Final Engineering Report

NYSDEC Site Number: C447052

Prepared for: Hamilton Hill II Limited Partnership 90 State Street, Suite 602 Albany, New York 12207

Prepared by:

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MAY 2021

CERTIFICATIONS FINAL ENGINEERING REPORT HAMILTON HILL II – TARGET AREA 1 SITE SCHENECTADY, NEW YORK

I, Jeffrey A. Marx, P.E., am currently a registered professional engineer licensed by the State of New York, I had primary direct responsibility for implementation of the remedial program activities, and I certify that the Remedial Work Plan was implemented and that all construction activities were completed in substantial conformance with the Departmentapproved Remedial Work Plan.

I certify that the data submitted to the Department with this Final Engineering Report demonstrates that the remediation requirements set forth in the Remedial Work Plan and in all applicable statutes and regulations have been or will be achieved in accordance with the time frames, if any, established for the remedy.

I certify that all documents generated in support of this report have been submitted in accordance with the DER's electronic submission protocols and have been accepted by the Department.

I certify that all data generated in support of this report have been submitted in accordance with the Department's electronic data deliverable and have been accepted by the Department.

I certify that all use restrictions, institutional controls, engineering controls and/or any operation and maintenance requirements applicable to the site are contained in an environmental easement created and recorded pursuant to ECL 71-3605 and that any affected local governments, as defined in ECL 71-3603, have been notified that such easement has been recorded.

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, Jeffrey A. Marx, P.E., of C.T. Male Associates Engineering, Surveying, Architecture, Landscape Architecture & Geology, D.P.C., am certifying as Owner's Designated Site Representative for the Site.



5/19/2021

Jeffry A. Marp

Date

Signature

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LIST OF ACRONYMS

Acronym	Definition	
Adirondack	Adirondack Environmental Services, Inc.	
Alpha	Alpha Analytical, Inc.	
AST	Aboveground Storage Tank	
Aztech	Aztech Environmental Technologies	
BCA	Brownfield Cleanup Agreement	
ВСР	Brownfield Cleanup Program	
bsg	Below surface grade	
C.T. Male	C.T. Male Associates Engineering, Surveying, Architecture, Landscape Architecture & Geology, D.P.C.	
CAMP	Community Air Monitoring Plan	
Cason	Cason Transport, LLC.	
COC	Certificate of Completion	
Constantine	Constantine Construction and Farm, Inc.	
CQAP	Construction Quality Assurance Plan	
CWP	Construction Work Plan	
Department	New York State Department of Environmental Conservation	
DER-10	NYSDEC DER-10/Technical Guidance for Site Investigation and Remediation	
DUSR	Data Usability Summary Report	
EC	Engineering Control	
EDS	Environmental Data Services, Inc.	
ELAP	Environmental Laboratory Accreditation Program	
EPA	Environmental Protection Agency	
FER	Final Engineer Report	
FS	Floor Sample	
Gallivan	S.M. Gallivan, LLC.	

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Acronym	Definition	
HASP	Health and Safety Plan	
IC	Institutional Control	
Jackson	Jackson Demolition Service, Inc.	
Larned	William M. Larned & Sons, Inc.	
Maloy	J.H. Maloy, Inc.	
Mg/Kg	Milligrams per Kilogram	
MS	Matrix Spike	
MSD	Matrix Spike Duplicate	
NYS	New York State	
NYCRR	New York Codes, Rules and Regulations	
NYSDEC	New York State Department of Environmental Conservation	
NYSDOH	New York State Department of Health	
OSHA	Occupational Safety and Health Administration	
PBS	Petroleum Bulk Storage	
PCBs	Poly-Chlorinated Biphenyls	
PE	Professional Engineer	
PES	Precision Environmental Services, Inc.	
PID	Photoionization Detector	
PIM	Precision Industrial Maintenance, Inc.	
PM-10	Particulate Matter Less Than 10 Micrometers in Size	
QAPP	Quality Assurance Project Plan	
QEP	Qualified Environmental Professional	
RRS	Radon Reduction System	
RAOs	Remedial Action Objectives	
RWP	Remedial Work Plan	
RIWP	Remedial Investigation Work Plan	
RIR	Remedial Investigation Report	

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Acronym	Definition
QA/QC	Quality Assurance/Quality Control
SCOs	Soil Cleanup Objectives
SEQRA	State Environmental Quality Review Act
Site	Hamilton Hill II – Target Area 1 Site
STEL	Short Term Exposure Limit
SVI	Soil Vapor Intrusion
SVOCs	Semi-Volatile Organic Compounds
SW	Sidewall Sample
SWPPP	Stormwater Pollution Prevention Plan
TA3	Tank 3
TA4	Tank 4
TAL	Target Analyte List
TCL	Target Compound List
TCLP	Toxicity Characteristic Leaching Procedure
UST	Underground Storage Tank
UU	Unrestricted Use
U.W. Marx	U.W. Marx Construction Company
VOCs	Volatile Organic Compounds
Volunteer	Hamilton Hill II Limited Partnership
WC	Waste Characterization
WPCP	Water Pollution Control Plant

FINAL ENGINEERING REPORT

1.0 BACKGROUND AND SITE DESCRIPTION

Hamilton Hill II Limited Partnership entered into a Brownfield Cleanup Agreement (BCA) with the New York State Department of Environmental Conservation (NYSDEC) in November 2018, to investigate and remediate a 0.81-acre property located in the City of Schenectady, New York. The property was remediated to unrestricted use and will be redeveloped into affordable housing.

The Site is located in the County of Schenectady, New York. The Site is comprised of two (2) non-contiguous parcels that are separated from each other by a roadway (Craig Street).

The first parcel, which is hereinafter referenced as the 830 Albany Street parcel, is identified as a portion of Block 2 and Lot 33.1 on the City of Schenectady Tax Map # 49.33. The parcel is situated on an approximately 0.68-acre area bounded by Albany Street to the north, residential development to the south, Craig Street to the east, and a mixture of residential and commercial development to the west (see Figure 1: Site Location Map).

The second parcel, which is hereinafter referenced as the 834 Albany Street parcel, is identified as a portion of Block 4 and Lot 10.1 on the City of Schenectady Tax Map # 49.33. The parcel is situated on an approximate 0.13-acre area bounded by Albany Street to the north, residential development to the south, a mixture of residential and commercial development to the east, and Craig Street to the west (see Figure 1). The boundaries of the site are fully described in Appendix A: Environmental Easement Survey, Metes and Bounds.

2.0 SUMMARY OF SITE REMEDY

2.1 Remedial Action Objectives

Based on the results of the Remedial Investigation, the following Remedial Action Objectives (RAOs) were identified for this Site, as listed in the November 2019 Decision Document dated for the Site.

2.1.1 Groundwater RAOs

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.

RAOs for Environmental Protection

- Restore groundwater aquifer to pre-disposal/pre-release conditions, to the extent practicable.
- Remove the source of groundwater contamination.

2.1.2 Soil RAOs

RAOs for Public Health Protection

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

RAOs for Environmental Protection

• Prevent migration of contaminants that would result in groundwater contamination.

2.1.3 Soil Vapor RAOs

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.

2.2 Description of Selected Remedy

The site was remediated in accordance with the remedy selected by the NYSDEC in the Decision Document dated November 2019.

The factors considered during the selection of the remedy are those listed in 6 NYCRR 375-1.8. The following are the components of the selected remedy:

- 1. Remedial design to provide the details necessary for the construction, operation, optimization, and monitoring of the remedial program.
- 2. Excavation and disposal of fill/soil exceeding unrestricted Soil Cleanup Objectives (SCOs) listed in Table 375-6.8(a) in 6 NYCRR Part 375 to depths ranging from three (3) to 15 feet below existing surface grades.
- 3. Closure by removal of bulk storage tanks.
- 4. Backfill with clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) for unrestricted use.
- 5. Off-site disposal of Investigation Derived Wastes (IDW).
- 6. Post remedial action groundwater sampling/monitoring.
- 7. Decommissioning of monitoring wells.
- 8. Soil vapor intrusion (SVI) evaluation.
- 9. Imposition of an institutional control in the form of an environmental easement for restriction of groundwater use.

3.0 INTERIM REMEDIAL MEASURES, OPERABLE UNITS AND REMEDIAL CONTRACTS

The remedy for this Site was performed as a single project, and no interim remedial measures, operable units or separate construction contracts were performed.

3.1 Operable Units

There were no formal operable units established for this site. As such, the entire site, consisting of the 830 Albany Street parcel and the 834 Albany Street parcel, is considered Operable Unit No. 1, if necessary.

3.2 Remedial Contracts

The remedial action for this site was performed under contract between Hamilton Hill II Limited Partnership (Owner/Volunteer) and U.W. Marx Construction Company (U.W. Marx) of Troy, New York as the General Contractor. U.W. Marx subcontracted the site excavation work to J.H Maloy, Inc. (Maloy) of Loudonville, New York. U.W. Marx also subcontracted some portions of the work to Mead Enterprises of Waterford, New York.

The environmental engineering observation, sampling, reporting and applicable certifications were performed by C.T. Male under contract with Hamilton Hill II Limited Partnership.

4.0 DESCRIPTION OF REMEDIAL ACTIONS PERFORMED

Remedial activities completed at the Site were conducted in accordance with the NYSDEC-approved Remedial Work Plan (RWP) for the Hamilton Hill II – Target Area 1 Site (May 2019 [Revised October 2019]) and the November 2019 Decision Document. All deviations from the RAWP and Decision Document are noted below.

4.1 Governing Documents

The remedial action was to be performed in accordance with the Site Specific Health and Safety Plan, Quality Assurance Project Plan, Construction Work Plan, Soil/Materials Management Plan, Stormwater Pollution Prevention Plan, Community Air Monitoring Plan, Contractors Site Operation Plans, and Citizen Participation Plan. The use of these plans is described in the following sections.

4.1.1 Site Specific Health & Safety Plan (HASP)

C.T. Male personnel adhered to the provisions of the site-specific HASP developed by C.T. Male and approved by the Department. The general contractor and its subcontractors were responsible for developing and adhering to their own site-specific HASPs.

C.T. Male field personnel were required to comply with in-house Standard Operating Procedures that were developed in response to the coronavirus COVID-19 pandemic, which included, but was not limited to, social distancing, disinfection procedures and wearing a face covering, where applicable.

All remedial work performed by C.T. Male personnel under this Remedial Action was in full compliance with governmental requirements, including Site and worker safety requirements mandated by Federal OSHA, and COVID-19 related Executive Orders issued by the Governor of the State of New York.

4.1.2 Quality Assurance Project Plan (QAPP)

The QAPP was included as Appendix B of the December 2018 (Revised February 2019) Remedial Investigation Work Plan approved by the NYSDEC. The QAPP described

the specific policies, objectives, organization, functional activities and quality assurance/quality control activities designed to achieve the project data quality objectives.

4.1.3 Construction Work Plan (CWP)

A Department approved Construction Work Plan (CWP), dated December 2019, was prepared by C.T. Male. The CWP supplemented the RWP and provided the logistics for the Remedial Action.

In addition to the CWP, the following construction quality assurances were generally employed during the remedial action.

- C.T. Male provided full-time construction observers to observe and document the remedial action; collect confirmatory post-excavation samples for laboratory analyses; implement the community air monitoring program (CAMP); sign non-hazardous waste manifests as an agent for the Volunteer (Hamilton Hill II Limited Partnership); and verify Part 364 trucking permits were valid. The construction observer prepared a daily log summarizing the daily activities.

- C.T. Male provided an Engineer of Record to supervise the construction observer; review contractor submittals; coordinate and communicate with the NYSDEC Project Manager; participate in construction progress meetings; review of analytical data; and certify the Final Engineering Report (FER).

- The general contractor was responsible for adhering to the provisions of the RWP and CWP, and C.T. Male worked with the subcontractors to assist them with understanding the provisions of the RAWP and CWP.

4.1.4 Soil/Materials Management Plan

Guidelines for the proper management of impacted soil/materials were detailed in sections 1.4, 1.7 and 2.5 of the RWP. Generally, 30 foot by 30 foot excavation grids were overlaid across the Site to guide the confirmatory post-excavation sampling plan. At each grid, impacted fill/soil was excavated employing a track-mounted excavator and either directly loaded into trailer and dump trucks or the impacted fill/soil was temporarily stockpiled atop and covered with 12-mil poly for future loading. During loading, the trailer

and dump trucks were staged atop a stabilized construction entrance constructed in accordance with specifications in the RAWP (crushed stone at least 6-inches deep).

Per the RWP, each of the trailer and dump trucks was required to be equipped with a solid cover to minimize the release of impacted soil during transport. The trailers and dump trucks used for the transport of the impacted fill/soil had NYCRR Part 364 permits and were confirmed in the field. The impacted fill/soil was disposed of off-site at permitted disposal facilities under the contained-in determinations letters received from the Department (see Appendix J). C.T. Male and the Department reviewed and approved the facilities' approval letters prior to exportation.

4.1.5 Storm-Water Pollution Prevention Plan (SWPPP)

The site disturbance was less than one (1) acre and therefore a formal SWPPP was not required to be prepared by the State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity. Stormwater pollution prevention measures were described in Section 3.0 of the RWP and were initiated by the remediation contractor. These measures included installation of construction entrances within the 830 and 834 Albany Street parcels and installation of silt fencing along the southern boundary of the 830 Albany Street parcel. Sediment from the Site was not observed on sidewalks, roadways and properties adjoining the Site during the completion of the soil handling portion of the remedial action as the site elevation was mostly lower than the surrounding areas limiting the chance for stormwater to escape the site boundaries.

4.1.6 Community Air Monitoring Plan

Air monitoring for both volatile organics and particulates was performed during remedial action field activities in accordance with the requirements of the RWP and the New York State Department of Health (NYSDOH) Generic CAMP. C.T. Male utilized three (3) real-time volatile organic and particulate monitors capable of continuously measuring concentrations of volatile organics in parts per million (ppm) and particulate matter less than 10 micrometers in size (PM-10). The monitors were placed at temporary monitoring stations, based on the prevailing wind direction each day, one (1) upwind and

two (2) downwind of the work area. Volatile organic and particulate monitoring was discontinued during heavy rain events or during non-ground intrusive activities.

As an exception, two (2) air monitoring stations were employed during the collection of waste characterization samples for the disposal facilities prior to the commencement of the remedial action. The two (2) stations were employed because ground intrusive activities were limited to the excavation of isolated test pits and did not involve the mass excavation and handling of the Site's soils as part of the remedial action. Also, the CAMP was not implemented during the advancement of soil borings for installation of post remedial action monitoring wells. This modification pertaining to the soil borings was pre-approved by the Department. The Department's approval is included in Appendix T.

4.1.7 Contractors Site Operations Plans

C.T. Male reviewed all plans and submittals for this remedial project (i.e. those listed above plus contractor and subcontractor submittals) and confirmed that they were in compliance with the RAWP. All remedial documents were submitted to NYSDEC and NYSDOH prior to the start of work.

4.1.8 Citizen Participation Plan

A Citizen' Participation Plan dated January 2019, was prepared to involve the public to enable citizens to participate in decisions that affect their health, environment, and social well-being. For this project there were a series of fact sheets distributed to the public. In addition, these fact sheets (and other important documents) were made available to the public at two project designated repositories. The repositories were the Schenectady County Public Library on Clinton Street in Schenectady and the NYSDEC Region 4 Office on North Westcott Road in Schenectady, New York. Listed below is a summary of the notices and fact sheets that were issued for this project and that are available on the DECinfo Locator (URL link below).

(https://link.edgepilot.com/s/5c9138b6/w0bKW6rtPUqrkJN2WMLhdg?u=https://www.d ec.ny.gov/data/DecDocs/C447052/).

- Public Notice BCP Application received 6/1/2018 [All comments were required to be submitted by July 13, 2018.]
- Draft RIWP Received 1/2/2019 [NYSDEC accepted comments about the draft Remedial Investigation Work Plan for 30 days, from January 9 through February 9, 2019.]
- Draft RIR Submitted 7/31/2019 [No comment period was required.]
- Draft RWP Received 8/14/2019 [NYSDEC accepted written comments about the proposed plan for 45 days, from August 14 through September 30, 2019.]
- Remedial Action Begins 11/27/2019 [No comment period was required.]
- Cleanup Action Completed 3/10/2021 [No comment period was required.]

4.2 Remedial Program Elements

4.2.1 Consultants and Contractors

Primary Consultant: C.T. Male

C.T. Male was the Remediation Engineer and acted as an intermediary between the Volunteer and general contractor (i.e., remediation contractor). C.T. Male provided a fulltime on-site construction observer for the duration of the remedial action. The construction observer was supervised by C.T. Male's Engineer of Record. The Engineer of Record conducted periodic Site visits and participated in construction meetings.

In general, C.T. Male's responsibilities included: documenting that the remediation contractor adhered to the RWP; review and approval, in consultation with the Department, of disposal facility, waste manifest and imported fill source submittals; construction observation; review of Part 364 trucking permits; waste manifests signatory as agent for the Volunteer; implementation of the CAMP; preparation of field notes and drawings summarizing the progress of the remedial action; collection of confirmatory post-excavation media samples for laboratory analyses; and collection of post remedial action groundwater samples for laboratory analyses. Ultimately, completing all the above tasks

equipped C.T. Male with the confidence to provide professional engineer certification of this Final Engineering Report.

Sub-Consultant (Analytical Laboratory): Alpha Analytical, Inc.

Alpha Analytical, Inc. (Alpha) of Westborough, Massachusetts performed laboratory analyses on confirmatory post-excavation environmental media samples collected during the remedial action and groundwater samples collected from the post remedial action monitoring wells. The analytical data was presented in ASP Category B data deliverable packages and EQuIS Version 4 electronic data deliverables (EDDs). Alpha is a NYSDOH Environmental Laboratory Accreditation Program (ELAP) certified laboratory.

Sub-Consultant (Data Validation): Environmental Data Services, Inc.

Environmental Data Services, Inc. (EDS) of Virginia Beach, Virginia was the thirdparty independent data validator that performed data validation of the confirmatory postexcavation media samples. EDS generated Data Usability Summary Reports (DUSRs) per Appendix 2B: Guidance for Data Deliverables and the Development of Data Usability Summary Reports of DER-10.

Sub-Consultant (Drilling): Precision Environmental Services, Inc.

Precision Environmental Services, Inc. (PES) of Ballston Spa, New York was the drilling contractor that was utilized for installation of the post remedial action monitoring wells.

General Contractor: U.W. Marx

U.W. Marx of Troy, New York was the general contractor for the entire development project and generally oversaw the remedial action at the Site. U.W. Marx retained the remediation contractor and had overall responsibility that the remedial action was completed in accordance with the RWP.

Remediation Contractor: Maloy

Maloy of Loudonville, New York was the primary remediation contractor for the Site's remedial action. Maloy provided the equipment and manpower necessary for the collection of waste characterization samples; the excavation, load-out and transport of impacted soils for off-site disposal; removal of underground tanks; and the placement and compaction of imported fill material. Maloy is a Part 364 permitted transporter.

Remediation Sub-Contractor (Laboratory): Adirondack Environmental Services, Inc.

Adirondack Environmental Services, Inc. (Adirondack) of Albany, New York was retained by Maloy to: collect and analyze waste characterization and imported fill samples; collect and analyze samples of the liquid contents of an underground tank; and collect and analyze samples of the liquids contained in drums of Remedial Investigation (RI)-derived wastes. Adirondack is a NYSDOH ELAP certified laboratory.

<u>Remediation Sub-Contractor (Tank Closure/Disposal of Miscellaneous Wastes): Jackson</u> Demolition Service, Inc. and Precision Industrial Maintenance, Inc.

Jackson Demolition Service, Inc. (Jackson) of Schenectady, New York was retained by U.W. Marx to close the aboveground tanks in the basement of the former building addressed as 830 Albany Street within the 830 Albany Street parcel.

Precision Industrial Maintenance, Inc. (PIM) of Schenectady, New York was retained by Maloy to close the underground tanks and to dispose of the drums of RI-derived liquid wastes. PIM also disposed of drums of soil and liquid wastes generated from installation of the post remedial action monitoring wells. PIM is a Part 364 permitted transporter.

Remediation Sub-Contractor (Monitoring Well Decommissioning): Aztech Environmental Technologies.

Aztech Environmental Technologies (Aztech) of Ballston Spa, New York was retained by Maloy to decommission monitoring wells installed during previous Site investigations and the post remedial action monitoring wells.

<u>Remediation Sub-Contractors (Trucking):</u> Maloy; Cason Transport, LLC; S.M. Gallivan, LLC; Constantine Construction and Farm, Inc.; and William M. Larned & Sons, Inc.

Maloy, Cason Transport, LLC (Cason), S.M. Gallivan, LLC (Gallivan) and Constantine Construction and Farm, Inc. (Constantine) are the Part 364 permitted trucking companies that transported the remediated impacted fill/soil to the disposal facilities.

William M. Larned & Sons, Inc. (Larned) was the trucking company that imported fill onto the Site for use as remedial excavation backfill.

4.2.2 Site Preparation

U.W. Marx installed temporary chain-link security fencing around the Site perimeter in November 2019. The fencing was approximately eight (8) feet high with lockable gates. The fencing was originally equipped with woven security screening that was later intermittently removed to preclude winds from knocking down the fencing.

Maloy conducted Site preparation tasks in November and December 2019. Site preparation tasks included waste characterization sampling for the proposed disposal facilities, snow clearing, and installation of truck entrances and decontamination pads within the Site.

Erosion and sediment controls implemented by Maloy included installation of silt fencing in grassy areas along the southern and southwestern boundaries of the 830 Albany Street parcel.

U.W. Marx and Maloy were responsible for marking all Site utilities.

Conference calls between the Department's Project Manager and Remediation Engineer were conducted as necessary during the remedial action. The Department's Project Manager conducted periodic Site visits.

4.2.3 General Site Controls

Site security included installation and maintenance of chain-link security fencing with lockable gate around the perimeter of the Site.

C.T. Male's construction observer prepared daily logs during the remedial action. The logs included information regarding the contractor's activities and progress, community air monitoring, media sampling, Site visitors, and meteorological conditions. Drawings depicting the locations of dust monitors, excavation limits and stockpile areas were attached to the logs.

Erosion and sediment control included installation of silt fencing along the southern and southwestern boundaries of the 830 Albany Street parcel and construction entrances within the 830 and 834 Albany Street parcels. Impacted fill/soil was confined within the Site boundaries and was not tracked onto adjacent sidewalks, roadways and properties during handling and load-out. The accumulation and/or overland flow of stormwater was not observed on the Site during precipitation events.

Stockpiling of impacted fill/soil was necessary throughout the project when the excavated material was not immediately loaded into dump or trailer trucks. Stockpiles were maintained within the property boundaries. Generally, any stockpile left on-site during non-working hours was covered with plastic sheeting until it was loaded into trucks for off-site disposal.

4.2.4 Nuisance Controls

Potential nuisances to the surrounding community during implementation of the remedial action included tracking of impacted fill/soil onto roadways, migration of dust, odors emanating from excavations and stockpiles, and truck traffic. There were no complaints from the surrounding community during implementation of the remedial action.

Impacted fill/soil was loaded into dump and trailer trucks that were staged atop stone-based construction entrances within the 830 and 834 Albany Street parcels. The dump and trailer trucks were loaded in a controlled manner to prevent the spillage of impacted fill/soil. Off-site dust migration was not observed during the excavation and loading out of impacted fill/soil, closure of tanks and decommissioning of monitoring wells during the remedial action, and installation of the post remedial action monitoring wells. Isolated occurrences of dust generation were encountered when non-environmentally impacted concrete was being mechanically broken up and stockpiled, and during installation of fence posts off-site. These issues are further discussed in Section 4.2.5: CAMP Results.

Odors from impacted fill/soil excavations and stockpiles were not observed during the remedial action. Stockpiles of impacted fill/soil were covered with polyethylene at the conclusion of each workday.

Dump and trailer trucks utilized to transport the impacted fill/soil to the disposal facilities accessed the Site from Craig Street. Typically, one (1) to four (4) trucks made two (2) to four (4) round trips to the disposal facilities per day. The dump and trailer trucks were staggered so that traffic was not significantly impeded on roadways adjoining or in the vicinity of the Site.

4.2.5 CAMP Results

There were no VOC exceedances recorded above the 15-minute short-term exposure limit (STEL) during the remedial action. There were seven (7) recorded incidences of dust exceedances above the 15-minute STEL. These are summarized in Table 4.2.5 below.

TABLE 4.2.5: CAMP EXCEEDANCES					
DATE	TE SUMMARY				
	This isolated dust incident was caused by Maloy demolishing and				
	stockpiling the non-environmentally impacted concrete foundation				
12/11/2019	of the former building addressed as 830 Albany Street within the 830				
12/11/2019	Albany Street parcel. Maloy addressed the dust by employing more				
	prudent and controlled work practices. There were no other dust				
	exceedances recorded for that day.				

TABLE 4.2.5: CAMP EXCEEDANCES			
DATE	SUMMARY		
12/12/2019	This isolated dust incident was caused by Maloy demolishing and stockpiling the non-environmentally impacted concrete foundation of the former building addressed as 830 Albany Street within the 830 Albany Street parcel. Maloy addressed the dust by employing more prudent and controlled work practices. There were no other dust exceedances recorded for that day.		
01/24/2020	This isolated dust incident was caused by Maloy mechanically breaking up non-environmentally impacted concrete within the 830 Albany Street parcel. Maloy addressed the dust by employing more prudent and controlled work practices. There were no other dust exceedances recorded for that day.		
02/21/2020	This isolated dust incident was caused by the starting and warming up of a mini-excavator adjacent to the dust monitor where the equipment's exhaust triggered the dust monitor.		
02/24/2020	This isolated dust incident occurred when the dust monitor was first put into operation. Remedial activities were not taking place in the vicinity of the dust monitor when put into operation. The exceedance is attributed to dust that may have accumulated during overnight storage of the monitor. It is common for this monitor as there is an automatic purging step as part of equipment start-up.		
03/12/2020	This isolated dust incident was caused by the mechanical (jackhammering) installation of fence posts within the sidewalk along the western side of Craig Street. The sidewalk is not within the Site boundaries.		

TABLE 4.2.5: CAMP EXCEEDANCES			
DATE SUMMARY			
04/02/2020	This isolated dust incident occurred when the dust monitor was first put into operation. Remedial activities were not taking place in the vicinity of the dust monitor when put into operation. The exceedance is attributed to dust that may have accumulated during overnight storage of the monitor. It is common for this monitor as there is an		
	automatic purging step as part of equipment start-up.		

Copies of all field data summary sheets relating to the CAMP are provided in Appendix B.

4.2.6 Reporting

All monthly reports are included in Appendix C. All daily field logs prepared by C.T. Male personnel are included in Appendix D.

The monthly progress reports (Appendix C) were submitted to the NYSDEC Project Manager by C.T. Male. The monthly progress reports included information pertaining to work performed and work anticipated to be performed, approved activity modifications, results of sampling and tests, percentage of project completion, unresolved delays affecting the project schedule, and citizen participation activities. The monthly progress reports were a requirement of the BCA and were submitted by the tenth day of each month.

The daily field logs (Appendix D) were prepared by C.T. Male's construction observer. The reports included information regarding the contractor's activities and progress, community air monitoring, media sampling, Site visitors, and meteorological conditions. Drawings depicting the locations of dust monitors, excavation limits and stockpile areas were attached to the logs. The digital photo log required by the RWP is included in Appendix E.

4.3 Contaminated Materials Removal

The following contaminated media were removed during the remedial action: impacted fill/soils; two (2) aboveground and two (2) underground bulk storage tanks; RI-

derived wastes; and wastes generated from the installation and sampling of the post remedial action monitoring wells. A detailed description of the removal activities is provided in the following sections.

Impacted fill/soil was removed to meet Unrestricted Use (UU) SCOs for the Site. A list of the SCOs for the contaminants of concern for this project is provided in Table 375-6.8(a) in Appendix F. A figure of the location of original sources and areas where excavations were performed is shown in Figure 2: Remedial Action Overview.

4.3.1 Remediation of Impacted Fill/Soil

Impacted fill/soil was excavated and disposed of off-Site. The remedial excavations generally extended to the Site boundaries with the exception of soils beneath the foundations of former buildings located within the northeastern and northwestern portions of the 830 and 834 Albany Street parcels, respectively. Analytical testing of soils beneath these foundations during the RI reported the analyzed compounds and analytes at concentrations below UU SCOs. The horizontal and vertical extent of the fill/soil remedial excavations after impacted fill/soil removal are depicted on Figure 3: Remedial Action Excavation Limits.

Depths of excavation for remediation purposes varied throughout the Site and were determined based on post-excavation confirmatory sampling results and visual observations (i.e. lack of field evidence of contamination, such as odors, staining, discoloration, sheen and/or elevated photoionization (PID) readings; which are included in the daily field logs in Appendix D).

Decommissioning of Monitoring Wells

Monitoring wells installed during previous investigations were decommissioned per NYSDEC policy CP-43: Groundwater Monitoring Well Decommissioning Policy. The monitoring wells decommissioned included RI installed monitoring wells RIMW1, RIMW2, RIMW3, RIMW3D, RIMW4, RIMW4D, RIMW5, RIMW6 and RIMW6D, and Phase II Environmental Site Assessment (ESA) installed monitoring wells 834-MW2 and MW1 to MW5. The monitoring wells were decommissioned by Aztech on January 20, 2020. The monitoring well decommissioning logs are included in Appendix S. As depicted in the logs, all wells were decommissioned by tremi-grouting the wells from the bottoms of the wells to the ground surface, with the exception of RI-installed RIMW1 (destroyed during the initial remedial excavations) and Phase II ESA installed MW4 (could not be located and was previously identified during the RI as being destroyed).

Monitoring wells installed post remedial action were also decommissioned per NYSDEC policy CP-43: Groundwater Monitoring Well Decommissioning Policy. Monitoring wells from the post remedial action included RAMW-1, RAMW2, RAMW3, RAMW4, RAMW5 and RAMW6. On February 10, 2021, monitoring wells RAMW5 and RAMW6 were decommissioned but RAMW-1, RAMW2 and RAMW3 were not able to be located. After additional efforts were made to locate the wells, monitoring wells RAMW-1 and RAMW2 were decommissioned on March 11, 2021. It is believed that monitoring well RAMW3 was destroyed when the sidewalk along Craig Street was installed and is no longer accessible..

4.3.1.1 Disposal Details

Disposal Facilities

Two (2) disposal facilities were utilized for the disposal of impacted fill/soil. These included the Town of Colonie Landfill in Cohoes, New York and the Waste Management Green Ridge Disposal Facility in Gansevoort, New York. Disposal facility approval letters are included in Appendix G.

Waste Characterization Sampling

Waste characterization sampling for the disposal facilities was conducted by Maloy in November 2019. Maloy advanced test pits throughout the Site and retained Adirondack to collect and analyze samples representative of fill/soil mantling the Site. The analytical reports for the waste characterization sampling are included in Appendix H.

Per- and Polyfluorinated Alkyl Substances (PFAS)

At the request of the disposal facilities, C.T. Male provided analytical summary tables and analytical reports for surface soil, subsurface soil and groundwater samples collected for PFAS analyses during the RI as a condition of their acceptance. The analytical tables and reports are included in Appendix I.

Contained-In Determination

Based on the Site's historic use in part as a dry cleaner, Contained-In Determination requests were submitted to the Department's Division of Solid and Hazardous Materials to determine if the Site's fill/soil and groundwater required management as a hazardous waste under the "contained-in" criteria as outlined in Technical and Administrative Guidance Memorandum (TAGM) 3028.

Based on review of analytical data of fill/soil and groundwater samples collected during the waste characterization (fill/soil) and RI (groundwater) sampling, the Department concluded that the fill/soil and groundwater were not hazardous and could be disposed of as a non-hazardous waste.

The Contained-In Determination letters for fill/soil (dated December 5, 2019) and groundwater (dated November 22, 2019) are included in Appendix J.

Transporters

Maloy, Cason, Gallivan and Constantine are the Part 364 permitted trucking companies that transported the impacted fill/soil to the disposal facilities. The Part 364 transporter permits for these trucking companies are included in Appendix K.

Excavation and off-site disposal of impacted fill/soil was conducted from December 2019 to April 2020. Table 4.3.1.1 below shows the total quantities of each category of material removed from the Site and the disposal locations.

Facility Name	Facility Location	Quantities (tons)
Town of Colonie Landfill	1319 New Loudon Road, Cohoes, NY.	7,429.31
Waste Management Green Ridge Disposal Facility	19 Peters Road, Gansevoort, NY.	2,611.28
	TOTAL:	10,040.59

 Table 4.3.1.1: Disposal Facility Locations

A total of approximately 10,040.59 tons of impacted fill/soils were excavated and disposed of off-site during the remedial action. Due to precautions initiated at the disposal facilities due to the COVID-19 pandemic, NYSDEC allowed a waiver of signature requirements by the receiving facilities. As such, several waste manifests for this project were not signed and weight tickets were difficult to reproduce for receipt by the disposal facilities, which created challenges in confirming the total tonnage disposed of. Documentation of tonnage was verified through billing records and summary table provided by Maloy. Manifests, bills of lading and summary table/billing records are included in Appendix L.

4.3.2 Bulk Storage Tanks

Two (2) aboveground storage tanks (ASTs) and two (2) underground storage tanks (USTs) were closed by removal. Tank closure documentation, including the Department's Petroleum Bulk Storage (PBS) Registration, are presented in the August 18, 2020 Underground and Above Ground Storage Tank Closure Report prepared by C.T. Male, which is included in Appendix M. The approximate locations of the tanks are depicted on Figure 2.

The two (2) abandoned ASTs, identified as Tanks 1 and 2 on the PBS Registration and Figure 2, were located in sand bedding in the basement of the former building addressed as 830 Albany Street within the 830 Albany Street parcel. The tanks each had a capacity of approximately 275-gallons and previously contained fuel oil. The tanks were closed by removal by Jackson on March 18, 2019. The tanks were devoid of any contents and the bottoms of the tanks were observed to have been corroded away. The sand bedding that the tanks were set in was disposed of off-site with the impacted fill/soil. Jackson recycled the tank carcasses off-site as scrap steel.

One (1) abandoned UST, identified as Tank 3 on the PBS Registration and Figure 2, was uncovered in the northeastern portion of the 830 Albany Street parcel by Maloy on January 28, 2020. The tank had a capacity of approximately 3,000-gallons and previously contained fuel oil. On February 5, 2020, Maloy retained PIM to clean the tank of its contents, which consisted of oil and sludge. The contents of the tank were placed in two (2) 275-gallon totes that were staged on-Site. On February 6, 2020, Maloy retained

Adirondack to collect samples of the oil/sludge within the totes for laboratory analyses for waste profiling. On March 5, 2020, PIM removed the totes from the Site for transport and disposal at Cycle Chem, Inc. in Elizabeth, New Jersey. A total of 4,400 pounds (i.e., 530 gallons) of tank liquids were disposed of. On March 4, 2020, Maloy removed the tank from its grave and recycled the tank carcass off-site as scrap steel. Post tank closure sampling conducted by C.T. Male is discussed in Section 4.4.1.

One (1) abandoned UST, identified as Tank 4 on the PBS Registration and Figure 2, was uncovered in the southeastern portion of the 830 Albany Street parcel by Maloy on February 13, 2020. The tank had a capacity of approximately 1,000-gallons and contained water. On February 17, 2020, Maloy removed the tank from its grave, crushed the tank, and staged the tank on-Site and covered it with polyethylene. Maloy later recycled the tank carcass off-site as scrap steel. Post tank closure sampling conducted by C.T. Male is discussed in Section 4.4.1.

4.3.3 Remedial Investigation Derived Wastes

Remedial Investigation (RI) derived wastes included seven (7) 55-gallon drums of drill cuttings from installation of the RI soil borings and five (5) 55-gallon drums of RI groundwater sampling development and purge water.

Maloy disposed of the drill cuttings with the impacted fill/soil. The drum carcasses were crushed and disposed of with the impacted fill/soil.

Maloy retained Adirondack to collect samples from the drums containing the RI groundwater sampling development and purge water for laboratory analyses for waste profiling on March 16, 2020. Maloy retained PIM to transport the drums to the City of Schenectady Water Pollution Control Plant (WPCP) on April 1, 2020 for treatment. The empty drum carcasses were recycled off-site as scrap steel. The RI-derived wastes disposal documentation is included in Appendix N.

4.3.4 Wastes from Post Remedial Action Groundwater Sampling/Monitoring

Wastes from the post remedial action groundwater sampling/monitoring included drill cuttings generated from the advancement of soil borings for installation of the monitoring wells and monitoring well development and purge water. The drill cuttings and monitoring well development purge water were each contained in a separate 55-gallon drum (two [2] drums total). The drums were staged on the southwestern portion of the 830 Albany Street parcel until disposal.

The drum of liquid was delivered to and emptied at the Anthony Street City of Schenectady WPCP by PIM on December 11, 2020 for treatment. According to a February 25, 2021 letter from PIM, they reported that although their staff are instructed to bring the manifest back to the office for documentation, they unfortunately discarded the manifest. Due to the COVID pandemic, the WWTP did not sign the incoming waste manifests, because PIM's standard procedure is to discard manifests that the generator does not require a facility signed manifest, they thought this was the case. PIM was never informed that a signed manifest was not needed. A copy of the December 11, 2020 letter from PIM is provided in Appendix N.

The drum of soil was transferred into a small dump truck and transported to the Town of Colonie Landfill on December 11, 2020 under the site's previous approval. The soil acceptance approval had expired in June 2020, but a request to extend the landfill approval was granted to allow for acceptance of this soil. The weight of soil from this drum was 140 pounds. The manifest and associated weight ticket is provided in Appendix N.

4.4 Remedial Performance/Documentation Sampling

Remedial performance documentation samples were collected from the impacted fill/soil excavations, UST removal excavations and the post remedial action monitoring wells, as further explained in the following sections.

4.4.1 Impacted Fill/Soil Excavations

Confirmatory post-excavation end-point samples were collected to confirm that soils remaining following the removal of impacted fill/soil meet Unrestricted Use SCOs as established in the RWP. Analytical results for the post-excavation end-point samples were compared to Unrestricted Use values presented in 6 NYCRR Part 375 Table 6.8(a) in Appendix F.

For the general removal of impacted fill/soil, post-excavation samples were identified with the prefix "FS" to denote a floor sample and "SW" to denote a sidewall sample. The post-excavation sampling cell where the sample was collected from (i.e., 2-4, 3-10, 5-2, etc.) and the approximate depth below grade where the sample was collected from were also included in the sampling nomenclature (e.g. HHII-2-3-FS-7.0 indicated that a floor sample was collected from sampling cell 2-3 at a depth of approximately 7.0 feet below grade).

Generally, resamples of any given sampling cell (samples that initially failed and the area was subsequently excavated and/or resampled to achieve Unrestricted Use SCOs) were identified by adding a "B" suffix to each sample ID (i.e. FSB). Resamples were only analyzed for the compounds/analytes for which the original sample failed.

Generally, post-excavation samples were collected at a frequency of one (1) grab sample per each 900 square feet of excavation floor and one (1) grab sample from each sidewall for every 30 linear feet of sidewall, pursuant to DER-10. Per the RAWP, post-excavation samples were analyzed for the Target Compound List (TCL) for volatile organic compounds (VOCS) by USEPA Method 8260, semi-volatile organic compounds (SVOCs) by USEPA Method 8270, pesticides by USEPA Method 8081, and polychlorinated biphenyls (PCBs) by USEPA Method 8082, the Target Analyte List (TAL) for Metals by USEPA Method 3050/7471, and Cyanide by USEPA Method 9010/9012.

Bulk Storage Tank Excavations

Two (2) USTs depicted as Tank 3 and Tank 4 on Figure 2, were closed by removal. The sampling nomenclature for the tank graves is different than those for the impacted fill/soil excavations.

For the Tank 3 grave, four (4) floor samples were collected from the floor of the tank grave. The samples are identified on Figure 2 as HHII-TA3-FLE1-12.0, HHII-TA3-FLE2-12.0, HHII-TA3-FLW1-12.0 and HHII-TA3-FLW21-12.0. The "TA3" prefix correlates to the tank number (Tank 3), the "FL" prefix signifies a floor sample and the 12.0 correlates to the approximate depth below surface grade that the sample was collected from.

For the Tank 4 grave, one (1) floor and four (4) sidewall samples were initially collected from the tank grave. The samples are identified on Figure 2 as floor sample

HHII-TA4-FL-15.0 and sidewall samples HHII-TA4-NSW-13.0, HHII-TA4-SSW-13.0, HHII-TA4-ESW-13.0 and HHII-TA4-WSW-13.0. The "TA4" prefix correlates to the tank number (Tank 4), the "FL" prefix signifies a floor sample and the "SW" prefix signifies a sidewall sample. The 13.0 and 15.0 correlate to the approximate depths below surface grade that the samples were collected from. Numbers after the sidewall prefixes (i.e., SW2) signify resamples. Resamples were only analyzed for the compounds/analytes for which the original sample failed.

Parent samples collected from the Tank 3 and Tank 4 graves were analyzed for the TCL for VOCs, SVOCs, pesticides and PCBs, the TAL for metals, and cyanide.

Field Stone Wall

One (1) 3-point composite sample was collected from the sidewalls of a field stone wall comprising the southeastern boundary of the 830 Albany Street parcel. The sample is identified as HHII-FSWALLSOUTH. The field stone wall and sampling location are depicted on Figure 2. The sample was initially analyzed for the TCL for VOCs, SVOCs, pesticides and PCBs, the TAL for metals, and cyanide. Based on the detection of lead in the initial sample at 169 ppm, the sample was reanalyzed for lead employing the Toxicity Characteristic Leaching Procedure (TCLP) to determine if lead was present in the sample at hazardous levels.

A table and figure summarizing all end-point sampling is included in Tables 1 to 6 in Appendix F and Figure 2, respectively, and all exceedances of SCOs are highlighted. The laboratory analytical reports are included in Appendix O.

4.4.1.1 Confirmatory Post Excavation Floor Samples

All post-excavation floor sample results were provided to the Department for review prior to proceeding with backfilling activities in any given area. Upon review of the results and considering all other available information, the Department determined that sufficient removal for the remedial action had been conducted and that the objectives of the remedial action for soils had been achieved. All Department approvals for postexcavation samples are provided in Appendix P.

4.4.1.2 Confirmatory Post Excavation Sidewall Samples

Final post-excavation sidewall samples meet UU SCOs with the exception of the samples presented in the following Table 4.4.1.2.

Sample ID	Parameter	Unrestricted Use SCO (mg/kg)	Concentration (mg/kg)
HHII-2-2-SW1-1.7	Acetone	0.05	0.14
HHII-SW2-2-4-3.0	4,4'-DDT	0.0033	0.00433
	Lead, Total	63	174
	Mercury, Total	0.18	0.194
HHII-SW3-1-1-1.4	Acetone	0.05	0.1
HHII-SW2-1-1-1.8	Acetone	0.05	0.089
HHII-5-3-SW-4.0	Acetone	0.05	0.063
HHII-5-1-SW1-3.0	4,4'-DDE	0.0033	0.00359
	4,4'-DDT	0.0033	0.00697
HHII-5-1-SW2-4.0	Acetone	0.05	0.071
HHII-5-1-SW3-2.5	Acetone	0.05	0.1
HHII-3-4-SW2-3.0	Acetone	0.05	0.067
HHII-3-3-SW1-3.0	Zinc, Total	109	243

 Table 4.4.1.2: Post-Excavation Sidewall Sample Exceedances

Sample ID	Parameter	Unrestricted Use SCO (mg/kg)	Concentration (mg/kg)
HHII-3-6-SW1-3.0	Lead, Total	63	196
	Mercury, Total	0.18	0.417
	Zinc, Total	109	136
HHII-3-10-SW1-3.0	Lead, Total	63	76.5
	Mercury, Total	0.18	0.25
HHII-4-1-SW1-4.0	Acetone	0.05	0.25
	4,4'-DDD	0.0033	0.00932
	4,4'-DDE	0.0033	0.00344
	4,4'-DDT	0.0033	0.237
	Lead, Total	63	140
HHII-4-1-SW2-3.0	Acetone	0.05	0.076
HHII-4-2-SW1-3.5	Acetone	0.05	0.1
	4,4'-DDT	0.0033	0.00698
HHII-	PCBs, Total	0.1	0.503
FSWALLSOUTH*	Lead, Total	63	159
	Zinc, Total	109	271
	Lead, TCLP*	5 mg/l	0.054 mg/l

Table 4.4.1.2: Post-Excavation Sid	dewall Sample Exceedances
------------------------------------	---------------------------

*The re-analysis of lead by TCLP depicts a concentration of 0.054 mg/l versus its hazardous regulatory limit of 5 mg/l, indicating that the concentration of lead in the aforementioned sample is non-hazardous.

All of the sidewall sampling locations in the table are representative of fill/soil that extends off-site beyond the property boundaries (see Figure 2) with the exception of sidewall sample HHII-FSWALLSOUTH collected from the field stone wall that represents the southeastern boundary of the 830 Albany Street parcel. Based on review of analytical data from confirmatory post-excavation samples collected in the vicinity of HHII-FSWALLSOUTH and the fact that the lead content in the sample was deemed as non-hazardous, and the petition by Maloy to the Department that removal of the field stone wall would compromise properties adjacent to the field stone wall, the Department acknowledged that further remediation of the fieldstone wall was unnecessary. Correspondence from the Department in this regard is included in Appendix T.

Data Usability Summary Reports (DUSRs) were prepared for all data generated in this remedial performance evaluation program. These DUSRs are included in Appendix Q, and associated raw analytical data is provided in Appendix O.

Generally, all data was found to be usable and acceptable with exception of the following rejected results:

• Non-detect analytical results for 2,4-dinitrophenol in sidewall sample HHII-SW1-1-1-2.6 and floor sample HHII-5-1-FSB-6.5 was rejected due to severely low MS/MSD recoveries.

The above-referenced rejected results do not impact the overall performance of the remedial action when 2,4-dinitrophenol was not a specific contaminant of concern.

All DUSR validated analytical data collected during remedial performance evaluation program was uploaded to the State's EQuIS database and accepted by the Department.

4.5 Imported Backfill

A table of all sources of imported backfill with quantities for each source is shown in Table 4.5 below. Chemical analytical results for backfill, in comparison to allowable levels, are provided in the Department approved Request to Import/Reuse Fill or Soil Forms in Appendix R. A figure showing the site locations where backfill was used at the site is shown in Figure 2, which indicates that all remedial excavations were backfilled to grade with imported fill. Landscape areas of the site (i.e., not concrete sidewalks, not building, and not pavement) were restored by placement of topsoil and seeded. Figure 4 depicts the post-construction site conditions.

Facility Name	Type of Imported Backfill	Quantity (cubic yards)
Callanan Industries, Inc. Pattersonville Plant #61 401 Route 5S Amsterdam, NY 12010	Coarse aggregate to backfill the remedial excavation within the 834 Albany Street Parcel and for sidewalk construction.	755
William M. Larned & Son, Inc. ⁽¹⁾ 291 North Thompson Road Source Schenectady, NY	Run of bank sand and gravel to backfill the remedial excavation within the 830 Albany Street Parcel and for other miscellaneous construction tasks.	8,248
Callanan Industries, Inc. Pattersonville Plant #61 401 Route 5S Amsterdam, NY 12010	Stone for Building Foundations	280
Callanan Industries, Inc. Pattersonville Plant #61 401 Route 5S Amsterdam, NY 12010	1920-Backfill Placed Beneath Pavement, Walks and Playground	220
Constantine Sand & Gravel Quarry ⁽¹⁾ 51 Button Road Waterford, NY	Topsoil for Landscaping	112
	TOTAL:	9,600

(1) Clean fill from these locations were sampled and tested where the analytical data collected was uploaded to the State's EQuIS database and accepted by the Department. The upload was performed on April 1, 2021.

The coarse aggregate from Callanan Industries, Inc. was used to backfill the remedial excavations within the 834 Albany Street parcel and for sidewalk construction. The run of bank sand and gravel from William M. Larned & Son, Inc. was used to backfill the remedial investigations within the 830 Albany Street parcel and for other miscellaneous construction tasks. The stone from Callanan Industries, Inc. was placed beneath the floor slabs of the new buildings. The 1920-backfill from Callanan Industries, Inc. was placed beneath the floor slabs of the new buildings. The 1920-backfill from Callanan Industries, Inc. was placed beneath the glaver of the payement, walks and the playground. The topsoil from Constantine Sand & Gravel was used throughout the Site for landscaping.

4.6 Post Remedial Action Groundwater Sampling

Per the Decision Document, post remedial action groundwater sampling was conducted to assess groundwater conditions after completion of the remedial action. The methods, findings and conclusions of the post remedial action groundwater sampling are presented in the August 5, 2020 Post Remedial Action Groundwater Evaluation Report prepared by C.T. Male. The report was submitted to the Department for review on August 5, 2020 and is attached hereto as Exhibit 1.

The report concluded that based on the remedial actions completed, and analytical data developed prior to and as a function of the BCP:

- The groundwater evaluation satisfies the groundwater evaluation criteria of the Decision Document since groundwater is not used as a potable water supply and the remedial action removed all on-site sources that would contribute to groundwater contamination. Further groundwater monitoring is not required as Track 1 Unrestricted Use criteria has been substantially attained for the groundwater component of the remedy.

- The concentrations of compounds remaining in groundwater are below or approaching their regulatory standards (Ambient Groundwater Quality Guidance Values for Class GA as listed in TOGS 1.1.1 and 6 NYCRR 703.5) at asymptotic levels and the depth to groundwater is greater than 11 feet below the finished floor of the new buildings.

4.7 Soil Vapor Intrusion Evaluation

Per the Decision Document, a Soil Vapor Intrusion (SVI) Evaluation was completed to evaluate if potential soil vapor exposure pathways exist to future occupants of the new buildings being constructed at the Site after completion of the remedial action. The September 25, 2020 SVI Evaluation Report prepared by C.T. Male is attached hereto as Exhibit 2. The report concluded the following.

- The remedial action at the Site conducted under the auspices of the BCP was successful at remediating the source areas of impacted fill/soil mixtures and bulk storage tanks.

- The concentrations of compounds remaining in groundwater after completion of the remedial action are below or approaching their regulatory standards at asymptotic levels. This, coupled with the depth to groundwater being greater than 11 feet below the finished floor of the new buildings, and the installation of a vapor barrier and passive Radon Reduction System (RRS) as part of building construction, potential vapor intrusion exposure pathways to future building occupants have in effect been eliminated.

4.8 Contamination Remaining at the Site

The Site is in conformance with Track 1 Unrestricted Use SCOs. Areas along the perimeter of the Site where contamination extends off-site is discussed in Section 4.4.1.2.

4.9 Soil Cover System

The remedy for the Site did not require the installation of a soil cover system as no contaminated soil was left in-place. The Site is in general conformance with Track 1 Unrestricted Use SCOs based on post excavation soil sample results.

4.10 Other Engineering Controls

The remedy for the Site did not require the construction of any other engineering control systems.

4.11 Institutional Controls

The site remedy requires that an environmental easement be placed on the property to prevent future exposure to remaining trace levels of groundwater contamination by restricting groundwater usage. Because the City of Schenectady does not currently have any City ordinances and/or laws restricting groundwater usage, an environmental easement will be placed on the Site restricting groundwater usage due to trace detections of tetrachloroethene.

The environmental easement for the site was executed by the Department on April 6, 2021, and filed with the Schenectady County Clerk on April 9, 2021. The County Recording Identifier number for this filing is 2056/329. A copy of the easement and proof of filing is provided in Appendix A.

4.12 Deviations from the Remedial Work Plan

The following deviations from the RWP were documented during the remedial action and are described in the following paragraphs. The Department approvals are included in Appendix T.

- The CAMP was not implemented during the advancement of soil borings for installation of post remediation monitoring wells. This modification was pre-approved by the Department before completing the work.

- Low level contaminants (PCBs, lead and zinc) above Unrestricted Use SCOs were detected in a composite sample (HHII-FSWALLSOUTH) collected from the fieldstone wall making up the southeastern boundary of the 830 Albany Street parcel. Based on review of analytical data from confirmatory post-excavation samples collected in the vicinity of the fieldstone wall and the fact that the lead content in the sample was deemed as non-hazardous, and the petition by Maloy to the Department that removal of the field stone wall would compromise properties adjacent to the field stone wall, the Department acknowledged that further remediation of the fieldstone wall was unnecessary.

- Acetone was detected slightly above its Unrestricted Use SCO in two (2) of the four (4) floor samples collected from the Tank 03 excavation. The Department concurred with C.T. Male's assessment that the acetone detections were not representative of actual Site conditions as demonstrated through numerous re-sampling efforts over acetone elsewhere on-Site, in-part acknowledgment of acetone contamination of sample bottles at Alpha, and other endpoint sampling results in the vicinity of Tank 03 depicting acetone at concentrations below Unrestricted Use SCOs. As such, the Department concluded that the Tank 03 area (part of sampling cells 6-2 and 7-5) is considered to meet SCOs.

- A discarded furnace boiler was unexpectedly encountered during remedial excavations within the 830 Albany Street parcel. Insulation enveloping the boiler and caulking was assumed to be asbestos containing and was confirmed with lab testing. The boiler insulation and caulking was characterized by C.T. Male and the boiler was disposed of by Jackson as an asbestos containing building material at the Ontario County Landfill in Stanley, New York. Documentation for disposal of the boiler is included in Appendix U.

- Dewatering and discharge permits were discussed in the RWP (Sections 2.4 and 6.1) but were not needed for the implementation of the remedial action. Groundwater was not encountered during any of the excavation activities.

- Shoring/sheeting were discussed in the RWP (Section 2.8) but were not needed for the implementation of the remedial action. There were existing concrete and stone walls along portions of the Site's property lines that NYSDEC allowed to remain in-place in lieu of installing shoring/sheeting.

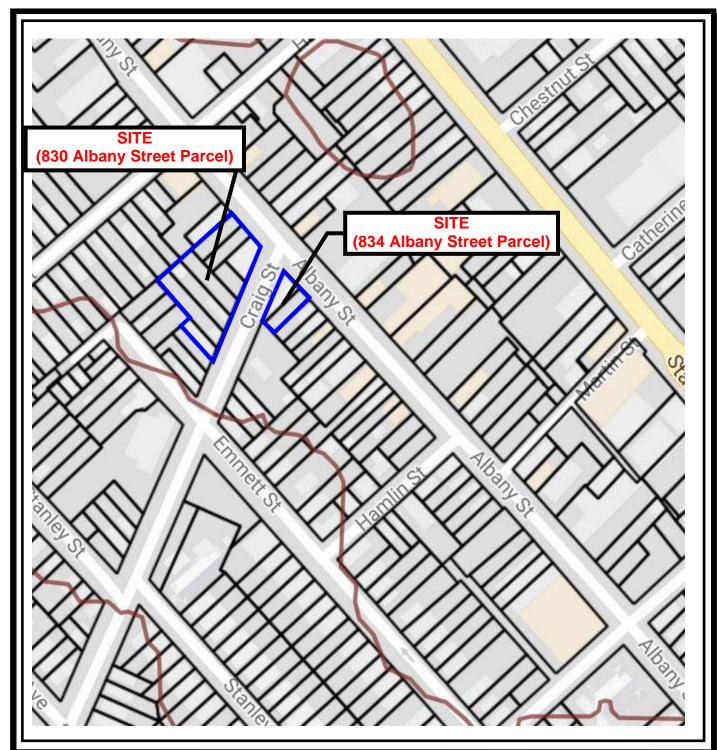
- Utility disconnects were described in the RWP (Section 2.6) and addressed as part of the demolition of site buildings (i.e., before staring remedial action) except for natural gas service lines that were exposed during excavation. National Grid was contacted by

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C.T. MALE ASSOCIATES

U.W. Marx/Maloy and the gas lines appeared to be abandoned. National Grid removed the gas line back to the edge of the street.

FIGURES



MAP REFERENCE

USGS 7.5 Minute Topographical Map Schenectady, New York Quadrangle Year 2013



FIGURE 1: SITE LOCATION MAP HAMILTON HILL II - TARGET AREA 1 SITE

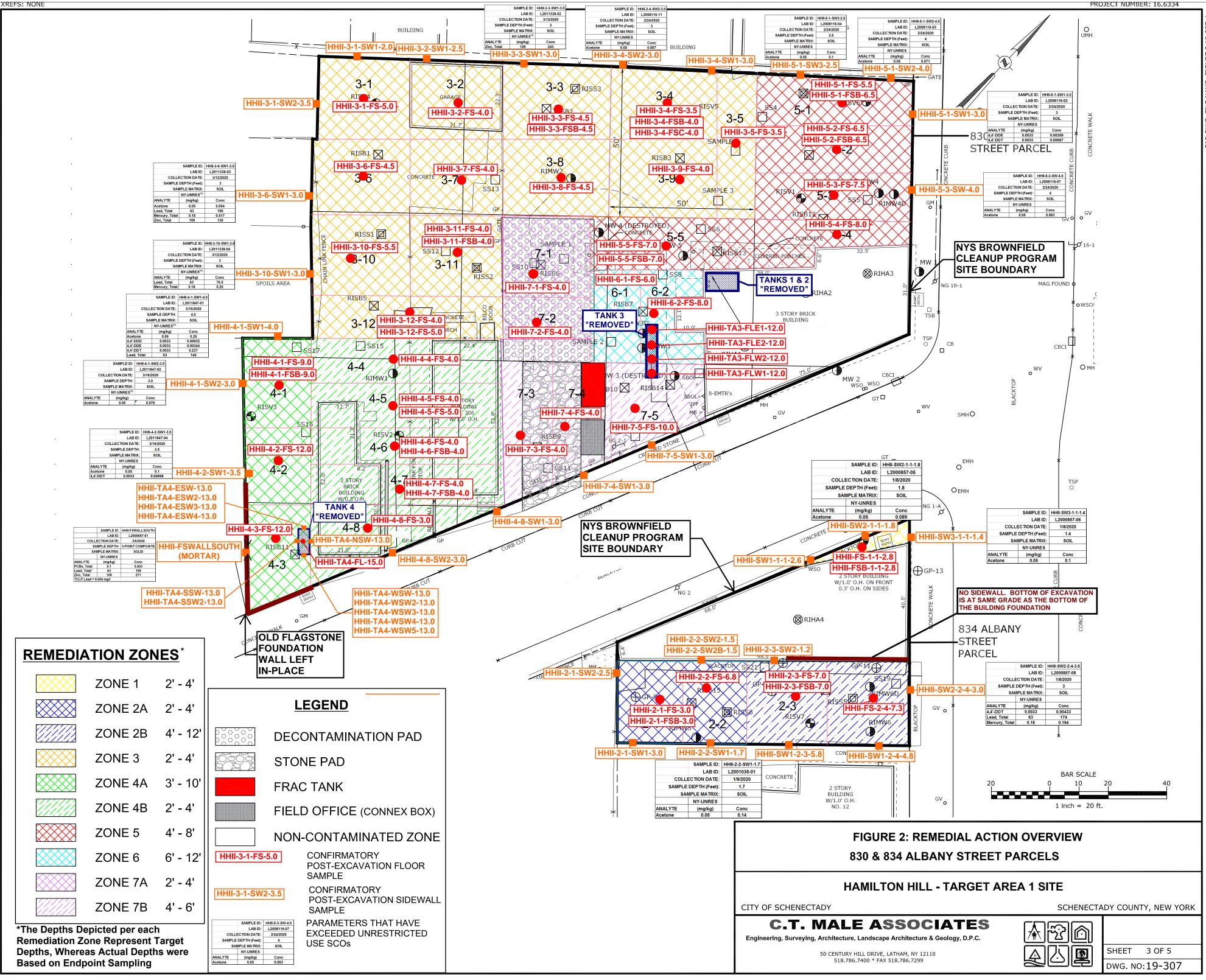
CITY OF SCHENECTADY

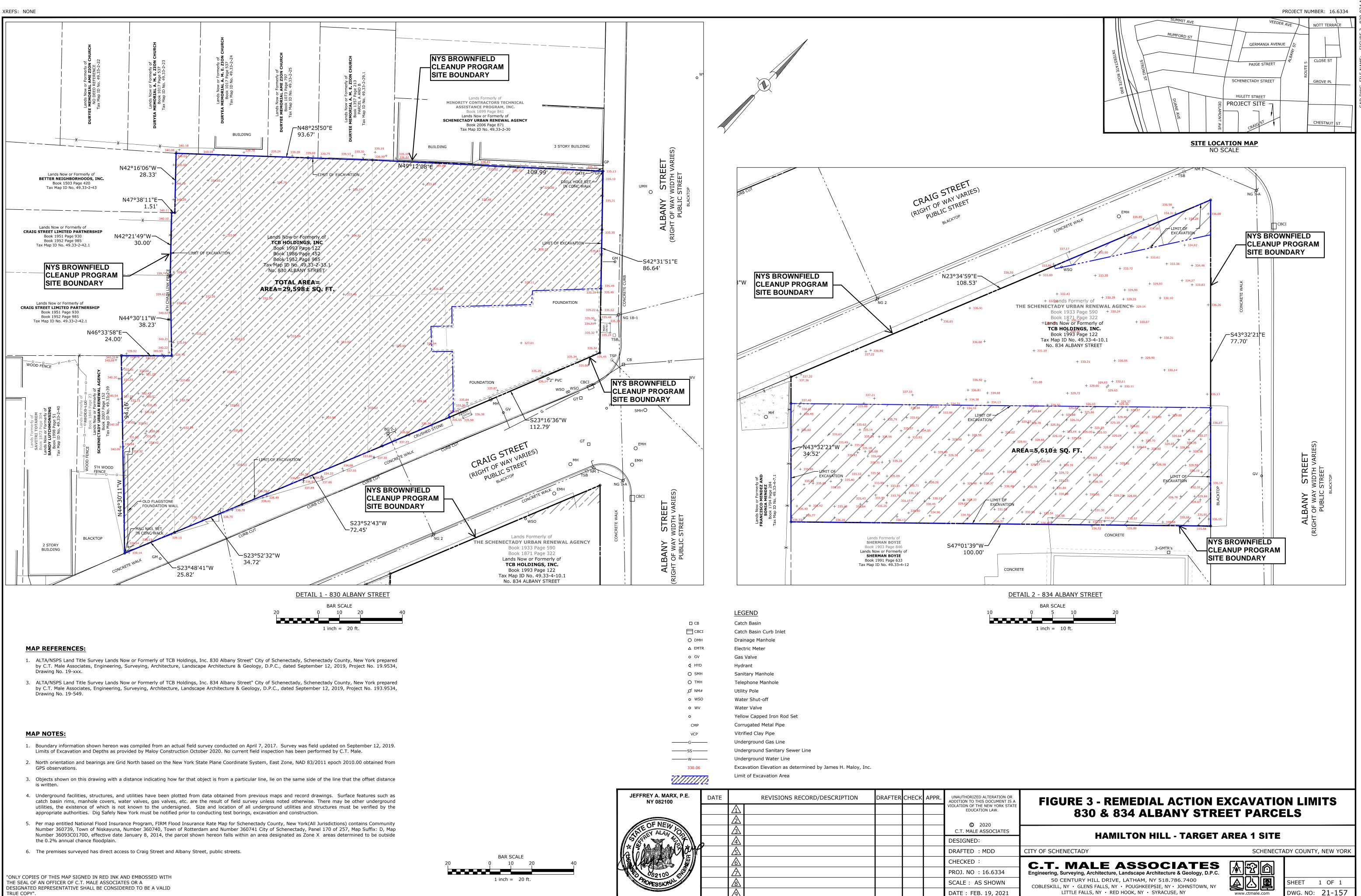
SCHENECTADY COUNTY, NY

SCALE: NOT TO SCALE DRAFTER: SB

PROJECT No: 16.6334

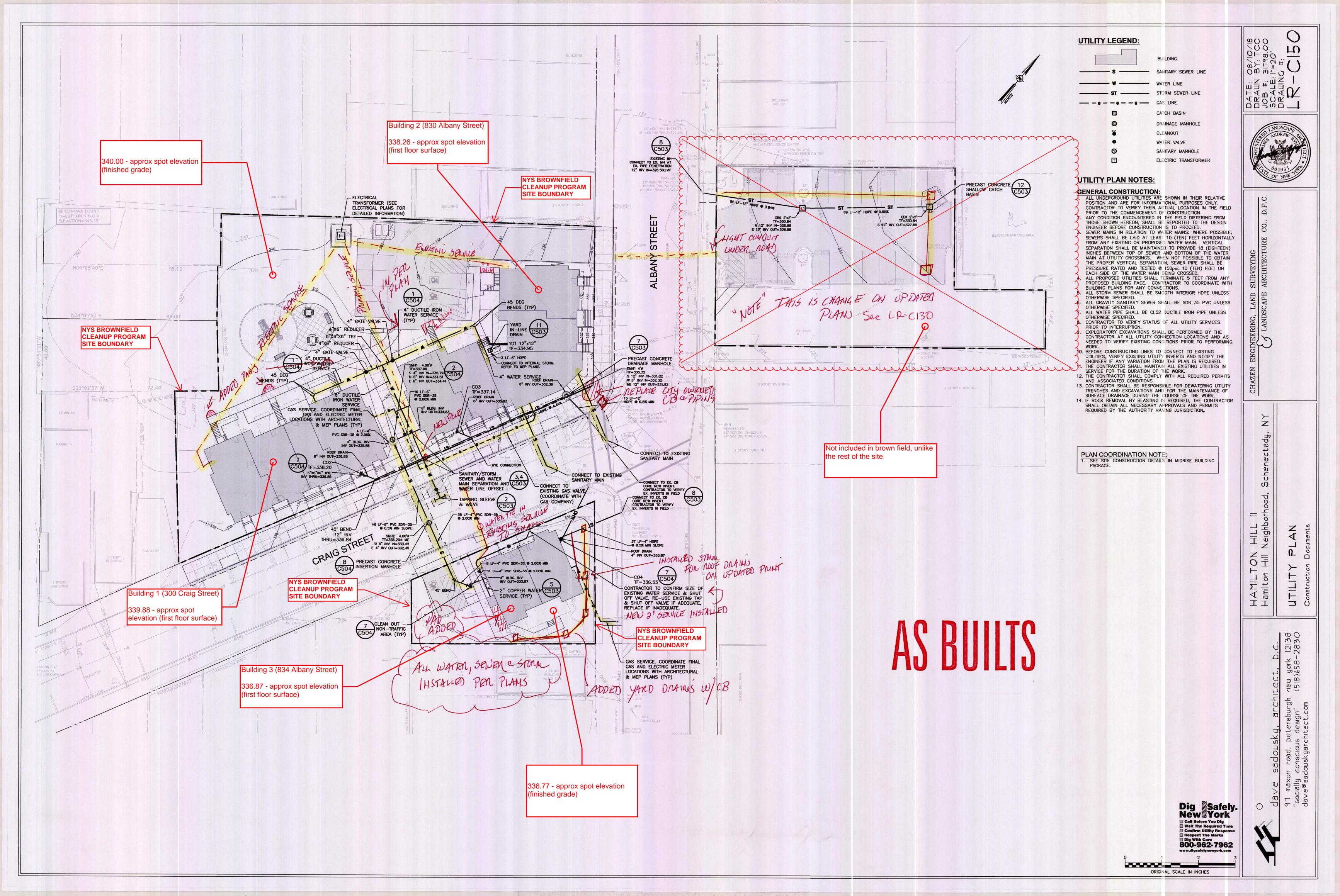
The locations and features depicted on this map are approximate and do not represent an actual survey.





TRUE COPY".

DATE : FEB. 19, 2021



APPENDIX A

Environmental Easement Survey Map, Metes and Bounds & Recorded Environmental Easement

APPENDIX B

CAMP Data Sheets

APPENDIX C

Monthly Progress Reports

APPENDIX D

Daily Field Logs

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Post Remedial Action Groundwater Sampling Report

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