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CERTIFIED WOMEN-OWNED BUSINESS ENTERPRISE



# **Record of Decision (ROD) Implementation Report of Findings**

## **Former C&F Plating Facility**

406 North Pear Street  
Albany  
Albany County, New York  
**NYSDEC Site No.: 401057**

Report Completed:  
October 4, 2016

Prepared For:

New York State Department of Environmental Conservation  
Division of Environmental Remediation  
625 Broadway, 12<sup>th</sup> Floor  
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collected at discrete intervals to define vertical extent of contaminants. The data collected was used to assist in planning and logistically implementing the proposed excavation work. Figure 3 details the location of the PES installed SBs.

4. Excavation – The selected remedy called for excavation and off-site disposal of contaminant source areas, including: 1) the former floor drain areas, 2) shallow soils located north of the former structure as well as 3) a large area of the former building's footprint (see Figure 4 for detail). These areas were targeted for remediation based on information collected during PES's SSI as well as data generated during the remedial investigation and feasibility studies (RI/FSs). Prior to the excavation process, engineering controls were required to facilitate safe and sound soil removal and backfill activities occurring immediately adjacent to the Patroon Creek, as the creek borders the property to the north-northeast. The existing creek bank was visibly eroded and deemed unstable. Engineering controls consisted of:
  - Installation of a permanent retaining wall along approximately 50-60 linear feet of creek bank and
  - Repair and replacement of a portion of concrete foundation and associated footer for the former building. The building foundation served the dual purpose of structural support as well as an integral component of the creek embankment and bridge abutment (where North Pearl Street overpasses the Creek).

The retaining wall, which was designed by Dente Engineering of Watervliet, NY, consisted of geogrid reinforced shoring whereby no. 1 and no. 2 washed crushed stone are retained within fabricated baskets. The wall consists of four (4) courses of baskets each at 18-inches tall. The width of the wall is 6 to 8-feet.

Completed engineering controls allowed for safe and practical excavation of contaminated soil. Impacted soils were excavated to meet Commercial Soil Cleanup Objectives (SCOs) to extent feasible and pursuant to pre-determined horizontal and vertical limits as established by previous investigative efforts by PES and others. Soils were excavated, stockpiled and characterized via sampling and laboratory analysis and were then transported off site and disposed of as non-hazardous waste at the City of Albany Landfill (AL) or as a D006 hazardous waste solid at Stericycle Environmental Solutions (SES) facility in Hatfield, PA.

Once termination depth was reached a physical demarcation layer consisting of orange polyethylene fencing was placed along the floor of the excavation area prior to placement of imported clean fill and concrete slabs removed from surface and then cover system.

5. UST Closure - During installation of the retaining wall a 1,000-gallon underground storage tank (UST) was encountered. The UST was subsequently removed and closed as per 6 NYCRR Part 613.
6. In-Situ Treatment – Post excavation soil existing in the phreatic zone (below the water table interface) within the footprint of the most contaminated area (beneath floor drain network – Zone 3) were further remediated with in-situ chemical reduction (ISCR). A Calcium Polysulfide (CaSx) solution was applied to the floor of the excavation to treat metals in soil and groundwater. CaSx is intended to create conditions that cause the metals to precipitate

The existing buildings at the site were dilapidated and deemed structurally unsafe for entry and/or interior work. Upon PES's initial mobilization to the site, it was documented that much of ground surface within and outside of the building was covered with solid waste, trash and debris that appeared to have been dumped at the site or left by previous owners.



Land surfaces were 90 to 95% covered with concrete or asphalt. Land surfaces at the site are generally flat with slight slope to the east towards North Pearl Street.

The site structure was observed to have been supplied with overhead power and telecommunications. Water and sanitary sewer needs were met by connections to publicly supplied services. Natural gas was previously provided to the building via underground service.

### **1.3 Site Geology/Hydrogeology:**

The site is located within the Hudson Mohawk Lowland Physiographic Province. The overburden soils in the surrounding area have been characterized as lacustrine sand, which are composed of well sorted, stratified sand deposits, or lacustrine silt and clay, which are composed of generally laminated silt and clay (Cadwell et al, 1987). The bedrock geology identified in the vicinity of the property is the Normanskill Shale, which is of Middle Ordovician origin. Subsurface soils encountered at the site were generally composed of silty sand, silt, silty clay and some gravel. Urban fill consisting of concrete, brick and imported materials was commonly encountered in the first 1-2 feet of excavation. Groundwater is approximately 8 feet below grade and reportedly generally flows southeast toward the Patroon Creek. The first water bearing zone occurs under unconfined conditions. The close proximity of Patroon Creek, likely influences the localized groundwater elevation and flow patterns.

Hennessy Engineering and Consulting of Voorheesville, NY (Hennessy) to perform an inspection and formulate an opinion related to the building integrity. On April 25, 2014 Hennessy visited the property and determined that the building was unsafe for human occupation. In addition, it was determined that the structure represented a danger to the life, health, property and safety of the general public (see Attachment C for further detail).

### 2.1.3 Asbestos Abatement and Demolition

In order to facilitate full site assessment and subsequent contaminant mitigation, it was determined that the existing dilapidated structure needed to be razed. The fact that the structure was deemed unsafe for entry prevented collection of building material samples to assess asbestos content. To remedy this impasse Spectrum petitioned the New York State Department of Labor (NYS DOL) to receive variance relief from Code Rule 56 to allow for Controlled Demolition Removal of Friable ACM. On August 11, 2014 NYSDOL granted the variance and filed the petition as File No.: 14-0815. A copy of the variance has been included in Attachment B.

Dan's Demolition and Hauling Inc., of Troy, NY (Dan's) performed the subsequent ACM abatement and demolition work from 10/6/2014 to 10/17/2014. Dan's utilized wet methods to control dust and prevent air borne release of ACM. The building was systematically razed and all debris and building materials were either disposed of as ACM or were cleaned and recycled (non-porous steel). A total of 448.88 tons of ACM was disposed at City of Albany landfill (AL).



Spectrum provided third party air monitoring for the duration of the abatement/demolition work. Their Air Sampling Report documenting the work has also been included in Attachment B.

### 2.1.4 Drum and Product Removal

During the demolition work two (2) 30-gallon plastic drums of liquid were discovered beneath debris at the rear of the main building. The drums were in fair condition in original containers with partial labels still intact. The manufacturer of the drums (Luster-On Products, Inc. of Springfield, MA) was



contaminants - cadmium (Cd), chromium (Cr), lead (Pb) and nickel (Ni) at concentrations that exceeded the analytical methods detection limits in all four sample locations. Furthermore, locations Basement-1 and Basement-4 produced results that exceeded the 6 NYCRR Part 375 commercial and industrial soil cleanup objectives (SCOs).

### **3.2 Subsurface Investigation:**

PES performed additional subsurface investigation via the installation of soil borings across the site (see Figure 3 for detail). Soil borings were installed utilizing PES's special access, direct push, geoprobe. In general, soil borings were advanced to a pre-determined depth to collect samples at three intervals: 0-1, 1-2, and 2-4. Maximum depth of exploration reached eight feet BG.

The equipment utilized retrieves relatively undisturbed soil samples across a four-foot stratigraphic interval. Continuous soil samples were collected during boring advancement for subsequent visual classification and field screened utilizing a calibrated photo-ionization detector (PID) to qualitatively determine the presence of volatile organic compounds (VOCs). Field screening was performed using head space methods whereby representative portions of the acquired sample were sealed in clean plastic bags, agitated, allowed time to equilibrate, and then the air space above the soil was scanned with the PID. Decontamination procedures were performed on all soil sampling equipment prior to and between each sample acquisition.

Collected soil samples were submitted for metals analysis according to EPA Method 6010. Samples were collected by PES geological staff, classified, field screened and placed in clean glass sample jars supplied by the analytical facility. Representative samples were labeled, sealed, and placed immediately in iced storage for transport to Test America Laboratories, Inc. (Test America) of Amherst, NY. The results of the soil boring samples are tabulated in Table 2. Resulting analytical reports are included as Attachment G. The results are graphically presented in Figure 3.

## **4.0 Excavation:**

Results of the supplemental subsurface investigation confirmed the need to implement the recommended remedy of mass excavation and off-site disposal of contaminant source areas. Areas targeted for mitigation included:

- the former floor drain areas,
- shallow soils located north of the former structure and
- the large area of the former building's footprint.

Figure 4 graphically displays the targeted excavation areas.

### **4.1 Retaining Wall Design and Construction:**

Prior to excavation process, engineering controls were required to facilitate safe and sound excavation and backfill activities occurring immediately adjacent to the Patroon Creek as the water



During the installation phase, large capacity sand bags were strategically placed in Patroon Creek to prevent sediment erosion and loading within the stream. The hydro barriers were left in place until a construction elevation was reached that exceeded the surface elevation of the stream.



The required retaining wall was completed using PES equipment and personnel. Upon completion, the Department requested that PES perform additional bank stabilizing steps at the north and south ends of the newly installed retaining wall.



Zone Identification	Maximum Depth	Estimated Volume Removed
Zone-1	2-3 Feet	250 Tons
Zone-2	2-3 Feet	459 Tons
Zone-3	5-6 Feet	338 Tons
Zone-4	2-3 Feet	315 Tons
Zone-5	2-3 Feet	35 Tons

In general, soil was removed within the physical constraints of the site and/or until the predetermined end of excavation point was reached. A physical demarcation layer consisting of orange polyethylene fencing was placed along the floor of each excavation area once the limits of excavation were reached. The demarcation layer was covered with imported clean fill and "borrow" concrete slabs removed from the surface. A cover system finished the excavation areas to grade and will be discussed in further detail in latter sections.



Zone 1



Zone 2



Zones 3 & 4



Zone 5

Soil samples were collected during the pre-excavation subsurface investigation at pre-determined depths and locations to characterize the vertical and horizontal contaminant extent. For this reason, end of excavation samples were not required or collected subsequent to the soil removal action.



### 4.3 Abandoned Underground Storage Tank (UST) Closure:

During installation of the retaining wall a 1,000-gallon underground storage tank (UST) was encountered. The UST was located within the footprint of Zone 2. Upon discovery of the vessel, the cover material was removed to expose piping access points for the purpose of assessing the volume and type of fluid content.



The assessment revealed a mixture of water and No. 2 fuel oil. A total of 850 gallons of mixed groundwater/fuel were removed (see Attachment I). The contents of the UST were removed by MacSon of Selkirk, NY under manifest. MacSon performed proper disposal of the processed fluids at Industrial Tank Services, Inc. in Oriskany, NY.

PES construction crew extracted the UST from its grave and placed it above grade on poly sheeting for cleaning.







In general, the surface completion was performed in accordance with the minimum of one-foot placement of material as set forth in 6 NYCRR Part 375-6.7(d).