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Soil Boring Investigation Sampling and Analysis Plan – Loucks Road and Utility Backfill

Loucks Road Extension – Offsite
NYSDEC Site No. C734145A
Town of Dewitt, East Syracuse, New York
July 2026

Prepared for: New York State Department of Environmental Conservation (NYSDEC)
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1 Objective

This Sampling and Analysis Plan (SAP) was prepared for additional site characterization activities at the Loucks Road Extension - Offsite, NYSDEC Site Number C734145A (the Site). This sampling is being conducted to determine the extent of polychlorinated biphenyls (PCBs) in subsurface soils just beneath the road and adjacent to utilities including water supply and storm drains located beneath Loucks Road (see Figure 1).

2 Background

2.1 Site Description

The Loucks Road Extension Offsite area is located in a rural suburban area along Canada Drive and Loucks Road north of Collamer Road (NYS Route 298) in the Town of Dewitt, New York. The offsite area mainly consists of sections along Loucks Road and Canada Drive and the landscaped, municipally owned land along each road. The site is located to the west/northwest of the Loucks Road Extension Brownfield Cleanup Program (BCP), Site No. C734145. A FedEx Freight distribution facility is located adjacent to and north of the Canada Drive portion of the site. The BCP site is currently inactive and zoned for industrial use. Properties located nearby are zoned industrial, business transitional, and residential. The nearest residential properties are located on Sand Hill Road immediately adjacent to the western side of Loucks Road.

The site has a history of agricultural use (field crops, dairy, and milk plant) until the 1980s. Some sand quarrying in the southern portion of the site also occurred. In 1990 the property was sold to 100 Collingwood Corporation and the farming/quarry operations ceased. Beginning in April 2008, the site was cleared and graded, and the Loucks Road Extension and Canada Drive were constructed, and storm/sanitary sewers were installed along both roads. The storm sewers drain to a retention pond constructed on the Bowers BCP site.

In March 2013, the owner was notified that soils sampled and analyzed at the site by the land development contractor contained PCBs. Subsequent sampling and analysis by the Owner's consultant confirmed the presence of PCBs. The NYSDEC was notified and spill # 14-00433 was

used as grading and fill material during infrastructure improvements. To determine the nature and extent of the PCB contamination, the previous site owner performed additional sampling of surface soils and existing soil piles. More than 100 surface soil samples were collected within the BCP site area and adjacent areas showing widespread PCB contamination. In addition, a limited number of soil samples were collected at depth and results for the deeper samples indicated concentrations diminish with depth supports the assumption that the PCB contamination is primarily present in surficial and near-surface soils.

2.2 Site Geology and Hydrology

Historical investigations at the Site were primarily focused on surficial soil and indicated that the soil overburden at the site tended to be a tan sandy loam that consists of silt, sand, and gravel.

No studies have been conducted into groundwater or hydrology at the site.

2.3 Previous and Ongoing Investigations

The results of previous investigations are available in various reports. Asbestos & Environmental Consulting Corporation (AECC) performed investigations of PCBs in surface soils at the vacant lots of the main BCP site, formerly known as the Woodbine Business Park and Bowers Business Park (AECC 2015). Offsite sampling was performed by Groundwater & Environmental Services Inc. (GES) on behalf of NYSDEC in 2020 (GES 2020). Additional offsite investigation performed by E & E on behalf of NYSDEC in 2023 and 2024 is summarized in the *Self-Implementing PCB Cleanup and Disposal Plan* (E & E 2025)

3 General Site Activities

Utilizing previous professional surveys as well as in-field GPS readings, proposed sampling locations for this site characterization will include new samples adjacent to previous sidewall samples collected during remediation located at the edge of the road, samples evenly spaced along the middle of Loucks Road, and locations where the storm drain and water line cross the road. All sampled locations will be surveyed using a handheld submeter GPS. Proposed sampling locations are depicted on Figure 1.

LaBella Associates will be contracted by NYSDEC to provide drilling services. LaBella will contact Dig Safely New York to request mark-outs of underground utilities prior to beginning intrusive activities in accordance with New York Code Rule 753. In addition, LaBella will utilize the service of a private utility locating service to locate the water line crossing beneath Loucks Road. The storm drain lateral lines will be visually located based on drainage inlet locations on the east and west sides of Loucks Road.

The driller will start by coring or breaking through the asphalt road, drill approximately 24 inches to the bottom of the road subbase then start collecting samples. During drilling, E & E staff will conduct sample logging and processing (see Section 4).

All field activities described below will be performed in accordance with E & E's Master Quality Assurance Project Plan (QAPP) (E & E 2020a) and Field Activities Plan (FAP) (E & E 2020b).

A Community Air Monitoring Plan (CHSP) is currently being implemented during active site remediation activities and will continue during this sampling effort (see Appendix A).

4 Soil Boring and Soil Sampling

Sampling will be collected from 14 proposed boring locations (see Figure 1). E & E staff will process samples collected from each location by the driller using a direct push rig (i.e., Geoprobe or equivalent) and dual tube/macrocore/auger system. The drilling/soil collection method will be determined in the field in consultation between the driller and E & E field representative based on conditions encountered during sampling. For example, if road subbase sloughs into the borehole precluding collection of deeper samples using a macrocore or split spoon, then a dual tube system may be employed to maintain borehole integrity during deeper sampling.

- Samples collected along the edge of the road, adjacent to the storm sewer line, and in the middle of the road, adjacent to the storm drain laterals, will be collected from a depth of 24 to 36 inches, and another sample will be collected from 36 to 48 inches and placed on hold (see below). Sample locations adjacent to the storm sewer line were selected based on previous analytical results and sample spacing. The highest results are at locations SH-065 and SH-066 with the other locations being determined on an approximately 60-foot spacing.

- Samples in the middle of the road, spaced about 90 feet apart and not near any utilities, will be collected from a depth of 24 to 36 inches for lab analysis with two additional samples at the same locations from 36 to 48 inches and 48 to 60 inches to be placed on hold.

- Samples located at the water line will be collected directly above the water line estimated to be at a depth of 48 inches. The sample will be collected via hand tools inside of hollow stem augers to be able to collect soil from directly above the waterline from 36 to 48 inches.

At all sampling locations, soil descriptions will be recorded by an E & E geologist.

Soil samples shall be submitted to Pace Analytical Laboratories for analysis of PCBs by EPA SW-846 Method 8082A. The bottom intervals placed on hold will be sampled and processed in the field but will be stored under chain of custody by E & E in a refrigerator at a temperature between 0 and 6 degrees Celsius with monitored temperature control pending the results of the shallower samples. If total PCBs are detected at a concentration above 1 part per million in the shallow sample, the next deeper sample will be submitted to Pace for analysis. A 10-business-day turnaround time will be requested for laboratory reporting such that results of the initial samples may be evaluated and requests for analysis of the deepest interval requested within 30 days of sampling.

Nomenclature for soil sample identification will include the soil boring location name followed by the depth interval in inches (e.g., Stormdrain-01 (36-48)).

After borehole sampling is completed, excess soil from sampling will be placed back down the same borehole. The remainder of each borehole will be backfilled with bank run gravel currently being used as common fill during site restoration. The material will be compacted with a tamping rod up to the base of the road asphalt. The borehole surface repair will be completed with compacted cold-patch asphalt.

5 Equipment Decontamination

The following procedures will be used for all non-dedicated equipment and tools including downhole equipment such as hand augers, macro-core cutting shoes, and augers:

- Initially remove all foreign matter;
- Scrub with brushes in a laboratory-grade detergent solution;
- Rinse with potable water; and
- Rinse with distilled water.

6 Quality Assurance/Quality Control (QA/QC)

QA/QC procedures will be performed in accordance with E & E's 2020 *Master Quality Assurance Project Plan for New York State Department of Environmental Conservation Projects*, *Contract No. D009807*. Specific activities that apply to the implementation of this sampling plan include:

- Collection of field duplicates at a rate of 1 per 20 samples per matrix.
- Collection of additional volume for matrix spike/matrix spike duplicate (MS/MSD) analysis at a rate of 1 per 20 samples per matrix.
- Collection of at least one equipment rinsate blank daily from non-dedicated sampling equipment in direct contact with soil (such as hand augers). Laboratory-supplied, analyte-free water shall be used for rinsate blanks.
- Document all data and observations on field data sheets and/or in the field logbooks.
- Operate and calibrate all field instruments in accordance with operating instructions as supplied by the manufacturer unless otherwise specified.
- Ensure all laboratory deliverables are validated by an E & E chemist prior to release.

7 Project Logbook and Photo-Documentation

Photos of the site will be taken, and associated notes will be recorded in the field logbook. A logbook will be maintained to record all on-site activities. Data from the sampling events will be forwarded to NYSDEC and included in the final construction completion report for offsite remedial activities.

8 Sample Packaging

The sample containers will be placed inside sealed plastic bags as a precaution against cross-contamination caused by leakage or breakage. The samples will be placed in coolers with wet

ice to begin the cooling process. Samples will be picked up by a laboratory courier or dropped off at Pace Analytical's local East Syracuse service center:

10 Adler Drive, Suite 108
East Syracuse, NY 13057
Phone 800-624-9220.

9 Investigation-Derived Waste Disposal

Three investigation-derived waste streams are expected to be generated during sampling activities: expendable material solid wastes such as personal protective equipment, paper towels, plastic macro-core sleeves, etc.; excess soil from soil boring drilling; and decontamination water. Expendable materials generated during the investigation will be bagged and disposed of off-site as non-hazardous solid waste by E & E or the driller. Excess soil cuttings will be placed back into the soil boring from which they came or disposed of with the construction remediation activities, at NYSDEC's discretion. Decontamination liquids will be stored onsite in a drum at the staging area of the construction activities for characterization and offsite disposal.

10 Site-Specific Health and Safety Plan

A site-specific health and safety plan has been prepared for this fieldwork and is attached in Appendix B.

11 Reporting

E & E will document the details of daily field activities in the daily inspection reports for the ongoing remediation activities.

The laboratory shall provide "Category B" deliverables as described in Appendix 2B of NYSDEC's *Technical Guidance for Site Investigation and Remediation, DER-10* (NYSDEC 2010). Lab deliverables will include a complete electronic (PDF) report and NYSDEC EQuIS electronic data deliverable (EDD). An E & E chemist will review the report for completeness and process the EDD to assign appropriate location codes, sample matrices, parent sample codes, etc. The laboratory data will be validated by an E & E chemist and will include review of the deliverables, assessment of the validity and usability of the results, and preparation of data usability summary reports in accordance with Appendix 2B of DER-10 (NYSDEC 2010). The validator will update the EDDs with validator qualifiers, prepare and submit an EQuIS EDD to NYSDEC, and prepare final report tables. Validated sample data will be presented in a table accompanied by site figures depicting the sampling locations.

Following completion of all sample analyses and completion of data validation, E & E will present the analytical data via figures and tables in a sample summary report that will later be included in the remedial construction completion report. The draft summary report will be submitted electronically to NYSDEC for review. Following completion of the draft completion report, NYSDEC will schedule a meeting with the Town of DeWitt and EPA to determine next steps based on the results.

12 References

Asbestos and Environmental Consulting Corporation (AECC). 2015. *PCBs in Surface Soils Report, NYSDEC Spill File Number 13-00433*, prepared for Woodbine Business Park, Inc., September 2015.

Ecology and Environment Engineering and Geology, P.C. (E & E). 2025. *Self-Implementing PCB Cleanup and Disposal Plan, Loucks Road Extension – Offsite, DeWitt, New York, Site No. C734145A*, March 2025.

_____. 2020a. *Master Quality Assurance Project Plan (QAPP) for New York State Department of Environmental Conservation Projects*, May 2020.

_____. 2020b. *Field Activities Plan (FAP) for the Division of Environmental Remediation Standby Engineering Services Contract D009807*, May 2020.

Groundwater & Environmental Services Inc. (GES). 2020. *Off-Site Investigation Report*, Loucks Road Extension Offsite, NYSDEC Site No. C734145A, prepared for the New York State Department of Environmental Conservation, August 2020.

New York State Department of Environmental Conservation (NYSDEC). 2010. *DER-10, Technical Guidance for Site Investigation and Remediation*, May 2010.

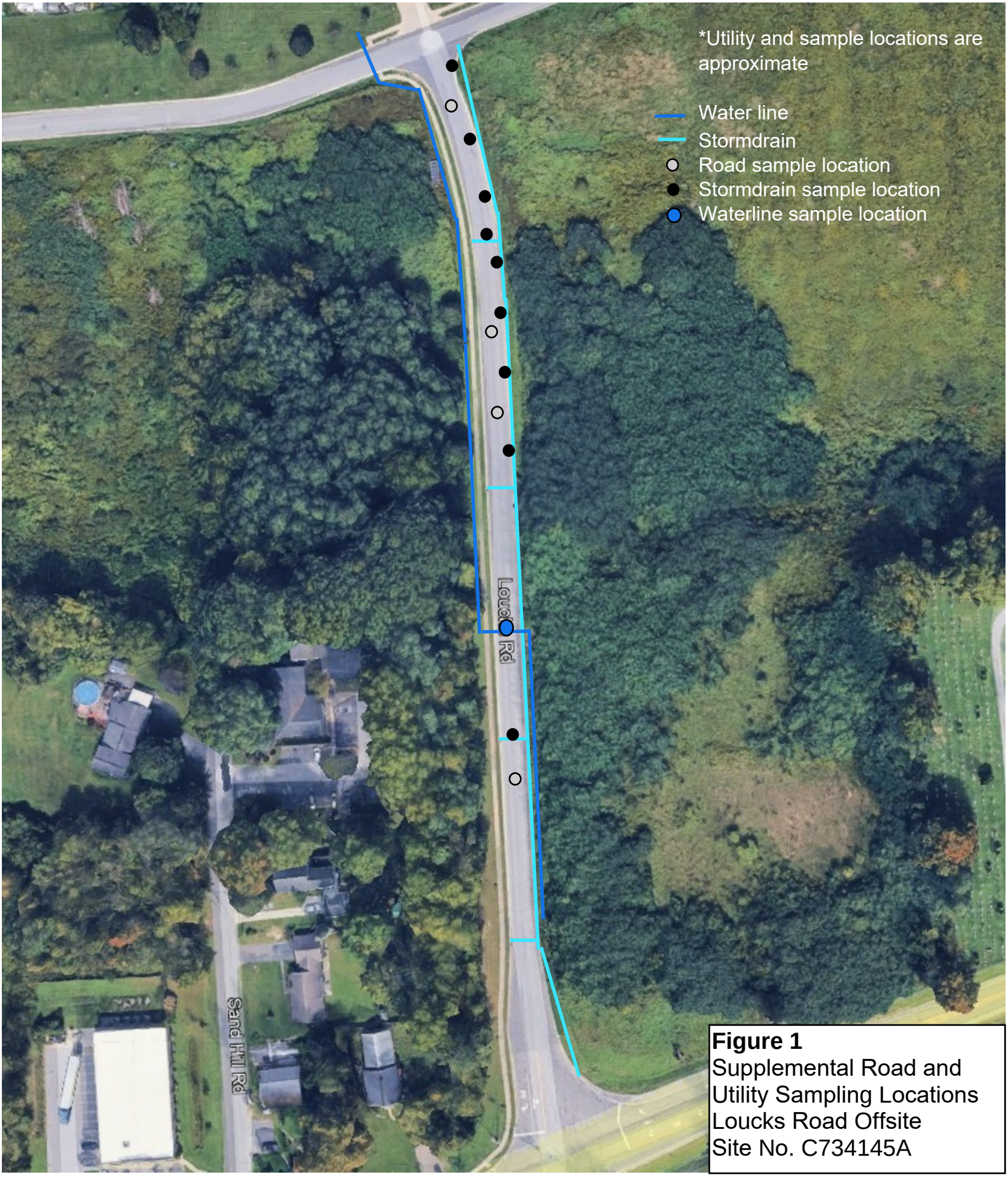


Figure 1
Supplemental Road and Utility Sampling Locations
Loucks Road Offsite
Site No. C734145A

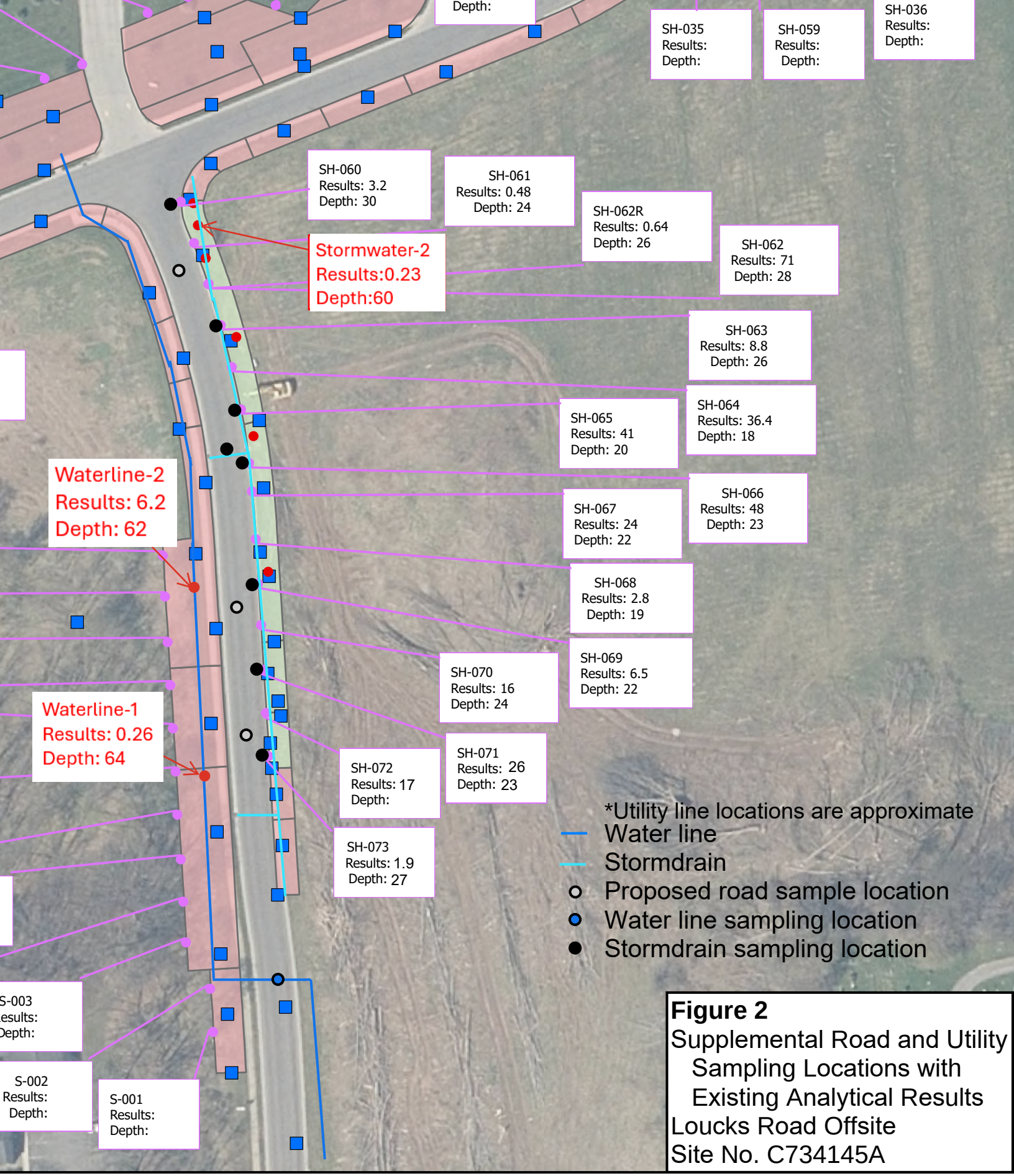


Figure 2
Supplemental Road and Utility Sampling Locations with Existing Analytical Results
Loucks Road Offsite
Site No. C734145A

APPENDIX A

COMMUNITY AIR MONITORING PLAN

Community Air Monitoring Plan
Loucks Road Extension - Off Site
NYSDEC Site No. C734145A
East Syracuse, New York

1.0 Community Air Monitoring Plan

The Community Air Monitoring Plan (CAMP) for this site requires real-time monitoring for particulates and volatile organic compounds (VOCs) in addition to air sampling for polychlorinated biphenyls (PCBs) between active work zones and potential receptors near the work area. Monitoring and sampling shall be conducted as described below when excavation of site soils potentially contaminated with PCBs is actively occurring. Particulate monitoring only shall be conducted when backfilling of excavated areas with imported soil is actively occurring.

Dust control measures will follow New York State Department of Health (NYSDOH) CAMP protocols as required by the New York State Department of Environmental Conservation (NYSDEC) DER-10 Technical Guidance for Site Investigation and Remediation (DER-10 Appendix 1A and 1B). 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 community (i.e., off-site receptors including residences, businesses, and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of 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.

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

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations shall be monitored continuously downwind of active excavation and backfill areas and at one location adjacent to the nearest potential community receptors at temporary particulate monitoring stations. See below for more monitoring details/locations. The particulate monitoring shall 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 and/or visual alarm to indicate exceedance of the action level. In addition, fugitive dust migration shall be visually assessed during all work activities.

Particulate Response Levels:

- If the downwind PM-10 particulate level is **100 micrograms per cubic meter** ($\mu g/m^3$) greater than background (upwind perimeter) for a 15-minute period or if airborne dust is visually 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 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 µg/m^3 of the upwind level and in preventing visible dust migration.

Volatile Organic Compound Monitoring Response Levels, and Actions

During ground intrusive activities VOC concentrations shall be monitored continuously at one downwind temporary monitoring locations and at one location adjacent to the nearest potential community receptors. See below for more monitoring details/locations. Upwind concentrations can be monitored continuously but at a minimum should be measured at the start of each workday and periodically thereafter to establish background conditions. VOC monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present such as a photo-ionization detector (PID). For specific contaminants, gas detector tubes or gas-specific meters may be employed. The monitoring equipment should be calibrated at least daily.

<u>VOC Response Levels</u>

- If the sustained ambient air concentration of total VOCs at downwind monitoring locations exceeds 1 part per million (ppm) above background, work activities must be temporarily halted and monitoring continued. If the total VOC level readily decreases (per instantaneous readings) below **1 ppm** over background, work activities can resume with **continuous** monitoring.

- If sustained total VOC levels at downwind monitoring locations persist at levels more than **1 ppm over background but less than 5 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 VOC level 100 feet downwind of the work zone or half the distance to the nearest potential receptor, whichever is less, is below 1 ppm.

- If the total VOC level is above **5 ppm** at the perimeter of the work area, activities must be shutdown and mitigative measures implemented before work can continue.

PCB Air Sampling, Response Levels, and Actions

During active remediation/excavation, PCB air monitoring will be conducted by collecting samples following EPA Method TO-10A (low volume polyurethane foam (PUF) sampling) procedures. A continuous-flow air sampling pump will be used to draw ambient air through a PUF cartridge supplied by the laboratory. The air sampling pump will be calibrated daily, or as otherwise required in accordance with the manufacturer's specifications. Sampling will be

conducted at a flow rate of approximately 2 to 3 liters per minute. The flow rate, total sampling duration, and calculated volume of air collected will be documented on daily field log sheets. The pump inlet will be positioned approximately 1 to 2 meters above ground surface and will be protected from precipitation. Upon completion of each sampling day, PUF cartridges will be placed on ice and shipped to the laboratory under appropriate chain-of-custody procedures. No field quality control samples (duplicates, blanks, etc.) will be collected. A Category A laboratory data report will be requested and reviewed; however, formal data validation will not be performed.

Sampling Locations

When performed, air sampling locations shall be coincident with particulate and VOC monitoring locations. On days of active excavation, regardless of the duration of excavation, one sample will be collected within 200 feet downwind of the active excavation, and another sample will be collected from the "fenceline" adjacent the closer of two areas considered to be at the greatest risk of exposure, regardless of daily wind direction and changes. The two closest potential receptors for "fenceline" sampling are the FedEx facility along Canada Drive and the Sand Hill Apartments west of Loucks Road. The sampling locations will be altered as needed based on wind direction for the downwind sample location and the proximity of active excavation on a given day for the "fenceline" locations.

Sampling Frequency

- Baseline samples will be collected prior to starting excavation, one upwind of the project area and two downwind off Canada Drive and Loucks Road. The baseline sampling results will replace routine upwind sampling during excavation.
- PCB air sampling will not be performed during startup excavation activities in the 6-inch-deep non-TSCA waste areas along the north and east sides of the Canada Drive cul-de-sac. Maximum PCB concentrations in this area were 3.5 ppm.
- Following the non-TSCA excavation work in the cul-de-sac and full mobilization, work will proceed with excavation in TSCA-waste areas. Sampling will be initiated on the first day of excavation within the TSCA waste areas and will be performed daily during the first week of excavation (five consecutive workdays). Analytical turnaround times (TAT) will be the fastest practicable, which is expected to be 72 hours from the end of the day of sampling. Depending on the lab selected, courier availability, and other factors, 48-hour TAT may be achieved.
- If there are no exceedances of the intermediate action level (0.11 $\mu g/m^3$) in sample results received prior to the second week of excavation, then the sampling frequency from the second week onward will be two times per week with a five-business-day TAT with approval from DEC/DOH following review of the available data.
- As noted in the action level table below, if the intermediate action level is exceeded in any of the air samples, then dust control measures will be immediately initiated upon DEC/DOH notification of the air results and sampling will be performed, at a minimum, over the next five days of excavation with the fastest TAT practicable. Dust control measures will continue to be implemented, and sampling will be reduced back to two times per week with a five-day TAT after the first five days with

approval by DEC/DOH following review of analytical data. Analytical results will continue to be evaluated with the appropriate response action taken in accordance with the action level table.

- During excavation of non-TSCA waste areas (excluding the north and east sides of the cul-de-sac), PCB air sampling will be conducted once per week with a 5-day analytical TAT. Sampling will continue at this rate until the end of active excavation activities. If at any time during non-TSCA excavation there is an exceedance of the action levels identified in action level table below, the appropriate action will be taken.

PCB Response Levels

Using DOHs guidelines for action levels, analytical results for total PCB concentrations in air samples will follow the corresponding actions of the table below.

Action Level	***Action Taken***
>0.08 µg/m3	*Notify NYSDEC and NYSDOH to discuss the sampling results, project activities, site conditions corresponding to the sampling period of interest, temporal and spatial results, and potential follow-up activities.*
> 0.110 µg/m³	• *Notify NYSDEC and NYSDOH as above.* • *Implement dust control measures immediately after receiving analytical results indicating exceedance of action level.* • *Collect air samples for five consecutive days starting on the first day of mitigation measures; continue with dust control measures until sample results are received.* • *If results are below this action level, continue with dust control and return to pre-exceedance sampling schedule.* • *If results remain above this action level during dust control measures, cease dust-generating activities and discuss alternative approaches and sampling frequency with NYSDEC and NYSDOH.*
> 0.5 µg/m³	*Cease dust-generating activities; notify NYSDEC and NYSDOH, and evaluate the project activities, site conditions, sampling results, alternate engineering controls, sampling frequency, etc. Resume activities with the approval of NYSDEC and NYSDOH.*

2.0 Public Safety

Intrusive activities such as excavating and direct push sampling within the community will require the development of an exclusion zone at the perimeter of the work zone. The

exclusion zone is meant to prevent pedestrians from entering the work zone and potentially being exposed to contaminants or safety hazards associated with the equipment used. The exclusion zone will be marked by the use of caution tape and/or cones. When working on or near a public road the regulations listed in the NYS Manual of Uniform Traffic Control Devices (Title 17b, NYCRR) will be implemented. This includes the correct formation and placement of cones and "Road Work Ahead" signs to divert and warn oncoming traffic. Depending on the type of work and length of time needed, traffic controllers and observers may be required. The Contractor shall submit a Traffic Control Plan for review and approval by the Engineer prior to initiating work on or adjacent to roads.

3.0 Responsibility

It shall be the responsibility of the Remedial Contractor's Site Safety Officer to conduct monitoring and sampling as defined above and record all relevant data in the health and safety field notebook, which will be available for State (NYSDEC and NYSDOH) personnel to review. The Site Safety Officer shall also be responsible for visually monitoring the work zone for potential safety hazards and to prevent public intrusion in the work zone.