	
DATE	TIME	ELAPSED TIME	CASING	BORING			ENCOUNTERED	
GENERAL NOTES 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL. 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE								
							<b>BORING: LABSB-26</b>	




 <b>300 STATE STREET, ROCHESTER, NY</b> <b>ENVIRONMENTAL ENGINEERING CONSULTANTS</b>			<b>PROJECT</b> North Shore BCP 130 and 158 Lakeshore Drive, Canandaigua NY			<b>BORING: LABSB-27</b> <b>SHEET 27 OF 29</b> <b>JOB:</b> <b>CHKD BY:</b>		
CONTRACTOR: LaBella LLC DRILLER: N. Wall LABELLA REPRESENTATIVE: A. Aquilina			BORING LOCATION: 130 Lakeshore Drive GROUND SURFACE ELEVATION START DATE: 8/22/2014 END DATE: 8/22/2014			DATUM:		
TYPE OF DRILL RIG: Geoprobe AUGER SIZE AND TYPE: NA OVERBURDEN SAMPLING METHOD: Macrocore			DRIVE SAMPLER TYPE: INSIDE DIAMETER: 2" OTHER:					
D E P T H	SAMPLE			VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS		
	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE					
0	0-2	100%	1'	Top soil- Dark brown SILT and SAND, some vegetation, moist	0	Sample 0-2'		
			1.5'	Grey/brown SILTY SAND, and grey coarse GRAVEL, moist Brown SILTY fine SAND, moist	0			
2				End of boring @ 2' bgs				
4								
6								
8								
10								
12								
14								
16								
			DEPTH (FT)			NOTES:		
WATER LEVEL DATA			BOTTOM OF	BOTTOM OF	GROUNDWATER			
DATE	TIME	ELAPSED TIME	CASING	BORING	ENCOUNTERED			
GENERAL NOTES 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL. 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE								
						BORING: LABSB-27		

 <b>300 STATE STREET, ROCHESTER, NY</b> <b>ENVIRONMENTAL ENGINEERING CONSULTANTS</b>			<b>PROJECT</b> North Shore BCP 130 and 158 Lakeshore Drive, Canandaigua NY			<b>BORING: LABSB-28</b> <b>SHEET 28 OF 29</b> <b>JOB:</b> <b>CHKD BY:</b>		
CONTRACTOR: LaBella LLC DRILLER: N. Wall LABELLA REPRESENTATIVE: A. Aquilina			BORING LOCATION: 130 Lakeshore Drive GROUND SURFACE ELEVATION START DATE: 8/22/2014 END DATE: 8/22/2014			DATUM:		
TYPE OF DRILL RIG: Geoprobe AUGER SIZE AND TYPE: NA OVERBURDEN SAMPLING METHOD: Macrocore			DRIVE SAMPLER TYPE: INSIDE DIAMETER: 2" OTHER:					
D E P T H	SAMPLE			VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS		
	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE					
0	0-2	100%	0.5'	Top soil- Dark brown SILT and SAND, some vegetation, moist	0	Sample 0-2'		
2				Brown SILTY SAND, moist Brown SILTY fine SAND, moist				
4				End of boring @ 2' bgs				
6								
8								
10								
12								
14								
16								
			DEPTH (FT)			NOTES:		
WATER LEVEL DATA			BOTTOM OF	BOTTOM OF	GROUNDWATER			
DATE	TIME	ELAPSED TIME	CASING	BORING	ENCOUNTERED			
GENERAL NOTES 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL. 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE								
<div style="text-align: right;"><b>BORING: LABSB-28</b></div>								

 <b>300 STATE STREET, ROCHESTER, NY</b> <b>ENVIRONMENTAL ENGINEERING CONSULTANTS</b>			<b>PROJECT</b> North Shore BCP 130 and 158 Lakeshore Drive, Canandaigua NY			<b>BORING: LABSB-29</b> <b>SHEET 29 OF 29</b> <b>JOB:</b> <b>CHKD BY:</b>		
CONTRACTOR: LaBella LLC DRILLER: N. Wall LABELLA REPRESENTATIVE: A. Aquilina			BORING LOCATION: 130 Lakeshore Drive GROUND SURFACE ELEVATION START DATE: 8/22/2014 END DATE: 8/22/2014			DATUM:		
TYPE OF DRILL RIG: Geoprobe AUGER SIZE AND TYPE: NA OVERBURDEN SAMPLING METHOD: Macrocore			DRIVE SAMPLER TYPE: INSIDE DIAMETR: 2" OTHER:					
D E P T H	SAMPLE			VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS		
	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE					
0	0-2	100%	0.5	Grey/black ASPHALT and coarse GRAVEL	0	Sample 0-2'		
				Dark brown SILTY SAND and coarse GRAVEL, moist				
2			End of boring @ 2' bgs		0			
4								
6								
8								
10								
12								
14								
16								
			DEPTH (FT)		NOTES:			
WATER LEVEL DATA			BOTTOM OF	BOTTOM OF	GROUNDWATER			
DATE	TIME	ELAPSED TIME	CASING	BORING	ENCOUNTERED			
GENERAL NOTES 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL. 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE								
						<b>BORING: LABSB-29</b>		


<p><b>300 STATE STREET, ROCHESTER, NY</b>  <b>ENVIRONMENTAL ENGINEERING CONSULTANTS</b></p>			<b>PROJECT</b> Canandaigua North Shore Lakeshore Drive and Booth Street Canandaigua, NY			<b>TEST PIT: LAB-TP - 1</b> SHEET            1    OF    23 <b>JOB:                2151037</b> CHKD BY:		
CONTRACTOR: DDS OPERATOR: DDS LABELLA REPRESENTATIVE: MAW			TEST PIT LOCATION: IRM 3 GROUND SURFACE ELEVATION N/A START DATE: 12/21/15			DATUM: NA		
TYPE OF EQUIPMENT: John Deere mini excavator								
DEPTH (FEET)	SAMPLE		VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS			
	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)						
0		0'-1'	Dark brown SILT LOAM and STONE, dry, no odor	0	0			
		1'-2'	Black ash/cinders, dry, no odor	0				
2		2'-3'	Brown Silt LOAM and GRAVEL, dry, no odor	0	2			
4			Test pit concluded @ 3'		4			
6					6			
8					8			
10					10			
12					12			
14					14			
16					16			
WATER LEVEL DATA			DEPTH (FT)		NOTES: ND = Non Detect BGS = Below the Ground Surface NA = Not Applicable			
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT			GROUNDWATER ENCOUNTERED	
NA	NA	NA	NA					
GENERAL NOTES 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL. 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER								
<b>TEST PIT: LAB-TP - 1</b>								


 <b>300 STATE STREET, ROCHESTER, NY</b> <b>ENVIRONMENTAL ENGINEERING CONSULTANTS</b>			<b>PROJECT</b> Canandaigua North Shore Lakeshore Drive and Booth Street Canandaigua, NY			<b>TEST PIT: LAB-TP - 2</b> SHEET      2    OF    23 <b>JOB:            2151037</b> CHKD BY:		
			CONTRACTOR:    DDS                      TEST PIT LOCATION:            IRM 3 OPERATOR:        DDS                      GROUND SURFACE ELEVATION    N/A                      DATUM:            NA LABELLA REPRESENTATIVE:    MAW                      START DATE:    12/21/15					
TYPE OF EQUIPMENT:                      John Deere mini excavator								
DEPTH (FEET)	SAMPLE		VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS			
	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)						
0		0'-0.5'	Brown SILT LOAM and STONE, dry, no odor	0	0			
2		0.5'-3'	Brown Silt LOAM and GRAVEL, dry, no odor	0	2			
4			Test pit concluded @ 3'		4			
6					6			
8					8			
10					10			
12					12			
14					14			
16					16			
WATER LEVEL DATA			DEPTH (FT)			NOTES: ND = Non Detect BGS = Below the Ground Surface NA = Not Applicable		
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED			
NA	NA	NA	NA					
GENERAL NOTES 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL. 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER								
<b>TEST PIT: LAB-TP - 2</b>								

 <b>300 STATE STREET, ROCHESTER, NY</b> <b>ENVIRONMENTAL ENGINEERING CONSULTANTS</b>			<b>PROJECT</b> Canandaigua North Shore Lakeshore Drive and Booth Street Canandaigua, NY			<b>TEST PIT: LAB-TP - 3</b> SHEET 3 OF 23 <b>JOB: 2151037</b> CHKD BY:		
CONTRACTOR: DDS OPERATOR: DDS LABELLA REPRESENTATIVE: MAW			TEST PIT LOCATION: IRM 3 GROUND SURFACE ELEVATION N/A START DATE: 12/21/15			DATUM: NA		
TYPE OF EQUIPMENT: John Deere mini excavator								
DEPTH (FEET)	SAMPLE		VISUAL CLASSIFICATION			PID FIELD SCREEN (PPM)	REMARKS	
	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)						
0		0'-0.5'	Dark brown SILT LOAM and STONE, dry, no odor			0		
		0.5'-1.5'	Black ash/cinders, dry, no odor			0		
2		1.5'-3'	Brown SILT LOAM and GRAVEL, dry, no odor			0		
		Test pit concluded @ 3'						
4								
6								
8								
10								
12								
14								
16								


WATER LEVEL DATA			DEPTH (FT)			NOTES:
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	
NA	NA	NA	NA			


GENERAL NOTES  
 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.  
 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER

 <b>300 STATE STREET, ROCHESTER, NY</b> <b>ENVIRONMENTAL ENGINEERING CONSULTANTS</b>			<b>PROJECT</b> Canandaigua North Shore Lakeshore Drive and Booth Street Canandaigua, NY			<b>TEST PIT: LAB-TP - 4</b> SHEET 4 OF 23 <b>JOB: 2151037</b> CHKD BY:		
CONTRACTOR: DDS OPERATOR: DDS LABELLA REPRESENTATIVE: MAW			TEST PIT LOCATION: IRM 3 GROUND SURFACE ELEVATION N/A START DATE: 12/21/15			DATUM: NA		
TYPE OF EQUIPMENT: John Deere mini excavator								
DEPTH (FEET)	SAMPLE		VISUAL CLASSIFICATION			PID FIELD SCREEN (PPM)	REMARKS	
	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)						
0		0'-1'	Dark brown SILT LOAM and STONE, dry, no odor			0		
		1'-2'	Black ash/cinders, dry, no odor			0		
2		2'-3'	Brown SILT LOAM and GRAVEL, dry, no odor			0	2	
			Test pit concluded @ 3'					
4							4	
6							6	
8							8	
10							10	
12							12	
14							14	
16							16	
WATER LEVEL DATA			DEPTH (FT)			NOTES:		
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	ND = Non Detect		
NA	NA	NA	NA			BGS = Below the Ground Surface		
						NA = Not Applicable		
GENERAL NOTES 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL. 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER								
<b>TEST PIT: LAB-TP - 4</b>								

 <b>300 STATE STREET, ROCHESTER, NY</b> <b>ENVIRONMENTAL ENGINEERING CONSULTANTS</b>			<b>PROJECT</b> Canandaigua North Shore Lakeshore Drive and Booth Street Canandaigua, NY			<b>TEST PIT: LAB-TP - 5</b> SHEET 5 OF 23 <b>JOB: 2151037</b> CHKD BY:		
CONTRACTOR: DDS OPERATOR: DDS LABELLA REPRESENTATIVE: MAW			TEST PIT LOCATION: IRM 3 GROUND SURFACE ELEVATION N/A START DATE: 12/21/15			DATUM: NA		
TYPE OF EQUIPMENT: John Deere mini excavator								
DEPTH (FEET)	SAMPLE		VISUAL CLASSIFICATION			PID FIELD SCREEN (PPM)	REMARKS	
	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)						
0		0'-1.5'	Dark brown SILT LOAM and STONE, dry, no odor			0		
2		1.5'-3'	Brown SILT LOAM and GRAVEL, dry, no odor			0		
4			Test pit concluded @ 3'					
6								
8								
10								
12								
14								
16						16		
WATER LEVEL DATA			DEPTH (FT)			NOTES:		
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	ND = Non Detect BGS = Below the Ground Surface NA = Not Applicable		
NA	NA	NA	NA					
GENERAL NOTES 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL. 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER								
<div style="text-align: right;"><b>TEST PIT: LAB-TP - 5</b></div>								




 <p><b>300 STATE STREET, ROCHESTER, NY</b> ENVIRONMENTAL ENGINEERING CONSULTANTS</p>			<p align="center"><b>PROJECT</b> Canandaigua North Shore Lakeshore Drive and Booth Street Canandaigua, NY</p>			<p><b>TEST PIT: LAB-TP - 6</b> SHEET 6 OF 23 <b>JOB: 2151037</b> CHKD BY:</p>		
CONTRACTOR: DDS OPERATOR: DDS LABELLA REPRESENTATIVE: MAW			TEST PIT LOCATION: IRM 3 GROUND SURFACE ELEVATION N/A START DATE: 12/21/15			DATUM: NA		
TYPE OF EQUIPMENT: John Deere mini excavator								
DEPTH (FEET)	SAMPLE		VISUAL CLASSIFICATION			PID FIELD SCREEN (PPM)	REMARKS	
	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)						
0		0'-1'	Brown SILT LOAM and STONE, dry, no odor			0		
2		1'-3'	Brown SILT LOAM and GRAVEL, dry, no odor			0		
4			Test pit concluded @ 3'			0		
6								
8								
10								
12								
14								
16								
			DEPTH (FT)			NOTES:		
WATER LEVEL DATA			BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	ND = Non Detect		
DATE	TIME	ELAPSED TIME				BGS = Below the Ground Surface		
NA	NA	NA	NA			NA = Not Applicable		
GENERAL NOTES 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL. 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER								
TEST PIT: LAB-TP - 6								

 <b>300 STATE STREET, ROCHESTER, NY</b> <b>ENVIRONMENTAL ENGINEERING CONSULTANTS</b>			<b>PROJECT</b> Canandaigua North Shore Lakeshore Drive and Booth Street Canandaigua, NY			<b>TEST PIT: LAB-TP - 7</b> SHEET 7 OF 23 <b>JOB: 2151037</b> CHKD BY:		
CONTRACTOR: DDS OPERATOR: DDS LABELLA REPRESENTATIVE: MAW			TEST PIT LOCATION: IRM 3 GROUND SURFACE ELEVATION N/A START DATE: 12/21/15			DATUM: NA		
TYPE OF EQUIPMENT: John Deere mini excavator								
DEPTH (FEET)	SAMPLE		VISUAL CLASSIFICATION			PID FIELD SCREEN (PPM)	REMARKS	
	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)						
0		0'-1'	Brown SILT LOAM and STONE, dry, no odor			0		
		1'-1.5'	Black ash/cinders, dry, no odor			0		
2		1.5'-3'	Brown SILT LOAM and GRAVEL, dry, no odor			0		
			Test pit concluded @ 3'					
4								
6								
8								
10								
12								
14								
16								

WATER LEVEL DATA			DEPTH (FT)			NOTES:
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	
NA	NA	NA	NA			

GENERAL NOTES  
 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.  
 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER


 <b>300 STATE STREET, ROCHESTER, NY</b> <b>ENVIRONMENTAL ENGINEERING CONSULTANTS</b>			<b>PROJECT</b> Canandaigua North Shore Lakeshore Drive and Booth Street Canandaigua, NY			<b>TEST PIT: LAB-TP - 8</b> SHEET 8 OF 23 <b>JOB: 2151037</b> CHKD BY:		
CONTRACTOR: DDS OPERATOR: DDS LABELLA REPRESENTATIVE: MAW			TEST PIT LOCATION: IRM 3 GROUND SURFACE ELEVATION N/A START DATE: 12/21/15			DATUM: NA		
TYPE OF EQUIPMENT: John Deere mini excavator								
DEPTH (FEET)	SAMPLE		VISUAL CLASSIFICATION			PID FIELD SCREEN (PPM)	REMARKS	
	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)						
0		0'-1'	Brown SILT LOAM and STONE, dry, no odor			0		
		1'-1.5'	Black ash/cinders, dry, no odor			0		
2		1.5'-3'	Brown SILT LOAM and GRAVEL, dry, no odor			0		
			Test pit concluded @ 3'					
4								
6								
8								
10								
12								
14								
16								


WATER LEVEL DATA			DEPTH (FT)			NOTES:
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	
NA	NA	NA	NA			

GENERAL NOTES


- STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER


**TEST PIT: LAB-TP - 8**

 <b>300 STATE STREET, ROCHESTER, NY</b> <b>ENVIRONMENTAL ENGINEERING CONSULTANTS</b>			<b>PROJECT</b> Canandaigua North Shore Lakeshore Drive and Booth Street Canandaigua, NY			<b>TEST PIT: LAB-TP - 9</b> SHEET 9 OF 23 <b>JOB: 2151037</b> CHKD BY:		
CONTRACTOR: DDS OPERATOR: DDS LABELLA REPRESENTATIVE: MAW			TEST PIT LOCATION: IRM 3 GROUND SURFACE ELEVATION N/A START DATE: 12/21/15			DATUM: NA		
TYPE OF EQUIPMENT: John Deere mini excavator								
DEPTH (FEET)	SAMPLE		VISUAL CLASSIFICATION			PID FIELD SCREEN (PPM)	REMARKS	
	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)						
0		0'-1.5'	Brown SILT LOAM and STONE, dry, no odor			0	0	
		1.5'-2'	Black ash/cinders, dry, no odor			0		
2		2'-3'	Brown SILT LOAM and GRAVEL, dry, no odor			0	2	
			Test pit concluded @ 3'					
4							4	
6							6	
8							8	
10							10	
12							12	
14							14	
16							16	
WATER LEVEL DATA			DEPTH (FT)			NOTES:		
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	ND = Non Detect		
NA	NA	NA	NA			BGS = Below the Ground Surface		
						NA = Not Applicable		
GENERAL NOTES 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL. 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER								
<b>TEST PIT: LAB-TP - 9</b>								

 <b>300 STATE STREET, ROCHESTER, NY</b> <b>ENVIRONMENTAL ENGINEERING CONSULTANTS</b>			<b>PROJECT</b> Canandaigua North Shore Lakeshore Drive and Booth Street Canandaigua, NY			<b>TEST PIT: LAB-TP - 10</b> SHEET 10 OF 23 <b>JOB: 2151037</b> CHKD BY:		
CONTRACTOR: DDS OPERATOR: DDS LABELLA REPRESENTATIVE: MAW			TEST PIT LOCATION: IRM 3 GROUND SURFACE ELEVATION N/A START DATE: 12/21/15			DATUM: NA		
TYPE OF EQUIPMENT: John Deere mini excavator								
DEPTH (FEET)	SAMPLE		VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS			
	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)						
0		0'-2'	Dark brown SILT LOAM and GRAVEL, dry, no odor	0	0			
2		2'-3'	Brown SILT LOAM and GRAVEL, dry, no odor	0	2			
4			Test pit concluded @ 3'		4			
6				6				
8				8				
10				10				
12				12				
14					14			
16					16			
WATER LEVEL DATA			DEPTH (FT)			NOTES:		
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	ND = Non Detect BGS = Below the Ground Surface NA = Not Applicable		
NA	NA	NA	NA					
GENERAL NOTES 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL. 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER								
<div style="text-align: right;"><b>TEST PIT: LAB-TP - 10</b></div>								

<div><div><div>LABELLA</div><div>Associates, D.P.C.</div></div><div>300 STATE STREET, ROCHESTER, NY ENVIRONMENTAL ENGINEERING CONSULTANTS</div></div>			<div>PROJECT</div> <div>Canandaigua North Shore Lakeshore Drive and Booth Street Canandaigua, NY</div>				<div>TEST PIT: LAB-TP - 11</div> <div>SHEET 11 OF 23</div> <div>JOB:</div> <div>CHKD BY:</div>	
CONTRACTOR: DDS		TEST PIT LOCATION: IRM 3		DATUM: NA				
OPERATOR: DDS		GROUND SURFACE ELEVATION N/A						
LABELLA REPRESENTATIVE: MAW		START DATE: 12/21/15						
TYPE OF EQUIPMENT:								
DEPTH (FEET)	SAMPLE		VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS			
	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)						
0		0'-1.5'	Dark brown SILT LOAM and STONE, dry, no odor	0	0			
		1.5'-2'	Black ash/cinders, dry, no odor	0				
2		2'-3'	Brown SILT LOAM and GRAVEL, dry, no odor	0	2			
			Test pit concluded @ 3'					
4					4			
6				6				
8				8				
10				10				
12				12				
14				14				
16				16				
				DEPTH (FT)				
WATER LEVEL DATA			BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	NOTES:		
DATE	TIME	ELAPSED TIME				ND = Non Detect		
NA	NA	NA	NA			BGS = Below the Ground Surface		
NA = Not Applicable								
GENERAL NOTES								
1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.								
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER								
TEST PIT: LAB-TP - 11								


 <b>300 STATE STREET, ROCHESTER, NY</b> <b>ENVIRONMENTAL ENGINEERING CONSULTANTS</b>			<b>PROJECT</b> Canandaigua North Shore Lakeshore Drive and Booth Street Canandaigua, NY			<b>TEST PIT: LAB-TP - 12</b> SHEET 12 OF 23 <b>JOB: 2151037</b> CHKD BY:		
CONTRACTOR: DDS OPERATOR: DDS LABELLA REPRESENTATIVE: MAW			TEST PIT LOCATION: IRM 3 GROUND SURFACE ELEVATION N/A START DATE: 12/21/15			DATUM: NA		
TYPE OF EQUIPMENT: John Deere mini excavator								
DEPTH (FEET)	SAMPLE		VISUAL CLASSIFICATION			PID FIELD SCREEN (PPM)	REMARKS	
	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)						
0		0'-1'	Brown SILT LOAM and STONE, dry, no odor			0		
		1'-2'	Black ash/cinders, dry, no odor			0		
2		2'-3'	Brown SILT LOAM and GRAVEL, dry, no odor			0	2	
			Test pit concluded @ 3'					
4							4	
6							6	
8							8	
10							10	
12							12	
14							14	
16							16	
WATER LEVEL DATA			DEPTH (FT)			NOTES:		
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	ND = Non Detect BGS = Below the Ground Surface NA = Not Applicable		
NA	NA	NA	NA					
GENERAL NOTES 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL. 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER								
								<b>TEST PIT: LAB-TP - 12</b>


 <b>300 STATE STREET, ROCHESTER, NY</b> <b>ENVIRONMENTAL ENGINEERING CONSULTANTS</b>			<b>PROJECT</b> Canandaigua North Shore Lakeshore Drive and Booth Street Canandaigua, NY			<b>TEST PIT: LAB-TP - 13</b> SHEET 13 OF 23 <b>JOB: 2151037</b> CHKD BY:		
CONTRACTOR: DDS OPERATOR: DDS LABELLA REPRESENTATIVE: MAW			TEST PIT LOCATION: IRM 3 GROUND SURFACE ELEVATION N/A START DATE: 12/21/15			DATUM: NA		
TYPE OF EQUIPMENT: John Deere mini excavator								
DEPTH (FEET)	SAMPLE		VISUAL CLASSIFICATION			PID FIELD SCREEN (PPM)	REMARKS	
	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)						
0		0'-1'	Light brown SILT LOAM and STONE, dry, no odor			0		
		1'-1.5'	Black ash/cinders, dry, no odor			0		
2		1.5'-3'	Brown SILT LOAM and GRAVEL, dry, no odor			0		
			Test pit concluded @ 3'					
4								
6								
8								
10								
12								
14								
16								


WATER LEVEL DATA			DEPTH (FT)			NOTES:
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	
NA	NA	NA	NA			


GENERAL NOTES  
 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.  
 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER





 <b>300 STATE STREET, ROCHESTER, NY</b> <b>ENVIRONMENTAL ENGINEERING CONSULTANTS</b>			<b>PROJECT</b> Canandaigua North Shore Lakeshore Drive and Booth Street Canandaigua, NY			<b>TEST PIT: LAB-TP - 14</b> SHEET 14 OF 23 <b>JOB: 2151037</b> CHKD BY:		
CONTRACTOR: DDS OPERATOR: DDS LABELLA REPRESENTATIVE: MAW			TEST PIT LOCATION: IRM 3 GROUND SURFACE ELEVATION N/A START DATE: 12/21/15			DATUM: NA		
TYPE OF EQUIPMENT: John Deere mini excavator								
DEPTH (FEET)	SAMPLE		VISUAL CLASSIFICATION			PID FIELD SCREEN (PPM)	REMARKS	
	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)						
0		0'-1.5'	Brown SILT LOAM and GRAVEL, dry, no odor			0	0	
2		1.5'-3'				Dark brown SILT LOAM and GRAVEL, dry, no odor		
4			Test pit concluded @ 3'					
6						4		
8						6		
10						8		
12						10		
14						12		
16							14	
							16	
WATER LEVEL DATA			DEPTH (FT)			NOTES:		
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	ND = Non Detect BGS = Below the Ground Surface NA = Not Applicable		
NA	NA	NA	NA					
GENERAL NOTES 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL. 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER								
								<b>TEST PIT: LAB-TP - 14</b>


 <b>300 STATE STREET, ROCHESTER, NY</b> <b>ENVIRONMENTAL ENGINEERING CONSULTANTS</b>			<b>PROJECT</b> Canandaigua North Shore Lakeshore Drive and Booth Street Canandaigua, NY			<b>TEST PIT: LAB-TP - 15</b> SHEET 15 OF 23 <b>JOB: 2151037</b> CHKD BY:		
CONTRACTOR: DDS OPERATOR: DDS LABELLA REPRESENTATIVE: MAW			TEST PIT LOCATION: IRM 3 GROUND SURFACE ELEVATION N/A START DATE: 12/21/15			DATUM: NA		
TYPE OF EQUIPMENT: john Deere mini excavator								
DEPTH (FEET)	SAMPLE		VISUAL CLASSIFICATION			PID FIELD SCREEN (PPM)	REMARKS	
	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)						
0		0'-1.5'	Brown SILT LOAM and STONE, dry, no odor			0	0	
2		1.5'-3'				Dark brown SILT LOAM and GRAVEL, dry, no odor		
4			Test pit concluded @ 3'					
6						4		
8						6		
10						8		
12						10		
14						12		
16							14	
							16	
WATER LEVEL DATA			DEPTH (FT)			NOTES:		
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	ND = Non Detect		
NA	NA	NA	NA			BGS = Below the Ground Surface		
						NA = Not Applicable		
GENERAL NOTES 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL. 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER								
								TEST PIT: LAB-TP - 15


 <b>300 STATE STREET, ROCHESTER, NY</b> <b>ENVIRONMENTAL ENGINEERING CONSULTANTS</b>			<b>PROJECT</b> Canandaigua North Shore Lakeshore Drive and Booth Street Canandaigua, NY			<b>TEST PIT: LAB-TP - 16</b> SHEET 16 OF 23 <b>JOB: 2151037</b> CHKD BY:		
CONTRACTOR: DDS OPERATOR: DDS LABELLA REPRESENTATIVE: MAW			TEST PIT LOCATION: IRM 3 GROUND SURFACE ELEVATION N/A START DATE: 12/21/15			DATUM: NA		
TYPE OF EQUIPMENT: John Deere mini excavator								
DEPTH (FEET)	SAMPLE		VISUAL CLASSIFICATION			PID FIELD SCREEN (PPM)	REMARKS	
	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)						
0		0'-1.5'	Brown SILT LOAM and GRAVEL, dry, no odor			0	0	
		1.5'-2'	Black ash/cinders, dry, no odor			0		
2		2'-3'	Dark brown SILT LOAM and GRAVEL, dry, no odor			0	2	
			Test pit concluded @ 3'					
4							4	
6							6	
8							8	
10							10	
12							12	
14							14	
16							16	
WATER LEVEL DATA			DEPTH (FT)			NOTES:		
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	ND = Non Detect		
NA	NA	NA	NA			BGS = Below the Ground Surface		
						NA = Not Applicable		
GENERAL NOTES 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL. 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER								
								TEST PIT: LAB-TP - 16

 <b>300 STATE STREET, ROCHESTER, NY</b> <b>ENVIRONMENTAL ENGINEERING CONSULTANTS</b>			<b>PROJECT</b> Canandaigua North Shore Lakeshore Drive and Booth Street Canandaigua, NY			<b>TEST PIT: LAB-TP - 17</b> SHEET 17 OF 23 <b>JOB: 2151037</b> CHKD BY:		
CONTRACTOR: DDS OPERATOR: DDS LABELLA REPRESENTATIVE: MAW			TEST PIT LOCATION: IRM 3 GROUND SURFACE ELEVATION N/A START DATE: 12/21/15			DATUM: NA		
TYPE OF EQUIPMENT: John Deere mini excavator								
DEPTH (FEET)	SAMPLE		VISUAL CLASSIFICATION			PID FIELD SCREEN (PPM)	REMARKS	
	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)						
0		0'-1'	Brown SILT LOAM and STONE, dry, no odor			0		
		1'-1.5'	Black ash/cinders, dry, no odor			0		
2		1.5-3'	Brown SILT LOAM and GRAVEL, dry, no odor			0	2	
			Test pit concluded @ 3'					
4							4	
6							6	
8							8	
10							10	
12							12	
14							14	
16							16	
WATER LEVEL DATA			DEPTH (FT)			NOTES:		
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	ND = Non Detect BGS = Below the Ground Surface NA = Not Applicable		
NA	NA	NA	NA					
GENERAL NOTES 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL. 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER								
								<b>TEST PIT: LAB-TP - 17</b>

 <b>300 STATE STREET, ROCHESTER, NY</b> <b>ENVIRONMENTAL ENGINEERING CONSULTANTS</b>			<b>PROJECT</b> Canandaigua North Shore Lakeshore Drive and Booth Street Canandaigua, NY			<b>TEST PIT: LAB-TP - 18</b> SHEET 18 OF 23 <b>JOB: 2151037</b> CHKD BY:			
CONTRACTOR: DDS OPERATOR: DDS LABELLA REPRESENTATIVE: MAW			TEST PIT LOCATION: IRM 3 GROUND SURFACE ELEVATION N/A START DATE: 12/21/15			DATUM: NA			
TYPE OF EQUIPMENT: John Deere mini excavator									
DEPTH (FEET)	SAMPLE		VISUAL CLASSIFICATION			PID FIELD SCREEN (PPM)	REMARKS		
	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)							
0		0'-1'	Brown SILT LOAM and STONE, dry, no odor			0			
						0			
2		1'-3'	Brown SILT LOAM and GRAVEL, dry, no odor			0			
			Test pit concluded @ 3'						
4						4			
6						6			
8						8			
10						10			
12						12			
14						14			
16						16			
<b>WATER LEVEL DATA</b>			<b>DEPTH (FT)</b>			<b>NOTES:</b>			
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	ND = Non Detect BGS = Below the Ground Surface NA = Not Applicable			
NA	NA	NA	NA						
<b>GENERAL NOTES</b> 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL. 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER									
<b>TEST PIT: LAB-TP - 18</b>									

 <b>300 STATE STREET, ROCHESTER, NY</b> <b>ENVIRONMENTAL ENGINEERING CONSULTANTS</b>			<b>PROJECT</b> Canandaigua North Shore Lakeshore Drive and Booth Street Canandaigua, NY			<b>TEST PIT: LAB-TP - 19</b> SHEET 19 OF 23 <b>JOB: 2151037</b> CHKD BY:		
CONTRACTOR: DDS OPERATOR: DDS LABELLA REPRESENTATIVE: MAW			TEST PIT LOCATION: IRM 3 GROUND SURFACE ELEVATION N/A START DATE: 12/21/15			DATUM: NA		
TYPE OF EQUIPMENT: John Deere mini excavator								
DEPTH (FEET)	SAMPLE		VISUAL CLASSIFICATION			PID FIELD SCREEN (PPM)	REMARKS	
	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)						
0		0'-1'	Light brown SILT LOAM and GRAVEL, dry, no odor			0		
2		1'-3'	Brown SILT LOAM and GRAVEL, dry, no odor			0		
4			Test pit concluded @ 3'			0		
6								
8								
10								
12								
14								
16								
			DEPTH (FT)			NOTES:		
WATER LEVEL DATA			BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	ND = Non Detect		
DATE	TIME	ELAPSED TIME				BGS = Below the Ground Surface		
NA	NA	NA	NA			NA = Not Applicable		
GENERAL NOTES 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL. 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER								
<b>TEST PIT: LAB-TP - 19</b>								

 <b>300 STATE STREET, ROCHESTER, NY</b> <b>ENVIRONMENTAL ENGINEERING CONSULTANTS</b>			<b>PROJECT</b> Canandaigua North Shore Lakeshore Drive and Booth Street Canandaigua, NY			<b>TEST PIT: LAB-TP - 20</b> SHEET 20 OF 23 <b>JOB: 2151037</b> CHKD BY:		
CONTRACTOR: DDS OPERATOR: DDS LABELLA REPRESENTATIVE: MAW			TEST PIT LOCATION: IRM 3 GROUND SURFACE ELEVATION N/A START DATE: 12/21/15			DATUM: NA		
TYPE OF EQUIPMENT: John Deere mini excavator								
DEPTH (FEET)	SAMPLE		VISUAL CLASSIFICATION			PID FIELD SCREEN (PPM)	REMARKS	
	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)						
0		0'-1'	Light brown SILT LOAM and GRAVEL, dry, no odor			0		
2		1'-3'	Brown SILT LOAM and GRAVEL, dry, no odor			0		
4			Test pit concluded @ 3'			0		
6								
8								
10								
12								
14								
16								
			DEPTH (FT)			NOTES:		
WATER LEVEL DATA			BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	ND = Non Detect		
DATE	TIME	ELAPSED TIME				BGS = Below the Ground Surface		
NA	NA	NA	NA			NA = Not Applicable		
GENERAL NOTES 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL. 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER								
<div style="text-align: right;"><b>TEST PIT: LAB-TP - 20</b></div>								

 <p><b>300 STATE STREET, ROCHESTER, NY</b>  <b>ENVIRONMENTAL ENGINEERING CONSULTANTS</b></p>			<p align="center"><b>PROJECT</b></p> <p align="center">Canandaigua North Shore          Lakeshore Drive and Booth Street Canandaigua, NY</p>			<p><b>TEST PIT: LAB-TP - 21</b></p> <p>SHEET 21 OF 23  <b>JOB: 2151037</b>          CHKD BY:</p>		
CONTRACTOR: DDS OPERATOR: DDS LABELLA REPRESENTATIVE: MAW			TEST PIT LOCATION: IRM 3 GROUND SURFACE ELEVATION N/A START DATE: 12/21/15			DATUM: NA		
TYPE OF EQUIPMENT: John Deere mini excavator								
DEPTH (FEET)	SAMPLE		VISUAL CLASSIFICATION			PID FIELD SCREEN (PPM)	REMARKS	
	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)						
0		0'-1'	Light brown SILT LOAM and STONE, dry, no odor			0		
		1'-1.5'	Black ash/cinders, dry, no odor			0		
2		1.5-3'	Brown SILT LOAM and GRAVEL, dry, no odor			0		
			Test pit concluded @ 3'					
4								
6								
8								
10								
12								
14								
16								


WATER LEVEL DATA			DEPTH (FT)			NOTES:
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	
NA	NA	NA	NA			

GENERAL NOTES

1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.

2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER



 <b>300 STATE STREET, ROCHESTER, NY</b> <b>ENVIRONMENTAL ENGINEERING CONSULTANTS</b>			<b>PROJECT</b> Canandaigua North Shore Lakeshore Drive and Booth Street Canandaigua, NY			<b>TEST PIT: LAB-TP - 22</b> SHEET 22 OF 23 <b>JOB: 2151037</b> CHKD BY:		
CONTRACTOR: DDS OPERATOR: DDS LABELLA REPRESENTATIVE: MAW			TEST PIT LOCATION: IRM 3 GROUND SURFACE ELEVATION N/A START DATE: 12/21/15			DATUM: NA		
TYPE OF EQUIPMENT: John Deere mini excavator								
DEPTH (FEET)	SAMPLE		VISUAL CLASSIFICATION			PID FIELD SCREEN (PPM)	REMARKS	
	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)						
0		0'-1'	Brown SILT LOAM and STONE, dry, no odor			0		
		1'-1.5'	Black ash/cinders and STONE, dry, no odor			0		
2		1.5-3'	Brown SILT LOAM and GRAVEL, dry, no odor			0	2	
			Test pit concluded @ 3'					
4							4	
6							6	
8							8	
10							10	
12							12	
14							14	
16							16	
WATER LEVEL DATA			DEPTH (FT)			NOTES:		
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	ND = Non Detect		
NA	NA	NA	NA			BGS = Below the Ground Surface		
						NA = Not Applicable		
GENERAL NOTES 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL. 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER								
								TEST PIT: LAB-TP - 22

<div><div><div>LABELLA</div><div>Associates, D.P.C.</div></div><div>300 STATE STREET, ROCHESTER, NY ENVIRONMENTAL ENGINEERING CONSULTANTS</div></div>			<div>PROJECT</div> <div>Canandaigua North Shore Lakeshore Drive and Booth Street Canandaigua, NY</div>			<div>TEST PIT: LAB-TP - 23</div> <div>SHEET 23 OF 23</div> <div>JOB: 2151037</div> <div>CHKD BY:</div>		
CONTRACTOR: DDS			TEST PIT LOCATION: IRM 3					
OPERATOR: DDS			GROUND SURFACE ELEVATION N/A					
LABELLA REPRESENTATIVE: MAW			START DATE: 12/21/15					
TYPE OF EQUIPMENT:			John Deere mini excavator					
DEPTH (FEET)	SAMPLE		VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS			
	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)						
0		0'-1.5'	Brown SILT LOAM and and GRAVEL, dry, no odor	0	0			
2		1.5-3'	Dark brown SILT LOAM and GRAVEL, dry, no odor	0				
4			Test pit concluded @ 3'			4		
6				6				
8				8				
10				10				
12				12				
14				14				
16				16				
			DEPTH (FT)					
WATER LEVEL DATA			BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	NOTES:		
DATE	TIME	ELAPSED TIME				ND = Non Detect		
NA	NA	NA	NA			BGS = Below the Ground Surface		
NA = Not Applicable								
GENERAL NOTES								
1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.								
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER								
TEST PIT: LAB-TP - 23								



61 Commercial Street  
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Test Boring No.: GP-12-1

Page 1 of 1

Project: Canandaigua Lakefront Drill Contractor: Matrix Start Date: 5/9/2012  
Project #: 190500685 Driller: M. Janus Completion Date: 5/10/2012  
Client: Leo Genecco & Sons, Inc Elevation: NA Drilling Method: Geoprobe  
Location: Lakeshore Drive Weather: Cloudy, 50°F, Supervisor: D. Bauch-Barker  
Canandaigua, NY calm

0	SAMPLE				Soil Information Remarks	Depth (ft)
	PID	Rec.	No.	Depth		
1	0.2	2.6'	1	0-4'	Topsoil and grass - dark brown mottled with tan brown SILT, some fine SAND, moist.	0
2	0.2				Dark brown with trace black SILT and fine SAND, little medium SAND, trace fine GRAVEL, black cinder, and white ash, wet.	0.5
3						
4						
5	0.2	2.7'	2	4-8'	Same as above but wet (saturated).	4
6					Dark brown fine SAND, few SILT, trace black staining, trace fine SAND, wet (saturated).	4.5
7	0.1				Tan brown fine SAND, wet (saturated).	5.2
8					No recovery.	6.7
9	0.3	1.7'	3	8-12'	Gray brown with orange brown fine SAND, some medium GRAVEL, little fine SAND, wet (saturated).	8
10	0.3				Gray brown fine SAND, some CLAY, few SILT, few coarse SAND and fine GRAVEL, little medium GRAVEL, wet (saturated).	8.3
11						
12						
13	0.3	1.8'	4	12-16'	Gray brown fine SAND, few fine GRAVEL, little CLAY, trace medium GRAVEL, wet (saturated).	13
14	0.2				No recovery.	13.8
15						
16						
17					Bottom of boring at 16' bgs.	16
18						
19						
20						

**Notes:**

1. PID Model Mini-Rae 2000 with 10.6eV lamp; readings given in parts per million (ppm).
2. Sample GP-12-1 (2-4) at 0930.
3. Install MW-12-1 in completed boring.



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Test Boring No.: GP-12-2

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Project:	Canandaigua Lakefront	Drill Contractor:	Matrix	Start Date:	5/9/2012
Project #:	190500685	Driller:	M. Janus	Completion Date:	5/9/2012
Client:	Leo Genecco & Sons, Inc	Elevation:	NA	Drilling Method:	Geoprobe
Location:	Lakeshore Drive	Weather:	Cloudy, 50°F,	Supervisor:	D. Bauch-Barker
	Canandaigua, NY		calm		

0	SAMPLE				Soil Information Remarks	Depth (ft)
	PID	Rec.	No.	Depth		
1	0.2	2.4'	1	0-4'	Topsoil - dark brown SILT, trace fine GRAVEL, moist.	0
2					Gray brown medium SAND, some fine SAND and fine GRAVEL, trace medium GRAVEL, moist.	0.5
3	0.4					
4						
5	0.3	2'	2	4-8'		
6					Light gray brown SILT, some CLAY, little fine GRAVEL, little fine SAND, trace wood and organics, wet.	5.2
7	0.3					
8						
9	0.2	3.1'	3	8-12'		
10	0.4				Dark brown SILT, little fine SAND, trace fibers, wet.	9
11	0.2				Blue gray CLAY, trace SILT, moist.	9.4
12					Brown fine SAND, trace CLAY, moist-wet.	10.3
13					Brown CLAY, trace SILT, moist.	10.6
14	0.1	3.5'	4	12-16'		
15	0.2				Same as above, tighter, grading to red-brown.	13
16	0.3				Same as above, trace fine SAND.	14.8
17					No recovery.	15.5
18					Bottom of boring at 16' bgs.	16
19						
20						

**Notes:**

1. PID Model Mini-Rae 2000 with 10.6eV lamp; readings given in parts per million (ppm).
2. Sample GP-12-2 (6-8) at 1020.





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Test Boring No.: GP-12-4

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Project:	Canandaigua Lakefront	Drill Contractor:	Matrix	Start Date:	5/9/2012
Project #:	190500685	Driller:	M. Janus	Completion Date:	5/9/2012
Client:	Leo Genecco & Sons, Inc	Elevation:	NA	Drilling Method:	Geoprobe
Location:	Lakeshore Drive	Weather:	Cloudy, 50°F,	Supervisor:	D. Bauch-Barker
	Canandaigua, NY		calm		

0	SAMPLE				Soil Information Remarks	Depth (ft)
	PID	Rec.	No.	Depth		
1		1.4'	1	0-4'	Topsoil - bark brown SILT and fine GRAVEL, moist.	0
	0				Brown fine-medium SAND, some SILT, little fine-medium GRAVEL, moist.	0.2
2					White ash and black cinder, few brown fine SAND, moist.	0.8
	0.4				No recovery.	1.4
3						
4						
5		2.9'	2	4-8'	Gray CLAY with trace ash, cinder, and glass, moist.	4
	1.3				Brown CLAY and fine SAND, trace ash, wet.	5.1
6						
	0.1					
7						
8						
9		4'	3	8-12'	Same as above with orange-brown mottling.	8
	0.9					
10						
	0.3					
11						
12						
13		3.4'	4	12-16'	Brown CLAY with orange-brown mottling, trace fine SAND, wet.	12
	0.6					
14						
	0.5				Reddish-brown CLAY, tight with partings of silt, little SILT, moist.	14.2
15					No recovery.	15.4
16					Bottom of boring at 16' bgs.	16
17						
18						
19						
20						



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Test Boring No.: GP-12-5

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Project:	Canandaigua Lakefront	Drill Contractor:	Matrix	Start Date:	5/9/2012
Project #:	190500685	Driller:	M. Janus	Completion Date:	5/9/2012
Client:	Leo Genecco & Sons, Inc	Elevation:	NA	Drilling Method:	Geoprobe
Location:	Lakeshore Drive	Weather:	Cloudy, 50°F,	Supervisor:	D. Bauch-Barker
	Canandaigua, NY		calm		

0	SAMPLE				Soil Information Remarks	Depth (ft)
	PID	Rec.	No.	Depth		
1	0.3	2'	1	0-4'	Topsoil - dark brown SILT and fine SAND, moist.	0
2					Brown fine SAND, some SILT, little ash and cinder, trace porcelain and fine GRAVEL, moist-wet.	0.2
3	0.2				Black SILT, few CLAY and fine SAND, moist.	1.2
4						
5	0.2	3.6'	2	4-8'		
6					Reddish-brown grading to orange-brown and trace gray-brown mottled fine SAND and CLAY, few SILT, wet.	5.3
7	0.5					
8						
9	0.5	3.1'	3	8-12'	Same as above with little fine SAND, tight with partings of silt.	8
10						
11	0.5					
12					No recovery.	11.1
13	0.6	2'	4	12-16'	Reddish-brown clay, few SILT, little fine SAND, wet.	12
14						
15					No recovery.	14
16						
17					Bottom of boring at 16' bgs.	16
18						
19						
20						

**Notes:**

1. PID Model Mini-Rae 2000 with 10.6eV lamp; readings given in parts per million (ppm).
2. Sample GP-12-5 (0-2) at 1305.



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Test Boring No.: GP-12-6

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Project:	Canandaigua Lakefront	Drill Contractor:	Matrix	Start Date:	5/9/2012
Project #:	190500685	Driller:	M. Janus	Completion Date:	5/9/2012
Client:	Leo Genecco & Sons, Inc	Elevation:	NA	Drilling Method:	Geoprobe
Location:	Lakeshore Drive	Weather:	Cloudy, 50°F,	Supervisor:	D. Bauch-Barker
	Canandaigua, NY		calm		

0	SAMPLE				Soil Information Remarks	Depth (ft)
	PID	Rec.	No.	Depth		
1	0.2	1.9'	1	0-4'	Topsoil - dark brown fine SAND and SILT, trace wood and fine GRAVEL, moist. Brown SILT, some fine-medium SAND, little ash and cinder, moist.	0 0.5
2	0.2				White ash and black cinder, little gray-brown fine SAND, trace glass, moist.	1.4
3						
4						
5	0	0.6'	2	4-8'	Same as above, trace orange staining, wet. No recovery.	4 4.6
6						
7						
8						
9	0.1	1.9'	3	8-12'	Gray fine SAND, trace shell, wet (saturated) (marl).	8
10	0.4				No recovery.	9.9
11						
12						
13	0.5	2.6'	4	12-16'	Reddish-brown CLAY with few fine SAND grading to trace fine SAND, moist-wet.	12
14	0.1					
15					No recovery.	14.6
16						
17					Bottom of boring at 16' bgs.	16
18						
19						
20						

**Notes:**

1. PID Model Mini-Rae 2000 with 10.6eV lamp; readings given in parts per million (ppm).
2. Sample GP-12-6 (2-4) at 1340.





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Test Boring No.: GP-12-7

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Project:	Canandaigua Lakefront	Drill Contractor:	Matrix	Start Date:	5/9/2012
Project #:	190500685	Driller:	M. Janus	Completion Date:	5/9/2012
Client:	Leo Genecco & Sons, Inc	Elevation:	NA	Drilling Method:	Geoprobe
Location:	Lakeshore Drive	Weather:	Cloudy, 50°F,	Supervisor:	D. Bauch-Barker
	Canandaigua, NY		calm		

SAMPLE					Soil Information Remarks	Depth (ft)
0	PID	Rec.	No.	Depth		
1		1.7'	1	0-4'	Asphalt and sub-base, dry.	0
2	0.6				Brown medium SAND, some fine SAND, little fine-medium GRAVEL, moist.	0.5
3					Dark brown-black medium SAND, some fine SAND, little ash and cinder, trace fine GRAVEL, moist.	1
4	0.4				Brown medium SAND, some fine SAND, trace fine GRAVEL, moist.	1.5
5					No recovery.	1.7
6						
7		1.9'	2	4-8'	Dark gray fine SAND, trace ash and cinder, trace fine GRAVEL, wet (saturated).	4
8	0.2				Gray fine GRAVEL, some fine-coarse SAND, wet (saturated).	5.1
9					Coarse SAND with little coarse GRAVEL and fine SAND, grading to gray fine SAND with trace shell (marl), wet (saturated).	5.6
10	3.1					
11						
12						
13		3.3'	3	8-12'	Medium sub-angular GRAVEL with some coarse SAND, trace fine GRAVEL and glass, wet (saturated).	8.4
14	2.9				Reddish-brown CLAY, trace SILT and fine SAND, with partings of silt, wet.	8.7
15						
16	0.7					
17						
18						
19		2.9'	4	12-16'		
20	0.1					
21						
22						
23	0					
24						
25						
26						
27						
28						
29						
30						
31					No recovery.	14.9
32					Bottom of boring at 16' bgs.	16
33						
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Test Boring No.: GP-12-8

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Project:	Canandaigua Lakefront	Drill Contractor:	Matrix	Start Date:	5/9/2012
Project #:	190500685	Driller:	M. Janus	Completion Date:	5/9/2012
Client:	Leo Genecco & Sons, Inc	Elevation:	NA	Drilling Method:	Geoprobe
Location:	Lakeshore Drive	Weather:	Cloudy, 50°F,	Supervisor:	D. Bauch-Barker
	Canandaigua, NY		calm		

0	SAMPLE				Soil Information Remarks	Depth (ft)
	PID	Rec.	No.	Depth		
1	0.3	1.2'	1	0-4'	Topsoil - dark brown SILT and fine SAND, trace fine SAND, moist.	0
2					Tan fine SAND, some concrete chunks, dry-moist.	1
3	0.1				No recovery.	1.2
4						
5	0	4'	2	4-8'	Orangish-red very tight CLAY, trace SILT, moist-wet.	4
6						
7	0.5					
8					Tan brown fine SAND, wet.	7.5
9	0	3.7'	3	8-12'	Reddish-brown mottled with gray and orange brown CLAY, few SILT, trace fine SAND, wet.	8.3
10					Red-orange fine SAND, few SILT, trace CLAY, wet.	9.3
11	0.3				Reddish-brown fine SAND and CLAY, little SILT, wet.	9.6
12						
13	0	2.2'	4	12-16'	Same as above with few fine GRAVEL.	12.4
14					Brown mottled with gray-brown fine SAND, wet.	13.1
15	0.2				No recovery.	14.2
16						
17					Bottom of boring at 16' bgs.	16
18						
19						
20						

**Notes:**

1. PID Model Mini-Rae 2000 with 10.6eV lamp; readings given in parts per million (ppm).
2. Sample GP-12-8 (0-4) at 1530.
3. Install MW-12-8 in completed boring.



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Test Boring No.: GP-12-9

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Project: Canandaigua Lakefront Drill Contractor: Matrix Start Date: 5/9/2012  
Project #: 190500685 Driller: M. Janus Completion Date: 5/9/2012  
Client: Leo Genecco & Sons, Inc Elevation: NA Drilling Method: Geoprobe  
Location: Lakeshore Drive Weather: Cloudy, 50°F, Supervisor: D. Bauch-Barker  
Canandaigua, NY calm

0	SAMPLE				Soil Information Remarks	Depth (ft)
	PID	Rec.	No.	Depth		
1	0	1.8'	1	0-4'	Topsoil - dark brown SILT and fine SAND, trace fine GRAVEL, moist.	0
2					Brown medium SAND, some fine SAND, little fine-medium GRAVEL, moist.	0.7
3	0.5				Orange-brown fine SAND, little SILT, trace fine-medium GRAVEL, moist.	1.4
4					No recovery.	1.8
5	0	2.5'	2	4-8'	Dark brown fine-medium SAND, some SILT, few fine-medium GRAVEL, moist-wet.	4
6					Orange-brown fine SAND, some SILT, few CLAY, trace fine GRAVEL, wet.	4.5
7	0				Black SILT, little fine SAND, trace creosote odor, moist.	6.2
8					Blue-gray CLAY, little SILT, trace black staining, moist.	6.4
9	0	3.6'	3	8-12'	Grayish red-brown fine SAND, little SILT and CLAY, moist-wet.	8.8
10					Reddish-brown CLAY, some fine SAND, moist.	9.7
11	0					
12						
13	0	2.5'	4	12-16'	Same as above with orange-brown mottling.	12
14						
15	0				No recovery.	14.5
16						
17					Bottom of boring at 16' bgs.	16
18						
19						
20						

**Notes:**

1. PID Model Mini-Rae 2000 with 10.6eV lamp; readings given in parts per million (ppm).
2. Sample GP-12-9 (6-8) at 1620.



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Test Boring No.: GP-12-10

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Project: Canandaigua Lakefront Drill Contractor: Matrix Start Date: 5/10/2012  
Project #: 190500685 Driller: M. Janus Completion Date: 5/10/2012  
Client: Leo Genecco & Sons, Inc Elevation: NA Drilling Method: Geoprobe  
Location: Lakeshore Drive Weather: Cloudy, 40°F, Supervisor: D. Bauch-Barker  
Canandaigua, NY breezy

0	SAMPLE				Soil Information	Depth
	PID	Rec.	No.	Depth	Remarks	(ft)
1	0	1.5'	1	0-4'	Asphalt sub-base - gray medium-coarse GRAVEL, dry.	0
2					Dark brown SILT and fine SAND, some fine GRAVEL, little medium SAND, dry-moist.	0.4
3	0				Black fine SAND, some ash and cinder, little medium-coarse GRAVEL, moist.	1
4						
5	0	2'	2	4-8'	Same as above, with some medium GRAVEL, wet.	4
6					Dark gray SILT, some fine SAND, wet.	4.4
7	0				Gray fine SAND, trace shell, wet (marl).	5.1
8						
9	0	1.6'	3	8-12'	Same as above with trace wood.	8
10					Reddish gray-brown SILT and fine SAND, some CLAY, wet.	8.9
11	0				No recovery.	9.6
12						
13	0.1	4'	4	12-16'	Reddish gray-brown CLAY, few SILT, trace fine GRAVEL, wet.	12
14						
15	0.1					
16						
17					Bottom of boring at 16' bgs.	16
18						
19						
20						

**Notes:**

1. PID Model Mini-Rae 2000 with 10.6eV lamp; readings given in parts per million (ppm).
2. Sample GP-12-10 (0-2) at 0840.
3. Install MW-12-10 in completed boring.



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Test Boring No.: GP-12-11

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Project: Canandaigua Lakefront Drill Contractor: Matrix Start Date: 5/10/2012  
Project #: 190500685 Driller: M. Janus Completion Date: 5/10/2012  
Client: Leo Genecco & Sons, Inc Elevation: NA Drilling Method: Geoprobe  
Location: Lakeshore Drive Weather: Cloudy, 40°F, Supervisor: D. Bauch-Barker  
Canandaigua, NY breezy

0	SAMPLE				Soil Information Remarks	Depth (ft)
	PID	Rec.	No.	Depth		
1	0	2'	1	0-4'	Asphalt and concrete, dry.	0
2					Dark gray-brown SILT, few fine SAND, little fine gravel, trace ash and cinder grading to little ash and cinder, trace wood, trace paint flakes, moist.	1
3	0				No recovery.	2
4						
5		0.2'	2	4-8'	Dark brown fine SAND, some SILT, few fine GRAVEL, wet (saturated).	4
6	0				No recovery.	4.2
7						
8						
9		1.8'	3	8-12'	Dark brown SILT, some fine SAND, trace CLAY, trace shell, wet (saturated).	8
10	0				White and gray fine SAND, few SILT, little shell, trace wood chunks, wet (saturated).	8.5
11					Gray-brown CLAY, few SILT, trace fine SAND, wet.	9.5
12	0				No recovery.	9.8
13		3.1'	4	12-16'	Reddish gray-brown CLAY, few SILT, trace fine SAND, tight, wet.	12
14	0					
15					No recovery.	15.1
16					Bottom of boring at 16' bgs.	16
17						
18						
19						
20						

**Notes:**

1. PID Model Mini-Rae 2000 with 10.6eV lamp; readings given in parts per million (ppm).
2. Sample GP-12-11 (2-4) at 0925.



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Test Boring No.: GP-12-12

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Project: Canandaigua Lakefront Drill Contractor: Matrix Start Date: 5/10/2012  
Project #: 190500685 Driller: M. Janus Completion Date: 5/10/2012  
Client: Leo Genecco & Sons, Inc Elevation: NA Drilling Method: Geoprobe  
Location: Lakeshore Drive Weather: Cloudy, 40°F, Supervisor: D. Bauch-Barker  
Canandaigua, NY breezy

0	SAMPLE				Soil Information Remarks	Depth (ft)
	PID	Rec.	No.	Depth		
1	0	1.8'	1	0-4'	Asphalt and sub-base - black fine-medium GRAVEL.	0
2					Dark brown fine SAND, some SILT, trace ash and cinder, trace medium GRAVEL, little fine GRAVEL, trace brick, moist.	0.3
3	0				No recovery.	1.8
4						
5	0.1	2'	2	4-8'	Dark gray SILT, trace orange, some fine SAND, little fine GRAVEL, trace CLAY, trace ash, trace medium GRAVEL, moist-wet.	4
6					Gray with white-gray fine SAND, little shell, wet.	5.1
7	0					
8						
9	0	2.9'	3	8-12'	Same as above with few medium-coarse SAND, trace wood, wet (saturated).	8
10					Reddish gray-brown fine SAND and SILT, few CLAY, wet.	9.6
11	0					
12						
13	0	3'	4	12-16'		
14						
15	0				No recovery.	15
16					Bottom of boring at 16' bgs.	16
17						
18						
19						
20						

**Notes:**

1. PID Model Mini-Rae 2000 with 10.6eV lamp; readings given in parts per million (ppm).
2. Sample GP-12-12 (4-6) at 1005.



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Test Boring No.: GP-12-13

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Project: Canandaigua Lakefront Drill Contractor: Matrix Start Date: 5/10/2012  
Project #: 190500685 Driller: M. Janus Completion Date: 5/10/2012  
Client: Leo Genecco & Sons, Inc Elevation: NA Drilling Method: Geoprobe  
Location: Lakeshore Drive Weather: Cloudy, 40°F, Supervisor: D. Bauch-Barker  
Canandaigua, NY breezy

0	SAMPLE				Soil Information Remarks	Depth (ft)
	PID	Rec.	No.	Depth		
		2.2'	1	0-4'	Asphalt and sub-base.	0
1	0.1				Brown SILT, few fine SAND, little fine-medium GRAVEL, trace gray-brown and orange-brown, dry-moist.	0.4
2					Brown fine-medium SAND, few fine GRAVEL, little ash and cinder, dry-moist.	1.3
	0.2				Red-brown SILT, some fine SAND, moist.	2
3					No recovery.	2.2
4						
		0.2'	2	4-8'	Dark brown SILT, few fine SAND, little fine GRAVEL, trace ash, wet (saturated).	4
5	0.2				No recovery.	4.2
6						
7						
8						
		0.8'	3	8-12'	Gray fine SAND, little shell, wet (saturated) (marl).	8
9	0				Reddish-brown fine SAND and SILT, little CLAY, wet.	8.5
10						
11						
12						
		3.3'	4	12-16'	Same as above grading to reddish-brown CLAY, few SILT, trace fine SAND, wet.	12
13	0					
14						
	0.1					
15					No recovery.	15.3
16						
					Bottom of boring at 16' bgs.	16
17						
18						
19						
20						

**Notes:**

1. PID Model Mini-Rae 2000 with 10.6eV lamp; readings given in parts per million (ppm).
2. Sample GP-12-13 (2-4) at 1040.
3. Install MW-12-13 in completed boring.



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Test Boring No.: GP-12-14

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Project: Canandaigua Lakefront Drill Contractor: Matrix Start Date: 5/10/2012  
Project #: 190500685 Driller: M. Janus Completion Date: 5/10/2012  
Client: Leo Genecco & Sons, Inc Elevation: NA Drilling Method: Geoprobe  
Location: Lakeshore Drive Weather: Cloudy, 40°F, Supervisor: D. Bauch-Barker  
Canandaigua, NY breezy

0	SAMPLE				Soil Information Remarks	Depth (ft)
	PID	Rec.	No.	Depth		
1	0.3	2.1'	1	0-4'	Brown topsoil - SILT and fine SAND, moist.	0
2	0.2				Orange-brown fine SAND, some SILT, trace fine GRAVEL, moist.	0.5
3						
4					Brown fine SAND, some SILT, few coarse SAND and fine GRAVEL, trace medium-coarse sub-angular GRAVEL, moist.	1.4
5	0.1	3.2'	2	4-8'		
6						
7	0.2					
8						
9	0.2	4'	3	8-12'	Same as above grading to gray-brown.	8
10	0.1					
11						
12						
13	0.2	4'	4	12-16'	Same as above except wet.	12
14	0.1					
15						
16						
17					Bottom of boring at 16' bgs.	16
18						
19						
20						

**Notes:**

1. PID Model Mini-Rae 2000 with 10.6eV lamp; readings given in parts per million (ppm).
2. Sample GP-12-14 (1-3) at 1150.





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Test Boring No.: GP-12-15

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Project: Canandaigua Lakefront Drill Contractor: Matrix Start Date: 5/10/2012  
Project #: 190500685 Driller: M. Janus Completion Date: 5/10/2012  
Client: Leo Genecco & Sons, Inc Elevation: NA Drilling Method: Geoprobe  
Location: Lakeshore Drive Weather: Cloudy, 40°F, Supervisor: D. Bauch-Barker  
Canandaigua, NY breezy

0	SAMPLE				Soil Information Remarks	Depth (ft)
	PID	Rec.	No.	Depth		
1	0.1	3.1'	1	0-4'	Dark brown topsoil - SILT and fine SAND, moist. Brown fine SAND, some SILT, trace fine GRAVEL, moist.	0 0.4
2	0.1				Brown SILT, little fine SAND, trace CLAY, trace gray-brown and orange-brown, moist.	1.2
3						
4						
5	0.1	4'	2	4-8'	Same as above but black-brown.	4.2
6					Brown grading to reddish-brown CLAY, few SILT, trace fine SAND, trace gray mottling, tight, moist.	4.7
7	0.1					
8						
9	0.1	3.5'	3	8-12'		
10						
11	0.1					
12						
13	0.1	4'	4	12-16'	Same as above except wet and grading to reddish gray-brown fine SAND, some SILT and CLAY, wet.	12
14						
15	0.1					
16						
17					Bottom of boring at 16' bgs.	16
18						
19						
20						

**Notes:**

1. PID Model Mini-Rae 2000 with 10.6eV lamp; readings given in parts per million (ppm).
2. Sample GP-12-15 (4-5) at 1250.



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Test Boring No.: GP-12-16

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Project: Canandaigua Lakefront Drill Contractor: Matrix Start Date: 5/10/2012  
Project #: 190500685 Driller: M. Janus Completion Date: 5/10/2012  
Client: Leo Genecco & Sons, Inc Elevation: NA Drilling Method: Geoprobe  
Location: Lakeshore Drive Weather: Cloudy, 40°F, Supervisor: D. Bauch-Barker  
Canandaigua, NY breezy

0	SAMPLE				Soil Information Remarks	Depth (ft)
	PID	Rec.	No.	Depth		
1	0.1	1.5'	1	0-4'	Asphalt and base, brown fine-medium SAND, little fine-medium GRAVEL, dry-moist.	0
2					Brown fine SAND, little SILT, trace fine GRAVEL, wet.	0.5
3	0.1				Same as above except black.	1.4
4						
5	0.2	2.6'	2	4-8'	Black grading to reddish-brown with gray and orange-brown mottling SILT, some fine SAND, trace CLAY, moist.	4.5
6						
7	0.2					
8						
9	0.1	3.4'	3	8-12'		
10						
11	0.1					
12						
13	0.1	3.4'	4	12-16'		
14						
15	0.2					
16					No recovery.	15.4
17					Bottom of boring at 16' bgs.	16
18						
19						
20						

**Notes:**

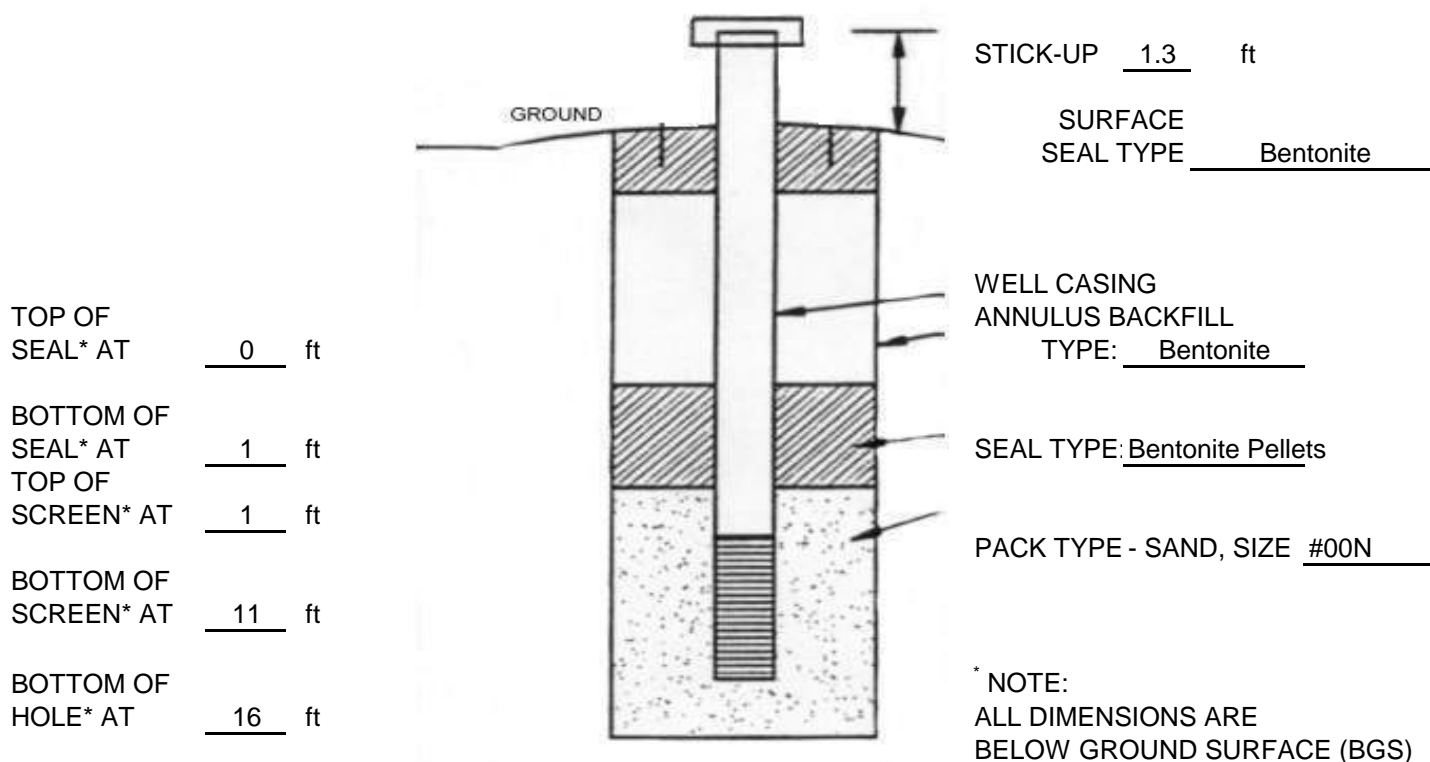
1. PID Model Mini-Rae 2000 with 10.6eV lamp; readings given in parts per million (ppm).
2. Sample GP-12-16 (4-6) at 1325.



OVERBURDEN MONITORING WELL  
DESIGN DETAILS

PROJECT NAME	Canandaigua Lakefront	HOLE DESIGNATION	MW-12-1
PROJECT NUMBER	190500685	DATE COMPLETED	5/10/2012
CLIENT	Leo Genecco & Sons, I	DRILLING METHOD	Geoprobe
LOCATION	Lakeshore Drive	GEOLOGIST	D. Bauch-Barker
	Canandaigua, NY		

CAP TYPE Slip cap



SCREEN TYPE: CONTINUOUS SLOT X PERFORATED    LOUVRE    OTHER   

SCREEN MATERIAL: STAINLESS STEEL    PVC X OTHER   

SCREEN LENGTH: 10 ft SCREEN DIAMETER 1 in SCREEN SLOT SIZE: 0.010

WELL RISER MATERIAL: PVC WELL RISER DIAMETER: 1 in

HOLE DIAMETER: 2 in

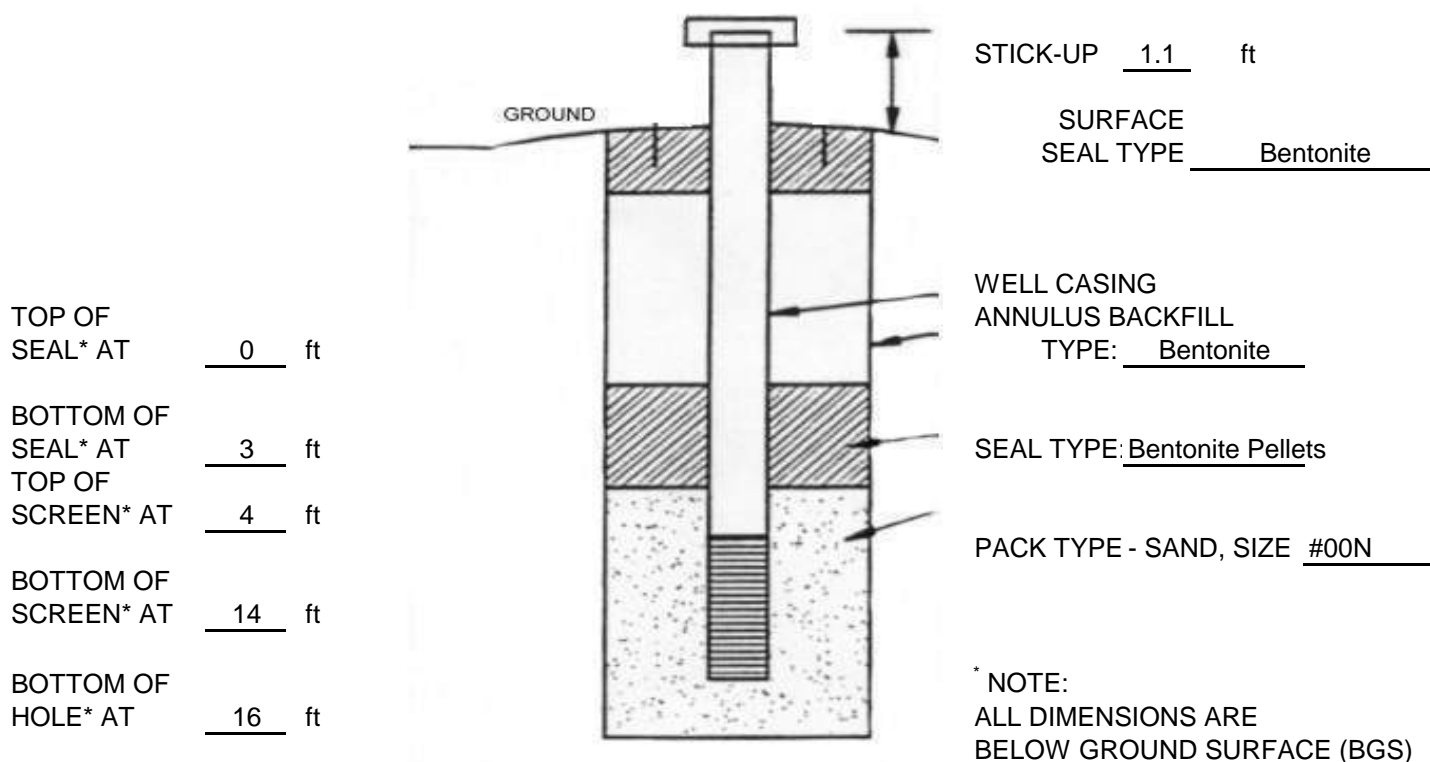




OVERBURDEN MONITORING WELL  
DESIGN DETAILS

PROJECT NAME	Canandaigua Lakefront	HOLE DESIGNATION	MW-12-3
PROJECT NUMBER	190500685	DATE COMPLETED	5/9/2012
CLIENT	Leo Genecco & Sons, I	DRILLING METHOD	Geoprobe
LOCATION	Lakeshore Drive	GEOLOGIST	D. Bauch-Barker
	Canandaigua, NY		

CAP TYPE Slip cap



SCREEN TYPE: CONTINUOUS SLOT X PERFORATED \_\_\_\_\_ LOUVRE \_\_\_\_\_ OTHER \_\_\_\_\_

SCREEN MATERIAL: STAINLESS STEEL \_\_\_\_\_ PVC X OTHER \_\_\_\_\_

SCREEN LENGTH: 10 ft SCREEN DIAMETER 1 in SCREEN SLOT SIZE: 0.010

WELL RISER MATERIAL: PVC WELL RISER DIAMETER: 1 in

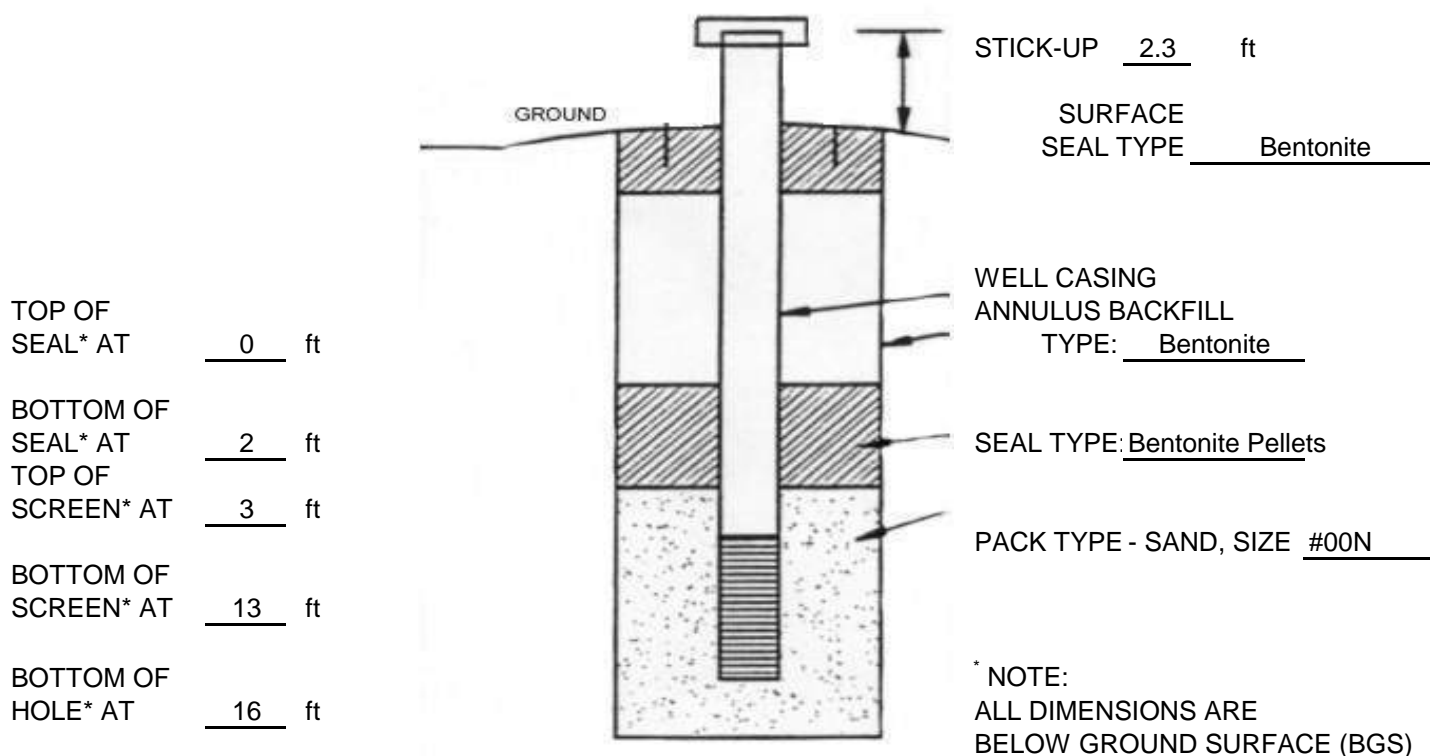
HOLE DIAMETER: 2 in



OVERBURDEN MONITORING WELL  
DESIGN DETAILS

PROJECT NAME Canandaigua Lakefront HOLE DESIGNATION MW-12-4  
PROJECT NUMBER 190500685 DATE COMPLETED 5/9/2012  
CLIENT Leo Genecco & Sons, I DRILLING METHOD Geoprobe  
LOCATION Lakeshore Drive GEOLOGIST D. Bauch-Barker  
Canandaigua, NY

CAP TYPE Slip cap



SCREEN TYPE: CONTINUOUS SLOT X PERFORATED     LOUVRE     OTHER    

SCREEN MATERIAL: STAINLESS STEEL     PVC X OTHER    

SCREEN LENGTH: 10 ft SCREEN DIAMETER 1 in SCREEN SLOT SIZE: 0.010

WELL RISER MATERIAL: PVC WELL RISER DIAMETER: 1 in

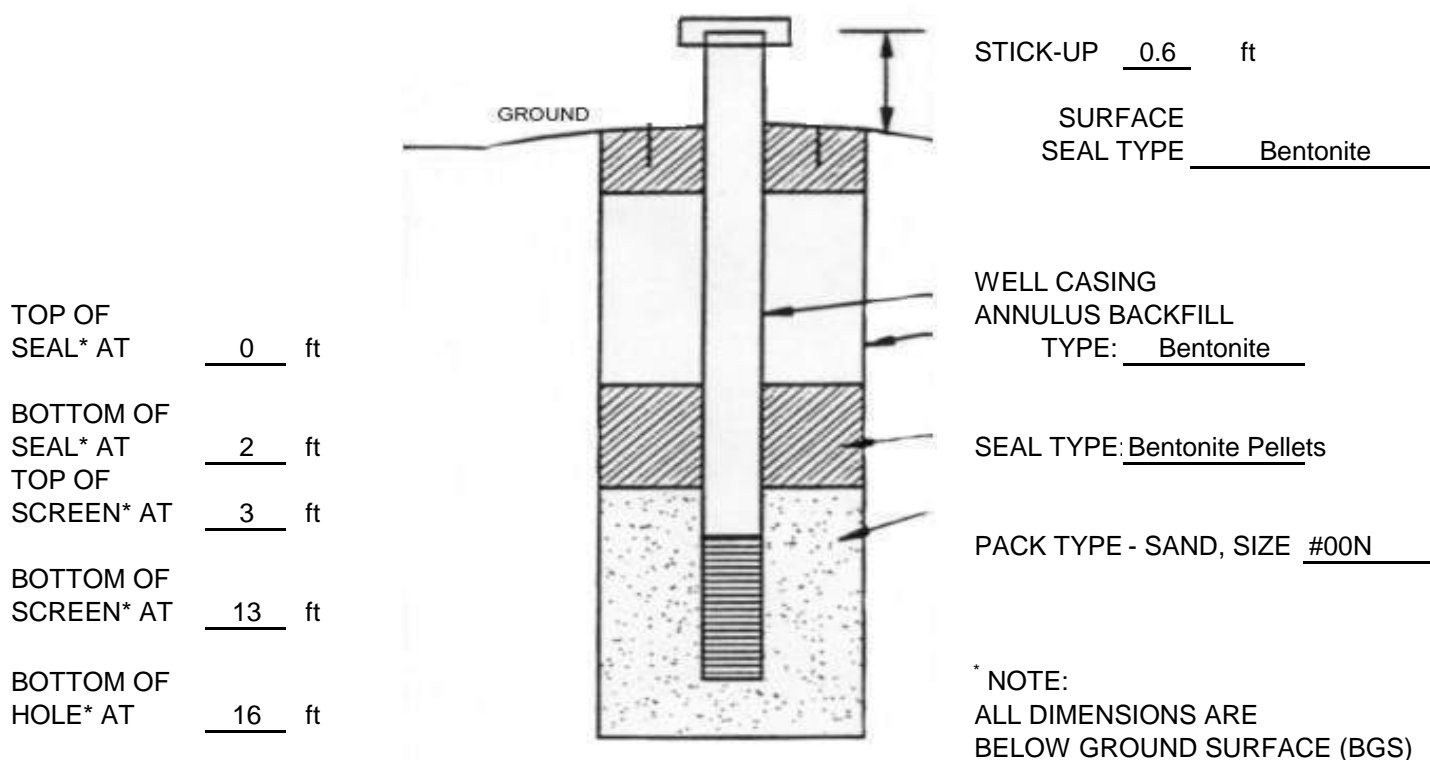
HOLE DIAMETER: 2 in



OVERBURDEN MONITORING WELL  
DESIGN DETAILS

PROJECT NAME Canandaigua Lakefront HOLE DESIGNATION MW-12-7  
PROJECT NUMBER 190500685 DATE COMPLETED 5/9/2012  
CLIENT Leo Genecco & Sons, I DRILLING METHOD Geoprobe  
LOCATION Lakeshore Drive GEOLOGIST D. Bauch-Barker  
Canandaigua, NY

CAP TYPE Slip cap



SCREEN TYPE: CONTINUOUS SLOT X PERFORATED \_\_\_\_\_ LOUVRE \_\_\_\_\_ OTHER \_\_\_\_\_

SCREEN MATERIAL: STAINLESS STEEL \_\_\_\_\_ PVC X OTHER \_\_\_\_\_

SCREEN LENGTH: 10 ft SCREEN DIAMETER 1 in SCREEN SLOT SIZE: 0.010

WELL RISER MATERIAL: PVC WELL RISER DIAMETER: 1 in

HOLE DIAMETER: 2 in

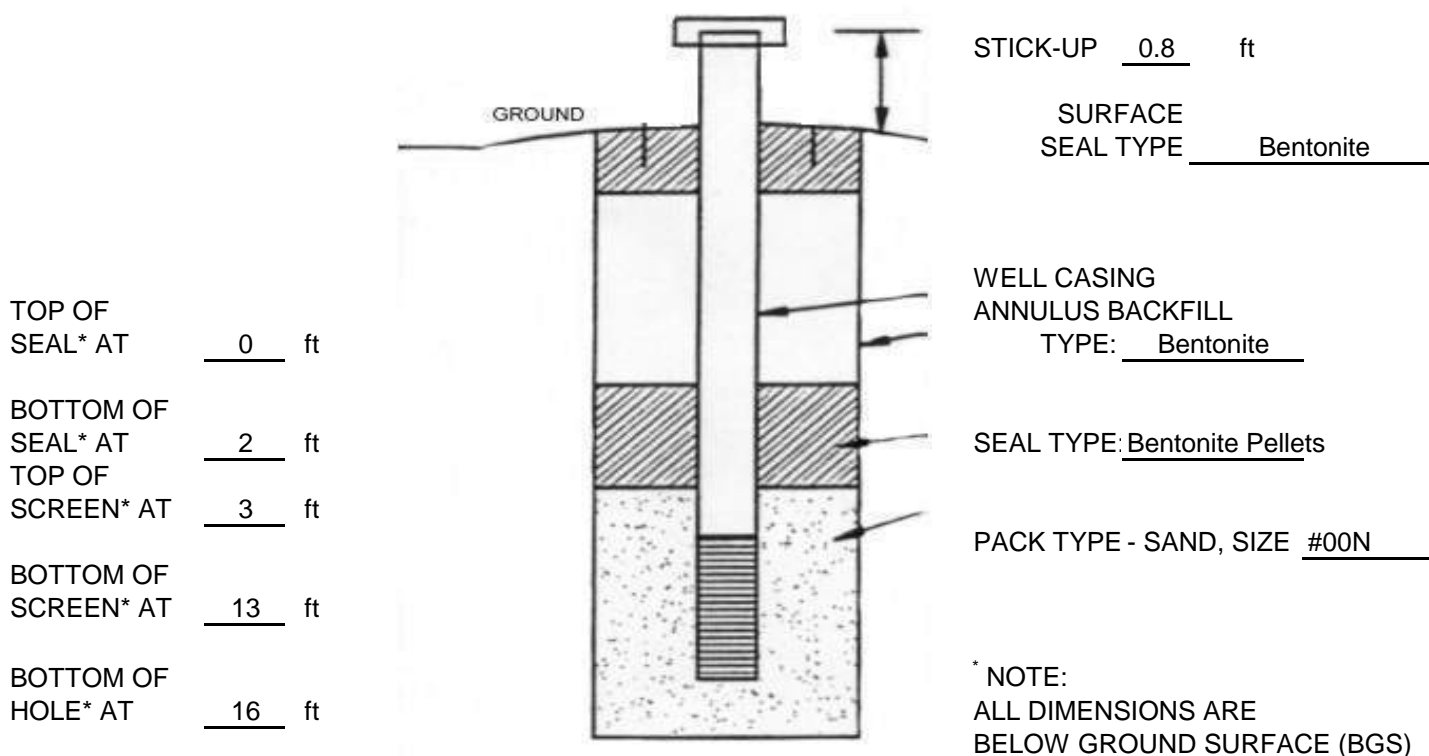




OVERBURDEN MONITORING WELL  
DESIGN DETAILS

PROJECT NAME Canandaigua Lakefront HOLE DESIGNATION MW-12-8  
PROJECT NUMBER 190500685 DATE COMPLETED 5/9/2012  
CLIENT Leo Genecco & Sons, I DRILLING METHOD Geoprobe  
LOCATION Lakeshore Drive GEOLOGIST D. Bauch-Barker  
Canandaigua, NY

CAP TYPE Slip cap



SCREEN TYPE: CONTINUOUS SLOT X PERFORATED      LOUVRE      OTHER     

SCREEN MATERIAL: STAINLESS STEEL      PVC X OTHER     

SCREEN LENGTH: 10 ft SCREEN DIAMETER 1 in SCREEN SLOT SIZE: 0.010

WELL RISER MATERIAL: PVC WELL RISER DIAMETER: 1 in

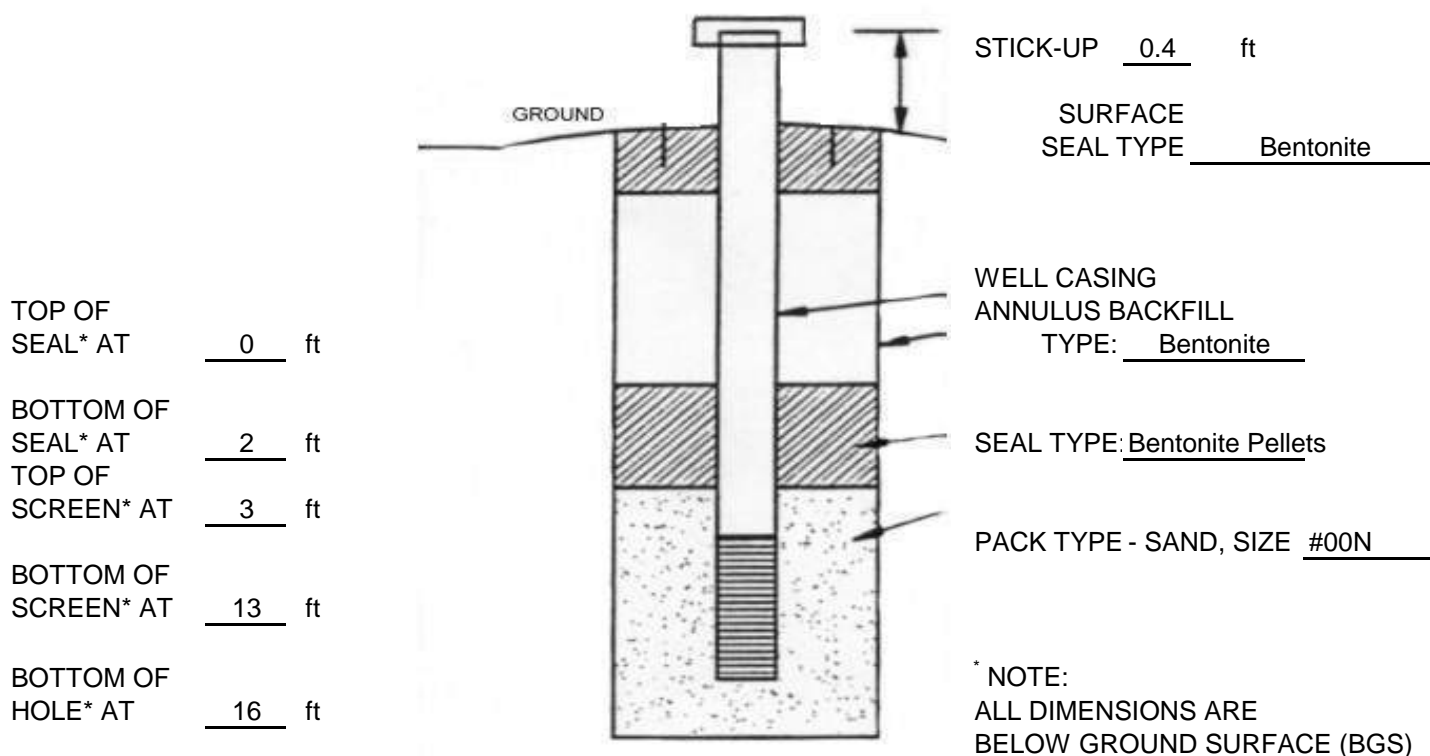
HOLE DIAMETER: 2 in



OVERBURDEN MONITORING WELL  
DESIGN DETAILS

PROJECT NAME Canandaigua Lakefront HOLE DESIGNATION MW-12-10  
PROJECT NUMBER 190500685 DATE COMPLETED 5/10/2012  
CLIENT Leo Genecco & Sons, I DRILLING METHOD Geoprobe  
LOCATION Lakeshore Drive GEOLOGIST D. Bauch-Barker  
Canandaigua, NY

CAP TYPE Slip cap



SCREEN TYPE: CONTINUOUS SLOT X PERFORATED    LOUVRE    OTHER   

SCREEN MATERIAL: STAINLESS STEEL    PVC X OTHER   

SCREEN LENGTH: 10 ft SCREEN DIAMETER 1 in SCREEN SLOT SIZE: 0.010

WELL RISER MATERIAL: PVC WELL RISER DIAMETER: 1 in

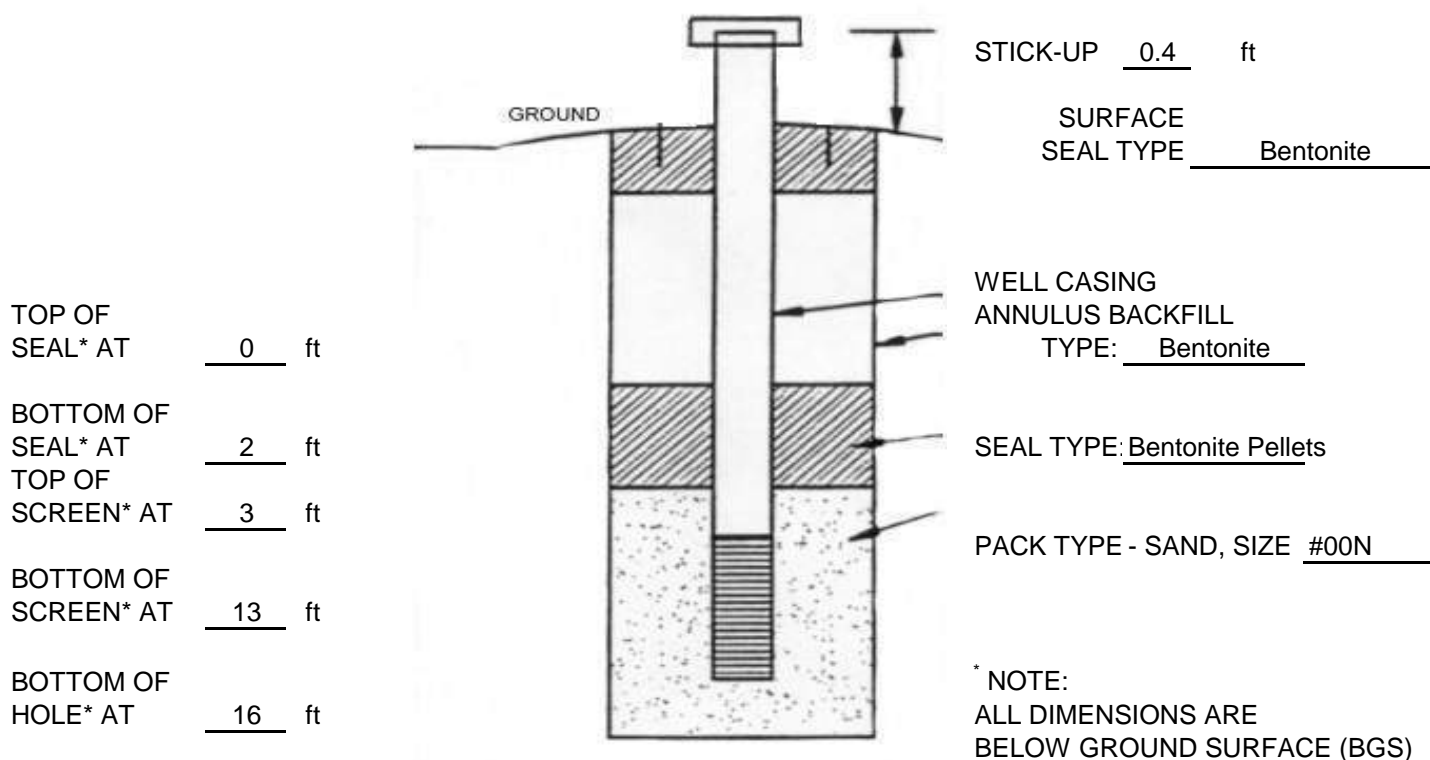
HOLE DIAMETER: 2 in



OVERBURDEN MONITORING WELL  
DESIGN DETAILS

PROJECT NAME Canandaigua Lakefront HOLE DESIGNATION MW-12-13  
PROJECT NUMBER 190500685 DATE COMPLETED 5/10/2012  
CLIENT Leo Genecco & Sons, I DRILLING METHOD Geoprobe  
LOCATION Lakeshore Drive GEOLOGIST D. Bauch-Barker  
Canandaigua, NY

CAP TYPE Slip cap



SCREEN TYPE: CONTINUOUS SLOT X PERFORATED \_\_\_\_\_ LOUVRE \_\_\_\_\_ OTHER \_\_\_\_\_

SCREEN MATERIAL: STAINLESS STEEL \_\_\_\_\_ PVC X OTHER \_\_\_\_\_

SCREEN LENGTH: 10 ft SCREEN DIAMETER 1 in SCREEN SLOT SIZE: 0.010

WELL RISER MATERIAL: PVC WELL RISER DIAMETER: 1 in

HOLE DIAMETER: 2 in





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## TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-12-1 Inspected By: D. Bauch-Barker Weather/Temp: Snowing, 30°F

Location/Station: N: E: Elev.:

Equipment Used: Backhoe Contractor: Nothnagle Operator: M. Loranty, B. Swartz

Start Time:  Stop Time:  Agency Rep: Not present

Comments:

☒ No Rock Encountered.  
☐ Rock Encountered At     Ft.  
☐ No Ground Water Encountered.  
☒ Ground Water Encountered At 4.5 Ft.  
       Fill %        MSW %  
       C&D%        Native %(USCS)

### LOCATION SKETCH:

See map.

DEPTH		PID READINGS			
(ft. BGS)	CLASSIFICATION	Max	Sust	Bkgd	NOTES/SAMPLES
0 - 1	Dark brown topsoil – fine SAND and SILT, wet.	0.3		0.3	
1 - 4.5	Brown fine SAND, some SILT, few fine-medium GRAVEL, moist.	0.2		0.1	
					Foundation with floor tiles at 3'. Moved east of foundation for remainder of test pit.
4.5 - 8	Ash and cinder, petroleum odor, black staining, wet. ~0.5" diameter copper pipe and bottles.	87.5		0.1	Sample TP-12-1 (4.5) at 1030 (duplicate).
		175		0.1	Sheen on water at 7.5'.
8 - 9	Gray fine SAND and CLAYEY SILT, petroleum odor, trace wood pieces, wet.	390		0.1	Sample TP-12-1 (8) at 1035 (duplicate).
9 - 10	Same as above but gray brown, slight petroleum odor.	93.7		0.1	
10 - 12	Gray fine SAND, little shell, wet (marl).	99.3		0.1	
		58.4		0.1	
12	Gray CLAY with little SILT, wet.	11.0		0.1	Bottom of excavation at 12'.



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## TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-12-2 Inspected By: D. Bauch-Barker Weather/Temp: Snowing, 30°F

Location/Station: N: E: Elev.:

Equipment Used: Backhoe Contractor: Nothnagle Operator: M. Loranty, B. Swartz

Start Time:  Stop Time:  Agency Rep: Not present

Comments:

☒ No Rock Encountered.  
☐ Rock Encountered At     Ft.  
☐ No Ground Water Encountered.  
☒ Ground Water Encountered At 4.6 Ft.  
       Fill %        MSW %  
       C&D%        Native %(USCS)

### LOCATION SKETCH:

See map.

DEPTH		PID READINGS			
(ft. BGS)	CLASSIFICATION	Max	Sust	Bkgd	NOTES/SAMPLES
0 - 1	Brown SILT and fine SAND, trace fine GRAVEL, wet.	0.4		0.3	
1 - 3.5	Same as above except reddish brown and with some CLAY.	0.4		0.3	
3.5 - 7	White ash and black cinder, dry-moist.	0.5		0.3	
	Some glass and brick at 4.5-7'. Water at 4.6'.				Sample TP-12-2 (4) at 1210.
7 - 11	Blue-gray CLAY, wet.	0.4		0.3	
11	Gray SILTY fine SAND, wet (marl).	0.4		0.3	Bottom of excavation at 11'.



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## TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-12-3 Inspected By: D. Bauch-Barker Weather/Temp: Snowing, 30°F

Location/Station: N: E: Elev.:

Equipment Used: Backhoe Contractor: Nothnagle Operator: M. Loranty, B. Swartz

Start Time:  Stop Time:  Agency Rep: Not present

Comments:

☒ No Rock Encountered.  
☐ Rock Encountered At     Ft.  
☐ No Ground Water Encountered.  
☒ Ground Water Encountered At 3 Ft.  
       Fill %        MSW %  
       C&D%        Native %(USCS)

### LOCATION SKETCH:

See map.

DEPTH		PID READINGS			
(ft. BGS)	CLASSIFICATION	Max	Sust	Bkgd	NOTES/SAMPLES
0 - 0.2	Topsoil.	0.6		0.6	
0.2 - 4.5	Ash and cinder, little slag, dry-moist.	0.3		0.3	
	Water at 3'.				
4.5 - 5	Same as above with black staining and petroleum odor, some glass, some brick, wet.	128		0.3	Sample TP-12-3 (4.5) at 1310.
5 - 6	Black SILT with some fine SAND, wet.	6.7		0.3	
6 - 7	Gray fine SAND with little shell (marl).				
7 - 8.9	Gray CLAY, little SILT, wet.	0.7		0.3	
					Bottom of excavation at 8.9'.





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## TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-12-4 Inspected By: D. Bauch-Barker Weather/Temp: Snowing, 30°F

Location/Station: N: E: Elev.:

Equipment Used: Backhoe Contractor: Nothnagle Operator: M. Loranty, B. Swartz

Start Time:  Stop Time:  Agency Rep: Not present

Comments:



No Rock Encountered.



Rock Encountered At     Ft.



No Ground Water Encountered.



Ground Water Encountered At 3.5 Ft.

Fill %       

MSW %       

C&D%       

Native %(USCS)       

### LOCATION SKETCH:

See map.

DEPTH		PID READINGS			
(ft. BGS)	CLASSIFICATION	Max	Sust	Bkgd	NOTES/SAMPLES
0 - 0.2	Topsoil.				
0.2 - 2	Brown SILT and fine SAND, some medium-coarse GRAVEL and COBBLES, wet.	0.3		0.1	
2 - 5	Ash and cinder, some glass, tile, brick, metal, drum (apparent burn barrel), wood, wet at 3.5'.	0.4		0.1	
					Sample TP-12-4 (3) at 1430.
5 - 7	Black-gray SILTY CLAY (no odor), large rock, wet.	0.4		0.1	
7 - 10	Same as above grading to gray and brown mottled.	0.4		0.1	
					Bottom of excavation at 10'.



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## TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-12-5 Inspected By: D. Bauch-Barker Weather/Temp: Snowing, 30°F

Location/Station: N: E: Elev.:

Equipment Used: Backhoe Contractor: Nothnagle Operator: M. Loranty, B. Swartz

Start Time:  Stop Time:  Agency Rep: Not present

Comments:

☒ No Rock Encountered.  
☐ Rock Encountered At     Ft.  
☐ No Ground Water Encountered.  
☒ Ground Water Encountered At 3.5 Ft.  
       Fill %        MSW %  
       C&D%        Native %(USCS)

### LOCATION SKETCH:

See map.

DEPTH		PID READINGS			
(ft. BGS)	CLASSIFICATION	Max	Sust	Bkgd	NOTES/SAMPLES
0 - 0.5	Asphalt.				
0.5 - 2.5	Dark brown asphalt sub-base, moist.	0.4		0.1	
2.5 - 3.5	Ash and cinder, glass, brick, metal, apparent burn barrel.	0.4		0.1	
3.5 - 4	Ash and brown fine SAND and SILT, moist. Water at 3.5'.	0.3		0.1	Sample TP-12-5 (3.5) at 1620.
4 - 7	Red CLAY and some SILT, trace shingles, wet. Hollow structure at 4.5' with creosote tar coated corrugated metal, sounded like hollow wood.	0.6		0.1	
7 - 8.5	Dark brown CLAY, wet.	0.1		0.1	
8.5 - 11	Gray fine SAND and little shells, some SILT, wet (marl).	0.3		0.1	
11	Reddish gray CLAY, wet.	0.6		0.1	Bottom of excavation at 11'.



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## TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-12-6 Inspected By: D. Bauch-Barker Weather/Temp: Sprinkling, 30°F

Location/Station: N: E: Elev.:

Equipment Used: Backhoe Contractor: Nothnagle Operator: M. Loranty, B. Swartz

Start Time:  Stop Time:  Agency Rep: Not present

Comments:

☒ No Rock Encountered.  
☐ Rock Encountered At     Ft.  
☐ No Ground Water Encountered.  
☒ Ground Water Encountered At 4 Ft.  
       Fill %        MSW %  
       C&D%        Native %(USCS)

### LOCATION SKETCH:

See map.

DEPTH		PID READINGS			
(ft. BGS)	CLASSIFICATION	Max	Sust	Bkgd	NOTES/SAMPLES
0 - 1	Brown medium SAND, some fine SAND, little fine-medium GRAVEL, wet.	0		0	
1 - 4.5	Brown fine SAND, moist.	0		0	
4.5 - 8	Gray brown SILT, little fine SAND, trace COBBLE, moist. Water at 4'.	0		0	
8 - 8.5	White gray fine SAND, trace shell, trace wood, wet.	0.1		0	Sample TP-12-6 (8) at 900.
8.5 - 9	Light brown fine SAND, trace medium-coarse rounded GRAVEL, wet.	0.1		0	
9 - 10.6	Red brown SILTY CLAY, wet.	0.1		0	
10.6	Gray fine SAND, some shell, little wood, wet (marl).				Bottom of excavation at 10.6'.





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## TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-12-7 Inspected By: D. Bauch-Barker Weather/Temp: Sprinkling, 30°F

Location/Station: N: E: Elev.:

Equipment Used: Backhoe Contractor: Nothnagle Operator: M. Loranty, B. Swartz

Start Time:  Stop Time:  Agency Rep: Not present

Comments:

- ☒ No Rock Encountered.  
☐ Rock Encountered At     Ft.  
☐ No Ground Water Encountered.  
☒ Ground Water Encountered At 3.4 Ft.  
       Fill %        MSW %  
       C&D%        Native %(USCS)

### LOCATION SKETCH:

See map.

DEPTH		PID READINGS			
(ft. BGS)	CLASSIFICATION	Max	Sust	Bkgd	NOTES/SAMPLES
0 - 0.2	Asphalt.				
0.2 - 2.5	Brown medium SAND, some fine SAND and coarse SAND, trace fine GRAVEL, moist.	0.5		0.1	
2.5 - 4.3	Ash and slag, some coarse SAND, moist-dry.	0.4		0.1	
	Water at 3.4'.	0.4		0.1	Sample TP-12-7 (3) at 930.
4.3 - 5.5	Dark gray-brown SILT, little fine SAND and CLAY, moist-wet.	0.4		0.1	
5.5 - 8	Medium-coarse rounded GRAVEL, some fine GRAVEL, little coarse SAND, wet.	0.4		0.1	
8 - 10.2	Reddish brown CLAY, little shell, wet.	0.3		0.1	
					Bottom of excavation at 10.2'.



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## TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-12-8 Inspected By: D. Bauch-Barker Weather/Temp: Sprinkling, 30°F

Location/Station: N: E: Elev.:

Equipment Used: Backhoe Contractor: Nothnagle Operator: M. Loranty, B. Swartz

Start Time:  Stop Time:  Agency Rep: Not present

Comments:

- ☒ No Rock Encountered.  
☐ Rock Encountered At     Ft.  
☐ No Ground Water Encountered.  
☒ Ground Water Encountered At 11.6 Ft.  
       Fill %        MSW %  
       C&D%        Native %(USCS)

### LOCATION SKETCH:

See map.

DEPTH		PID READINGS			
(ft. BGS)	CLASSIFICATION	Max	Sust	Bkgd	NOTES/SAMPLES
0 - 1	Grass and topsoil, brown fine SAND, little SILT, little fine GRAVEL, moist.	0.2		0.2	
1 - 3	Same as above except trace fine GRAVEL.	0.3		0.2	
3 - 4	Same as above except few SILT, moist-wet.	0.3		0.2	
4 - 6	Reddish brown CLAY.	0.3		0.2	
6 - 8	Dark brown SILT and fine SAND, little ash and slag, moist.	0.2		0.2	Sample TP-12-8 (6) at 1020 (MS/MSD).
8 - 9.1	Dark reddish brown SILTY CLAY, trace gray.	0.3		0.2	
9.1 - 10.1	Whitish-gray SILT, some CLAY, little medium-coarse GRAVEL, moist-wet.	0.3		0.2	
	Gray-brown CLAY, some SILT, moist.	0.3		0.2	
10.1- 11.6	Gray brown fine SAND and SILT, moist.	0.3		0.2	
	Water at 11.6'.				Bottom of excavation at 11.6'.



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## TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-12-9 Inspected By: D. Bauch-Barker Weather/Temp: Sprinkling, 30°F

Location/Station: \_\_\_\_\_ N: \_\_\_\_\_ E: \_\_\_\_\_ Elev.: \_\_\_\_\_

Equipment Used: Backhoe Contractor: Nothnagle Operator: M. Loranty, B. Swartz

Start Time: \_\_\_\_\_ Stop Time: \_\_\_\_\_ Agency Rep: Not present

Comments:

- ☒ No Rock Encountered.  
☐ Rock Encountered At \_\_\_\_ Ft.  
☐ No Ground Water Encountered.  
☒ Ground Water Encountered At 2.5 Ft.  
 \_\_\_\_\_ Fill % \_\_\_\_\_ MSW %  
 \_\_\_\_\_ C&D% \_\_\_\_\_ Native %(USCS)

### LOCATION SKETCH:

See map.

DEPTH		PID READINGS			
(ft. BGS)	CLASSIFICATION	Max	Sust	Bkgd	NOTES/SAMPLES
0 - 2	Dark brown SILT and fine SAND, trace roots, wet at 0-0.5', moist-wet at 0.5-2'.	0.6		0.3	
2 - 3.5	Reddish-brown SILT, few CLAY, little fine SAND, moist, wet at 2.5'.	0.6		0.3	
3.5 - 4	Dark orange fine SAND, some SILT, trace white SAND, wet.	0.6		0.3	Sample TP-12-9 (3.5) at 1120.
4 - 4.5	Brown fine SAND, trace ash and cinder, few fine-coarse GRAVEL, wet.	0.6		0.3	
4.5 - 8	Brown fine SAND, some fine-coarse GRAVEL and coarse SAND, little SILT, trace CLAY, little COBBLES, wet (saturated).	0.7		0.3	
8 - 9	Same as above with little CLAY.	0.6		0.3	
9 - 11.2	Gray SILT, some fine SAND, few CLAY, few fine-coarse GRAVEL, wet.	0.8		0.3	
					Bottom of excavation at 11.2'.





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## TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-12-10 Inspected By: D. Bauch-Barker Weather/Temp: Sprinkling, 30°F

Location/Station: N: E: Elev.:

Equipment Used: Backhoe Contractor: Nothnagle Operator: M. Loranty, B. Swartz

Start Time:  Stop Time:  Agency Rep: Not present

Comments:

☒ No Rock Encountered.  
☐ Rock Encountered At     Ft.  
☐ No Ground Water Encountered.  
☒ Ground Water Encountered At 3 Ft.  
       Fill %        MSW %  
       C&D%        Native %(USCS)

### LOCATION SKETCH:

See map.

DEPTH		PID READINGS			
(ft. BGS)	CLASSIFICATION	Max	Sust	Bkgd	NOTES/SAMPLES
0 - 1	Brown medium SAND.	0.4		0.4	
1 - 2	Ash, cinder, slag, little dark brown fine SAND, moist.	0.7		0.4	Sample at TP-12-10 (1.5) at 1200.
2 - 3	Brown SILT, some fine SAND, little CLAY, moist.	0.8		0.4	
3 - 7	Reddish brown SILT, some CLAY, few fine-medium SAND, moist. Water at 3'.	0.4		0.4	
7 - 8.2	Same as above with increased CLAY and trace medium GRAVEL.	0.5		0.4	
8.2 - 9	Reddish-brown CLAY, some SILT, mottled/layered with orange and gray, moist.	0.6		0.4	
9 - 11	Brown fine SAND, little SILT, moist.	0.5		0.4	
11 - 11.3	Brown fine SAND, little CLAY and SILT, wet.	0.6		0.4	
11.3 - 12		0.5		0.4	
					Bottom of excavation at 12'.



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 Project No.: 190500685  
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## TEST PIT / TEST TRENCH SEGMENT LOG

Test Hole No: TP-12-11 Inspected By: D. Bauch-Barker Weather/Temp: Sprinkling, 30°F

Location/Station: N: E: Elev.:

Equipment Used: Backhoe Contractor: Nothnagle Operator: M. Loranty, B. Swartz

Start Time:  Stop Time:  Agency Rep: Not present

Comments:

☒ No Rock Encountered.  
☐ Rock Encountered At     Ft.  
☐ No Ground Water Encountered.  
☒ Ground Water Encountered At 10 Ft.  
       Fill %        MSW %  
       C&D%        Native %(USCS)

### LOCATION SKETCH:

See map.

DEPTH		PID READINGS			
(ft. BGS)	CLASSIFICATION	Max	Sust	Bkgd	NOTES/SAMPLES
0 - 0.8	Dark brown medium SAND, some coarse SAND and fine GRAVEL, few medium-coarse GRAVEL, wet.	0.5		0.4	
0.8 - 1	Same as above except brown.	0.5		0.4	
1 - 4	Dark grayish-brown SILT, some CLAY and medium-coarse GRAVEL, little COBBLES, little fine SAND, moist.	0.5		0.4	
4 - 4.5	Dark gray-brown SILT, some fine SAND, little fine-medium GRAVEL, odor (possibly creosote), wet.	0.9		0.4	Sample TP-12-11 (4) at 1250.
4.5 - 5	Light black SILT, some fine SAND, trace CLAY, moist.	0.6		0.4	
5 - 7	Blue-gray CLAY, few SILT, moist.	0.6		0.4	
7 - 9	Same as above except brown.	0.7		0.4	
9 - 10		0.6		0.4	
10 - 11	Brown SILT and fine SAND, trace coarse GRAVEL and COBBLE, wet.	0.6		0.4	
11 - 12	Brown SILT, some fine SAND, trace CLAY, moist.	0.8		0.4	Bottom of excavation at 12'.

Target Drilling Co.  
7183 East Swamp Rd.  
Conesus, NY. 14435

Test Boring No.: B12- 1  
Job No.: 12008  
Page: 1 of 3  
Report Date: 4/19/2012

Project: Canandaigua Lake Front

Client: Foundation Design, P.C.

Elevation: 690.4 Geologist:

Water Level - Casing In: 4' Driller: S. KAHN

Below - Casing Out: 6' Start: 4/18/2012

Completed: 4/19/2012

NOTES: ELEVATIONS PROVIDED BY OTHERS.

SOIL AND ROCK INFORMATION SUBJECT TO  
GEOLOGIST A/O DRILLER INTERPRETATION

Seasonal and climatic changes may alter observed water levels.

0	Blows on Sampler				Sample				Visual Soil and Rock Information Remarks
	0" 6"	6" 12"	12" 18"	18" 24"	N	Rec	No	Depth	
									ASPHALT 0' 8"
									CRUSHED STONE 1' 4"
	2	1							Loose red-brown black mottled moist
			1	2	2	12"	1	2' - 4'	Ash, cinders, fine sand, fine gravel, organic (FILL)
5	2	1							
			1	2	2	16"	2	4' - 6'	Same, black, wet, loose, trace wood, trace glass
	2	1							Very soft black wet organic SILT 6' 0"
			1	1	2	24"	3	6' - 8'	Very soft light grey saturated SILT, some marl,
	1	3							little m-f sand and shale fragments, trace wood
10			2	1	5	9"	4	8' - 10'	Same, soft, with tree roots, trace fine gravel
	1	W/H							11' 0"
			W/H	1	W/H	24"	5	10' - 12'	Very soft red-brown moist CLAY, some silt with silt
									partings
15									
	7	8							
			10		18	14"	6	15' - 16' 6"	Same, stiff, moist
20									
	2	3							
			3		6		7	20' - 21' 6"	Same, medium, moist, little silt
25									
	3	3							
			3		6	10"	8	25' - 26' 6"	Same, medium, moist (plastic)
30									
	1	1							
			1		2	18"	9	30' - 31' 6"	Same, very soft, saturated
35									
	3	1							
			1		2	18"	10	35' - 36' 6"	Same, very soft, saturated, trace fine gravel
40									

N=No. of Blows to Drive 2" Spoon 12" with 140 lb. Wt. 30" Ea.  
Blow C=No. of Blows to Drive Casing with lb. Wt. Ea.  
Blow



Target Drilling Co.  
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Test Boring No.: B12- 1  
Job No.: 12008  
Page: 2 of 3  
Report Date: 4/19/2012

Project: Canandaigua Lake Front

Client: Foundation Design, P.C.

Elevation: 690.4 Geologist:

Water Level - Casing In: 4' Driller: S. KAHN

Below - Casing Out: 6' Start: 4/18/2012

Completed: 4/19/2012

NOTES: ELEVATIONS PROVIDED BY OTHERS.

SOIL AND ROCK INFORMATION SUBJECT TO  
GEOLOGIST A/O DRILLER INTERPRETATION

Seasonal and climatic changes may alter observed water levels.

	Blows on Sampler				Sample				Visual Soil and Rock Information Remarks
	0" 6"	6" 12"	12" 18"	18" 24"	N	Rec.	No.	Depth	
40	2	1							
			2		3	18"	11	40' - 41' 6"	Same, very soft, saturated, with few saturated silt and v.f. sand seams
									42' 6"
45	6	7							
			10		17	18"	12	45' - 46' 6"	Firm brown saturated f - v.f. SAND and SILT, trace m-f gravel, few saturated clay seams
50	7	8							
			7		15	18"	13	50' - 51' 6"	Same, firm, saturated
55									54' 0"
	15	20							
			36		56	10"	14	55' - 55' 6"	Very dense brown wet c-f SAND and c-f GRAVEL, little to some silt, trace clay Cobbles / boulders noted while augering
60									
	100/5				100/5	5"	15	60' - 60' 5"	Same, very dense, moist Cobbles / boulders noted while augering
65									
	114/6				114/6	6"	16	65' - 65' 6"	Same, very dense, moist Cobbles / boulders noted while augering
									Augers "took off" from 68' 6" to 70' 0"
70									
	100/5				100/5	5"	17	70' - 70' 5"	Same, very dense, wet, trace to little silt
75									
	100/4				100/4	4"	18	75' - 75' 4"	Same, very dense, moist, some silt
80									

N=No. of Blows to Drive 2" Spoon 12" with 140 lb. Wt. 30" Ea.  
Blow C=No. of Blows to Drive    Casing    with    lb. Wt.    Ea.  
Blow

Target Drilling Co.  
7183 East Swamp Rd.  
Conesus, NY. 14435

Test Boring No.: B12- 1  
Job No.: 12008  
Page: 3 of 3  
Report Date: 4/19/2012

Project: Canandaigua Lake Front

Client: Foundation Design, P.C.

Elevation: 690.4 Geologist:

Water Level - Casing In: 4' Driller: S. KAHN

Below - Casing Out: 6' Start: 4/18/2012

Completed: 4/19/2012

NOTES: ELEVATIONS PROVIDED BY OTHERS.  
SOIL AND ROCK INFORMATION SUBJECT TO  
GEOLOGIST A/O DRILLER INTERPRETATION

Seasonal and climatic changes may alter observed water levels.

	Blows on Sampler				Sample				Visual Soil and Rock Information Remarks
	0" 6"	6" 12"	12" 18"	18" 24"	N	Rec	No.	Depth	
80	14	41							
			100/4		141/10	10"	19	80' - 81' 4"	Same very dense moist
85									
	100/3								
					100/3		20	85' - 85' 3"	Same very dense moist
90									
	100/5								
					100/5	2"	21	90' - 90' 5"	(rock chips)
									(poor rec)
95									
	95/6					6"	22	95' - 95' 6"	Same, very dense, moist
	100/1					Ø	23	97' 6" - 97' 7"	No recovery
100									
105									
110									
115									
120									

N=No. of Blows to Drive 2" Spoon 12" with 140 lb. Wt. 30" Ea.  
Blow C=No. of Blows to Drive Casing with lb. Wt. Ea.  
Blow

Boring terminated at 97' 7"

Target Drilling Co.  
7183 East Swamp Rd.  
Conesus, NY. 14435

Test Boring No.: B12- 2  
Job No.: 12008  
Page: 1 of 3  
Report Date: 4/18/2012

Project: Canandaigua Lake Front

Client: Foundation Design, P.C.

Elevation: 693.3 Geologist:

Water Level - Casing In: 7' Driller: S. KAHN

Below - Casing Out: 7' Start: 4/17/2012

Completed: 4/18/2012

NOTES: ELEVATIONS PROVIDED BY OTHERS.

SOIL AND ROCK INFORMATION SUBJECT TO  
GEOLOGIST A/O DRILLER INTERPRETATION

Seasonal and climatic changes may alter observed water levels.

	Blows on Sampler				Sample				Visual Soil and Rock Information Remarks
	0" 6"	6" 12"	12" 18"	18" 24"	N	Rec	No	Depth	
0									
	19	16						0' - 2'	Compact brown mottled moist SILT, some c-f gravel, little clay, c-f sand and organic trace shale fragments (FILL) 2' 0"
	14	15			31	18"	1		
			15	15				2' - 4'	Compact dark brown-grey moist c-f SAND, little silt and m-f gravel, trace clay and shale fragments (FILL) 3' 0"
5	8	7			26	14"	2		
			4	4	11	12"	3	4' - 6'	Loose black saturated ASH, little m-f gravel, trace wood (FILL) 7' 0"
	5	4			9	12"	4	6' - 8'	Soft brown-black wet organic SILT 9' 0"
	3	3							
10			1	2	4	7"	5	8' - 10'	Soft grey wet MARL, little m-f sand, little shells and shell fragments
	1	W/H						(poor rec)	
			W/H	1	W/H	6"	6	10' - 12'	Same, grey saturated, trace wood 13' 0"
	2	3							
			7	7	10	13"	7	12' - 14'	Medium red-brown moist CLAY, some silt
15									
	9	11							
			11		22	15"	8	15' - 16' 6"	Sand / marl rose in augers ± 8" Same, moist, stiff, with few v.f. sand partings
20									
	2	3							
			3		6	18"	9	20' - 21' 6"	Same, moist, medium
25									
	1	1							
			1		2	18"	10	25' - 26' 6"	Same, wet, soft, little silt
30									
	4	4							
			6		10	18"	11	30' - 31' 6"	Same, medium wet 31' 0" Loose black-brown saturated m-c SAND and c-f GRAVEL, trace silt
35									
	4	5							
			4		9	16"	12	35' - 36' 6"	Sand and gravel rose in augers ± 1' Same, saturated, loose, clay layer with gravel from 35' 10" to 36' 4"
40									

N=No. of Blows to Drive 2" Spoon 12" with 140 lb. Wt. 30" Ea.  
Blow C=No. of Blows to Drive    Casing    with    lb. Wt.    Ea.  
Blow



Target Drilling Co.  
7183 East Swamp Rd.  
Conesus, NY. 14435

Test Boring No.: B12- 2  
Job No.: 12008  
Page: 2 of 3  
Report Date: 4/18/2012

Project: Canandaigua Lake Front

Client: Foundation Design, P.C.

Elevation: 693.3 Geologist:

Water Level - Casing In: 7' Driller: S. KAHN

Below - Casing Out: 7' Start: 4/17/2012

Completed: 4/18/2012

NOTES: ELEVATIONS PROVIDED BY OTHERS.

SOIL AND ROCK INFORMATION SUBJECT TO  
GEOLOGIST A/O DRILLER INTERPRETATION

Seasonal and climatic changes may alter observed water levels.

	Blows on Sampler				Sample				Visual Soil and Rock Information Remarks
	0" 6"	6" 12"	12" 18"	18" 24"	N	Rec.	No.	Depth	
40	5	5							Sand / gravel rose in augers ± 1' Same, saturated, firm, grades to little silt, trace clay
			7		12	12"	13	40' - 41' 6"	
45									Same, compact, saturated
	13	13							
			10		23	12"	14	45' - 46' 6"	
50									Sand / gravel rose in augers ± 1' Same, saturated, compact, no clay
	11	12							
			14		26	14"	15	50' - 51' 6"	
55									Same, firm, saturated
	14	9							
			8		17	6"	16	55' - 56' 6" (poor rec)	
60									Sand / gravel rose in augers ± 1' Same, firm, saturated with f - v.f. SAND, little silt seam from 61' to 61' 6"
	8	6							
			10		16	16"	17	60' - 61' 6"	
65									Very dense light brown wet m - v.f. SAND, little silt
	13	29							
			40		69	10"	18	65' - 66' 6"	
70									Very dense brown moist c-f SAND, some m-f gravel, little silt, trace shale fragments
	37	30							
			25		55	10"	19	70' - 71' 6"	
75									Very dense grey moist SILT, some c-f gravel, little c-f sand, trace shale fragments
	200/5				200/5	5"	20	75' - 75' 5"	
80									

N=No. of Blows to Drive 2" Spoon 12" with 140 lb. Wt. 30" Ea.  
Blow C=No. of Blows to Drive    Casing    with    lb. Wt.    Ea.  
Blow

Target Drilling Co.  
7183 East Swamp Rd.  
Conesus, NY. 14435

Test Boring No.: B12- 2  
Job No.: 12008  
Page: 3 of 3  
Report Date: 4/18/2012

Project: Canandaiqua Lake Front

Client: Foundation Design, P.C.

Elevation: 693.3 Geologist:

Water Level - Casing In: 7' Driller: S. KAHN

Below - Casing Out: 7' Start: 4/17/2012

Completed: 4/18/2012

NOTES: ELEVATIONS PROVIDED BY OTHERS.

SOIL AND ROCK INFORMATION SUBJECT TO

GEOLOGIST A/O DRILLER INTERPRETATION

Seasonal and climatic changes may alter observed water levels.

	Blows on Sampler				Sample				Visual Soil and Rock Information Remarks
	0" 6"	6" 12"	12" 18"	18" 24"	N	Rec	No.	Depth	
80	193/6				193/6	6"	21	80' - 80' 6"	Same, very dense, moist
85	100/3				100/3		22	85' - 85' 3"	Same, very dense, moist
90	43	100/5			100/5	10"	23	90' - 90' 11"	Same, very dense, moist, saturated, little clay, m- v.f. sand, little silt seam from 90' 9" to 90' 11" 93' 6"
95	100/5				100/5	5"	24	95' - 95' 5"	Very dense grey brown saturated c-f SAND and m-f GRAVEL, trace silt
		100/6							
									98' 9"
100					100/6		25	98' 6" - 99' 0"	Shale fragments 99' 0"
105									Run #1 102' → 107' 6" Rec 30% Cored trough cobbles and boulders
									Boring terminated at 107' 6"
									Water rose to 7' when boring was 31' deep
110									
115									
120									

N=No. of Blows to Drive 2" Spoon 12" with 140 lb. Wt. 30" Ea.  
Blow C=No. of Blows to Drive Casing with lb. Wt. Ea.  
Blow

Target Drilling Co.  
7183 East Swamp Rd.  
Conesus, NY. 14435

Test Boring No.: B12- 3  
Job No.: 12008  
Page: 1 of 2  
Report Date: 4/15/2012

Project: Canandaigua Lake Front

Client: Foundation Design, P.C.

Elevation: 693.4 Geologist:

Water Level - Casing In: 14' Driller: S. KAHN

Below - Casing Out: NONE Start: 4/15/2012

Completed: 4/15/2012

NOTES: ELEVATIONS PROVIDED BY OTHERS.

SOIL AND ROCK INFORMATION SUBJECT TO  
GEOLOGIST A/O DRILLER INTERPRETATION

Seasonal and climatic changes may alter observed water levels.

	Blows on Sampler				Sample				Visual Soil and Rock Information Remarks
	0" 6"	6" 12"	12" 18"	18" 24"	N	Rec.	No.	Depth	
0	6	7							TOPSOIL 0' 4"
			7	5	14	10"	1	0' - 2'	Soft red-brown mottled moist SILT, some clay, little c-f gravel, trace to little organic trace m-f gravel (FILL)
	4	4							
			3	3	7	6"	2	2' - 4'	Same, medium, wet, trace clay 4' 0"
5	10	8						(poor rec)	
			9	11	17	14"	3	4' - 6'	Firm, light brown-brown mottled moist SILT, some c-f gravel, little clay and c-f sand (possible fill)
	11	28							Same, moist, dense
			20	21	48	13"	4	6' - 8'	Cobbles / boulders noted during augering from ± 6' 6" to 7' 6"
	9	15							Same, grey, moist, compact, few shale fragments, red mineral staining noted
10			15	10	30	21"	5	8' - 10'	
	7	8							Same, moist, firm
			11	11	19	5"	6	10' - 12'	
								(poor rec)	
15									
	3	3							
			6		9	15"	7	15' - 15' 6"	Same, moist, medium, more clay
20									
	4	3							
			4		7	15"	8	20' - 21' 6"	Same, moist, medium
25									
	2	5							
			10		15	12"	9	25' - 26' 6"	Same, medium, wet
30									
	W/H	W/H							
			2		2	12"	10	30' - 31' 6"	Same, saturated, very soft 32' 6"
35									
	24	27							
			27		54	19"	11	35' - 36' 6"	Very dense grey-brown saturated m - v.f. SAND, some silt, trace fine gravel 36' 4"
40									

N=No. of Blows to Drive 2" Spoon 12" with 140 lb. Wt. 30" Ea.  
Blow C=No. of Blows to Drive    Casing    with    lb. Wt.    Ea.  
Blow



Target Drilling Co.  
7183 East Swamp Rd.  
Conesus, NY. 14435

Test Boring No.: B12- 3  
Job No.: 12008  
Page: 2 of 2  
Report Date: 4/15/2012

Project: Canandaigua Lake Front

Client: Foundation Design, P.C.

Elevation: 693.4 Geologist:

Water Level - Casing In: 14' Driller: S. KAHN

Below - Casing Out: NONE Start: 4/15/2012

Completed: 4/15/2012

NOTES: ELEVATIONS PROVIDED BY OTHERS.

SOIL AND ROCK INFORMATION SUBJECT TO  
GEOLOGIST A/O DRILLER INTERPRETATION

Seasonal and climatic changes may alter observed water levels.

	Blows on Sampler				Sample				Visual Soil and Rock Information Remarks
	0" 6"	6" 12"	12" 18"	18" 24"	N	Rec.	No.	Depth	
40	10	48							
			57		105	18"	12	40' - 41' 6"	Very dense grey-black saturated SHALE, trace to little silt
45									
	75/4				75/4	4"	13	45' - 45' 4"	Sand rose in augers ± 1" 6" Same, very dense, moist
50									
	80/4				80/4	4"	14	50' - 50' 4"	Same, very dense, moist
									51' 7"
55									Auger refusal at 51' 7"
									Water rose up augers to 14' when boring was 39' deep
60									
65									
70									
75									
80									

N=No. of Blows to Drive 2" Spoon 12" with 140 lb. Wt. 30" Ea.  
Blow C=No. of Blows to Drive    Casing    with    lb. Wt.    Ea.  
Blow

Target Drilling Co.  
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Conesus, NY. 14435

Test Boring No.: B12- 4  
Job No.: 12008  
Page: 1 of 2  
Report Date: 4/16/2012

Project: Canandaigua Lake Front

Client: Foundation Design, P.C.

Elevation: 691.1 Geologist:

Water Level - Casing In: 11' Driller: S. KAHN

Below - Casing Out: 11' Start: 4/16/2012

Completed: 4/16/2012

NOTES: ELEVATIONS PROVIDED BY OTHERS.

SOIL AND ROCK INFORMATION SUBJECT TO

GEOLOGIST A/O DRILLER INTERPRETATION

Seasonal and climatic changes may alter observed water levels.

	Blows on Sampler				Sample				Visual Soil and Rock Information Remarks
	0" 6"	6" 12"	12" 18"	18" 24"	N	Rec.	No.	Depth	
0									
	2	5							TOPSOIL 0' 9"
			7	10	12	21"	1	0' - 2'	Medium red-brown-black mottled moist SILT, little clay and c-f gravel, little organic, trace c-f sand (FILL)
	9	8							Same, stiff, moist
			9	11	17	20"	2	2' - 4'	
5	5	3							4' 0"
			2	2	5	12"	3	4' - 6'	Soft black moist organic SILT, little clay, trace rootlets
	3	4							6' 6"
			7	10	11	24"	4	6' - 8'	Medium red-brown-grey mottled moist CLAY, some silt
	9	9							Same, stiff, moist
10			11	12	20	15"	5	8' - 10'	
	5	8							
			12	14	20	18"	6	10' - 12'	Same, stiff, moist
									13' 6"
15									
	2	3							
			6		9	Ø	7	15' - 16' 6"	No recovery
20									
	2	4							
			3		7	10"	8	20' - 21' 6"	Loose, grey saturated SILT, some f - v.f. sand, trace clay
									23' 0"
25									
	16	17							Hard red-brown moist SILT, some clay, little c-f sand and c-f gravel
			25		42	18"	9	25' - 26' 6"	Very dense black-dark grey moist to wet SILT and highly weathered SHALE
									30' 0"
30									
	27	33							
			33		66	10"	10	30' - 31' 6"	Very dense black moist highly weathered SHALE, little to some silt
35									
	75/3				75/3	3"	11	35' - 35' 3"	Same, very dense, moist
40									
	75/3				75/3	3"	12	40' - 40' 3"	Same, very dense, moist, with rock flour
									40' 3"
									Boring terminated at 40' 3"

N=No. of Blows to Drive 2" Spoon 12" with 140 lb. Wt. 30" Ea.  
Blow C=No. of Blows to Drive Casing with \_\_\_ lb. Wt. \_\_\_ Ea.  
Blow



61 Commercial St  
Rochester, NY 14614  
(585) 475-1440

Test Boring No.: GP/MW-13-7  
Page: 1 of 1

Project:	Canandaigua RI	Drill Contractor:	Nothnagle	Start Date:	8/6/2013
Project #:	190500685.565.100	Driller:	K. Busch	Completion Date:	8/6/2013
Client:	David Genecco	Elevation:		Drilling Method:	Direct push
Location:	Booth St & Lakeshore Blvd	Weather:	Sunny, 70s°F	Supervisor:	K. Premo

	SAMPLE				Soil Information
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks
0		3.0	1	0-4	CONCRETE
	0.2				0.8
	0.1				
	0.1				Black to gray fine to coarse SAND and SILT, some fine to medium gravel, little ash, cinders, and brick, moist
					2.1
	0.1				Black and white layers of ASH and CINDERS, moist
					2.6
					Brown fine SAND and SILT, moist to wet
					3.0
	0.3	2.0	2	4-8	Black SILT, little clay, woods, and roots, moist
5					4.5
					Dark gray CLAY, moist
					4.6
					Fine GRAVEL and coarse SAND, some fine sand and silt, wet
	0.1				5.2
					Gray fine to coarse SAND, shells, wet
	0.0	2.1	3	8-12	
					9.3
10					Red SILT and CLAY, moist
	0.0				
		0.2	4	12-15	
					12.2
					No recovery
15					15.0
					Bottom of boring at 15'
20					Sample: CAN-GP-13-7-S-0.8-2.6 collected at 14:05

Notes:

- PID Model Mini-Rae 3000 with 10.6eV lamp.





Project:	Canandaigua RI	Drill Contractor:	Nothnagle	Start Date:	7/23/2013
Project #:	190500685.565.100	Driller:	K. Busch	Completion Date:	7/23/2013
Client:	David Genecco	Elevation:		Drilling Method:	Geoprobe
Location:	Booth St & Lakeshore Blvd	Weather:	Cloudy, 70s°F	Supervisor:	K. Premo

0	SAMPLE				Soil Information	
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks	
		2.9	1	0-4	ASPHALT and sub-base	
	0.7					
	0.7				Brown coarse SAND and fine GRAVEL, some silt, few ash and cinders, wet	
					No recovery	
		1.5	2		4-8	
5					Gray-brown fine to coarse GRAVEL and ASH/CINDERS, wet	
	0.4				Brown SILT and CLAY, wet	
					Black fine SAND and SILT, trace pieces of wood, organic smell, wet	
	0.6				No recovery	
	0.6	0.5	3	8-12	Brown-gray fine to coarse GRAVEL with black cinders, white ash, and red brick	
					No recovery	
10						
	1.0	2.0	4	12-15.4	Light gray SILT, some fine sand and clay, wet	
					Darker gray SILT and CLAY, dry to moist	
	1.4					
					No recovery	
15						
					Bottom of boring at 15.4'	
20					Samples: CAN-GP17-S from 4-5' at 10:50 and CAN-GP17-S/D from 4-5' at 10:55	

Notes:

1. PID Model Mini-Rae 3000 with 10.6eV lamp.



Project:	<u>Canandaigua RI</u>	Drill Contractor:	<u>Nothnagle</u>	Start Date:	<u>8/1/2013</u>
Project #:	<u>190500685.565.100</u>	Driller:	<u>K. Busch</u>	Completion Date:	<u>8/1/2013</u>
Client:	<u>David Genecco</u>	Elevation:		Drilling Method:	<u>Geoprobe</u>
Location:	<u>Booth St &amp; Lakeshore Blvd</u>	Weather:	<u>Sunny, 80s°F</u>	Supervisor:	<u>K. Premo/A. Glose</u>

0	SAMPLE				Soil Information
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	
					Previously air knifed
5		3.4	1	4-8	Light reddish gray brown CLAY with some silt, little fine sand, moist
	0.2				
	0.4				
					No recovery
		3.3	2	8-12	Light orangeish brown gray CLAY with some silt and sand, wet
	0.2				
10					
	0.3				
	0.5	2.6	3	12-14.6	
	0.3				
15					Bottom of boring at 14.6'
20					

Notes:

1. PID Model Mini-Rae 3000 with 10.6eV lamp.



Project:	Canandaigua RI	Drill Contractor:	Nothnagle	Start Date:	7/23/2013
Project #:	190500685.565.100	Driller:	K. Busch	Completion Date:	7/13/2013
Client:	David Genecco	Elevation:		Drilling Method:	Geoprobe
Location:	Booth St & Lakeshore Blvd	Weather:	Sunny, 70s-80s°F	Supervisor:	K. Premo

0	SAMPLE				Soil Information
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	
		1.4	1	0-4	Previously air knifed/jack-hammered - CONCRETE slab
	0.0				
	0.0				
5		1.6	2	4-8	Dark gray-black fine to coarse GRAVEL and fine to coarse SAND, little ash and cinders, wet
	0.0				
	0.4				
		3.4	3	8-12	Light gray fine to coarse SAND, trace shells, wet
	0.0				
	0.2				
10					
	0.4				
	0.3	1.1	4	12-16	Gray CLAY, some silt, moist
15					
20					

Notes:

1. PID Model Mini-Rae 3000 with 10.6eV lamp.



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Test Boring No.: **GP20**  
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Project: Canandaigua RI Drill Contractor: Nothnagle Start Date: 7/23/2013  
Project #: 190500685.565.100 Driller: K. Busch Completion Date: 7/23/2013  
Client: David Genecco Elevation: Drilling Method: Geoprobe  
Location: Booth St & Lakeshore Blvd Weather: Sunny, 80s°F Supervisor: K. Premo/S. Reynolds-Smith

0	SAMPLE				Soil Information	
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks	
					Previously air knifed	
5		2.3	1	4-8	No recovery	
						5.0
	953				Brown silty CLAY, few gravel, product odor, moist	5.5
					Dark brown clayey SILT, roots, wood, odor, dry to moist	
	676					6.7
					Light gray CLAY, few silt, moist	7.3
	370				No recovery	8.0
		0.3	2	8-12	Likely cave-in. Dark brown clayey SILT, rock in shoe, wet	8.3
10					No recovery	
						12.0
	553	4.0	3	12-16	Brown fine SAND, wet	
	223					
15						15.3
	187				Brown CLAY, moist	16.0
		2.5	4	16-20	Brown medium to coarse SAND, wet	
	67				Sample CAN-GP20-S collected from 5-5.6' at 16:05 and sample CAN-GP20-S collected from 15.3-16' at 16:15	18.5
20					No recovery	
					Bottom of boring at 20'	20.0

Notes:

1. PID Model Mini-Rae 3000 with 10.6eV lamp.





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Test Boring No.: **GP21**  
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Project:	Canandaigua RI	Drill Contractor:	Nothnagle	Start Date:	7/24/2013
Project #:	190500685.565.100	Driller:	K. Busch	Completion Date:	7/24/2013
Client:	David Genecco	Elevation:		Drilling Method:	Geoprobe
Location:	Booth St & Lakeshore Blvd	Weather:	Cloudy, 60s°F	Supervisor:	K. Premo

	SAMPLE				Soil Information	
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks	
0		3.0	1	0-4	ASPHALT/GRAVEL	0.2
					Brown fine SAND, little medium gravel	
	0.5					1.2
					Brown-gray fine to coarse SAND, some silt, few medium to coarse gravel	
						3.0
	0.7				No recovery	
						4.0
	0.6	2.0	2	4-8	Black woody PEAT, organic odor, wet	4.2
5					Black SILT with roots, moist	5.0
					Dark gray CLAY, little silt, moist	5.4
	0.8				Gray-white fine to coarse SAND, moist	6.0
						8.0
	0.3	2.3	3	8-12	As above with trace silt, saturated	8.4
					Gray coarse SAND and fine GRAVEL, numerous shells, moist to wet	8.6
					Gray fine SAND, some silt, shells, moist	
10	0.2					10.0
					Gray CLAY, some silt, moist to wet	
	0.2	1.3	4	12-15.7		
						13.3
					No recovery	
15						
						15.7
					Bottom of boring at 15.7'	
					Sample CAN-GP21-S-4.2-5 collected at 10:00	
20						

Notes:

- PID Model Mini-Rae 3000 with 10.6eV lamp.



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Test Boring No.: GP22  
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Project: Canandaigua RI Drill Contractor: Nothnagle Start Date: 7/23/2013  
Project #: 190500685.565.100 Driller: K. Busch Completion Date: 7/23/2013  
Client: David Genecco Elevation:  Drilling Method: Geoprobe  
Location: Booth St & Lakeshore Blvd Weather: Cloudy, 70s°F Supervisor: K. Premo

0	SAMPLE				Soil Information	
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks	
				0-4	Previously air knifed	
5	792	1.4	1	4-8	Black fine to medium SAND, some silt, petroleum odor, moist	4.3
					Black SILT, petroleum odor, moist	5.0
	37				Gray fine to coarse SAND, petroleum odor, moist	5.4
10						8.0
	48.1	1.3	2	8-12	As above with varves, moist to wet	
	17.3					9.3
					No recovery	
15						12.0
		3.5	3	12-16	Coarse SAND and fine to medium GRAVEL, petroleum odor, moist	
	231					13.5
	1.4				Gray fine SAND, no odor, wet	14.0
					Gray-red CLAY, some silt, dry	
20						15.5
					No recovery	16.0
					Bottom of boring at 16'	
					Samples CAN-GP22-S from 4-5' at 15:00 and CAN-GP22-S2 from 15-16' at 15:10	

Notes:

1. PID Model Mini-Rae 3000 with 10.6eV lamp.









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Test Boring No.: **GP25**  
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Project: Canandaigua RI Drill Contractor: Nothnagle Start Date: 7/25/2013  
Project #: 190500685.565.100 Driller: K. Busch Completion Date: 7/25/2013  
Client: David Genecco Elevation: Drilling Method: Geoprobe  
Location: Booth St & Lakeshore Blvd Weather: Sunny, 70s°F Supervisor: K. Premo

0	SAMPLE				Soil Information	
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks	
0		3.1	1	0-4	TOPSOIL. Dark brown fine SAND/SILT, roots	0.2
					Brown fine SAND and SILT, little medium to coarse gravel, dry	
	0.2					1.5
					Brown fine to coarse SAND, some silt, little medium gravel, wet	
						2.3
5	0.3				Brown fine SAND and SILT, feww medium gravel, moist	
						3.1
					No recovery	4.0
		0.9	2	4-8	Brown coarse SAND and SILT, some fine to coarse gravel, no odor, moist	
	0.4					4.9
10					No recovery	
						8.0
	0.2	1.9	3	8-12	Brown fine SAND and SILT, some clay, little medium slightly rounded gravel, some clay, moist	
15						9.3
	0.2					9.9
					Dark brown coarse SAND and fine GRAVEL, moist	
20	0.5	1.3	4	12-15	As above, wet at 12.6'	12.6
					Brown fine SAND and SILT, some clay, little fine to coarse gravel	
	0.2					13.3
					No recovery	
						15.0
					Bottom of boring at 15'	
					Sample CAN-GP25-S-3 collected at 10:30	

Notes:

1. PID Model Mini-Rae 3000 with 10.6eV lamp.



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Test Boring No.: **GP26**  
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Project:	Canandaigua RI	Drill Contractor:	Nothnagle	Start Date:	7/25/2013
Project #:	190500685.565.100	Driller:	K. Busch	Completion Date:	7/25/2013
Client:	David Genecco	Elevation:		Drilling Method:	Geoprobe
Location:	Booth St & Lakeshore Blvd	Weather:	Sunny, 70s°F	Supervisor:	K. Premo

	SAMPLE				Soil Information	
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks	
0		3.4	1	0-4	Light gray GRAVEL and fine to coarse SAND, dry	0.2
	0.1				Dark brown-black fine SAND and SILT, few medium to coarse gravel, dry	0.9
					Dark brown fine to medium SAND and SILT, moist	1.6
	0.6				Tan fine to medium SAND and SILT, moist	2.0
	0.4				Brown fine to coarse SAND, some silt, little coarse gravel	3.4
					No recovery	4.0
5	0.7	2.0	2	4-8	Brown fine to coarse SAND and SILT, some fine to coarse gravel, moist	
	0.4					
	0.6	2.2	3	8-12	As above, moist	
10	0.7					
	0.9	2.9	4	12-16	As above, moist	
	1.0				Brown/dark brown fine to coarse SAND and fine GRAVEL, little medium gravel, wet	13.4
15					As above, with little silt and clay, moist	13.8
					No recovery	14.9
						16.0
					Bottom of boring at 16'	
					Sample CAN-GP26-S-4-4.4 (MS/MSD) collected at 15:15	
20						

**Notes:**

- PID Model Mini-Rae 3000 with 10.6eV lamp.



Project:	Canandaigua RI	Drill Contractor:	Nothnagle	Start Date:	7/25/2013
Project #:	190500685.565.100	Driller:	K. Busch	Completion Date:	7/25/2013
Client:	David Genecco	Elevation:		Drilling Method:	Geoprobe
Location:	Booth St & Lakeshore Blvd	Weather:	Sunny, 70s°F	Supervisor:	K. Premo

0	SAMPLE				Soil Information	
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks	
		1.7	1	0-4	GRASS and TOPSOIL (dark brown fine SAND and SILT) 0.6	
	0.2				Red coarse GRAVEL (possibly brick) 1.1	
					Brown fine to medium SAND, some silt, wet to moist	
	0.1					
5		2.9	2	4-8	As above, moist 4.5	
	0.3				Brown fine to coarse SAND and SILT, little medium slightly rounded gravel, trace coarse gravel, moist	
	0.3					
10		3.0	3	8-12	As above, moist	
	0.3					
	0.5					
		2.9	4	12-16	As above, gray	
	0.5					
	0.8					
15					14.9	
					No recovery 16.0	
					Bottom of boring at 16'	
20					Sample CAN-GP27-S-4-4.5 collected at 12:00	

Notes:

1. PID Model Mini-Rae 3000 with 10.6eV lamp.







Project:	Canandaigua RI	Drill Contractor:	Nothnagle	Start Date:	7/26/2013
Project #:	190500685.565.100	Driller:	K. Busch	Completion Date:	7/26/2013
Client:	David Genecco	Elevation:		Drilling Method:	Geoprobe
Location:	Booth St & Lakeshore Blvd	Weather:	Sunny, 70s°F	Supervisor:	K. Premo

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Notes:

1. PID Model Mini-Rae 3000 with 10.6eV lamp.



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Test Boring No.: **GP30**  
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Project: Canandaigua RI Drill Contractor: Nothnagle Start Date: 7/26/2013  
Project #: 190500685.565.100 Driller: K. Busch Completion Date: 7/26/2013  
Client: David Genecco Elevation: Drilling Method: Geoprobe  
Location: Booth St & Lakeshore Blvd Weather: Sunny, 70s°F Supervisor: K. Premo

0	SAMPLE				Soil Information	
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks	
		6.5	1	0-4	Brown coarse SAND, some medium sand, little fine to coarse gravel, moist	
	1.7					0.9
					Dark gray SILT, few fine sand, little medium to coarse gravel	
	0.8					1.7
					No recovery	
						4.0
	1.4	2.7	2	4-8	Black SILT, some clay and fine sand, dry	4.3
5					Gray SILT and CLAY, brown mottles, dry	
	0.8					
						5.7
	0.7				Red-brown fine SAND and SILT, some clay	
						6.7
					No recovery	
						8.0
		2.4	3	8-12	Gray-red CLAY, few silt, brown mottles, dry	
10	0.4					
	1.5					10.4
					No recovery	
						12.0
		3.0	4	12-16	Red CLAY, moist	
	1.0					
15						
	1.0					
					No recovery	
						16.0
					Bottom of boring at 16'	
					Sample CAN-GP30-S-4-4.3 collected at 13:35	
20						

Notes:

1. PID Model Mini-Rae 3000 with 10.6eV lamp.



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Test Boring No.: **GP31**  
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Project:	Canandaigua RI	Drill Contractor:	Nothnagle	Start Date:	8/1/2013
Project #:	190500685.565.100	Driller:	K. Busch	Completion Date:	8/1/2013
Client:	David Genecco	Elevation:		Drilling Method:	Geoprobe
Location:	Booth St & Lakeshore Blvd	Weather:	Cloudy, 75°F	Supervisor:	K. Premo/A. Glose

0	SAMPLE				Soil Information	
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks	
0		3.2	1	0-4	TOPSOIL	0.3
					Light brown SILT and fine SAND, few gravel, dry	0.9
	3.5				CINDERS and crushed BRICK, dry	1.1
					Brownish gray CLAY with ash and cinders, brick pieces, rubble, moist	
						2.7
	0.8				Brownish gray CLAY, trace gravel, moist	3.0
					Crushed black GRAVEL, wet	3.2
					No recovery	4.0
	0.7	2.2	2	4-8	Brownish gray CLAY, moist	4.2
					Black sandy SILT, organic smell, wet	4.4
5	0.5				Light gray medium SAND, some fine sand and silt, few shells, organic material (possibly wood) at 5.8' wet	5.8
					Light gray medium SAND, some fine sand and silt, some shells	6.2
					No recovery	
						8.0
		2.0	3	8-12	Gray-brown silty CLAY, some fine sand, wet	
						8.7
					Gray brown CLAY, few silt, moist	
	10 0.4					
10		1.5	4	12-14		
					No recovery	13.5
						14.0
15					Bottom of boring at 14'	
20					Sample CAN-GP31-S-1.1-2.7 collected at 11:40	

Notes:

1. PID Model Mini-Rae 3000 with 10.6eV lamp.



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Test Boring No.: **GP32**  
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Project:	Canandaigua RI	Drill Contractor:	Nothnagle	Start Date:	8/1/2013
Project #:	190500685.565.100	Driller:	K. Busch	Completion Date:	8/1/2013
Client:	David Genecco	Elevation:		Drilling Method:	Geoprobe
Location:	Booth St & Lakeshore Blvd	Weather:	Cloudy, 80s°F	Supervisor:	K. Premo/A. Glose

0	SAMPLE				Soil Information	
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks	
		2.5	1	0-4	TOPSOIL	0.3
	0.5				Gray angular GRAVEL and sandy SILT, dry	0.4
					Grayish brown SILT and fine SAND, little gravel, few cinders, trace glass and	
					brick, dry	1.3
	0.3				CLAY, some gravelly fill material, trace brick and cinders, small roots, moist	1.5
					Brown coarse SAND and SILT, some gravel-sized fill material, cinders, trace	2.5
					brick and ash, moist	
5		3.1	2	4-8		4.2
	0.6				Dark gray SILT, some clay and fine sand, few gravel, wet	4.9
					Reddish gray brown CLAY, some silt, little fine sand, moist	
	0.5					
10		3.3	3	8-12		8.6
	0.5				Reddish gray brown silty CLAY, some medium sand, moist	8.7
					Reddish gray brown silty CLAY, little fine sand, moist	
						11.0
	0.6				Reddish gray brown CLAY, some fine sand, few medium sand, moist	11.3
					No recovery	12.0
15	0.6	2.8	4	12-15	Reddish gray brown silty CLAY, little fine sand, becoming siltier at 14', moist	
						14.8
20					Bottom of boring at 15'	
					Sample CAN-GP32-S-1.5-2.5 collected at 14:50	

Notes:

- PID Model Mini-Rae 3000 with 10.6eV lamp.





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Test Boring No.: **GP33**  
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Project:	Canandaigua RI	Drill Contractor:	Nothnagle	Start Date:	8/1/2013
Project #:	190500685.565.100	Driller:	K. Busch	Completion Date:	8/1/2013
Client:	David Genecco	Elevation:		Drilling Method:	Geoprobe
Location:	Booth St & Lakeshore Blvd	Weather:	Sunny, 85°F	Supervisor:	K. Premo/A. Glose

	SAMPLE				Soil Information	
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks	
0		2.4	1	0-4	TOPSOIL	0.1
	0.4				Gray brown SILT, some medium sand and gravel	0.6
					Brown fine SAND, some silt, few coarse sand and gravel, trace cinders, brick,	
	0.2				and glass	1.0
					Dark brown fine SAND, some silt and gravel, few cobbles, trace glass, cinders,	
					and brick (C&D fill material)	2.4
					No recovery	
						4.0
5	0.4	3.0	2	4-8	Dark gray CLAY, few silt, trace fine sand, moist	
						4.9
					Reddish orange brown CLAY, little silt, moist	
	0.2					7.0
					No recovery	
						8.0
		3.2	3	8-12	Reddish brown CLAY, little silt, moist	
	0.1					
10						
	0.1					
	0.1	1.9	4	12-14		
						13.9
15					Bottom of boring at 14'	
					Sample CAN-GP33-S-1.0-2.4 collected at 15:45	
20						

Notes:

- PID Model Mini-Rae 3000 with 10.6eV lamp.



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Test Boring No.: GP34  
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Project:	Canandaigua RI	Drill Contractor:	Nothnagle	Start Date:	8/2/2013
Project #:	190500685.565.100	Driller:	K. Busch	Completion Date:	8/2/2013
Client:	David Genecco	Elevation:		Drilling Method:	Geoprobe
Location:	Booth St & Lakeshore Blvd	Weather:	Sunny, 70s°F	Supervisor:	K. Premo

	SAMPLE				Soil Information
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks
0		2.0	1	0-4	GRASS and TOPSOIL (Brown SILT, some fine sand, trace coarse, gravel
	0.2				0.7
					SILT and SAND, some fine to coarse gravel, trace ash 0.7'-1.4'
	0.0				1.4
					ASH and CINDERS
					2.0
					No recovery
					4.0
5	0.5	2.4	2	4-8	Black SILT, little fine sand, roots, wet
					4.6
					Black SILT and CLAY, moist
	0.4				4.9
					Black fine to medium SAND, some silt, moist
					5.1
					Gray fine to coarse SAND, shells, wet to moist
					6.4
					No recovery
					8.0
		3.0	3	8-12	Gray medium to coarse GRAVEL, little fine gravel
					8.3
					Gray fine to coarse SAND and fine GRAVEL, shells, wet
	0.2				9.2
10					Gray-red fine SAND and SILT, wet
	0.3				10.2
					Red CLAY, little silt, dry to moist
		1.7	4	12-14.5	
	0.3				
					13.7
					No recovery
15					Bottom of boring at 14.5'
20					Samples CAN-GP34-S-1.4-2.0 collected at 08:30 and CAN-GP34-S/D-1.4-2.0 at 08:35

Notes:

- PID Model Mini-Rae 3000 with 10.6eV lamp.





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Test Boring No.: GP36  
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Project:	Canandaigua RI	Drill Contractor:	Nothnagle	Start Date:	7/24/2013
Project #:	190500685.565.100	Driller:	K. Busch	Completion Date:	7/24/2013
Client:	David Genecco	Elevation:		Drilling Method:	Geoprobe
Location:	Booth St & Lakeshore Blvd	Weather:	Cloudy, 60s°F	Supervisor:	K. Premo

	SAMPLE				Soil Information	
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks	
0		3.2	1	0-4	GRASS/TOPSOIL	0.3
					Red/brown fine SAND and SILT, little medium to coarse gravel, moist	
	0.3					1.4
					As above, gray and moist	
	0.2				Fine gravel and coarse sand at 3', moist	
		2.0	2	4-8	As above, carpet fragment, moist	4.4
5	6.4				ASH and CINDER, wet	4.6
					Black GRAVEL and BRICK, wet	4.8
	0.4				ASH and CINDER, wet	5.0
					Dark gray-black CLAY, little silt, moist	
		3.2	3	8-12		8.5
	0.5				Gray-white fine to medium SAND, few shells, wet	
10	0.3					9.9
					Gray-red CLAY and SILT, moist	
		2.4	4	12-15.5		
15					No recovery	14.4
						15.5
					Bottom of boring at 15.5'	
					Sample CAN-GP35-S-4.4-5 collected at 12:00	
20						

Notes:

1. PID Model Mini-Rae 3000 with 10.6eV lamp.





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Test Boring No.: **GP37**  
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Project:	Canandaigua RI	Drill Contractor:	Nothnagle	Start Date:	7/24/2013
Project #:	190500685.565.100	Driller:	K. Busch	Completion Date:	7/24/2013
Client:	David Genecco	Elevation:		Drilling Method:	Geoprobe
Location:	Booth St & Lakeshore Blvd	Weather:	Cloudy, 60s°F	Supervisor:	K. Premo

	SAMPLE				Soil Information
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks
0		1.9	1	0-4	Brown-tan medium to coarse SAND, little medium to coarse gravel, moist (wetter at bottom)
	0.1				
	0.3				
					1.9
					No recovery
					4.0
	0.4	2.0	2	4-8	Black fine SAND and SILT, trace cinders and metal scraps
5					
	0.5				4.9
					White ASH and black CINDERS
					5.2
					Black fine SAND and SILT, little ash and cinders, moist
					5.4
					Black fine SAND and SILT, moist
		0.9	3	8-12	As above, wet
	0.4				8.5
					White fine to coarse SAND, shells, saturated
					8.9
					No recovery
10					
					12.0
		3.5	4	12-16	Gray fine to coarse SAND, wet
	0.2				12.5
					Gray SILT, some fine sand, wet
					12.8
					Gray CLAY, little silt
	0.4				
15					
					15.5
					No recovery
					16.0
					Bottom of boring at 16'
					Sample CAN-GP37-S-4.9-5.4 collected at 11:10
20					

Notes:

- PID Model Mini-Rae 3000 with 10.6eV lamp.



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Test Boring No.: **GP38**  
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Project:	Canandaigua RI	Drill Contractor:	Nothnagle	Start Date:	7/24/2013
Project #:	190500685.565.100	Driller:	K. Busch	Completion Date:	7/24/2013
Client:	David Genecco	Elevation:		Drilling Method:	Geoprobe
Location:	Booth St & Lakeshore Blvd	Weather:	Cloudy, 60s°F	Supervisor:	K. Premo

	SAMPLE				Soil Information
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks
0	0.1	2.5	1	0-4	Brown SILT, some fine sand, little medium to coarse gravel, grass and roots at top, dry
					2.0
					Concrete
					2.5
					No recovery
					4.0
5	0.1	2.2	2	4-8	Brown fine to coarse SAND, some black coloration, saturated
					4.6
	0.1				Gray-green CLAY, some silt and wood fragments, moist
		3.6	3	8-12	
	0.1				8.6
					Gray-green fine SAND and SILT, little clay, moist
10					
	0.1				10.1
					Red-gray fine to coarse SAND, some silt, saturated
					11.6
		3.5	4	12-16	Gray fine to coarse SAND, wet
	0.0				
	0.1				
15					
					15.5
					No recovery
					16.0
					Bottom of boring at 16'
					Sample CAN-GP38-S-4-4.6 collected at 16:10
20					

Notes:

- PID Model Mini-Rae 3000 with 10.6eV lamp.



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Test Boring No.: **GP39**  
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Project:	Canandaigua RI	Drill Contractor:	Nothnagle	Start Date:	7/31/2013
Project #:	190500685.565.100	Driller:	K. Busch	Completion Date:	7/31/2013
Client:	David Genecco	Elevation:		Drilling Method:	Geoprobe
Location:	Booth St & Lakeshore Blvd	Weather:	Sunny, 80s°F	Supervisor:	K. Premo/A. Glose

	SAMPLE				Soil Information	
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks	
0		1.9	1	0-4	TOPSOIL	0.5
	0.1				Dark brown coarse SAND, some silt, few gravel, trace rubble/fill material, dry	0.9
					Dark orangey brown coarse SAND, some silt, little gravel, ash and cinders, trace glass, dry to moist	1.9
	0.1				No recovery	
						4.0
	0.2	2.9	2	4-8	Dark orangey brown coarse SAND and GRAVEL, wet	4.3
5					Brownish gray CLAY, little silt, moist	
	0.0					
						6.9
					No recovery	
						8.0
		3.3	3	8-12	Light reddish brown gray CLAY, little silt, moist	
10	0.1					
	0.1	1.5	4	12-15		
						13.5
					No recovery	
15						15.0
					Bottom of boring at 15'	
					Sample CAN-GP39-S-0.9-1.9 collected at 16:00	
20						

Notes:

- PID Model Mini-Rae 3000 with 10.6eV lamp.



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Test Boring No.: **GP40**  
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Project: Canandaigua RI Drill Contractor: Nothnagle Start Date: 7/31/2013  
Project #: 190500685.565.100 Driller: K. Busch Completion Date: 7/31/2013  
Client: David Genecco Elevation: Drilling Method: Geoprobe  
Location: Booth St & Lakeshore Blvd Weather: Sunny, 80s°F Supervisor: K. Premo/A. Glose

	SAMPLE				Soil Information	
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks	
0		2.7	1	0-4	TOPSOIL	0.2
					Brown SILT and coarse SAND, little gravel, dry	0.8
	0.4				Brown SILT, some fine sand, few gravel, dry	
						1.8
	0.2				Multi-colored (black, orange, brown, gray, white) GRAVEL, some coarse sand, ash, and cinders	2.5
					Dark brown GRAVEL and coarse SAND, wet	2.7
					No recovery	4.0
	0.2	?	2	4-8	Dark brown GRAVEL, little coarse sand, trace glass, wet	
5						4.7
	0.6				Dark brown black peaty SILT, organic odor, moist	5.5
					Light gray and dark brown layers of medium SAND, some fine sand, moist	6.3
					Gray brown silty CLAY, some fine sand, moist	
	0.1	2.2	3	8-12		8.2
					Light gray coarse SAND, some clay, little fine sand, saturated	8.8
					Light reddish brown gray CLAY, some silt, orange spots, moist to wet	
10	0.2					
		1.5	4	12-14.5		
	0.1					13.5
					No recovery	
						14.5
15					Bottom of boring at 14.5'	
					Samples CAN-GP40-S-1.8-2.5 collected at 15:10 and CAN-GP40-S-2.5-4.7 collected at 15:15	
20						

Notes:

- PID Model Mini-Rae 3000 with 10.6eV lamp.





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Test Boring No.: GP41  
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Project: Canandaigua RI Drill Contractor: Nothnagle Start Date: 7/31/2013  
Project #: 190500685.565.100 Driller: K. Busch Completion Date: 7/31/2013  
Client: David Genecco Elevation:  Drilling Method: Geoprobe  
Location: Booth St & Lakeshore Blvd Weather: Sunny, 80s°F Supervisor: K. Premo/A. Glose

	SAMPLE				Soil Information	
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks	
0		2.2	1	0-4	TOPSOIL	0.5
	0.0				Brownish orange medium SAND, some fine sand, dry	0.6
					Brown SILT, little fine sand, moist.	1.9
					Light grayish white lithified SAND	2
					Approximately 2' of Concrete - No Recovery from 2.2-4'	
						4.0
	0.0	1.1	2	4-8	Dark brown coarse angular GRAVEL, some silt and fine sand, wet	4.4
5	0.0				Dark brown peaty SILT, trace wood fragments, organic odor, wet	4.8
					Dark brown fine SAND, some silt, little medium sand, wet	5.1
					No recovery	
						8.0
		3.6	3	8-12	Light gray medium SAND, some silt and fine sand, few shells, wet	
	0.0					
10						10.2
	0.0				Light reddish gray brown CLAY, some silt, trace fine sand, moist	
		2.0	4	12-14		
						14.0
					Bottom of boring at 14'	
15					Relocated approximately 5 ft. west of borehole (see following page)	
20						

Notes:

1. PID Model Mini-Rae 3000 with 10.6eV lamp.



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Test Boring No.: GP41  
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Project: Canandaigua RI Drill Contractor: Nothnagle Start Date: 7/31/2013  
Project #: 190500685.565.100 Driller: K. Busch Completion Date: 7/31/2013  
Client: David Genecco Elevation:  Drilling Method: Geoprobe  
Location: Booth St & Lakeshore Blvd Weather: Sunny, 80s°F Supervisor: K. Premo/A. Glose

	SAMPLE				Soil Information	
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks	
0		3.6	1	0-4	TOPSOIL	0.2
					Brown fine SAND and SILT, few medium sand, trace gravel, dry	
						1.3
					Brown SILT, some clay, few fine sand	
						2.6
	0.1				Dark brown GRAVEL and coarse SAND, some ash and cinders, little silt, moist	
	0.1	0.7	2	4-8		4.2
5					Dark brown black peaty SILT, trace gravel, organic odor, wet	4.7
					No recovery	
						8.0
					Bottom of boring at 8'	
10					Samples CAN-GP41-S-2.6-4.2 collected at 14:10 and CAN-GP41-SD-2.6-4.2 collected at 14:15	
15						
20						

Notes:

1. PID Model Mini-Rae 3000 with 10.6eV lamp.



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Test Boring No.: **GP42**  
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Project:	Canandaigua RI	Drill Contractor:	Nothnagle	Start Date:	7/31/2013
Project #:	190500685.565.100	Driller:	K. Busch	Completion Date:	7/31/2013
Client:	David Genecco	Elevation:		Drilling Method:	Geoprobe
Location:	Booth St & Lakeshore Blvd	Weather:	Sunny, 70s°F	Supervisor:	K. Premo/A.Glose

0	SAMPLE				Soil Information	
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks	
0		2.8	1	0-4	TOPSOIL	0.2
					Brown SILT, some fine sand, trace gravel, dry	
	0.1					1.2
					Brown fine SAND, little silt, moist	
						2.2
	0.3				Brownish gray coarse SAND, few gravel, few ash and cinders	2.8
					No recovery	
						4.0
	0.3	2.7	2	4-8	Dark brown and black (some white) coarse SAND and GRAVEL, ASH and CINDERS, glass fragments, moist	4.5
					Dark gray CLAY, some silt, few fine sand, moist	
5	0.3					6.3
					Dark gray brown medium SAND, some fine sand, wet	
	0.1	2.7	3	8-12		8.2
	0.1				Dark brown black PEAT material with sand-sized grains, wood fragments, moist	8.5
					Light gray coarse SAND, some medium sand, shells, moist	8.7
					Dark gray, black, and brown very coarse SAND, some fine gravel, moist	8.9
					Light gray medium SAND, some coarse sand, moist	9.1
	0.1				Light gray CLAY, some silt, few fine sand, wet	10.7
					No recovery	
10						12.0
		2.6	4	12-16	Light reddish gray brown CLAY, some silt, wet	
15						14.6
					No recovery	
20					Bottom of boring at 16'	
					Sample CAN-GP42-S-2.2-4.5 collected at 08:45	

Notes:

1. PID Model Mini-Rae 3000 with 10.6eV lamp.



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Test Boring No.: **GP43**  
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Project:	Canandaigua RI	Drill Contractor:	Nothnagle	Start Date:	7/30/2013
Project #:	190500685.565.100	Driller:	K. Busch	Completion Date:	7/30/2013
Client:	David Genecco	Elevation:		Drilling Method:	Geoprobe
Location:	Booth St & Lakeshore Blvd	Weather:	Sunny, 75s°F	Supervisor:	K. Premo/A. Glose

	SAMPLE				Soil Information	
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks	
0		4.0	1	0-4	GRAVEL and gray SILT from driveway	0.4
					Dark brown medium SAND and SILT, few large gravel/rock fragments, dry	0.8
	0.1				Reddish brown SILT, some fine to medium sand, dry	
						1.9
					Dark brown-gray SILT, some fine to medium sand, few gravel, dry	
						3.0
					Gray-brown SILT, some clay, little fine sand, trace gravel, moist	
	0.3					
		2.2	2	4-8		4.5
5	0.1				Multi-colored (black, orange, light tan, dark brown) coarse SAND, some gravel and fill material (ash and cinders), wet	5.0
	0.1				Dark brown to black SILT, some clay, moist	
						6.2
					No recovery	
						8.0
	0.1	2.6	3	8-12	Dark gray orangey SILT, some clay, moist	8.4
					Dark gray-brown fine SAND, some silt, few medium sand, moist	
						9.1
10	0.1				Light gray fine to medium SAND, shells, wet	
						10.2
					Gray-orangeish brown medium SAND, some silt, wet	
		2.5	4	12-14.5		12.2
					Pinkish brown CLAY, moist	
	0.1					14.5
15					Bottom of boring at 14.5'	
					Sample CAN-GP43-S-4.5-5 collected at 14:50	
20						

Notes:

- PID Model Mini-Rae 3000 with 10.6eV lamp.





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Test Boring No.: GP44  
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Project:	Canandaigua RI	Drill Contractor:	Nothnagle	Start Date:	7/24/2013
Project #:	190500685.565.100	Driller:	K. Busch	Completion Date:	7/24/2013
Client:	David Genecco	Elevation:		Drilling Method:	Geoprobe
Location:	Booth St & Lakeshore Blvd	Weather:	Cloudy, 60s°F	Supervisor:	K. Premo

0	SAMPLE				Soil Information	
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks	
0		3.3	1	0-4	GRASS/TOPSOIL	0.2
	0.3				Brown fine SAND and SILT, few medium to coarse gravel, dry	
5	0.4					
						3.3
					No recovery	4.0
	0.6	1.5	2	4-8	Dark brown-black fine to coarse GRAVEL, some brick, moist to wet	4.6
10					Tan coarse SAND and fine to medium GRAVEL, trace brick, moist	5.0
	0.7				Dark gray SAND and fine to medium GRAVEL, wet	5.2
					Black SILT, some fine sand, wood fragments, moist	5.5
					No recovery	
15						8.0
	0.4	1.9	3	8-12	Black fine SAND, some silt, wood, moist	8.4
					Gray CLAY, moist	
	0.4					9.3
20					Gray fine SAND, shells, wet	
	0.5	1.6	4	12-16		12.2
25					Gray lacustrine CLAY	
	0.4					13.6
					No recovery	
30						16.0
					Bottom of boring at 16'	
					Sample CAN-GP44-S-4-5 collected at 13:50	

Notes:

- PID Model Mini-Rae 3000 with 10.6eV lamp.



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Test Boring No.: GP45  
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Project:	Canandaigua RI	Drill Contractor:	Nothnagle	Start Date:	7/24/2013
Project #:	190500685.565.100	Driller:	K. Busch	Completion Date:	7/24/2013
Client:	David Genecco	Elevation:		Drilling Method:	Geoprobe
Location:	Booth St & Lakeshore Blvd	Weather:	Cloudy, 60s°F	Supervisor:	K. Premo

	SAMPLE				Soil Information
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks
0		2.5	1	0-4	TOPSOIL/GRASS followed by light brown fine SAND and SILT, few medium gravel
	0.7				0.8
					Light brown fine to coarse SAND, little medium to coarse gravel, dry to moist at 1.1'
	0.4				2.5
					No recovery
					4.0
5	0.3	2.3	2	4-8	Brown sandy SILT, little clay and coarse gravel, moist
	0.7				4.6
					Brown SILT and CLAY, moist
					5.5
					Black SILT, some clay and fine sand, trace wood, moist
					6.3
					No recovery
					8.0
		2.4	3	8-12	Gray CLAY, moist
	0.4				9.3
10					Gray fine to coarse SAND, some silt and shells, wet
	0.3				10.9
					No recovery
					12.0
	0.4	2.0	4	12-16	Gray SILT, some clay, wet
					13.3
	0.3				Gray fine to coarse SAND, wet to moist
					14.0
15					No recovery
					16.0
					Bottom of boring at 16'
20					

Notes:

- PID Model Mini-Rae 3000 with 10.6eV lamp.



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Test Boring No.: **GP46**  
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Project: Canandaigua RI Drill Contractor: Nothnagle Start Date: 8/1/2013  
Project #: 190500685.565.100 Driller: K. Busch Completion Date: 8/1/2013  
Client: David Genecco Elevation: Drilling Method: Geoprobe  
Location: Booth St & Lakeshore Blvd Weather: Cloudy, humid, 75°F Supervisor: K. Premo/A. Glose

	SAMPLE				Soil Information	
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks	
0		2.8	1	0-4	TOPSOIL	0.2
					Brown SILT and fine SAND, trace gravel, moist	
						1.2
	0.8				Light and dark brown SILT, some fine sand, little gravel, trace cobbles, brick, and roots, moist (C&D material)	2.4
	0.4				Black/dark brown peaty SILT, organic smell, moist	2.8
					No recovery	
						4.0
5		3.0	2	4-8	Dark gray CLAY, little silt, moist	
						4.6
					Light orangeish brown CLAY, little silt, few fine sand, moist	
	0.7					
		2.6	3	8-11.5		9.3
10					Light brown fine SAND, some silt, moist	9.4
	0.4				Light pinkish brown CLAY, little silt, moist	10.4
					Light brown fine SAND, some clay, moist	10.6
					No recovery	11.5
					Bottom of boring at 11.5'	
					Sample CAN-GP46-S-1.2-2.4 collected at 10:40	
15						
20						

Notes:

1. PID Model Mini-Rae 3000 with 10.6eV lamp.



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Test Boring No.: **GP47**  
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Project:	Canandaigua RI	Drill Contractor:	Nothnagle	Start Date:	8/1/2013
Project #:	190500685.565.100	Driller:	K. Busch	Completion Date:	8/1/2013
Client:	David Genecco	Elevation:		Drilling Method:	Geoprobe
Location:	Booth St & Lakeshore Blvd	Weather:	Rainy, 75°F	Supervisor:	K. Premo/A. Glose

	SAMPLE				Soil Information	
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks	
0		2.4	1	0-4	TOPSOIL	0.2
	1.6				Dark brown SILT, some fine sand, few gravel, dry	1.0
					Varied color (brown, black, white, orange) SILT and medium SAND, some gravel, ash and cinders, trace glass, moist	
	0.3					2.4
					No recovery	
						4.0
5	0.1	3.8	2	4-8	Dark brown rubbly GRAVEL, some shells, trace gravel, wet	4.4
					Dark brown black SILT, little clay, organic odor, moist	4.8
					Gray brown CLAY, little silt, moist	
	0.1					
						7.8
		3.9	3	8-12	Brown CLAY, little silt, moist	
10						
	0.4					
		1.6	4	12-14		
	0.1					
						13.6
15					Bottom of boring at 14'	
					Sample CAN-GP47-S-1.0-2.4 collected at 08:50	
20						

Notes:

- PID Model Mini-Rae 3000 with 10.6eV lamp.





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Test Boring No.: **GP48**  
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Project:	Canandaigua RI	Drill Contractor:	Nothnagle	Start Date:	7/31/2013
Project #:	190500685.565.100	Driller:	K. Busch	Completion Date:	7/31/2013
Client:	David Genecco	Elevation:		Drilling Method:	Geoprobe
Location:	Booth St & Lakeshore Blvd	Weather:	Sunny, 75°F	Supervisor:	K. Premo/A. Glose

	SAMPLE				Soil Information	
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks	
0		2.5	1	0-4	TOPSOIL	0.2
					Light brown medium SAND, some gray angular gravel, dry	1.0
	0.2				Brown medium to coarse SAND, some silt, trace gravel, dry	1.6
	0.4				White, gray, black, orange, brown ASH and CINDERS, trace glass, dry to moist	2.5
					No recovery	
						4.0
	0.1	3.0	2	4-8	Brown rubbly GRAVEL, fine SAND, and SILT, trace glass, wet	4.5
5					Black SILT and PEAT, wood fragments, organic smell, wet	4.6
	0.3				Black SILT, some clay, organic smell, moist	
						5.6
					Dark brown fine SAND, little silt, moist	6.2
	0.4				Brown gray medium SAND, some fine sand, wood fragments, moist	6.7
					Brown gray medium SAND, some coarse sand and shells, moist	
		3.3	3	8-12		8.2
	0.1				Light gray coarse SAND, some medium sand, shells, wet	
						9.4
10					Reddish gray brown CLAY, some silt, trace fine sand, wet	
	0.0					
						11.3
					No recovery	12.0
		3.0	4	12-15	Reddish gray brown CLAY, moist	
	0.1					
15						15.0
					Bottom of boring at 15'	
					Samples CAN-GP48-S-1.6-2.5 collected at 12:10 and CAN-GP48-S-4-4.5 collected at 1215	
20						

Notes:

- PID Model Mini-Rae 3000 with 10.6eV lamp.



Project:	<u>Canandaigua RI</u>	Drill Contractor:	<u>Nothnagle</u>	Start Date:	<u>7/31/2013</u>
Project #:	<u>190500685.565.100</u>	Driller:	<u>K. Busch</u>	Completion Date:	<u>7/31/2013</u>
Client:	<u>David Genecco</u>	Elevation:		Drilling Method:	<u>Geoprobe</u>
Location:	<u>Booth St &amp; Lakeshore Blvd</u>	Weather:	<u>Sunny, 70s°F</u>	Supervisor:	<u>K. Premo/A. Glose</u>

0	SAMPLE				Soil Information	
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks	
0		3.1	1	0-4	TOPSOIL	0.2
					Light brown fine SAND, some silt, trace gravel, dry	1.1
						2.4
	0.2				Brown SILT, some clay, few fine sand, dry to moist	3.1
						4.0
	5.2				Light brown, black, and whitish gray ASH and CINDERS with SILT and fine SAND, trace gravel, moist	
5				4-8	No recovery	
	0.3	2.7	2		Dark brown to black SILT, some clay, roots, organic smell, moist	4.6
					Dark gray fine SAND, some silt and clay, moist	
	0.2					6.3
					Dark brown medium SAND, some fine sand and silt, moist	
10				8-12		8.2
	0.4	2.3	3		Light gray medium SAND, some fine sand and shells, moist	8.4
					Light reddish gray brown CLAY, some silt and fine sand, wet	
	0.1					
						10.3
					No recovery	
15		0.0	4	12-16		
						16.0
20					Bottom of boring at 16'	
					Sample CAN-GP49-S-2.4-3.1 collected at 09:25	

Notes:

1. PID Model Mini-Rae 3000 with 10.6eV lamp.



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Test Boring No.: **GP50**  
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Project:	Canandaigua RI	Drill Contractor:	Nothnagle	Start Date:	7/30/2013
Project #:	190500685.565.100	Driller:	K. Busch	Completion Date:	7/30/2013
Client:	David Genecco	Elevation:		Drilling Method:	Geoprobe
Location:	Booth St & Lakeshore Blvd	Weather:	Sunny, 75°F	Supervisor:	K. Premo/A. Glose

	SAMPLE				Soil Information	
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks	
0		4.0	1	0-4	TOPSOIL	0.2
					Unconsolidate GRAVEL and ROCK fragments	0.5
					Reddish brown SILT, some fine to medium sand, dry	0.8
	0.0				Reddish brown CLAY, some silt, moist	
						2.7
					Gray brown fine SAND, some silt, dry to moist	3.2
					Dark gray CLAY and SILT, gravel-sized CINDERS, white fragments, fill	
	0.1				increasing downwards	4.0
	0.1	2.1	2	4-8	Light gray to gray brown coarse gravelly FILL material, few coarse sand, wet	4.4
5	0.1				Black and reddish brown coarse gravelly FILL, some coarse sand, low-density	
					and easy to pulverize	4.8
	0.1				Black SILT, little fine sand, wet	5.1
					Dark gray/black CLAY, little silt, moist	6.1
					No recovery	
						8.0
		2.7	3	8-12	Orange gray CLAY, some fine sand, moist to wet	
	0.1					8.8
					Light gray fine SAND, little medium sand, wet	
10						10.0
	0.1				Reddish gray brown CLAY, little silt, moist	
						10.7
					No recovery	
		0.0	4	12-15		
15						15.0
					Bottom of boring at 15'	
					Sample CAN-GP50-S-3.2-4.4 collected at 13:40 and CAN-GP50-S/D-3.2-4.4 collected at 13:45	
20						

Notes:

- PID Model Mini-Rae 3000 with 10.6eV lamp.



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Test Boring No.: **GP51**  
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Project:	Canandaigua RI	Drill Contractor:	Nothnagle	Start Date:	7/30/2013
Project #:	190500685.565.100	Driller:	K. Busch	Completion Date:	7/30/2013
Client:	David Genecco	Elevation:		Drilling Method:	Geoprobe
Location:	Booth St & Lakeshore Blvd	Weather:	Sunny, 75°F	Supervisor:	K. Premo/A. Glose

	SAMPLE				Soil Information	
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks	
0		4.0	1	0-4	TOPSOIL	0.3
					Brown orange fine SAND and SILT, trace gravel, dry	
	0.2					2.9
					Brown-orangeish fine SAND and SILT, moist	3.5
	0				Multi-colored (black, brown, orange, white) FILL, ASH and CINDERS, coarse SAND, few gravel	4.0
5	0.1	2.6	2	4-8	Layer of variably colored rubble (gray, orangey, black and white fragments) - unconsolidated coarse GRAVEL, few cobbles, little medium sand and silt	
	0.1				Dark brown/black SILT, some clay, organic odor, moist	5.2
					Dark gray fine SAND and CLAY, some silt, moist	5.6
					No recovery	6.6
						8.0
10		0.5	3	8-12	Slough from above; otherwise no recovery	
						12.0
		2.8	4	12-16	Reddish pink brown CLAY, moist	
15	0.1					14.8
					No recovery	16.0
					Bottom of boring at 16'	
20					Samples CAN-GP51-S-3.5-4 collected at 15:40 and CAN-GP51-S-4-5.2 collected at 15:45	

**Notes:**

- PID Model Mini-Rae 3000 with 10.6eV lamp.





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Test Boring No.: **GP52**  
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Project:	Canandaigua RI	Drill Contractor:	Nothnagle	Start Date:	7/30/2013
Project #:	190500685.565.100	Driller:	K. Busch	Completion Date:	7/30/2013
Client:	David Genecco	Elevation:		Drilling Method:	Geoprobe
Location:	Booth St & Lakeshore Blvd	Weather:	Partly cloudy, 70s°F	Supervisor:	K. Premo/A. Glose

	SAMPLE				Soil Information	
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks	
0		4.0	1	0-4	TOPSOIL	0.3
	0.1				Light brown fine SAND, some silt, dry	
	0.5					2.5
					Tannish brown CLAY, some silt, few fine sand	
						3.6
					Brown medium to coarse SAND, trace brick fragments	4.0
		3.0	2	4-8	Brown coarse SAND, few medium sand, moist to wet	4.5
5					Gray brown SILT, few fine sand, wet	4.9
					Orangey brown to dark brown gravel FILL, low density and easy to pulverize, few black pieces, wet	5.4
	0.2				Dark brown SILT, few fine sand, wet	6.1
					Gray CLAY, some orangey streaks, moist	7.0
					No recovery	
	0.2					8.0
		2.7	3	8-12	Gray CLAY, wet	
						8.8
					Gray brown fine SAND and SILT, few clay, wet	9.3
10					Brown-reddish CLAY, few silt, wet	
	0.1					10.7
					No recovery	
						12.0
	0.1	3.0	4	12-16	Pinkish brown fine SAND and SILT, wet	
						14.0
					Pinkish brown fine SAND and SILT, some medium sand, wet	
15	0.1					15.0
					No recovery	
						16.0
					Bottom of boring at 16'	
					Samples CAN-GP52-S-3.6-4.0 collected at 08:55 and CAN-GP52-S-4.9-5.4 collected at 09:00	
20						

Notes:

- PID Model Mini-Rae 3000 with 10.6eV lamp.



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Test Boring No.: **GP53**  
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Project: Canandaigua RI Drill Contractor: Nothnagle Start Date: 8/1/2013  
Project #: 190500685.565.100 Driller: K. Busch Completion Date: 8/1/2013  
Client: David Genecco Elevation: Drilling Method: Geoprobe  
Location: Booth St & Lakeshore Blvd Weather: Rainy, 75°F Supervisor: K. Premo/A. Glose

SAMPLE				Soil Information	
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks
0		3.2	1	0-4	TOPSOIL 0.3
					Dark gray angular GRAVEL, some silt and fine sand, dry 0.5
	0.2				Brown fine SAND, little silt, trace glass 1.4
					Brown fine SAND, some clay, few gravel, moist 1.4
	0.7				
		3.2	2	4-8	
5	1.4				Dark brown black SILT, little clay, few gravel/cobbles, organic odor, moist 4.2
					Gray CLAY, little silt, moist 4.7
					Brown CLAY, little silt, moist 5.2
		3.0	3	8-12	
10	0.5				
					11.0
				12-16	No recovery
15					
20					

Notes:

1. PID Model Mini-Rae 3000 with 10.6eV lamp.



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Test Boring No.: **GP54**  
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Project:	Canandaigua RI	Drill Contractor:	Nothnagle	Start Date:	7/31/2013
Project #:	190500685.565.100	Driller:	K. Busch	Completion Date:	7/31/2013
Client:	David Genecco	Elevation:		Drilling Method:	Geoprobe
Location:	Booth St & Lakeshore Blvd	Weather:	Sunny, 75°F	Supervisor:	K. Premo/A. Glose

	SAMPLE				Soil Information	
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks	
0		2.7	1	0-4	TOPSOIL	0.2
	0.1				Light brown fine SAND, little silt, dry to moist	
						1.5
	0.1				Brown-black silty CLAY, some ash and cinders, trace glass, moist	
						2.7
					No recovery	
						4.0
	0.3	1.0	2	4-8	Coarse GRAVEL, some coarse sand, little shell fragments, trace glass	4.6
5	0.2				Black PEAT, some gray clay, little wood fragments, organic odor	5.0
					No recovery	
						8.0
		2.4	3	8-12	Light orangey brown CLAY, some silt, trace fine sand, moist	
10	0.1					
						10.4
					No recovery	
						12.0
	0.1	2.0	4	12-14	Dark gray brown CLAY, moist	
						14.0
15					Bottom of boring at 14'	
					Sample CAN-GP54-S-1.5-2.7 collected at 11:10	
20						

Notes:

- PID Model Mini-Rae 3000 with 10.6eV lamp.



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Test Boring No.: **GP55**  
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Project:	Canandaigua RI	Drill Contractor:	Nothnagle	Start Date:	7/31/2013
Project #:	190500685.565.100	Driller:	K. Busch	Completion Date:	7/31/2013
Client:	David Genecco	Elevation:		Drilling Method:	Geoprobe
Location:	Booth St & Lakeshore Blvd	Weather:	Sunny, 70°F	Supervisor:	K. Premo/A. Glose

	SAMPLE				Soil Information	
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks	
0		2.9	1	0-4	TOPSOIL	0.6
					Light gray-white lithified SAND	0.8
	0.1				Light brown medium SAND, some fine sand and silt, moist	
						2.0
	1.4				Light brown, gray, white, and orange fill material: mostly ASH and CINDERS and coarse SAND, some medium sand and silt, few gravel	2.8
					Gravelly C&D material, rubbly, dark brown, wet	
	0.1	2.6	2	4-8	As above with brick fragments and glass	4.8
5					Dark brown/black SILT, some clay, little fine sand, organic smell, moist	
	0.4					6.1
					Dark gray brown fine SAND, some silt, moist	
		2.8	3	8-12		8.4
					Gray coarse SAND, few gravel, shells, wet	9.2
	0.1				Gray GRAVEL, some coarse sand, shells, wet	9.4
10					Gray coarse SAND, some medium sand, shells, wet	9.8
	0.1				Light reddish gray brown CLAY, little silt, moist	
		2.8	4	12-16		
15						14.8
					No recovery	
						16.0
					Bottom of boring at 16'	
					Samples CAN-GP55-S-2.2-8 collected at 10:15 and CAN-GP55-S-2.8-4.8 collected at 10:20	
20						

Notes:

- PID Model Mini-Rae 3000 with 10.6eV lamp.





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Test Boring No.: **GP56**  
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Project:	Canandaigua RI	Drill Contractor:	Nothnagle	Start Date:	7/30/2013
Project #:	190500685.565.100	Driller:	K. Busch	Completion Date:	7/30/2013
Client:	David Genecco	Elevation:		Drilling Method:	Geoprobe
Location:	Booth St & Lakeshore Blvd	Weather:	Sunny, 75°F	Supervisor:	K. Premo/A. Glose

	SAMPLE				Soil Information	
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks	
0		1.7	1	0-4	TOPSOIL	0.1
					Dark brown SILT, some fine sand, roots, dry	0.9
	0.3				Light brown fine SAND, some silt, dry	1.5
	0.4				Coarse SAND, some gravel, crushed brick, and ash, few cinders, wood fragments	1.7
					No recovery	
						4.0
	0.3	0.5	2	4-8	Black rubble, some red brick pieces, fine sand, few gravel, wet	4.2
5					Gray CLAY, few silt, trace gravel, wet	4.5
					No recovery	
						8.0
		2.4	3	8-12	Light gray fine to medium SAND, few clay/silt, wet	
	0.1					
10						9.9
	0.1				Brown-brownish orange CLAY, few silt, dry to moist	
	0.1	2.5	4	12-14.5		
						14.5
15					Bottom of boring at 14.5'	
					Sample CAN-GP56-S-8 collected at 11:55	
					Relocated approximately 3 ft. east (see following page)	
20						

**Notes:**

- PID Model Mini-Rae 3000 with 10.6eV lamp.



Project:	<u>Canandaigua RI</u>	Drill Contractor:	<u>Nothnagle</u>	Start Date:	<u>7/30/2013</u>
Project #:	<u>190500685.565.100</u>	Driller:	<u>K. Busch</u>	Completion Date:	<u>7/30/2013</u>
Client:	<u>David Genecco</u>	Elevation:		Drilling Method:	<u>Geoprobe</u>
Location:	<u>Booth St &amp; Lakeshore Blvd</u>	Weather:	<u>Sunny, 75°F</u>	Supervisor:	<u>K. Premo/A. Glose</u>

0	SAMPLE				Soil Information	
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks	
		3.0	1	0-4	TOPSOIL	0.2
					Dark brown SILT, some fine sand, roots, dry	
					Mixed black, brown, orange, white coarse GRAVEL and SAND fill material, ASH and CINDERS, dry to moist	2.2
5					Bottom of boring at 4'	
					Sample CAN-GP56-S-2.2-3 collected at 12:50	
10						
15						
20						

Notes:

1. PID Model Mini-Rae 3000 with 10.6eV lamp.



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Test Boring No.: **GP57**  
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Project: Canandaigua RI Drill Contractor: Nothnagle Start Date: 7/30/2013  
Project #: 190500685.565.100 Driller: K. Busch Completion Date: 7/30/2013  
Client: David Genecco Elevation: Drilling Method: Geoprobe  
Location: Booth St & Lakeshore Blvd Weather: Sunny, 70s°F Supervisor: K. Premo/A. Glose

	SAMPLE				Soil Information	
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks	
0		2.1	1	0-4	TOPSOIL	0.2
	0.1				Dark brown SILT, some clay, roots present, dry	
						1.2
	0.1				Brown SILT and fine SAND, trace gravel, dry	1.7
					Brown SILT and fine SAND, few black cinders at the bottom, dry	2.1
					No recovery	
						4.0
5	23.2	1.8	2	4-8	Orange and brown coarse GRAVELLY FILL material, some brick and cinders, wet	4.6
	0.9				Blackish brown SILT, few fine sand, moist (possibly old topsoil?)	5.8
	0.4				No recovery	
						8.0
		2.9	3	8-12	Gray medium SAND, few coarse SAND, shells, very wet	
	0.2					10.0
10					Gray CLAY, some medium sand, few silt, trace gravel, very wet	10.5
	0.1				Reddish gray CLAY, few gravel and medium sand, wet	10.9
					No recovery	
						12.0
		1.3	4	12-16	Dark gray coarse GRAVEL, some coarse sand, few silt, trace cobbles, very wet	
	0.1					13.3
					No recovery	
15						16.0
					Bottom of boring at 16'	
					Sample CAN-GP57-S-4-4.6 collected at 10:50	
20						

Notes:

- PID Model Mini-Rae 3000 with 10.6eV lamp.



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Test Boring No.: **GP58**  
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Project:	Canandaigua RI	Drill Contractor:	Nothnagle	Start Date:	7/30/2013
Project #:	190500685.565.100	Driller:	K. Busch	Completion Date:	7/30/2013
Client:	David Genecco	Elevation:		Drilling Method:	Geoprobe
Location:	Booth St & Lakeshore Blvd	Weather:	Sunny, 70s°F	Supervisor:	K. Premo

	SAMPLE				Soil Information	
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks	
0		3.1	1	0-4	TOPSOIL	0.2
					Light brown SILT, some fine sand, cobble from 2.2-2.4', dry	
	0.1					
						2.4
	0.1				Dark brown, black, and light tan-white coarse GRAVELLY FILL material, some coarse sand, ash, and cinders, crunchy consistency, dry	3.1
					No recovery	4.0
5		2.2	2	4-8	Light gray coarse SAND and GRAVEL, little medium sand, crunch consistency, wet	4.4
	0.2				Dark brown and orangey brown coarse GRAVELLY FILL material, low-density and easy to pulverize some black pieces, wet	5.1
	0.1				Gray CLAY, few silt, wet	
						6.2
					No recovery	
						8.0
		2.9	3	8-12	Gray coarse SAND, some medium sand, shells, few silt, wet	
	0.2					
10						10.1
	0.1				Gray CLAY, little fine sand, few silt, wet	10.9
					No recovery	
						12.0
		3.1	4	12-16	Gray CLAY, little fine sand, few silt, dry to wet	
	0.1					
15						15.1
					No recovery	16.0
					Bottom of boring at 16'	
					Samples CAN-GP58-S-2.4-3.1 collected at 09:50 and CAN-GP58-S-4-5.1 collected at 09:55	
20						

**Notes:**

- PID Model Mini-Rae 3000 with 10.6eV lamp.





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Test Boring No.: **GP59**  
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Project:	Canandaigua RI	Drill Contractor:	Nothnagle	Start Date:	7/29/2013
Project #:	190500685.565.100	Driller:	K. Busch	Completion Date:	7/29/2013
Client:	David Genecco	Elevation:		Drilling Method:	Geoprobe
Location:	Booth St & Lakeshore Blvd	Weather:	Cloudy, 60s°F	Supervisor:	K. Premo

	SAMPLE				Soil Information	
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks	
0		2.8	1	0-4	ASPHALT	0.4
					Brown coarse SAND, little medium to coarse gravel, moist	0.8
	0.3				Gray SILT and fine SAND, some fine to coarse gravel, dry	
						2.6
	0.3				Gray fine SAND, some silt, trace clay and fine gravel, wet	2.8
					No recovery	
						4.0
5	0.2	2.9	2	4-8	Gray fine SAND, some silt and medium to coarse sand, little medium to coarse gravel	
						5.4
					As above, brown-gray	5.7
	0.4				As above, gray	6.1
					Black SILT, some fine sand	6.5
					Gray CLAY, little silt, moist	
	0.1	2.4	3	8-12		8.4
					Gray-brown SILT, some fine sand, moist	9.0
10	0.2				Gray-brown (red-brown at 9.8') fine SAND and SILT, little clay, trace fine to medium gravel, moist	
		1.3	4	12-14		12.4
					Red CLAY interbedded with layers of fine SAND	
	0.2					13.3
					No recovery	14.0
15					Bottom of boring at 14'	
					Sample CAN-GP59-S-4-6 collected at 15:25	
20						

Notes:

- PID Model Mini-Rae 3000 with 10.6eV lamp.



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Test Boring No.: **GP60**  
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Project:	Canandaigua RI	Drill Contractor:	Nothnagle	Start Date:	7/29/2013
Project #:	190500685.565.100	Driller:	K. Busch	Completion Date:	7/29/2013
Client:	David Genecco	Elevation:		Drilling Method:	Geoprobe
Location:	Booth St & Lakeshore Blvd	Weather:	Cloudy, 60s°F	Supervisor:	K. Premo

	SAMPLE				Soil Information	
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks	
0		2.7	1	0-4	TOPSOIL	0.4
					Brown SILT and fine SAND, little medium gravel, moist	1.0
	0.3				Coarse SAND and fine GRAVEL, trace coarse gravel, moist	
						2.0
					Brown fine SAND and SILT, some fine to coarse gravel, moist	
	0.5					
	0.2	1.6	2	4-8		4.1
5					Black SILT, few fine sand, roots, moist	4.7
	0.1					
	0.1	1.6	3	8-12		8.2
					Red-brown (dark gray at 9.5') fine SAND, some silt, wet	
10	0.2					9.6
					No recovery	
						12.0
		1.1	4	12-16	Gray fine to medium SAND and SILT, some fine to coarse gravel, wet	
						13.6
					No recovery	
15						16.0
					Bottom of boring at 16'	
					Sample CAN-GP60-S-0.4-2 collected at 14:10	
20						

Notes:

- PID Model Mini-Rae 3000 with 10.6eV lamp.



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Test Boring No.: GP61  
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Project:	Canandaigua RI	Drill Contractor:	Nothnagle	Start Date:	7/25/2013
Project #:	190500685.565.100	Driller:	K. Busch	Completion Date:	7/25/2013
Client:	David Genecco	Elevation:		Drilling Method:	Geoprobe
Location:	Booth St & Lakeshore Blvd	Weather:	Sunny, 70s°F	Supervisor:	K. Premo

	SAMPLE				Soil Information	
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks	
0		3.1	1	0-4	ASPHALT	0.3
					Brown fine SAND, some silt, little coarse gravel, trace brick, dry	
	0.3					
	0.2					2.5
					Gray-brown fine SAND, some silt, little medium gravel, trace glass, moist	3.1
					No recovery	
						4.0
5	0.1	2.3	2	4-8	Black fine SAND, some silt, trace glass, organic odor, dry	
						5.0
	0.0				Brown-tan fine to coarse SAND, some black coloration, wet	
						6.2
					Brown fine SAND, some silt, dry to moist	6.3
					No recovery	
						8.0
	0.0	3.3	3	8-12	Light tan fine to coarse SAND and fine GRAVEL, some silt and clay, moist	8.4
					Brown fine to coarse SAND, some silt, dry to moist (wet at 8.7')	
10	0.1					
	0.1	3.1	4	12-16		
	0.2					
15						
						15.1
					No recovery	16.0
					Bottom of boring at 16'	
					Samples CAN-GP61-S-1-3.1 collected at 08:50 and CAN-GP61-S/D-1-3.1 collected at 08:55	
20						

Notes:

- PID Model Mini-Rae 3000 with 10.6eV lamp.



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Test Boring No.: **GP62**  
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Project:	Canandaigua RI	Drill Contractor:	Nothnagle	Start Date:	7/29/2013
Project #:	190500685.565.100	Driller:	K. Busch	Completion Date:	7/29/2013
Client:	David Genecco	Elevation:		Drilling Method:	Geoprobe
Location:	Booth St & Lakeshore Blvd	Weather:	Sunny, 70s°F	Supervisor:	K. Premo

	SAMPLE				Soil Information
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks
0		1.9	1	0-4	GRASS and TOPSOIL (dark brown fine SAND and SILT), moist
					1.1
	0.2				Brown fine SAND and SILT, moist
					1.6
	0				Coarse GRAVEL
					1.8
					Brown fine SAND and SILT, some gravel, dry
					1.9
					No recovery
					4.0
5	0.5	2.5	2	4-8	Brown fine SAND and SILT, some fine to coarse gravel, little clay, moist
	0.7				
	0.3	2.0	3	8-12	
10	0.6				Trace ash from 9-10'
	0.8	2.5	4	12-16	
					12.3
					As above, with dark gray fine to coarse GRAVEL mostly from 12.4-14'
	0.2				
	0.2				
15					14.5
					No recovery
					16.0
					Bottom of boring at 16'
					Samples CAN-GP62-S-4-6 and CAN-GP62-S-9.6 collected at 12:45
20					

Notes:

- PID Model Mini-Rae 3000 with 10.6eV lamp.





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Test Boring No.: **GP63**  
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Project:	Canandaigua RI	Drill Contractor:	Nothnagle	Start Date:	7/29/2013
Project #:	190500685.565.100	Driller:	K. Busch	Completion Date:	7/29/2013
Client:	David Genecco	Elevation:		Drilling Method:	Geoprobe
Location:	Booth St & Lakeshore Blvd	Weather:	Sunny, 70s°F	Supervisor:	K. Premo

	SAMPLE				Soil Information	
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks	
0		3.6	1	0-4	TOPSOIL (fine SAND and SILT), with grass and roots	0.5
					Brown fine SAND and SILT, few medium to coarse gravel, dry	
	0.5					
	0.5				As above, dark brown, moist	3.5
					No recovery	3.6
						4.0
	0.5	3.5	2	4-8	Dark and light brown SILT, some clay, moist	4.1
5					Red-brown and light brown with gray SILT and CLAY, moist	
	0.7					
	0.9					7.0
					Gold/tan fine to medium SAND, wet to moist	7.5
					No recovery	8.0
	0.4	1.6	3	8-12	Gold/tan fine SAND, some silt, wet	8.4
					Gray-brown fine SAND and SILT, wet	9.0
	0.6				Red-gray fine SAND and SILT, some clay and fine to medium gravel, moist	9.6
10					No recovery	
						12.0
	0.4	1.5	4	12-16	Fine to coarse GRAVEL, wet	12.6
					Gray-dark gray fine SAND and SILT, some clay and fine to medium gravel, moist	13.5
	0.5				No recovery	
15						
						16.0
					Bottom of boring at 16'	
					Sample CAN-GP63-S-0.5-2 collected at 11:20	
20						

Notes:

- PID Model Mini-Rae 3000 with 10.6eV lamp.



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Test Boring No.: GP64  
Page: 1 of 1

Project: Canandaigua RI Drill Contractor: Nothnagle Start Date: 7/26/2013  
Project #: 190500685.565.100 Driller: K. Busch Completion Date: 7/26/2013  
Client: David Genecco Elevation:  Drilling Method: Geoprobe  
Location: Booth St & Lakeshore Blvd Weather: Sunny, 70s°F Supervisor: K. Premo

	SAMPLE				Soil Information	
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks	
0		3.2	1	0-4	ASPHALT and sub-base	0.4
					Brown fine to coarse SAND, some fine to coarse gravel, dry	1.0
	0.9				Dark brown fine to coarse SAND, some fine to coarse gravel and silt, dry (becoming moist at 2.6')	
	0.9					
						3.2
					No recovery	4.0
	0.1	1.8	2	4-8	Black fine SAND and SILT, moist	
5						5.0
	1.2				Gray fine SAND, some silt, moist	5.2
					Red fine to medium SAND and SILT, moist	5.3
					Red CLAY, some silt, dry to moist	
	1.2	2.6	3	8-12	As above with trace silt and gray mottles	
10	1.1					
	0.7	2.0	4	12-14		
	1.0					14.0
					Bottom of boring at 14'	
15					Sample CAN-GP64-S-1-3.2 (MS/MSD) collected at 15:05	
20						

Notes:

1. PID Model Mini-Rae 3000 with 10.6eV lamp.



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Test Boring No.: GP65  
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Project: Canandaigua RI Drill Contractor: Nothnagle Start Date: 7/29/2013  
Project #: 190500685.565.100 Driller: K. Busch Completion Date: 7/29/2013  
Client: David Genecco Elevation:  Drilling Method: Geoprobe  
Location: Booth St & Lakeshore Blvd Weather: Cloudy, 60s°F Supervisor: K. Premo

0	SAMPLE				Soil Information
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks
0	0.3	2.6	1	0-4	Light brown fine SAND and SILT, little fine to coarse gravel, moist
5	0.3				
10					
15					
20					

Notes:

1. PID Model Mini-Rae 3000 with 10.6eV lamp.







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Test Boring No.: GP66  
Page: 1 of 1

Project: Canandaigua RI Drill Contractor: Nothnagle Start Date: 8/2/2013  
Project #: 190500685.565.100 Driller: K. Busch Completion Date: 8/2/2013  
Client: David Genecco Elevation:  Drilling Method: Geoprobe  
Location: Booth St & Lakeshore Blvd Weather: Sunny, 70s°F Supervisor: K. Premo

0	SAMPLE				Soil Information	
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks	
0		3.3	1	0-4	ASPHALT	
						0.7
					Brown-dark brown fine SAND, some silt and fine to coarse gravel, dry	1.3
					Brown fine SAND and SILT, few fine to coarse gravel, dry	2.1
	0.5				ASH and CINDERS	2.5
					Red-brown SILT, some fine sand, trace medium gravel, moist (gray-brown, more fine sand, and slightly wetter at 3.0')	3.3
	0.7				No recovery	4.0
	0.9	2.0	2	4-8	Black SILT, some fine sand, wood, and roots, wet to moist	4.4
					As above with some clay, moist	4.6
	0.6				Gray fine to coarse SAND, shells and wood	6.0
5					No recovery	
						8.0
	0.3	0.2	3	8-12	Coarse SAND and fine to coarse GRAVEL, wet	8.2
					No recovery	
						12.0
	0.2	2.4	4	12-15	Gray SILT, some fine sand, little clay, moist	12.9
					Gray CLAY, little silt, moist	
						14.4
15	0.4				No recovery	15.0
					Bottom of boring at 15'	
20					Samples CAN-GP66-S-2.1-2.5 collected at 09:40 and CAN-GP66-S-4-4.4 collected at 09:45	

Notes:

1. PID Model Mini-Rae 3000 with 10.6eV lamp.



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Test Boring No.: GP67  
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Project:	Canandaigua RI	Drill Contractor:	Nothnagle	Start Date:	8/2/2013
Project #:	190500685.565.100	Driller:	K. Busch	Completion Date:	8/2/2013
Client:	David Genecco	Elevation:		Drilling Method:	Geoprobe
Location:	Booth St & Lakeshore Blvd	Weather:	Cloudy, 60s°F	Supervisor:	K. Premo

	SAMPLE				Soil Information
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks
0		1.6	1	0-4	GRASS and brown fine SAND and SILT, little fine to coarse gravel
	0.0				1.6
					No recovery
					Concrete at 3.0'
					4.0
5	2.0	2.0	2	4-8	Gray-black fine to coarse GRAVEL, trace ash and cinders, slight petroleum odor, "pumicey" consistency, wet
	287				4.8
	90.5				Black SILT, little fine sand, roots, slight petroleum odor, moist
	61.5				5.2
					Gray CLAY, some silt, moist
					5.5
					Gray fine SAND, little silt, petroleum odor, moist
					6.0
					No recovery
	0.0		3	8-12	
10					
					12.0
	1.5		4	12-13.5	Red CLAY, little silt, moist
	0.5				
					13.5
					Bottom of boring at 13.5'
15					Sample CAN-GP67-S-4.8-5.2 (MS/MSD) collected at 12:45
20					

Notes:

- PID Model Mini-Rae 3000 with 10.6eV lamp.



Project:	<u>Canandaigua RI</u>	Drill Contractor:	<u>Nothnagle</u>	Start Date:	<u>8/2/2013</u>
Project #:	<u>190500685.565.100</u>	Driller:	<u>K. Busch</u>	Completion Date:	<u>8/2/2013</u>
Client:	<u>David Genecco</u>	Elevation:	<u></u>	Drilling Method:	<u>Geoprobe</u>
Location:	<u>Booth St &amp; Lakeshore Blvd</u>	Weather:	<u>Sunny, 70s°F</u>	Supervisor:	<u>K. Premo</u>

0	SAMPLE				Soil Information	
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks	
0		2.6	1	0-4	TOPSOIL - Brown fine SAND and SILT with roots	0.5
	0.1				Brown-tan fine to medium SAND, little silt, trace coarse gravel	
						1.4
					Dark brown medium SAND and SILT, little medium to coarse gravel, moist	
	0.2					2.6
					No recovery	
	0.2	0.5	2	4-4.5	As above with more silt, some fine sand	4.5
5					Bottom of boring at 4.5' (refusal)	
					Relocated	
10						
15						
20						

Notes:

1. PID Model Mini-Rae 3000 with 10.6eV lamp.



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Test Boring No.: GP68  
Page: 2 of 2

Project:	Canandaigua RI	Drill Contractor:	Nothnagle	Start Date:	8/2/2013
Project #:	190500685.565.100	Driller:	K. Busch	Completion Date:	8/2/2013
Client:	David Genecco	Elevation:		Drilling Method:	Geoprobe
Location:	Booth St & Lakeshore Blvd	Weather:	Sunny, 70s°F	Supervisor:	K. Premo

	SAMPLE				Soil Information	
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks	
0		3.7	1	0-4	ASPHALT and sub-base	0.4
					Brown fine to medium SAND, some fine to coarse gravel, trace silt, moist	
	0.8					
						1.9
					Brown fine to coarse SAND, little fine gravel, some silt, moist to wet	
	1.0				Gray with a slight petroleum odor at 3.7'	3.7
	318	2.7	2	4-8	Black stained fine to coarse GRAVEL, some ash and cinders, trace glass, sheen, wet	4.8
5	776				Black SILT, some fine sand, peat at 4.8', roots and woods, moist	5.2
					Gray CLAY and SILT with black staining, moist	5.5
					Gray fine to coarse SAND, moist	
	27.9					6.7
					No recovery	
						8.0
	0.9	2.4	3	8-12	Gray fine to coarse SAND, little silt, shells, wet	
	2.7					9.4
10					Brown gray SILT and fine SAND, little medium sand, moist	
	2.0	0.9	4	12-15		
	0.3					12.7
					Red CLAY, little silt	12.9
					No recovery	
15						15.0
					Bottom of boring at 15'	
					Samples CAN-GP68-S-4.2 collected at 11:40 and CAN-GP68-S-4.8-5 collected at 11:45	
20						

Notes:

- PID Model Mini-Rae 3000 with 10.6eV lamp.





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Test Boring No.: GP69  
Page: 1 of 2

Project:	Canandaigua RI	Drill Contractor:	Nothnagle	Start Date:	8/7/2013
Project #:	190500685.565.100	Driller:	K. Busch	Completion Date:	8/7/2013
Client:	David Genecco	Elevation:		Drilling Method:	Direct push
Location:	Booth St & Lakeshore Blvd	Weather:	Cloudy, 70s°F	Supervisor:	K. Premo

	SAMPLE				Soil Information	
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks	
0		2.6	1	0-4	TOPSOIL	0.2
					Brown SILT and fine SAND, some fine to coarse gravel, dry	
	0.2					1.8
					Dark brown-black SILT, trace medium gravel, moist	2.0
					ASH and CINDERS, moist	
	0.2					2.6
					No recovery	
						4.0
5		0.3	2	4-8	Material from above, wet	4.3
					No recovery	
						8.0
	0.7	4.0	3	8-12	Gray fine to coarse SAND, saturated	
10						
	1.5					11.4
					Red CLAY and SILT, moist to wet	
	1.0	1.6	4	12-16		
						13.6
					No recovery	
15						
						16.0
					Bottom of boring at 16'	
					Sample CAN-GP69-S-8 collected at 12:15	
					Relocated south to drill from 0-8' (see following page)	
20						

Notes:

- PID Model Mini-Rae 3000 with 10.6eV lamp.



Project:	<u>Canandaigua RI</u>	Drill Contractor:	<u>Nothnagle</u>	Start Date:	<u>8/7/2013</u>
Project #:	<u>190500685.565.100</u>	Driller:	<u>K. Busch</u>	Completion Date:	<u>8/7/2013</u>
Client:	<u>David Genecco</u>	Elevation:		Drilling Method:	<u>Direct push</u>
Location:	<u>Booth St &amp; Lakeshore Blvd</u>	Weather:	<u>Cloudy, 70s°F</u>	Supervisor:	<u>K. Premo</u>

	SAMPLE				Soil Information	
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks	
0		1.0	1	0-4	Brown fine SAND and SILT, dry	0.6
					Brown fine SAND and SILT, some medium to coarse gravel	1.0
					No recovery	
	0.0	2	4-8	No recovery		
5						
					8.0	
				End of boring at 8'		
10						
15						
20						

Notes:

1. PID Model Mini-Rae 3000 with 10.6eV lamp.





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Test Boring No.: GP71  
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Project:	Canandaigua RI	Drill Contractor:	Nothnagle	Start Date:	8/5/2013
Project #:	190500685.565.100	Driller:	K. Busch	Completion Date:	8/5/2013
Client:	David Genecco	Elevation:		Drilling Method:	Direct push
Location:	Booth St & Lakeshore Blvd	Weather:	Sunny, 70s°F	Supervisor:	K. Premo

	SAMPLE				Soil Information	
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks	
0		2.9	1	0-4	ASHPALT and sub-base	0.3
	0.3				Brown fine SAND and SILT, some fine to coarse gravel, dry	1.0
					Gray fine SAND and SILT, some fine to coarse gravel, dry	
						2.0
	0.1				Gray SILT and fine SAND, some fine to medium gravel, moist	2.3
					Gray fine to medium SAND, some silt, trace medium gravel, wet	2.9
		2.1	2	4-8		4.2
5	0.4				Black SILT, little fine sand, moist	4.6
					Red CLAY and SILT, brown and gray mottling, dry	
	0.2					
		2.5	3	8-12		
10						
	0.2	3.3	4	12-16		
15						
	0.2					15.3
					No recovery	16.0
					Bottom of boring at 16'	
20						

Notes:

- PID Model Mini-Rae 3000 with 10.6eV lamp.





Project:	<u>Canandaigua RI</u>	Drill Contractor:	<u>Nothnagle</u>	Start Date:	<u>8/5/2013</u>
Project #:	<u>190500685.565.100</u>	Driller:	<u>K. Busch</u>	Completion Date:	<u>8/5/2013</u>
Client:	<u>David Genecco</u>	Elevation:		Drilling Method:	<u>Direct push</u>
Location:	<u>Booth St &amp; Lakeshore Blvd</u>	Weather:	<u>Sunny, 70s°F</u>	Supervisor:	<u>K. Premo</u>

0	SAMPLE				Soil Information	
	PID (ppm)	Rec. (ft)	No.	Depth (ft)		
Remarks						
		2.4	1	0-4	Fill: brown fine SAND, some silt, little medium to coarse gravel, dry (increasingly moist towards bottom)	
	0.3					
	0.3					
					----- 2.4 No recovery	
	0.0	2	4-7.9			
5						
					7.9 Bottom of boring at 7.9' (refusal - concrete)	
10					Sample CAN-GP72-S-0.5-2.4 collected at 10:40	
15						
20						

Notes:

1. PID Model Mini-Rae 3000 with 10.6eV lamp.



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Test Boring No.: GP70a  
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Project:	Canandaigua RI	Drill Contractor:	Nothnagle	Start Date:	9/4/2013
Project #:	190500685.565.100	Driller:	J. Schweitzer	Completion Date:	9/4/2013
Client:	David Genecco	Elevation:		Drilling Method:	Direct push
Location:	Booth St & Lakeshore Blvd	Weather:	Sunny, 70s°F	Supervisor:	K. Premo

	SAMPLE				Soil Information
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks
0		1.6	1	0-4	grass, roots, TOPSOIL - piece of charcoal 0.2
					fine SAND and SILT, brown, little coarse GRAVEL, some medium to coarse SAND 0.8
					ASH and CINDERS, some fine to coarse black SAND 1.4
					no recovery 4.0
	0.0	2.8	2	4-8	grey CLAY and SILT, moist 4.4
5					brown fine SAND, some silt 4.5
					red-brown SILT and CLAY 6.8
					no recovery 8
					Bottom of boring at 8'
10					
					Sample CAN-GP70a-S-4 collected at 1100
15					
20					

Notes:

1. PID Model Mini-Rae 3000 with 10.6eV lamp.



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Test Boring No.: **GP73**  
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Project:	Canandaigua RI	Drill Contractor:	Nothnagle	Start Date:	9/4/2013
Project #:	190500685.565.100	Driller:	J. Schweitzer	Completion Date:	9/4/2013
Client:	David Genecco	Elevation:		Drilling Method:	Direct push
Location:	Booth St & Lakeshore Blvd	Weather:	Sunny, 70s°F	Supervisor:	K. Premo

	SAMPLE				Soil Information	
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks	
0		2.5	1	0-4	grass/TOPSOIL (fine SAND and SILT)	0.3
	0.0				brown fine SAND and SILT, some GRAVEL, some ASH and CINDERS	1
					brown fine SAND and SILT, some GRAVEL/BRICKS	1.5
					CONCRETE	1.8
	0.0				brown fine SAND, moist	1.9
					black fine SAND and SILT, moist	2.5
					No recovery	4.0
		1.6	2	4-8	grey SILT, CLAY, and fine SAND, moist to wet	5
5	0.0				red-pink-brown CLAY and SILT, moist	5.6
					No recovery	8
					Bottom of boring at 8'	
10						
15					Sample CAN-GP73-S-1.9-2.5 collected at 0845	
					Sample CAN-GP73-S/D-1.9-2.5 collected at 0850	
					Sample CAN-GP73-S-4-5 collected at 0855	
20						

**Notes:**

1. PID Model Mini-Rae 3000 with 10.6eV lamp.



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Test Boring No.: **GP74**  
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Project:	Canandaigua RI	Drill Contractor:	Nothnagle	Start Date:	9/4/2013
Project #:	190500685.565.100	Driller:	J. Schweitzer	Completion Date:	9/4/2013
Client:	David Genecco	Elevation:		Drilling Method:	Direct push
Location:	Booth St & Lakeshore Blvd	Weather:	Windy, 70s°F	Supervisor:	K. Premo

	SAMPLE				Soil Information	
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks	
0		1.9	1	0-4	grass/TOPSOIL (brown fine SAND and SILT)	0.4
					CONCRETE	0.5
					red-brown fine SAND and SILT, little CLAY, trace BRICK	1.2
	0.0				ASH and CINDERS	1.6
					GRAVEL, wet	1.9
					No recovery	4.0
	0.0	3.0	2	4-8		
5					(black at 4") grey CLAY, little SILT, moist	5.1
					red-brown CLAY	7
					No recovery	8
					Bottom of boring at 8'	
10						
15					Sample CAN-GP74-S-4 collected at 0920	
20						

Notes:

1. PID Model Mini-Rae 3000 with 10.6eV lamp.





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Test Boring No.: GP75  
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Project: Canandaigua RI Drill Contractor: Nothnagle Start Date: 9/4/2013  
Project #: 190500685.565.100 Driller: J. Schweitzer Completion Date: 9/4/2013  
Client: David Genecco Elevation:  Drilling Method: Direct push  
Location: Booth St & Lakeshore Blvd Weather: Sunny, 70s°F Supervisor: K. Premo

	SAMPLE				Soil Information
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks
0		1.9	1	0-4	Grass/TOPSOIL 0.2
					brown fine SAND and SILT, dry, some coarse GRAVEL and GLASS 0.7
					red-brown SILT, dry 1.1
	0.0				ASH and CINDERS, gravel, little GLASS, wet 1.9
					No recovery 4.0
	0.0	2.4	2	4-8	black SILT and CLAY, moist 4.2
5					grey SILT and CLAY 5
					red-brown CLAY and SILT 6.4
					No recovery 8
					Bottom of boring at 8'
10					
					Sample CAN-GP75-S-4-4.2 collected at 0945
15					
20					

Notes:

1. PID Model Mini-Rae 3000 with 10.6eV lamp.







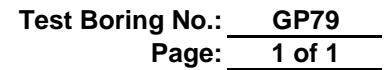
Project:	<u>Canandaigua RI</u>	Drill Contractor:	<u>Nothnagle</u>	Start Date:	<u>9/4/2013</u>
Project #:	<u>190500685.565.100</u>	Driller:	<u>J. Schweitzer</u>	Completion Date:	<u>9/4/2013</u>
Client:	<u>David Genecco</u>	Elevation:	<u></u>	Drilling Method:	<u>Direct push</u>
Location:	<u>Booth St &amp; Lakeshore Blvd</u>	Weather:	<u>Sunny, 70s°F</u>	Supervisor:	<u>K. Premo</u>

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Notes:

1. PID Model Mini-Rae 3000 with 10.6eV lamp.





Project:	<u>Canandaigua RI</u>	Drill Contractor:	<u>Nothnagle</u>	Start Date:	<u>9/4/2013</u>
Project #:	<u>190500685.565.100</u>	Driller:	<u>J. Schweitzer</u>	Completion Date:	<u>9/4/2013</u>
Client:	<u>David Genecco</u>	Elevation:		Drilling Method:	<u>Direct push</u>
Location:	<u>Booth St &amp; Lakeshore Blvd</u>	Weather:	<u>Windy, 70s°F</u>	Supervisor:	<u>K. Premo</u>

0	SAMPLE				Soil Information	
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks	
		2.3	1	0-4	grass and topsoil (brown fine SAND and SILT)	0.4
	0.0				brown fine SAND and SILT, some coarse gravel	1.1
					ASH and CINDERS	2.3
					No recovery	4.0
	0.0	2.0	2	4-8		
5					black SILT, some clay, wet	4.5
					gray SILT and CLAY, wet	5.0
						6.0
					No recovery	8.0
					Bottom of boring at 8'	
10						
					Sample CAN-GP-79-S-1.8-2 collected at 1120	
15						
20						

Notes:

1. PID Model Mini-Rae 3000 with 10.6eV lamp.



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Test Boring No.: **GP80**  
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Project:	Canandaigua RI	Drill Contractor:	Nothnagle	Start Date:	9/4/2013
Project #:	190500685.565.100	Driller:	J. Schweitzer	Completion Date:	9/4/2013
Client:	David Genecco	Elevation:		Drilling Method:	Direct push
Location:	Booth St & Lakeshore Blvd	Weather:	Windy, 70s°F	Supervisor:	K. Premo

	SAMPLE				Soil Information
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks
0		2.6	1	0-4	
	0.0				brown fine to coarse SAND, moist 1.8
					white ASH and black CINDERS, trace brick 2.0
					black fine SAND and SILT, trace brick, moist 2.6
					no recovery 4.0
		1.5	2	4-8	
5					black-dark gray fine SAND, some silt, moist 4.7
					gray fine SAND and SILT, some shells, moist 5.5
					no recovery 8.0
					Bottom of boring at 8'
10					
					Sample CAN-GP80-S-1.8-2.0 collected at 1135
15					
20					

Notes:

1. PID Model Mini-Rae 3000 with 10.6eV lamp.









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Test Boring No.: **GP83**  
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Project:	Canandaigua RI	Drill Contractor:	Nothnagle	Start Date:	9/4/2013
Project #:	190500685.565.100	Driller:	J. Schweitzer	Completion Date:	9/4/2013
Client:	David Genecco	Elevation:		Drilling Method:	Direct push
Location:	Booth St & Lakeshore Blvd	Weather:	Windy, 70s°F	Supervisor:	K. Premo

0	SAMPLE				Soil Information	
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks	
		3.0	1	0-4	GRAVEL, little brown fine sand and silt	0.3
					brown CLAY, little silt	2.0
					brown fine SAND and SILT, little fine to medium gravel	3.0
					no recovery	4.0
	0.0	1.4	2	4-8	dark brown fine SAND, some silt, trace ash	4.4
5	0.0				fine to medium SAND, trace ash, wet	4.6
					white ASH and black GRAVEL, some medium to coarse sand	
					black oranic-rich SILT at 5.4'	5.4
					no recovery	8.0
				8-12	gray GRAVEL	8.1
10						
					no recovery	12.0
					Bottom of boring at 12'	
15						
					Sample CAN-GP83-S-4.6-5.4 at 1450	
20						

**Notes:**

1. PID Model Mini-Rae 3000 with 10.6eV lamp.





61 Commercial St  
Rochester, NY 14614  
(585) 475-1440

Test Boring No.: **GP85**  
Page: **1 of 1**

Project:	Canandaigua RI	Drill Contractor:	Nothnagle	Start Date:	9/4/2013
Project #:	190500685.565.100	Driller:	J. Schweitzer	Completion Date:	9/4/2013
Client:	David Genecco	Elevation:		Drilling Method:	Direct push
Location:	Booth St & Lakeshore Blvd	Weather:	Windy, 70s°F	Supervisor:	K. Premo

	SAMPLE				Soil Information
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks
0		3.1	1	0-4	
	0.0				brown fine SAND, some silt and medium to coarse gravel, dry at 3.1' dark brown - gray silt and clay, moist 3.1
					no recovery 4.0
	0.0	1.8	2	4-8	brown fine to coarse SAND, wet 4.4
5					gray CLAY, some silt, moist with gravel at 4.6' 4.7
	22.2				black fine to coarse gravel 5.0
	48.8				fine to coarse SAND, little white ash and black cinders, slight petroleum odor 5.2
					black organic rich SILT, little fine sand, slight petrleum odor 5.8
					8.0
	0.0	2.2	3	8-12	
10	0.0				gray fine to coarse SAND, with shells, wet 9.8
	0.0	4.0	4	12-16	
15					red-brown CLAY and SILT, moist 16.0
					Bottom of boring at 16'
					Sample CAN-GP85-S-5.2-5.8 at 1345
					Cample CAN-GP85-S-5.2-5.8 at 1350
20					

**Notes:**

- PID Model Mini-Rae 3000 with 10.6eV lamp.



61 Commercial St  
Rochester, NY 14614  
(585) 475-1440

Test Boring No.: **GP86**  
Page: **1 of 1**

Project:	Canandaigua RI	Drill Contractor:	Nothnagle	Start Date:	9/4/2013
Project #:	190500685.565.100	Driller:	J. Schweitzer	Completion Date:	9/4/2013
Client:	David Genecco	Elevation:		Drilling Method:	Direct push
Location:	Booth St & Lakeshore Blvd	Weather:	Windy, 70s°F	Supervisor:	K. Premo

0	SAMPLE				Soil Information	
	PID (ppm)	Rec. (ft)	No.	Depth (ft)	Remarks	
		2.1	1	0-4		
					tan fine SAND and SILT, dry, crushed concrete at 0.5'	0.8
					crushed asphalt	0.9
	0.0				brown fine SAND and SILT, some fine-coarse gravel, concrete at 1.8'	2.1
						4.0
5		1.8	2	4-8		
	0.0				brown-dark brow fine SAND, some silt, little ash and cinders	4.7
					ASH and CINDERS	5.1
					black organic rich SILT, some fine SAND, moist	5.5
	0.0				gray SILT, little fine sand	5.8
						8.0
	0.0	2.2	3	8-12		
					gray fine to coarse SAND, shells, wet	9.7
	10 0.0				gray fine SAND and SILT, moist	10.2
					no recovery	12.0
	0.0	2.0	4	12-16		
	0.0				red CLAY and SILT, moist	14.0
	15					16.0
	20					

Notes:

1. PID Model Mini-Rae 3000 with 10.6eV lamp.





## OVERBURDEN MONITORING WELL

### DESIGN DETAILS

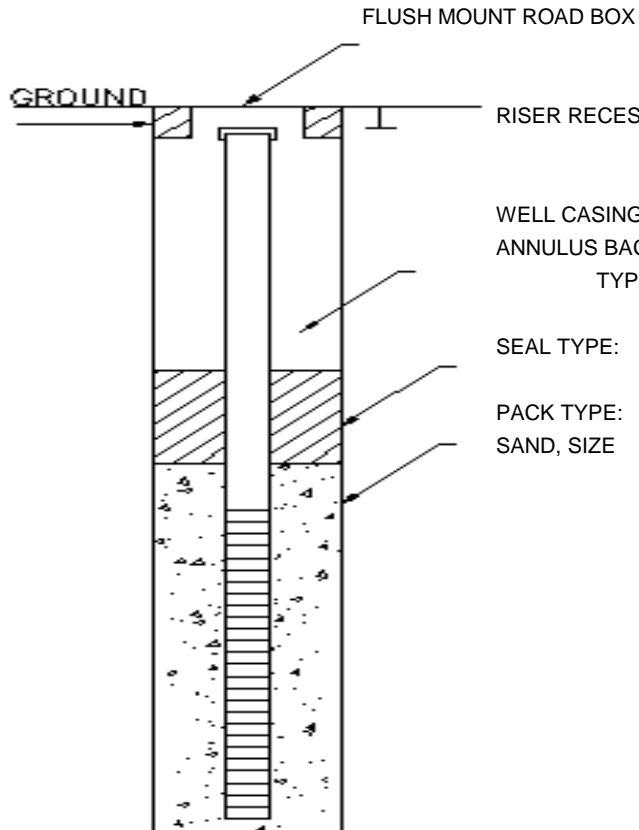
PROJECT NAME Canandaigua RI  
PROJECT NUMBER 190500685.565.100  
CLIENT David Genecco  
LOCATION Booth St & Lakeshore Blvd  
Canandaigua, NY

HOLE DESIGNATION MW-13-7  
DATE COMPLETED 8/6/2013  
DRILLING METHOD Hollow Stem Auger  
SUPERVISOR K. Premo

#### NOTE:

ALL DIMENSIONS ARE  
BELOW GROUND SURFACE (BGS)

SURFACE SEAL TYPE concrete



RISER RECESS 0.49 ft

WELL CASING  
ANNULUS BACKFILL  
TYPE: -

TOP OF SEAL @ 1.0 ft

SEAL TYPE: bentonite

BOTTOM OF SEAL @ 2.5 ft

PACK TYPE:  
SAND, SIZE #00N

TOP OF SCREEN @ 3.0 ft

BOTTOM OF SCREEN @ 13.0 ft

BOTTOM OF HOLE @ 13.0 ft

SCREEN TYPE: CONTINUOUS SLOT X PERFORATED \_\_\_\_\_ LOUVRE \_\_\_\_\_ OTHER \_\_\_\_\_

SCREEN MATERIAL: STAINLESS STEEL \_\_\_\_\_ PVC x OTHER \_\_\_\_\_

SCREEN LENGTH: 10 ft SCREEN DIAMETER 2 in SCREEN SLOT SIZE: 0.010

WELL CASING MATERIAL: PVC WELL CASING DIAMETER: 2 in

HOLE DIAMETER: 8"



## OVERBURDEN MONITORING WELL

### DESIGN DETAILS

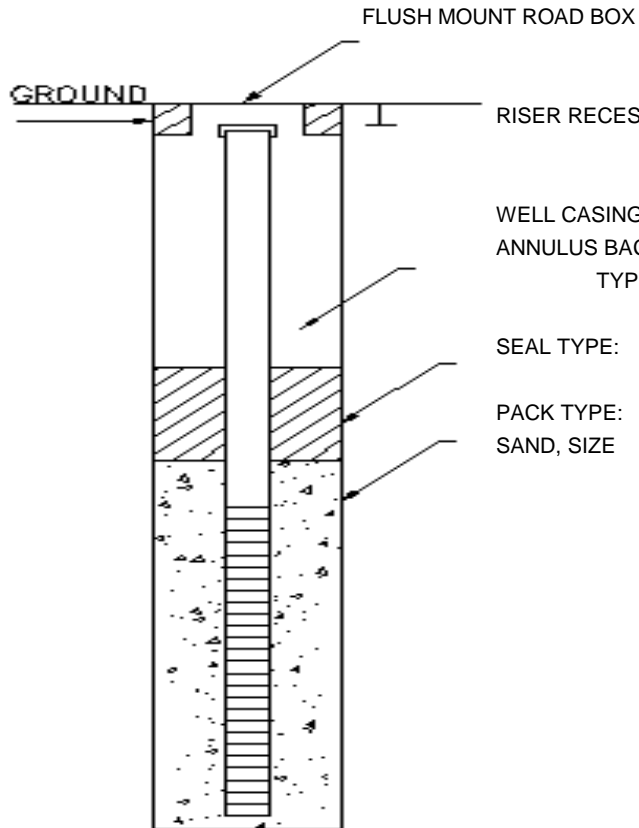
PROJECT NAME Canandaigua RI  
PROJECT NUMBER 190500685.565.100  
CLIENT David Genecco  
LOCATION Booth St & Lakeshore Blvd  
Canandaigua, NY

HOLE DESIGNATION MW-17  
DATE COMPLETED 8/6/2013  
DRILLING METHOD Hollow Stem Auger  
SUPERVISOR K. Premo

#### NOTE:

ALL DIMENSIONS ARE  
BELOW GROUND SURFACE (BGS)

SURFACE SEAL TYPE cement



RISER RECESS 0.42 ft

WELL CASING  
ANNULUS BACKFILL  
TYPE: -

TOP OF SEAL @ 1.0 ft

SEAL TYPE: bentonite

BOTTOM OF SEAL @ 2.5 ft

PACK TYPE:  
SAND, SIZE #00N

TOP OF SCREEN @ 3.0 ft

BOTTOM OF SCREEN @ 13.0 ft

BOTTOM OF HOLE @ 13.0 ft

SCREEN TYPE: CONTINUOUS SLOT X PERFORATED \_\_\_\_\_ LOUVRE \_\_\_\_\_ OTHER \_\_\_\_\_

SCREEN MATERIAL: STAINLESS STEEL \_\_\_\_\_ PVC x OTHER \_\_\_\_\_

SCREEN LENGTH: 10 ft SCREEN DIAMETER 2 in SCREEN SLOT SIZE: 0.010

WELL CASING MATERIAL: PVC WELL CASING DIAMETER: 2 in

HOLE DIAMETER: 8"



## OVERBURDEN MONITORING WELL

### DESIGN DETAILS

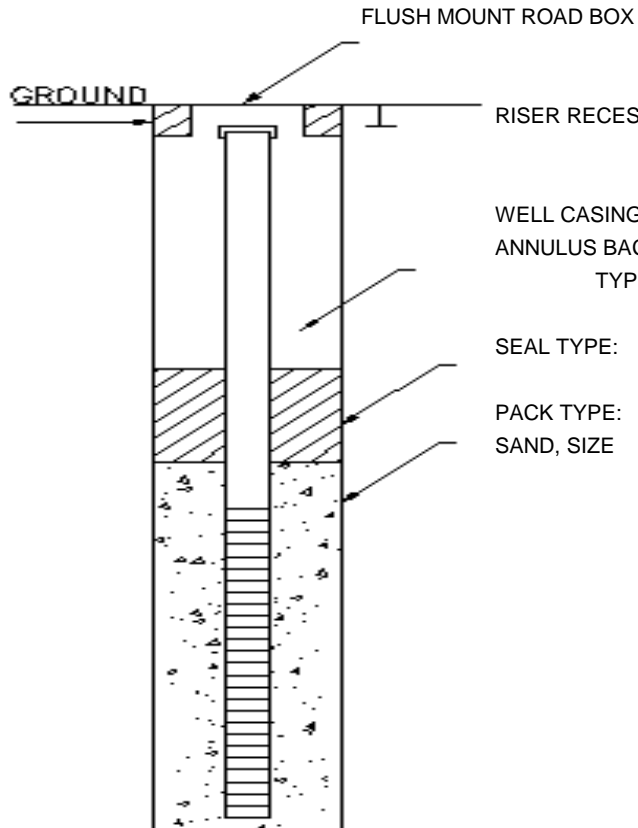
PROJECT NAME Canandaigua RI  
PROJECT NUMBER 190500685.565.100  
CLIENT David Genecco  
LOCATION Booth St & Lakeshore Blvd  
Canandaigua, NY

HOLE DESIGNATION MW-20  
DATE COMPLETED 8/6/2013  
DRILLING METHOD Hollow Stem Auger  
SUPERVISOR K. Premo

#### NOTE:

ALL DIMENSIONS ARE  
BELOW GROUND SURFACE (BGS)

SURFACE SEAL TYPE concrete



RISER RECESS 0.40 ft

WELL CASING  
ANNULUS BACKFILL  
TYPE: -

SEAL TYPE: bentonite

PACK TYPE:  
SAND, SIZE #00N

TOP OF SEAL @ 1.0 ft

BOTTOM OF SEAL @ 2.5 ft

TOP OF SCREEN @ 3.0 ft

BOTTOM OF SCREEN @ 13.0 ft

BOTTOM OF HOLE @ 13.0 ft

SCREEN TYPE: CONTINUOUS SLOT X PERFORATED \_\_\_\_\_ LOUVRE \_\_\_\_\_ OTHER \_\_\_\_\_

SCREEN MATERIAL: STAINLESS STEEL \_\_\_\_\_ PVC x OTHER \_\_\_\_\_

SCREEN LENGTH: 10 ft SCREEN DIAMETER 2 in SCREEN SLOT SIZE: 0.010

WELL CASING MATERIAL: PVC WELL CASING DIAMETER: 2 in

HOLE DIAMETER: 8"

## OVERBURDEN MONITORING WELL

## DESIGN DETAILS

PROJECT NAME	Canandaigua RI
PROJECT NUMBER	190500685.565.100
CLIENT	David Genecco
LOCATION	Booth St & Lakeshore Blvd Canandaigua, NY

HOLE DESIGNATION	<b>MW-24</b>
DATE COMPLETED	8/8/2013
DRILLING METHOD	Hollow Stem Auger
SUPERVISOR	K. Premo

NOTE:

ALL DIMENSIONS ARE  
BELOW GROUND SURFACE (BGS)

SURFACE SEAL TYPE                      concrete

## FLUSH MOUNT ROAD BOX

GROUND

RISER RECESS 0.63 ft

TOP OF SEAL @ 1.0 ft

BOTTOM OF SEAL @ 4.0 ft

TOP OF SCREEN @ 6.0 ft

BOTTOM OF SCREEN @ 21.0 ft

BOTTOM OF HOLE @ 21.0 ft

WELL CASING  
ANNULUS BACKFILL  
TYPE: -

SEAL TYPE: bentonite

PACK TYPE:  
SAND, SIZE #00N

SCREEN TYPE: CONTINUOUS SLOT X PERFORATED \_\_\_\_\_ LOUVRE \_\_\_\_\_ OTHER \_\_\_\_\_

SCREEN MATERIAL: STAINLESS STEEL \_\_\_\_\_ PVC \_x\_ OTHER\_\_\_\_\_

SCREEN LENGTH: 15 ft SCREEN DIAMETER 2 in SCREEN SLOT SIZE: 0.010

WELL CASING MATERIAL: PVC WELL CASING DIAMETER: 2 in

HOLE DIAMETER: 8"





## OVERBURDEN MONITORING WELL

### DESIGN DETAILS

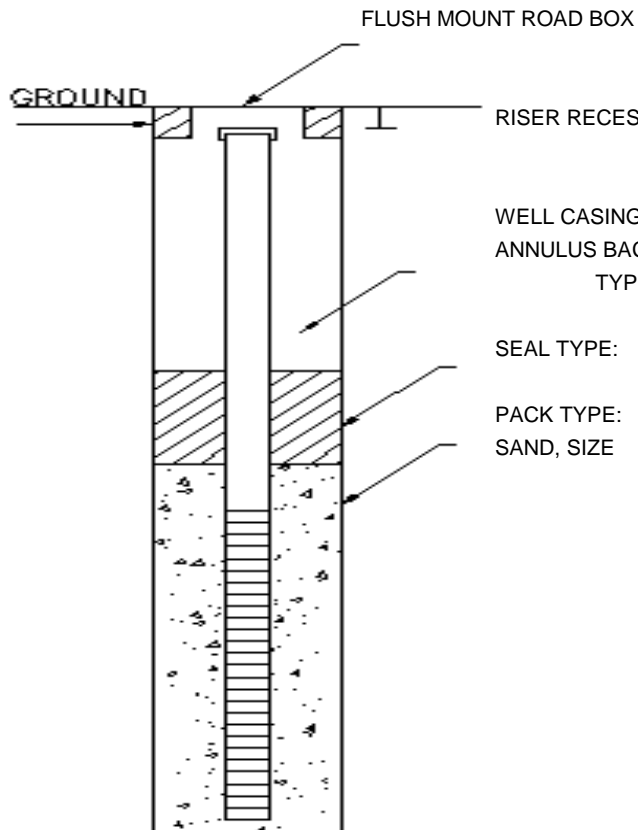
PROJECT NAME Canandaigua RI  
PROJECT NUMBER 190500685.565.100  
CLIENT David Genecco  
LOCATION Booth St & Lakeshore Blvd  
Canandaigua, NY

HOLE DESIGNATION MW-28  
DATE COMPLETED 8/5/2013  
DRILLING METHOD Hollow Stem Auger  
SUPERVISOR K. Premo

#### NOTE:

ALL DIMENSIONS ARE  
BELOW GROUND SURFACE (BGS)

SURFACE SEAL TYPE cement



RISER RECESS 0.44 ft

WELL CASING  
ANNULUS BACKFILL  
TYPE: -

SEAL TYPE: bentonite

PACK TYPE:  
SAND, SIZE #00N

TOP OF SEAL @ 1.0 ft

BOTTOM OF SEAL @ 2.5 ft

TOP OF SCREEN @ 3.0 ft

BOTTOM OF SCREEN @ 13.0 ft

BOTTOM OF HOLE @ 13.0 ft

SCREEN TYPE: CONTINUOUS SLOT X PERFORATED \_\_\_\_\_ LOUVRE \_\_\_\_\_ OTHER \_\_\_\_\_

SCREEN MATERIAL: STAINLESS STEEL \_\_\_\_\_ PVC x OTHER \_\_\_\_\_

SCREEN LENGTH: 10 ft SCREEN DIAMETER 2 in SCREEN SLOT SIZE: 0.010

WELL CASING MATERIAL: PVC WELL CASING DIAMETER: 2 in

HOLE DIAMETER: 8"



## OVERBURDEN MONITORING WELL

### DESIGN DETAILS

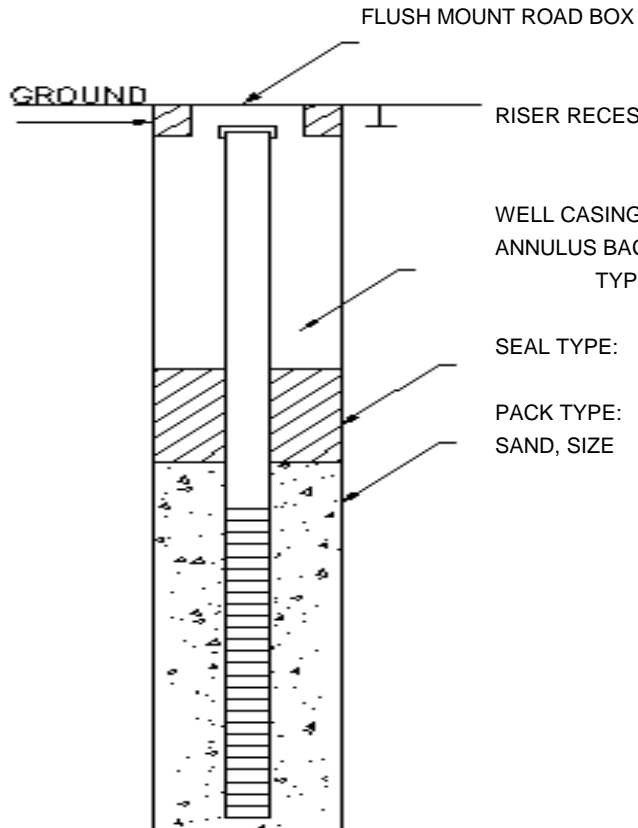
PROJECT NAME Canandaigua RI  
PROJECT NUMBER 190500685.565.100  
CLIENT David Genecco  
LOCATION Booth St & Lakeshore Blvd  
Canandaigua, NY

HOLE DESIGNATION MW-29  
DATE COMPLETED 8/5/2013  
DRILLING METHOD Hollow Stem Auger  
SUPERVISOR K. Premo

#### NOTE:

ALL DIMENSIONS ARE  
BELOW GROUND SURFACE (BGS)

SURFACE SEAL TYPE cement



TOP OF SEAL @ 1.0 ft

BOTTOM OF SEAL @ 2.5 ft

TOP OF SCREEN @ 3.0 ft

BOTTOM OF SCREEN @ 13.0 ft

BOTTOM OF HOLE @ 13.0 ft

SCREEN TYPE: CONTINUOUS SLOT X PERFORATED \_\_\_\_\_ LOUVRE \_\_\_\_\_ OTHER \_\_\_\_\_

SCREEN MATERIAL: STAINLESS STEEL \_\_\_\_\_ PVC x OTHER \_\_\_\_\_

SCREEN LENGTH: 10 ft SCREEN DIAMETER 2 in SCREEN SLOT SIZE: 0.010

WELL CASING MATERIAL: PVC WELL CASING DIAMETER: 2 in

HOLE DIAMETER: 8"



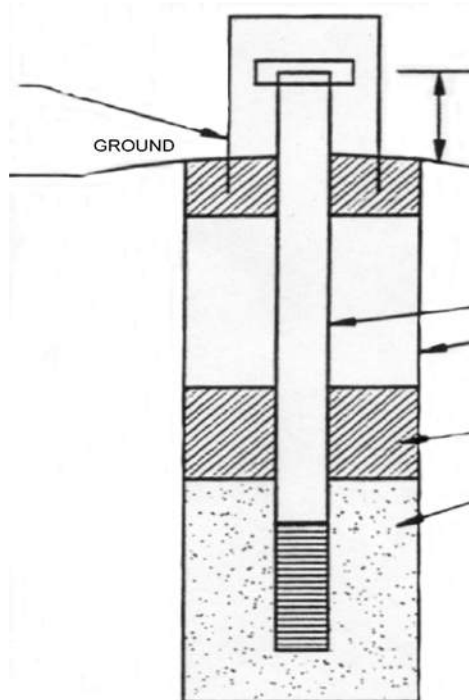
**OVERBURDEN MONITORING WELL**  
*DESIGN DETAILS*

PROJECT NAME Canandaigua RI  
PROJECT NUMBER 190500685.565.100  
CLIENT David Genecco  
LOCATION Booth St & Lakeshore Blvd  
Canandaigua, NY

HOLE DESIGNATION MW-31  
DATE COMPLETED 8/6/2013-8/7/2013  
DRILLING METHOD Hollow Stem Auger  
SUPERVISOR K. Premo

CAP TYPE Slip cap

PROTECTIVE CASING



STICK-UP 2.52 ft

SURFACE SEAL TYPE cement

TOP OF  
SEAL\* AT 0.5 ft

WELL CASING  
ANNULUS BACKFILL  
TYPE: -

BOTTOM OF  
SEAL\* AT 1.5 ft

SEAL TYPE: bentonite

TOP OF  
SCREEN\* AT 2.0 ft

PACK TYPE: - SAND, SIZE #00N

BOTTOM OF  
SCREEN\* AT 12.0 ft

BOTTOM OF  
HOLE\* AT 12.0 ft

\* NOTE:  
ALL DIMENSIONS ARE  
BELOW GROUND SURFACE (BGS)

SCREEN TYPE: CONTINUOUS SLOT X PERFORATED    LOUVRE    OTHER   

SCREEN MATERIAL: STAINLESS STEEL    PVC X OTHER   

SCREEN LENGTH: 10 ft SCREEN DIAMETER 2 in SCREEN SLOT SIZE: 0.010

WELL RISER MATERIAL: PVC WELL RISER DIAMETER: 2 in

HOLE DIAMETER: 8"



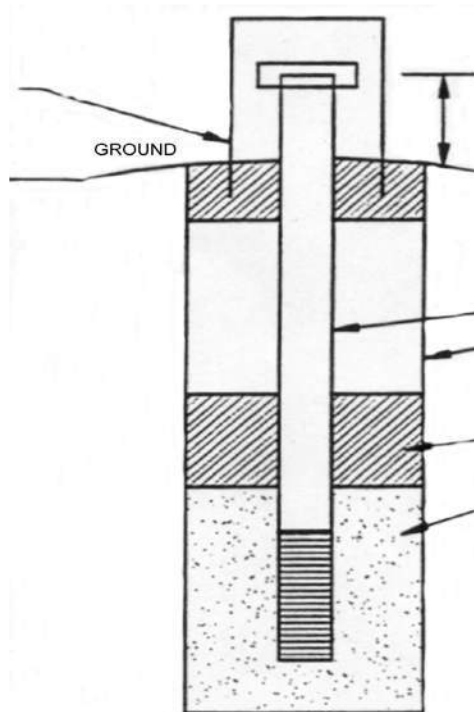
**OVERBURDEN MONITORING WELL**  
DESIGN DETAILS

PROJECT NAME Canandaigua RI  
PROJECT NUMBER 190500685.565.100  
CLIENT David Genecco  
LOCATION Booth St & Lakeshore Blvd  
Canandaigua, NY

HOLE DESIGNATION MW-49  
DATE COMPLETED 8/7/2013  
DRILLING METHOD Hollow Stem Auger  
SUPERVISOR K. Premo

CAP TYPE Slip cap

PROTECTIVE CASING



STICK-UP 2.74 ft

SURFACE SEAL TYPE concrete

WELL CASING  
ANNULUS BACKFILL  
TYPE: -

SEAL TYPE: bentonite

PACK TYPE: - SAND, SIZE #00N

TOP OF  
SEAL\* AT 0.0 ft

BOTTOM OF  
SEAL\* AT 1.5 ft

TOP OF  
SCREEN\* AT 2.0 ft

BOTTOM OF  
SCREEN\* AT 12.0 ft

BOTTOM OF  
HOLE\* AT 12.0 ft

\* NOTE:  
ALL DIMENSIONS ARE  
BELOW GROUND SURFACE (BGS)

SCREEN TYPE: CONTINUOUS SLOT \_X\_ PERFORATED \_\_\_ LOUVRE \_\_\_ OTHER \_\_\_

SCREEN MATERIAL: STAINLESS STEEL \_\_\_ PVC \_X\_ OTHER \_\_\_

SCREEN LENGTH: 10 ft SCREEN DIAMETER 2 in SCREEN SLOT SIZE: 0.010

WELL RISER MATERIAL: PVC WELL RISER DIAMETER: 2 in

HOLE DIAMETER: 8"





## OVERBURDEN MONITORING WELL

### DESIGN DETAILS

PROJECT NAME Canandaigua RI  
PROJECT NUMBER 190500685.565.100  
CLIENT David Genecco  
LOCATION Booth St & Lakeshore Blvd  
Canandaigua, NY

HOLE DESIGNATION MW-60  
DATE COMPLETED 8/7/2013  
DRILLING METHOD Hollow Stem Auger  
SUPERVISOR K. Premo

#### NOTE:

ALL DIMENSIONS ARE  
BELOW GROUND SURFACE (BGS)

SURFACE SEAL TYPE concrete

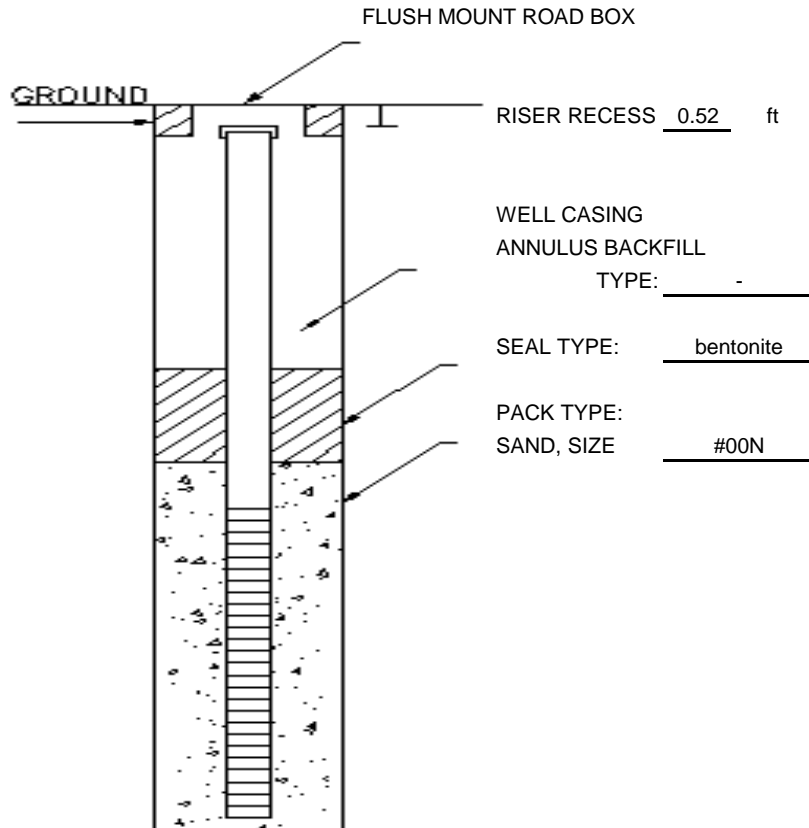
TOP OF SEAL @ ground surface

BOTTOM OF SEAL @ 3.0 ft

TOP OF SCREEN @ 5.0 ft

BOTTOM OF SCREEN @ 15.0 ft

BOTTOM OF HOLE @ 15.0 ft



SCREEN TYPE: CONTINUOUS SLOT X PERFORATED \_\_\_\_\_ LOUVRE \_\_\_\_\_ OTHER \_\_\_\_\_

SCREEN MATERIAL: STAINLESS STEEL \_\_\_\_\_ PVC x \_\_\_\_\_ OTHER \_\_\_\_\_

SCREEN LENGTH: 10 ft SCREEN DIAMETER 2 in SCREEN SLOT SIZE: 0.010

WELL CASING MATERIAL: PVC WELL CASING DIAMETER: 2 in

HOLE DIAMETER: 8"



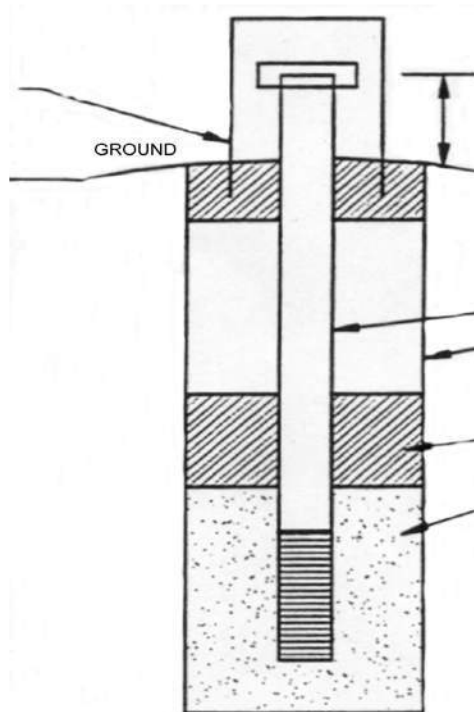
**OVERBURDEN MONITORING WELL**  
DESIGN DETAILS

PROJECT NAME Canandaigua RI  
PROJECT NUMBER 190500685.565.100  
CLIENT David Genecco  
LOCATION Booth St & Lakeshore Blvd  
Canandaigua, NY

HOLE DESIGNATION MW-63  
DATE COMPLETED 8/5/2013  
DRILLING METHOD Hollow Stem Auger  
SUPERVISOR K. Premo

CAP TYPE Slip cap

PROTECTIVE CASING



STICK-UP 2.71 ft

SURFACE SEAL TYPE concrete

TOP OF  
SEAL\* AT 2.0 ft

WELL CASING  
ANNULUS BACKFILL  
TYPE: grout

BOTTOM OF  
SEAL\* AT 3.5 ft

SEAL TYPE: bentonite

TOP OF  
SCREEN\* AT 4.0 ft

PACK TYPE: - SAND, SIZE #00N

BOTTOM OF  
SCREEN\* AT 14.0 ft

BOTTOM OF  
HOLE\* AT 14.0 ft

\* NOTE:  
ALL DIMENSIONS ARE  
BELOW GROUND SURFACE (BGS)

SCREEN TYPE: CONTINUOUS SLOT X PERFORATED    LOUVRE    OTHER   

SCREEN MATERIAL: STAINLESS STEEL    PVC X OTHER   

SCREEN LENGTH: 10 ft SCREEN DIAMETER 2 in SCREEN SLOT SIZE: 0.010

WELL RISER MATERIAL: PVC WELL RISER DIAMETER: 2 in

HOLE DIAMETER: 8"



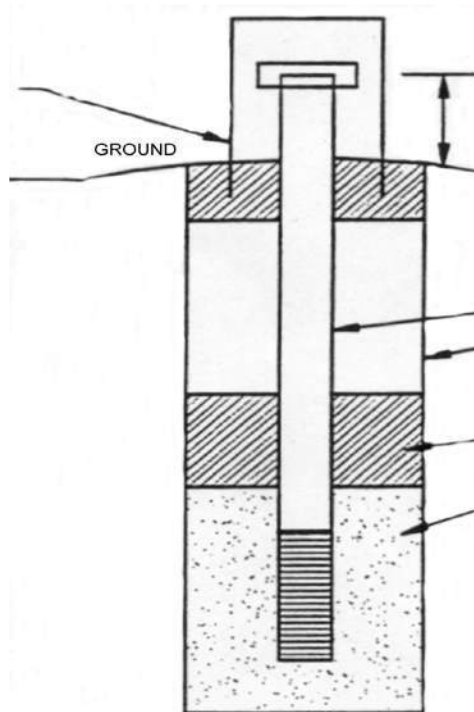
**OVERBURDEN MONITORING WELL**  
*DESIGN DETAILS*

PROJECT NAME Canandaigua RI  
PROJECT NUMBER 190500685.565.100  
CLIENT David Genecco  
LOCATION Booth St & Lakeshore Blvd  
Canandaigua, NY

HOLE DESIGNATION MW-69  
DATE COMPLETED 8/7/2013  
DRILLING METHOD Hollow Stem Auger  
SUPERVISOR K. Premo

CAP TYPE Slip cap

PROTECTIVE CASING



STICK-UP 2.96 ft

SURFACE SEAL TYPE concrete

TOP OF  
SEAL\* AT 1.0 ft

BOTTOM OF  
SEAL\* AT 2.5 ft

TOP OF  
SCREEN\* AT 3.0 ft

BOTTOM OF  
SCREEN\* AT 13.0 ft

BOTTOM OF  
HOLE\* AT 13.0 ft

WELL CASING  
ANNULUS BACKFILL  
TYPE: -

SEAL TYPE: bentonite

PACK TYPE: - SAND, SIZE #00N

\* NOTE:  
ALL DIMENSIONS ARE  
BELOW GROUND SURFACE (BGS)

SCREEN TYPE: CONTINUOUS SLOT X PERFORATED    LOUVRE    OTHER   

SCREEN MATERIAL: STAINLESS STEEL    PVC X OTHER   

SCREEN LENGTH: 10 ft SCREEN DIAMETER 2 in SCREEN SLOT SIZE: 0.010

WELL RISER MATERIAL: PVC WELL RISER DIAMETER: 2 in

HOLE DIAMETER: 8"



300 STATE STREET, ROCHESTER, NEW YORK  
ENVIRONMENTAL ENGINEERING CONSULTANTS

PROJECT  
Canandaigua Multi-Brownfield Site # C835025  
North Shore Project - Phase I Development  
Lakeshore Drive, Canandaigua, NY

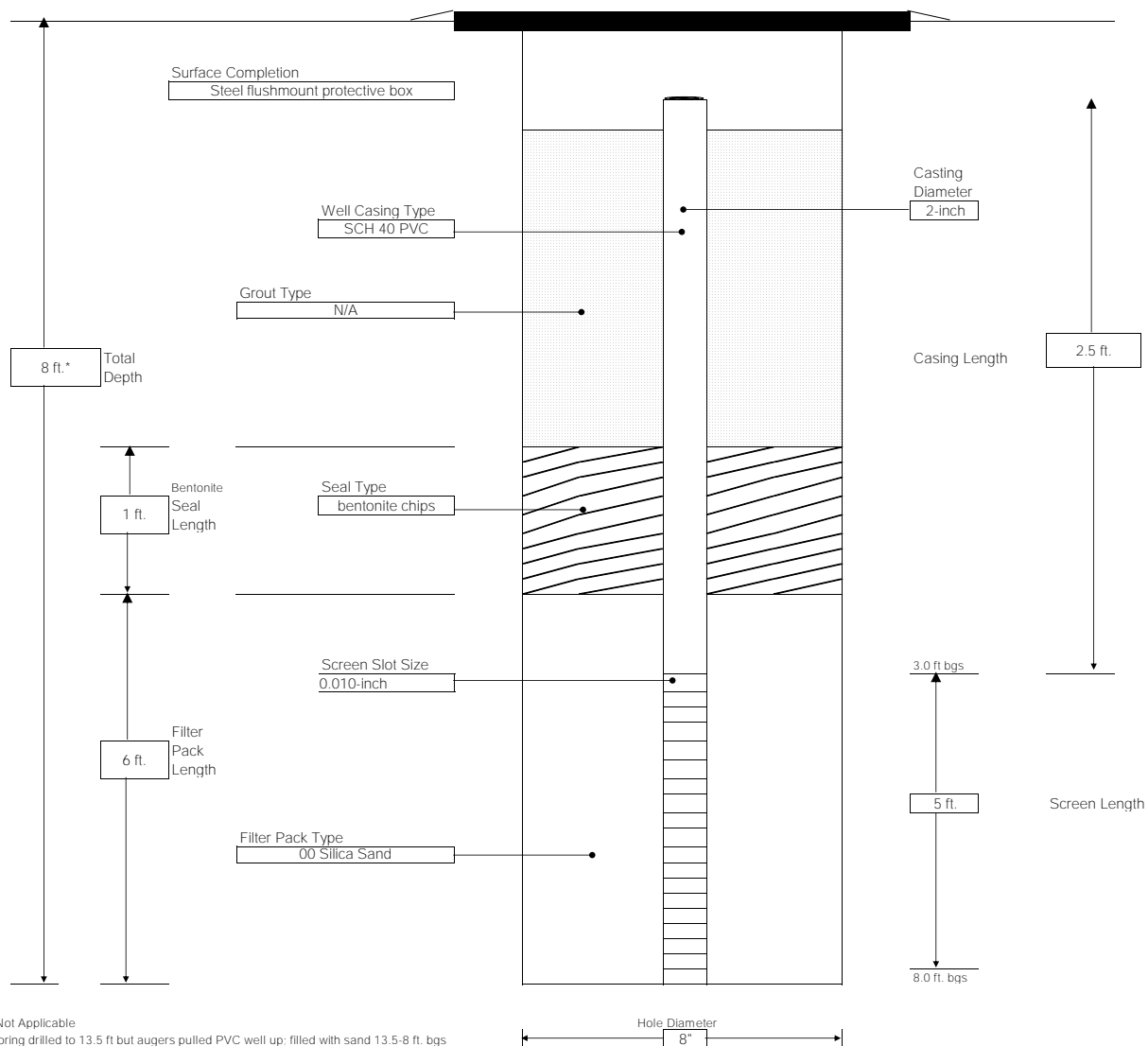
BORING: IRM4-MW-1  
SHEET 1 OF 1  
JOB # 2151037  
CHKD. BY:

CONTRACTOR: LaBella Env., LLC  
DRILLER: Matt Pepe  
LABELLA REPRESENTATIVE: Eric Detweiler

BORING LOCATION: 28 Lakeshore Dr.  
GROUND SURFACE ELEVATION: 691 DATUM:  
START DATE: 2/26/16 END DATE: 2/26/16

TYPE OF DRILL RIG: Geoprobe 6620DT  
AUGER SIZE AND TYPE: 4.25" HAS  
OVERBURDEN SAMPLING METHOD: No sampling  
ROCK DRILLING METHOD: N/A

WATER LEVEL DATA				
DATE	TIME	WATER	CASING	REMARKS



NA-Not Applicable

\* - Boring drilled to 13.5 ft but augers pulled PVC well up; filled with sand 13.5-8 ft. bgs

GENERAL NOTES:

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES. TRANSITIONS MAY BE GRADUAL
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED. FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.



300 STATE STREET, ROCHESTER, NEW YORK  
ENVIRONMENTAL ENGINEERING CONSULTANTS

PROJECT  
Canandaigua Multi-Brownfield Site # C835025  
North Shore Project - Phase I Development  
Lakeshore Drive, Canandaigua, NY

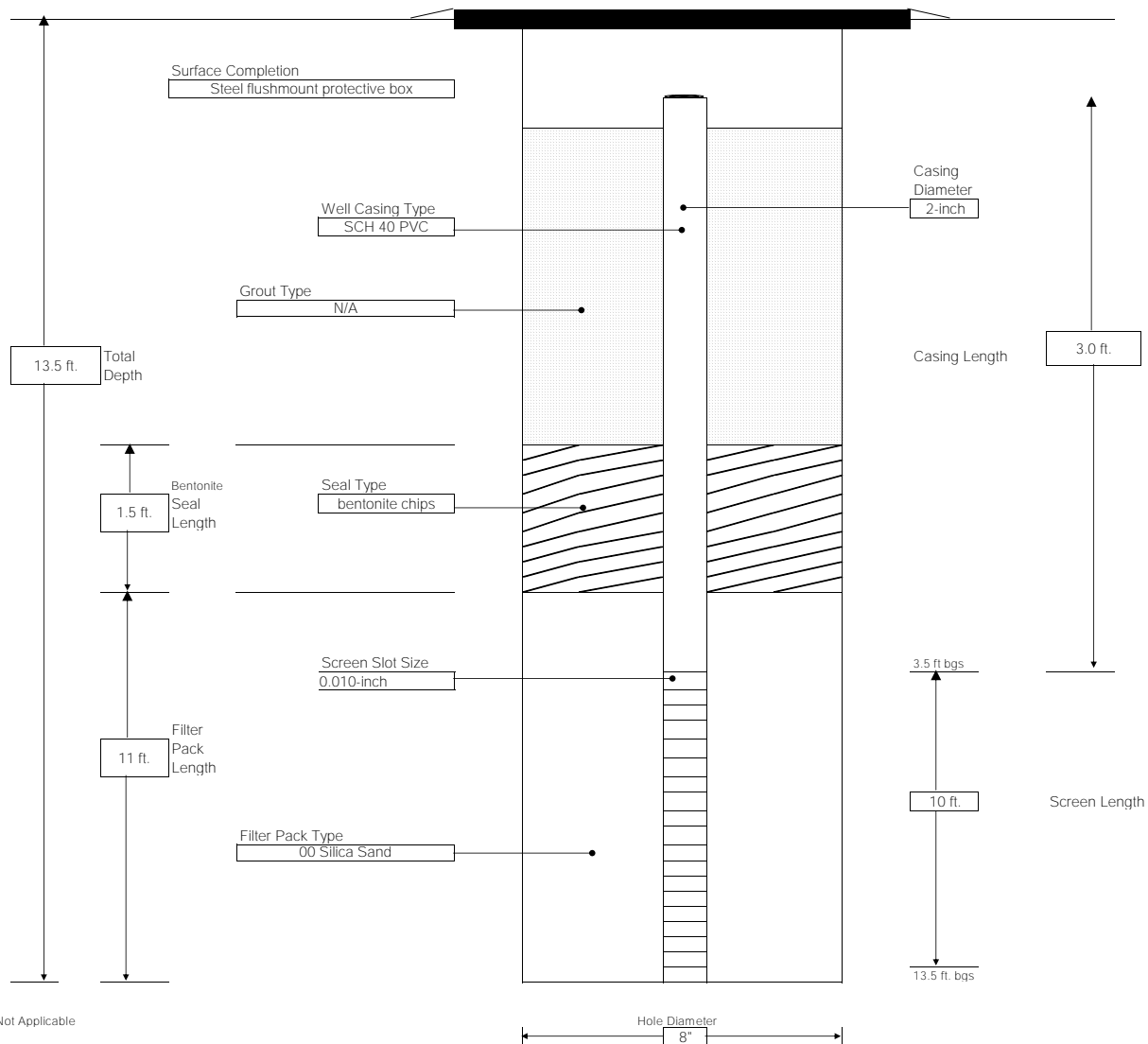
BORING: IRM4-MW-2  
SHEET 1 OF 1  
JOB # 2151037  
CHKD. BY:

CONTRACTOR: LaBella Env., LLC  
DRILLER: Matt Pepe  
LABELLA REPRESENTATIVE: Eric Detweiler

BORING LOCATION: 28 Lakeshore Dr.  
GROUND SURFACE ELEVATION: 691 DATUM:  
START DATE: 2/26/16 END DATE: 2/26/16

TYPE OF DRILL RIG: Geoprobe 6620DT  
AUGER SIZE AND TYPE: 4.25" HAS  
OVERBURDEN SAMPLING METHOD: No sampling  
ROCK DRILLING METHOD: N/A

WATER LEVEL DATA				
DATE	TIME	WATER	CASING	REMARKS



NA-Not Applicable

GENERAL NOTES:

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES. TRANSITIONS MAY BE GRADUAL
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED. FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.





300 STATE STREET, ROCHESTER, NEW YORK  
ENVIRONMENTAL ENGINEERING CONSULTANTS

PROJECT  
Canandaigua Multi-Brownfield Site # C835025  
North Shore Project - Phase I Development  
Lakeshore Drive, Canandaigua, NY

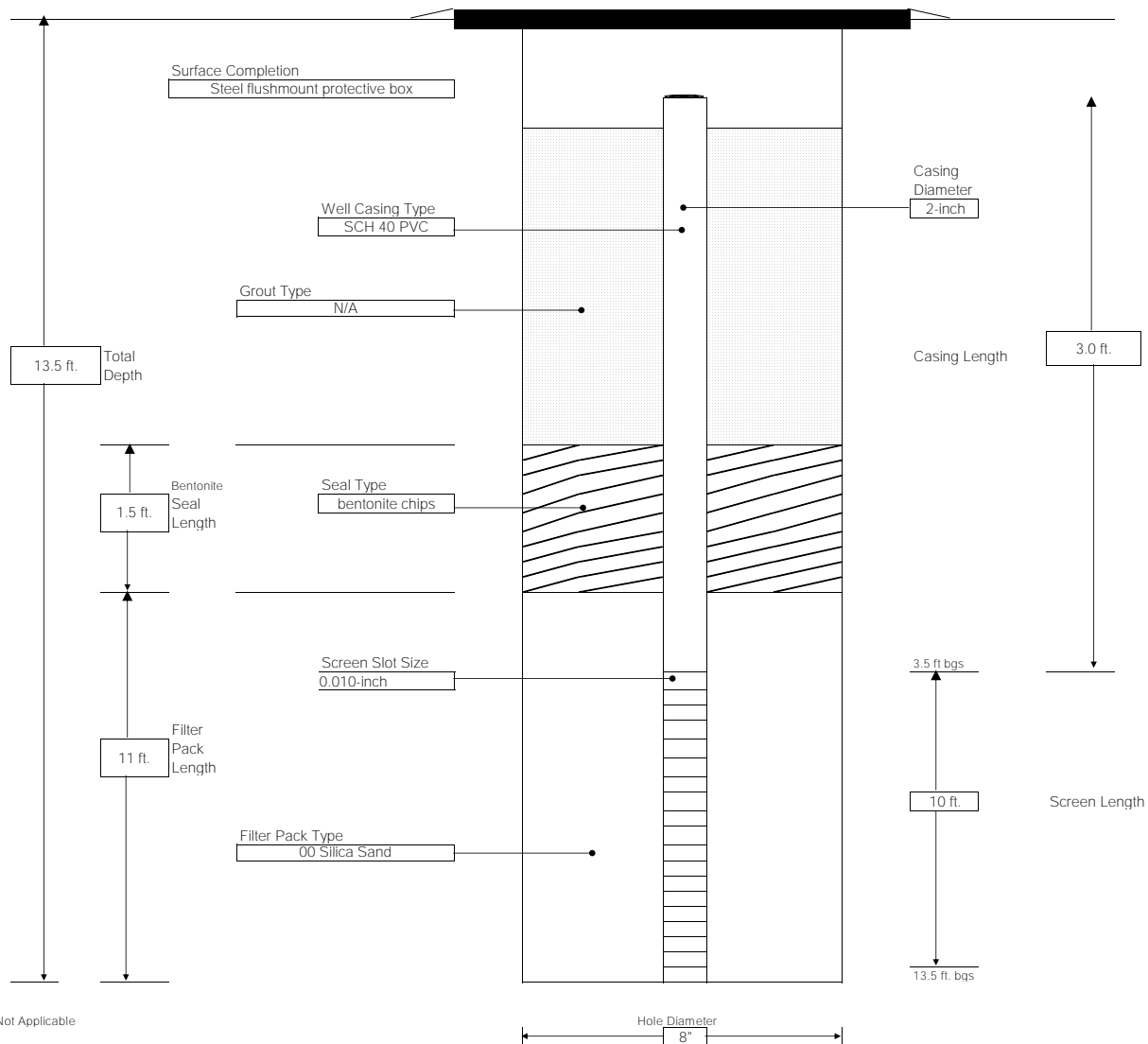
BORING: IRM4-MW-3  
SHEET 1 OF 1  
JOB # 2151037  
CHKD. BY:

CONTRACTOR: LaBella Env., LLC  
DRILLER: Matt Pepe  
LABELLA REPRESENTATIVE: Eric Detweiler

BORING LOCATION: 28 Lakeshore Dr.  
GROUND SURFACE ELEVATION: 691 DATUM:  
START DATE: 2/26/16 END DATE: 2/26/16

TYPE OF DRILL RIG: Geoprobe 6620DT  
AUGER SIZE AND TYPE: 4.25" HAS  
OVERBURDEN SAMPLING METHOD: No sampling  
ROCK DRILLING METHOD: N/A

WATER LEVEL DATA				
DATE	TIME	WATER	CASING	REMARKS



NA-Not Applicable

GENERAL NOTES:

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES. TRANSITIONS MAY BE GRADUAL
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED. FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.



300 STATE STREET, ROCHESTER, NEW YORK  
ENVIRONMENTAL ENGINEERING CONSULTANTS

PROJECT  
Canandaigua Multi-Brownfield Site # C835025  
North Shore Project - Phase I Development  
Lakeshore Drive, Canandaigua, NY

BORING: IRM-MW-20  
SHEET 1 OF 1  
JOB # 2151037  
CHKD. BY:

CONTRACTOR: LaBella Env., LLC

DRILLER: Matt Pepe

LABELLA REPRESENTATIVE: Eric Detweiler

BORING LOCATION: 30 Lakeshore Dr.

GROUND SURFACE ELEVATION: 692.0

DATUM:

START DATE: 2/11/16

END DATE: 2/11/16

TYPE OF DRILL RIG: Geoprobe 6620DT

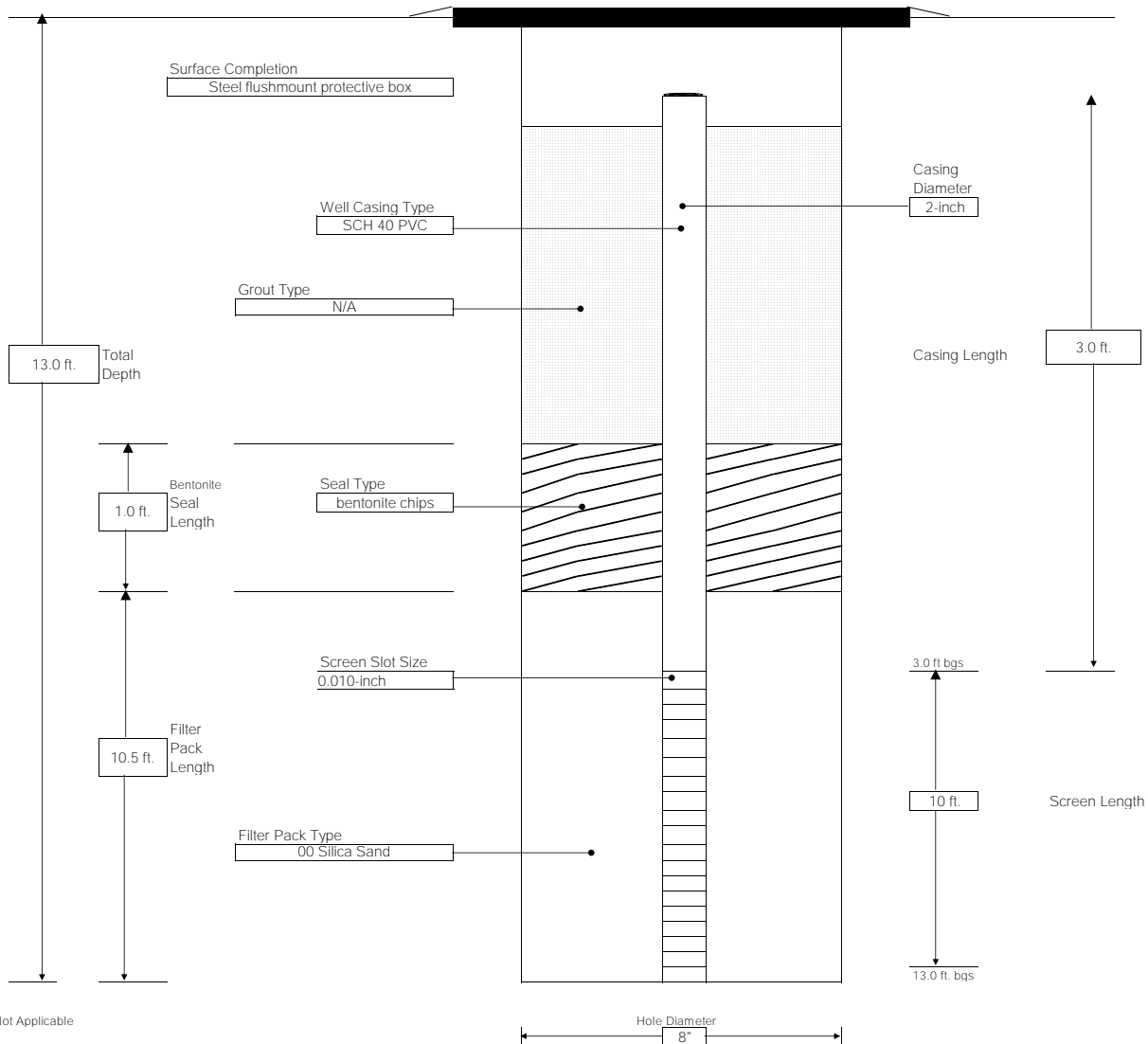
AUGER SIZE AND TYPE: 4.25" HAS

OVERBURDEN SAMPLING METHOD: No sampling

ROCK DRILLING METHOD: N/A

WATER LEVEL DATA

DATE	TIME	WATER	CASING	REMARKS



NA-Not Applicable

GENERAL NOTES:

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES. TRANSITIONS MAY BE GRADUAL
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED. FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.



300 STATE STREET, ROCHESTER, NEW YORK  
ENVIRONMENTAL ENGINEERING CONSULTANTS

PROJECT  
Canandaigua Multi-Brownfield Site # C835025  
North Shore Project - Phase I Development  
Lakeshore Drive, Canandaigua, NY

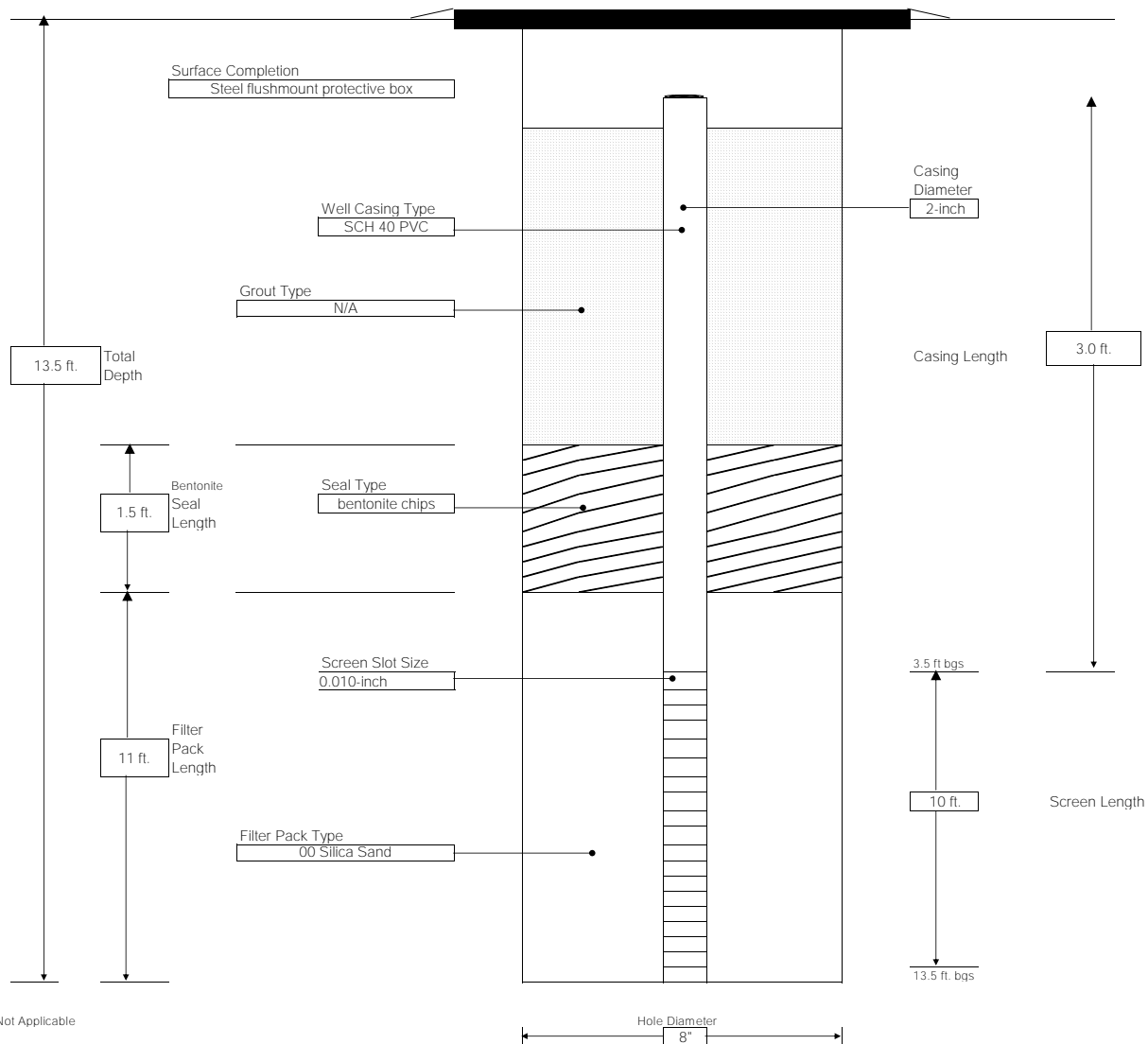
BORING: IRM-MW-12-3  
SHEET 1 OF 1  
JOB # 2151037  
CHKD. BY:

CONTRACTOR: LaBella Env., LLC  
DRILLER: Matt Pepe  
LABELLA REPRESENTATIVE: Eric Detweiler

BORING LOCATION: 30 Lakeshore Dr.  
GROUND SURFACE ELEVATION: 692.7 DATUM:  
START DATE: 2/11/16 END DATE: 2/11/16

TYPE OF DRILL RIG: Geoprobe 6620DT  
AUGER SIZE AND TYPE: 4.25" HAS  
OVERBURDEN SAMPLING METHOD: No sampling  
ROCK DRILLING METHOD: N/A

WATER LEVEL DATA				
DATE	TIME	WATER	CASING	REMARKS



NA-Not Applicable

GENERAL NOTES:

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES. TRANSITIONS MAY BE GRADUAL
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED. FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.



300 STATE STREET, ROCHESTER, NEW YORK  
ENVIRONMENTAL ENGINEERING CONSULTANTS

PROJECT  
Canandaigua Multi-Brownfield Site # C835025  
North Shore Project - Phase I Development  
Lakeshore Drive, Canandaigua, NY

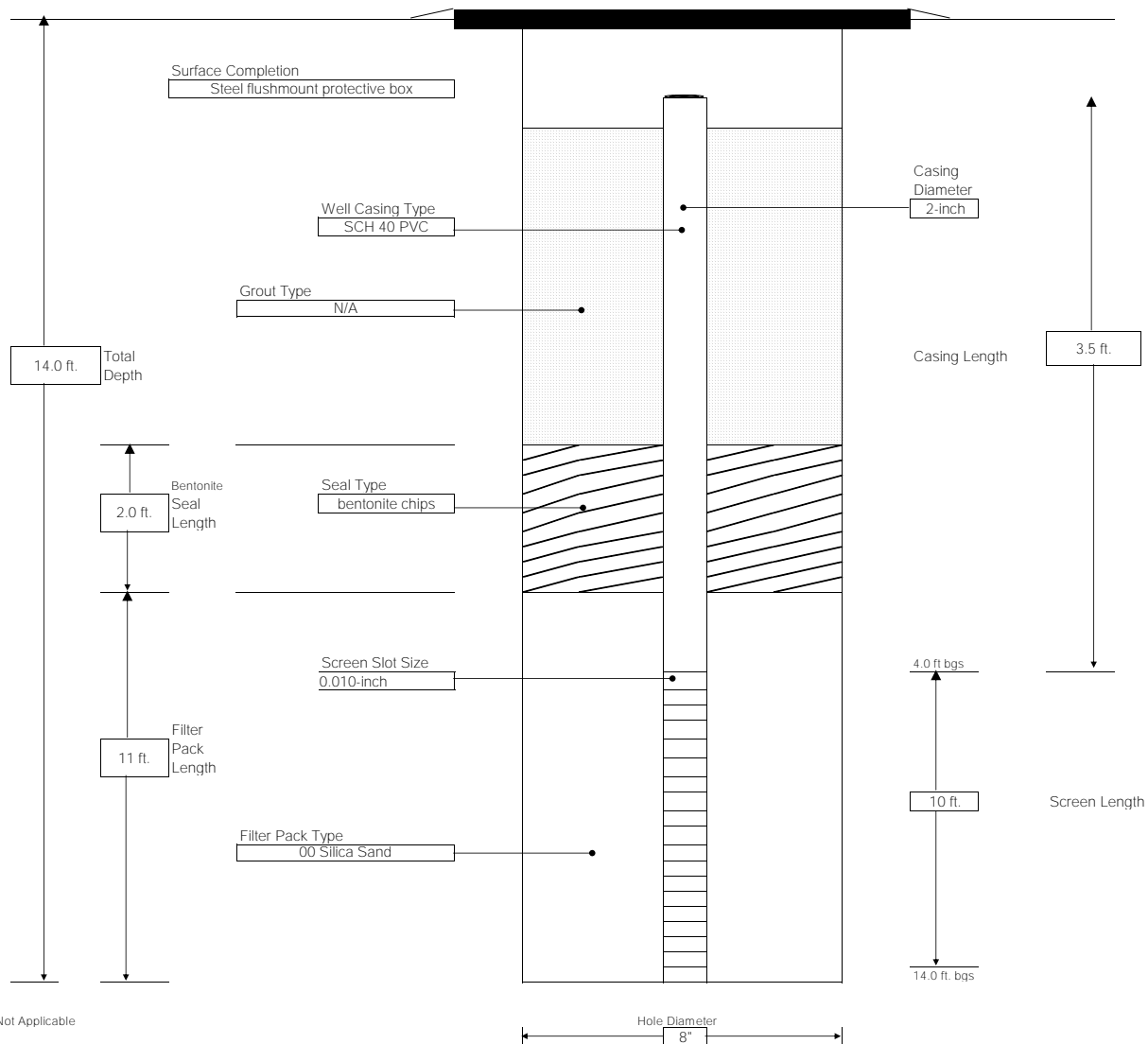
BORING: IRM-MW-24  
SHEET 1 OF 1  
JOB # 2151037  
CHKD. BY:

CONTRACTOR: LaBella Env., LLC  
DRILLER: Matt Pepe  
LABELLA REPRESENTATIVE: Eric Detweiler

BORING LOCATION: 130 Lakeshore Dr.  
GROUND SURFACE ELEVATION: 692.0 DATUM:  
START DATE: 2/10/16 END DATE: 2/10/16

TYPE OF DRILL RIG: Geoprobe 6620DT  
AUGER SIZE AND TYPE: 4.25" HAS  
OVERBURDEN SAMPLING METHOD: No sampling  
ROCK DRILLING METHOD: N/A

WATER LEVEL DATA				
DATE	TIME	WATER	CASING	REMARKS



NA-Not Applicable

GENERAL NOTES:

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES. TRANSITIONS MAY BE GRADUAL
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED. FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.



300 STATE STREET, ROCHESTER, NEW YORK  
ENVIRONMENTAL ENGINEERING CONSULTANTS

PROJECT  
Canandaigua Multi-Brownfield Site # C835025  
North Shore Project - Phase I Development  
Lakeshore Drive, Canandaigua, NY

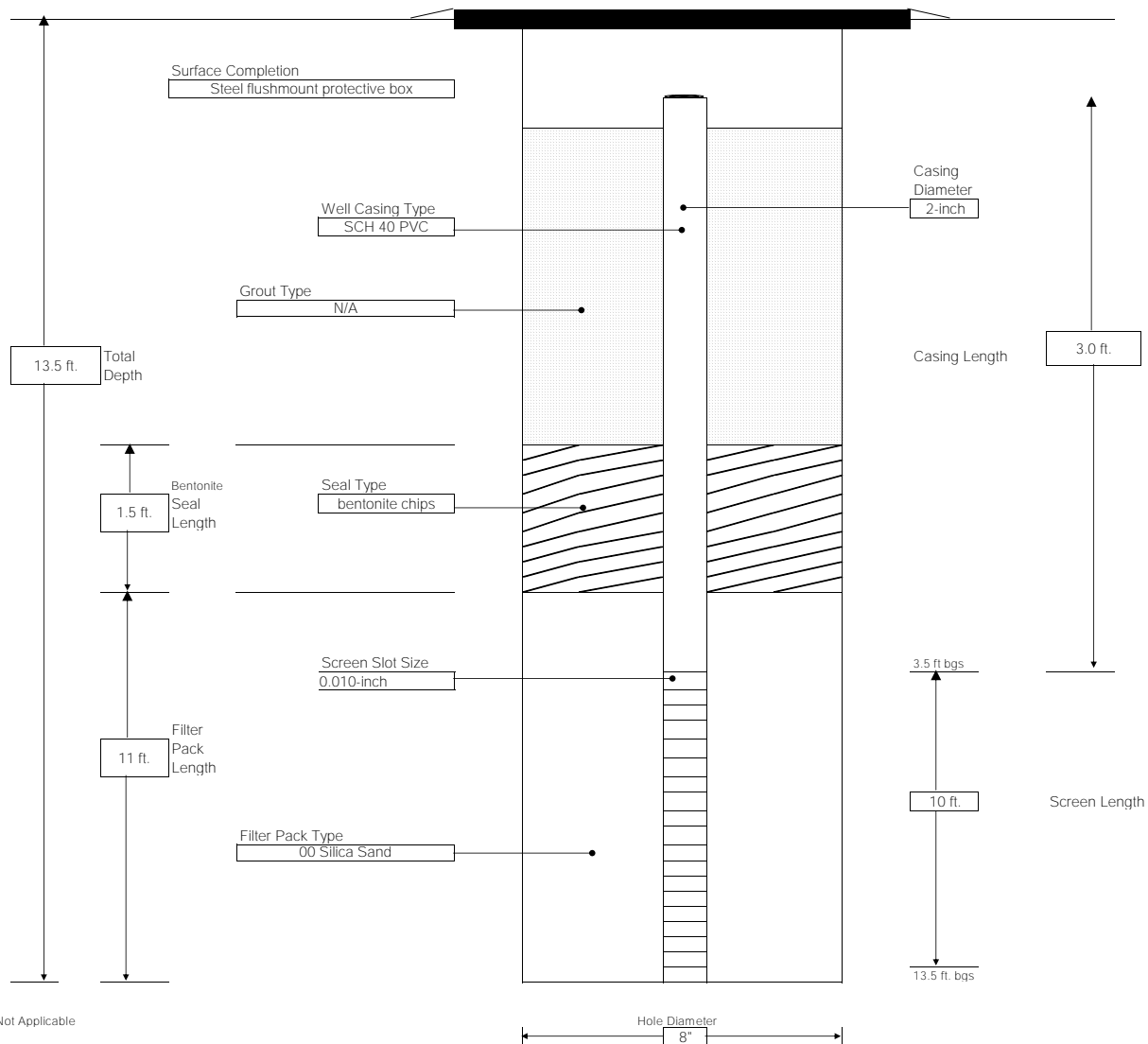
BORING: IRM-MW-69  
SHEET 1 OF 1  
JOB # 2151037  
CHKD. BY:

CONTRACTOR: LaBella Env., LLC  
DRILLER: Matt Pepe  
LABELLA REPRESENTATIVE: Eric Detweiler

BORING LOCATION: 30 Lakeshore Dr.  
GROUND SURFACE ELEVATION: 692.0 DATUM:  
START DATE: 2/11/16 END DATE: 2/11/16

TYPE OF DRILL RIG: Geoprobe 6620DT  
AUGER SIZE AND TYPE: 4.25" HAS  
OVERBURDEN SAMPLING METHOD: No sampling  
ROCK DRILLING METHOD: N/A

WATER LEVEL DATA				
DATE	TIME	WATER	CASING	REMARKS



NA-Not Applicable

GENERAL NOTES:

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES. TRANSITIONS MAY BE GRADUAL
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED. FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.



**Associates, D.P.C.**

300 STATE STREET, ROCHESTER, NY

**PH: (585) 454-6110**

**FAX: (585) 454-3066**

## GROUNDWATER DEVELOPMENT FORM

WELL I.D. 1RM4-MW-1

Project Name:

Project No.: 2151037

Location:

Canandaigua Multi-Brownfield Site

**Development By:**

E: Detweitzer

Date: 3/3/16

Weather:

partly sunny, 25-30°F

### PURGE VOLUME CALCULATION

Well Diameter: 2 -Inch

Static Water Level: 3.1 -Feet

Depth of Well: 7.5 -Feet

Single Well Volume: 0.7 -Gallons

## PURGE & SAMPLING METHOD

☐ Bailer - Type: \_\_\_\_\_

☒ Pump - Type

Submersible, stainless steel

Sampling Device: \_\_\_\_\_

**Pump Rate:**

## FIELD PARAMETER MEASUREMENTS

[illegible]

Total 18 Gallons Purged

Purge Start Time:

Purge End Time:

**OBSERVATIONS:**

No odor, no sheep observed; surged well with pump and tubing;  
can feel bottom of well

Well Volume (1" well) = 0.0408-gal/ft.

Well Volume (4" well) = 0.65-gal/ft.

Well Volume (2" well) = 0.163-gal/ft.

**Associates, D.P.C.**

300 STATE STREET, ROCHESTER, NY

**PH: (585) 454-6110**

**FAX: (585) 454-3066**

# GROUNDWATER DEVELOPMENT FORM

WELL I.D. IRM4-MW-2

**Project Name:**

Project No.: 2151037

**Location:**

Canandaigua Multi-Brownfield Site

Development By:

E. Detweiler

Date: 3/3/16

**Weather:**

partly sunny, 25-30° F

### PURGE VOLUME CALCULATION

**Well Diameter:**

2-Inch

**Static Water Level:**

3,32 -Feet

Depth of Well:

13.35 -Feet

Single Well Volume:

1.63 -Gallons

## PURGE & SAMPLING METHOD

☐ **Bailer - Type:**

☒ Pump - Type

stainless steel submersible

**Sampling Device:**

Pump Rate:

## FIELD PARAMETER MEASUREMENTS

[illegible]

Total

15

### Gallons Purged

Purge Start Time:

Purge End Time:

**OBSERVATIONS:**

No odor, no sheen cleaned up significantly; can feel PVC bottom of well; singled well with pump

Well Volume (1" well) = 0.0408-gal/ft.

Well Volume (4" well) = 0.65-gal/ft.

Well Volume (2" well) = 0.163-gal/ft.

**Associates, D.P.C.**

300 STATE STREET, ROCHESTER, NY

**PH: (585) 454-6110**

**FAX: (585) 454-3066**

## GROUNDWATER DEVELOPMENT FORM

WELL I.D. 1RM4-MW-3

**Project Name:**

Project No.: 245/037

**Location:**

## Canandaigua Multi-Brownfield Site

**Development By:**

E. Detweiler

Date: 3/3/16

**Weather:**

partly sunny, 25-30°F

### PURGE VOLUME CALCULATION

Well Diameter:

2 -Inch

**Static Water Level:**

3.30 -Feet

Depth of Well:

13.43 -Feet

**Single Well Volume:**

1.665 -Gallons

## PURGE & SAMPLING METHOD

☐ Bailer - Type:

☒ Pump - Type Stainless steel submersible

**Sampling Device:**

**Pump Rate:**

## FIELD PARAMETER MEASUREMENTS

[illegible]

Total

9

Gallons Purged

Purge Start Time:

Purge End Time:

**OBSERVATIONS:**

pruge pump failed after evacuating 9 gallons; no sheen or odors observed; surged well with pump/tubing

Well Volume (1" well) = 0.0408-gal/ft.

Well Volume (4" well) = 0.65-gal/ft.

Well Volume (2" well) = 0.163-gal/fl.



**Associates, D.P.C.**

300 STATE STREET, ROCHESTER, NY

**PH: (585) 454-6110**

**FAX: (585) 454-3066**

# GROUNDWATER DEVELOPMENT FORM

WELL I.D. 1RM-MW-20

Project Name:

**Location:**

**Development By:**

**Weather:**

Project No.: 215/037

Date: 3/3/16

### PURGE VOLUME CALCULATION

Well Diameter: 2 -Inch

Depth of Well: \_\_\_\_\_ -Feet

Static Water Level: 4.0 -Feet (riser cut 1/1' low)

Single Well Volume: 1.2 -Gallons

## PURGE & SAMPLING METHOD

☐ Bailer - Type: \_\_\_\_\_

Sampling Device: \_\_\_\_\_

 Pump - Type *stainless steel submersible*

Pump Rate: \_\_\_\_\_

## FIELD PARAMETER MEASUREMENTS

[illegible]

Total	15	Gallons Purged
-------	----	----------------

Purge Start Time:

Purge End Time:

**OBSERVATIONS:**

no odor or sheen observed. Surged well with pump/tubing throughout development; can feel PVC bottom of well

Well Volume (1" well) = 0.0408-gal/ft.

Well Volume (4" well) = 0.65-gal/ft.

Well Volume (2" well) = 0.163-gal/ft.

**Associates, D.P.C.**

300 STATE STREET, ROCHESTER, NY

**PH: (585) 454-6110**

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## GROUNDWATER DEVELOPMENT FORM

**WELL I.D.** IRM-MW-12-3

**Project Name:**

Project No.: 2151037

**Location:**

Canandaigua Multi-Brownfield Site

**Development By:**

E. Detweiler

Date: 3/3/16

**Weather:**

Sunny, 32°

### PURGE VOLUME CALCULATION

Well Diameter:

2-Inch

**Static Water Level:**

5.2 -Feet

Depth of Well:

-Feet

**Single Well Volume:**

1.32 -Gallons

## PURGE & SAMPLING METHOD

☐ Bailer - Type:

☒ Pump - Type

Stainless steel submersible

**Sampling Device:**

**Pump Rate:**

## FIELD PARAMETER MEASUREMENTS

[illegible]

Total

10

Gallons Purged

Purge Start Time:

Purge End Time:

**OBSERVATIONS:**

Faint petrol odor, no sheen; surged well with pump; can feel bottom of well screen PVC

Well Volume (1" well) = 0.0408-gal/ft.

Well Volume (4" well) = 0.65-gal/ft.

Well Volume (2" well) = 0.163-gal/ft.



**Associates, D.P.C.**

300 STATE STREET, ROCHESTER, NY

**PH: (585) 454-6110**

**FAX: (585) 454-3066**

# GROUNDWATER DEVELOPMENT FORM

WELL I.D. 1RM-MW-24

Project Name:

Project No.: 215

**Location:**

Development By:

Date: 3/3/16

**Weather:**

### PURGE VOLUME CALCULATION

Well Diameter: 2 -Inch

Static Water Level: 10 -Feet

Depth of Well: 13.4 -Feet

Single Well Volume: 2 -Gallons

## PURGE & SAMPLING METHOD

☐ Bailer - Type:

☒ Pump - Type *Stainless steel submersible*

Sampling Device: \_\_\_\_\_

Pump Rate: \_\_\_\_\_

## FIELD PARAMETER MEASUREMENTS

[illegible]

Total	12	Gallons Purged
-------	----	----------------

Purge Start Time:

Purge End Time:

**OBSERVATIONS:**

no sheen or odors observed. Surged well with pump/tubing, moderate to quick recovery, & removed approx. 1 ft of sediment from well

Well Volume (1" well) = 0.0408-gal/ft.

Well Volume (4" well) = 0.65-gal/ft.

Well Volume (2" well) = 0.163-gal/ft.

Telephone: (585) 454-6110  
Facsimile: (585) 454-3066

WELL I.D.: RM4-MW-1

Project Name: Canandaigua Multi Brownfield Site# C835025

**Location:** Lakeshore Dr., Canandaigua, NY

Project No.: 2151037

**Sampled By:** E. Detweiler / M. Windrel Jr.

Date: 3/22/16

Weather: Partly sunny, 25° F

## WELL SAMPLING INFORMATION

Well Diameter:

 $2^4$ 

Depth of Well:

7.5' htop

**Measuring Point:**

Top of PVC

Pump Type:

### Peristaltic Geopump

Static Water Level:

3.3

Length of Well Screen:

5

Depth to Top of Pump:

tubing @ 6.5

**Tubing Type:**

1/4" HDPE

## FIELD PARAMETER MEASUREMENT

[illegible]

Total	2.5	Gallons Purged
-------	-----	----------------

Purge Time Start: 8:45

Purge Time End: 9:25

Final Static Water Level: 3.5

## OBSERVATIONS

Notes: No odor or sheen observed

Telephone: (585) 454-6110  
Facsimile: (585) 454-3066

WELL I.D.: 1RM4-MW-2

Project Name: Canandaigua Multi Brownfield Site# C835025

Location: Lakeshore Dr., Canandaigua, NY

Project No.: 2151037

Sampled By: E. Detweiler / M. Windrel Jr.

Date: 3/22/16

Weather: Partly sunny, 25° F

## WELL SAMPLING INFORMATION

Well Diameter:

Depth of Well:

**Measuring Point:**

**Pump Type:**

Static Water Level:

Length of Well Screen:

Depth to Top of Pump:

Tubing Type:

## FIELD PARAMETER MEASUREMENT

[illegible]

Total	3.1	Gallons Purged
-------	-----	----------------

Purge Time Start:

Purge Time End:

**Final Static Water Level:**

## OBSERVATIONS

Notes: No odors or sheen observed; well cleaned up relatively quickly (low turb)

Telephone: (585) 454-6110  
Facsimile: (585) 454-3066

WELL I.D.: IRM4-MW-3

Project Name: Canandaigua Multi Brownfield Site# C835025

Location: Lakeshore Dr., Canandaigua, NY

Project No.: 2151037

Sampled By: E. Detweiler / M. Windrel Jr.

Date: 3/22/16

Weather: Partly sunny, 25° F

## WELL SAMPLING INFORMATION

Well Diameter:

Depth of Well:

**Measuring Point:**

**Pump Type:**

Top of PVC

### Peristaltic Geopump

**Static Water Level:**

**Length of Well Screen:**

Depth to Top of Pump:

Tubing Type:

3.40

10 ft

tubing @ 8.5

1/4" HDPE

## FIELD PARAMETER MEASUREMENT

[illegible]

Total 2.2 Gallons Purged

Purge Time Start: 10:15

Purge Time End: 10:50

Final Static Water Level: ~~3.50~~ 3.50

## OBSERVATIONS

Notes: No odor or sheen observed  
Sample @ 10:50

Telephone: (585) 454-6110  
Facsimile: (585) 454-3066

WELL I.D.: 1RM-MW-12-3

**Project Name:** Canandaigua Multi Brownfield Site# C835025

**Location:** Lakeshore Dr., Canandaigua, NY

Project No.: 2151037

Sampled By: E. Detweiler / M. Windrel Jr.

Date: 3/22/16

Weather: Partly sunny, 25° F

### WELL SAMPLING INFORMATION

Well Diameter:

Depth of Well:

**Measuring Point:**

**Pump Type:**

Static Water Level:

Length of Well Screen:

Depth to Top of Pump:

Tubing Type:

## FIELD PARAMETER MEASUREMENT

[illegible]

Total	2.5	Gallons Purged
-------	-----	----------------

Purge Time Start: 1145

Purge Time End: 12:25

Final Static Water Level: 5.64

## OBSERVATIONS

Notes:

Notes: Very light film/sheen, no petrol odor  
(could be due to fill materials in  $\frac{1}{2}$  around water table as seen in pile cap excavations)  
\*collected blind duplicate sample





Project Name:	Canandaigua Multi Brownfield Site# C835025
Location:	Lakeshore Dr., Canandaigua, NY
Project No.:	2151037
Sampled By:	E. Detweiler / M. Windrel Jr.
Date:	3/22/16
Weather:	Partly sunny, 25° F

Well Diameter: 2"  
 Depth of Well: 11.4' bto c  
 Measuring Point: Top of PVC  
 Pump Type: Peristaltic Geopump

Static Water Level: 4.4' (casing cut 7-1' low)  
Length of Well Screen: 10'  
Depth to Top of Pump: tubing @ 7.5' bfoe  
Tubing Type: 1/4" HDPE

[illegible]

Total	2.2	Gallons Purged
-------	-----	----------------

Purge Time Start: 11:40      Purge Time End: 12:45      Final Static Water Level: 4.47

Notes: No odors or sheen observed; low turbidity at start of purge

Telephone: (585) 454-6110  
Facsimile: (585) 454-3066

WELL I.D.: IRM-MW-24

Project Name: Canandaigua Multi Brownfield Site# C835025

Location: Lakeshore Dr., Canandaigua, NY

Project No.: 2151037

Sampled By: E. Detweiler / M. Windrel Jr.

Date: 3/22/16

Weather: Partly sunny, 25° F

### WELL SAMPLING INFORMATION

Well Diameter:

2"

Depth of Well:

13.4' btoC

**Measuring Point:**

Top of PVC

**Pump Type:**

### Peristaltic Geopump

Static Water Level:

2,3' inter

**Length of Well Screen:**

 $10^4$ 

Depth to Top of Pump:

tubing - 9'

Tubing Type:

1/4" HDPE

## FIELD PARAMETER MEASUREMENT

[illegible]

Total	3.1	Gallons Purged
-------	-----	----------------

Purge Time Start: 2:15

Purge Time End: 3:15

Final Static Water Level: 2.38

## OBSERVATIONS

Notes: No odors or sheen observed on pump water; ~~collected blind duplicate sample~~ (ED)

Telephone: (585) 454-6110  
Facsimile: (585) 454-3066

WELL I.D.: 7614-NW-1

Canandaigua  
Project Name: Northshore BCP Site  
Location: Canandaigua, NY  
Project No.: 2157037  
Sampled By: AGB  
Date: 6/23/16  
Weather: Sunny, 70's

## WELL SAMPLING INFORMATION

Well Diameter: 2"  
Depth of Well:  
Measuring Point: Top of PVC Pipe  
Pump Type: Peristaltic

Static Water Level: 8.331  
Length of Well Screen:  
Depth to Top of Pump:  
Tubing Type: LDPF

## FIELD PARAMETER MEASUREMENT

[illegible]

Total	27	Gallons Purged
-------	----	----------------

Purge Time Start: 1445

Purge Time End: 1525

Final Static Water Level: 3.34

## OBSERVATIONS

Notes:

# LABELLA

Associates, O.P.C.

300 State Street  
Rochester, New York 14614

Telephone: (585) 454-6110  
Facsimile: (585) 454-3066

WELL I.D.: IR4-MW-2

Project Name: CANADATIGUA NORTH SHORE BCP SITE  
Location: CANADATIGUA, NY  
Project No.: 2151037  
Sampled By: ABB  
Date: 6/23/16  
Weather: Dunny, Mid 70's

## WELL SAMPLING INFORMATION

Well Diameter: 2"  
Depth of Well: \_\_\_\_\_  
Measuring Point: Top of PVC  
Pump Type: Peristaltic

Static Water Level: 3.49'  
Length of Well Screen: \_\_\_\_\_  
Depth to Top of Pump: \_\_\_\_\_  
Tubing Type: LDPE

## FIELD PARAMETER MEASUREMENT

Time	Pump Rate (ml/min)	Gallons Purged	pH	Temp °C	Conductivity (µS/cm) MS/cm	Turbidity (NTU)	Dissolved O <sub>2</sub> (mg/L)	Redox (mV)	Depth to Water (feet)	Comments
			+/- 0.1		+/- 3%		+ 10%	+/- 10 mV		
1255	160	0.05	6.98	14.7	1.610	2.0	6.83	-179.2	3.56	
1300	160	0.2	6.97	14.7	1.238	0.5	0.17	-134.6	3.58	
1305	160	0.5	6.92	15.9	1.138	2.9	0.14	-94.9	3.50	
1310	160	0.7	6.89	15.9	1.137	-0.8	0.16	-83.5	3.50	
1315	160	1.0	6.88	16.3	1.130	12.0	0.15	-79.5	3.50	
1320	160	1.2	6.87	16.3	1.139	10.9	0.14	-77.5	2.50	
1325	160	1.5	6.87	16.5	1.137	-0.8	0.11	-76.6	3.50	
1330	160	1.7	6.87	16.5	1.139	-0.7	0.10	-74.2	3.50	
1335	160	2.0	6.87	16.5	1.138	-0.8	0.10	-72.8	3.50	No odor; collecting sample

Total 2.0 Gallons Purged

Purge Time Start: 1252

Purge Time End: 1335

Final Static Water Level: 3.50

## OBSERVATIONS

Notes:



Project Name: CANANDATGUA NORTH SHORE BCP SITE  
Location: CANANDATGUA, NY  
Project No.: 2151037  
Sampled By: ALOS  
Date: 6/23/16  
Weather: Sunny, light wind, mid 70's

Well Diameter: 2"  
Depth of Well:  
Measuring Point: Top of PVC  
Pump Type: Peristaltic

Static Water Level: 3.48'  
Length of Well Screen:  
Depth to Top of Pump:  
Tubing Type: 1DPE

[illegible]

Total	1.2	Gallons Purged
-------	-----	----------------

Purge Time Start:

Purge Time End:

**Final Static Water Level:**

## OBSERVATIONS

Notes:



# LABELLA

Associates, D.P.C.

300 State Street  
Rochester, New York 14614

Telephone: (585) 454-6110  
Facsimile: (585) 454-3066

Project Name:

CANANDAIGUA NORTH SLIDE BCP SITE

Location:

CANANDAIGUA, NY

Project No.:

2156037

Sampled By:

PLB

Date:

6/22/16

Weather:

2400g, cloudy, 70's

WELL I.D.: ERM-MW-12-3

## WELL SAMPLING INFORMATION

Well Diameter:

2"

Depth of Well:

Measuring Point:

Top of PVC

Pump Type:

Peristaltic

Static Water Level:

5.01 ft

Length of Well Screen:

Depth to Top of Pump:

Tubing Type:

LDPE

## FIELD PARAMETER MEASUREMENT

Time	Pump Rate (ml/min)	Gallons Purged	pH	Temp °C	Conductivity (µS/cm)	Turbidity (NTU)	Dissolved O <sub>2</sub> (mg/L)	Redox (mV)	Depth to Water (feet)	Comments
			+/- 0.1		+/- 3%		+ 10%	+/- 10 mV		
1235	125	0.2	6.67	17.5	0.963	0.3	0.42	-177.3	5.25	
1240	120	0.4	6.77	18.1	0.968	0.7	0.24	-183.4	5.40	reducing flow rate
1245	105	0.5	6.81	18.1	0.977	1.2	0.07	-190.6	5.53	no odor
1250	105	0.6	6.82	17.9	0.983	0.7	0.02	-192.8	5.65	
1255	105	0.8	6.83	17.2	0.987	0.4	0.01	-194.0	5.82	
1300	105	0.9	6.83	17.3	0.995	0.1	0.00	-194.0	5.92	ambient stabilization
1305	105	1.0	6.83	16.9	1.005	-0.2	0.06	-193.8	6.03	
1310	105	1.1	6.84	16.6	1.010	-0.2	0.03	-194.1	6.15	
1315	150	1.4	6.84	16.3	1.013	0.5	-0.01	-194.2	6.31	flow rate increase
1320	150	1.7	6.84	16.0	1.018	1.7	-0.01	-193.4	6.45	
1325	150	2.0	6.84	15.8	1.023	4.6	0.04	-192.6	6.60	
1330	105	2.3	6.89	16.2	1.033	8.0	-0.02	-201.6	6.56	
1335	105	2.4	6.93	18.7	1.024	13.3	-0.01	-204.2	6.56	Turbidity, slightly rising
1340	105	2.5	6.92	18.7	1.023	18.1	-0.01	-204.3	6.56	collected, sample

Total 2.5 Gallons Purged

Purge Time Start:

1231

Purge Time End:

1340

Final Static Water Level:

6.56

## OBSERVATIONS

Notes: DO / Turbidity displaying negative values, rest ok, water clear.



Telephone: (585) 454-6110  
Facsimile: (585) 454-3066

WELL I.D.: IRM-MW-20

Weather: Sunny, windy, 70's

- MS/MSD Collected
- Blind Dup Collected (wrote time 0) Altitude 1620

## **APPENDIX F – QUALITY ASSURANCE PROJECT PLAN**

# Quality Assurance Project Plan

Location:

Canandaigua Multi-Brownfield Site  
24, 26, 28, 30, 130, 158 Lakeshore Drive  
and 25 Booth Street  
Canandaigua, New York

Prepared For:

LeChase Construction  
205 Indigo Creek Drive  
Rochester, New York 14626

LaBella Project No. 2151037

July 2016

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## 1. Introduction

The Quality Assurance Project Plan (QAPP) contains procedures which provide for collected data to be properly evaluated, and document that quality control (QC) procedures have been followed in the collection of samples. The quality control program represents the methodology and measurement procedures used in collecting quality field data. This methodology includes the proper use of equipment, documentation of sample collection, and sample handling practices.

Procedures used in the firm's QAPP are compatible with federal, state, and local regulations, as well as, appropriate professional and technical standards.

This QAPP has been organized into the following areas:

- Quality Control Objectives and Checks
- Field Equipment, Handling, and Calibration
- Sampling Techniques
- Sample Handling and Packaging

It should be noted that project-related documents may have project specific details that will differ from the procedures in this QAPP. In such cases, the project-related documents should be followed (subsequent to regulatory approval).

The NYSDEC DER-10 identifies two data deliverables for laboratory data:

a) DEC Analytical Services Protocol Category A Data Deliverables:

1. A Category A Data Deliverable as described in the most current DEC Analytical Services Protocol (ASP) includes:
  - i. a Sample Delivery Group Narrative;
  - ii. contract Lab Sample Information sheets;
  - iii. DEC Data Package Summary Forms;
  - iv. chain-of-custody forms; and
  - v. test analysis results (including tentatively identified organic compounds for analysis of volatile and semi-volatile organic compounds)
2. For a DEC Category A Data Deliverable, a data applicability report may be requested, in which case it will be prepared, to the extent possible, in accordance with the DUSR guidance detailed below.

b) DEC Analytical Services Protocol Category B Data Deliverables

1. A Category B Data Deliverable includes the information provided for the Category A Data Deliverable, identified in subdivision (a) above, plus related QA/QC information and documentation consisting of:
  - i. Calibration standards;
  - ii. Surrogate recoveries
  - iii. Blank results

- iv. Spike recoveries
- v. Duplicate recoveries
- vi. Confirmation (lab check/QC) samples
- vii. Internal standard area and retention time summary;
- viii. Chromatograms
- ix. Raw data files; and
- x. Other specific information as described in the most current DEC ASP.

2. A DEC Category B Data Deliverable is required for the development of a Data Usability Summary Report (DUSR).

All measurements will be made to provide that analytical results are representative of the media and conditions measured. Unless otherwise specified, all data will be calculated and reported in units consistent with other organizations reporting similar data to allow comparability of data bases among organizations. Data will be reported in µg/L or mg/L for aqueous samples, and µg/kg or mg/kg (dry weight) for soils, or otherwise as applicable.

The characteristics of major importance for the assessment of generated data are accuracy, precision, completeness, representativeness, and comparability. Application of these characteristics to specific projects is addressed later in this document. The characteristics are defined below.

### **1.1. Accuracy**

Accuracy is the degree of agreement of a measurement or average of measurements with an accepted reference or "true" value and is a measure of bias in the system.

### **1.2. Precision**

Precision is the degree of mutual agreement among individual measurements of a given parameter.

### **1.3. Completeness**

Completeness is a measure of the amount of valid data obtained from a measurement system compared to the amount expected to be obtained under correct normal conditions.

### **1.4. Comparability**

Comparability expresses the confidence with which one data set can be compared to another. The data sets may be inter- or intra- laboratory.

### **1.5. Representativeness**

Representativeness expresses the degree to which data accurately and precisely represents a characteristic of a population, parameter variations at a sampling point, a process condition, or an environmental condition.

## **2. Measurement of Data Quality**

### **2.1. Accuracy**

Accuracy of a particular analysis is measured by assessing its performance with "known" samples. These

"knowns" take the form of EPA standard reference materials, or laboratory prepared solutions of target analytes spiked into a pure water or sample matrix. In the case of GC or GC/MS analyses, solutions of surrogate compounds, which can be spiked into every sample and are designed to mimic the behavior of target analytes without interfering with their determination, are used.

In each case the recovery of the analyte is measured as a percentage, correcting for analytes known to be present in the original sample if necessary, as in the case of a matrix spike analysis. For EPA supplied known solutions, this recovery is compared to the published data that accompany the solution. For surrogate compounds, recoveries are compared to EPA CLP acceptable recovery tables.

If recoveries do not meet required criteria, then the analytical data for the batch (or, in the case of surrogate compounds, for the individual sample) are considered potentially inaccurate. The laboratory technician or their supervisor must initiate an investigation of the cause of the problem and take corrective action. This can include recalibration of the instrument, reanalysis of the QC sample, reanalysis of the samples in the batch, or flagging the data as suspect if the problems cannot be resolved. For highly contaminated samples, recovery of the matrix spike may depend on sample homogeneity. As a rule, analyses are not corrected for recovery of matrix spike or surrogate compounds.

## **2.2. Precision**

Precision of a particular analysis is measured by assessing its performance with duplicate or replicate samples. Duplicate samples are pairs of samples taken in the field and transported to the laboratory as distinct samples. Their identity as duplicates is sometimes not known to ASC and usually not known to bench analysts, so their usefulness for monitoring analytical precision at bench level is limited. For most purposes, precision is determined by the analysis of replicate pairs (i.e., two samples prepared at the laboratory from one original sample). Often in replicate analysis the sample chosen for replication does not contain target analytes so that quantitation of precision is impossible. For ASP analyses, replicate pairs of spiked samples, known as matrix spike/matrix spike duplicate samples, are used for precision studies. This has the advantage that two real positive values for a target analyte can be compared.

Precision is calculated in terms of Relative Percent Difference (RPD).

- Where  $X_1$  and  $X_2$  represent the individual values found for the target analyte in the two replicate analyses or in the matrix spike/matrix spike duplicate analyses.
- RPDs must be compared to the method RPD for the analysis. The laboratory technician or their supervisor must investigate the cause of RPDs outside stated acceptance limits. This may include a visual inspection of the sample for non homogeneity, analysis of check samples, etc. Follow-up action may include sample reanalysis or flagging of the data as suspect if problems cannot be resolved.
- During the data review and validation process (see Section 19), field duplicate RPDs are assessed as a measure of the total variability of both field sampling and laboratory analysis.

## **2.3. Completeness**

Completeness for each parameter is calculated as follows:

- The firm's target value for completeness for all parameters is 100%. A completeness value of 95% will be considered acceptable. Incomplete results will be reported in the DUSRs (see section 19).

## **2.4. Representativeness**

The characteristic of representativeness is not quantifiable. Subjective factors to be taken into account are as follows:

- The degree of homogeneity of a site;
- The degree of homogeneity of a sample taken from one point in a site; and,
- The available information on which a sampling plan is based.

To maximize representativeness of results, sampling techniques and sample locations will be carefully chosen so that they provide laboratory samples representative of the site and the specific area. Within the laboratory, precautions are taken to extract from the sample bottle an aliquot representative of the whole sample.

## **3. Quality Control Targets**

Target values for detection limit, percent spike recovery and percent "true" value of known check standards, and RPD of duplicates/replicates are included in the QCP, Analytical Procedures. Note that tabulated values are not always attainable. Instances may arise where high sample concentrations, non homogeneity of samples, or matrix interferences preclude achievement of target detection limits or other quality control criteria.

## **4. Sampling Procedures**

This section describes the sampling procedures to be utilized for each environmental medium that will be collected and analyzed in accordance with appropriate state and federal requirements. All procedures described are consistent with EPA sampling procedures as described in SW-846, third edition, September 1986 and any subsequent updates. All samples will be delivered to the laboratory within 24 to 48 hours of collection.

## **5. Soil & Groundwater Investigation**

The groundwater sampling plan outlined in this subsection has been prepared in general accordance with RCRA Groundwater Monitoring Technical Enforcement Guidance Document 9950.1 (September 1986), Office of Solid Waste and Emergency Response.

Prior to drilling, all drill sites will be cleared with appropriate utility companies to avoid potential accidents relating to underground utilities.

### **5.1. Test Borings and Well Installation**

#### **5.1.1. Drilling Equipment**

##### Direct Push "Geo-Probe" Soil Borings:

Soil borings and monitoring wells will be advanced with a Geoprobe direct push sampling system. The use of direct push technology allows for rapid sampling, observation, and characterization of relatively shallow overburden soils. The Geoprobe utilizes a four-foot macro-core sampler, with disposable polyethylene sleeves. Soil cores will be retrieved in four-foot or five-foot sections, and can be easily cut from the polyethylene sleeves for observation and sampling. The macro-core sampler will be



decontaminated between borings using an alconox and water solution.

#### Drill Rig Advanced Soil Borings:

The drilling and installation of monitoring wells will be performed using a direct push rig as described above or rotary drill rig depending on project conditions. The rotary drill rig will have sufficient capacity to perform hollow-stem auger drilling in the overburden, retrieve split-spoon samples, and perform necessary rock coring to provide a minimum 3-inch diameter core, known in the industry as "NX."

Prior to initiating drilling activities, the Geo-probe, macro cores, drive rods, and other pertinent equipment will be steam cleaned or washed with an alconox and water solution followed by a potable water rinse. This cleaning procedure will also be used between each boring. Throughout and after the cleaning processes, direct contact between the equipment and the ground surface will be avoided.

#### **5.1.2. Drilling Techniques**

##### Direct Push "Geo-Probe" Advanced Borings:

Test borings will be advanced with 2-inch direct push macro-cores through overburden soils. Drilling fluids, other than water from a NYSDEC-approved source, will not be allowed without special consideration and agreement from NYSDEC. The use of lubricants is also not allowed unless approved by the NYSDEC representative.

##### Drill Rig Advanced Borings:

Test borings will be advanced with appropriately sized hollow stem augers based on the project objectives driven by truck-, track-, or trailer-mounted drilling equipment. Alternative methods of drilling or equipment may be allowed or requested for site-specific criteria. Drilling fluids, other than water from a NYSDEC-approved source, will not be allowed without special consideration and agreement from NYSDEC. The use of lubricants is also not allowed unless approved by the NYSDEC representative. One sample from each drilling water source may be analyzed for full TCL.

##### Bedrock Wells:

Where bedrock wells are required, test borings may be advanced into rock with NX or HQ coring tools. Only water from an approved source shall be used in rock coring. An environmental monitor shall monitor and record the petrology, core recovery, fractures, rate of advance, water levels, and water lost or produced in each test boring. The Rock Quality Determination (RQD) value shall be calculated for each 5-foot core retrieved. All core samples shall be retained and stored in wooden core boxes for a period of not less than one year.

Bedrock well installation may involve construction of a rock socket. If utilized, the socket will be drilled into the top of rock at each bedrock well location to allow a permanent casing to be grouted securely in place prior to completion of the well. The purpose for this is to provide a seal at the overburden/bedrock interface and into the upper bedrock surface, to prevent the entrance of overburden water into the bedrock.

When a rock socket is constructed, a core hole will be reamed out to the diameter needed for the well planned and set into bedrock. The depth to rock will depend on the competency of the rock and project objectives. The method selected may be percussion or rotary drilling at the option of the subcontractor.

The method and equipment selected must be capable of penetrating the bedrock at each well location to a depth required by the work plan.

A cement grout will be tremied into the bedrock socket. Once sufficient grout has been place, the casing will be lowered into the bedrock socket. Once the casing is in place, the augers can be removed and the remaining grout should be added. After the grout and casing have set up for a minimum of 24 hours, the remaining amount of bedrock can be cored through the casing to the depth required for the project objective.

#### **5.1.3. Well Casing (Riser)**

##### Direct Push Geo-Probe Groundwater Monitoring Wells:

Direct Push Geo-Probe advanced groundwater-monitoring wells shall utilize 1.25-inch threaded flush joint PVC pipe.

##### Drill Rig Advanced Groundwater Monitoring Wells:

The well riser shall consist of 2-inch or greater, threaded flush-joint PVC or stainless steel pipe. All well risers will conform to the requirements of ASTM-D 1785 Schedule 40 pipe. All materials used to construct the wells will be NSF/ASTM approved.

#### **5.1.4. Well Screen**

##### Direct Push Geo-Probe Groundwater Monitoring Wells:

Direct Push Geoprobe advanced groundwater-monitoring wells will utilize 1.25-inch diameter well screen. Groundwater-monitoring wells will be set to intersect the monitoring elevation of the project objective. Each geo-probe advanced well will be equipped with an appropriate length (based on anticipated groundwater level, bedrock depth, and project objectives) of .010 inch slotted PVC screen connected to an appropriate length of PVC riser to complete the well installation. For Sites with non-aqueous phase liquid (NAPL) concerns, 0.02-inch slotted pipe may be used.

##### Drill Rig Advanced Groundwater Monitoring Wells:

Drill rig advanced groundwater monitoring wells will utilize 2-inch or greater diameter well screen. Groundwater-monitoring wells will be set to intersect the monitoring elevation of the project objective. Each well will be equipped with an appropriate length (based on anticipated groundwater level, bedrock depth, and project objectives) of .010 inch slotted PVC screen connected to an appropriate length of PVC riser to complete the well installation. For Sites with non-aqueous phase liquid (NAPL) concerns, 0.02-inch slotted pipe may be used. The bottom of the screen shall be sealed with a cap or plug.

#### **5.1.5. Artificial Sand Pack**

Granular backfill will be chemically and texturally clean, inert, siliceous, and of appropriate grain size for the screen slot size and the host environment. Sand pack grain size will be selected based on subsurface conditions and well screen size. The well screen and casing will be installed, and the sand pack placed around the screen and casing to a depth extending at least 25 percent of the screen length above the top of the screen.

#### **5.1.6. Bentonite Seal**

A minimum 1-foot thick seal of bentonite pellets will be placed directly on top of the sand pack, and care

will be taken to avoid bridging.

#### **5.1.7. Grout Mixture**

Upon completion of the bentonite seal, the well will be grouted with a non-shrinking cement grout mix to be placed from the top of the bentonite seal to the ground surface. The cement grout shall consist of a mixture of Portland cement (ASTM C 150) and water, in the proportion of not more than 7 gallons of clean water per bag of cement (1 cubic foot or 94 pounds). Additionally, 3% by weight of bentonite powder shall be added, if permitted.

#### **5.1.8 Surface Protection**

At all times during the progress of the work, precautions shall be used to prevent tampering with or the entrance of foreign material into the well. Based upon project objectives and the anticipated duration for the use of the well, wells may be completed with a suitable lockable cap to prevent material from entering the well. Permanent wells will generally be protected by a flush mounted road box or stick-up casing set into a concrete pad. A concrete pad, sloped away from the well, shall be constructed around the flush mount road box or stick-up casing at ground level.

Any well that is to be temporarily removed from service or left incomplete due to delay in construction shall be capped with a watertight cap.

#### **5.1.9. Surveying**

Coordinates and elevations will be established for each monitoring well and sampling location, if possible. Elevations to the closest 0.01 foot shall be used for the survey. These elevations shall be referenced to a regional, local, or project-specific datum. The location, identification, coordinates, and elevations of the wells will be plotted on maps with a scale large enough to show their location with reference to other structures at each site.

#### **5.1.10. Well Development**

After completion of the well, but not sooner than 24 hours after grouting is completed, development will be accomplished using pumping, bailing, or surge blocking. No dispersing agents, acids, disinfectants, or other additives will be used during development or introduced into the well at any other time.

Development water will be either properly contained and treated as waste until the results of chemical analysis of samples are obtained or discharged on site as determined by the site-specific work plans and/or consultation with the NYSDEC representatives on site.

## **6. Geologic Logging and Sampling**

At each investigative location, the boring will be advanced through overburden using either a drill rig and hollow-stem auger or direct push technology; soils will be visually inspected and monitored with a PID to help determine potential for vertical migration of contaminants. Soil samples will be collected as specified in the project specific plan. Soil samples will be screened in the field for volatile organic vapors using a PID, classified in accordance with Unified Soil Classification System (USCS) specifications, and logged.

Drilling logs will be prepared by a Qualified Environmental Professional who will be present during all drilling operations. The RQD value shall be calculated for each 5-foot section. Information provided in the logs shall include, but not be limited to, the following:

- Date, test hole identification, and project identification;
- Name of individual developing the log;
- Name of driller;
- Drill, make and model, auger size;
- Identification of alternative drilling methods used and justification thereof (e.g., rotary drilling with a specific bit type to remove material from within the hollow stem augers);
- Standard penetration test (ASTM D-1586) blow counts, if collected;
- Field diagram of each monitoring well installed with the depth to bottom of screen, top of screen, and pack, bentonite seal, etc.;
- Reference elevation for all depth measurements;
- Depth of each change of stratum;
- Identification of the material of which each stratum is composed, according to the USCS system or standard rock nomenclature, as appropriate;
- Depth interval from which each sample was taken;
- Depth at which hole diameters (bit sizes) change;
- Depth at which groundwater is encountered;
- Depth to static water level and changes in static water level with well depth;
- Total depth of completed well;
- Depth or location of any loss of tools or equipment;
- Location of any fractures, joints, faults, cavities, or weathered zones;
- Depth of any grouting or sealing;
- Nominal hole diameters;
- Depth and type of well casing;
- Description of well screen (to include depth, length, location, diameter, slot sizes, material);
- Any sealing-off of water-bearing strata;
- Static water level before and after development;
- Drilling date or dates;
- Construction details of well; and
- An explanation of any variations from the work plan.

## 7. Groundwater Sampling Procedures

The groundwater in all new monitoring wells will be allowed to stabilize for 7 days following development. Water levels will be measured to within 0.01 foot prior to purging and sampling. Sampling of each well will be accomplished in one of two ways.

### Active Sampling:

Purging will be completed prior to active sampling. In general, wells will be purged until the pH, conductivity, temperature, and turbidity of the water being pumped from the well have stabilized. Groundwater samples will be collected via active methods (i.e., purging) according to the following procedures and in the volumes specified in Table 11-1:

- Water clarity will be quantified during sampling with a turbidity meter;
- When transferring water from the bailer or pump line to sample containers, care will be taken to avoid agitating the sample, since agitation promotes the loss of volatile constituents;
- Any observable physical characteristics of the groundwater (e.g., color, sheen, odor, turbidity) at the time of sampling will be recorded; and
- Weather conditions (i.e., air temperature, sky condition, recent heavy rainfall, drought conditions) at the time of sampling will be recorded.

### Passive Sampling:

Groundwater samples that are collected via passive methods (i.e., no-purge) will be collected according to the following procedures and in the volumes specified in Table 11-1:

- Samples will be collected via passive diffusion bag (PDB) samplers. PDB samplers are made of low-density polyethylene plastic tubing (typically 4 mil), filled with laboratory grade (ASTM Type II) deionized water and sealed at both ends.
- PDB samplers will only be used to collect groundwater samples which will be analyzed for VOCs and in general only for chlorinated VOCs.
- PDB samplers will be deployed by hanging in the well at the middle of the well screen unless a low water table, need to deploy multiple samplers or the targeting of a specific depth interval is identified. The PDB samplers will be deployed at least 14 days prior to sampling.
- The PDB samplers will be deployed using a Teflon® coated string or synthetic rope.
- When transferring water from the PDB to sample containers, care will be taken to avoid agitating the sample, since agitation promotes the loss of volatile constituents;
- Any observable physical characteristics of the groundwater (e.g., color, sheen, odor, turbidity) at the time of sampling will be recorded; and
- Weather conditions (i.e., air temperature, sky condition, recent heavy rainfall, drought conditions) at the time of sampling will be recorded.

## **8. Management of Investigative-Derived Waste**

### Purpose:

The purposes of these guidelines are to ensure the proper holding, storage, transportation, and disposal of materials that may contain hazardous wastes. Investigation-derived waste (IDW) included the following:

- Drill cuttings, discarded soil samples, drilling mud solids, and used sample containers;
- Well development and purge waters and discarded groundwater samples;
- Decontamination waters and associated solids;
- Soiled disposable personal protective equipment (PPE);
- Used disposable sampling equipment;
- Used plastic sheeting and aluminum foil;
- Other equipment or materials that either contain or have been in contact with potentially-impacted environmental media.
- Because these materials may contain regulated chemical constituents, they must be managed as a solid waste. This management may be terminated if characterization analytical results indicate the absence of these constituents.

### Procedure:

1. Contain all investigation-derived wastes in New York State Department of Transportation (NYSDOT)-approved 55-gallon drums, roll-off boxes, or other containers suitable for the wastes.
2. Contain wastes from separate borings or wells in separate containers (i.e. do not combine wastes from several borings/wells in a single container, unless it is a container used



specifically for transfer purposes, or unless specific permission to do so has been provided by the LaBella Project Manager. Unused samples from surface sample locations within a given area may be combined.

3. To the extent practicable, separate solids from drilling muds, decontamination waters, and similar liquids. Place solids within separate containers.
4. Transfer all waste containers to a staging area. Access to this area will be controlled. Waste containers must be transferred to the staging area as soon as practicable after the generating activity is complete.
5. Pending transfer, all containers will be covered and secured when not immediately attended,
6. Label all containers with regard to contents, origin, and date of generation. Use indelible ink for all labeling.
7. Collect samples for waste characterization purposes, use boring/well sample analytical data for characterization.
8. For wastes determined to be hazardous in character, be aware on accumulation time limitations. Coordinate the disposal of these wastes with the Owner and NYSDEC.
9. Dispose of investigation-derived wastes as follows;
  - Soil, water, and other environmental media for which analysis does not detect organic constituents, and for which inorganic constituents are at levels consistent with background, may be spread on-site (pending NYSDEC approval) or otherwise treated as a non-waste material.
  - Soils, water, and other environmental media in which organic compounds are detected or metals are present above background will be disposed as industrial waste. Alternate disposition must be consistent with applicable State and Federal laws.
  - Personal protective equipment, disposable bailers, and similar equipment may be disposed as municipal waste, unless waste characterization results mandate disposal as industrial wastes

## 9. Decontamination

Sampling methods and equipment have been chosen to minimize decontamination requirements and to prevent the possibility of cross-contamination. Decontamination of equipment will be performed between discrete sampling locations. Equipment used to collect samples between composite sample locations will not require decontamination between collection of samples. All drilling equipment will be decontaminated prior to drilling, between each boring or monitoring well, and after the completion of all drilling. Special attention will be given to the drilling assembly, augers, etc.

Drilling decontamination will consist of:

- Steam cleaning or alconox wash;
- Scrubbing with brushes, if soil remains on equipment; and
- Steam rinse or potable water rinse.

Split spoons and other non-disposable equipment will be decontaminated between each sampling location. The sampler will be cleaned prior to each use, by one of the following procedures:

- Initially cleaned of all foreign matter;
- Sanitized with a steam cleaner;

**OR**

- Initially cleaned of all foreign matter;
- Scrubbed with brushes in alconox solution;
- Triple rinsed with potable water; and
- Allowed to air dry.

## **10. Sample Containers**

The volumes and containers required for the sampling activities are included in pre-washed sample containers will be ordered directly from a laboratory or firm, which prepares the containers in accordance with EPA bottle washing procedures.

**Table 10-1**  
**Water Samples**

Type of Analysis	Type and Size of Container	Number of Containers and Sample Volume (per sample)	Preservation	Maximum Holding Time
Volatile Organics	40-ml glass vial with Teflon-backed septum	Two (2); fill completely, no air space	Cool to 4° C (ice in cooler), Hydrochloric acid to pH <2	7 days
Semivolatile Organics	1,000-ml amber glass jar	One (1); fill completely	Cool to 4° C (ice in cooler)	7/40 days
Pesticides	1,000-ml amber glass jar	One (1); fill completely	Cool to 4° C (ice in cooler)	7/40 days
PCBs	1,000-ml amber glass jar	One (1); fill completely	Cool to 4° C (ice in cooler)	7/40 days
Metals	500-ml polyethylene	One (1); fill completely	Cool to 4° C (Nitric acid to pH <2)	6 months

\* Holding time is starts at the time of sample collection.

*Note:* All sample bottles will be prepared in accordance with USEPA bottle washing procedures.

**TABLE 10-2**  
**Soil Samples**

Type of Analysis	Type and Size of Container	Number of Containers and Sample Volume (per sample)	Preservation	Maximum Holding Time
Volatile Organics	**40 mL preserved glass vials	**Three (3), fill with dedicated laboratory-provided syringe	Cool to 4° C (ice in cooler)	7 days
Volatile Organics, Semivolatile Organics, PCBs, and Pesticides	8-oz, glass jar with Teflon-lined cap	Two (2), fill as completely as possible (i.e., zero headspace)	Cool to 4° C (ice in cooler)	7 days
RCRA Characterization	8-oz. glass jar with Teflon-lined cap	One (1); fill completely	Cool to 4° C (ice in cooler)	Must be extracted within 10 days; analyzed with 30 days

\* Holding time is based on the times from verified time of sample collection.

\*\* Preservative and number of containers are laboratory-specific.

*Note:* All sample bottles will be prepared in accordance with USEPA bottle washing procedures.

## 11. Sample Custody

This section describes standard operating procedures for sample identification and chain-of-custody to be utilized for all field activities. The purpose of these procedures is to ensure that the quality of the samples is maintained during their collection, transportation, and storage through analysis. All chain-of-custody requirements comply with standard operating procedures indicated in EPA sample handling protocol.

Sample identification documents must be carefully prepared so that sample identification and chain-of-custody can be maintained and sample disposition controlled. Sample identification documents include:

- Field notebooks,
- Sample label,
- Custody seals, and
- Chain-of-custody records.

## 12. Chain-of-Custody

The primary objective of the chain-of-custody procedures is to provide an accurate written or computerized record that can be used to trace the possession and handling of a sample from collection to completion of all required analyses. A sample is in custody if it is:

- In someone's physical possession;
- In someone's view;
- Locked up; or
- Kept in a secured area that is restricted to authorized personnel.

### 12.1. Field Custody Procedures

- As few persons as possible should handle samples.
- Sample bottles will be obtained from approved laboratories. Coolers or boxes containing cleaned bottles should be sealed with a custody tape seal during transport to the field or while in storage prior to use.
- The sample collector is personally responsible for the care and custody of samples collected until they are transferred to another person or dispatched properly under chain-of-custody rules.
- The sample collector will record sample data in the notebook.

### 12.2. Sample Labels

Sample labels attached to or affixed around the sample container must be used to properly identify all samples collected in the field. The sample labels are to be placed on the bottles so as not to obscure any QC lot numbers on the bottles; sample information must be printed in a legible manner using waterproof ink (e.g., Sharpie). Field identification must be sufficient to enable cross-reference with the logbook. For chain-of-custody purposes, all QC samples are subject to exactly the same custodial procedures and documentation as "real" samples.

### 12.3. Transfer of Custody and Shipment

- The coolers in which the samples are packed must be accompanied by a chain-of-custody record. When transferring samples, the individuals relinquishing and receiving them must sign, date, and

note the time on the chain-of-custody record. This record documents sample custody transfer.

- Shipping containers must be sealed with custody seals for shipment to the laboratory. The method of shipment, name of courier, and other pertinent information are documented on the chain-of-custody record.
- All shipments must be accompanied by the chain-of-custody record identifying their contents. The original record accompanies the shipment. The other copies are distributed appropriately to the site manager.

#### **12.4. Chain-of-Custody Record**

The chain-of-custody record must be fully completed. Black carbon paper should be used where possible; however, copies of chain-of-custody prior to shipment are acceptable. The field technician is responsible for sample shipment to the appropriate laboratory for analysis. In addition, if samples are known to require rapid turnaround in the laboratory because of project time constraints or analytical concerns (e.g., extraction time or sample retention period limitations, etc.), the person completing the chain-of-custody record should note these constraints on the chain of custody.

#### **12.5. Laboratory Custody Procedures**

A designated sample custodian accepts custody of the shipped samples and verifies that the sample identification number matches that on the chain-of-custody record if required.

#### **12.6. Custody Seals**

Custody seals are preprinted adhesive-backed seals with security slots designed to break if the seals are disturbed. Sample shipping containers (coolers, etc., as appropriate) are sealed in as many places as necessary to ensure security. Seals must be signed and dated before use. Tape placed entirely around the cooler lid is also acceptable. On receipt at the laboratory, the custodian must check (and certify, by completing the package receipt log) that seals on boxes and bottles are intact. Strapping tape should be placed over the seals to ensure that seals are not accidentally broken during shipment.

### **13. Documentation**

#### **13.1. Sample Identification**

All containers of samples collected from a project will be identified by a unique identification number and placed on the sample label fixed to the sample container. An example identification system is below for reference:

XX-YY-O/D

- XX This set of initials indicates the specific sampling project
- YY These initials identify the sample location. Actual sample locations will be recorded in the task log.
- O/D An "O" designates an original sample; "D" identifies it as a duplicate.

Each sample will be labeled, chemically preserved, if required and sealed immediately after collection. To minimize handling of sample containers, labels will be filled out prior to sample collection. The sample label will be filled out using waterproof ink and will be firmly affixed to the sample containers and protected with Mylar tape. The sample label will give the following information:



- Name of sampler,
- Date and time of collection,
- Sample number,
- Analysis required,
- pH, and
- Preservation.

### **13.2. Daily Logs**

Daily logs and data forms are necessary to provide sufficient data and observations to enable participants to reconstruct event that occurred during the project and to refresh the memory of the field personnel if called upon to give testimony during legal proceedings. If possible, all daily logs will be kept in a bound waterproof notebook containing numbered pages or on a separate sheet. All entries will be made in waterproof ink, dated, and signed. No pages will be removed for any reason. Corrections will be made according to the procedures given at the end of this section.

The logs will include:

- Name of person making entry (signature).
- Names of team members on-site.
- Change in level of personal protection, and reasons for changes.
- Time spent collecting samples.
- Documentation on samples taken, including:
  - Sampling location and depth station numbers;
  - Sampling date and time, sampling personnel;
  - Type of sample (grab, composite, etc.); and
  - Sample matrix.
- On-site measurement data.
- Field observations and remarks.
- Weather conditions, wind direction, etc.
- Unusual circumstances or difficulties.
- Initials of person recording the information.

## **14. Corrections to Documentation**

### **14.1. Notebook**

As with any data logbooks, no pages will be removed for any reason. If corrections are necessary, these must be made by drawing a single line through the original entry (so that the original entry can still be read) and writing the corrected entry alongside. The correction must be initialed and dated. Most corrected errors will require a footnote explaining the correction.

### **14.2. Sampling Forms**

As previously stated, all sample identification labels, chain-of-custody records, and other forms must be written in waterproof ink. None of these documents are to be destroyed or thrown away, even if they are illegible or contain inaccuracies that require a replacement document.

If an error is made on a document assigned to one individual, that individual may make corrections simply by crossing a line through the error and entering the corrected information. The incorrect information should not be obliterated. Any subsequent error discovered on a document should be

corrected by the person who made the entry. All corrections must be initialed and dated.

### **14.3. Photographs**

Photographs will be taken as directed by the site manager or as required in the project plan. Documentation of a photograph is crucial to its validity as a representation of an existing situation. The following information will be noted in the photograph log:

- Date, time, location photograph was taken;
- Weather conditions; and
- Description of photograph taken.

All photos will be stored electronically and select photos will be included in photo logs as part of the final reporting for the project.

## **15. Sample Handling, Packaging, and Shipping**

The transportation and handling of samples must be accomplished in a manner that not only protects the integrity of the sample, but also prevents any detrimental effects due to the possible hazardous nature of samples. Regulations for packaging, marking, labeling, and shipping hazardous materials are promulgated by the United States Department of Transportation (DOT) in the Code of Federal Regulation, 49 CFR 171 through 177.

All chain-of-custody requirements must comply with standard operating procedures in the EPA sample handling protocol. All sample control and chain-of-custody procedures applicable to the Consultant are presented in the Field Personnel Chain-of-Custody Documentation and Quality Control Procedures Manual, January 1992.

### **15.1. Sample Packaging**

Samples must be packaged carefully to avoid breakage or contamination and must be shipped to the laboratory at proper temperatures. The following sample packaging requirements will be followed:

- Sample bottle lids must never be mixed. All sample lids must stay with the original containers.
- Shipping coolers must be partially filled with packing materials and ice when required, to prevent the bottles from moving during shipment.
- The sample bottles must be placed in the cooler with packaging material (e.g., plastic bubble wrap) in such a way as to ensure that they do not touch one another.
- The environmental samples are to be cooled as required by the analytical method.
- Any remaining space in the cooler should be filled with inert packing material. Under no circumstances should material such as sawdust, sand, etc., be used.
- A duplicate custody record and traffic reports, if required must be placed in a plastic bag on top of the packed cooler or taped to the bottom of the cooler lid. Custody seals are affixed to the sample cooler.

### **15.2. Shipping Containers**

Shipping containers are to be custody-sealed for shipment as appropriate. The container custody seal will consist of tape wrapped around the package at least twice and custody seals affixed in such a way that access to the container can be gained only by cutting the tape and breaking a seal.

Field personnel will make arrangements for transportation of samples to the lab. When custody is relinquished to a shipper, field personnel will telephone the lab custodian to inform him of the expected time of arrival of the sample shipment and to advise him of any time constraints on sample analysis. The lab must be notified as early in the week as possible, and in no case later than 3 p.m. (EST) on Thursday, regarding samples intended for Saturday delivery.

## **16. Calibration Procedures and Frequency**

All instruments and equipment used during sampling and analysis will be operated, calibrated, and maintained according to the manufacturer's guidelines and recommendations as well as criteria set forth in the applicable analytical methodology references. Operation, calibration, and maintenance will be performed by personnel properly trained in these procedures. Documentation of all routine and special maintenance and calibration information will be maintained in an appropriate logbook or reference file, and will be available on request. Section 18 lists the major instruments to be used for sampling and analysis. Brief descriptions of calibration procedures for major field and laboratory instruments follow.

## **17. Field Instrumentation**

### **17.1. Photovac/MiniRae Photoionization Detector (PID)**

Standard operating procedures for the PID require that routine maintenance and calibration be performed every six months. Field calibration will be performed on a daily basis. The packages used for calibration are non-toxic analyzed gas mixtures available in pressurized containers. All calibration procedures will follow the manufacturer recommendations.

### **17.2. Conductance, Temperature, and pH Tester**

Temperature and conductance instruments are factory calibrated. Temperature accuracy can be checked against an NBS certified thermometer prior to field use if necessary. Conductance accuracy may be checked with a solution of known conductance and recalibration can be instituted, if necessary.

### **17.3. O<sub>2</sub>/Explosimeter**

The specific meter used at the time of work shall be calibrated in accordance with manufacturer recommendations. The model 260 O<sub>2</sub>/ Explosimeter is described below.

The primary maintenance item of the Model 260 is the rechargeable 2.4 volt (V) nickel cadmium battery. The battery is recharged by removing the screw cap covering receptacle and connecting one end of the charging cable to the instrument and the other end to a 115V AC outlet.

The battery can also be recharged using a 12V DC source. An accessory battery charging cable is available, one end of which plugs into the Model 260 while the other end is fitted with an automobile cigarette lighter plug.

Recommended charging time is 16 hours.

Before the calibration of the combustible gas indicator can be checked, the Model 260 must be in operating condition. Calibration check-adjustment is made as follows:

1. Attach the flow control to the recommended calibration gas tank.
2. Connect the adapter-hose to the flow control.
3. Open flow control valve.
4. Connect the adapter-hose fitting to the inlet of the instrument; after about 15 seconds the LEL meter pointer should be stable and within the range specified on the calibration sheet accompanying the calibration equipment. If the meter pointer is not in the correct range, stop the flow; remove the right hand side cover. Turn on the flow and adjust the "S" control with a small screwdriver to obtain a reading as specified on the calibration sheet.
5. Disconnect the adapter-hose fitting from the instrument.
6. Close the flow control valve.
7. Remove the adapter-hose from the flow control.
8. Remove the flow control from the calibration gas tank.
9. Replace the side cover on the Model 260.

**CAUTION:** Calibration gas tank contents are under pressure. Use no oil, grease, or flammable solvents on the flow control or the calibration gas tank. Do not store calibration gas tank near heat or fire or in rooms used for habitation. Do not throw in fire, incinerate, or puncture. Keep out of reach of children. It is illegal and hazardous to refill this tank. Do not attach the calibration gas tank to any other apparatus than described above. Do not attach any gas tank other than MSA calibration tanks to the regulator.

#### **17.4. Nephelometer (Turbidity Meter)**

LaMotte 2020WE Turbidity Meter is calibrated before each use. The default units are set to NTU and the default calibration curve is formazin. A 0 NTU Standard (Code 1480) is included with the meter. To calibrate, rinse a clean tube three times with the blank. Fill the tube to the fill line with the blank. Insert the tube into the chamber, close the lid, and select "scan blank".

**TABLE 17-4**  
**List of Major Instruments**  
**for Sampling and Analysis**

- MSA 360 O<sub>2</sub> /Explosimeter
- Geotech Geopump II AC/DC Peristaltic Pump
- QED MP50 Controller and QED Sample Pro MicroPurge Bladder Pump
- Horiba U-53 Multi-Parameter Water Quality Meter
- LaMotte 2020WE Turbidity Meter
- EM-31 Geomics Electromagnetic Induction Device
- Mini Rae Photoionization Detectors (3,000, ppbRAE, etc.)



## 18. Laboratory Quality Controls

QC data are necessary to determine precision and accuracy and to demonstrate the absence of interferences and/or contamination of field equipment. Field duplicates and field blanks will be analyzed by the laboratory as samples and will not necessarily be identified to the laboratory as duplicates or blanks. For each matrix, field duplicates will be provided at a rate of one per 20 samples collected or one per shipment, whichever is greater. Field blanks which consist of trip blank and field and will be provided at a rate of one per 20 samples collected for each parameter group, or one per shipment, whichever is greater.

Calculations will be performed for recoveries and standard deviations along with review of retention times, response factors, chromatograms, calibration, tuning, and all other QC information generated. QC records will be retained and results reported with sample data and utilized by the Data Validator.

### 18.1. Field Blanks

Various types of blanks are used to check the cleanliness of field handling methods. The following types of blanks may be used: the trip blank, the routine field blank, and the field equipment blank. They are analyzed in the laboratory as samples, and their purpose is to assess the sampling and transport procedures as possible sources of sample contamination. Field staff may add blanks if field circumstances are such that they consider normal procedures are not sufficient to prevent or control sample contamination, or at the direction of the project manager. Rigorous documentation of all blanks in the site logbooks is mandatory.

- **Routine Field Blanks** or bottle blanks are blank samples prepared in the field to assess ambient field conditions. They will be prepared by filling empty sample containers with deionized water and any necessary preservatives. They will be handled like a sample and shipped to the laboratory for analysis.
- **Trip Blanks** are similar to routine field blanks with the exception that they are **not** exposed to field conditions. Their analytical results give the overall level of contamination from everything except ambient field conditions. Trip blanks are typically collected with every batch of water samples for volatile organic analysis. If utilized, each trip blank will be prepared by filling a 40-ml vial with deionized water prior to the sampling trip, transported to the site, handled like a sample, and returned to the laboratory for analysis without being opened in the field.
- **Field Equipment Blanks** are blank samples (sometimes called transfer blanks or rinsate blanks) designed to demonstrate that sampling equipment has been properly prepared and cleaned before field use, and that cleaning procedures between samples are sufficient to minimize cross contamination. If a sampling team is familiar with a particular site, they may be able to predict which areas or samples are likely to have the highest concentration of contaminants. Unless other constraints apply, these samples should be taken last to avoid excessive contamination of sampling equipment.

### 18.2. Field Duplicates

Field duplicate samples consist of a set of two samples collected independently at a sampling location during a single sampling event. In some instances the field duplicate can be a blind duplicate, i.e., indistinguishable from other analytical samples so that personnel performing the analyses are not able to

determine which samples are field duplicates. Field duplicates are designed to assess the consistency of the overall sampling and analytical system.

### 18.3. Representativeness

Careful choice and use of appropriate methods in the field will ensure that samples are representative. This is relatively easy with water or air samples since these components are homogeneously dispersed. In soil and sediment, contaminants are unlikely to be evenly distributed, and thus it is important for the sampler and analyst to exercise good judgment when removing a sample.

NYSDEC DER-10 DUSR requirements are as follows:

- a) Background. The Data Usability Summary Report (DUSR) provides a thorough evaluation of analytical data with the primary objective to determine whether or not the data, as presented, meets the site/project specific criteria for data quality and data use.
  - 1. The development of the DUSR must be carried out by an experienced environmental scientists, such as the project Quality Assurance Officer, who is fully capable of conducting a full data validation. The DUSR is developed from:
    - i. A DEC ASP Category B Data Deliverable; or
    - ii. The *USEPA Contract Laboratory Program National Functional Data Validation Standard Operating Procedures for Data Evaluation and Validation*.
  - 2. The DUSR and the data deliverables package will be reviewed by DER staff. If full third party data validation is found to be necessary (e.g. pending litigation) this can be carried out at a later date on the same data package used for the development of the DUSR.
- b) Personnel Requirements. The person preparing the DUSR must be pre-approved by DER. The person must submit their qualifications to DER documenting experience in analysis and data validation. Data validator qualifications are available on DEC's website identified in the table of contents.
- c) Preparation of a DUSR. The DUSR is developed by reviewing and evaluating the analytical data package. In order for the DUSR to be acceptable, during the course of this review the following questions applicable to the analysis being reviewed must be answered in the affirmative.
  - 1. Is the data package complete as defined under the requirements for the most current DEC ASP Category B or USEPA CLP data deliverables?
  - 2. Have all holding times been met?
  - 3. Do all the QC data; blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, spike recoveries, replicate analyses, laboratory controls and sample data fall within the protocol required limits and specifications?
  - 4. Have all of the data been generated using established and agreed upon analytical protocols?
  - 5. Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms?
  - 6. Have the correct data qualifiers been used and are they consistent with the most current DEC ASP?
  - 7. Have any quality control (QC) exceedances been specifically noted in the DUSR and have the corresponding QC summary sheets from the data package been attached to the DUSR?

- d) Documenting the validation process in the DUSR. Once the data package has been reviewed and the above questions asked and answered the DUSR proceeds to describe the samples and the analytical parameters, including data deficiencies, analytical protocol deviations and quality control problems are identified and their effect on the data is discussed.

## **APPENDIX G– HEALTH AND SAFETY PLAN**

# Site Health and Safety Plan

Location:

Canandaigua Multi-Brownfield Site  
Lakeshore Drive and Booth Street  
Canandaigua, New York 14424

Prepared For:

LeChase Construction  
205 Indigo Creek Drive  
Rochester, New York 14626

July 2014



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## SITE HEALTH AND SAFETY PLAN

**Project Title:** Canandaigua Multi-Brownfield Site

**Project Number:** 214577


**Project Location (Site):** 25 Booth Street, 24, 26, 28, 30, 130, 150  
Lakeshore Drive, Canandaigua New York

**Environmental Director:** Gregory Senecal, CHMM

**Project Manager:** Daniel P. Noll, P.E.

**Plan Review Date:** July 15, 2014

**Plan Approval Date:** July 15, 2014

**Plan Approved By:**   
Mr. Richard Rote, CIH

**Site Safety Supervisor:** Mike Pelychaty

**Site Contact:** To Be Determined

**Safety Director:** Rick Rote, CIH

**Proposed Date(s) of Field Activities:** To Be Determined

**Site Conditions:** 15.5 acres, relatively level on the North Shore of Canandaigua Lake

**Site Environmental Information Provided By:**

- Remedial Investigation Report, Stantec April 2014
- Interim Remedial Measures Work Plan, Stantec April 2014
- Interim Site Management Plan, Stantec April 2014

**Air Monitoring Provided By:** LaBella Associates, P.C.

**Site Control Provided By:** Contractor(s)

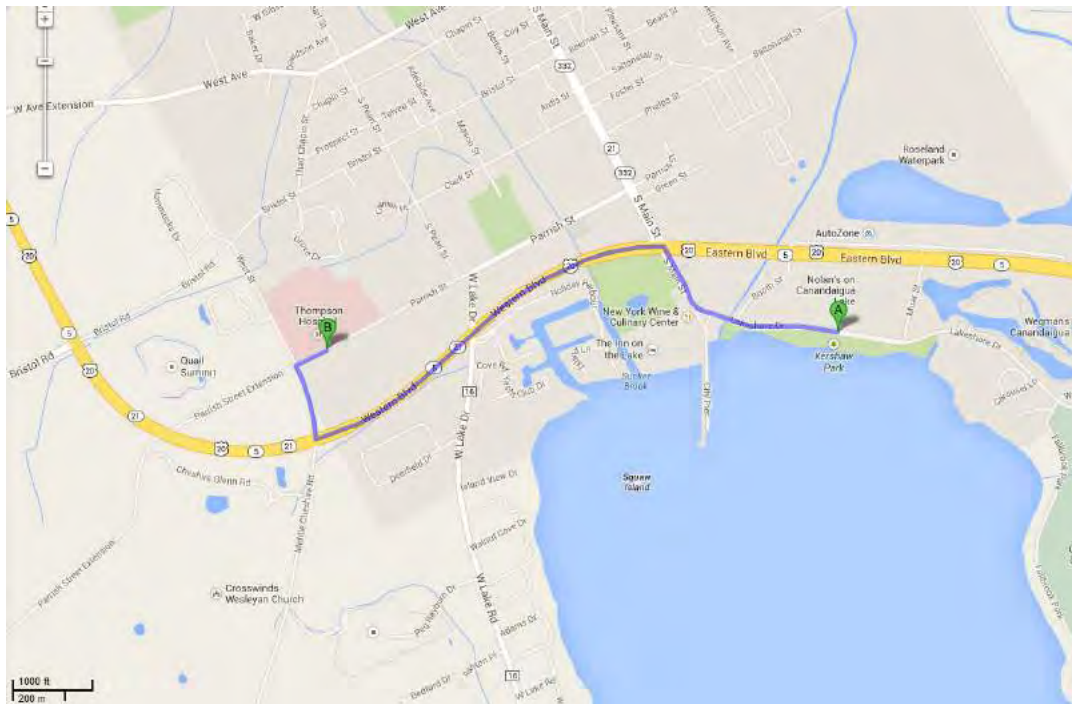
## EMERGENCY CONTACTS

	<b>Name</b>	<b>Phone Number</b>
Ambulance:	As Per Emergency Service	911
Hospital Emergency:	Thompson Hospital	585-396-6000
Poison Control Center:	Finger Lakes Poison Control	585-275-3232
Police (local, state):	Monroe County Sheriff	911
Fire Department:	Pittsford Fire Department	911
Site Contact:	To Be Determined	Direct: Cell:
Agency Contact:	NYSDEC – James Craft NYSDOH Finger Lakes Poison Control MCDOH	585-226-5352 585-423-8140 1-800-222-1222 585-753-2991
Environmental Director:	Greg Senecal, CHMM	Direct: 585-295-6243 Cell: 585-752-6480
Project Manager:	Daniel Noll, P.E.	Direct: 585-295-6611 Cell: 585-301-8458
Site Safety Supervisor:	Mike Pelychaty	Direct: 585-295-6253 Cell: 585-451-6225
Safety Director	Rick Rote, CIH	Direct: 585-295-6241

## MAP AND DIRECTIONS TO THE MEDICAL FACILITY - THOMPSON HOSPITAL

**Total Est. Time:** 4 minutes **Total Est. Distance:** 1.7 miles

- |           |  |           |
|-----------|--|-----------|
| <b>1:</b> | Start out going WEST on Lakeshore Drive                    | 0.4 miles |
| <b>2:</b> | Turn RIGHT onto S. Main Street                             | 0.2 miles |
| <b>3:</b> | Turn LEFT onto NY-21 S/US-20 W/Western Blvd.               | 1.0 miles |
| <b>4:</b> | Take the first RIGHT onto Middle Cheshire Rd.              | 0.2 miles |
| <b>5:</b> | Turn RIGHT onto Parrish St.                                | 433 ft    |
| <b>6:</b> | <b>End at 350 Parrish Street<br/>Canandaigua, NY 14424</b> |           |
- 



## **1.0 Introduction**

The purpose of this Health and Safety Plan (HASP) is to provide guidelines for responding to potential health and safety issues that may be encountered during the Interim Remedial Measures Work Plan and Design Phase Investigation at the Canandaigua Multi-Brownfield Site located at 25 Booth Street, 24, 26, 28, 30, 130, and 158 Lakeshore Drive in the City of Canandaigua, Ontario County, New York. This HASP only reflects the policies of LaBella Associates P.C. The requirements of this HASP are applicable to all approved LaBella personnel at the work site. This document's project specifications and the Community Air Monitoring Plan (CAMP) are to be consulted for guidance in preventing and quickly abating any threat to human safety or the environment. The provisions of the HASP do not replace or supersede any regulatory requirements of the USEPA, NYSDEC, OSHA or any other regulatory body.

## **2.0 Responsibilities**

This HASP presents guidelines to minimize the risk of injury to project personnel, and to provide rapid response in the event of injury. The HASP is applicable only to activities of approved LaBella personnel and their authorized visitors. The Project Manager shall implement the provisions of this HASP for the duration of the project. It is the responsibility of LaBella employees to follow the requirements of this HASP, and all applicable company safety procedures.

## **3.0 Activities Covered**

The activities covered under this HASP are limited to the following:

- ☐ Management of environmental investigation and remediation activities
- ☐ Environmental Monitoring
- ☐ Collection of samples
- ☐ Management of excavated soil and fill.

## **4.0 Work Area Access and Site Control**

The contractor(s) will have primary responsibility for work area access and site control.

## **5.0 Potential Health and Safety Hazards**

This section lists some potential health and safety hazards that project personnel may encounter at the project site and some actions to be implemented by approved personnel to control and reduce the associated risk to health and safety. This is not intended to be a complete listing of any and all potential health and safety hazards. New or different hazards may be encountered as site environmental and site work conditions change. The suggested actions to be taken under this plan are not to be substituted for good judgment on the part of project personnel. At all times, the Site Safety Officer has responsibility for site safety and his or her instructions must be followed.



### 5.1 *Hazards Due to Heavy Machinery*

#### **Potential Hazard:**

Heavy machinery including trucks, excavators, backhoes, etc will be in operation at the site. The presence of such equipment presents the danger of being struck or crushed. Use caution when working near heavy machinery.

#### **Protective Action:**

Make sure that operators are aware of your activities, and heed operator's instructions and warnings. Wear bright colored clothing and walk safe distances from heavy equipment. A hard hat, safety glasses and steel toe shoes are required.

### 5.2 *Excavation Hazards*

#### **Potential Hazard:**

Excavations and trenches can collapse, causing injury or death. Edges of excavations can be unstable and collapse. Toxic and asphyxiant gases can accumulate in confined spaces and trenches. Excavations that require working within the excavation will require air monitoring in the breathing zone (refer to Section 9.0).

Excavations left open create a fall hazard which can cause injury or death.

#### **Protective Action:**

Personnel must receive approval from the Project Manager to enter an excavation for any reason. Subsequently, approved personnel are to receive authorization for entry from the Site Safety Officer. Approved personnel are not to enter excavations over 4 feet in depth unless excavations are adequately sloped. Additional personal protective equipment may be required based on the air monitoring.

Personnel should exercise caution near all excavations at the site as it is expected that excavation sidewalls will be unstable.

Fencing and/or barriers accompanied by "no trespassing" signs should be placed around all excavations when left open for any period of time when work is not being conducted.

### 5.3 *Cuts, Punctures and Other Injuries*

#### **Potential Hazard:**

In any excavation or construction, work site there is the potential for the presence of sharp or jagged edges on rock, metal materials, and other sharp objects. Serious cuts and punctures can result in loss of blood and infection.

#### **Protective Action:**

The Project Manager is responsible for making First Aid supplies available at the work site to treat minor injuries. The Site Safety Officer is responsible for arranging the transportation of authorized on-site personnel to medical facilities when First Aid treatment is not sufficient. Do not move seriously injured workers. All injuries requiring treatment are to be reported to the Project Manager. Serious injuries are to be reported immediately to the Site Safety Officer.

#### 5.4 *Injury Due to Exposure of Chemical Hazards*

##### **Potential Hazards:**

Volatile organic vapors from petroleum products, pesticides or other chemicals may be encountered during excavation activities at the project work site. Inhalation of high concentrations of organic vapors can cause headache, stupor, drowsiness, confusion and other health effects. Skin contact with VOCs and pesticides can cause irritation, chemical burn, or dermatitis.

##### **Protective Action:**

The presence of organic vapors may be detected by their odor and by monitoring instrumentation. Approved employees will not work in environments where hazardous concentrations of organic vapors are present. Air monitoring (refer to Section 9.0) of the work area will be performed at least every 60 minutes or more often using a Photoionization Detector (PID). Personnel are to leave the work area whenever PID measurements of ambient air exceed 25 ppm consistently for a 5 minute period. In the event that sustained total volatile organic compound (VOC) readings of 25 ppm or benzene readings of 1.0 ppm are encountered personnel should upgrade personal protective equipment to Level C (refer to Section 8.0) and an Exclusion Zone should be established around the work area to limit and monitor access to this area (refer to Section 6.0).

#### 5.5 *Injuries due to extreme hot or cold weather conditions*

##### **Potential Hazards:**

Extreme hot weather conditions can cause heat exhaustion, heat stress and heat stroke or extreme cold weather conditions can cause hypothermia.

##### **Protective Action:**

Precaution measures should be taken such as dress appropriately for the weather conditions and drink plenty of fluid. If personnel should suffer from any of the above conditions, proper techniques should be taken to cool down or heat up the body and taken to the nearest hospital if needed.

### **6.0 Work Zones**

In the event that conditions warrant establishing various work zones (i.e., based on hazards - Section 5.4), the following work zones should be established:

##### **Exclusion Zone (EZ):**

The EZ will be established in the immediate vicinity and adjacent downwind direction of site activities that elevate breathing zone VOC concentrations to unacceptable levels based on field screening. These site activities include contaminated soil excavation and soil sampling activities. If access to the site is required to accommodate non-project related personnel then an EZ will be established by constructing a barrier around the work area (yellow caution tape and/or construction fencing). The EZ barrier shall encompass the work area and any equipment staging/soil staging areas necessary to perform the associated work. The contractor(s) will be responsible for establishing the EZ and limiting access to approved personnel. Depending on the condition for establishing the EZ, access to the EZ may require adequate PPE (e.g., Level C).

**Contaminant Reduction Zone (CRZ):**

The CRZ will be the area where personnel entering the EZ will don proper PPE prior to entering the EZ and the area where PPE may be removed. The CRZ will also be the area where decontamination of equipment and personnel will be conducted as necessary.

## **7.0 Decontamination Procedures**

Upon leaving the work area, approved personnel shall decontaminate footwear as needed. Under normal work conditions, detailed personal decontamination procedures will not be necessary. Work clothing may become contaminated in the event of an unexpected splash or spill or contact with a contaminated substance. Minor splashes on clothing and footwear can be rinsed with clean water. Heavily contaminated clothing should be removed if it cannot be rinsed with water. Personnel assigned to this project should be prepared with a change of clothing whenever on site.

Personnel will use the contractor's disposal container for disposal of PPE.

## **8.0 Personal Protective Equipment**

Generally, site conditions at this work site require level of protection of Level D or modified Level D. However, air monitoring will be conducted to determine if up-grading to Level C PPE is required (refer to Section 9.0). Descriptions of the typical safety equipment associated with Level D and Level C are provided below:

**Level D:**

Hard hat, safety glasses, rubber nitrile sampling gloves, steel toe construction grade boots, etc.

**Level C:**

Level D PPE and full or ½-face respirator and tyvek suit (if necessary). *[Note: Organic vapor cartridges are to be changed after each 8-hours of use or more frequently.]*

## **9.0 Air Monitoring**

According to 29 CFR 1910.120(h), air monitoring shall be used to identify and quantify airborne levels of hazardous substances and health hazards in order to determine the appropriate level of employee protection required for personnel working onsite. Air monitoring will consist at a minimum of the procedure listed below. Air monitoring instruments will be calibrated and maintained in accordance with the manufacturer's specifications.

The Air Monitor will utilize a photoionization Detector (PID) to screen the ambient air in the work areas (excavation, soil staging, and soil grading areas) for total Volatile Organic Compounds (VOCs) and a DustTrak tm Model 8520 aerosol monitor or equivalent for measuring particulates. Work area ambient air will generally be monitored in the work area and downwind of the work area. Air monitoring of the work areas and downwind of the work areas will be performed at least every 60 minutes or more often using a PID and the DustTrak meter.

If sustained PID readings of greater than 25 ppm or benzene readings greater than 1.0 ppm are recorded in the breathing zone then either personnel are to leave the work area until satisfactory readings are obtained or approved personnel may re-enter the work areas wearing at a minimum a ½ face respirator with organic vapor cartridges for an 8-hour duration (i.e., upgrade to Level C PPE). Organic vapor cartridges are to be changed after each 8-hours of use or more frequently, if necessary. If PID readings are sustained, in the work area, at levels above 50 ppm for a 5 minute average, work will be stopped immediately until safe levels of VOCs are encountered or additional PPE will be required (i.e., Level B).

If downwind PID measurements reach or exceed 25 ppm consistently for a 5 minute period downwind of the work area, PID readings will be taken within the buildings (if occupied) on Site to ensure that the vapors are not penetrating any occupied building and effecting the personnel working within. If the PID measurements reach or exceed 25 ppm within the nearby buildings, the personnel should be evacuated via a route in which they would not encounter the work area. The building should then be ventilated until the PID measurements within the building are at or below background levels.

## **10.0 Emergency Action Plan**

In the event of an emergency, employees are to turn off and shut down all powered equipment and leave the work areas immediately. Employees are to walk or drive out of the Site as quickly as possible and wait at the assigned 'safe area'. Follow the instructions of the Site Safety Officer.

Employees are not authorized or trained to provide rescue and medical efforts. Rescue and medical efforts will be provided by local authorities.

## **11.0 Medical Surveillance**

Medical surveillance will be provided to all employees who are injured due to overexposure from an emergency incident involving hazardous substances at this site.

## **12.0 Employee Training**

Personnel who are not familiar with this site plan will receive training on its entire content and organization before working at the Site.

Individuals involved with the remedial investigation must be 40-hour OSHA HAZWOPER trained with current 8-hour refresher certification.

I:\LeChase Construction\214577 - North Shore RCP Interim Remedial Measures\Reports\Design Phase Investigation\Attachment 2- HASP.doc

**Table 1**  
**Exposure Limits and Recognition Qualities**

<b>Compound</b>	<b>PEL-TWA (ppm)(b)(d)</b>	<b>TLV-TWA (ppm)(c)(d)</b>	<b>LEL (%)(e)</b>	<b>UEL (%)(f)</b>	<b>IDLH (ppm)(g)(d)</b>	<b>Odor</b>	<b>Odor Threshold (ppm)</b>	<b>Ionization Potential</b>
Acetone	750	500	2.15	13.2	20,000	Sweet	4.58	9.69
Anthracene	.2	.2	NA	NA	NA	Faint aromatic	NA	NA
Benzene	1	0.5	1.3	7.9	3000	Pleasant	8.65	9.24
Benzo (a) pyrene (coal tar pitch volatiles)	0.2	0.1	NA	NA	700	NA	NA	NA
Benzo (a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (b) Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (g,h,i)perylene	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (k) Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA	NA	NA	NA	10.88
Carbon Disulfide	20	1	1.3	50	500	Odorless or strong garlic type	.096	10.07
Chlorobenzene	75	10	1.3	9.6	2,400	Faint almond	0.741	9.07
Chloroform	50	2	NA	NA	1,000	ethereal odor	11.7	11.42
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethylene	200	200	9.7	12.8	400	Acrid	NA	9.65
1,2-Dichlorobenzene	50	25	2.2	9.2		Pleasant		9.07
Ethylbenzene	100	100	1.0	6.7	2,000	Ether	2.3	8.76
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	500	50	12	23	5,000	Chloroform- like	10.2	11.35
Naphthalene	10, Skin	10	0.9	5.9	250	Moth Balls	0.3	8.12
n-propylbenzene	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethane	NA	NA	NA	NA	NA	Sweet	NA	NA
Toluene	100	100	0.9	9.5	2,000	Sweet	2.1	8.82
Trichloroethylene	100	50	8	12.5	1,000	Chloroform	1.36	9.45
1,2,4- Trimethylbenzene	NA	25	0.9	6.4	NA	Distinct	2.4	NA
1,3,5- Trimethylbenzene	NA	25	NA	NA	NA	Distinct	2.4	NA



Vinyl Chloride	1	1	NA	NA	NA	NA	NA	NA
Xylenes (o,m,p)	100	100	1	7	1,000	Sweet	1.1	8.56
<i>Metals</i>								
Arsenic	0.01	0.2	NA	NA	100, Ca	Almond	NA	NA
Cadmium	0.2	0.5	NA	NA			NA	NA
Chromium	1	0.5	NA	NA			NA	NA
Lead	0.05	0.15	NA	NA	700		NA	NA
Mercury	0.05	0.05	NA	NA	28	Odorless	NA	NA
Selenium	0.2	0.02	NA	NA	Unknown		NA	NA
<i>Pesticides</i>								
Aldrin	0.25, skin	0.25, skin	NA	NA	100, Ca	Mild chemical odor	NA	NA
alpha-BHC	0.5 skin	0.5 skin	NA	NA	50	Musty	NA	NA
delta-BHC	0.5 skin	0.5 skin	NA	NA	50	Musty	NA	NA
alpha-Chlordane	0.5, skin	0.5, skin	NA	NA	500, Ca	Chlorine	NA	NA
Trans-Chlordane	0.5, skin	0.5, skin	NA	NA	500, Ca	Chlorine	NA	NA
DDE	NA	NA	NA	NA	NA	NA	NA	NA
DDT	1, skin	1, skin	NA	NA	Ca	Slight aromatic	NA	NA
Dieldrin	0.25, skin	0.25, skin	NA	NA	50, Ca	Mild chemical	NA	NA
Endosulfan I	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	0.1, skin	0.1, skin	NA	NA	2	Mild chemical	NA	NA
Endrin Aldehyde	0.1, skin	0.1, skin	NA	NA	2	Mild chemical	NA	NA
Endrin Ketone	0.1, skin	0.1, skin	NA	NA	2	Mild chemical	NA	NA
Heptachlor Epoxide	NA	NA	NA	NA	NA	NA	NA	NA
Lindane	0.5, skin	0.5, skin	NA	NA	50	Musty	NA	NA
Methoxychlor	15	15	NA	NA	5000, Ca	Fruity	NA	NA

- (a) Skin = Skin Absorption  
(b) OSHA-PEL Permissible Exposure Limit (flame weighted average, 8-hour): NIOSH Guide, June 1990  
(c) ACGIH – 8 hour time weighted average from Threshold Limit Values and Biological Exposure Indices for 2003.  
(d) Metal and pesticide compounds in mg/m<sup>3</sup>  
(e) Lower Exposure Limit (%)  
(f) Upper Exposure Limit (%)  
(g) Immediately Dangerous to Life or Health Level: NIOSH Guide, June 1990.

**Notes:**

- All values are given in parts per million (PPM) unless otherwise indicated.
- Ca = Possible Human Carcinogen, no IDLH information.

## APPENDIX 1A

### New York State Department of Health Generic Community Air Monitoring Plan

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 volatile organic compounds (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 NYSDEC/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. 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.

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

All 15-minute readings must be recorded and be available for State (DEC and DOH) 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.

- If the downwind PM-10 particulate level is 100 micrograms per cubic meter ( $\text{mcg}/\text{m}^3$ ) 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  $\text{mcg}/\text{m}^3$  above the upwind level and provided that no visible dust is migrating from the work area.
- If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150  $\text{mcg}/\text{m}^3$  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  $\text{mcg}/\text{m}^3$  of the upwind level and in preventing visible dust migration.

All readings must be recorded and be available for State (DEC and DOH) personnel to review.

**APPENDIX H**  
**SITE MANAGEMENT FORMS**

 <p><b>LABELLA</b> Associates, D.P.C.</p> <p>300 State Street Rochester, New York 14614 Phone: (585) 454-6110 Fax: (585) 454-3066</p>	<b>SITE-WIDE INSPECTION FORM</b>	
	Project Name: NYSDEC Site No. C835025	
	Location: Canandaigua Multi-Brownfield Site	
	Project No.:	
	Inspected By:	
	Date of Inspection:	
Weather Conditions:		

1. GENERAL SITE CONDITIONS

2. COVER SYSTEM OBSERVATIONS

3. SSDS INSPECTION (COMPLETE 1 PER SYSTEM)

BUILDING/ SSDS			
LOCATION			
Sub-Slab Depressurization System - Fan #1:		Sub-Slab Depressurization System - Fan #2:	
Operational -		Operational -	
Vacuum Gauge Reading (inches of water) -		Vacuum Gauge Reading (inches of water) -	
Alarm Check -		Alarm Check -	
SSDS Piping Check – Damage? – YES/NO			
SSDS Fan Check – Damage? – YES/NO			

BUILDING/ LOCATION			
Sub-Slab Depressurization System - Fan #1:		Sub-Slab Depressurization System - Fan #2:	
Operational -		Operational -	
Vacuum Gauge Reading (inches of water) -		Vacuum Gauge Reading (inches of water) -	
Alarm Check -		Alarm Check -	
SSDS Piping Check – Damage? – YES/NO			
SSDS Fan Check – Damage? – YES/NO			



BUILDING/ LOCATION_____			
Sub-Slab Depressurization System - Fan #1:		Sub-Slab Depressurization System - Fan #2:	
Operational -		Operational -	
Vacuum Gauge Reading (inches of water) -		Vacuum Gauge Reading (inches of water) -	
Alarm Check -		Alarm Check -	
SSDS Piping Check – Damage? – YES/NO			
SSDS Fan Check – Damage? – YES/NO			

BUILDING/ LOCATION_____			
Sub-Slab Depressurization System - Fan #1:		Sub-Slab Depressurization System - Fan #2:	
Operational -		Operational -	
Vacuum Gauge Reading (inches of water) -		Vacuum Gauge Reading (inches of water) -	
Alarm Check -		Alarm Check -	
SSDS Piping Check – Damage? – YES/NO			
SSDS Fan Check – Damage? – YES/NO			

BUILDING/ LOCATION_____			
Sub-Slab Depressurization System - Fan #1:		Sub-Slab Depressurization System - Fan #2:	
Operational -		Operational -	
Vacuum Gauge Reading (inches of water) -		Vacuum Gauge Reading (inches of water) -	
Alarm Check -		Alarm Check -	
SSDS Piping Check – Damage? – YES/NO			
SSDS Fan Check – Damage? – YES/NO			

BUILDING/ LOCATION_____			
Sub-Slab Depressurization System - Fan #1:		Sub-Slab Depressurization System - Fan #2:	
Operational -		Operational -	
Vacuum Gauge Reading (inches of water) -		Vacuum Gauge Reading (inches of water) -	
Alarm Check -		Alarm Check -	
SSDS Piping Check – Damage? – YES/NO			
SSDS Fan Check – Damage? – YES/NO			

BUILDING/ LOCATION_____			
Sub-Slab Depressurization System - Fan #1:		Sub-Slab Depressurization System - Fan #2:	
Operational -		Operational -	
Vacuum Gauge Reading (inches of water) -		Vacuum Gauge Reading (inches of water) -	
Alarm Check -		Alarm Check -	
SSDS Piping Check – Damage? – YES/NO			
SSDS Fan Check – Damage? – YES/NO			

BUILDING/ LOCATION_____			
Sub-Slab Depressurization System - Fan #1:		Sub-Slab Depressurization System - Fan #2:	
Operational -		Operational -	
Vacuum Gauge Reading (inches of water) -		Vacuum Gauge Reading (inches of water) -	
Alarm Check -		Alarm Check -	
SSDS Piping Check – Damage? – YES/NO			
SSDS Fan Check – Damage? – YES/NO			

4. ADDITIONAL OBSERVATIONS/NOTES

## Summary of Green Remediation Metrics for Site Management

Site Name: \_\_\_\_\_ Site Code: \_\_\_\_\_  
Address: \_\_\_\_\_ City: \_\_\_\_\_  
State: \_\_\_\_\_ Zip Code: \_\_\_\_\_ County: \_\_\_\_\_

### Initial Report Period (Start Date of period covered by the Initial Report submittal)

Start Date: \_\_\_\_\_

### Current Reporting Period

Reporting Period From: \_\_\_\_\_ To: \_\_\_\_\_

### Contact Information

Preparer's Name: \_\_\_\_\_ Phone No.: \_\_\_\_\_

Preparer's Affiliation: \_\_\_\_\_

**I. Energy Usage:** Quantify the amount of energy used directly on-site and the portion of that derived from renewable energy sources.

	Current Reporting Period	Total to Date
Fuel Type 1 (e.g. natural gas (cf))		
Fuel Type 2 (e.g. fuel oil, propane (gals))		
Electricity (kWh)		
<b>Of that Electric usage, provide quantity:</b>		
Derived from renewable sources (e.g. solar, wind)		
<b>Other energy sources</b> (e.g. geothermal, solar thermal (Btu))		

*Provide a description of all energy usage reduction programs for the site in the space provided on Page 3.*

**II. Solid Waste Generation:** Quantify the management of solid waste generated on-site.

	Current Reporting Period (tons)	Total to Date (tons)
<b>Total waste generated on-site</b>		
OM&M generated waste		
<b>Of that total amount, provide quantity:</b>		
Transported off-site to landfills		
Transported off-site to other disposal facilities		
Transported off-site for recycling/reuse		
Reused on-site		

*Provide a description of any implemented waste reduction programs for the site in the space provided on Page 3.*

**III. Transportation/Shipping:** Quantify the distances travelled for delivery of supplies, shipping of laboratory samples, and the removal of waste.

	<b>Current Reporting Period (miles)</b>	<b>Total to Date (miles)</b>
Standby Engineer/Contractor		
Laboratory Courier/Delivery Service		
Waste Removal/Hauling		

*Provide a description of all mileage reduction programs for the site in the space provided on Page 3. Include specifically any local vendor/services utilized that are within 50 miles of the site.*

**IV. Water Usage:** Quantify the volume of water used on-site from various sources.

	<b>Current Reporting Period (gallons)</b>	<b>Total to Date (gallons)</b>
Total quantity of water used on-site		
<b>Of that total amount, provide quantity:</b>		
Public potable water supply usage		
Surface water usage		
On-site groundwater usage		
Collected or diverted storm water usage		

*Provide a description of any implemented water consumption reduction programs for the site in the space provided on Page 3.*

**V. Land Use and Ecosystems:** Quantify the amount of land and/or ecosystems disturbed and the area of land and/or ecosystems restored to a pre-development condition (i.e. Green Infrastructure).

	<b>Current Reporting Period (acres)</b>	<b>Total to Date (acres)</b>
Land disturbed		
Land restored		

*Provide a description of any implemented land restoration/green infrastructure programs for the site in the space provided on Page 3.*

<b>Description of green remediation programs reported above</b> (Attach additional sheets if needed)
Energy Usage:
Waste Generation:
Transportation/Shipping:
Water usage:
Land Use and Ecosystems:
Other:

<b>CERTIFICATION BY CONTRACTOR</b> I, _____ ( <b>Name</b> ) do hereby certify that I am _____ ( <b>Title</b> ) of the Company/Corporation herein referenced and contractor for the work described in the foregoing application for payment. According to my knowledge and belief, all items and amounts shown on the face of this application for payment are correct, all work has been performed and/or materials supplied, the foregoing is a true and correct statement of the contract account up to and including that last day of the period covered by this application.  <div style="display: flex; justify-content: space-between;"> <div>_____</div> <div>_____</div> </div> <div style="display: flex; justify-content: space-between;"> <div><b>Date</b></div> <div><b>Contractor</b></div> </div>
--



**APPENDIX I**  
**SSDS O&M MANUAL**



The World's Leading  
Radon Fan Manufacturer



## GP/XP/XR Series Installation & Operating Instructions

*Please Read And Save These Instructions*

**DO NOT CONNECT POWER SUPPLY UNTIL FAN IS COMPLETELY INSTALLED. MAKE SURE ELECTRICAL SERVICE TO FAN IS LOCKED IN "OFF" POSITION. DISCONNECT POWER BEFORE SERVICING FAN.**

1. **WARNING!** For General Ventilating Use Only. Do Not Use to Exhaust Hazardous, Corrosive or Explosive Materials, Gases or Vapors. See Vapor Intrusion Application Note #AN001 for important information on VI applications.  
[RadonAway.com/vapor-intrusion](http://RadonAway.com/vapor-intrusion)
2. **NOTE:** Fan is suitable for use with solid state speed controls however use of speed controls is not generally recommended.
3. **WARNING!** Check voltage at the fan to insure it corresponds with nameplate.
4. **WARNING!** Normal operation of this device may affect the combustion airflow needed for safe operation of fuel burning equipment. Check for possible backdraft conditions on all combustion devices after installation.
5. **NOTICE!** There are no user serviceable parts located inside the fan unit.  
**Do NOT attempt to open.** Return unit to the factory for service.
6. **WARNING!** Do not leave fan unit installed on system piping without electrical power for more than 48 hours. Fan failure could result from this non-operational storage.
7. **WARNING - TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS, OBSERVE THE FOLLOWING:**
  - a) Use this unit only in the manner intended by the manufacturer. If you have questions, contact the manufacturer.
  - b) Before servicing or cleaning unit, switch power off at service panel and lock the service disconnecting means to prevent power from being switched on accidentally. When the service disconnecting means cannot be locked, securely fasten a prominent warning device, such as a tag, to the service panel.
  - c) Installation work and electrical wiring must be done by qualified person(s) in accordance with all applicable codes and standards, including fire rated construction.
  - d) Sufficient air is needed for proper combustion and exhausting of gases through the flue (chimney) of fuel burning equipment to prevent back drafting. Follow the heating equipment manufacturers guideline and safety standards such as those published by the National Fire Protection Association, and the American Society for Heating, Refrigeration and Air Conditioning Engineers (ASHRAE), and the local code authorities.
  - e) When cutting or drilling into a wall or ceiling, do not damage electrical wiring and other hidden utilities.
  - f) Ducted fans must always be vented to outdoors.
  - g) If this unit is to be installed over a tub or shower, it must be marked as appropriate for the application and be connected to a GFCI (Ground Fault Circuit Interrupter) - protected branch circuit.

**RadonAway**

3 Saber Way | Ward Hill, MA 01835  
[www.radonaway.com](http://www.radonaway.com)



## **INSTALLATION & OPERATING INSTRUCTION IN014 Rev M**

### **XP/XR Series**

XP151 p/n 23010-1  
XP201 p/n 23011-1  
XR261 p/n 23019-1

### **GP Series**

GP201 p/n 23007-1  
GP301 p/n 23006-1  
GP401 p/n 23009-1  
GP501 p/n 23005-1

## **1.0 SYSTEM DESIGN CONSIDERATIONS**

### **1.1 INTRODUCTION**

The GP/XP/XR Series Radon Fans are intended for use by trained, professional certified/licensed" after professional Radon mitigators. The purpose of this instruction is to provide additional guidance for the most effective use of a fan. This instruction should be considered as a supplement to EPA / radon industry standard practices, state and local building codes and state regulations. In the event of a conflict, those codes, practices and regulations take precedence over this instruction.

### **1.2 ENVIRONMENTALS**

The GP/XP/XR Series Fans are designed to perform year-round in all but the harshest climates without additional concern for temperature or weather. For installations in an area of severe cold weather, please contact RadonAway for assistance. When not in operation, the fan should be stored in an area where the temperature is never less than 32° F. or more than 100° F.

### **1.3 ACOUSTICS**

The GP/XP/XR Series Fan, when installed properly, operates with little or no noticeable noise to the building occupants. The velocity of the outgoing air should be considered in the overall system design. In some cases the "rushing" sound of the outlet air may be disturbing. In these instances, the use of a RadonAway Exhaust Muffler is recommended.

### **1.4 GROUND WATER**

In the event that a temporary high water table results in water at or above slab level, water may be drawn into the riser pipes thus blocking air flow to the GP/XP/XR Series Fan. The lack of cooling air may result in the fan cycling on and off as the internal temperature rises above the thermal cutoff and falls upon shutoff. Should this condition arise, it is recommended that the fan be turned off until the water recedes allowing for return to normal operation.

### **1.5 SLAB COVERAGE**

The GP/XP/XR Series Fan can provide coverage up to 2000+ sq. ft. per slab penetration. This will primarily depend on the sub-slab material in any particular installation. In general, the tighter the material, the smaller the area covered per penetration. Appropriate selection of the GP/XP/XR Series Fan best suited for the sub-slab material can improve the slab coverage. The GP & XP Series have a wide range of models to choose from to cover a wide range of subslab material. The higher static suction fans are generally used for tighter subslab materials. The XR Series is specifically designed for high flow applications such as stone/gravel and drain tile. Additional suction points can be added as required. It is recommended that a small pit (5 to 10 gallons in size) be created below the slab at each suction hole.

## 1.6 CONDENSATION & DRAINAGE

Condensation is formed in the piping of a mitigation system when the air in the piping is chilled below its dew point. This can occur at points where the system piping goes through unheated space such as an attic, garage or outside. The system design must provide a means for water to drain back to a slab hole to remove the condensation. The GP/XP/XR Series Fan **MUST** be mounted vertically plumb and level, with the outlet pointing up for proper drainage through the fan. Avoid mounting the fan in any orientation that will allow water to accumulate inside the fan housing. The GP/XP/XR Series Fans are **NOT** suitable for underground burial.

For GP/XP/XR Series Fan piping, the following table provides the minimum recommended pipe diameter and pitch under several system conditions.

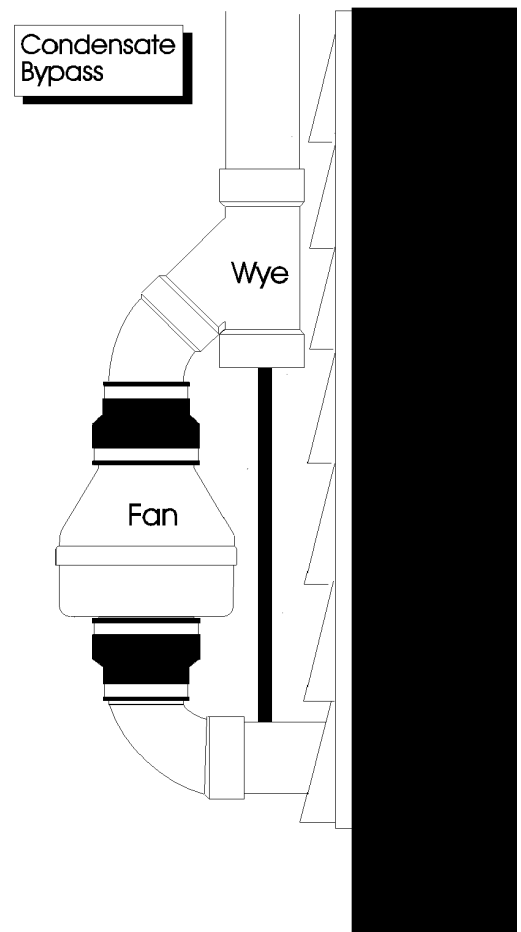
Pipe Dia.	Minimum Rise per Foot of Run*		
	@25 CFM	@50 CFM	@100 CFM
4"	1/8"	1/4"	3/8"
3"	1/4"	3/8"	1 1/2"



\*Typical GP/XP/XR Series Fan operational flow rate is 25 - 90 CFM.  
(For more precision, determine flow rate by using the chart in the addendum.)

Under some circumstances in an outdoor installation a condensate bypass should be installed in the outlet ducting as shown. This may be particularly true in cold climate installations which require long lengths of outlet ducting or where the outlet ducting is likely to produce large amounts of condensation because of high soil moisture or outlet duct material. Schedule 20 piping and other thin-walled plastic ducting and Aluminum downspout will normally produce much more condensation than Schedule 40 piping.

The bypass is constructed with a 45 degree Wye fitting at the bottom of the outlet stack. The bottom of the Wye is capped and fitted with a tube that connects to the inlet piping or other drain. The condensation produced in the outlet stack is collected in the Wye fitting and drained through the bypass tube. The bypass tubing may be insulated to prevent freezing.



## 1.7 SYSTEM MONITOR & LABEL

A System Monitor, such as a manometer (P/N 50017) or audible alarm (P/N 28001-2) is required to notify the occupants of a fan system malfunction. A System Label (provided with manometer P/N 50017) with instructions for contacting the installing contractor for service and also identifying the necessity for regular radon tests to be conducted by the building occupants, must be conspicuously placed where the occupants frequent and can see the label.

## 1.8 ELECTRICAL WIRING

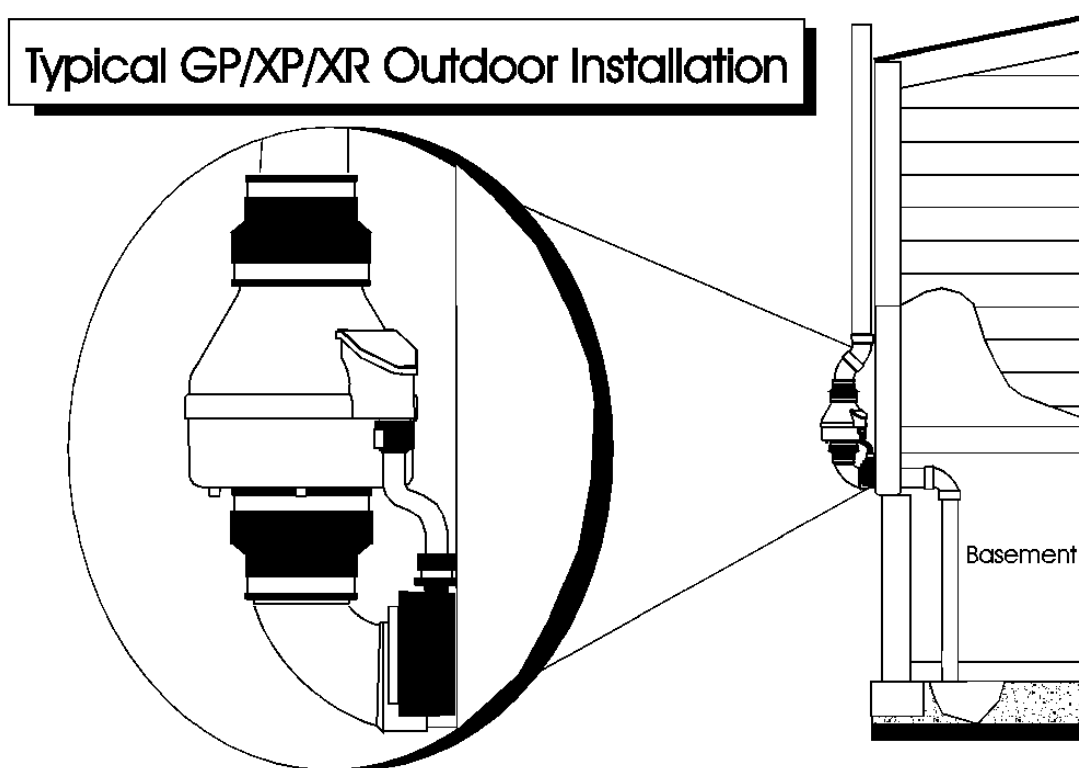
The GP/XP/XR Series Fans operate on standard 120V 60 Hz. AC. All wiring must be performed in accordance with the National Fire Protection Association's (NFPA) National Electrical Code, Standard #70"-current edition for all commercial and industrial work, and state and local building codes. All wiring must be performed by a qualified and licensed electrician. Outdoor installations require the use of a U.L. listed watertight conduit. Ensure that all exterior electrical boxes are outdoor rated and properly sealed to prevent water penetration into the box. A means, such as a weep hole, is recommended to drain the box.

## 1.9 SPEED CONTROLS

The GP/XP/XR Series Fans are rated for use with electronic speed controls however, they are generally not recommended. If used, the speed control recommended is Pass & Seymour Solid State Speed Control Cat. No. 94601-I.

## 2.0 INSTALLATION

The GP/XP/XR Series Fan can be mounted indoors or outdoors. (It is suggested that EPA recommendations be followed in choosing the fan location.) The GP/XP/XR Series Fan may be mounted directly on the system piping or fastened to a supporting structure by means of optional mounting bracket.





## 2.1 MOUNTING

Mount the GP/XP/XR Series Fan vertically with outlet up. Insure the unit is plumb and level. When mounting directly on the system piping assure that the fan does not contact any building surface to avoid vibration noise.

## 2.2 MOUNTING BRACKET (optional)

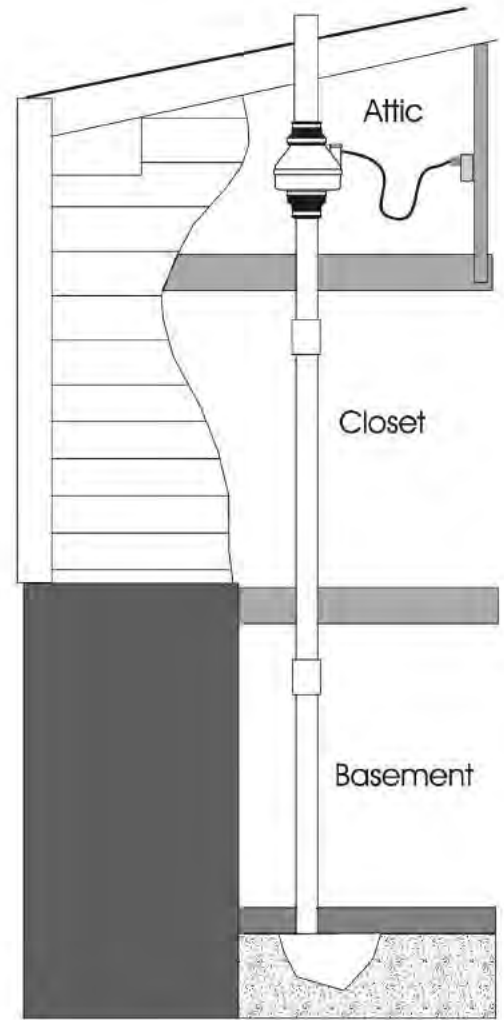
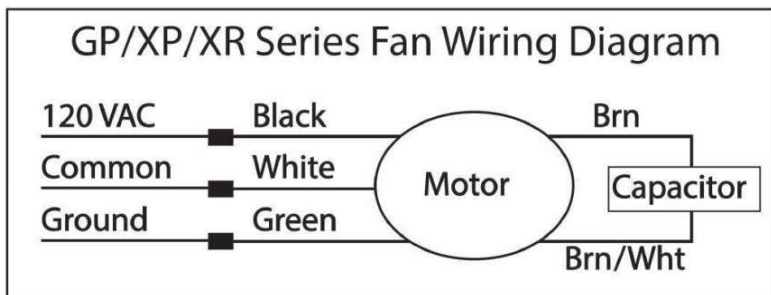
The GP/XP/XR Series Fan may be optionally secured with the integral mounting bracket on the GP Series Fan or with RadonAway P/N 25007 mounting bracket for an XP/XR Series Fan. Foam or rubber grommets may also be used between the bracket and mounting surface for vibration isolation.

## 2.3 SYSTEM PIPING

Complete piping run, using flexible couplings as means of disconnect for servicing the unit and vibration isolation.

## 2.4 ELECTRICAL CONNECTION

Connect wiring with wire nuts provided, observing proper connections (See Section 1.8):



## 2.5 VENT MUFLER (optional)

Install the muffler assembly in the selected location in the outlet ducting. Solvent weld all connections. The muffler is normally installed at the end of the vent pipe.

## 2.6 OPERATION CHECKS & ANNUAL SYSTEM MAINTENANCE

\_\_\_\_ **Verify** all connections are tight and **leak-free**.

\_\_\_\_ **Insure** the GP/XP/XR Series Fan and all ducting is secure and vibration-free.

\_\_\_\_ **Verify** system vacuum pressure with manometer. **Insure** vacuum pressure is within normal operating range and **less than** the maximum recommended operating pressure.

*(Based on sea-level operation, at higher altitudes reduce by about 4% per 1000 Feet.)*

*(Further reduce Maximum Operating Pressure by 10% for High Temperature environments)*

*See Product Specifications. If this is exceeded, increase the number of suction points.*

\_\_\_\_ **Verify Radon levels by testing to EPA protocol.**

# XP/XR SERIES PRODUCT SPECIFICATIONS

The following chart shows fan performance for the XP & XR Series Fan:

	Typical CFM Vs Static Suction "WC								
	0"	.25"	.5"	.75"	1.0"	1.25"	1.5"	1.75"	2.0"
XP151	180	162	140	117	78	46	10	-	-
XP201	150	130	110	93	74	57	38	20	-
XR261	250	215	185	150	115	80	50	20	-

Maximum Recommended Operating Pressure*		
XP151	1.3" W.C.	(Sea Level Operation)**
XP201	1.7" W.C.	(Sea Level Operation)**
XR261	1.6" W.C.	(Sea Level Operation)**

\*Reduce by 10% for High Temperature Operation

\*\*Reduce by 4% per 1000 feet of altitude

Power Consumption @ 120 VAC	
XP151	45 - 60 watts
XP201	45 - 66 watts
XR261	65 - 105 watts

**XP Series Inlet/Outlet:** 4.5" OD (4.0" PVC Sched 40 size compatible)

**XR Series Inlet/Outlet:** 5.875" OD

**Mounting:** Mount on the duct pipe or with optional mounting bracket.

**Recommended ducting:** 3" or 4" Schedule 20/40 PVC Pipe

**Storage temperature range:** 32 - 100 degrees F.

**Normal operating temperature range:** -20 - 120 degrees F.

**Maximum inlet air temperature:** 80 degrees F.

**Size:** 9.5H" x 8.5" Dia.

**Weight:** 6 lbs. (XR261 - 7 lbs)

**Continuous Duty**

**Thermally Protected**

**Class B Insulation**

**3000 RPM**

**Residential Use Only**

**Rated for Indoor or Outdoor Use**

LISTED  
Electric Fan



Conforms to  
UL STD. 507  
Certified to  
CAN/CSA STD.  
C22.2 No.113

# GP SERIES PRODUCT SPECIFICATIONS

The following chart shows fan performance for the GP Series Fan:

	Typical CFM Vs Static Suction "WC						
	1.0"	1.5"	2.0"	2.5"	3.0"	3.5"	4.0"
GP501	95	87	80	70	57	30	5
GP401	93	82	60	38	12	-	-
GP301	92	77	45	10	-	-	-
GP201	82	58	5	-	-	-	-

Maximum Recommended Operating Pressure*		
GP501	3.8" W.C.	(Sea Level Operation)**
GP401	3.0" W.C.	(Sea Level Operation)**
GP301	2.4" W.C.	(Sea Level Operation)**
GP201	1.8" W.C.	(Sea Level Operation)**

\*Reduce by 10% for High Temperature Operation

\*\*Reduce by 4% per 1000 feet of altitude

Power Consumption @ 120 VAC	
GP501	70 - 140 watts
GP401	60 - 110 watts
GP301	55 - 90 watts
GP201	40 - 60 watts

**Inlet/Outlet:** 3.5" OD (3.0" PVC Sched 40 size compatible)

**Mounting:** Fan may be mounted on the duct pipe or with integral flanges.

**Weight:** 12 lbs.

**Size:** 13H" x 12.5" x 12.5"

**Recommended ducting:** 3" or 4" Schedule 20/40 PVC Pipe

**Storage temperature range:** 32 - 100 degrees F.

**Normal operating temperature range:** -20 - 120 degrees F.

**Maximum inlet air temperature:** 80 degrees F.

**Continuous Duty**

**Class B Insulation**

**3000 RPM**

**Thermally Protected**

**Rated for Indoor or Outdoor Use**



## IMPORTANT INSTRUCTIONS TO INSTALLER

Inspect the GP/XP/XR/RP/SF Series Fan for shipping damage within 15 days of receipt. Notify **RadonAway®** of any **damages immediately**. RadonAway® is not responsible for damages incurred during shipping. However, for your benefit, RadonAway® does insure shipments.

There are no user serviceable parts inside the fan. **Do not attempt to open.** Return unit to factory for service.

Install the GP/XP/XR/RP/SF Series Fan in accordance with all EPA standard practices, and state and local building codes and state regulations.

**Provide a copy of this instruction or comparable radon system and testing information to the building occupants after completing system installation.**



### WARRANTY

RadonAway® warrants that the GPX01/XP/XR/RP/SF Series Fan (the "Fan") will be free from defects in materials and workmanship for a period of 90 days from the date of purchase (the "Warranty Term").

RadonAway® will replace any Fan which fails due to defects in materials or workmanship during the Warranty Term. The Fan must be returned (at Owner's cost) to the RadonAway® factory. Any Fan returned to the factory will be discarded unless the Owner provides specific instructions along with the Fan when it is returned regardless of whether or not the Fan is actually replaced under this warranty. Proof of purchase must be supplied upon request for service under this Warranty.

This Warranty is contingent on installation of the Fan in accordance with the instructions provided. This Warranty does not apply where any repairs or alterations have been made or attempted by others, or if the unit has been abused or misused. Warranty does not cover damage in shipment unless the damage is due to the negligence of RadonAway®.

### 5 YEAR EXTENDED WARRANTY WITH PROFESSIONAL INSTALLATION.

RadonAway® will extend the Warranty Term of the fan to five (5) years from date of purchase or sixty-three (63) months from the date of manufacture, whichever is sooner, if the Fan is installed in a professionally designed and professionally installed active soil depressurization system or installed as a replacement fan in a professionally designed and professionally installed active soil depressurization system by a qualified installer. Proof of purchase and/or proof of professional installation may be required for service under this warranty. Outside the Continental United States and Canada the extended Warranty Term is limited to one (1) year from the date of manufacture.

RadonAway® is not responsible for installation, removal or delivery costs associated with this Warranty.

### **LIMITATION OF WARRANTY**

**EXCEPT AS STATED ABOVE, THE GPX01/XP/XR/RP SERIES FANS ARE PROVIDED WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.**

**IN NO EVENT SHALL RADONAWAY BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES ARISING OUT OF, OR RELATING TO, THE FAN OR THE PERFORMANCE THEREOF. RADONAWAY'S AGGREGATE LIABILITY HEREUNDER SHALL NOT IN ANY EVENT EXCEED THE AMOUNT OF THE PURCHASE PRICE OF SAID PRODUCT. THE SOLE AND EXCLUSIVE REMEDY UNDER THIS WARRANTY SHALL BE THE REPAIR OR REPLACEMENT OF THE PRODUCT, TO THE EXTENT THE SAME DOES NOT MEET WITH RADONAWAY'S WARRANTY AS PROVIDED ABOVE.**

For service under this Warranty, contact RadonAway for a Return Material Authorization (RMA) number and shipping information. No returns can be accepted without an RMA. If factory return is required, the customer assumes all shipping costs, including insurance, to and from factory.

*RadonAway® 3 Saber Way  
Ward Hill, MA 01835 USA TEL (978) 521-3703  
FAX (978) 521-3964  
Email to: Returns@RadonAway.com*

**Record the following information for your records:**

Serial No. \_\_\_\_\_

Purchase Date. \_\_\_\_\_

## **APPENDIX J**

### **REMEDIAL SYSTEM OPTIMIZATION TABLE OF CONTENTS**



# REMEDIAL SYSTEM OPTIMIZATION FOR CANANDAIGUA MULTI-BROWNFIELD SITE

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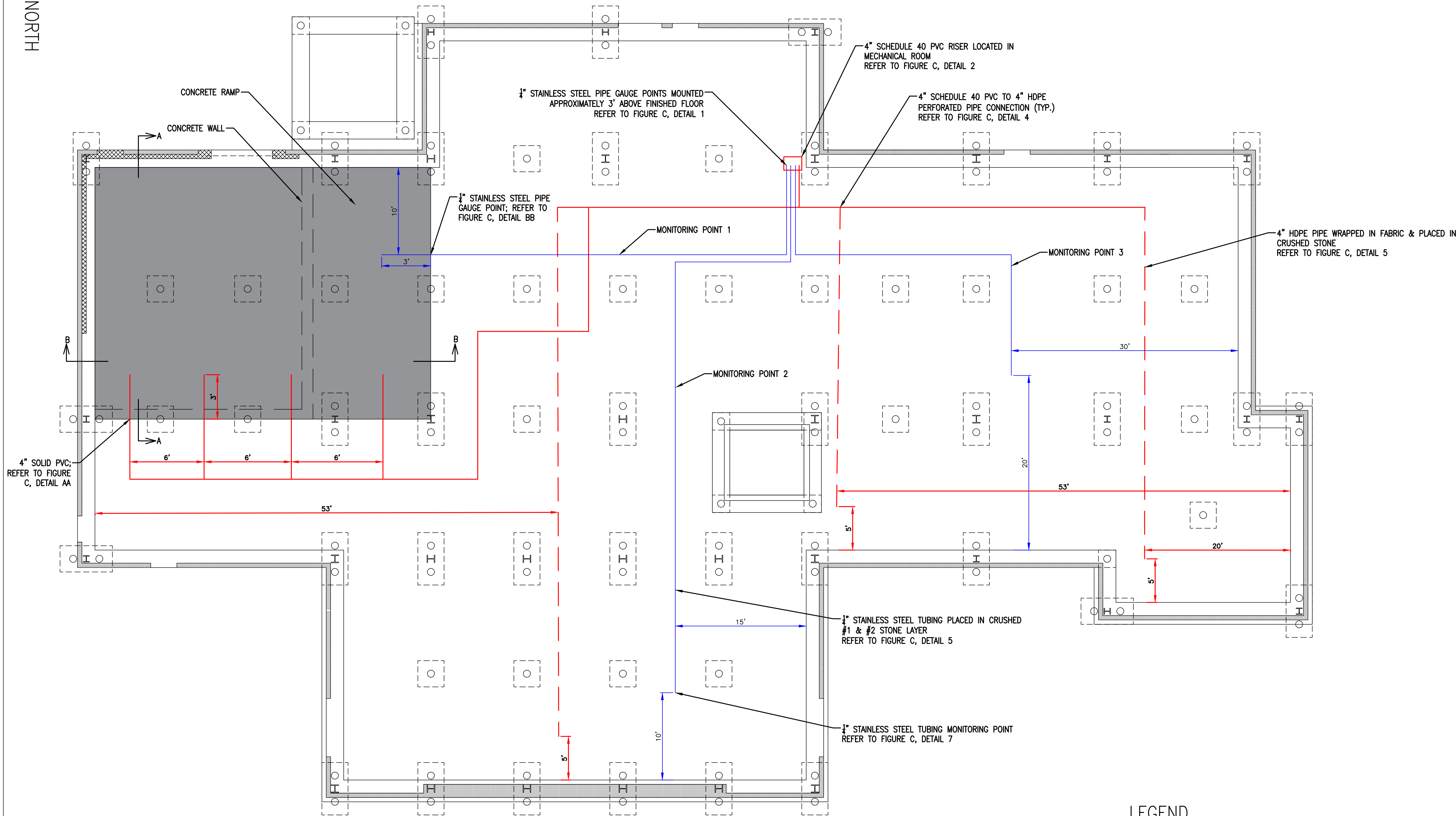
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## **APPENDIX K**

### **SUB-SLAB DEPRESSURIZATION SYSTEM AS-BUILTS**

NORTH



- NOTE:
1. BASE DRAWING FROM HANLON ARCHITECTS PERMIT SET SHEET S100 DATED JANUARY 29, 2016
  2. THIS DRAWING REPRESENTS AS-BUILT FOR THE SUB-SLAB DEPRESSURIZATION SYSTEM ONLY.
  3. THIS DRAWING REPRESENTS A COMPLETE AS-BUILT FOR THE SSDS SYSTEM DESIGN (DATED JUNE 20TH, 2016 AND APPROVED SEPTEMBER 1ST, 2016). TESTING IN ACCORD. WITH SECTION 3.3.2 OF APPROVED SMP WAS CONDUCTED PRIOR TO BUILDING OCCUPANCY.
  4. DEVIATIONS FROM THE DESIGN DATED JUNE 20, 2016 INCLUDE THE FOLLOWING: THE NORTHWEST CORNER OF BUILDING A WAS DESIGNED TO BE A LOADING DOCK, WITH ELEVATED FLOOR. DUE TO THE ELEVATED FLOOR CONSTRUCTION, SOLID PVC PIPING WAS ROUTED INTO THE ELEVATED AREA TO PROVIDE SUFFICIENT INFLUENCE OF THE SYSTEM. A MONITORING POINT WAS ROUTED TO THIS AREA AS WELL. CRUSHED #1 AND #2 STONE WAS USED INSTEAD OF CRUSHED #3 STONE.

### LEGEND

- 4" SCHEDULE 40 PVC PIPE
- 4" PERFORATED HDPE PIPE
- 1/4" STAINLESS STEEL TUBING
- ELEVATED FLOOR

NO.	REVISION	BY	DATE

It is a violation of New York Education Law Article 145 Sec.7209, for any person, unless authorized by law, to prepare, or cause to be prepared, any drawing, specification, or report, or to offer or to use, or to cause to be used, any drawing, specification, or report, or to seal and notation "prepared by" followed by their signature and date of such alteration, and a specific description of the alteration.



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PROJECT/CLIENT

PERIODIC REVIEW REPORT

CANANDAIGUA MULTI-BROWNFIELD  
SITE, NEW YORK  
NYSDEC BCP SITE #C835025

DRAWING TITLE

AS-BUILT BUILDING A SUB-SLAB  
DEPRESSURIZATION SYSTEM  
BUILDING A

ISSUED FOR	
AS-BUILT	
DESIGNED BY:	DPN
DRAWN BY:	DRP
REVIEWED BY:	DPN
DATE:	NOVEMBER 3, 2020

000017575 - Roadwork on MA-51 - Chester, Connecticut Map 748.0232

PROJECT/DRAWING NUMBER

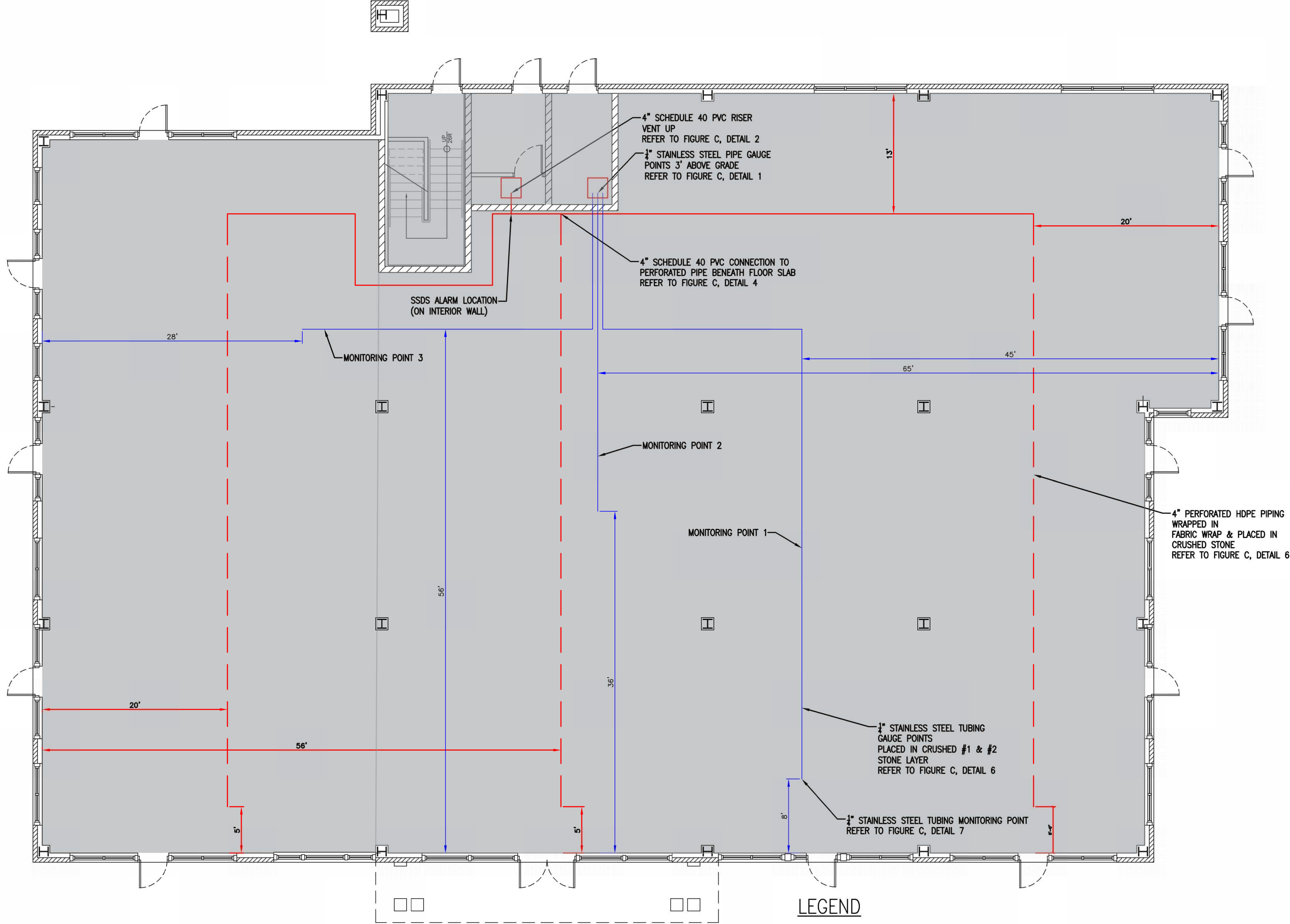
2181278

FIGURE A





NORTH



LEGEND

- 4" SCHEDULE 40 PVC PIPE
- 4" PERFORATED HDPE PIPE
- 1/4" STAINLESS STEEL TUBING
- 6" CONCRETE FINISH FLOOR SLAB WITH 15 MIL STEGO POLY SHEETING UNDER SLAB. REFER TO FIGURE C, DETAIL 6

NOTE:  
1. BASE DRAWING FROM HANLON ARCHITECTS PERMIT SET SHEET S100 DATED JANUARY 29, 2016  
2. THIS DRAWING REPRESENTS AS-BUILT FOR THE SUB-SLAB DEPRESSURIZATION SYSTEM ONLY.  
3. DEVIATIONS FROM THE DESIGN DATED JULY 21, 2015 INCLUDE THE FOLLOWING: A 12 INCH PEA STONE TRENCH WAS NOT CONSTRUCTED AROUND THE PIPING, RATHER 8 INCHES OF CRUSHED #1 & #2 STONE WAS PLACED THROUGHOUT THE ENTIRE AREA BUILDING ABOVE THE STRUCTURAL SLAB. (NOTE THE TOP SLAB IS PARTIALLY POURED).

BY: DATE:

REVISION:

NO.:

PROJECT/CLIENT

PERIODIC REVIEW REPORT

CANANDAIGUA MULTI-BROWNFIELD SITE, NEW YORK

NYSDEC BCP SITE #C835025

DRAWING TITLE

AS-BUILT BUILDING B-2 SUB-SLAB DEPRESSURIZATION SYSTEM

ISSUED FOR: AS-BUILT

DESIGNED BY: JWN

DATE: MAY 2024

DRP: DPN

REVIEWED BY: [Signature]

PROJECT/DRAWING NUMBER

2181278

FIGURE B-2





- 8 SUB-SLAB DEPRESSURIZATION SYSTEM ALARM  
SCALE: NONE



1. ALL SUB-SLAB COMPONENTS PLACED WITHIN THE CRUSHED STONE OR PEA STONE AS NOTED. BUILDING B-2 FLOOR SLAB IS PARTIALLY POURED; IN AREAS WHERE FLOOR SLAB IS NOT YET POURED, A 15 MIL STEGO VAPOR BARRIER HAS BEEN INSTALLED OVER THE CRUSHED STONE.
2. CRUSHED #1 AND #2 STONE WAS USED INSTEAD OF CRUSHED #3 STONE. A PEA STONE TRENCH WAS NOT UTILIZED IN BUILDING B-2 AND BUILDING A, RATHER CRUSHED #1 AND #2 STONE WAS PLACED THROUGHOUT. RATHER THAN CREATING A TRENCH IN THE STRUCTURAL SLAB IN BUILDING B-2, 12-INCHES OF STONE WAS PLACED ABOVE THE STRUCTURAL SLAB.
3. REFER TO FIGURE A, FIGURE B-1, FIGURE B-2 FOR LOCATIONS OF INSTALLED SSDS COMPONENTS.

[illegible]

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PROJECT/CLIENT \_\_\_\_\_ PERIODIC REVIEW REPORT

CANANDAIGUA MULTI-BROWNFIELD  
SITE, NEW YORK  
NYSDEC BCP SITE #C835025

**AS-BUILT SUB-SLAB  
DEPRESSURIZATION SYSTEM DETAILS**

ISSUED FOR	AS-BUILT	DESIGNED BY:	DPN
		DRAWN BY:	DRP
		REVIEWED BY:	DPN
DATE: NOVEMBER 3, 2020			

\\PROJECTS\ProjectTeam-514\Case Construction\2181278-

PROJECT/DRAWING NUMBER

2181278

FIGURE C