



# Interim Remedial Measure Work Plan Revision 1

Rickett's Dry Cleaners  
NYSDEC Site # 546058

Location:  
2017-2019 Doubleday Avenue  
Ballston Spa, Saratoga County, New York

Prepared for:  
New York State Department of Environmental Conservation  
625 Broadway  
Albany, New York 12233

LaBella Project No. 2234026.183

February 25, 2026

## CERTIFICATION

*"I, Daniel P. Noll, certify that I am currently a NYS registered professional engineer and that this IRM Work Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10)."*



\_\_\_\_\_  
NYS Prof. Engineer # 081996

February 25, 2026  
Date

  
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Signature



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## ACRONYMS / ABBREVIATIONS

*bgs* – below ground surface  
*CAMP* – Community Air Monitoring Plan  
*CY* – Cubic yard  
*COC* – Constituents or Contaminants of Concern  
*CVOC* - Chlorinated VOCs  
*DEC* – (New York State) Department of Environmental Conservation  
*DER* – Division of Environmental Remediation  
*DER-10* - DER Technical Guidance for Site Investigation and Remediation  
*ELAP* – Environmental Laboratory Approval Program  
*GAC* – granulated activated carbon  
*gpm* – gallons per minute  
*HASP* – Health and Safety Plan  
*HRP* - HRP Associates, Inc.  
*IRM* – Interim Remedial Measure  
*LaBella* - LaBella Associates, D.P.C.  
*NYCRR* - New York Code Rules and Regulations  
*NYSDEC* – New York State Department of Environmental Conservation  
*NYSDOH* – New York State Department of Health  
*NYS DOL* – New York State Department of Labor  
*PLC* – Programmable Logic Controller  
*PFAS* – per- and polyfluoroalkyl substances  
*P&ID* – Piping and Instrumentation Diagram  
*PID* – Photoionization detector  
*ppb* – parts per billion (equal to micrograms per liter - ug/L)  
*ppt* – parts per trillion (equal to nanograms per liter – ng/L)  
*PPE* – Personal Protective Equipment  
*QC* – Quality Control  
*RCRA* - Resource Conservation and Recovery Act  
*SCO* – Soil Cleanup Objective  
*SCGs* – Standards, Criteria, and Guidance  
*SF* – Square feet  
*SVOC* – Semi-volatile Organic Compound  
*TCL* – Target Compound List  
*TOGS 1.1.1 AWQS* - Technical and Operational Guidance Series 1.1.1 Ambient Water Quality Standards  
*TCLP* - Toxicity Characteristic Leaching Procedure  
*USEPA* – United States Environmental Protection Agency  
*VOC* – Volatile Organic Compound



## 1.0 INTRODUCTION

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LaBella Associates, D.P.C. (LaBella) has prepared this Interim Remedial Measure (IRM) Work Plan for the Rickett's Dry Cleaners site, located at 2017-2019 Doubleday Avenue, Ballston Spa, Saratoga County, New York, hereinafter referred to as the "Site" (see Figure 1). A project contact list has been provided in Appendix 1.

### 1.1 Project Background

The project site is a former dry cleaner/laundromat and car wash. The dry-cleaning/laundromat building was constructed in 1930 and demolished in 2022. The self-serve car wash building constructed in 1983 and demolished in 2022). Site operations reportedly ceased in 2013 and the property is currently vacant.

### 1.2 Objective

The objective of the IRM is to control/prevent off-site migration of contaminants that are currently leaving the site via seeps located at the base of the hill on the northwest side of Doubleday Avenue. The installation of a drain trench will allow for the interception of the surface water coming from the groundwater seeps. Water will be collected in the trench drain, directed toward a sump pump / lift station and pumped to a treatment system which will treat the water before discharging the existing stormwater sewer at the site. This Work Plan describes the construction, operation, and environmental management/ monitoring associated with the surface water/ground water treatment system to be constructed and operated at the Site per the Final IRM Design (HRP, 2026) included as Appendix 2.

IRM activities covered by this Work Plan include

- Mobilization of necessary equipment and resources to the site
- Excavation of soil necessary to install the treatment system (and subsequent staging/sampling and off-site disposal)
- Construction of the treatment system for extraction of surface water / groundwater
- Treatment of extracted liquids
- Sampling and analysis of the treated water
- Batch discharges of water to the sanitary sewer.
- Demobilization

## 2.0 SITE DESCRIPTION AND HISTORY

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### 2.1 Site Description and Surrounding Properties

Rickett's Dry Cleaner's, located at 2017-2019 Doubleday Avenue, Ballston Spa (Milton), New York, (Figure 1) is the focus of this IRM Work Plan. This property is approximately 1.3 acres in size, according to the Saratoga County online GIS map viewer. Two buildings were previously located on the Site, (1) a former dry-cleaning/laundromat building originally constructed in 1930 totaling approximately 22,024 square feet and (2) a self-serve car wash building constructed in 1983 and totaling approximately 2,250 square feet. Site operations were reported to have ceased in 2013 and the property is currently inactive (HRP, 2020).

The Site is connected to the municipal water supply and serviced by the municipal sanitary sewer. No records of septic systems at the Site have been identified in available records. The Site is zoned for commercial use, and surrounding properties in the area are mostly residential (HRP, 2020).

## 2.2 Site History

Dry cleaning operations were performed at the Site by Rickett's Laundry/ Rickett's Fabric Care Services/Rickett's Inc. from at least 1950 until 2013. Environmental investigations performed at the Site between 2008 and 2018 identified chlorinated volatile organic compounds (VOCs) in groundwater samples that exceeded the NYSDEC Technical and Operational Guidance Series 1.1.1 Ambient Water Quality Standards (TOGS 1.1.1 AWQS). Tetrachloroethene (PCE) has been detected in Site groundwater at concentrations up to 3,700 micrograms per liter ( $\mu\text{g}/\text{l}$ ) and trichloroethene (TCE) up to 1,300  $\mu\text{g}/\text{l}$ , both above the TOGS 1.1.1 AWQS of 5  $\mu\text{g}/\text{l}$ . Associated reductive de-chlorination by-products (daughter compounds), including trans-1,2-dichloroethene, cis-1,2-dichloroethene, and vinyl chloride have also been detected at concentrations above the relevant standards in samples collected from the Site (HRP, 2020).

Additional information for the site can be found in the document repository on the NYSDEC Environmental Remediation Databases website:

[Index of /data/DecDocs/546058](#)

## 3.0 PREVIOUS ENVIRONMENTAL INVESTIGATIONS & REPORT

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### 3.1 Historical Reports

The following documents have been used for the development of this Work Plan:

- *Remedial Investigation Work Plan Addendum 3*, (HRP, 2025)
- *Construction Completion Report* (HRP, 2023)
- *Remedial Investigation Work Plan*, (HRP, 2020)
- *Site Characterization Report – Final* (HRP, 2018)

Additional site-related documents can be found on the website provided at the end of Section 2.2.

### 3.2 Summary of Site Characterization

Previous investigation reports have documented the following:

- Completed borings, soil sampling, groundwater sampling at the site have identified the following contaminants of concern (COCs):
  - VOCs
  - per-polyfluoroalkyl substances (PFAS)
- The following contaminants have also been detected at the site:
  - Semi-volatile organic compounds (SVOCs)
  - Metals
  - Cyanide
  - Chlorinated herbicides and pesticides, and
  - Polychlorinated biphenyls (PCBs)

### 3.3 Summary of Previous Construction Completion

On-site buildings were demolished and removed from the Site in 2022. Appropriate actions were taken prior to and during demolition to ensure no adverse impacts were caused by demolition activities. Asbestos containing material was removed from accessible portions of the former dry cleaner building prior to demolition. In accordance with the NYS Department of Labor-(NYS DOL) approved site-specific variance, continuous asbestos air monitoring was performed by a third-party throughout the demolition. Additionally, monitoring for particulates, VOCs, vibration, and noise was conducted in accordance with their respective approved plans. Debris generated from razing on-site buildings and drums found on-site during demolition were properly disposed off-site.

### 3.3.1 *Conceptual Site Model / Nature and Extent of Contamination*

Investigations at the Site have identified the COCs in soils and groundwater (HRP, 2005). Chlorinated VOCs (CVOCs) and PFAS have been identified at concentrations exceeding industrial soil cleanup objectives (SCOs) (6 New York Code Rules and Regulations (NYCRR) Part 375-6.8(b)). PCE has been identified at concentrations up to 3,300 mg/kg in a sample from 10' to 12' below ground surface (bgs) and PFAS (perfluorooctanesulfonic acid [PFOS] specifically) at concentrations up to 1,300 ug/kg in a sample from 0' to 1.5' bgs).

CVOCs and PFAS have been identified in the overburden groundwater and seep (PCE concentrations up to 15,000 ug/L and perfluorooctanoic acid (PFOA) up to 250 nanograms per liter (ng/l). Groundwater at the Site flows to the southeast and PCE and PFAS have been found in monitoring wells on the southeast side of Doubleday Avenue.

Based on the results of past groundwater sampling, there is evidence to support that site groundwater is impacted by past operations of the dry cleaning and car wash activities.

### 3.3.2 *Exposure Assessment*

Based on the results of previous investigations, there is potential for incidental public contact with site contaminants via the groundwater seeps to surface and migrating off-site. The IRM infiltration trench, lift station and treatment system will address this potential contact by intercepting surface water flowing from the seeps across the site and pumping the water through a treatment system and then to the storm sewer catch basin on the site. **Exposure of site workers to site contaminants in soil and groundwater may occur as a result of construction activities involving disturbance of, and management of disturbed soil and extraction of surface / groundwater.**

### 3.3.3 *Proposed Site Interim Remedial Measure (IRM)*

Based on the 100% Design, Interim Remedial Measure Rickett's Dry Cleaners (HRP 2026), the planned IRM will control/prevent off-site migration of contaminants that are currently leaving the site via seeps located at the base of the hill on the northwest side of Doubleday Avenue and flowing across and off-site. The IRM will entail excavating soil and installing an intercept trench drain with perforated pipe draining to a lift station. The lift station will pump surface /shallow groundwater to treatment system located in a 40' connex. Water will be pumped into influent settling tanks and then through treated via bag filters, an air stripper, and granular activated carbon (GAC) vessels. Treated water will then be held in a frac tank and sampled once 7,000 gallons has been accumulated. Water samples will be analyzed and shown to meet discharge criteria before being discharged to the stormwater catch basin located on-site (Figure 2 and 4). Dewatering during construction activities may also occur and is discussed further in Section 5.3.

Based on the proposed IRM, a summary figure from the design (Drawing C1.0) is included and shows the excavation areas, treatment system, and effluent discharge location. The Figure has been included herein as Figure 2 for ease of reference.

## 4.0 STANDARDS, CRITERIA AND GUIDANCE

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This section identifies the applicable Standards, Criteria and Guidelines (SCGs) for the Site:

**Soil SCGs:**

- Remedial Program Soil Cleanup Objectives.

**Water SCGs**

- Extracted and treated water will meet the discharge criteria provided in Appendix 5 before being discharged to the storm sewer. The complete list of effluent limitations are provided in Appendix 5. Table 1 below includes anticipated influent concentrations:

Table 1 – Influent Concentrations and Discharge Limits

COMPOUND	INFLUENT CONCENTRATION	DISCHARGE LIMIT
PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS) (ng/L)		
PFOS	54	2.7
PFOA	42	6.7
SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) (ug/L)		
1,4-DIOXANE	0.16	0.35
VOLATILE ORGANIC COMPOUNDS (VOCs) (ug/L)		
CIS-1,2, DICHLOROETHENE	187	5
TETRACHLOROETHENE	306	0.7
TRICHLOROETHENE	158	5
VINYL CHLORIDE	15	2

The following Remedial Action Objective (RAO) has been proposed for the Site based on the current, intended, and reasonably anticipated future use of the Site and its surroundings.

- Control/prevent off-site migration of contaminants that are currently leaving the site via seeps located at the base of the hill on the northwest side of Doubleday Avenue and flowing across and off-site.

## 5.0 CONSTRUCTION ACTIVITIES PLAN

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This section details the field activities to be completed as a part of the IRM:

### 5.1 Mobilization

LaBella will mobilize staff, heavy equipment, and materials to the site necessary to complete the scope beginning in early March 2026. Neither a temporary office nor tool shed will be mobilized as LaBella's office / warehouse is located minutes from the site.

Initial work will entail installing site controls and stormwater best management practices (BMPs). Straw wattles will be installed parallel to Doubleday Avenue on the southeastern side of the trench areas to be excavated as shown in Figures 2, 3, and 4.

Both a 9,000-gallon (9K-gal) and a 20,000-gallon (20K-gal) frac tank will be delivered to the site. The 9K-gal frac tank used for holding treated water, will be piped to the treatment system as soon as possible construction dewatering fluids held in the 20K-gal frac tank. Additional 9Kgal frac tanks will be mobilized based on the flow rate through the system and the time it takes for analytical results of water samples.

### 5.2 Treatment System

A 40' treatment system contained inside will be delivered to the site via a flatbed truck and placed in the area shown on the Site Plan (Figure 2) such that both ends are accessible for operation and maintenance activities. The treatment system has been built at LaBella's nearby warehouse to the design capacity flow rate of 10 gallons per minute (gpm). The treatment system has been insulated and wired and will contain the following components in order of flow direction:

- Initial settling tanks (minimum of two [2] 500-gallon tanks),
- Duplex pumps
- Bag filters
- Air stripper with five horsepower (5 HP) blower
- Duplex pumps
- Two (2) 450-pound GAC vessels installed in "lead-lag" positions

Sample ports for collecting liquid samples will be placed at various locations within the treatment system. Sample ports for collecting air samples will be placed at locations pre and post the air stripper. The effluent air sample port will be near the top of the stack which will be a minimum of five (5) feet above the top of the treatment system. Refer to the Final IRM Design drawings and the Piping and Instrumentation Diagram (P&ID) (Appendix 2 and 3 respectively) for additional layout details. Refer to Section 5.8.1 for additional information regarding air sampling.

### 5.3 Trench (Soil) Excavation and Backfill

Prior to any ground disturbance, a Ground Penetrating Radar (GPR) survey and the *UDigNY* stakeout will be completed to locate utilities at the Site where activities are scheduled to occur.

A laydown stockpile area will be designated and prepared for excavated soils. The area will have a 10 mil polyethylene placed on the existing surface as an underlayment. Haybales will be placed along the perimeter of the stockpile on the underlayment. Sandbags will be on-site and placed on top of a 10-mil polyethylene cover that will be placed on top of the stockpile at the end of each work shift. LaBella will construct the stockpile in accordance with the Final IRM Design (refer to the detail figure "Sediment Control for Stockpiles" in Design Drawing D1.0.

Soil excavation will occur by use of a combination of light and heavy machinery (excavator, loader, skid steer, etc.). Hand tools may also be used for discrete areas requiring additional care (for example, in the vicinity of existing utilities).

Refer to Figures 3 and 4 for locations where excavations for trench drain, force main trench, lift station, valve pit (may be installed if/when the system becomes more permanent) and new electrical service trench will occur. Table 2 below, provides for the estimated cubic yards of soil anticipated to be excavated, tested, and disposed off-site.

Table 2 – Excavated Soil

ANTICIPATED SOIL TO BE EXCAVATED						
	Length (ft)	Width (ft)	Depth (ft)	Cubic Feet (CF)	Conversion CF to CY	Cubic Yards (CY)
Drain Trench	90	2	4.5	810	27	30
Force Main Trench	20	2	4	160	27	5.9
Lift Station	10	10	11	1,100	27	40.7
Valve Pit*	3	2	4	24	27	0.9
Electrical Trench	255	1.2	3.2	969	27	35.9
					Subtotal:	113.4
10% Contingency						11.3
					Total CY:	<b>124.7</b>

\*Valve pit and trench leading to it will be installed if/when the system gets tied directly to the underground catch basin

Community Air Monitoring Plan (CAMP) instruments will be mobilized and used during excavation activities further described in Section 5.6 Refer to Section 5.9 and Appendix 6 for additional information.

Any equipment / tools used for soil excavation and handling will be decontaminated prior to use and prior to departing the Site. Bulk decontamination shall occur by the use of shovels and brooms. An Alconox and potable water solution will also be used where appropriate. No equipment visibly covered by soil shall be permitted to depart the Site. Fluids generated by decontamination activities shall be containerized on-site in 55-gallon drums, frack-tank(s), or similar. Decontamination fluids will be sent through the water treatment system as described in Section 5.4 before being discharged to the site catch basin / local storm sewer.

Personal protective equipment and disposable materials such as polyethylene sheeting will be disposed of as municipal solid waste.

Any soil excavated and not immediately loaded for off-site transport will be staged on-site, surrounded by temporary erosion control measures (i.e., silt sock, silt fence, hay bales, or similar) and covered by polyethylene sheeting at the end of each work shift. Excavated soil will be stockpiled on-site and analyzed for off-site disposal options in accordance with Section 6.0 of this Work Plan.

A NYSDEC “Request to Import/Reuse Fill or Soil” Form (per DER-10, Section 5.4(e)) will be submitted to the NYSDEC for review and approval prior to importing backfill materials. Sampling parameters (for any materials) and frequency shall be dictated by the recommended number provided in DER-10 Table 5.4(e)10. Quantity of anticipated import materials is provided in Table 3 below:

**Table 3 Anticipated Import Material**

	TYPE 2 STONE (¾" SCREENED)				"SUITABLE BACKFILL"				SAND BEDDING			
	Depth (ft)	CY	Conv factor	TON	Depth (ft)	CY	Conv factor	TON	Depth (ft)	CY	Conv factor	TON
Drain Trench	4.5	30	1.7	51	0.5	3.3	1.5					
Force Main Trench	0.5	0.741	1.7	1.3	2.67	4.0	1.5	5.9	0.83	1.2	1.5	1.9
Lift Station				0.5								1.0
Valve Pit*				0.5								1.0
Electrical Trench					1.5	17.0	1.5	25.5	1.67	18.9	1.5	28.3
				<b>53.3</b>				<b>31.4</b>				<b>32.2</b>
			+10%	5.3			+10%	3.1			+10%	3.2
			<b>Total</b>				<b>Total</b>				<b>Total</b>	
			<b>Tons:</b>	<b>58.6</b>			<b>Tons:</b>	<b>34.6</b>			<b>Tons:</b>	<b>35.4</b>

\*Valve pit and trench leading to it will be installed if/when the system gets tied directly to the underground catch basin

#### 5.4 Construction Dewatering

Groundwater at the site could occur at very shallow depths requiring de-watering of excavations for construction as shown in Figure 5. Multiquip QP2TH 2" gas trash pump(s) with 5.5 HP Honda GX160 Gas Engine capable of extracting approximately 200 gpm each, will be used to extract groundwater from the excavations to the on-site 20K-gal frac tank as needed for installation. The frac tank will hold the dewatering water until the treatment system is constructed and then the dewatering fluids will be pumped through the treatment system (described in Section 5.5). After all excavations are completed and the frac tank is emptied of liquids, the tank will be cleaned and demobilized.

#### 5.5 Subsurface Installation

##### 5.5.1 Stormwater Lift Station

This area will be excavated to approximately 10' bgs by 6' diameter. The precast hatch will be lowered into the excavation using the appropriate heavy equipment and then the duplex pumps and piping will be installed. Stormwater lift station sensors (per the Final IRM Design) as shown in the table below:

Table 4 - Lift Station Sensor Depths (per the Final IRM Design)

PRIMARY SENSOR ELEVATION TABLE	
DESCRIPTION	MEASUREMENTS
INFLUENT INVERT	-4.75'
HIGH LEVEL ALARM	-4.93'
LAG PUMP START	-5.43'
LEAD PUMP START	-5.93'
PUMP STOP	-6.73'
WELL FLOOR	-8.73'

### **5.5.2 Electrical Conduit - Force Main Trench**

A new electrical service will be installed at the site entailing excavating a 14" wide by 38" deep trench and installing 2" Sch 40 PVC electrical conduit from the new power drop installed by National Grid and running parallel to Doubleday Avenue to the lift station and treatment system. Conduit will be placed on 6" sand bedding, backfilled with sand bedding to 18" bgs, detectable warning tape installed and then suitable backfill placed to the finished grade.

### **5.5.3 Drain Trench**

The drain trenches will be excavated as shown in the design drawings and lined with 6-oz non-woven geotextile. Six-inch perforated pipe wrapped in the filter fabric will be installed in the drain trenches. Invert of the pipe will range from approximately 48" below grade on the north and northeaster ends to 59" below grade at the lift station. Bottom of the pipe will be installed minimum of three-inches (3") above the bottom of the trench (four-inches [4"] around bells). Drain trenches will be backfilled with Type 2 stone (3'4" screened) to approximately 6" below grade. Detectable warning tape will be installed and the top 6" of the trench will be filled with suitable backfill.

## **5.6 Groundwater Extraction and Treatment**

Surface / Groundwater extraction will initiate via the duplex sump pumps located in the lift station. Water will be pumped up and to the settling tanks inside the treatment connex at a rate not to exceed 10 gpm. Rate of flow will be initiated at a rate of approximately 1 gpm and adjusted to address removal of surface water entering the infiltration trenches (i.e. intent is that surface water will not fill and run over the top of the trenches).

All above-ground hard piping will be insulated and heat traced to withstand winter conditions at the Site. Hoses with cam lock fittings will be used to change influent to the 9K-gal frac tanks and effluent to the storm sewer.

## **5.7 Operation and Maintenance**

Sensors installed within the lift station and treatment system will be monitored by a Programable Logic Controller (PLC) and the resulting information used to make changes to both lift station pumps and system components. The PLC will monitor all sensors within the treatment system, and lift station which will shut down system operation automatically if any parameters are out of the expected range. These expectations will be determined during system commissioning.

Bag filter replacement will be determined by average flow through the system. This will also be determined during system commissioning and over the initial weeks of treatment.

Based on expected flow rates and influent concentrations, changeout of the GAC vessels is not anticipated in the 12-month period the system is planned to operate. However, a valve tree will be installed on the GAC units for backwashing if fouling is identified for either unit. This valve tree can also be used to change flow direction in order to make the lead carbon become the lag and the lag become the lead without replumbing or moving the vessels.

Treated water will be pumped into 9K-gal frac tank(s). The frac tank may be equipped with a re-circulating pump to keep the water from freezing. Treated water will be sampled and discharged in 7,000-gal batches as described below in Section 5.8.3.

## **5.8 Sampling and Analysis**

### **5.8.1 Air Sampling**

Air sampling will be conducted pre and post air stripper. The influent air sample will be collected before the air stripper. The emission sample will be collected from the discharge stack. Air samples will be collected for TO-15 and sent under chain of custody to Con-Test (A Pace Analytical Laboratory) an Environmental Laboratory Approval Program (ELAP) certified lab. Con-Test is located at 39 Spruce Street, East Longmeadow, Massachusetts. Air samples will also be collected in tedlar bags for readings by a photoionization detector (PID). Laboratory results and PID results will be compared and correlated. Samples will be collected after startup (initial sample) and monthly for three months and then quarterly thereafter.

#### 5.8.2 *Soil Sampling and Analysis*

During excavation activities associated with the IRM at the Site, an Environmental Monitor will observe and record soil excavation activities as they occur. Observation and monitoring will include completion of a daily field log that includes the approximate area, extent, and volume of material excavated.

Excavated soil shall be screened in the field for visible impairment, olfactory indications of impairment, and/or indication of detectable VOCs with a PID, collectively referred to as "evidence of impairment."

Field screening results will be recorded as observations within field notes/logs and included in the Remedial Action Summary Report. Excavated soil will be placed in a stockpile as described in Section 5.2. At the completion of all excavation activities, soil will be sampled for waste characterization at the frequency provided in Table 5.4(e)10 from DER-10, Technical Guidance for Site Investigation and Remediation. Samples will be properly labeled, placed on ice in a cooler, under chain of custody and sent to Con-Test Laboratory in East Longmeadow, Massachusetts. Waste characterization analyses will include the following:

- Target Compound List (TCL) and Toxicity Characteristic Leaching Procedure (TCLP) VOCs, Method 8260
- TCL and TCLP SVOCs, Method 8270
- TCLP Resource Conservation and Recovery Act (RCRA) Metals, Method 6010/7470
- Total PCBs, Method 8082
- PFAS, Method 1633A
- Reactivity/Ignitability/Corrosivity, SW846
- 1,4-Dioxane, Method 8270

Laboratory results will be used to direct the off-site transportation to and disposal of soil at the appropriate landfill.

#### 5.8.3 *Spent Carbon*

Spent carbon will be sampled for total VOCs (8260) and PFAS (1633) and returned to the carbon vendor for regeneration (pending analytical results).

#### 5.8.4 *Surface / Groundwater Sampling and Analysis*

Process water samples will be collected at the influent to the treatment system and before, between and after the GAC units. Influent, pre-GAC, and mid-GAC samples will be collected every 7,000 gallons after the initial startup sample. Samples will be collected for the full list of analytes provided in Appendix 5 except the mid-GAC sample collected between the two carbon vessels) will only be analyzed for PFAS and VOCs.

After 7,000 gallons has been accumulated in the effluent frac tank, a water sample will be collected from the frac tank. An environmental scientist from LaBella will collect the sample adding adequate sample volume to laboratory provided sample jars. The sampler will follow BMPs for PFAS sampling to reduce potential for cross contamination during sampling activities. This will include using Teflon-free materials, new LDPE tubing for sample ports, avoiding clothing with waterproof, water-resistant characteristics, avoiding any use/handling of products with grease, oil or water coatings for paper and donning disposal nitril gloves

before sampling. Samples will be properly labeled, placed on ice in a cooler, under chain of custody and sent to Con-Test (Pace) Laboratory in East Longmeadow, MA. Samples will be analyzed for the full list of analyses provided in Appendix 5. No additional water will be added to the initial frac tank once the sample has been collected. Effluent piping/hose will be moved to a secondary frac tank to stage the treated water until the analytical results indicate the water from the initial tank can be discharged to the storm sewer. After the analytical results from three consecutive 7,000-gal batches of treated water have been reviewed, and with approval from the NYDEC Project Manager, the list of analyses will be reduced.

### **5.9 Community Air Monitoring Plan (CAMP)**

The CAMP previously prepared by HRP for the site will be implemented during intrusive subsurface work at the Rickett's Site, The CAMP is included as Appendix 6. Notably, the CAMP will entail at a minimum of two (2) air monitoring stations be established (one upwind and one downwind of the work area), and that monitoring for particulate matter less than 10 micrometers in size (PM-10) and volatile organic compounds (VOCs) will occur.

CAMP summary updates will be provided to the NYSDEC Project Manager on a daily basis for days with ground intrusive activities occurring.

### **5.10 Dust Control Plan**

This Dust Control Plan provides guidance for controlling dust emissions during excavation activities.

If visible dust emissions are identified at the Site boundary or beyond the limits of earthwork extents, work will be halted and the source of emissions will be identified and corrected. Work will not resume until visible dust emissions have been abated.

Dust suppression shall be achieved through one or more of the following (at minimum). Dust suppression shall be the responsibility of the Contractor performing excavation activities.

- The use of an on-site water truck for road and/or work area wetting.
- Working in discrete areas/stages to limit the area of exposed, unvegetated soils vulnerable to dust production.
- Providing gravel (or equivalent surfaces) on roadways to provide a clean and dust-free road surface.
- Limiting on-site roads in total area to minimize the area required for water truck sprinkling.

Implementation of the CAMP includes monitoring for visible dust emissions and particulate air monitoring to assist with identifying stop-work and dust suppression requirements.

### **5.11 Erosion and Sediment Controls**

Prior to initiating excavation activities, silt fence shall be installed at the perimeter of planned excavation extents. Silt fence shall be inspected at least once daily to ensure integrity. The silt fence shall remain in-place until earthwork is complete.

Any soil excavated and not immediately loaded for off-site transport will be staged on-site in a location that is appropriately bermed and lined by polyethylene sheeting, surrounded by temporary erosion control measures (i.e., silt sock, silt fence, hay bales, or similar). Any stockpiled soil must be covered by polyethylene sheeting at the end of each work day.

### **5.12 Excavation Backfilling and Soil Cover System**

Where required, clean fill (i.e., soil cover) meeting the requirements of 6 NYCRR Part 375-6.7(d) will be brought to the Site to replace the excavated soil to establish the designed grade at the Site. A NYSDEC "Request to Import/Reuse Fill or Soil" Form (per DER-10, Section 5.4(e) will be submitted to the NYSDEC for review and approval prior to importing soil cover materials. Sampling is required for all imported soil for use as backfill or cover material. Sampling parameters and frequency shall be dictated by the recommended number provided in DER-10 Table 5.4(e) (included as Appendix 4). Such sampling shall also include

emergent contaminants, as defined by the NYSDEC (please also note that emergent contaminant sampling will include 1,4-Dioxane and for PFAS shall be by USEPA Method 1633).

## 6.0 SOIL AND WASTE TRANSPORTATION AND DISPOSAL

---

IRM excavated soil will be transported off-site for disposal at an approved landfill. . Excavated soils will be handled and disposed in accordance with NYCRR Part 360 regulations, including transportation via dump trucks by an appropriately permitted waste hauler. Soil will be loaded directly into dump trucks or from on-site stockpiles generated during excavation activities. Waste manifesting procedures shall be followed, with records retained and provided as an appendix in the CCR. Soil transported by trucks departing the Site will be secured with tight-fitting impermeable covers. Loose-fitting canvas-type truck covers will be prohibited.

As previously mentioned, fluids generated by equipment decontamination activities shall be containerized on-site in 55-gallon drums, the 20K-gal frack-tank(s), or similar. Decon fluids shall be pumped through the pump and treat system similar to the construction dewatering fluids described in Section 5.4.

Disposable materials such as polyethylene sheeting will be disposed of as municipal solid waste.

## 7.0 HEALTH AND SAFETY PLAN

---

A Site- and Project-Specific Health and Safety Plan (HASP) has been prepared for this IRM scope of work. The HASP includes general health and safety guidelines to be implemented during construction and through the operation and maintenance of the treatment system specific to this Work Plan. The HASP is included as Appendix. Subcontractors will be responsible for development and implementation of their own HASP.

The anticipated truck route from the LaBella Associates, D. P.C. office and entrance to the Site is shown on Figure 6.

## 8.0 SCHEDULE AND DELIVERABLES

---

An estimated project schedule is outlined below. The schedule will be dependent upon approval of the Work Plan, contractor schedule and availability, and equipment/material availability.

Task / Deliverable	Date
Submission of Draft IRM Work Plan	February 4, 2026
Submission of Final IRM Work Plan	February 18, 2026
Delivery of Connex (Treatment System) to the Site	March 2, 2026
Construction (soil excavation, on-site system install)	March 4, 2026 – March 15
Pump and Treat Operations Begin	March 15, 2026
Sample Treated Water for Discharge (7,000 gal batches)	Based on rate of extraction

Please note that the schedule is contingent upon timely review and approval of plans, equipment, parts, vendor schedules and availability, and weather.

A Construction Completion Report (CCR) will be completed in accordance with DER-10, and will include the following:

- Summary of field activities, including field notes and logs
- Record of fill material imported to the site
- Explanation of alterations, discrepancies, or deviations from the Work Plan (if any)
- Site maps, including site boundaries, and other notable features, AS-BUILT drawings
- Laboratory analysis reports
- Analytical data summary tables
- CAMP data
- Imported material documentation records
- Off-site disposal records

The CCR will be amended after operations are complete and will include updated information for the topics listed above as appropriate and include demobilization, and the total quantity of treated water.



# FIGURES





NOT FOR CONSTRUCTION

CERTIFICATE OF AUTHORIZATION NUMBER:  
PROFESSIONAL ENGINEERING: 0021272  
LAND SURVEYING: 0021271  
GEOLOGICAL: 0021659

It is a violation of New York Education Law Art. 145 Sec. 7209 & Art. 147 Sec. 7307, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered, the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

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**RICKETT'S DRY CLEANERS**  
2017-2019 DOUBLEDAY AVE  
BALLSTON SPA, NEW YORK 12020

**RICKETT'S DRY CLEANERS**  
2017-2019 DOUBLEDAY AVE  
BALLSTON SPA, NEW YORK 12020

NO.	DATE	DESCRIPTION
Revisions		

PROJECT NUMBER: 2234026.183

DRAWN BY:

REVIEWED BY:

ISSUED FOR: Work Plan

DATE: 02/19/2026

DRAWING NAME:

**IRM SITE PLAN TRENCH  
DRAIN TO TREATMENT  
SYSTEM**

DRAWING NUMBER:

**FIGURE 3**



DRAWING NAME: B:\GLOBAL\Projects\SYSTEMS\2234026.183 - Rickett's Dry Cleaners\2234026.183 - Rickett's Dry Cleaners\2234026.183 - Standard\01.0\_Site Plan.dwg  
 Drawing Name: B:\GLOBAL\Projects\SYSTEMS\2234026.183 - Rickett's Dry Cleaners\2234026.183 - Rickett's Dry Cleaners\2234026.183 - Standard\01.0\_Site Plan.dwg  
 User: Altschuler, Borden  
 Date Printed: Feb 25, 2026, 10:10am

NOT FOR CONSTRUCTION

CERTIFICATE OF AUTHORIZATION NUMBER:  
PROFESSIONAL ENGINEERING: 0021272  
LAND SURVEYING: 0021271  
GEOLOGICAL: 0021659

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BALLSTON SPA, NEW YORK 12020

NO.	DATE	DESCRIPTION
Revisions		

PROJECT NUMBER: 2234026.183

DRAWN BY:

REVIEWED BY:

ISSUED FOR: Work Plan

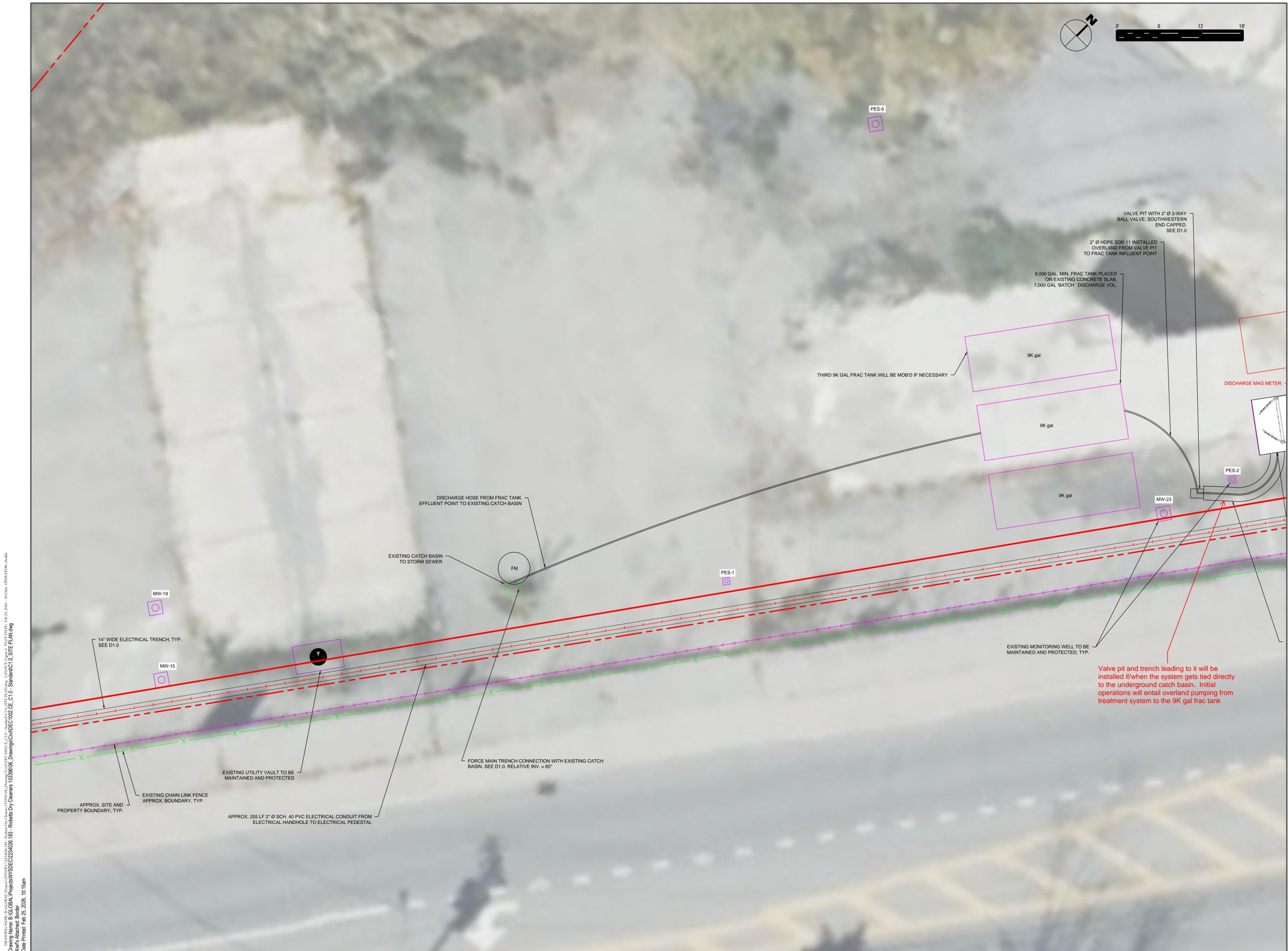
DATE: 02/19/2026

DRAWING NAME:

**IRM SITE PLAN TREATMENT SYSTEM TO SEWER DISCHARGE**

DRAWING NUMBER:

**FIGURE 4**



DRAWING NAME: B:\GLOBAL\Projects\SYSTEMS\SYSTEMS\CE-C10-Standard\CE-C10-Site Plan.dwg  
Drawing Name: B:\GLOBAL\Projects\SYSTEMS\SYSTEMS\CE-C10-Standard\CE-C10-Site Plan.dwg  
Xref's Attached: Border  
Date Plotted: Feb 25, 2026, 10:15am

NOT FOR CONSTRUCTION

CERTIFICATE OF AUTHORIZATION NUMBER:  
PROFESSIONAL ENGINEERING: 0021272  
LAND SURVEYING: 0021271  
GEOLOGICAL: 0021659

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BALLSTON SPA, NEW YORK 12020

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BALLSTON SPA, NEW YORK 12020

NO.	DATE	DESCRIPTION
Revisions		

PROJECT NUMBER: 2234026.183

DRAWN BY:

REVIEWED BY:

ISSUED FOR: Work Plan

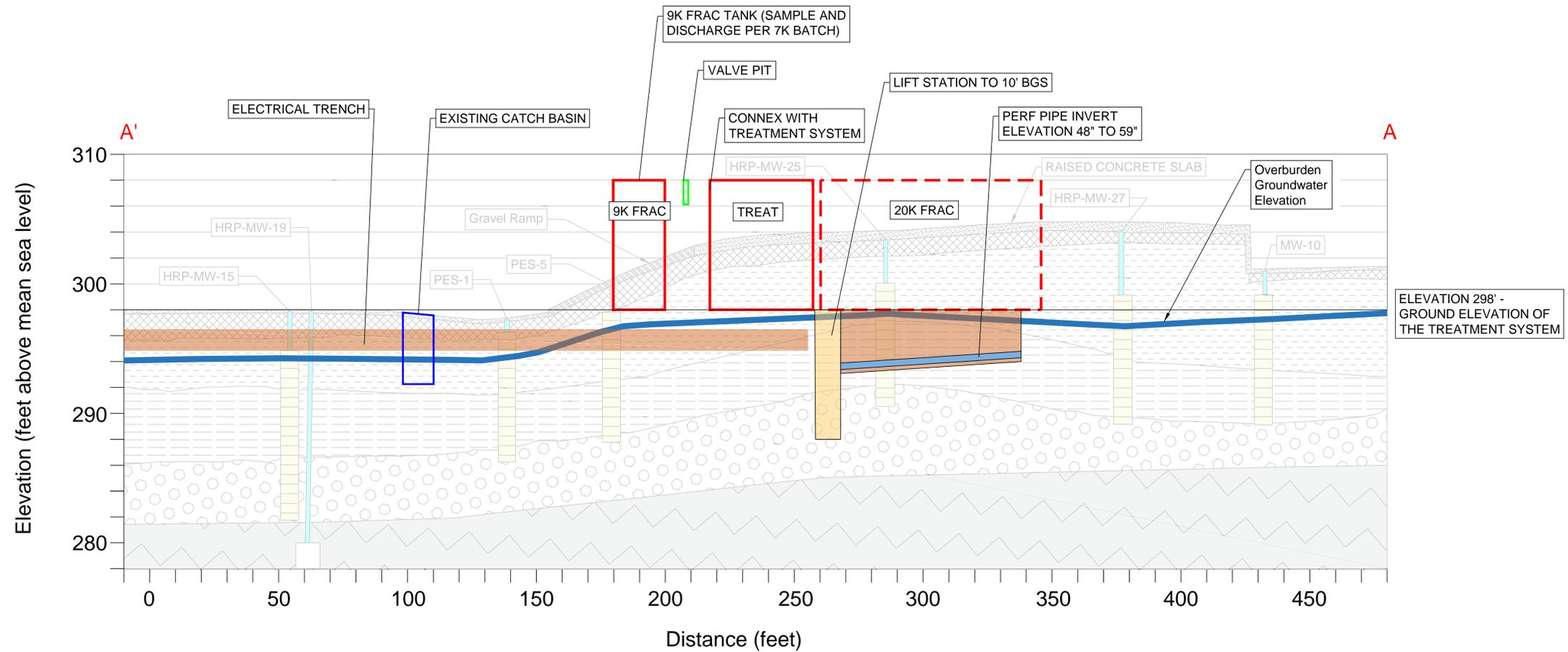
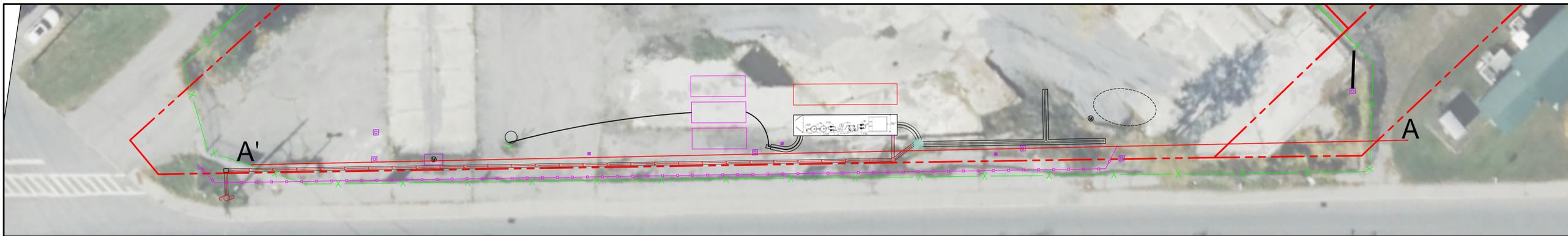
DATE: 02/19/2026

DRAWING NAME:

**IRM PROFILE A-A'**

DRAWING NUMBER:

**FIGURE 5**



**Legend**

- |  |               |                                  |                   |                      |
|--|---------------|----------------------------------|-------------------|----------------------|
| BEDROCK GROUNDWATER MONITORING WELL - OPEN BOREHOLE        | SHALE BEDROCK | SILTY CLAY                       | LIFT STATION      | VALVE PIT            |
| OVERBURDEN GROUNDWATER MONITORING WELL - SCREENED INTERVAL | Fill          | SANDY SILT                       | ELECTRICAL TRENCH | EXISTING CATCH BASIN |
| GROUNDWATER MONITORING WELL CASING                         | SILTY GRAVEL  | CROSS SECTION TRANSECTS          | PERF PIPE         |                      |
|  | MEDIUM SAND   | OVERBURDEN GROUNDWATER ELEVATION | TANK              |                      |



# APPENDIX 1

## Project Contact List

Interim Remedial Measure Work Plan  
Rickett's Dry Cleaners  
NYSDEC Site No. 546058  
2017-2019 Doubleday Ave  
Ballston Spa, New York 12020

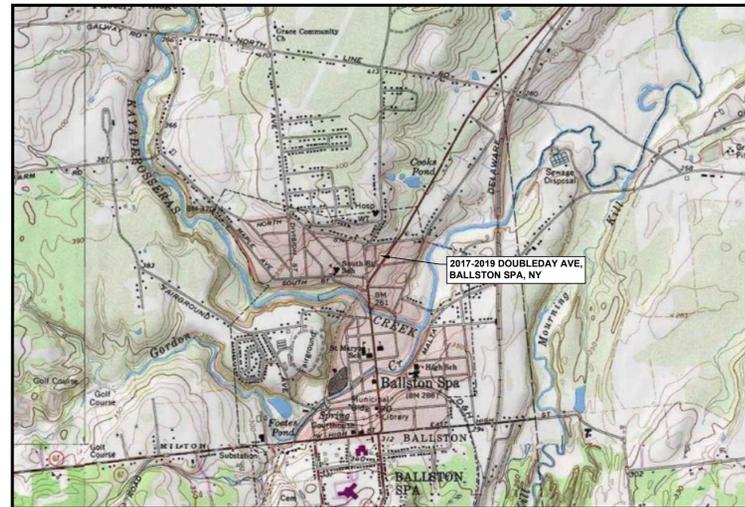
**Project Contact List**

<b>Name</b>	<b>Company</b>	<b>Title</b>	<b>Phone Number</b>	<b>Email Address</b>
Nicole Hinze	NYSDEC	DER Project Manager	(518) 897-1256	nicole.hinze@dec.ny.gov
Kevin Ballou	HRP	Project Manager	(518) 914-6016	kevin.ballou@hrpassociates.com
Mark Roberts	LaBella	Project Manager	(808) 342-5271	mroberts@labellapc.com
Tommy Giamichael	LaBella	Construction Manager / Site Supervisor	(518) 337-7635	tgiamichael@labellapc.com
TBD	LaBella	Health and Safety Manager	TBD	TBD



# APPENDIX 2

IRM Final Design



**SITE LOCATION MAP**  
SCALE: 1" = 2000'

**JANUARY 19, 2026**

**100% DESIGN**

**INTERIM REMEDIAL MEASURE  
RICKETT'S DRY CLEANERS  
2017-2019 DOUBLEDAY AVE  
BALLSTON SPA, NEW YORK 12020**

**HRP PROJECT NO. DEC1002.P3**

**GENERAL NOTES**

1. ALL DIMENSIONS, ELEVATIONS, AND EXISTING CONDITIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO THE START OF WORK. ANY DISCREPANCIES DISCOVERED DURING THE COURSE OF CONSTRUCTION SHALL BE PROMPTLY REPORTED TO THE ENGINEER AND/OR OWNER.
2. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING, PRIOR TO BIDDING, THE LOCATIONS OF ALL UTILITIES AND SHALL BE RESPONSIBLE FOR ALL DAMAGE TO SAID UTILITIES. THE CONTRACTOR SHALL CONTACT UDIG NY AT 811, AT LEAST 72 HOURS PRIOR TO STARTING CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE ACTIVITIES WITH INDIVIDUAL UTILITY COMPANIES.
3. WHERE THE CONTRACTOR'S OPERATIONS COULD CAUSE DAMAGE OR INCONVENIENCE TO TELEPHONE, FIBER OPTIC, TELEVISION, ELECTRICAL POWER, OIL, GAS, WATER, SEWER, IRRIGATION SYSTEMS, OR ANY OTHER UTILITIES, THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS NECESSARY FOR THE PROTECTION OF THESE UTILITIES AND SERVICES. THE CONTRACTOR AND ITS SUBCONTRACTORS SHALL BE SOLELY AND DIRECTLY RESPONSIBLE FOR ANY DAMAGE, INJURY, EXPENSE, LOSS, INCONVENIENCE, DELAY, SUITS, ACTIONS, OR CLAIMS OF ANY CHARACTER BROUGHT BECAUSE OF AFOREMENTIONED UTILITIES AND/OR SERVICES.
4. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT PROPER DRAINAGE IS MAINTAINED THROUGHOUT THE PROJECT.
5. ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED AND MAINTAINED ON A REGULAR BASIS AS OUTLINED HEREIN.

**PREPARED BY:**



197 SCOTT SWAMP ROAD  
FARMINGTON, CT 06032  
(860) 674-9570  
HRPASSOCIATES.COM

**PREPARED FOR:**



PO BOX 296  
RAY BROOK, NY 12977



**SHEET INDEX**

SHEET	TITLE / DESCRIPTION	CREATED	REVISED
	TITLE	09/23/2025	
GN1.0	GENERAL NOTES	01/19/2026	
C1.0	SITE PLAN	09/23/2025	
D1.0	DETAILS	09/23/2025	

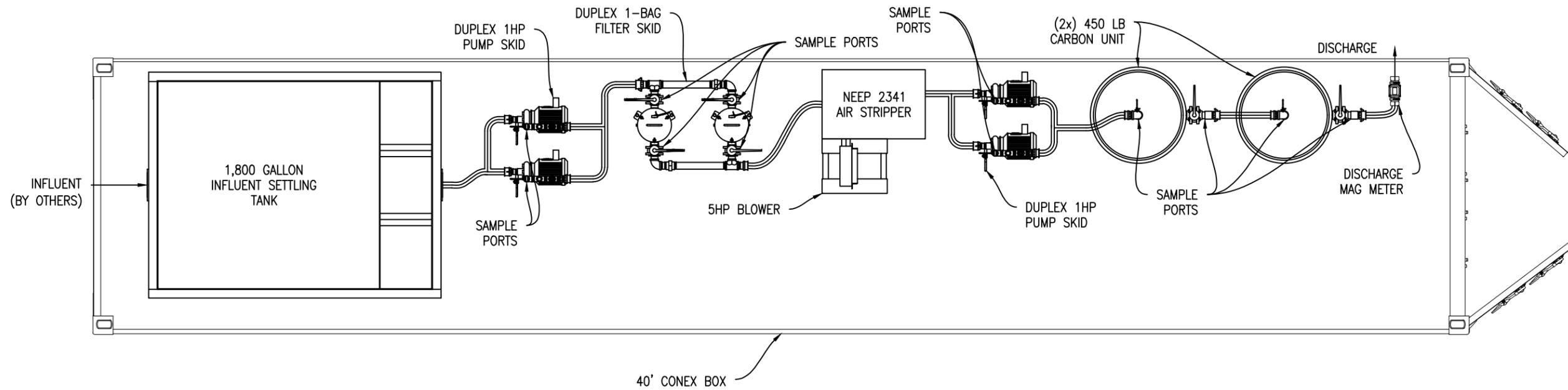






# 10 GPM TEMPORARY TREATMENT SYSTEM

OVERALL PLAN VIEW



- NOTES:**
1. DESIGN FLOW RATE 10 GPM
  2. SYSTEM FOOTPRINT APPROXIMATELY 40'X8'
  3. NOT ALL VALVES, CONNECTIONS, ETC SHOWN FOR CLARITY
  4. APPROXIMATE ELECTRICAL LOAD: 200 AMPS
  5. SAMPLE PORTS INCLUDED ON PUMP SKIDS, BAG FILTERS, AND CARBON VESSELS
  6. TEMPERATURE SENSOR IN INFLUENT TANK
  7. FLOW RATE & TEMPERATURE REMOTE ACCESS

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SCALE: NTS

REV.	DATE	BY	REMARKS	REV.	DATE	BY	REMARKS
A	8/28/25	LJ	UPDATED NOTES				
-	8/1/25	LJ	INITIAL ISSUE.				

CUSTOMER:	HRP ASSOCIATES
SITE:	BALLSTON SPA, NY

TITLE:	TEMPORARY TREATMENT SYSTEM EQUIPMENT LAYOUT 10 GPM
--------	--

DRAWN	BY	DATE
LJ		8/17/25
APPROVALS		
MECH.	BY	DATE
I&C		
PROCESS		



627 MOUNT HOPE ROAD WHARTON, NJ 07885  
PHONE: 973-983-0901 • FAX: 973-983-0903  
www.gwttllc.com

DWG SIZE: B SHEET: 1 OF 1 DRAWING NO.: Q11633-M-410



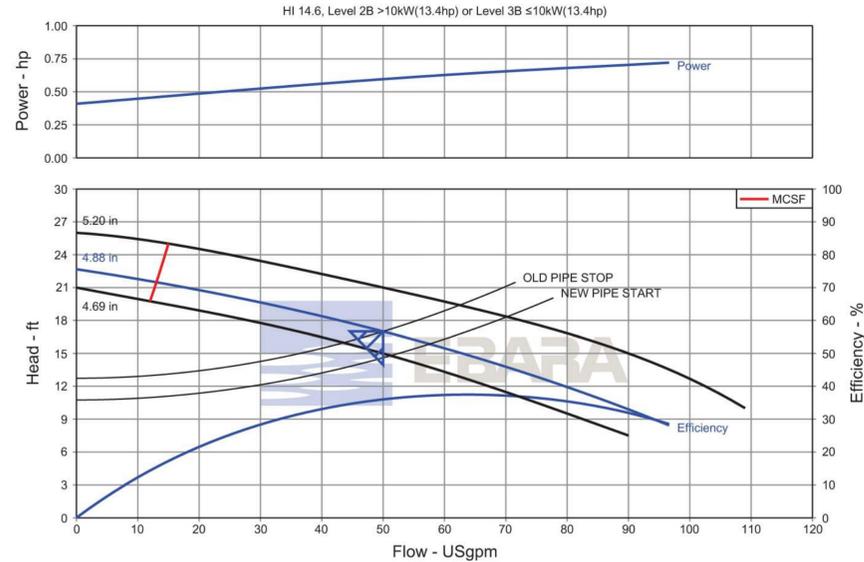


Customer :  
Reference :

**Pump Performance Datasheet**  
Ebara Quotation System 25.2.1

Item number	: 001	Product Description	: 50DVU6.75
Service	:	Stages	: 1
Quantity	: 1	Based on curve number	: DV-C601-9203
Quote number	: 1589350	Date last saved	: 07 Aug 2025 3:53 PM

Operating Conditions		Liquid	
Flow, rated	: 50.00 USgpm	Liquid type	: Cold Water
Differential head / pressure, rated (requested)	: 17.00 ft	Additional liquid description	:
Differential head / pressure, rated (actual)	: 17.22 ft	Solids diameter, max	: 0.00 in
Suction pressure, rated / max	: 0.00 / 0.00 psi.g	Solids concentration, by volume	: 0.00 %
NPSH available, rated	: Ample	Temperature, max	: 68.00 deg F
Site Supply Frequency	: 60 Hz	Fluid density, rated / max	: 1.000 / 1.000 SG
<b>Performance</b>		Viscosity, rated	: 1.00 cP
Speed criteria	: Synchronous	Vapor pressure, rated	: 0.34 psi.a
Speed, rated	: 1730 rpm	<b>Material</b>	
Impeller diameter, rated	: 4.88 in	Material selected	: Cast Iron
Impeller diameter, maximum	: 5.20 in	<b>Pressure Data</b>	
Impeller diameter, minimum	: 4.69 in	Maximum working pressure	: 9.81 psi.g
Efficiency	: 36.01 %	Maximum allowable working pressure	: N/A
NPSH required / margin required	: - / 0.00 ft	Maximum allowable suction pressure	: N/A
Ns (imp. eye flow) / Nss (imp. eye flow)	: 1,731 / - US Units	Hydrostatic test pressure	: N/A
MCSF	: 13.04 USgpm	<b>Driver &amp; Power Data (@Max density)</b>	
Head, maximum, rated diameter	: 22.67 ft	Driver sizing specification	: Rated power
Head rise to shutoff	: 33.38 %	Margin over specification	: 0.00 %
Flow, best eff. point	: 63.78 USgpm	Service factor	: 1.00
Flow ratio, rated / BEP	: 78.40 %	Power, hydraulic	: 0.21 hp
Diameter ratio (rated / max)	: 93.94 %	Power, rated	: 0.60 hp
Head ratio (rated dia / max dia)	: 80.95 %	Power, maximum, rated diameter	: 0.72 hp
Cq/Ch/Ce/Cn [ANSI/HI 9.6.7-2010]	: 1.00 / 1.00 / 1.00 / 1.00	Motor rating	: 1.00 hp / 0.75 kW (Fixed)
Selection status	: Acceptable		



# Model DVU

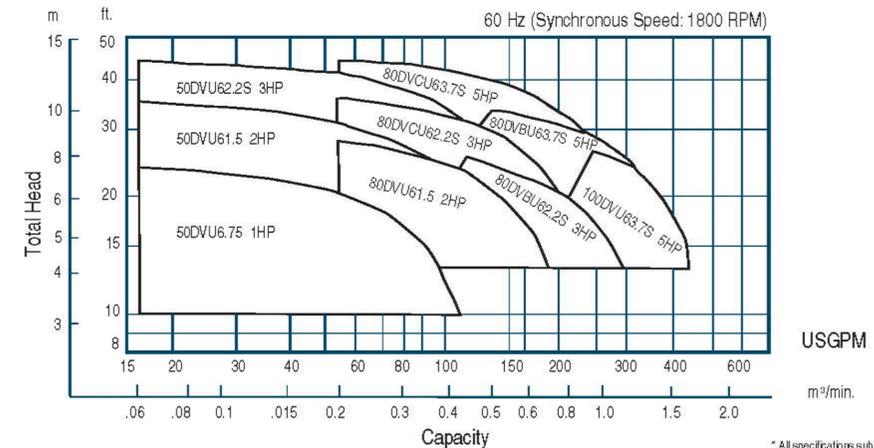
## Features

- **Air filled, heavy duty motor, rated for 20 starts/hour**, dissipates heat easily, operates cooler with higher efficiencies; longer service life with lower operating costs
- **Built-in motor protection with autotcut**, protects motor against overheating, single phasing, and no load; saves money on costly motor replacement
- **Molded cable** prevents capillary action; reduces maintenance costs
- **60,000 hour bearings**; ensures long, dependable operation and lowers maintenance costs
- **Large solids handling capabilities** prevents clogging
- **Semi-open vortex type recessed impeller**, vortex action prevents clogging and handles stringy material better vs moving pumpage through impeller vanes; provides durability, high reliability, and lowers maintenance costs
- **High quality stainless steel shaft**, provides high tensile strength, corrosion resistance, longer life, and lower maintenance costs
- **Double mechanical seals**-silicon carbide lower seals, carbon/ceramic upper - hard faced upper and lower seals operate in an oil bath; providing longer service life and lower maintenance costs
- **High wire to water efficiencies** reduced power consumption; reduced cost of operation
- **Available for slide rail installations** provides ease of maintenance for small sump type installations
- **Three phase, FM explosion proof, Class 1, Div. 1, Group C & D** available in DVFMU series 2 HP and above

## Standard Specifications

<b>Design</b>	Discharge	2, 3, 4 inch
	Horsepower	2 to 5 HP, Single Phase 1 to 2 HP, Three Phase
	Capacity	16 to 430 GPM
<b>Capacity</b>	Total head	9 to 66 feet
	Max. Liquid temp.	104°F/40°C
<b>Speed</b>		1800 RPM
<b>Materials</b>	Casing	Cast Iron
	Impeller	Cast Iron
	Shaft	403 Stainless Steel
	Motor Frame	Cast Iron
	Fastener	304 Stainless Steel
<b>Construction</b>	<b>Mechanical Seal</b>	
	Double Mechanical Seal	
	Material - Upper	Carbon/Ceramic
	Material - Lower	Silicon Carbide/Silicon Carbide
	Impeller Type	Semi-open Recessed Vortex
	Bearing	Prelubricated Ball Bearing
	Motor	Air-filled, Insulation Class F
	Single Phase	208/230V
	Three Phase	208/230V, 460V
	Service Factor	1.15
Motor Protection	Built-in Auto cut - overload, no load, out of phase, single phasing protection	
<b>Submersible Cable</b>	33 ft. standard cable length, Optional 66 ft.	
<b>Accessories</b>	Optional QDC System	

## DVU selection chart



EBARA Pumps Americas Corporation  
1651 Cedar Line Drive • Rock Hill, SC 29730 • t (803) 327 - 5005 • f (803) 327 - 5097  
[www.pumpsebara.com](http://www.pumpsebara.com)  
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EFHDVU0116

REV	DATE	DESCRIPTION	BY

VERIFY SCALE  
DRAWN BY: [Name]  
CHECKED BY: [Name]  
DATE: [Date]

**ROMTEC UTILITIES**  
18240 NORTH BANK ROAD  
ROSEBURG, OREGON 97470  
PHONE: (541) 496-9678  
WWW.ROMTECUTILITIES.COM

PRELIMINARY DESIGN DETAIL  
MECHANICAL SHEET  
2

**GENERAL INFORMATION**

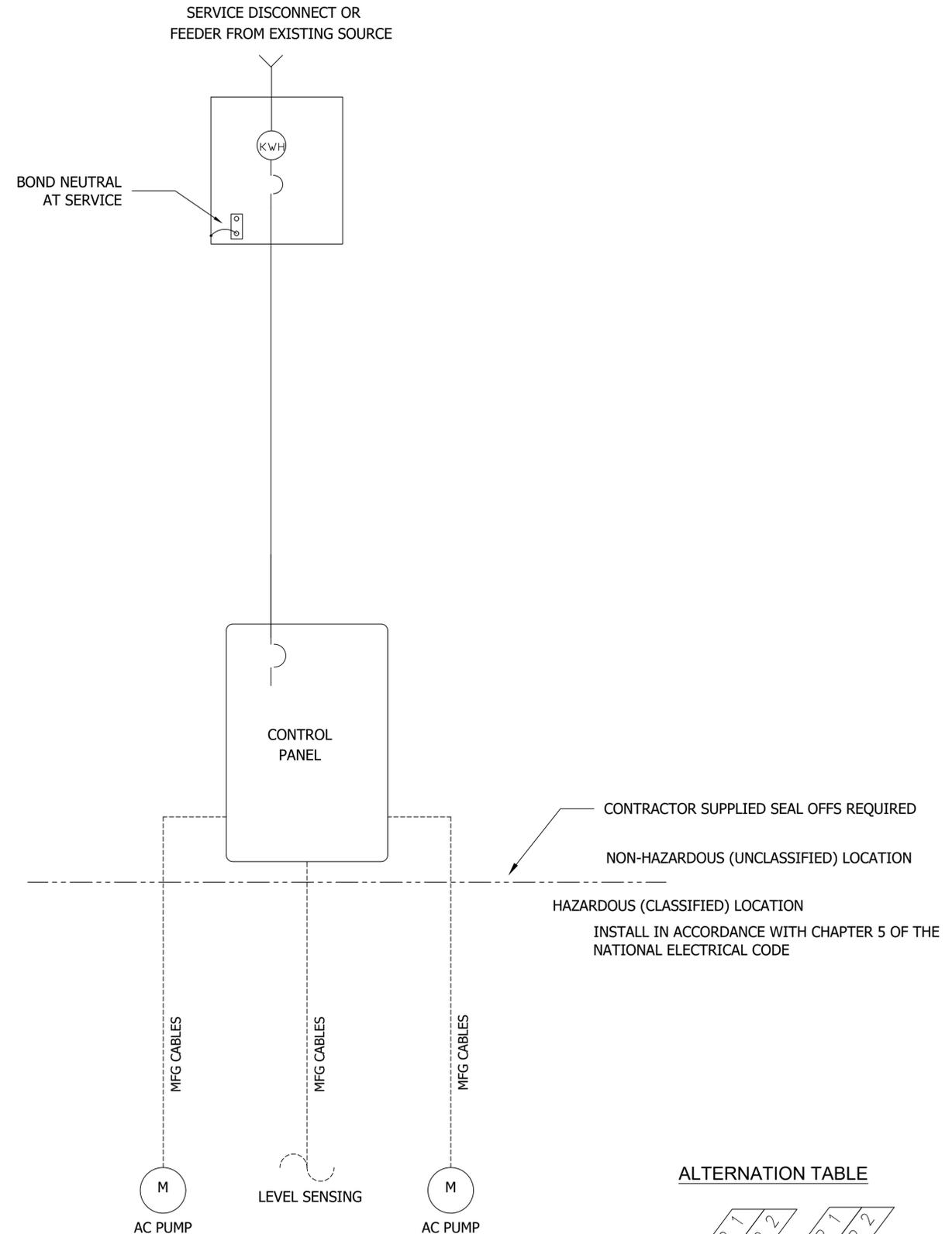
- ELECTRICAL SERVICE - 480V, 3 PHASE
- PRIMARY CONTROLLER - ALTERNATOR CONFIGURED FOR DUPLEX OPERATION
- DEVICE MOUNTING - INNER DOOR
- PANEL MOUNTING - WALL MOUNT

**1. ELECTRICAL SCOPE**

- 1.1 Package pump station supplier's work shall include the design and fabrication of the control panel and pump station electrical equipment in accordance with the system and owner requirements.
- 1.2 Electrical equipment including control panel and level sensing to be by pump station supplier.
- 1.3 Supplier shall provide technical support for installing electrical contractor both prior to and during installation of the pump station.
- 1.4 Pump station start-up shall be performed by the pump station supplier. The startup technician shall be a trained and qualified employee of the system supplier and not be provided by a third-party.
- 1.5 During the first day of field service, the startup technician work will provide direction to Installer for pump station field-testing and troubleshooting any issues with system startup and operation. The startup technician will perform an inspection of the pump station installation to ensure that it was completed in accordance with the approved design. The startup technician will also direct and oversee the installation of the delivered pumps and level sensors. Delivered pumps and level sensors are to be stored on-site during construction, but not installed until the time of startup testing.
- 1.6 Day two of field service will include operation and maintenance training provided by the startup technician to all parties involved in the ongoing operation and maintenance of the lift station. This should include the owner or owner's representative, maintenance personnel, operation personnel, the Installer, and any other parties that are integral to the ongoing performance of the lift station. The Installer shall coordinate with the owner to determine and verify all parties are present for training.
- 1.7 During operation of the system as part of the system startup, the startup technician will prove the performance of the system based on the approved Scope of Supply and Design Submittal.
- 1.8 The startup technician will complete a field startup report and training forms per the approved Scope of Supply and Design Submittal. These forms will be signed to acknowledge completion of startup activities by the required parties.
- 1.9 The startup technician will provide a copy of the field startup report to be provided to the owner and/or operator.

**2. CONTROL REQUIREMENTS**

- 2.1 Control Panel to be UL Listed in the United States
- 2.2 Panel enclosure to meet minimum requirements of NEMA 4 painted steel enclosure with an interior dead front panel.
- 2.2 Panel to be configured for duplex operation.
- 2.3 Panel to include hand-off-auto (HOA) switches.
- 2.4 Primary pump controller: Alternator
- 2.5 Panel to include alarm beacon.
- 2.6 Panel to include audible alarm notification.



**ALTERNATION TABLE**

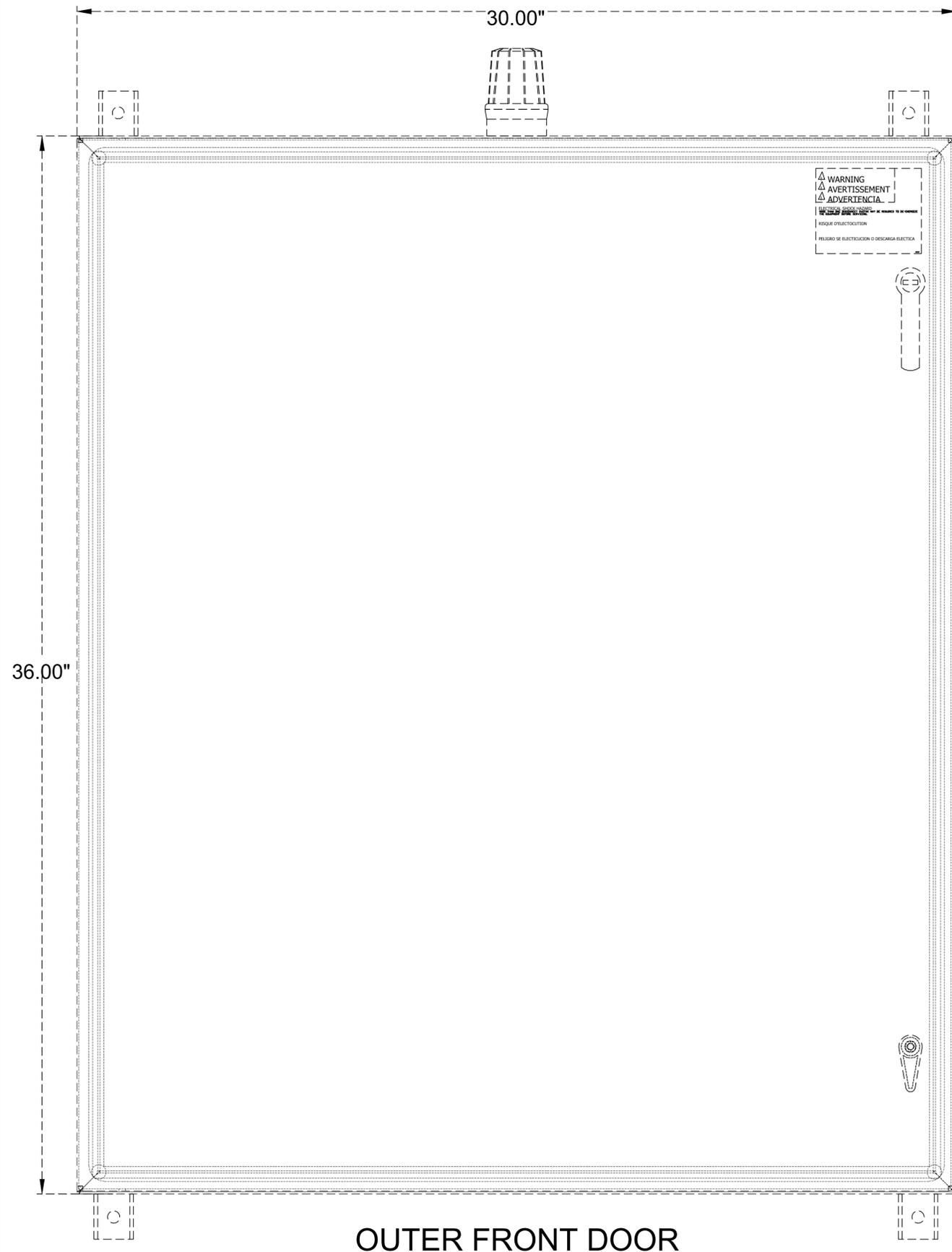
	PUMP 1	PUMP 2
LEAD	●	
LAG		●
	STEP 1	STEP 2

PROJECT #:	----
DSN:	----
DRN:	----
CKD:	----
DATE:	----
REV	DATE
DESCRIPTION	
REVISION HISTORY	
BY	

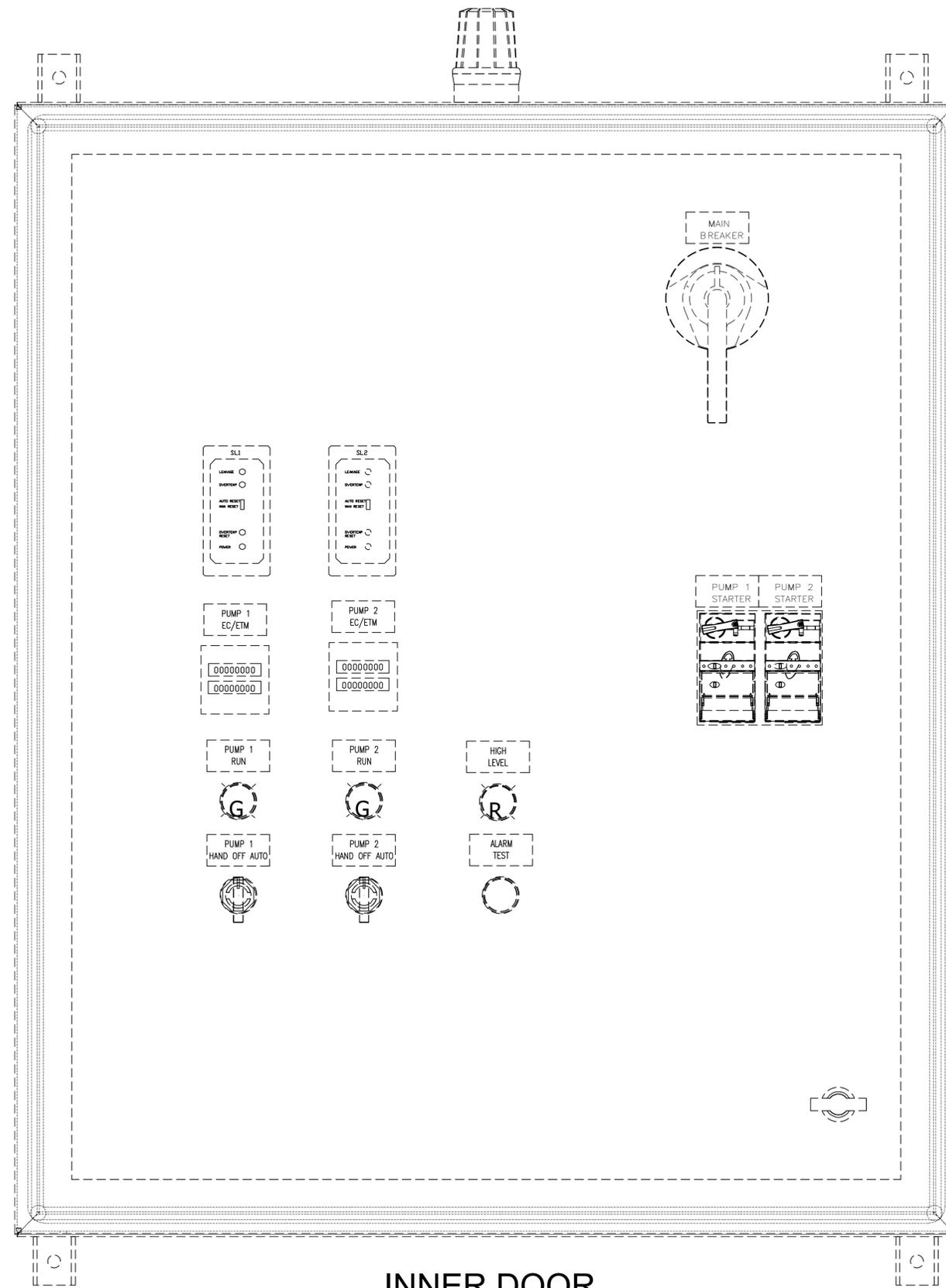
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**ROMTEC UTILITIES**  
 18240 NORTH BANK ROAD  
 ROSEBURG, OREGON 97470  
 PHONE: (541) 496-9678  
 WWW.ROMTECUTILITIES.COM

**ELECTRICAL NOTES**  
**DUPLEX LIFT STATION**



OUTER FRONT DOOR



INNER DOOR

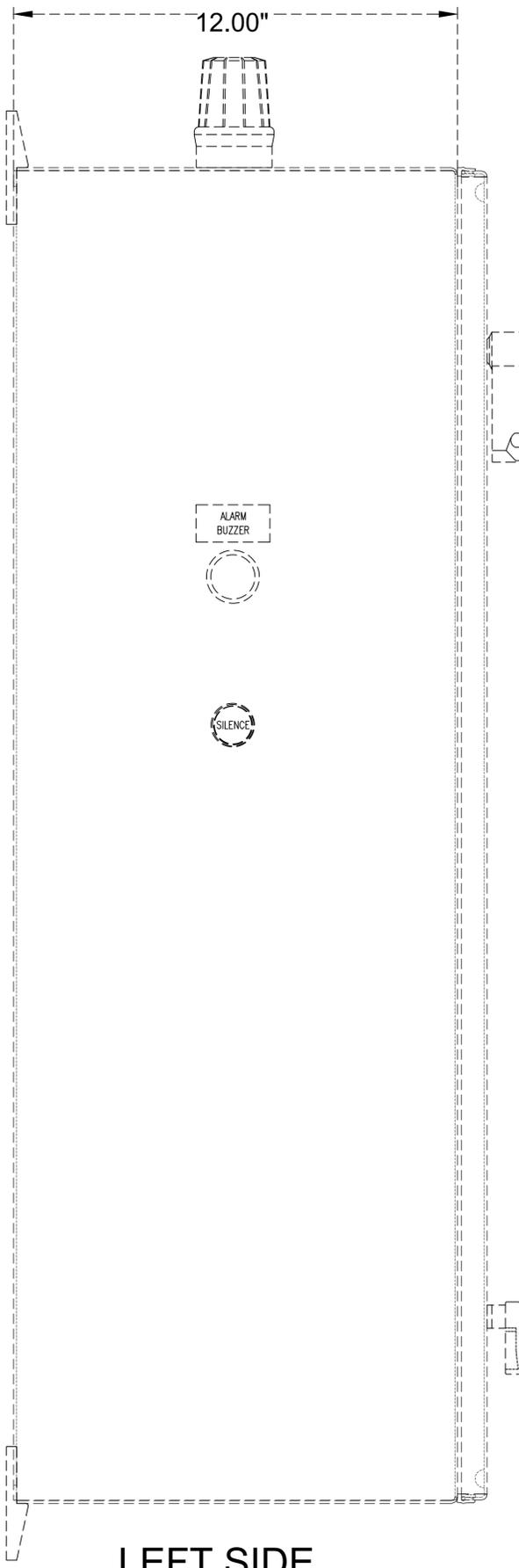
REV	DATE	DESCRIPTION	BY

PROJECT #: ----  
 DSN: ----  
 DRN: ----  
 CKD: ----  
 DATE: ----

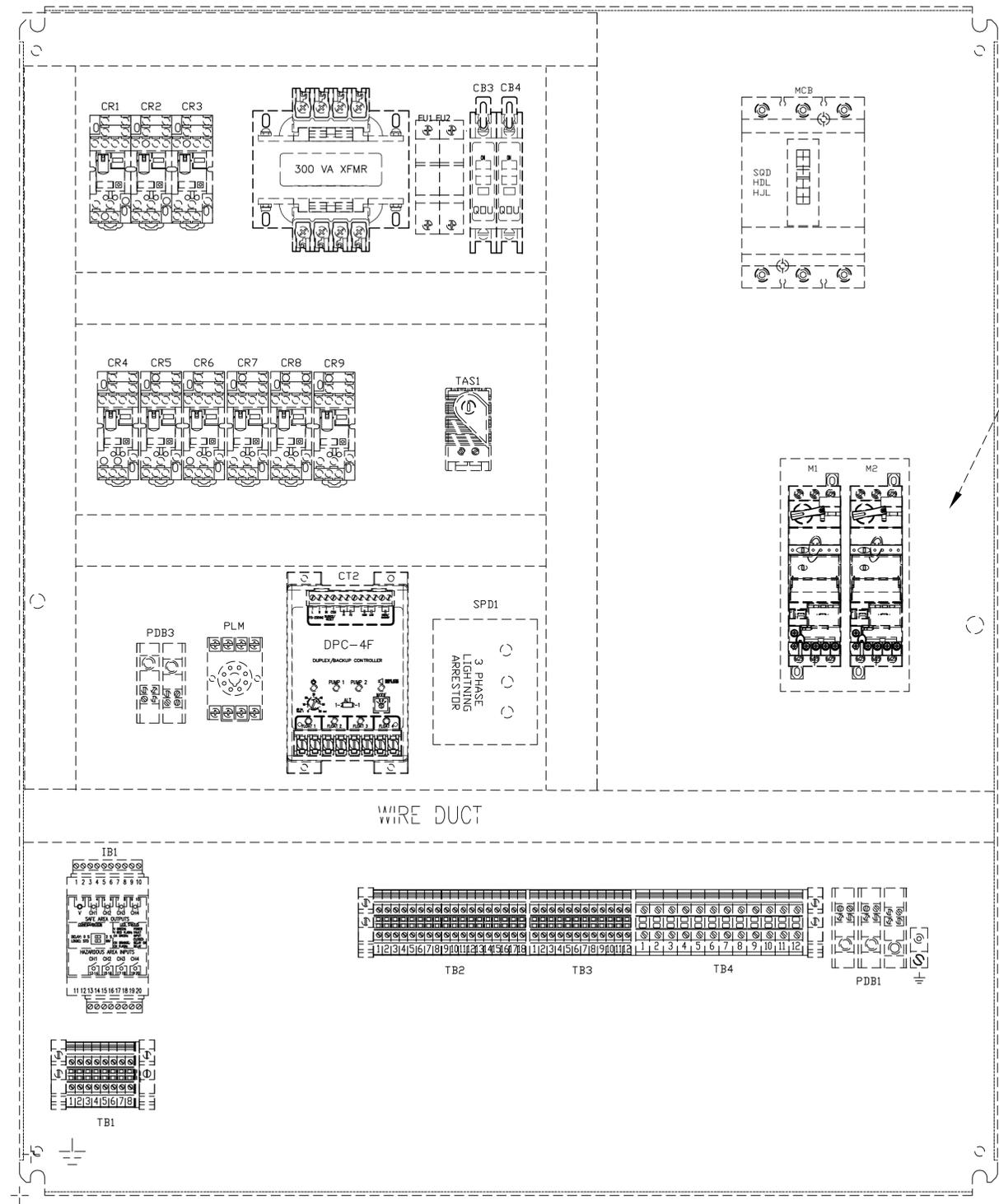
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ELECTRICAL ENCLOSURE  
 DUPLEX LIFT STATION

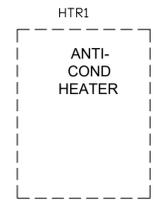


LEFT SIDE



BACK PLATE

HEATER IS LOCATED UNDER THE CIRCUIT BREAKER BRACKET



REV	DATE	DESCRIPTION	BY

REVISION HISTORY

PROJECT #: ----  
 DSN: ----  
 DRN: ----  
 CKD: ----  
 DATE: ----

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ENCLOSURE LAYOUT  
 DUPLEX LIFT STATION



# APPENDIX 3

P&ID and Control Panel Layout

NOT FOR CONSTRUCTION

CERTIFICATE OF AUTHORIZATION NUMBER:  
PROFESSIONAL ENGINEERING: 0021272  
LAND SURVEYING: 0021271  
GEOLOGICAL: 0021659

It is a violation of New York Education Law Art. 145 Sec. 7209 & Art. 147 Sec. 7307, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered, the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

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NYSDEC

**RICKETTS DRY CLEANERS**  
153396  
2017/2019 DOUBLEDAY AVE  
BALLSTON SPA, NY 12020

NO.	DATE	DESCRIPTION
Revisions		

PROJECT NUMBER: 2234026.183

DRAWN BY: GM

REVIEWED BY: EC

ISSUED FOR: PRELIMINARY

DATE: JAN 2026

DRAWING NAME:

SYMBOLS  
ABBREVIATIONS  
AND NOTES

DRAWING NUMBER:

E001

INSTRUMENT SYMBOLS

	INSTRUMENTS
	PLC INTERLOCK

ABBREVIATIONS

AS	AIR STRIPPER
B	BLOWER
BF	BAG FILTER
FL	FLOAT
FM	FLOW METER
GAC	GRANULATED ACTIVATED
LS	LEVEL SENSOR
PS	PRESSURE SENSOR
PG	PRESSURE GAUGE
SP	SAMPLE PORT

SYMBOLS / LEGEND

	MAIN PROCESS LINE
	CHECK VALVE
	BALL VALVE (NORMALLY CLOSED)
	GATE VALVE
	UNION
	TRANSFER PUMP
	BLOWER
	SUMP PUMP
	AIR STRIPPER
	BAG FILTER
	TANK
	VACUUM RELIEF VALVE
	FRAC TANK

NOT FOR CONSTRUCTION

CERTIFICATE OF AUTHORIZATION NUMBER:  
PROFESSIONAL ENGINEERING: 0021272  
LAND SURVEYING: 0021271  
GEOLOGICAL: 0021659

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NYSDEC

**RICKETTS DRY CLEANERS**  
153396  
2017/2019 DOUBLEDAY AVE  
BALLSTON SPA, NY 12020

NO.	DATE	DESCRIPTION
Revisions		

PROJECT NUMBER: 2234026.183

DRAWN BY: GM

REVIEWED BY: EC

ISSUED FOR: PRELIMINARY

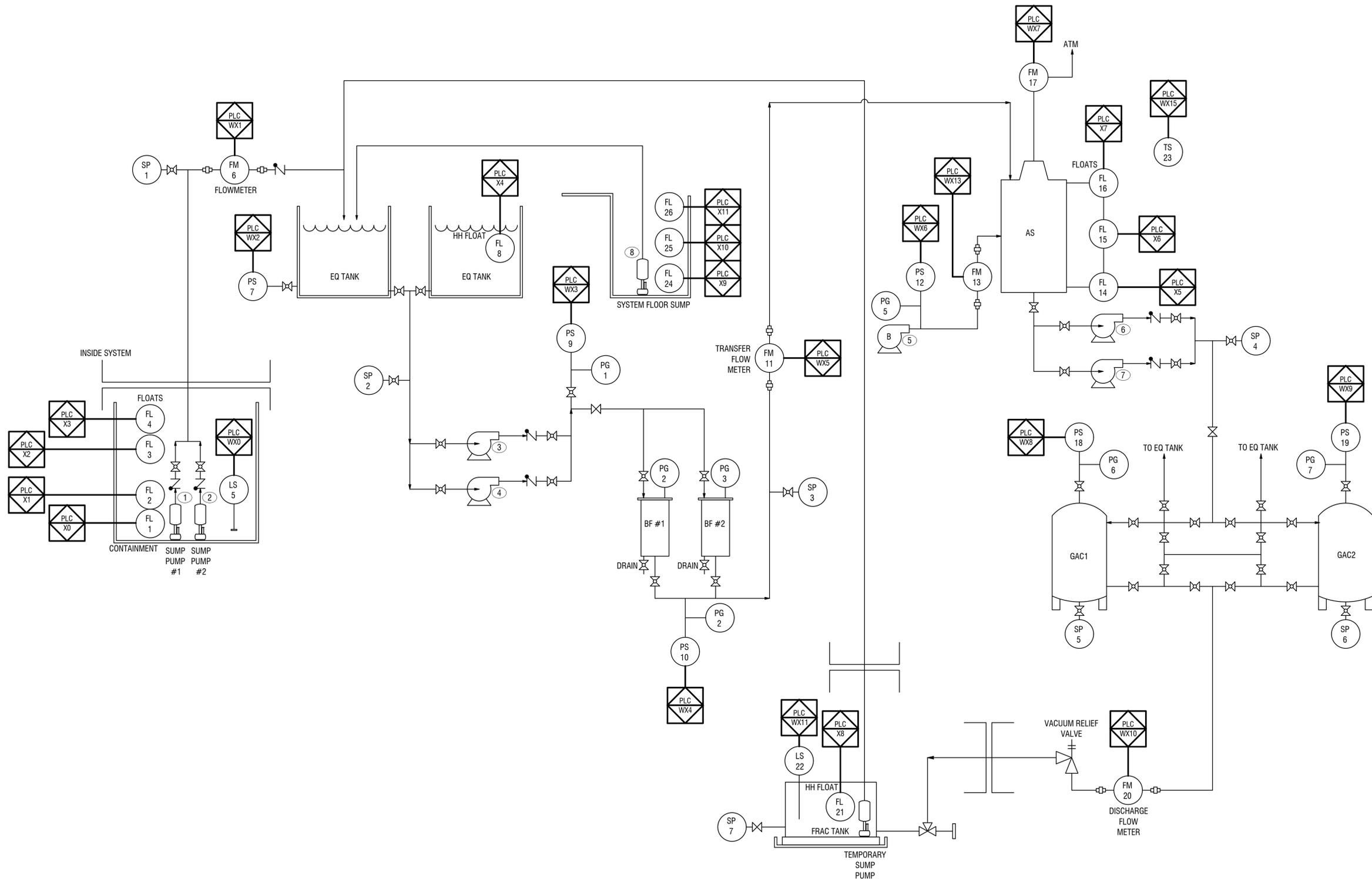
DATE: JAN 2026

DRAWING NAME:

**PRELIMINARY  
P&ID**

DRAWING NUMBER:

**PID701**



NOT FOR CONSTRUCTION

CERTIFICATE OF AUTHORIZATION NUMBER:  
PROFESSIONAL ENGINEERING: 0021272  
LAND SURVEYING: 0021271  
GEOLOGICAL: 0021659

It is a violation of New York Education Law Art. 145 Sec. 7209 & Art. 147 Sec. 7307, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered; the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

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**NYSDEC**

**RICKETTS DRY CLEANERS**  
153396  
2017/2019 DOUBLEDAY AVE  
BALLSTON SPA, NY 12020

NO.	DATE	DESCRIPTION
Revisions		

PROJECT NUMBER: 2234026.183

DRAWN BY: GM

REVIEWED BY: EC

ISSUED FOR: PRELIMINARY

DATE: JAN 2026

DRAWING NAME:

**EQUIPMENT LIST**

DRAWING NUMBER:

**PID702**

EQUIPMENT LIST		
EQUIPMENT #	DESCRIPTION	PLC INTERLOCK
1	SUMP PUMP #1	VFD-1
2	SUMP PUMP #2	VFD-2
3	TRANSFER PUMP 1A	VFD-3
4	TRANSFER PUMP 1B	VFD-4
5	AIR STRIPPER BLOWER	VFD-5
6	TRANSFER PUMP 2A	VFD-6
7	TRANSFER PUMP 2B	VFD-7
8	SYSTEM FLOOR SUMP	RELAY

ANALOG					
NAME	SENSOR TYPE	RANGE	LOCATION	PLC INPUT	SENSOR NUMBER
SUMP PIT LEVEL	PRESSURE TRANSDUCER	0-11.5 FT H2O	SUMP PIT	WX0	5
INFLUENT FLOW METER	FLOW METER (MAG)	0-80 GPM	PRE EQ TANK	WX1	6
EQ LEVEL SENSOR	PRESSURE SENSOR	0-100 IWC	EQ TANK	WX2	7
PRE BAG A PRESSURE SENSOR	PRESSURE SENSOR	0-60 PSI	PRE BAG FILTER / POST TRANSFER PUMP	WX3	9
POST BAG A PRESSURE SENSOR	PRESSURE SENSOR	0-60 PSI	POST BAG FILTER / PRE AIR STRIPPER	WX4	10
TRANSFER FLOW METER	FLOW METER (MAG)	0-80 GPM	POST BAG FILTER / PRE AIR STRIPPER	WX5	11
AIR STRIPPER PRESSURE	PRESSURE SENSOR	0-100 IWC	AIR STRIPPER	WX6	12
AIR STRIPPER EFFLUENT AIR SPEED	THERMAL ANEMOMETER	0-10000 FT/S	AIR STRIPPER STACK	WX7/WX8	13
AIR STRIPPER INFLUENT AIR SPEED	THERMAL ANEMOMETER	(6-328 FT/SEC/-4-212 DEG F)	AIR STRIPPER INFLUENT	WX9/WX10	17
PRE CARBON PRESSURE	PRESSURE SENSOR	0-60 PSI	PRE CARBON / POST TRANSFER 2	WX11	18
MID CARBON PRESSURE	PRESSURE SENSOR	0-60 PSI	PRE CARBON 2 / POST CARBON 1	WX12	19
DISCHARGE FLOW METER	FLOW METER (MAG)	0-80 GPM	PRE FRAC / POST CARBON 2	WX13	20
FRAC TANK LEVEL	PRESSURE TRANSDUCER	0-11.5 FT H2O	FRAC TANK	WX14	22
TEMP SENSOR	TEMP SENSOR	-40 - 140°F	PROCESS ROOM	WX15	23

DISCRETE					
NAME	SENSOR TYPE	RANGE	LOCATION	PLC INPUT	SENSOR NUMBER
LOW LOW FLOAT	FLOAT SWITCH	ON / OFF	SUMP PIT	X0	1
LOW FLOAT	FLOAT SWITCH	ON / OFF	SUMP PIT	X1	2
HIGH FLOAT	FLOAT SWITCH	ON / OFF	SUMP PIT	X2	3
HIGH HIGH FLOAT	FLOAT SWITCH	ON / OFF	SUMP PIT	X3	4
HIGH HIGH FLOAT EQ TANK	FLOAT SWITCH	ON / OFF	EQ TANK	X4	8
AS LOW FLOAT	CAPACTINCE SENSOR	ON / OFF	AIR STRIPPER	X5	14
AS HIGH FLOAT	CAPACTINCE SENSOR	ON / OFF	AIR STRIPPER	X6	15
AS HIGH HIGH FLOAT	CAPACTINCE SENSOR	ON / OFF	AIR STRIPPER	X7	16
FRAC TANK HIGH HIGH	FLOAT SWITCH	ON / OFF	FRAC TANK	X8	21
FLOOR SUMP LOW	FLOAT SWITCH	ON / OFF	FLOOR SUMP	X9	24
FLOOR SUMP HIGH	FLOAT SWITCH	ON / OFF	FLOOR SUMP	X10	25
FLOOR SUMP HIGH	FLOAT SWITCH	ON / OFF	FLOOR SUMP	X11	26



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**RICKETT'S CLEANERS**

NO.	DATE	DESCRIPTION

PROJECT NUMBER: 2234026.183

DRAWN BY: JB

REVIEWED BY:

ISSUED FOR: REVIEW

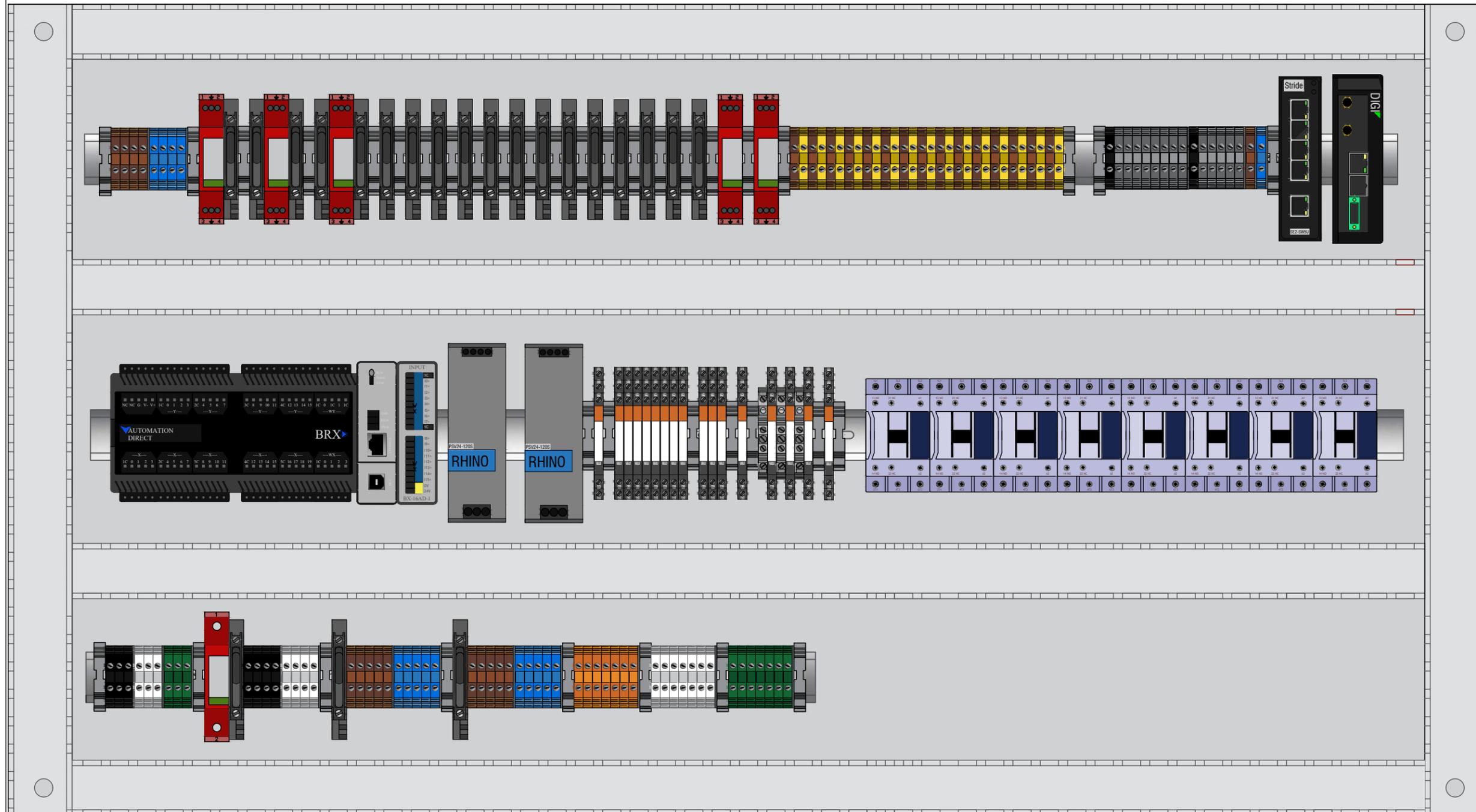
DATE: 2.2.2026

DRAWING NAME:

PANEL LAYOUT

DRAWING NUMBER:

**P-100**





## APPENDIX 4

DER-10 Table 5.4(e)10 – Number of Soil Samples for Import or Export

<b>Table 5.4(e)10</b>			
Recommended Number of Soil Samples for Soil Imported To or Exported From a Site			
<b>Contaminant</b>	<b>VOCs</b>	<b>SVOCs, Inorganics &amp; PCBs/Pesticides</b>	
<b>Soil Quantity (cubic yards)</b>	<b>Discrete Samples</b>	<b>Composite</b>	<b>Discrete Samples/Composite</b>
0-50	1	1	3-5 discrete samples from different locations in the fill being provided will comprise a composite sample for analysis
50-100	2	1	
100-200	3	1	
200-300	4	1	
300-400	4	2	
400-500	5	2	
500-800	6	2	
800-1000	7	2	
➤ 1000	Add an additional 2 VOC and 1 composite for each additional 1000 Cubic yards or consult with DER		



# APPENDIX 5

## Water Discharge Criteria

**EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

During the period beginning: At the start of each discharge event

and lasting until: Cessation of discharge.

The discharges from the treatment facility to **Surface water** shall be limited and monitored by the operator as specified below:

Outfall and Parameters	CAS No.	Limitations Daily Max.	Units	Minimum Monitoring Requirements		FN
				Measurement Frequency	Sample Type	
<b>Outfall 001 – Containerized Well Development Water and/or Pump Test Water</b>						
Flow	NA	Monitor	GPD	Continuous	Recorder	
pH (range)	NA	6.5 – 8.5	SU	1	Grab	
BOD, 5-day	NA	5	mg/l	1	Grab	
Solids, Total Suspended	NA	10	mg/l	1	Grab	
Acenaphthene	83-32-9	5.3	µg/l	1	Grab	
Acenaphthylene	208-96-8	10	µg/l	1	Grab	
Acetone	67-64-1	100	µg/l	1	Grab	2
Aldrin	309-00-2	0.02	µg/l	1	Grab	2
Anthracene	120-12-7	3.8	µg/l	1	Grab	
Arsenic	NA	50	µg/l	1	Grab	
Barium	NA	1,000	µg/l	1	Grab	
Benz(a)anthracene	56-55-3	0.05	µg/l	1	Grab	2
Benzene	71-43-2	1	µg/l	1	Grab	
Benzo(b)fluoranthene	205-99-2	0.07	µg/l	1	Grab	2
Benzo(k)fluoranthene	207-08-9	0.02	µg/l	1	Grab	2
Benzo(a)pyrene	50-32-8	0.09	µg/l	1	Grab	2
Benzo(ghi)perylene	191-24-2	10	µg/l	1	Grab	
Beryllium	NA	3	µg/l	1	Grab	
n-Butylbenzene	104-51-8	5	µg/l	1	Grab	
sec-Butylbenzene	135-98-8	5	µg/l	1	Grab	
Tert-Butylbenzene	98-06-6	5	µg/l	1	Grab	
Cadmium	NA	1.2	µg/l	1	Grab	
Carbon tetrachloride	56-23-5	0.5	µg/l	1	Grab	2
Chlordane	57-74-9	0.05	µg/l	1	Grab	
Chlorobenzene	108-90-7	5	µg/l	1	Grab	
Chloroform	67-66-3	7	µg/l	1	Grab	
Chromium	NA	50	µg/l	1	Grab	
Chromium (hexavalent)	NA	30	µg/l	1	Grab	2
Chrysene	218-01-9	0.6	µg/l	1	Grab	2
Copper *Limit is 4.8 ug/l except in New York/New Jersey Harbor where it is 7.9 ug/l	NA	*	µg/l	1	Grab	
Cyanide (PQL) Sum of HCN and CN <sup>-</sup> expressed as CN	NA	1.0	µg/l	1	Grab	

Outfall and Parameters	CAS No.	Limitations Daily Max.	Units	Minimum Monitoring Requirements		FN
				Measurement Frequency	Sample Type	
<b>Outfall 001 – Containerized Well Development Water and/or Pump Test Water</b>						
p,p'-DDD	72-54-8	0.02	µg/l	1	Grab	2
p,p'-DDE	72-55-9	0.01	µg/l	1	Grab	2
p,p'-DDT	50-29-3	0.05	µg/l	1	Grab	2
Dibenzo(a,h) anthracene	53-70-3	0.1	µg/l	1	Grab	2
Dichlorobenzenes * applies to each isomer (1,2-, 1,3- and 1,4- dichlorobenzene) individually.	95-50-1; 541-73-1; 106-46-7	3*	µg/l	1	Grab	
1,1-Dichloroethane	75-34-3	5	µg/l	1	Grab	
1,2-Dichloroethane	107-06-2	0.6	µg/l	1	Grab	
1,1-Dichloroethene	75-35-4	0.5	µg/l	1	Grab	
cis-1,2-Dichloroethene	156-59-2	5	µg/l	1	Grab	
trans-1,2-Dichloroethene	156-60-5	5	µg/l	1	Grab	
Dieldrin	60-57-1	0.005	µg/l	1	Grab	2
Endosulfan	115-29-7	.001	µg/l	1	Grab	
Endrin	72-20-8	0.05	µg/l	1	Grab	2
Ethylbenzene	100-41-4	4.5	µg/l	1	Grab	
Fluoranthene	206-44-0	50	µg/l	1	Grab	
Fluorene	86-73-7	50	µg/l	1	Grab	
Heptachlor	76-44-8	0.01	µg/l	1	Grab	2
Hexachlorobenzene	118-74-1	0.2	µg/l	1	Grab	2
alpha-Hexachlorocyclohexane	319-84-6	0.01	µg/l	1	Grab	2
beta-Hexachlorocyclohexane	319-85-7	0.02	µg/l	1	Grab	2
delta-Hexachlorocyclohexane	319-86-8	0.04	µg/l	1	Grab	2
gamma-Hexachlorohexane	58-89-9	0.02	µg/l	1	Grab	2
Indeno(1,2,3-cd)pyrene	193-39-5	0.2	µg/l	1	Grab	2
Iron	NA	300	µg/l	1	Grab	
Lead	NA	4	µg/l	1	Grab	
Magnesium	NA	35,000	µg/l	1	Grab	
Manganese	NA	300	µg/l	1	Grab	
Mercury	NA	5 x 10 <sup>-2</sup>	µg/l	1	Grab	4
Methylene chloride	75-09-2	5	µg/l	1	Grab	
Methyl ethyl ketone	78-93-3	50	µg/l	1	Grab	
Methyl tert-butyl ether (MTBE)	1634-04-4	10	µg/l	1	Grab	
Naphthalene	91-20-3	10	µg/l	1	Grab	
Nickel	NA	8.2	µg/l	1	Grab	
Pentachlorophenol * See limit for Phenolic Compounds (total phenols)	87-86-5	*	µg/l	1	Grab	
Phenanthrene	85-01-8	1.5	µg/l	1	Grab	
Phenol * See limit for Phenolic Compounds (total phenols)	108-95-2	*	µg/l	1	Grab	
Phenolic compounds – Total Phenols * Applies to the sum of these substances	NA	8	µg/l	1	Grab	2,8
Polybrominated biphenyls *Applies to each congener individually	NA	5*	µg/l	1	Grab	
PCB-1016	12674-11-2	0.20	µg/l	1	Grab	2,3

Outfall and Parameters	CAS No.	Limitations Daily Max.	Units	Minimum Monitoring Requirements		FN
				Measurement Frequency	Sample Type	
<b>Outfall 001 – Containerized Well Development Water and/or Pump Test Water</b>						
PCB-1221	11104-28-2	0.20	µg/l	1	Grab	2,3
PCB-1232	11141-16-5	0.20	µg/l	1	Grab	2,3
PCB-1242	53469-21-9	0.20	µg/l	1	Grab	2,3
PCB-1248	12672-29-6	0.20	µg/l	1	Grab	2,3
PCB-1254	11097-69-1	0.20	µg/l	1	Grab	2,3
PCB-1260	11096-82-5	0.20	µg/l	1	Grab	2,3
n-Propylbenzene	103-65-1	5	µg/l	1	Grab	
Pyrene	129-00-0	4.6	µg/l	1	Grab	
Selenium	NA	4.6	µg/l	1	Grab	
Silver, Total	NA	50	µg/l	1	Grab	
Tetrachloroethene	127-18-4	0.7	µg/l	1	Grab	
Toluene	108-88-3	5	µg/l	1	Grab	
1,1,1-Trichloroethane	71-55-6	5	µg/l	1	Grab	
Trichloroethene	79-01-6	5	µg/l	1	Grab	
2,4,5-Trichlorophenoxypropionic acid	93-72-1	10	µg/l	1	Grab	
1,2,4-Trimethylbenzene	95-63-6	5	µg/l	1	Grab	
1,3,5-Trimethylbenzene	108-67-8	5	µg/l	1	Grab	
Vinyl chloride	75-01-4	2	µg/l	1	Grab	
1,2-Xylene	95-47-6	5	µg/l	1	Grab	
1,3-Xylene	108-38-3	5	µg/l	1	Grab	
1,4-Xylene	106-42-3	5	µg/l	1	Grab	
Zinc	NA	66	µg/l	1	Grab	

Footnotes:

1. Samples must be collected prior to each discharge event. Discharge may not commence until the sample results show compliance with the above discharge limitations.
2. Discharge limit is set at the Practical Quantitation Limit (PQL). Actual surface water effluent standard/limitation is below this limit. Analysis of this parameter shall be of the most stringent USEPA approved method in accordance with 40 CFR 136.
3. For PCBs:
  - a. The treatment plant operator must monitor this discharge for PCBs using USEPA laboratory method 608. The laboratory must make all reasonable attempts to achieve a Minimum Detection Level (MDL) of 0.065 µg/l.
  - b. 0.065 µg/l is the discharge goal. The treatment plant operator shall report all values above the MDL (0.065 µg/l per Aroclor). If the level of any Aroclor is above 0.65 µg/l, the treatment must evaluate the treatment system and identify the cause of the detectable level of PCBs in the discharge.
  - c. If the Department determines that effluent monitoring results above can be prevented by implementation of additional measures as proposed by the treatment plant operator in footnote 3.b 9above, and approved by the Department, the treatment plant operator shall implement such additional measures.
4. The water quality based effluent limit for mercury is  $7 \times 10^{-4}$  µg/l. The enforceable limit is set at 0.05 µg/l for the purposes of compliance. The enforceable limit maybe revised in the future if DEC determines another limit is more appropriate. Mercury must be analyzed using USEPA Method 1631.

5. Only waters generated at remediation sites during sampling, pump tests, well development, or dewatering of excavations are authorized for treatment and discharge.
6. Samples and measurements, to comply with the monitoring requirements specified above, must be taken from the holding tank prior to discharge to the receiving waterbody.
7. Discharge is not authorized until such time as an engineering submission showing the method of treatment and discharge is approved by the Department. The discharge rate may not exceed the effective treatment system or ground adsorptive capacity. All monitoring data, engineering submissions and modification requests must be submitted to the following DER contact person: Nicole Hinze .
8. Total phenolics must be analyzed using EPA Methods 420.1 or 420.2.
9. Discharge to a surface waterbody within the New York City Watershed is not authorized by these effluent criteria. Separate review of any proposed discharge to surface water within the New York City Watershed is required.

2023 ADDENDUM TO JUNE 1998 DIVISION OF WATER TECHNICAL AND  
OPERATIONAL GUIDANCE SERIES (TOGS) NO. 1.1.1 (Originator – Alexander Smith)

TABLE 1 NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES February 2023					
SUBSTANCE (CAS No.)	WATER CLASSES	STANDARD (µg/L)	GUIDANCE VALUE (µg/L)	TYPE	BASIS CODE
1,4-Dioxane (123-91-1)	A, A-S, AA, AA-S		0.35	H(WS)	A
	GA		0.35	H(WS)	A
	GSA		0.35	H(WS)	A
	A, A-S, AA, AA-S, B, C		18,000	A(C)	
	A, A-S, AA, AA-S, B, C, D		160,000	A(A)	
	SA, SB, SC, I		7,000	A(C)	
	SA, SB, SC, I, SD		63,000	A(A)	
Perfluorooctane Sulfonic Acid (PFOS) (1763-23-1)	A, A-S, AA, AA-S		0.0027	H(WS)	A
	GA		0.0027	H(WS)	A
	GSA		0.0027	H(WS)	A
	A, A-S, AA, AA-S, B, C		160	A(C)	
	A, A-S, AA, AA-S, B, C, D		710	A(A)	
	SA, SB, SC, I		41	A(C)	
	SA, SB, SC, I, SD		190	A(A)	
Perfluorooctanoic acid (PFOA) (335-67-1)	A, A-S, AA, AA-S		0.0067	H(WS)	A
	GA		0.0067	H(WS)	A
	GSA		0.0067	H(WS)	A

TABLE 5 NEW YORK STATE GROUNDWATER EFFLUENT LIMITATIONS (CLASS GA) February 2023		
SUBSTANCE (CAS No.)	MAXIMUM ALLOWABLE CONCENTRATION (µg/L)	CATEGORY
1,4-Dioxane (123-91-1)	0.35	B
Perfluorooctane Sulfonic Acid (PFOS) (1763-23-1)	0.0027	B
Perfluorooctanoic acid (PFOA) (335-67-1)	0.0067	B



Carol Lamb-Lafay, P.E., Director  
Division of Water



# APPENDIX 6

## Community Air Monitoring Plan



**Community Air Monitoring Plan**  
**Ricketts Dry Cleaners NYSDEC Site No.546058**  
**2017 Doubleday Ave, Ballston Spa, New York**

This Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress during remedial activities at the site. The CAMP is not intended for use in establishing action levels for workers respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

This CAMP will be conducted in accordance with the DER-10 NYSDOH Generic Community Air Monitoring Plan (**Attachment A**) and Fugitive Dust and Particulate Monitoring procedures (**Attachment B**).

Monitoring for dust and VOCs will be conducted at CAMP stations consisting of a weather resistant enclosure mounted on a tripod, with measurements collected at approximate breathing height. Approximate locations for the upwind and work-area CAMP stations are shown on the attached **Figure 1**, however, station locations may be adjusted in the field based on work activities and prevailing wind direction.

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

Depending on the nature of known or potential contaminants at the site, real-time air monitoring for VOCs and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary.

**Continuous monitoring** will be required for all ground intrusive activities. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching.

**Periodic monitoring** for VOCs will be required during non-intrusive activities such as the collection of soil samples. "Periodic" monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuing monitoring may be required during sampling activities.

## **Particulate Monitoring, Response Levels, and Actions**

Particulate concentrations will be monitored continuously at the upwind and downwind perimeters of the exclusion zone 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 will be visually assessed during all work activities.

- If the downwind PM-10 particulate level is 100 micrograms per cubic meter ( $\text{mcg}/\text{m}^3$ ) greater than the 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 may continue with dust suppression techniques 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  $150 \text{ mcg}/\text{m}^3$  above the upwind level, work will be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within  $150 \text{ mcg}/\text{m}^3$  of the upwind level and in preventing visible dust migration.

All readings will be recorded and be available for State (DEC and DOH) personnel to review.

## **VOC Monitoring, Response Levels, and Actions**

VOCs will be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations will be measured at the start of each workday and periodically thereafter to establish background conditions. The monitoring work will be performed using a photo ionization detector (PID) equipped with a 10.2 eV bulb. The PID will be calibrated at least daily for the contaminant(s) of concern 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 total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.
- If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities will be halted, the source of the vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can

resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less- but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

- If the organic vapor level is above 25 ppm at the perimeter of the work area, activities will be shutdown.

## **Reporting**

Daily CAMP summaries will be provided to New York State Department of Environmental Conservation (NYSDEC) and NYS Department of Health (NYSDOH). Raw CAMP data files will be provided to NYSDEC and NYSDOH on a weekly basis. CAMP exceedances (instantaneous or 15-minute average) will be reported to NYSDEC and NYSDOH by phone or email within 24-hours of the occurrence.

## **Attachments**

Figure 1 – Site Plan

Attachment A – Generic CAMP

Attachment B – Fugitive Dust and Particulate Monitoring

# FIGURES



# ATTACHMENT A GENERIC CAMP

**Appendix 1A**  
**New York State Department of Health**  
**Generic Community Air Monitoring Plan**

Overview

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

The generic CAMP presented below will be sufficient to cover many, if not most, sites. Specific requirements should be reviewed for each situation in consultation with NYSDOH to ensure proper applicability. In some cases, a separate site-specific CAMP or supplement may be required. Depending upon the nature of contamination, chemical-specific monitoring with appropriately-sensitive methods may be required. Depending upon the proximity of potentially exposed individuals, more stringent monitoring or response levels than those presented below may be required. Special requirements will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with co-located residences or facilities. These requirements should be determined in consultation with NYSDOH.

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

Community Air Monitoring Plan

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for VOCs and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring. If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate DEC/NYSDOH staff.

**Continuous monitoring** will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

**Periodic monitoring** for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. "Periodic" monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or

overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

### VOC Monitoring, Response Levels, and Actions

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

1. If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

2. If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

3. If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

4. All 15-minute readings must be recorded and be available for State (DEC and NYSDOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

### Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

1. If the downwind PM-10 particulate level is 100 micrograms per cubic meter ( $\text{mcg}/\text{m}^3$ ) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed  $150 \text{ mcg}/\text{m}^3$  above the upwind level and provided that no visible dust is migrating from the work area.

2. If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than  $150 \text{ mcg}/\text{m}^3$  above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within  $150 \text{ mcg}/\text{m}^3$  of the upwind level and in preventing visible dust migration.

3. All readings must be recorded and be available for State (DEC and NYSDOH) and County Health personnel to review.

December 2009

# ATTACHMENT B

## FUGITIVE DUST AND PARTICULATE MONITORING

## Appendix 1B Fugitive Dust and Particulate Monitoring

A program for suppressing fugitive dust and particulate matter monitoring at hazardous waste sites is a responsibility on the remedial party performing the work. These procedures must be incorporated into appropriate intrusive work plans. The following fugitive dust suppression and particulate monitoring program should be employed at sites during construction and other intrusive activities which warrant its use:

1. Reasonable fugitive dust suppression techniques must be employed during all site activities which may generate fugitive dust.
2. Particulate monitoring must be employed during the handling of waste or contaminated soil or when activities on site may generate fugitive dust from exposed waste or contaminated soil. Remedial activities may also include the excavation, grading, or placement of clean fill. These control measures should not be considered necessary for these activities.
3. Particulate monitoring must be performed using real-time particulate monitors and shall monitor particulate matter less than ten microns (PM<sub>10</sub>) with the following minimum performance standards:
  - (a) Objects to be measured: Dust, mists or aerosols;
  - (b) Measurement Ranges: 0.001 to 400 mg/m<sup>3</sup> (1 to 400,000 :ug/m<sup>3</sup>);
  - (c) Precision (2-sigma) at constant temperature: +/- 10 :g/m<sup>3</sup> for one second averaging; and +/- 1.5 g/m<sup>3</sup> for sixty second averaging;
  - (d) Accuracy: +/- 5% of reading +/- precision (Referred to gravimetric calibration with SAE fine test dust (mmd= 2 to 3 :m, g= 2.5, as aerosolized);
  - (e) Resolution: 0.1% of reading or 1g/m<sup>3</sup>, whichever is larger;
  - (f) Particle Size Range of Maximum Response: 0.1-10;
  - (g) Total Number of Data Points in Memory: 10,000;
  - (h) Logged Data: Each data point with average concentration, time/date and data point number
  - (i) Run Summary: overall average, maximum concentrations, time/date of maximum, total number of logged points, start time/date, total elapsed time (run duration), STEL concentration and time/date occurrence, averaging (logging) period, calibration factor, and tag number;
  - (j) Alarm Averaging Time (user selectable): real-time (1-60 seconds) or STEL (15 minutes), alarms required;
  - (k) Operating Time: 48 hours (fully charged NiCd battery); continuously with charger;
  - (l) Operating Temperature: -10 to 50° C (14 to 122° F);
  - (m) Particulate levels will be monitored upwind and immediately downwind at the working site and integrated over a period not to exceed 15 minutes.
4. In order to ensure the validity of the fugitive dust measurements performed, there must be appropriate Quality Assurance/Quality Control (QA/QC). It is the responsibility of the remedial party to adequately supplement QA/QC Plans to include the following critical features: periodic instrument calibration, operator training, daily instrument performance (span) checks, and a record keeping plan.
5. The action level will be established at 150 ug/m<sup>3</sup> (15 minutes average). While conservative,

this short-term interval will provide a real-time assessment of on-site air quality to assure both health and safety. If particulate levels are detected in excess of 150 ug/m<sup>3</sup>, the upwind background level must be confirmed immediately. If the working site particulate measurement is greater than 100 ug/m<sup>3</sup> above the background level, additional dust suppression techniques must be implemented to reduce the generation of fugitive dust and corrective action taken to protect site personnel and reduce the potential for contaminant migration. Corrective measures may include increasing the level of personal protection for on-site personnel and implementing additional dust suppression techniques (see paragraph 7). Should the action level of 150 ug/m<sup>3</sup> continue to be exceeded work must stop and DER must be notified as provided in the site design or remedial work plan. The notification shall include a description of the control measures implemented to prevent further exceedances.

6. It must be recognized that the generation of dust from waste or contaminated soil that migrates off-site, has the potential for transporting contaminants off-site. There may be situations when dust is being generated and leaving the site and the monitoring equipment does not measure PM<sub>10</sub> at or above the action level. Since this situation has the potential to allow for the migration of contaminants off-site, it is unacceptable. While it is not practical to quantify total suspended particulates on a real-time basis, it is appropriate to rely on visual observation. If dust is observed leaving the working site, additional dust suppression techniques must be employed. Activities that have a high dusting potential--such as solidification and treatment involving materials like kiln dust and lime--will require the need for special measures to be considered.

7. The following techniques have been shown to be effective for the controlling of the generation and migration of dust during construction activities:

- (a) Applying water on haul roads;
- (b) Wetting equipment and excavation faces;
- (c) Spraying water on buckets during excavation and dumping;
- (d) Hauling materials in properly tarped or watertight containers;
- (e) Restricting vehicle speeds to 10 mph;
- (f) Covering excavated areas and material after excavation activity ceases; and
- (g) Reducing the excavation size and/or number of excavations.

Experience has shown that the chance of exceeding the 150ug/m<sup>3</sup> action level is remote when the above-mentioned techniques are used. When techniques involving water application are used, care must be taken not to use excess water, which can result in unacceptably wet conditions. Using atomizing sprays will prevent overly wet conditions, conserve water, and provide an effective means of suppressing the fugitive dust.

8. The evaluation of weather conditions is necessary for proper fugitive dust control. When extreme wind conditions make dust control ineffective, as a last resort remedial actions may need to be suspended. There may be situations that require fugitive dust suppression and particulate monitoring requirements with action levels more stringent than those provided above. Under some circumstances, the contaminant concentration and/or toxicity may require additional monitoring to protect site personnel and the public. Additional integrated sampling and chemical analysis of the dust may also be in order. This must be evaluated when a health and safety plan is developed and when appropriate suppression and monitoring requirements are established for protection of health and the environment.



# APPENDIX 7

Health and Safety Plan

# Site-Specific Health and Safety Plan (HASP)



Project Title:

**IRM Rickett's Dry Cleaners, NYSDEC #546058**

Location:

**2017-2019 Doubleday Avenue Ballston Spa, Saratoga County, New  
York**

Prepared For:

**New York State Department of Environmental Conservation  
(NYSDEC)**

**LaBella Project No. 2234026.183**

<b>Contact List</b>		
<b>Contact</b>	<b>Name</b>	<b>Phone</b>
LaBella Project Manager	Mark Roberts	808-342-5271
LaBella Site Supervisor	Tommy Giamichael	518-337-7635
Corporate Safety Manager	Catherine Monian	845-486-1557
Environmental Division Safety Program Manager	Tim Ruddy	315.440.5125
Site Safety Officer	TBD	
Site Contact NYSDEC	Nicole Hinze	518-897-1256
<b>Emergency Personnel including Police and Fire Dept and Ambulance – Dial 911</b>		
Hospital- <i>see Hospital Route Section below for directions</i>	Saratoga Hospital 211 Church St, Saratoga Springs, NY 12866	518-587-3222
Poison Control		800-336-6997
NYSDEC Spill Response Hotline		800-457-7362



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## **ATTACHMENTS**

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## 1.0 Introduction

The purpose of this Health and Safety Plan (HASP) is to provide guidelines for responding to potential health and safety issues that may be encountered at the project site, located at 2017-2019 Doubleday Avenue Ballston Spa, Saratoga County, New York. This HASP only reflects the policies of LaBella Associates D.P.C. and its affiliated company, LaBella Environmental, LLC, collectively referred to as "LaBella". The requirements of this HASP are applicable to all approved LaBella personnel at the work site. This document's project specifications are to be consulted for guidance in preventing and quickly abating any threat to human safety or the environment. The provisions of the HASP do not replace or supersede any federal, state or local regulatory requirements.

## 2.0 Responsibilities

This HASP presents guidelines to minimize the risk of injury to project personnel, and to provide rapid response in the event of injury. The HASP is applicable only to activities of approved LaBella personnel and their authorized visitors specific to this project. The Project Manager shall implement the provisions of this HASP for the duration of the project. It is the responsibility of LaBella employees to follow the requirements of this HASP, and all applicable company safety procedures.

## 3.0 Daily Pre-Job Safety Meetings

Prior to the beginning of work each day the Field Supervisor/Foreman or on-site Project Manager will review upcoming daily job requirements, anticipated hazards and hazard control measures with the project team members. At this meeting information such as personal protective equipment, site conditions, emergency procedures, and other applicable topics may be addressed. A copy of the **Daily Pre-Job Safety Tailgate/Toolbox Meeting Form** is attached to this HASP.

## 4.0 Site Information

Project Name:	IRM Rickett's Dry Cleaners, NYSDEC #546058
LaBella Project No.:	2234026.183
Project Location:	2017-2019 Doubleday Avenue Ballston Spa, Saratoga County, New York
Current Use of Project Location:	Vacant property
Uses of Surrounding Areas (Res Vacant Land, Commercial, etc.):	Residential

Proposed Date(s) of Field Activity - Start:	2026-03-02
Proposed Date(s) of Field Activity - End:	2027-02-26

## 5.0 Scope of Work

The proposed field work covered under this HASP includes the following:

- Construction of a surface / groundwater pump and treatment system and operation of the system. Construction will include mobilization of the treatment system that has been built into a 40' shipping container (connex)
- Excavation of impaired soils from an infiltration trench, lift station sump, trench for new electrical service line, trenching for hookup of effluent to existing storm catch basin
- Installing and hooking up piping to lift station (confined space), and
- Installing below grade electrical to the system.
- Operation will include extracting CVOCs and PFAS contaminated water, treating, sampling, and discharging in 7,000-gallon batches. Treatment process will include an air stripper. The stack of the air stripper will be at a minimum of five feet (5') above the top of the connex and will necessitate guard rail system installed for fall protection

## 6.0 Emergency Information

The personnel and emergency response contacts associated with the proposed scope of work are presented below and are to be posted onsite during all field activities. The Site Safety Officer (SSO) is the primary authority for directing site operations and relaying communications under emergency conditions. During the SSO's absence, the Project Manager or Site Supervisor will lead emergency operations. Refer to contact list on front page.

### **First Aid kits, Fire Extinguishers, and Eye Wash Station**

First aid kits and fire extinguishers will be located in LaBella trucks as well as in the treatment connex. An eye wash station will be located within the connex.

Any injured person will be transported to a trained medical center for further examination and treatment. The preferred transport method is a professional emergency transportation service; however, if this option is not readily available or would result in excessive delay, other transport is authorized.

Under no circumstances should an injured person transport themselves to a medical facility for treatment, no matter how minor the injury may appear.

## **Incident Reporting**

Employees shall report all incidents and injuries to their supervisor as soon as possible, including those involving employees operating vehicles and other equipment. All reporting procedures contained in LaBella Safety Policy 1.22 must be followed.

During emergencies employees should seek medical care immediately. When contacting their Supervisor/Safety Manager/HR, employees should discuss medical care options. If an employee is asked by medical personnel for a worker's compensation number they should tell them that LaBella should be billed directly.

When emergency medical care is not imminent, employees shall immediately report events to their immediate Supervisor, the Safety Manager and Human Resources, and participate in the investigation process as well as the corrective action process, as needed. An Accident-Incident-Near Miss-Hazard Form must be submitted online or by e-mail to the Supervisor, Safety Manager and HR as soon as possible but no later than 24 hours after the event. The Form can be found on LaBella's intranet under "Operations".

## **7.0 Potential Health and Safety Hazards and Controls**

This section lists potential health and safety hazards that project personnel may encounter at the project site and actions to be implemented by approved personnel to control and reduce the associated risk to health and safety. This is not intended to be a complete listing of any and all potential health and safety hazards. New or different hazards may be encountered as site environmental and site work conditions change. The suggested actions to be taken under this plan are not to be substituted for good judgment on the part of project personnel. At all times, the Site Safety Officer has responsibility for site safety and their instructions must be followed.

<i>Physical Hazards</i>		
<b>Work Action or Condition</b>	<b>Potential Safety Hazard</b>	<b>Controls (including PPE)</b>
<b>Blades and Sharp Objects</b>	Injury	Blades and Sharp objects are likely to be present on site, presenting risk of physical injury. The following hazard control measures will be applied: <ul style="list-style-type: none"> <li>• Only use tools designed for the task. Do not improvise.</li> <li>• Inspect the tool before use; do not use dull or damaged blades.</li> <li>• Carry blades with tip sheathed or pointed down and away from the body.</li> </ul>

		<ul style="list-style-type: none"> <li>• Cut on a stable surface with sufficient lighting.</li> <li>• Wear appropriate PPE (gloves, safety glasses, etc.).</li> </ul>
<p><b>Cold Weather</b></p>	<p>Frost nip, Frost bite, Hypothermia</p>	<p>Engineering:</p> <ul style="list-style-type: none"> <li>• Basic wind block</li> <li>• Heated shelter</li> <li>• Barriers or insulation placed on metal surfaces to reduce heat loss from extremities</li> </ul> <p>Administrative: It is recommended that multiple vehicles be utilized during periods of extreme cold unless a warm shelter is within reasonable proximity to the work site.</p> <p>Number of vehicles depends on number of employees.</p> <p>Warm liquids should be considered to combat dehydration and to manage core temperatures. Note that caffeinated beverages will lessen circulation and are discouraged.</p> <p>Adequate Breaks - Break periods will be at least ten (10) minutes long. While on break personnel should remove outer layers of clothing to ensure adequate warming of the core and extremities. Individuals should assess their physical condition during breaks. Do not return to work in the cold until adequately warmed. If engineering controls, such as shelters are used, the ambient temperature/wind chill where the work is taking place will be used to determine the work / warm-up schedule.</p> <p>Personal Protective Equipment: The outer layer of clothing must be fire retardant.</p> <ul style="list-style-type: none"> <li>• The outer most layers should consist of winter clothing (i.e. bibs, bomber or parka, head sock, winter /arctic boots).</li> </ul>

		<ul style="list-style-type: none"> <li>• Under layers (insulation) should consist of one or more thin garments. Outer winter layers should be removed prior to insulation layers becoming wet with perspiration.</li> <li>• Wet clothing should not be worn. A best practice is to bring extra insulating clothing and change clothes if they become wet.</li> <li>• PPE that is in direct contact with the skin should be changed if it becomes wet.</li> <li>• Exposed skin shall be avoided in extreme cold temperatures to minimize the risk of frostbite.</li> <li>• Hand / foot warmers are available on all sites.</li> </ul>
<p><b>Confined Spaces - Near/In</b></p>	<p>Suffocation/asphyxiation/released energy (e.g. Pneumatic, electrical) explosion/ injury</p>	<p>Confined space refers to an area that has 1) limited entry and exit openings, 2) unfavorable or restricted ventilation, and 3) is not intended for continuous occupancy but is large enough to enter and perform work. Employees are NOT allowed in confined spaces except when they have received appropriate training. The following hazard control measures will be applied:</p> <ul style="list-style-type: none"> <li>• Enter a confined space only after receiving confined space training.</li> <li>• Enter only after pre-planning and with team involvement of at least three (3) trained people.</li> <li>• Air monitoring is required for all confined space work whether it be a permit required confined space or not.</li> </ul>
<p><b>Electrical - Overhead Power Lines</b></p>	<p>Struck by injury, Electric shock and electrocution</p>	<p>Overhead power lines pose a danger of shock or electrocution if the power line is contacted during site operations. The following hazard control measures will be applied:</p>

		<ul style="list-style-type: none"> <li>• Equipment should not come within at least 10-feet of power lines to avoid arcing.</li> <li>• Prior to conducting work in areas where overhead lines could be impacted, the appropriate utility company will be notified and information will be obtained regarding the line voltage(s) and the minimum separation distance necessary to create a safe-work environment.</li> <li>• If work may come close to the minimum separation distance ask the utility company if the lines can be shut down for the duration of the work period. If this cannot be done, ask them if they can put a rubber cover over the line or if the minimum clearance distance can be reduced.</li> <li>• Use paint to mark a line on the ground underneath the overhead lines to help project staff stay aware of the hazard.</li> <li>• Use smaller equipment.</li> <li>• Use grounding cables.</li> <li>• Ensure equipment operators are properly trained on the equipment and know exactly where the overhead lines are.</li> <li>• Ensure all site staff are aware of the hazard and stay clear of the work zone (which should be demarcated as best as possible). Employees who are too close to equipment which becomes electrified can ALSO be electrocuted.</li> </ul>
<p><b>Electrical Systems - Working Near</b></p>	<p>Electrical shock and electrocution</p>	<p>This project requires work in proximity to electrical systems, such as electric poles, service wires, switches, and other devices. The following hazard control measures will be applied:</p> <ul style="list-style-type: none"> <li>• Workers shall NOT work on electrical systems unless properly trained.</li> </ul>

		<ul style="list-style-type: none"> <li>• Do not touch any lock-tagged equipment unless you have received appropriate training.</li> <li>• Maintain appropriate clearance distances from overhead lines, utility mark outs, and safe digging/ hand digging around any buried utilities.</li> <li>• Observe contractor designated safety zones.</li> <li>• If trained for electrical work, identify all electrical hazards before beginning inspection and follow lock-out tag out procedures. Turn off main breaker before sampling electrical wiring.</li> <li>• Ensure that any electrical equipment requiring temporary power requires the use of a GFCI.</li> <li>• Always use grounded equipment; keep water from electrical items.</li> </ul>
<p><b>Excavations and Trenches</b></p>	<p>Injury from fall into or cave-in of trench/excavation. Asphyxiation, engulfment, or explosion (if pipe bursts)</p>	<p>An open excavation or trench may be present during site activity or could be present during demolition or remediation activities. No Labella employees should enter a trench or excavation unless authorized to by the designated Competent Person. During heavy precipitation, excessive runoff may create slippery surfaces and also weaken the excavation sidewalls making the excavation more susceptible to collapse. The following hazard control measures will be applied:</p> <ul style="list-style-type: none"> <li>• All materials must be placed greater than 2 feet from the edge of the trench and LaBella employees should remain at least 2-feet from the edge of any excavation or trench.</li> <li>• LaBella employees are not to enter excavations greater than 4-feet in depth unless they have</li> </ul>

		<p>received appropriate training, stabilization measures are in place and a competent person has determined that the conditions are safe.</p> <ul style="list-style-type: none"> <li>• Any samples must be collected from the equipment bucket or from the spoils pile.</li> </ul>
<b>Hand Tools</b>	Physical injury	<ul style="list-style-type: none"> <li>• Do not use a tool if you have not been trained. Inspect tool before use and do not use damaged tools.</li> <li>• Maintain tools in good condition and follow manufacturers' instructions.</li> <li>• Wear gloves, safety glasses and appropriate PPE /apparel, avoiding loose clothing; secure long hair.</li> <li>• When using a cutting tool hold its handle firmly and cut away from your body, never towards it.</li> <li>• If working on a ladder or scaffold raise and lower tools using a bucket and hand line; never carry tools in a way that prevents using both hands on a ladder (maintain three points of contact)</li> </ul>
<b>Heavy Equipment - Working Near</b>	Struck by, Caught in between, Causing an obstruction on existing roadway, Rollaway, and hearing damage.	<p>Working near heavy equipment presents struck-by and caught-in or in-between risks. Heavy equipment can also roll away or obstruct roadways, limiting visibility. The following hazard control measures will be applied:</p> <ul style="list-style-type: none"> <li>• Maintain 360 degrees of awareness of your surroundings.</li> <li>• Meet the Operator, discuss work operations, and stay in line of sight.</li> <li>• Wear high visibility clothing (outer layer), hard hat, safety glasses, work boots.</li> <li>• Stand in safe zone away from blind areas. Never walk behind or to the side of heavy equipment without the operator's</li> </ul>

		<p>knowledge. Have an escape plan.</p> <ul style="list-style-type: none"> <li>• Stay out of the swing zone of heavy equipment such as excavators or traditional auger rigs. The swing zone is defined as an entire 360-degree circle that equipment may move within as measured from a central location point.</li> <li>• Only approach drill rig after auger has stopped rotating and the operator has given the OK for you to approach to collect a sample.</li> <li>• Wear hearing protection when working near heavy or moving equipment.</li> </ul>
<p><b>Hot Weather &amp; Sun, Other Heat Hazards</b></p>	<p>Prickly Heat (Heat rash), Heat Cramps, Heat Exhaustion Heat Fatigue, Heat Collapse, Heat Stroke, Sunburn</p>	<p>Environmental heat hazards, whether indoors or outdoors, present physical injury risks. Exercise caution when working in hot temperatures or around hot tar or other materials, hot ovens or other equipment, heat absorbing surfaces such as roofs and roads, and reflective surfaces such as water or metal. The following hazard control measures will be applied:</p> <ul style="list-style-type: none"> <li>• Have sunscreen available for ultraviolet protection on sunny days.</li> <li>• Have water or electrolyte drinks for dehydration.</li> <li>• Check the weather and adjust work schedules if heat is excessive. Work early or later in day.</li> <li>• Perform work during cooler hours of the day or at night if adequate lighting can be provided.</li> <li>• Utilize shelter (air-conditioned, if possible) or shaded areas to protect personnel during rest periods.</li> <li>• Use cooling devices such as fans and water misters.</li> </ul>

		<ul style="list-style-type: none"> <li>• Allow workers to take breaks in air-conditioned vehicles.</li> </ul>
<b>Parking Vehicle</b>	<p>Struck by, caught in between, causing an obstruction on existing roadway.          Fire from plants under hot exhaust</p>	<ul style="list-style-type: none"> <li>• Workers will park far enough off the edge of the road to stay well clear of traffic.</li> <li>• Put on hi-visibility vest before exiting parked car.</li> <li>• Leave Field Card on dashboard.</li> <li>• Use appropriate number of cones to mark for oncoming traffic as needed.</li> <li>• Do not park on/in flammable vegetation.</li> <li>• Keys stay on field person.</li> </ul>
<b>Power Tools</b>	<p>Injury from improper use          Electrical shock and electrocution</p>	<ul style="list-style-type: none"> <li>• Unplug power tools when not in use.</li> <li>• Do not use a tool if you have not been trained. Inspect tool and cord before use and do not use damaged tools.</li> <li>• Maintain tools in good condition and follow manufacturers' instructions.</li> <li>• Wear gloves, safety glasses and appropriate PPE /apparel, avoiding loose clothing; secure long hair.</li> <li>• Never remove a safety guard when a tool is being used.</li> <li>• Only plug electric tools into a grounded receptacle with a GFCI. Stop using tool if slight shock or tingling is felt.</li> <li>• Secure work with clamps to have both hands free to use the tool.</li> <li>• Keep power tool cords away from heat, oil and sharp edges.</li> <li>• Tag all damaged tools with "Do Not Use".</li> </ul>
<b>Roads/Traffic - Near/On</b>	<p>Getting struck by vehicle</p>	<ul style="list-style-type: none"> <li>• If working in or around traffic (including in parking lots), workers will wear an ANSI Level 2 high visibility clothing (vest). An ANSI Level 3 vest (with sleeves) is required when working near traffic exceeding 50 mph. Additional reflective gear is also</li> </ul>

		<p>required for night work.</p> <ul style="list-style-type: none"> <li>• Maintain 360 degrees of awareness of your surroundings.</li> <li>• Face traffic, stay in a safe zone, and have an escape route.</li> <li>• Do not wear a headset or talk on your cell phone.</li> <li>• DOT approved Traffic Cones and all Traffic Control Devices must be designed and placed according to Uniform Traffic Control Devices (MUTCD) standards (See 3.13 WORK ZONE SAFETY in Labella's Safety Manual for more information)</li> <li>• If possible, close the entrance/exit to ensure the worker's safety, and use a spotter if the worker will not have the ability to keep their attention on vehicles maneuvering in the area.</li> <li>• Workers should NOT sit down or turn their back to traffic when working. If they must do either of these things to complete the work scope, use a spotter or consider alternate ways or tools to do the work.</li> </ul>
<b>Slip-Trip-Fall</b>	Injury	<ul style="list-style-type: none"> <li>• Reduce and avoid slippery (wet, icy, oily, muddy, etc.) surfaces.</li> <li>• Workers will watch where they step and wear proper footwear.</li> <li>• Keep work areas free of obstructions and debris.</li> </ul>
<b>Underground Utilities</b>	Damage to utility infrastructure, Electrocutation, Explosion	<ul style="list-style-type: none"> <li>• Utility marking is needed for this project.</li> <li>• Prior to the commencement of ground intrusive activities, underground utilities will be located by a third-party locator.</li> <li>• Workers will not stand within 20-feet of any active excavations or boreholes if not actively working in those areas.</li> </ul>
<b>Uneven or Wet Terrain (Slopes, Leaves, Holes, etc.)</b>	Slip, Trip, Fall	<ul style="list-style-type: none"> <li>• Wear appropriate footwear for the site and conditions: steel toe or composite boots for construction sites, skid-resistant,</li> </ul>

		<p>hiking boots for other field work if indicated.</p> <ul style="list-style-type: none"> <li>• Use walking stick or other object for additional support/balance and to check for animal burrows/holes.</li> <li>• Watch for trip hazards such as uneven terrain, holes, ditches, puddles (if raining) stretched wires or ropes, or other materials or pieces of equipment in path.</li> </ul>
<p><b>Working on Wet, Icy, and Slippery Surfaces</b></p>	<p>Bodily harm (e.g. high falls, impalement)          Bodily injury (e.g. strain muscles, broken bones)</p>	<p>Administrative:</p> <ul style="list-style-type: none"> <li>• Report unsafe conditions. Help identify areas where accidents are likely to occur so we can take steps to keep sit safe.</li> </ul> <p>*Note: The routine application of salt on icy surface on a project is commonly covered in contract but not always utilized.</p> <p>Personal Protective Equipment and work practice: Wear slip-resistant footwear that has good traction. Avoid shoes with smooth soles. Take shorter steps at a slower pace on icy pavement. Hold onto the handrails when using stairs. Keep your hands free to catch yourself if you start to fall. Use a cart and take the elevator when carrying large items. Avoid walking while distracted; put away your mobile device. Use caution when stepping off curbs and walking up or down steep slopes. • Don't rush! Give yourself extra time to get to your destination. • Wipe your feet on a mat when you enter a building to remove excess water.</p>

<i>Biological and Environmental Hazards</i>		
<b>Work Action or Condition</b>	<b>Potential Safety Hazard</b>	<b>Controls (including PPE)</b>
<b>Thunderstorms, Lightning</b>	Lightning, Severe Thunderstorms, TORNADOS	<ul style="list-style-type: none"> <li>• Check the weather and adjust work schedules.</li> <li>• Do not begin or continue work until lightning subsides for 20 minutes.</li> <li>• Take shelter immediately, 360 degrees of awareness.</li> <li>• Thunderstorms - do not stand under a tree, near water or in the middle of a field.</li> <li>• Tornado: lie flat on the ground, preferably a low shallow space (ditch)</li> </ul>

<i>Ergonomic Hazards</i>		
<b>Work Action or Condition</b>	<b>Potential Safety Hazard</b>	<b>Controls (including PPE)</b>
<b>Lifting Heavy Objects</b>	Injury from Improper Lifting/Lifting weights that are too heavy	<ul style="list-style-type: none"> <li>• When lifting heavy objects, keep the load close to the body and use the leg muscles instead of the back muscles to perform lifting tasks.</li> <li>• Do not attempt to lift large, heavy (especially over 50-lbs), or awkwardly shaped objects without assistance from another employee or from a manual lifting devise.</li> </ul>
<b>Noise (Loud, Sustained)</b>	Hearing Damage	<ul style="list-style-type: none"> <li>• Ear protection will be worn at all times when personnel are within 20-feet of operating equipment or when noise level becomes consistently loud enough to have to raise voice to communicate with someone.</li> <li>• Hearing protection will also be worn in the vicinity of generators, concrete cutters, and any other high noise emitting equipment.</li> </ul>

<i>Chemical Hazards (General)</i>		
<b>Work Action or Condition</b>	<b>Potential Safety Hazard</b>	<b>Controls (including PPE)</b>
<b>Chemical Exposure - PFAS</b>	<i>Contaminants identified in testing locations at the</i>	The presence of PFAS in site media may be difficult to ascertain in the field. PFAS concentrations at this site are not anticipated to

	<p><i>Site include PFAS. PFAS-impacted media may be encountered during subsurface activities at the project work site. Research is still ongoing regarding the health effects of PFAS, but studies have shown that exposures to certain levels of PFAS can increase one's risk of certain cancers and create reproductive, immunological or developmental effects.</i></p>	<p>exceed PELs. The following hazard control measures will be applied, however:</p> <ul style="list-style-type: none"> <li>• Workers should be wearing appropriate PPE and following listed decontamination procedures to prevent exposures. Refer to the relevant sections of this HASP for more details regarding PPE and decontamination procedures.</li> </ul>
<p><b>Chemical Exposure - Volatile Organic Compounds (VOC)</b></p>	<p><i>Contaminants identified in testing locations at the Site include various volatile organic compounds (VOCs), primarily VOCs associated with Site contamination. Volatile organic vapors may be encountered during subsurface activities at the project work site. Inhalation of high concentrations of volatile organic vapors can cause headache, stupor, drowsiness, confusion and other health</i></p>	<p>Volatile Organic Compound (VOC) gases may be emitted from a number of materials and products. The presence of organic vapors may be detected by their odor and by monitoring instrumentation and can lead to physical harm. VOC concentrations at this Site are not anticipated to exceed PELs. The following hazard control measures will be applied, however:</p> <ul style="list-style-type: none"> <li>• Workers should be wearing appropriate PPE, following listed decontamination procedures and be periodically screening the work zone to prevent against and evaluate for unexpected exposures. Refer to the relevant sections of this HASP for more detail regarding PPE, decontamination procedures and work zone screening.</li> </ul>

	<i>effects. Skin contact can cause irritation, chemical burn, or dermatitis. Relevant Safety Data Sheets are included as Appendix 1.</i>	
<b>Sample Collection - Soil or Groundwater</b>	<i>Exposure to contaminants. Hand injury from cutting, crushing, tool or glass breakage. Back strain from lifting cooler.</i>	<ul style="list-style-type: none"> <li>• When collecting samples, workers will utilize nitrile gloves, safety glasses or goggles. If material being sampled potentially contains fill or other sharp material, use a stainless-steel spoon (or similar) as a tool to collect the sample. Any such tools should be dedicated or properly decontaminated between samples.</li> <li>• When lifting sample coolers, workers will use proper lifting techniques and get assistance when possible, especially for containers heavier than 50 lbs.</li> </ul>

<i>Individual Contaminant Hazards</i>			
<b>Chemical</b>	<b>OSHA Permissible Exposure Limit (PEL)/ NIOSH Recommended Exposure Limit (REL) or Immediately dangerous to life or health air concentration values (IDLH)</b>	<b>Routes of Exposure</b>	<b>Symptoms of Overexposure</b>
1,2-Dichloroethylene (VOC)	<b>TWA 200 ppm (790 mg/m<sup>3</sup>) NIOSH REL/IDLH: TWA 200 ppm (790 mg/m<sup>3</sup>)</b>	The substance can be absorbed into the body by inhalation of its vapor and by ingestion.	irritation eyes, respiratory system; central nervous system depression
Tetrachloroethane (VOC)	<b>REL: TWA 10 ppm (60 mg/m<sup>3</sup>) ST 20 ppm (120 mg/m<sup>3</sup>)</b>	inhalation, skin absorption, ingestion, skin and/or eye contact	nausea, vomiting, abdominal pain; tremor fingers

Trichloroethylene (VOC)	<b>TWA: 50 ppm</b> <b>270 mg/m<sup>3</sup></b> <b>Ceiling: 200 ppm</b> <b>STEL: 200 ppm</b> <b>NIOSH REL/IDLH: IDLH: 1000 ppm</b>	The substance can be absorbed into the body by inhalation and by ingestion.	dizziness, headaches, sleepiness, confusion, nausea, unconsciousness
Vinyl Chloride (VOC)	<b>TWA: 1PPM</b> <b>carcinogen category: 1</b> <b>NIOSH REL/IDLH: REL: 1 ppm = 2.56 mg/m<sup>3</sup></b> <b>IDLH - NA</b>	inhalation, skin and/or eye contact (liquid)	lassitude (weakness, exhaustion); abdominal pain, gastrointestinal bleeding; enlarged liver; pallor or cyanosis of extremities; liquid: frostbite

### 8.0 Personal Protective Equipment (PPE)

All site workers will have appropriate training as identified in Section 7.0. Training includes the identification of PPE necessary for various tasks; how to don, doff, adjust, and wear PPE; limitations of PPE; and proper care, inspection, testing, maintenance, useful life, storage, and disposal of the PPE. PPE will be inspected on a regular basis.

Modified Level D:	<ul style="list-style-type: none"> <li>• Street clothes</li> <li>• Safety glasses</li> <li>• Safety toed boots</li> <li>• Hard hat</li> <li>• An ANSI Level II safety vest</li> <li>• Nitrile glove if potentially contacting any contaminated materials</li> <li>• Disposable N95 masks will be provided for use if needed</li> </ul>
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### 9.0 Employee Training

All workers and other personnel shall receive appropriate training prior to engaging in site activities. All workers must recognize and understand the potential hazards to health and safety that are associated with the proposed scope of work and must be thoroughly familiar with programs and procedures contained in this Safety Plan.

The following training levels were determined to be needed:

- OSHA 40 Hour - HAZWOPER

### **10.0 Exposure Monitoring**

No - Exposure Monitoring not required or applicable

### **11.0 Site Control**

No - Contaminant Exclusion or Reduction zone not required or applicable at the site. The site is secured with chain link fence around the perimeter. LaBella will be working entirely within the fenced-in area.

### **12.0 Recordkeeping**

An electronic or hard-copy version of this HASP will be present at the Site during all field work activities. Copies of field logs, including daily pre-job safety meeting logs, will be filed by LaBella and available for the duration of the project.

Employees will be able to provide physical or electronic copies of required training certificates.

Incident reporting will be completed in accordance with LaBella policies.

### **13.0 Anticipated Truck Route**

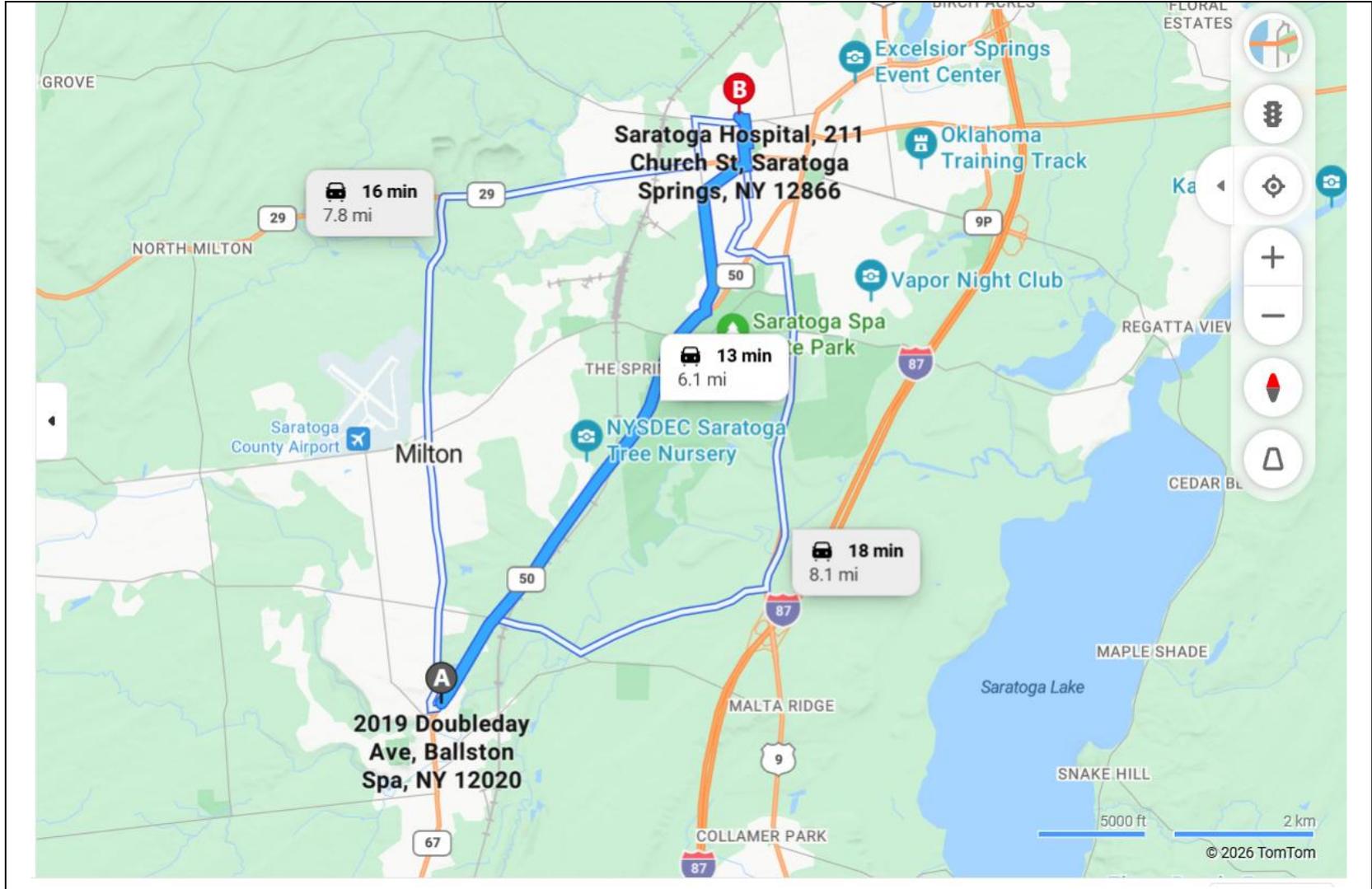
Trucks entering and leaving the project site are anticipated to be via Doubleday Avenue as shown on Figure 6 that is attached to the IRM Work Plan. The anticipated truck route from the LaBella Associates, D. P.C. office to the Site is shown on Figure 6.



# APPENDIX A

Directions to Nearest Medical Facility

## Hospital Route



Hospital Directions:

### Directions

Driving

**Via NY-50, West Ave** **13 min**  
Fastest route · 2 min delay 6.1 mi  
[Close](#)

**A** 2019 Doubleday Ave, Ballston Spa, NY 12020

- ↑ Leave from Doubleday Ave/NY-50  
about 0.2 mi, less than 1 min
- ↑ Follow Doubleday Ave/NY-50  
3.9 mi, about 6 min
- ↶ Turn left onto West Ave  
1 mi, about 3 min
- ↷ Turn right onto Grand Ave  
0.4 mi, about 1 min
- ↶ Turn left onto Walnut St  
about 0.2 mi, less than 1 min

- ↷ Turn right onto Division St  
about 0.1 mi, less than 1 min
- ↶ Turn left onto Van Rensselaer St  
about 0.2 mi, less than 1 min
- ↑↑ Keep straight on at Corey Ln  
about 0.1 mi, less than 1 min
- ↶ Turn left  
about 0.1 mi, less than 1 min
- ↷ Bear right  
about 0.1 mi, less than 1 min
- 📍 You have arrived. Your destination is on the right
- B** Saratoga Hospital  
211 Church St, Saratoga Springs, NY 12866



# APPENDIX B

Task Hazard Analysis Forms



# APPENDIX C

Safety Data Sheets

Safety Data Sheet Digital Library for Reference



# APPENDIX D

[Daily Tailgate Safety Meeting Form](#)



## 6.08 PRE-JOB SAFETY TAILGATE/TOOLBOX MEETING FORM

Date		Time	
Location or Address		Temperature	
Project Number		Humidity	
Conducted by		Conditions	
Were all workers reminded that COVID is still prevalent and that appropriate measures should be taking to prevent infection of themselves and others?			Yes <input type="checkbox"/> No <input type="checkbox"/>

<b>911</b>	<b>If 911 is unavailable at this location, please state the procedure for reporting emergencies</b> _____
------------	--

List Safety Topic of Discussion and/or Any Specific Hazards for the Work Being Performed Today	
1	
2	
3	
4	
5	
6	
7	

List Control Measures for Each Specific Hazard Listed Above	
1	
2	
3	
4	
5	
6	
7	

### PLEASE SIGN THE BACK OF THIS SHEET

The presenter and all attendees shall print and sign in the appropriate areas on the back of this sheet





# APPENDIX E

Confined Space Entry Forms



# 6.11 CONFINED SPACE PROGRAM: CONFINED SPACE ENTRY PERMIT

## GENERAL INFORMATION

Project Name:		Project No.:	
Permit Confined Space Description:			
Permit Required Confined Space Location:			
Purpose of Entry:			
Permit Valid From:			
	Date	Time	Date Time:
Entry Time:		Exit Time:	

## PERSONNEL

Entry Supervisor(s)	Authorized Entrants	Authorized Attendants

### [ ] DEFINE KNOWN AND POTENTIAL HAZARDS – THEN SELECT PROPER PPE

## KNOWN AND POTENTIAL HAZARDS

Chemical Hazards	NOT Acceptable	Physical Hazards
[ ] Oxygen Deficient (O2)	< 19.5%	[ ] Mechanical
[ ] Oxygen Enriched (O2)	> 23.5%	[ ] Electrical
[ ] Explosive Gas/ Vapor (LEL)	<10% LEL	[ ] Engulfment
[ ] Toxic: Carbon Monoxide (CO)	= or > 25 PPM	[ ] Configuration
[ ] Toxic: Hydrogen Sulfide (H2S)	= or > 10 PPM	[ ] Piping/ Feed Lines
[ ] Toxic: Volatiles (Gas/Fuel) (VOC)	= or > 10 PPM	[ ] Hot Work (Additional Permit)
[ ] Explosive Dust	= or >5' Visibility	[ ] Excavation (Additional Permit)
[ ] Toxics: _____	[ ] _____	[ ] Elevated Heights
[ ] Gas/Biologicals	[ ] _____	[ ] _____

## PERSONAL PROTECTIVE EQUIPMENT

PERSONAL PROTECTIVE EQUIPMENT			EQUIPMENT	
[ ] Air Line Respirator	[ ] Tyvek w/ Hood	[ ] Rubber Boots	[ ] Air Monitor	[ ] Non-Sparking Tools
[ ] Escape Bottle	[ ] Safety Glasses	[ ] Rubber Gloves	[ ] Air Blower	[ ] Exp Proof Lighting
[ ] Respirator Full Face	[ ] Goggles	[ ] Leather Gloves	[ ] Harness/ Lifeline	[ ] Escape Ladder/Rope
[ ] Respirator ½ Face	[ ] Face Shield	[ ] Chem Resis. Gloves	[ ] Retrieval System	[ ] Exp Communications
[ ] P100/OV Cartridge	[ ] Hard Hat	[ ] Ear Protection	[ ] Fall Protection	[ ] Fire Extinguisher
[ ] Other Cartridge:	[ ] Other _____	[ ] Other: _____	[ ] Exp Proof Equip	[ ] First Aid Kit
			[ ] Ladder	[ ] Eye Wash

## CONTROL OF HAZARDOUS ENERGY/ISOLATE EQUIPMENT/ELECTRICAL SAFETY

[ ] Lockout/Tag Out (LOTO)	[ ] Stop Transfers	[ ] Ventilation
[ ] Zero-voltage verification (ZVV)	[ ] Drain space	[ ] Disconnect & Blank
[ ] Equipment Grounded	[ ] Purge/clean	[ ] Barriers/WZTC
[ ] GFCIs	[ ] Inert gas	[ ] Atmospheric Test

## EMERGENCY SERVICES

Provided by:		Phone #:	
[ ] Emergency Service Available/Called		[ ] Attendant with First Aid/CPR Training	

## PRE-ENTRY CHECKLIST

<input type="checkbox"/> Verification of adequate confined space training <input type="checkbox"/> Pre-entry briefing on specific hazards and control measures <input type="checkbox"/> Notification of subcontractors of permit and hazard conditions <input type="checkbox"/> Notification of affected departments of service interruption <input type="checkbox"/> Non-entry rescue and procedures in place <input type="checkbox"/> Off-site rescue notified of time and place	Communication: <input type="checkbox"/> Radio <input type="checkbox"/> Rope Signals <input type="checkbox"/> Verbal <input type="checkbox"/> Hand Signals <input type="checkbox"/> Other _____  Lighting: <input type="checkbox"/> Hazardous location rated <input type="checkbox"/> Standard Air Flushing: <input type="checkbox"/> Preliminary <input type="checkbox"/> Continuous <input type="checkbox"/> Other _____
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## 6.24 FALL PROTECTION EQUIPMENT INSPECTION FORM

If you are using fall protection equipment you must inspect it before each use. Use the below guidelines to examine your equipment.

For all visual and touch inspections: ✓ = **Pass** (with limitations) ✗ = **Fail**

If your equipment fails any of the ✗ criteria listed below (example: cuts, nicks or tears) **you must discard the equipment** and ask your supervisor for a replacement.

If your equipment fails any of the ✓ criteria listed below (example: mildew) then you must follow the guidance provided prior to use of the equipment.

### HARNESS INSPECTION

#### Webbing – Visual and Touch Inspection

Grasp the webbing with your hands and bend the webbing, checking both sides. This creates surface tension making damaged fibers or cuts easier to see. Webbing damage may not show up through a sight (visual) inspection only – manually (touching) the webbing is equally important.

- ✗ Cuts, nicks or tears
- ✗ Broken fibers (frays with fingernail)/cracks
- ✗ Overall deterioration
- ✗ Modifications by user
- ✗ Fraying/Abrasions
- ✗ ✓ Discoloration of material *Dependent on cause of discoloration*
- ✗ Hard or shiny spots *Indicates heat damage*
- ✗ Webbing thickness uneven *Indicates possible fall*
- ✓ Mildew *Clean harness*
- ✗ Missing Straps
- ✗ Undue Stretching *Indicates possible fall*
- ✗ Burnt, charred or melted fibers *Indicates heat damage*
- ✗ ✓ Material marked w/permanent marker *Check w/manufacturer*
- ✗ Excessive hardness or brittleness *Indicates heat or UV damage*

#### Stitching

Visual and Touch Inspection

- ✗ Pulled stitches
- ✗ Stitching that is missing
- ✗ Hard or shiny spots *Indicates heat damage*
- ✗ Cut stitches
- ✗ ✓ Discoloration of stitching *Dependent on cause of discoloration*



### Hardware - Visual and Touch Inspection

- ✘ Distortion (twists, bends)
- ✘ Rust or corrosion
- ✘ Modification by users (i.e. additional holes)
- ✘ All springs must be in working condition
- ✘ Tongue buckle should overlap the buckle frame & move freely back and forth in the socket
- ✘ Roller of tongue buckle should turn freely on frame
- ✘ Rough or sharp edges
- ✘ Cracks or breaks
- ✘ Broken/distorted grommets
- ✘ Bars must be straight

### Tagging System

Every harness must have a legible tag identifying the harness, model, date of manufacture, name of manufacturer, limitations and warnings.

- ✘ Check tag for manufacture date and remove from service if past adopted service life policy
- ✘ If tagging system is missing or not legible remove harness from service

## SHOCK ABSORBING LANYARD INSPECTION

### Webbing - Visual and Touch Inspection

Grasp the webbing with your hands and bend the webbing, checking both sides. This creates surface tension making damaged fibers or cuts easier to see. Webbing damage may not show up through a sight (visual) inspection only – manually (touching) the lanyard is equally important. **Pay attention to the wrinkled portion of the lanyard.**

- ✘ Cuts, nicks or tears
- ✘ Broken fibers/cracks
- ✘ Overall deterioration
- ✘ Modifications by user
- ✘ Fraying/Abrasions
- ✘ ✓ Discoloration of material *Dependent on cause of discoloration*
- ✘ Hard or shiny spots *Indicates heat damage*
- ✘ Change in core size *Indicates possible fall*
- ✓ Mildew *Clean lanyard*
- ✘ Missing or popped flag *Indicates possible fall*
- ✘ Undue stretching *Indicates possible fall*
- ✘ Burnt, charred or melted fibers *Indicates heat damage*
- ✘ ✓ Material marked w/permanent marker *Check w/manufacturer*
- ✘ Excessive hardness or brittleness *Indicates heat or UV damage*
- ✘ Knots in lanyard

### Stitching - Visual and Touch Inspection

- ✘ Pulled stitches
- ✘ Stitching that is missing
- ✘ Hard or shiny spots *Indicates heat damage*
- ✘ Cut stitches
- ✘ ✓ Discoloration of stitching *Dependent on cause of discoloration*



Description:	Model #:
Serial #:	Date of Manufacture:
Inspector:	Date Inspected:
Inspector Signature:	

✘FAIL:  Initial \_\_\_\_\_

✓PASS:  Initial \_\_\_\_\_

**REMOVE FROM SERVICE**

**RETURN TO SERVICE**

Describe any defects found:

*Courtesy Miller Fall Protection*



# APPENDIX F

Fall Protection



6.25 - Fall Protection Hazard Assessment AND Rescue Plan

**Part 1 - Fall Protection Hazard Assessment**

Project Name:		Project Number/Phase:	
Project Location:		Division/Sub-Dept:	
Plan Prepared by:		Signature:	
Supervised by:		Signature:	
Date Prepared:		Date Modified:	

**Fall Hazard Identification and Protection Selection Worksheet**

On the table below, identify each **Fall Hazard** that exists or may exist, and then use the drop-down menu to choose whether workers will be protected by Fall Prevention, Fall Restraint or Fall Arrest. For each **Overhead Hazard** use the drop-down list to choose from these options: hard hats required, overhead hazard signs, debris nets, toeboardson guardrails, screenon guardrails, barricade to control access, other. See also note below for Fall Arrest stacking height calculation.

Fall Hazard Type	General Location(s)	Fall Protection Method*	Overhead Protection Method
Roof > 4/12 Pitch			
Roof < 4/12 Pitch			
Skylight Openings			
Roof Openings			
Floor Openings			
Window Openings			
Open-sided Floors			
Decks			
Catwalks			
Balconies			
Leading Edge Work			
Excavation Edges			
Mobile Lift Work			
Grade Drop-Offs			
Unprotected Sides and/or Edges			
Other:			

\* Note - For all tasks requiring use of **fall arrest** devices, such as personal fall protection systems (PFAS), a **stacking distance caculation** must be performed to determine the minimum clearance distance below a working surface to ensure that the PFAS will properly arrest a fall before the worker contacts a lower level or obstruction.

**Fall Protection System Assembly and Maintenance:**

Fall protection systems will be assembled and maintained according to manufacturer's instructions when using a manufactured system. A copy of those instructions should be available on-site for reference. Any fall protection system used will meet applicable regulations. Assembly and maintenance instructions unique to the worksite such as components, placement of systems, anchor points, areas where systems are particularly subject to damage, etc., shall be specified below.

**Fall Prevention****Guardrails\*\*:**

- Top of the rail must be 42" ± 3" above the work surface and withstand 200lbs. outward or downward force.
- Midrail must be ½ the distance to top rail and be able to withstand 150 lbs. outward or downward force.
- Deflection must not exceed 2".
- Toeboard (if applicable) must be min 3½" in height and have a ¼" max lower gap.
- Be inspected regularly per manufacturer's instructions.

*\*\* Note: A guardrail does not protect a person standing on a ladder, box, or other surface above the work surface.*

Post Material:		Rail Material:	
Post Spacing (8' max):		Anchor Method:	
Other Instructions:			

**Designated Areas with Warning Lines:**

- Block access to all fall hazards in the work areas.
- Be a minimum of 6' from roof edge (per 1910) for work that is both temporary and infrequent, or not less than 15 feet for other work.
- Be made of rope wire or chain between 34" and 39" above surface height.
- Be attached to stanchions such that pulling one section of chain will not take up slack in the other sections.
- Be clearly visible from a distance of 25 feet away and anywhere within the designated area.
- Shall have a minimum breaking strength of 200 pounds per 1910 or 500 lbs per 1926.

System Component List:			
Configuration and Placement sketch attached?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Other Instructions:			

**Covers and Hatches:**

- Must support twice the weight of any employees and equipment
- Must be secured to prevent accidental displacement
- Must be marked with the word "cover" or "hole"

Material to Use:	
Other Instructions:	

**Safety Nets \*\*\*:**

- Must be installed within 30 feet vertically of the work surface.
- Must extend out from the outermost projection of the work surface as specified below.
- Must be tested or certified to withstand 400 lb object dropped from the highest work surface.
- Mesh at any point must not exceed 36 in<sup>2</sup> with the largest opening being 6" on any one side.
- Inspect weekly for mildew, wear or damage, and remove objects in net as soon as possible.

\*\*\* A person falling into the net cannot contact any object below the net.

System Component List:	
Anchor Point at this worksite:	

Maximum Fall Distance in Feet from Work Surface to Net:		Feet
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Distance from outer edge of net to outermost edge of work surface:	
--	--

<input type="checkbox"/> Up to 5' fall = 8'	<input type="checkbox"/> 5' to 10' fall = 10'	<input type="checkbox"/> >10' fall = 13'
---	---	--

Configuration and placement sketch attached?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
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Other Instructions:	
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**Fall Restraint** (complete information for system to be used)

A. Anchorage capable of supporting 3,000 lbs:	
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B. Body wear, e.g. full body harness:	
---------------------------------------	--

C. Connecting device, e.g. lanyard, self-retracting lanyard:	
--	--

Other Instructions:	
---------------------	--

**Fall Arrest**

- Must have anchorage capable of supporting 5,000 lb load for each employee attached
- Must limit maximum arresting force on worker to 1,800 lbs.
- Must limit the maximum deceleration distance the employee travels to 3.5 feet.
- Must prevent worker from contacting lower level in event of a fall
- Lifelines must be protected from abrasion
- Snap hooks may not be connected to each other, webbing loops, or other incompatible connections
- Inspect components for deformation, wear, and mildew prior to each use (Use LaBella Inspection Form)

A. Anchorage capable of supporting 5,000 lbs	
--	--

B. Body wear, e.g. full body harness:	
---------------------------------------	--

C. Connecting device, e.g. lanyard, self-retracting lanyard:	
--	--

Other Instructions:	
---------------------	--

Configuration and placement sketch attached?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
--	------------------------------	-----------------------------

**Other Fall Protection Systems**

Provide a description of how the system is to be assembled, disassembled, operated, inspected, and maintained. Include specifications for materials to be used in its construction:

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## Part 2 - Fall Protection Rescue Plan

### Names of Authorized Rescuers:

1)		4)	
2)		5)	
3)		6)	

Note - LaBella must contact any anticipated rescue services (such as fire departments, prior to work start to ensure they have the appropriate equipment to achieve rescue in a timely manner.

### Communication:

What communication systems will be used between the suspended work and supervisor/rescue team?

1) Direct Voice	<input type="checkbox"/>	4) Whistle	<input type="checkbox"/>
2) Mobile Phone	<input type="checkbox"/>	5) Other	<input type="checkbox"/>
3) Two-way Radio/Headset	<input type="checkbox"/>	6) Other:	<input type="checkbox"/>

### Emergency Contact:

In the event of a fall/suspended worker, the Competent Person/Authorized Rescuer should **immediately** alert the rescue team and first aid response:

First Aid Trained Employee(s) On Site:			
Name:		Title:	
Name:		Title:	
First Aid Kit Location:		Nearest Medical Facility:	
Emergency Services Phone Numbers for:			
Medical:		Fire:	
Police:			
Location of Nearest Telephone:			

**Note: Once Emergency responders have been contacted, a nominated person should direct emergency personnel and provide the following information:**

Area of Casualty:	
Height of Worker/Confined Space:	
Worker's Condition:	

### Safety of Rescuers:

Are rescuers trained and in-date with rescue equipment?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
Have anchor points been assessed?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
Are training records in date?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
Has consideration been made for attaching to casualty?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
Is rescue equipment appropriate for the nature of work?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No

Other considerations? Describe: \_\_\_\_\_

Additional notes or explanation if any question was answered "No" and how it will be addressed:

### How will rescuers get to the casualty?

Rescue Ladder	<input type="checkbox"/>	Pull casualty in through balcony/window	<input type="checkbox"/>
Remote Rescue Kit	<input type="checkbox"/>	Pull casualty through floor/slab/roof	<input type="checkbox"/>
Keys to building or roof?	<input type="checkbox"/>	Climb/abseil down building/structure	<input type="checkbox"/>
Elevator	<input type="checkbox"/>	Suspended access equipment	<input type="checkbox"/>
Crane man basket	<input type="checkbox"/>	Aerial equipment from ground	<input type="checkbox"/>

<b>What equipment is needed to ensure prompt rescue to minimize suspension trauma?</b>			
Rescue Ladder	<input type="checkbox"/>	Aerial ladder truck	<input type="checkbox"/>
Rescue kit - winch	<input type="checkbox"/>	Suspended access equipment	<input type="checkbox"/>
Rescue kit- haul	<input type="checkbox"/>	Climbing/rope rescue system	<input type="checkbox"/>
Low height rescue kit	<input type="checkbox"/>	Crane man basket	<input type="checkbox"/>
Descent rescue kit	<input type="checkbox"/>	Stretcher	<input type="checkbox"/>
Mobile elevated work platform	<input type="checkbox"/>	First Aid Kit	<input type="checkbox"/>
<b>How will others be protected?</b>			
Assign someone to direct traffic	<input type="checkbox"/>	Set up barriers	<input type="checkbox"/>
<b>How will accident scene be protected?</b>			
Prevent further injury or damage	<input type="checkbox"/>	Set up barriers	<input type="checkbox"/>
Preserve wreckage	<input type="checkbox"/>	Report incident/event	<input type="checkbox"/>
<b>How will accident scene be protected?</b>			
Weather conditions (detail):			
Lone working precautions (detail):			
Unusual features of building/structure (detail):			
Proximity to emergency services/hospital (detail):			
Language barriers (agency/contract staff - detail):			
<b>Employee Training Certification - Employees and Competent Person</b>			
All employees must be instructed on the provisions of this Plan and have been trained in the proper use of the fall protection/rescue equipment and procedures involved. By signing this document employees acknowledge that they understand the plan and have been trained in the use of the equipment.			
Print Name:	Signature:		Date:
By entering your name, you as the competent person, verify that the hazard analysis has been done, the employees have been informed of the plan's provisions, and employees have received training in the fall protection systems in use.			
Print Name:			Date: