Cherry Farm/River Road Potentially Responsible Parties Group

Excavation Work Plan

Cherry Farm/River Road Site
4100 River Road, Tonawanda, New York 14150
NYSDEC Site No. 9-15-063 and 9-15-031

August 22, 2018

File No. 442205

Excavation Work Plan

Cherry Farm/River Road Sites
4100 River Road
Tonawanda, New York 14150

Prepared for:
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Acronyms

GES	Groundwater & Environmental Services, Inc.
C/D	Construction and Demolition
CAMP	Community Air Monitoring Program
EWP	Excavation Workplan
HASP	Health and Safety Plan
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
NYSDOT	New York State Department of Transportation
OMM Manual	Post-Remedial Construction Operations, Maintenance, and Monitoring Manual
PCB	Polychlorinated Biphenyl
PID	Photoionization Detector
PRR	Periodic Review Report
SCOs	Soil Cleanup Objectives
TAL	Target Analyte List
TCL	Target Compound List
VOCs	Volatile Organic Compounds

1 Introduction

This excavation work plan has been developed to supplement the 2017 *Post-Remedial Operations, Maintenance, and Monitoring Manual* (OMM Manual) for the Cherry Farm/River Road site located at 4100 River Road, Tonawanda NY. This work plan is intended to provide a procedural framework to any intrusive site activities that are planned, and is not intended to provide specific details of any particular site activities. Detailed work details will be provided prior to the commencement of any intrusive site activities.

2 Notification

At least 15 days prior to the start of any activity that is anticipated to encounter remaining contamination, the site owner or their representative will notify the New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH). **Table 1.0** 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 the body of the *Post-Remedial Operations, Maintenance, and Monitoring Manual (OMM Manual)* for the site.

Table 1.0 – Notifications

Contact	Phone	Email Address
Stanley Radon NYSDEC	716-851-7220	Stanley.Radon@dec.ny.gov
Glenn May NYSDEC	716-851-7220	Glenn.May@dec.ny.gov
Brian Sadowski NYSDEC	716-851-7220	Brian.Sadowski@dec.ny.gov
Julia Kenney NYSDOH	518-402-7860	

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 Excavation Work Plan (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 E** of the site OMM Manual;

- Identification of disposal facilities for potential waste streams; and
- Identification of sources of any anticipated backfill, along with all required chemical testing results.

3 Soil Screening Methods

Visual, olfactory, and instrument-based (e.g. photoionization detector [PID]) soil screening will be performed by a qualified environmental professional or person under their supervision 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.

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 6 and 7 of this EWP.

Disturbance of soils at the site outside of known impacted areas (i.e. soils from within the constructed cap) will be screened but will be re-used as backfill material in the same disturbed area if screening does not indicate the presence of impacted materials.

4 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.

5 Material 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 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 EWP 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 New York State Department of Transportation (NYSDOT) requirements (and all other applicable transportation requirements).

A truck wash will be operated on-site, as appropriate. The qualified environmental professional or appropriate designee 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 processed through the on-site remedial system for discharge to the sewer system in accordance with remedial system discharge permit.

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

The qualified environmental professional or appropriate designee 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.

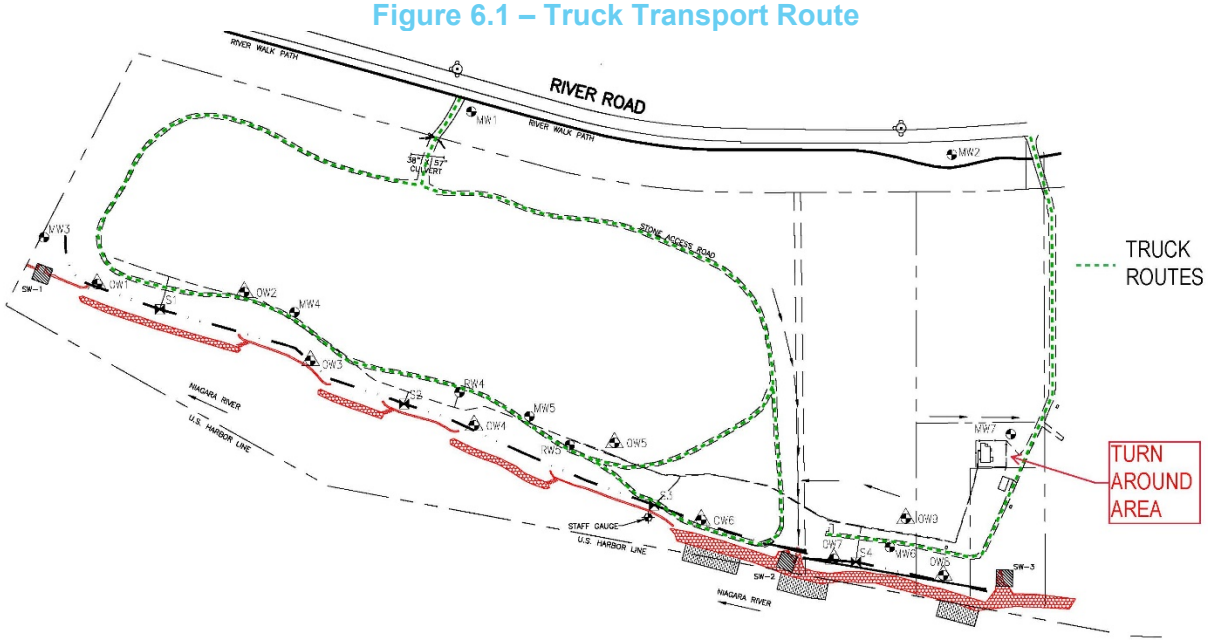
6 Materials Transport Off-Site

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 on-site are as follows:

Figure 6.1 – Truck Transport Route



As indicated on **Figure 6.1** with green dashed lines, the on-site transport routes consist of utilizing the existing gravel roads which are located off of River Road. The Cherry Farm portion is accessed by the gravel road that runs past the LafargeHolcim facility, and proceeds to the treatment building and out to the capped portion of the site. The River Road portion of the site is accessed by a gated gravel road that makes a loop around capped section of the site. Trucks will utilize the entire gravel road loop to turn around or may turn around near the groundwater treatment plant. Trucks should not leave the gravel road for any reason while on-site.

All trucks loaded with site materials will exit the vicinity of the site by making either a left or a right onto River Road and proceeding to Interstate I-190 (River Road is industrial in this area). Trucks loaded with site materials shall utilize this approved truck route unless construction or other road work prohibits the use of this route. If an alternate route is required, the route must take 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.

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.

7 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 6 NYCRR 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, Construction and Demolition (C/D) recycling facility, etc. Actual disposal quantities and associated documentation will be reported to the NYSDEC in the Periodic Review Report (PRR). 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 6 NYCRR Part 360-1.2. Material that does not meet Unrestricted Soil Cleanup Objectives (SCOs) is prohibited from being taken to a New York State recycling facility (6 NYCRR Part 360-16 Registration Facility).

8 Materials Reuse On-Site

The qualified environmental professional will ensure that procedures defined for materials reuse in this EWP 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. This would include soils originating from below the Site Cover system. Soils originating from below the Site Cover system can be reused as backfill in the same area as long as the Cover system is reinstalled to original specifications above it. If soils originating from below the Site Cover system are planned for reuse, the sampling method, stockpile segregation scheme, and stockpile location information shall be provided with the excavation notification.

Site materials originating from previous remedial activities are known to be non-impacted and can be reused without sampling as long as soil screening does not indicate the presence of any impacts. This includes the following materials:

- Topsoil
- Cover Soil
- Bedding material (e.g. peagravel or crushed stone) above the water table (depth to water varies across the site but generally all soils from grade to approximately 6 feet below grade should be dry)

These materials will be determined by the qualified environmental professional or assigned designee and will be screened by visual, olfactory and instrument-based (e.g. photoionization detector) prior to staging onsite following guidelines set out in **Section 3**. Below shows drawings of as-builts of the Site Cover and indicating potential structure of system trench bedding.

Figure 8.1 – Typical Permeable Cover System Detail

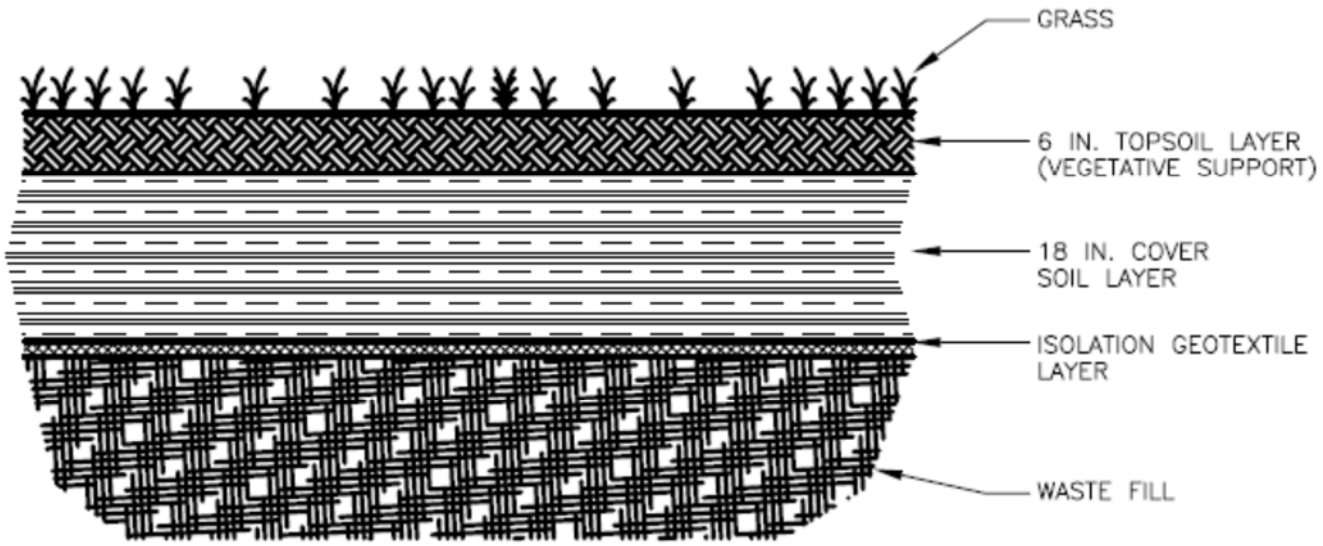


Figure 8.2 – Shallow Trench As-Built

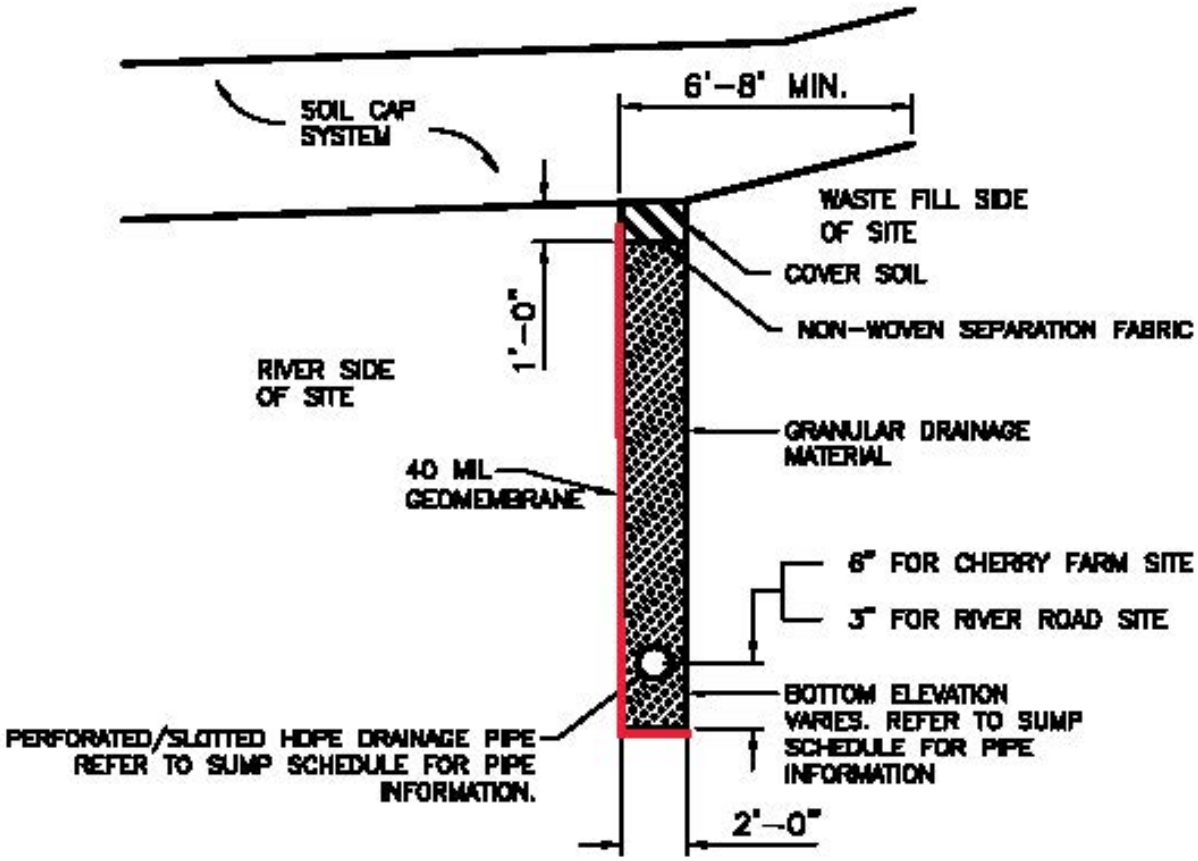
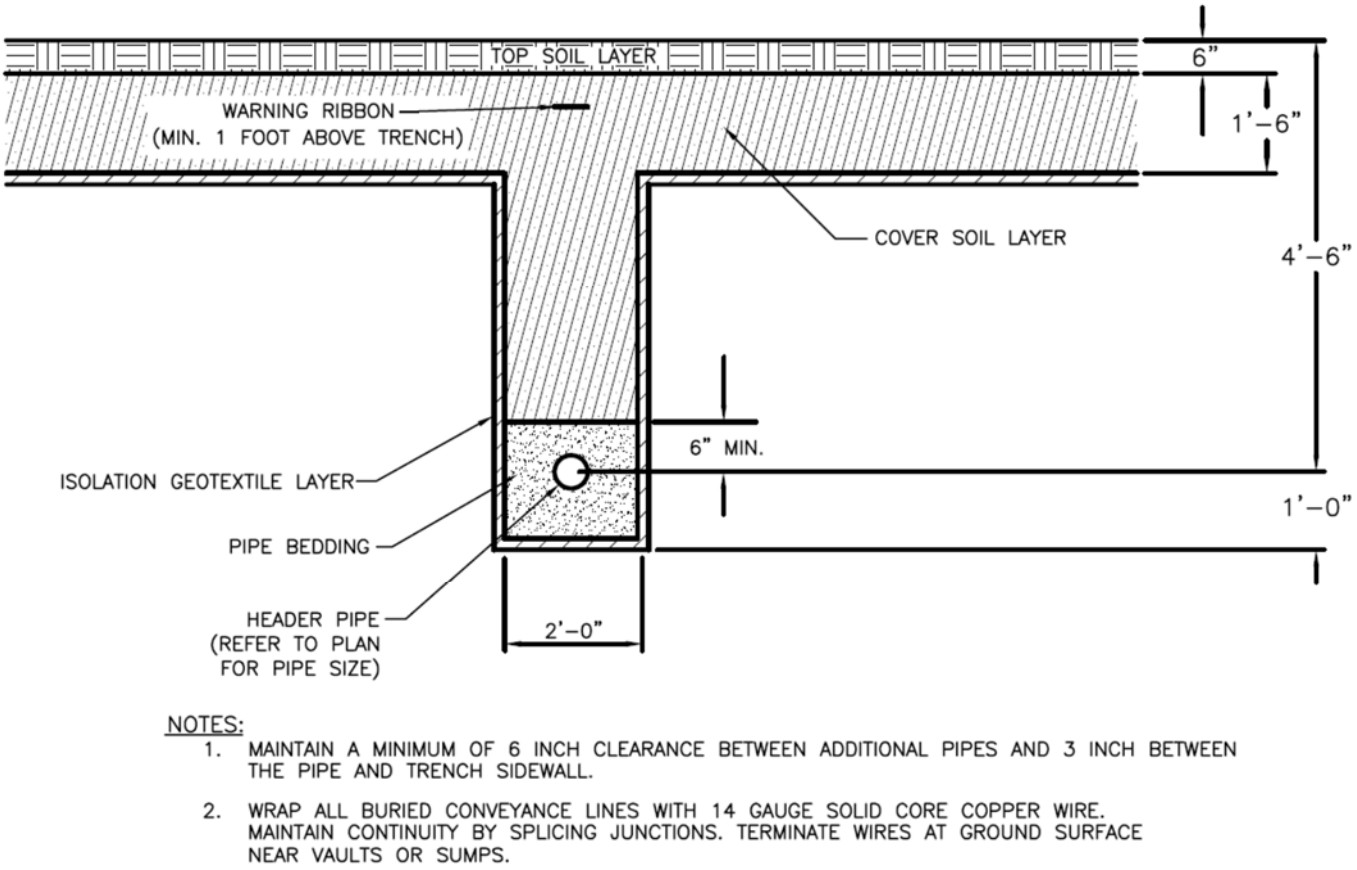


Figure 8.3 – Header Bedding Detail As-Built



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.

9 Fluids Management

All liquids to be generated, including but not limited to, excavation dewatering, decontamination waters, and groundwater monitoring well purge and development waters, will be processed through the on-site system and discharged to the local sanitary sewer in accordance with discharge permit and in accordance with the site-specific Town of Tonawanda Industrial Sewer Connection Permit.

10 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 1995 *Remedial Closure Plan for Cherry Farm Site (NYSDEC Site No. 9-15-063) River Road Site (NYSDEC Site No. 9-15-031) Tonawanda, New York.* The existing cover system is comprised of a minimum of 24 inches of crush aggregate, top soil, and cover soil. The demarcation layer, consisting of geotextile fabric 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 EWP. 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 EWP.

11 Backfill From Off-Site Sources

The requirements for backfill used at the site will meet the backfill requirements provided in NYSDEC Division of Environmental Remediation (DER-10) and 6 NYCRR 375-6.7.

Backfill material brought from off-site will be tested prior to being used on-site. Material sources shall be tested for characterization from the initial 100 cubic yards of material and sampling frequency and analyses will follow the recommendations outlined in DER-10 Table 5.4(e) 10 with the additional analysis of total polychlorinated biphenyls.

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 EWP 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 6 NYCRR 375-6.7(d). Soil brought onsite would be following guidance laid out OM&M Manual and analyzed to meet DER-10 requirements. 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.

Material to be used onsite for backfill will be staged onsite adjacent to excavation areas and will be placed on polyethylene sheeting or equivalent heavy duty tarp to prevent damage to and mixing with in-place topsoil and plant cover. Backfill material will be securely covered with tarp and the end of each work day and during any storm events that may result in run-off.

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.

12 Stormwater Pollution Prevention

If proposed excavation areas are large, nearing 1 acre, procedures for stormwater pollution prevention will be specified in the excavation notification.

13 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 (target analyte list [TAL] metals; target compound list [TCL] volatiles and semivolatiles, TCL pesticides and polychlorinated biphenyls [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.

14 Community Air Monitoring Plan

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 utilized.

14.1 Continuous Monitoring

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.

14.1.1 Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored continuously at the upwind and downwind perimeters of the exclusion zone for soil disturbance activities 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 levels. 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. Particulate monitoring response and action levels include:

- If the downwind PM-10 particulate level is 100 micrograms per cubic meter (µg/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 µg/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 µg/m^3 above the upwind level, work must be stopped and a reevaluation 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 µg/m^3 of the upwind level and in preventing visible dust migration.

A figure showing the location of air sampling stations based on generally prevailing wind conditions shall be included in the excavation notification. Due to the large size of the site, monitoring stations will be set up immediately adjacent to soil disturbance areas and monitoring location maps can only be prepared based on event-specific disturbance areas. Locations of the proposed monitoring stations will be adjusted on a daily or more frequent basis as necessary based on actual wind directions to provide an upwind and at least two downwind monitoring stations.

If the action levels are exceeded, work shall be stopped until particulate monitoring indicates particulates are within operating ranges. The use of additional engineering controls (wetting soils, etc.) may be required to continue intrusive activities while maintaining particulate emissions within the operable range. Exceedances of action levels listed in the Community Air Monitoring Plan (CAMP) will be reported to NYSDEC and NYSDOH Project Managers.

14.1.2 VOC Monitoring, Response Levels, and Actions

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

- 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 NYSDOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

14.2 Periodic Monitoring

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.

15 Odor Control Plan

This odor control plan is capable of controlling emissions of nuisance odors off-site. Specific odor control methods to be used on a routine basis will include spraying down excavation with water as necessary to prevent nuisance odors. 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.

16 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.

17 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.