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Wednesday, October 7, 2020

Sent Via email: Michael.Squire@dec.ny.gov
Mr. Michael H. Squire
New York State Department of Environmental Conservation
Project Manager, Division of Environmental Remediation, Remedial Bureau C
625 Broadway
12th Floor,
Albany, New York 12233-7014

RE: Site Field Investigation Work Plan – 265 S. Little Tor Road New City, New York
NYSDEC Site No. V00310

Dear Mr. Squire,

Environmental Consulting & Management Services, Inc. (ECMS) has prepared this Site Field Investigation Work Plan to assess the shallow aquifer, indoor air and sub-slab vapor conditions as part of the July 14, 2020 RIR response letter on behalf of Little Tor Shopping Center. ECMS' Site Field Investigation Work Plan was originally submitted via email on August 6, 2020 and herein amended. It was subsequently modified according to NYSDEC/NYSDOH input on August 19, 2020 and is now being submitted in response to a September 4, 2020 NYSDEC Letter outlining additional modifications and requirements.

ECMS proposes the following actions to address all the Departments concerns.

- Install as many as 8 temporary monitoring wells laterally, upgradient, down gradient, and in the source area
- Any competent historical wells in the vicinity that are located will be sampled.
- Temporary and or remaining historical monitoring wells will be surveyed in an attempt to identify relative groundwater elevations and current groundwater flow.
- ECMS will sample indoor/outdoor/sub-slab air at previously sampled points and in additional locations to illustrate the current SSDS is adequate.
- Provide pictures and a schematic of the SSDS
- Revised RIR with the proposed field investigation activities and other miscellaneous edits as per the July 14, 2020 RIR response letter.

Groundwater Investigation

The majority of the well network has been destroyed since the original well installations. ECMS proposes installing temporary wells to assess the current groundwater conditions. Depending on the tightness of the formation either a 3-inch hand auger or a Geoprobe® drill rig capable of installing 1-inch diameter temporary wells will be utilized to install the eight (8) proposed wells. Before installation activities begin NY Dig Safe will be called and a private utility mark out will be conducted. The private utility mark out will be conducted via a Ground Penetrating Radar(GPR) Survey.

If historical wells are located/uncovered and observed to be intact during the GPR Survey ECMS will default to use the historical well(s) to derive shallow aquifer conditions and groundwater flow direction. As a result of substituting a historic well the respective proposed temporary monitoring well will not be installed. When a historic well is uncovered and observed to be competent/incompetent ECMS will either repair/replace the well or respectively request to properly decommission the wells according to CP-43. At this time, ECMS requests to properly decommission the Monitoring wells MW-4 and MW-5 due to their lack of integrity.

Each temporary well will be completed with 1-inch dedicated diameter schedule 40 PVC casing and 0.020-inch slotted screen. Monitoring wells will be screened across the water table and set approximately 5 to 10 feet into the water table.

According to site conditions the water on-site ranges from 2 feet to 6 feet. A sand-pack will be placed in the annular space of the well, from the bottom of the soil boring to approximately 1 foot above the top of the well screen. The newly installed temporary monitoring wells will be surveyed into a scaled site plan in order to generate a groundwater elevation contour map. The groundwater elevation in the temporary wells will be used to determine groundwater flow directions. Historic groundwater flow direction on the property was generally west down the valley wall and north along the valley axis at the foot of the parking lot.

During well installation activities if drill cuttings are generated and they exhibit evidence of impacts the soils with the highest PID reading will be retained for analysis to classify soils for disposal offsite. ECMS anticipates a minimal amount of soil will be generated as part of the well installation. If evidence of impacts are observed and detected in the waste classification sample the drum will be disposed of at a NYSDEC registered/recognized disposal facility. If impacts are not observed and the analytical does not provide evidence of impacts in comparison with NYSDEC soil cleanup objectives for unrestricted use they will be deposited onsite after the review of waste characterization analytical results

Prior to sampling the groundwater, the newly installed wells will be properly developed to reduce the turbidity and increase the hydraulic interaction between the well and the shallow aquifer. Purged well groundwater will be staged in drums until it can be properly disposed. As necessary the liquids will be transported and disposed in drums or via a vacuum truck at a NYSDEC registered/recognized disposal facility. Each groundwater sample will be analyzed using EPA Method 8260 full list compounds. The groundwater analytical methods will achieve a minimum reporting limit of 1.0 micrograms per liter. The newly installed monitoring wells and/or historical wells will be depicted on a scaled site plan. The relative top of casing elevations will be determined by surveying the relative top of casing elevations. Those relative elevations will permit ECMS to interpret groundwater flow direction on the site. ECMS proposes to install temporary monitoring wells PMW-UG, PMW-4a, PMW-5a, PMW-6a, PMW-7a, PMW-8a, PMW-12a and PMW-13a. The well locations are identified in **Plate 1** and **Plate 2**. on the enclosed figures. These wells are proposed in lieu of locating competent historical wells. The actual locations of PMW-12a and PMW-13a will depend on access to the adjacent undeveloped areas to the west as it is overgrown with brush. After the installation, sampling, survey, and results are obtained the temporary wells will be removed, and the associated areas capped to prevent future surface intrusion.

Community Air Monitoring Plan

This Community Air Monitoring Plan (CAMP) is to outline steps that will be taken to ensure that air quality in the vicinity of the intrusive work will be at acceptable levels. At this time intrusive work is not planned. ECMS intends to install the wells and vapor points by hand auger. However, if hand digging is not adequate based on subsurface conditions a drilling contractor will be obtained to install the temporary wells. In which case, ECMS will notify the Department and the following CAMP monitoring will be performed. The need to perform CAMP monitoring procedures was identified in the September 4, 202 NYSDEC letter. The following plan provides steps to mitigate dust and VOCs based on procedures and action levels established below.

Real-time air monitoring for VOCs and particulate levels at the perimeter of the work area will be performed. Continuous monitoring will be performed for all ground intrusive activities and during the handling of contaminated or potentially contaminated media. For this project, ground intrusive activities include, but are not limited to, soil drilling/digging and waste handling.

Periodic monitoring for VOCs will be performed during non-intrusive activities such as the collection of soil samples or the collection of groundwater samples from historical monitoring wells. Periodic monitoring during sample collection, for instance, will 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. Depending upon the proximity of potentially exposed individuals, continuous monitoring may be performed during sampling activities. Examples of such situations include groundwater sampling at wells in

close proximity to the residential building or occupied areas. Exceedances of action levels observed during performance of the CAMP will be reported to the NYSDEC and included in a summary report.

VOC Monitoring, Response Levels, and Actions

The VOCs will be monitored at the downwind perimeter of the immediate work area on a continuous basis during intrusive work. Upwind concentrations will be measured at the start of each workday and periodically thereafter to establish background conditions. The monitoring work will be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment will be calibrated daily for benzene or for an appropriate surrogate. The equipment will be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

- If the ambient air concentration of benzene or for an appropriate surrogate at the downwind perimeter of the work area exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities will be temporarily halted and monitoring continued. If the benzene vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities will resume with continued monitoring.

- If benzene levels at the downwind perimeter of the work area persist at levels in excess of 5 ppm over background but less than 10 ppm, work activities will be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities will resume provided that the total organic vapor level 200 feet downwind of the work area 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 benzene or an appropriate surrogate level is above 10 ppm at the perimeter of the work area, activities will be shutdown.

All 15-minute readings will be recorded and be available for NYSDEC personnel to review. Instantaneous readings, if any, used for decision purposes will also be recorded.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations will be monitored continuously at the upwind and downwind perimeters of the work area at temporary particulate monitoring stations. The particulate monitoring will 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 will 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 (mcg/m3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques will be employed. Work will continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m3 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 mcg/m3 above the upwind level, work will be stopped, and a re-evaluation of activities initiated. Work will resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m3 of the upwind level and in preventing visible dust migration.

Odor Control

All necessary means will be employed to prevent on and offsite odor nuisances. At a minimum, procedures will include: (a) limiting the number of open waste drums; and (b) use of foams to cover exposed odorous soils. If odors develop and cannot otherwise be controlled, additional means to eliminate odor nuisances will include: (c) use of chemical deodorants by spraying exposed soils.

This odor control plan is capable of controlling emissions of nuisance odors. If nuisance odors are identified, 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 will be notified of all odor complaint events. Implementation of all odor controls, including halt of work, will be the responsibility of ECMS.

Dust Control

Dust management during invasive on-site work will include, at a minimum:

- Use of a dedicated water spray methodology for drilling areas and exposed equipment
- Exercise extra care during dry and high-wind periods.

This dust control plan is capable of controlling emissions of dust. If nuisance dust emissions are identified, work will be halted, and the source of dusts will be identified and corrected. Work will not resume until all nuisance dust emissions have been abated. NYSDEC will be notified of all dust complaint events. Implementation of all dust controls, including halt of work, will be the responsibility of ECMS.

Indoor, Outdoor Air and Sub-Slab Vapor Investigation

Soil vapor samples will be collected from two permanent points inside the building to address concerns due to potential vapor intrusion. In addition, two indoor air samples will be collected adjacent those points in the breathing zone. As per the September 4, 2020 NYSDEC/DOH letter two additional indoor air samples will be collected in corners opposite of the building to verify that the SSDS has effectively mitigated vapor intrusion within the entire building not just near the permanent sub-slab points. A background air sample from the outdoor air and an additional soil vapor sample beneath the parking lot to north of building will also be collected. The proposed sample locations are included in the enclosed figures. As part of the vapor investigation ECMS will conduct a product inventory. The current uses of the stores onsite are a barber, restaurants/deli, liquor store, smoke shop, as well as office space upstairs.

The sub-slab air samples will be collected from the historical permanent sub-slab points inside the building. These samples will be collected during heating season unless the NYSDEC requests otherwise. If the points are not able to be located or are not intact ECMS will install two temporary sub-slab vapor points in the general vicinity of the permanent points.

The soil gas sample in the parking lot will be installed with a hand auger and a two-inch split spoon attachment. It will be advanced 3 feet below grade to install a temporary one-inch diameter soil vapor sampling point. The temporary soil vapor sampling point will be completed to a depth of three feet below ground surface (bgs) and constructed with two and one-half (2.5') feet of 0.020-inch slotted screen and one-half (0.5') foot of solid PVC riser. Upon installation of the soil vapor sampling point the annular space will be backfilled with sand pack to the PVC riser elevation above which a one-half foot thick hydrated bentonite seal will be placed around the riser to ensure that ambient air from the surface cannot be drawn into the screened zone. Prior to sample collection the volume of air present in the vapor point will be removed to draw in vapors from the subsurface. The location of the temporary vapor point PSG-3 was moved to the north side of the building and is displayed on Plate 1. ECMS proposes to collect samples from PSG-1, PSG-2 PSG-3, PIA-1, PIA-2, PIA-3, PIA-4, and OA-1 in the respective areas on the enclosed revised figures. These figures have been altered according to discussions and email correspondence with the department.

Revised Remedial Investigation Report
The revised RIR report will include a narrative description of the work performed, tabulated laboratory analytical data, a site plan, well/vapor point logs, product inventory and original laboratory analytical reports to support ECMS' recommendations. The report will also include RIR revisions as requested and a schematic with pictures of the SSDS as per in the NYSDEC July 14, 2020 Remedial Investigation Report letter response.

ECMS requires department approval of this workplan or some variant prior to commencing work at the site. Should you have any questions or comments, please do not hesitate to contact the undersigned via email at harrys@ecmsny.com or via phone at (203)241-1030.

Sincerely,
Environmental Consulting and Management Services, Inc.

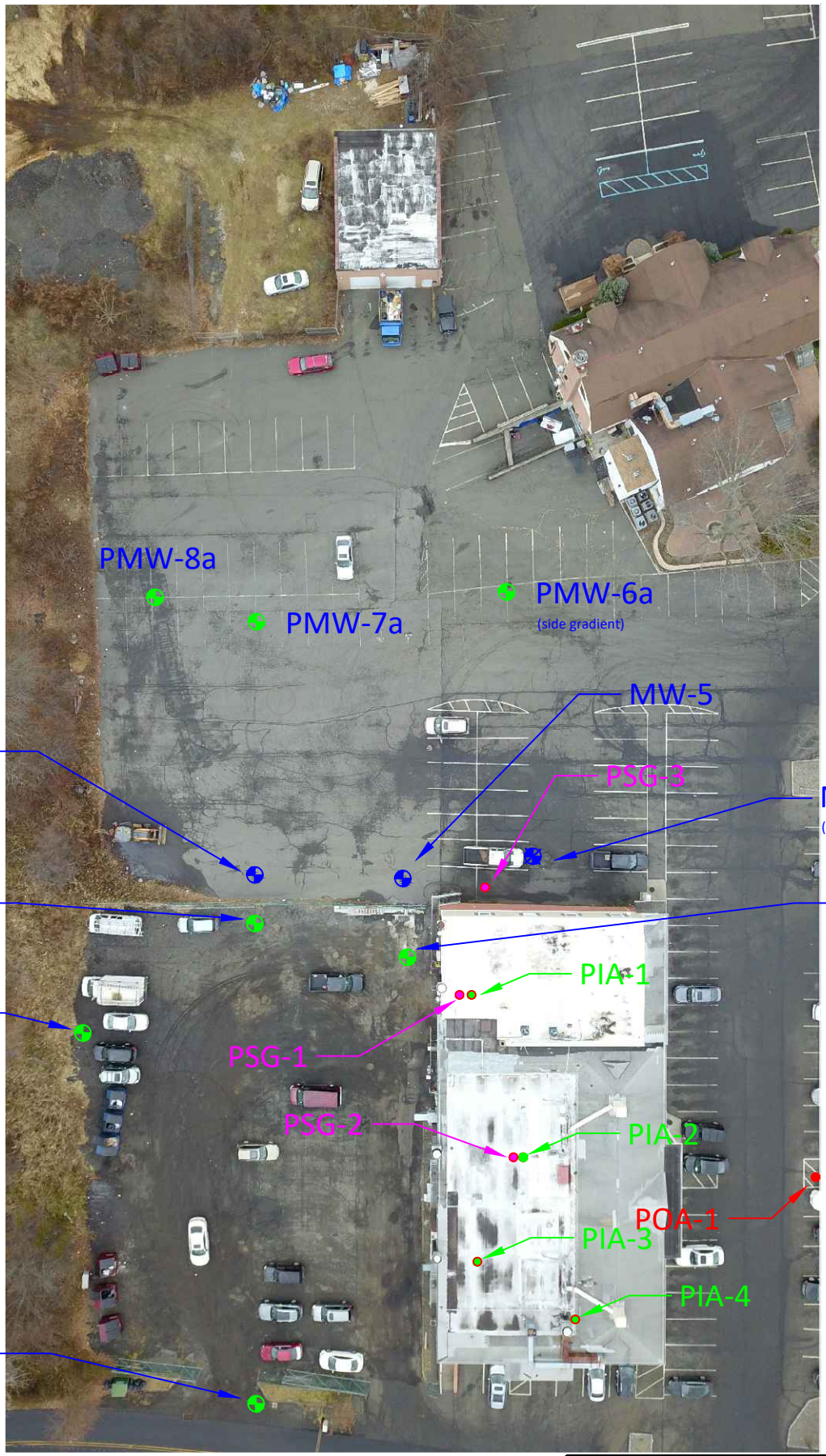
Harry Sudwischer
Director of Remediation and Spills

Enclosed:
ECMS, Inc - Plate 1 - Proposed Soil Gas and Temporary Monitoring Well Locations
ECMS, Inc - Plate 2 - Site Remediation Boundary with Proposed Downgradient Well Locations

CC: via email
Mr. Amen Omorogbe, NYSDEC - amen.omorogbe@dec.ny.gov
Ms. Jacquelyn Nealon, NYSDOH - jacquelyn.nealon@health.ny.gov
Maureen Schuck, NYSDOH - maureen.schuck@health.ny.gov
Mr. Marc Rutstein, ECMS, Inc. – marcr@ecmsny.com

Limitations
The recommendations contained in this letter represent ECMS's professional opinions based upon currently available information and are arrived at in accordance with currently acceptable professional standards. This letter is based upon a specific scope of work requested by the client. The contract between ECMS and its client outlines the scope of work and only those tasks specifically authorized by that contract or outlined in this letter were performed. This letter and attachments are intended only for the use of ECMS's client and anyone else specifically listed on this letter. ECMS will not and cannot be liable for unauthorized reliance by any other party. Other than as contained in this paragraph, ECMS makes no express or implied warranty as to the contents of this report.

PMW-12a and PMW-13a are located on Plate 2



Former compromised well locations

Approximate destroyed well locations

PMW-8a — Proposed temporary well locations. They are in the approximate former well locations.

Proposed Soil Gas Indoor Air and Outdoor Air sample locations respectively

Environmental Consulting & Management Services, Inc.

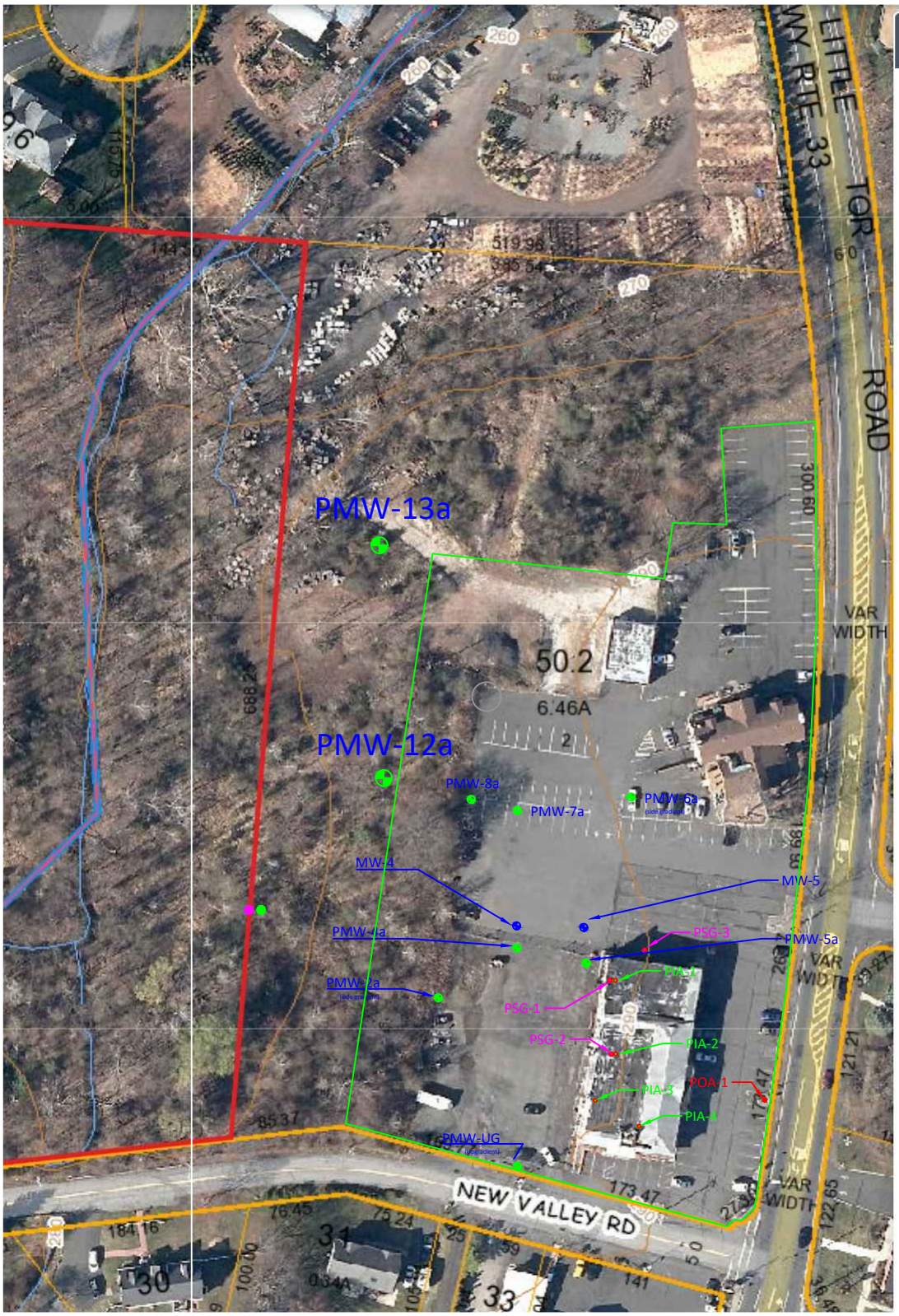
TITLE: Proposed Soil Gas and Temporary Monitoring Well Locations

Site: VCP # 00310-3
LOCATION: Little Tor Road Site
New City, New York

SCALE: DTS

PLATE: Plate 1 (Rev 2)

DRW BY: HS **DATE:** 10/06/20



Legend

Tax Map

North

Parcel ROWs

Parcel

Environmental

10 Foot Contour Elevations

100 Ft Contours

50 Ft Contours

10 Ft Contours

Streams, NYS DEC

303d Listed Stream

Waterbody Inventory

Streams, local

Tributaries

The imagery above was obtained from "Rockland County Base Map Application Planning Department -GIS" website

Former compromised well locations

PMW-8a Proposed temporary well locations. They are in the approximate former well locations.

Proposed Soil Gas Indoor Air and Outdoor Air sample locations respectively

Remedial site boundary

Environmental Consulting & Management Services, Inc.

TITLE

Proposed Soil Gas and Temporary Monitoring Well Locations

Site: VCP # 00310-3

LOCATION: Little Tor Road Site
New City, New York

SCALE DTS

PLATE Plate 2 (REV 1)

DRW BY: HS **DATE:**10/06/20