NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Region 8
6274 East Avon-Lima Road, Avon, NY 14414-9516
P: (585) 226-5353 I F: (585) 226-8139
www.dec.ny.gov

Via E-mail

Mr. Dennis Maguire
770 Rock Beach Road
Rochester, NY 14617

July 24, 2019

Re: IRM Work Plan
Former Alliance Metal Stamping and Fabrication Site #c828101
Gates, Monroe County

The New York State Department of Environmental Conservation (NYSDEC), in consultation with New York State Department of Health, has completed its review of the document entitled "IRM Work Plan" for Former Alliance Metal Stamping & Fabrication Facility Site #828101, dated 28 June 2019, and approve with the following modifications:

Workplan Modifications:

1) Section 3.1.1 Technical Approach and Project Plan
   a) The following is deleted from the approved version:
      i) However, given that the Site building is an existing building constructed without a wall-to-wall vapor barrier beneath the floor slab, achieving a pressure differential of 0.002 over every square foot of floor space may not be feasible in all areas.
2) Section 3.1.4 Construction Monitoring
   a) The following clarification is part of the approved version:
      i) A Qualified Environmental Professional including the Engineer of Record or an individual under the direct supervision thereof will be present on-site to oversee the installation of the SSDS.
3) Section 3.1.8 Post-SSDS Installation Indoor air/Sub-slab Vapor Monitoring
   a) The following is deleted from the approved version:
      i) Following the installation of a sub-slab depressurization system as described in this IRM Work Plan, it is anticipated that cessation of the annual indoor air monitoring program specified by the June 2016 Stantec
   b) The following clarification is part of the approved version:
      i) Annual indoor air sampling will be required in the following tenant spaces where NYSDOH Air Guidance values were exceeded for TCE and PCE:
         (1) Bright Raven Gymnastics
         (2) Excelsus / Former vapor degreaser area
         (3) Complete Automotive
         (4) Universal Equipment
4) Appendix A – SSDS Design – Drawing No. ENV-100
   a) The following clarification is part of the approved version:

i) Pressure field extension testing must be added in
   (1) Bright Raven Gym
   (2) Bright Raven Boys Gym
   (3) Bright Raven Dance Room
   (4) Bright Raven Main Gym Space (additional)
   (5) JB coating
   (6) Complete Automotive Shop
   (7) Excelsus

Notice to proceed is granted based on these modifications and updated schedule which will be appended to the front and become part of the approved work plan and placed in the document repository.

Please contact me at (585) 226-5480 if you have any questions regarding this letter.

Sincerely,

Timothy Schneider, P.E.
Professional Engineer 1

B. Schilling
M. Cruden
D. Loew
J. Kenny / J. Deming
P. Sylvestri
T. Wells

IRM Work Plan

Former Alliance Metal Stamping & Fabrication Facility
Town of Gates, Monroe County, New York
BCP Site # C828101

June 2019

Prepared for:

NYS Department of Environmental Conservation
6274 East Avon-Lima Road
Avon, New York 14414

Prepared on Behalf of:

Maguire Family Properties, Inc.
770 Rock Beach Road
Rochester, NY 14617

Prepared by:

Stantec Consulting Services Inc.
61 Commercial Street, Suite 100
Rochester NY 14614-1009

Certification

I, Dwight A. Harrienger, 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).

Dwight A. Harrienger — 6/28/2019

Signature — Date

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Abbreviations

AA and AAR	Alternatives Analysis, AA Report
ACM	Asbestos Containing Material
AMSF	Alliance Metal Stamping & Fabrication
AOC	Area of Concern
BCP	Brownfield Cleanup Program
CAMP	Community Air Monitoring Plan
CCR	Construction Completion Report
CU	Commercial Use
CVOC	Chlorinated Volatile Organic Compound
DER-10	Division of Environmental Remediation Technical Guidance for Site Investigation and Remediation, May 2010
DOT	Department of Transportation
ELAP	Environmental Laboratory Approval Program
ft bgs	feet below ground surface
HASP	Health and Safety Plan
IRM	Interim Remedial Measure
ITT	ITT Corporation (ITT Inc.)
IU	Industrial Use
MFP	Maguire Family Properties, Inc.
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
OM&M	Operation, Maintenance & Monitoring
OU	Operable Unit
PCE or PERC	Perchloroethylene, also tetrachloroethene, tetrachloroethylene
PID	Photoionization Detector
PMP	Pressure Monitoring Point

(list continues on next page)

POGW	Protection of Groundwater
PVC	Polyvinyl Chloride
RFM	Rochester Form Machine
RI and RI/FS	Remedial Investigation, Remedial Investigation/Feasibility Study
SCOs	Soil Cleanup Objectives
SMP	Site Management Plan
SGVs	Standards and Guidance Values
SSDS	Sub-Slab Depressurization System
SVI	Soil Vapor Intrusion
TAL	USEPA's Target Analyte List
TCA	Trichloroethane
TCE	Trichloroethene, also trichloroethylene
TCL	USEPA's Target Compound List
TOGS	Technical and Operational Guidance Series
TO-15	USEPA Toxic Organics – 15 air sample analysis method
USEPA	United States Environmental Protection Agency
UU	Unrestricted Use
VOC	Volatile Organic Compound

1.0 INTRODUCTION

This document presents a Work Plan for an Interim Remedial Measure (IRM) to be implemented at the Former Alliance Metal Stamping & Fabrication (AMSF) Facility Site located at 12 Pixley Industrial Parkway in the Town of Gates, Monroe County, New York. The AMSF Site is identified as site number C828101 in the Brownfield Cleanup Program (BCP) administered by the New York State Department of Environmental Conservation (NYSDEC). A Site Location Map is presented on Figure 1.

Stantec Consulting Services, Inc. (Stantec) has prepared this Work Plan at the request of Maguire Family Properties, Inc. (MFP), the current owner of the AMSF site. The IRM will be implemented to address the presence of contamination by volatile organic compounds (VOCs) in Site soil and groundwater.

1.1 SITE DESCRIPTION

The AMSF Site occupies an approximately 7-acre property identified as Monroe County Tax Parcel No. 119.17-1-2. The Site property is improved with a 120,000-square-foot slab-on-grade building surrounded by paved driveways, loading ramps and parking lots and unpaved lawn areas. Land uses in the surrounding area include a mix of vacant land and industrial facilities on the properties to the east, south and west of the AMSF facility and a multi-screen movie theater and its parking lot on the adjacent property to the north. A Site Plan is presented on Figure 2.

The town zoning code for the Site and the other properties located along Pixley Industrial Parkway is General Industrial. MFP has owned the Site since 1995 and has leased individual spaces in the facility to a variety of light manufacturing and commercial tenants. Current and reasonably anticipated future uses of the Site include commercial and light-manufacturing industrial uses.

1.2 SITE HISTORY, PREVIOUS INVESTIGATIONS, AND ENVIRONMENTAL CONDITIONS

1.2.1 Site History

The original building at the AMSF facility was reportedly constructed in 1967, before which the property was undeveloped agricultural land. Historical records indicate the original Site building may have been operated as a warehouse by the Alcoa Aluminum Corporation. The facility was purchased by the Alliance Tool Corporation, a subsidiary of the Gleason Corporation, in 1973. Alliance operated the Alliance Metal Stamping & Fabrication facility at the Site until July 1994. The manufacturing operations included stamping, forming, grinding, cleaning, painting, phosphating, and deburring of metal piecework. Alliance decommissioned the manufacturing operation and sold the vacant facility to MFP in 1995.

Since 1995, MFP has been leasing subdivided spaces in the building to companies operating a variety of light manufacturing operations and commercial activities. A summary of operations conducted by current facility tenants is presented in Table 1, and the current layout of tenant spaces is shown on Figure 2.

Seven building sections make up the Site building. They are listed below by year of construction. The locations (outlines) of the various building sections are shown on IRM design drawings provided in Appendix A.

1967 – Original Warehouse/Manufacturing Building
1967 – Original Administration Building
1975 – West Manufacturing Addition
1979 – North Manufacturing Addition
1979 – Paint Storage Room Addition
1988 – Office Addition
1988 – Storage Shed Addition

1.2.2 Previous Investigations and Environmental Conditions

1.2.2.1 Initial Due-Diligence Investigations

An initial assessment of the environmental history of the AMSF Site was performed in 1991 on behalf of Gleason Corporation. Related investigation of environmental conditions in exterior areas outside the facility building were conducted through 1994. The results of these investigations identified the presence of contamination of Site groundwater by 1,1,1-trichloroethane (1,1,1-TCA), a chlorinated VOC commonly used as a solvent in industrial degreasing operations. The highest levels of contamination were found at a well located at the northwest corner of the Site, and this occurrence was investigated further on behalf of ITT Corporation, the owner of the adjacent property to the west, as described below in Section 1.2.2.2.

The 1990s-era investigations conducted for Gleason also identified contamination of groundwater by much lower concentrations of tetrachloroethylene, a chlorinated VOC commonly used as a degreasing or dry-cleaning solvent (also known as tetrachloroethene or perchloroethylene, and commonly abbreviated as PERC or PCE), was identified in groundwater along the southern boundary of the Site. Four occurrences of soil contamination identified at the Site were addressed in 1994 with remedial actions to remove the contaminated soil.

1.2.2.2 ITT Site RI/FS

The west boundary of the AMSF Site adjoins the site of the ITT Corporation Former Rochester Form Machine Facility located at 30 Pixley Industrial Parkway (the ITT or RFM site), an inactive hazardous waste site (NYSDEC Site # 828112). The ITT site, portions of the movie theater parcel to the north, and the west/northwest portion of the AMSF Site have been the subject of a Remedial Investigation (RI) and Feasibility Study (FS) program implemented by ITT under the oversight of NYSDEC. The focus of the ITT site RI/FS was contamination by 1,1,1-TCA and related VOCs related to past releases from degreasing operations at the ITT site. Data from the ITT site RI indicate that bedrock, groundwater and soil vapor in areas of the AMSF Site which are downgradient of the ITT site[1] have been impacted by chlorinated

[1] At most times, the direction of shallow groundwater flow along the western Site boundary is generally eastward from the ITT site towards the AMSF Site. However, during periods immediately following significant rain events, a temporary pattern of flow develops in the area immediately surrounding the stormwater recharge well (RW-2) located

solvent contamination, with 1,1,1-TCA being the principal contaminant. In Operable Unit 1 (OU-1), the northwest portion of the AMSF Site, contamination of the bedrock matrix by chlorinated VOCs appears to act as a source for VOC contamination in Site groundwater. The contamination of the bedrock matrix was found to extend vertically from the shallow to the deeper bedrock horizons intersected by the 149-foot deep stormwater recharge well (RW-2) located in the northwest corner of the AMSF Site. The location of RW-2 is shown on Figure 2.

In April 2009, ITT detected elevated concentrations of PCE in sub-slab vapor beneath the northeastern portion of the AMSF building when it performed an assessment of the potential for soil-vapor intrusion (SVI) in the AMSF building performed as part of the ITT RI. Historical records for the AMSF Site identified a degreaser that had been located in that portion of the AMSF facility during AMSF operations. The 2009 SVI data indicated a need for further investigation of the former degreaser area.

1.2.2.3 AMSF Site RI

The need for further investigation of the subsurface conditions in the area of the former AMSF degreaser was the impetus for MFP to undertake an RI at the AMSF Site under the BCP. MFP applied as a Volunteer under New York State's BCP and the Site was admitted into the BCP by NYSDEC in July 2011.

The BCP RI was initiated in March 2012 and completed in December 2015. The findings of the RI concerning the nature and extent of contamination at the Site were as follows:

Soil

Occurrences of soil contamination exceeding NYSDEC's Soil Cleanup Objectives (SCOs) for protection of public health at commercial or industrial use sites were not identified at the Site.

VOC contamination exceeding NYSDEC's SCOs for protection of unrestricted site use (UU SCOs) and protection of groundwater (POGW SCOs) were detected in three areas of the Site:

- Former Degreaser Area - Area of Concern AOC 1
- Former Waste Storage Area B – AOC 5B
- Former Paint Shop Area - AOC 6

All three areas are within the footprint of the Site building, and the contaminated soil is therefore covered by and contained beneath the building floor slab. In each area, the water table occurs below the top of bedrock. The cap provided by the floor slab, the unsaturated condition of the soil profile and the contaminant concentrations in both soil and groundwater together indicate that the soil contamination in these areas is unlikely to pose health risks to site workers or others from direct contact or ingestion or to be contributing to groundwater contamination at the Site.

in the northwest corner of the AMSF Site. The groundwater flow direction during and immediately following significant rain events is radially outward from the recharge well.

Groundwater

Chlorinated VOCs are present in Site groundwater at concentrations that exceed NYSDEC's groundwater quality standards in the shallow-bedrock zone across the entire Site and are also present in the intermediate- and deep-bedrock zones.

Concentrations of 1,1,1-TCA and the chlorinated VOCs which are the daughter products of the degradation of 1,1,1-TCA in the environment (including principally 1,1-dichloroethane and 1,1-dichloroethene) are highest in OU-1, located in the upgradient northwest corner of the Site. 1,1,1-TCA-related contamination above standards extends from OU-1 beneath the building to the eastern, downgradient Site boundary. Contamination by PCE and its degradation daughter products (including principally trichloroethene and cis-1,2-dichloroethene) is present at lower concentrations, with the highest levels found in the area of the former degreaser in AOC 1 and with exceedances of standards extending to the eastern Site boundary. As a BCP Volunteer, MFP was not responsible for delineation of the extent of off-Site groundwater contamination, and therefore groundwater sampling was not performed on the adjacent properties located east of the Site during the AMSF Site RI.

Soil Vapor

The results of the RI indicated the potential for chlorinated VOCs present in the subsurface at the Site to migrate by soil vapor intrusion (SVI) from below the floor of the facility building into the air inside the building. Concentrations of TCA, PCE and/or one or more related chlorinated VOC daughter products were detected in sub-slab vapor and indoor air sample pairs collected at locations throughout the building. Concentrations in sub-slab vapor at most of the locations sampled, including those locations throughout the high-ceiling sections of the building originally occupied by AMSF manufacturing operations, have exceeded 'No further action' SVI evaluation guidance values established by the New York State Department of Health (NYSDOH)[2]. The locations where the data met the NYSDOH guidance levels for 'No further action' recommended included:

- an office space in the Storage Shed Addition located on the west side of the building,
- an office area in the former Paint Storage Room addition located on the south side of the southwest corner of the building, and
- two locations in the office areas of the Original Administration Building section located at the southeast side of the facility.

1.2.2.4 Interim Remedial Measure Site Management Plan (IRM SMP)

An IRM Site Management Plan (IRM SMP, Stantec 2016) was instituted in 2016 which specified a monitoring program to be performed annually to assess whether the chlorinated VOCs (CVOCs) that are

[2] The guidance values are those specified in the May 2017 matrices for assessing whether indoor air and sub-slab vapor sample analysis results would lead to a recommendation by NYSDOH for further action to address the potential for SVI at a site. The matrices are an updated element of the NYSDOH "Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York" (NYSDOH, October 2006).

present in the subsurface at the Site are intruding from below the floor into the air inside the building. The monitoring is performed during each heating season. The annual monitoring program specified in the IRM SMP involves:

- an inspection of the building to review conditions of the floor slab,
- a review of activities and operations conducted by the various occupants,
- an inventory of chemical products in use at the site, and
- collection of indoor air samples at more than 20 locations distributed throughout the entire building and covering the range of activity and occupancy conditions for each tenant's operation.

Initial IRM SMP monitoring activities were conducted in February 2016. The most recent monitoring was conducted in December 2018. While the IRM SMP calls for the monitoring program to continue until a final remedy for the Site has been approved by NYSDEC, should this IRM work plan be approved, the indoor air monitoring would be discontinued after the SSDS proposed herein has been installed and proper operation confirmed.

Each year, results of the annual monitoring have been evaluated to determine whether other actions (actions in addition to the annual monitoring) are warranted to address potential exposure of building occupants to VOCs which may be detected in the samples. Concentrations of Site VOCs detected in the IRM SMP indoor air samples each year have for the most part been below applicable NYSDOH Air Guideline Values. In the few instances where exceedances of the Air Guidelines were identified in indoor air, the concentrations were found to be:

a) below the threshold which NYSDOH regards as cause for immediate further action to reduce potential for exposure; or

b) related to a chemical product in use in a tenant operation, in which case use of the product in question was discontinued.

1.2.2.5 March 2017 Sub-slab Vacuum Communication Testing

As indicated in Section 1.2.2.3, comparison of AMSF RI sub-slab soil vapor sampling results to NYSDOH's SVI evaluation guidance criteria indicated that mitigation of the potential for SVI would be recommended for most areas of the AMSF building. Anticipating that mitigation of the potential for SVI using a sub-slab depressurization system (SSDS) was a possible option for the Site remedy, sub-slab vacuum communication testing was performed in 2017 to assess the feasibility of an SSDS approach.

This work was performed in accordance with the Revised Work Plan for Supplemental Activities dated March 2, 2017. The testing was performed with the intent of understanding the ability of the sub-slab substrate in three major sections of the building to propagate vacuum. In each of the three building sections studied, one or two 4-inch-diameter temporary suction holes were drilled through the floor slab. Vacuum was applied at the suction holes using a residential-grade RadonAway™ GP501 fan and a higher-pressure RadonAway™ HS5000 fan. Smaller diameter 1-inch temporary testing holes were

installed through the slab at various distances from the suction hole and vacuum pressure was monitored at these holes with a digital manometer before and during the application of suction.

Results of the testing were documented in AMSF RI Progress Report No. 61 (April 10, 2017). A summary of the results of the testing is provided in Appendix B. As indicated on the summary, the testing performed in the Original Manufacturing Building section of the building (constructed in 1967) and in the West Addition section (constructed in 1975) demonstrated extension of a negative pressure field of more than adequate strength (negative pressures below -0.004 inches water column) to distances of 45 to 55 feet. In the North Addition (constructed in 1979) portion of the building, extension of a negative pressure field was initially observed to be relatively limited. It was determined in the field that this initial poor communication was largely due to the presence of floor slab expansion joints that had apparently cracked through to the base of the slab. The expansion joints in the test areas were either caulked or temporarily sealed with tape and the suction tests were repeated. Sealing of the joints was found to substantially improve sub-slab communication, with adequate negative pressure field extension observed at distances of up to 43 feet.

1.2.2.6 Installation of Sub-Slab Depressurization System Components for the Excelsus Tenant Space

In late 2017 an approximately 35,000-square-foot portion of the building became vacant. The vacancy of the space, which included the former AMSF degreaser location, afforded MFP an opportunity to install SSDS suction points and risers in the space prior to occupancy by Excelsus, the current tenant in that space. The nine suction cavities and riser pipes will be utilized as components for the SSDS proposed herein.

A plan for installation of these SSDS components was submitted to NYSDEC in a Notification of IRM-SMP Activity letter dated January 31, 2018. The work involved construction of nine SSDS suction points and installation of related SSDS riser pipes up to a height of approximately 6 feet above floor grade. Riser pipes were capped with air-tight seals. The installation of these SSDS components was completed in February 2018 and documented in RI Progress Report No. 72 (Stantec, March 19, 2018). The locations of the nine suction points installed in the Excelsus space are shown on Drawing ENV-100 which is part of the SSDS design package presented in Appendix A of this Work Plan.

1.2.2.7 Alternatives Analysis

Following completion of the RI and the implementation of the IRM SMP activities described above, an Alternatives Analysis (AA) was performed to evaluate remedial options for addressing the conditions indicated by the findings of the RI and the IRM SMP monitoring program. Among other criteria, remedial alternatives were screened under the assumption that an institutional control will be implemented that will restrict Site uses to commercial and industrial uses, the types of uses that have characterized the Site and surrounding area for the past 50 years. The AA also considered alternatives which could theoretically achieve conditions that would allow for unrestricted use of the Site relative to soil contamination.

A draft Alternatives Analysis Report (AAR) was submitted to NYSDEC for review in June 2018. The draft AAR recommended the following combination of remedial elements as the remedy for the contamination identified at the Site by the RI:

- Construction and operation of an SSDS for SVI mitigation throughout the entire building.
- Containment of VOC-contaminated soil exceeding UU and POGW SCOs by maintaining the existing building as cover in affected areas.
- Modification of an existing stormwater recharge well located in the northwest corner of the Site (recharge well RW-2) to eliminate direct recharge of stormwater into the deep bedrock horizons of the contaminated bedrock aquifer and thereby reduce the potential for mobilization and migration of VOC contaminants in these horizons.
- Development and implementation of a Site Management Plan (SMP) specifying, among other standard elements, the following:
    - an operation, maintenance & monitoring (OM&M) plan for the SSDS,
    - programs of periodic groundwater and indoor air monitoring for the Site,
    - periodic Site inspection to assess the integrity and continued effectiveness of the various components of the remedy (including the cover system), and
    - procedures for environmental monitoring during future excavations at the Site.
- Institutional Controls which will grant an environmental easement to NYSDEC, restrict future use of the Site to industrial and commercial uses, and prohibit use of Site groundwater.

The remedy recommended in the AAR also includes performance of initial SVI assessments at the buildings located on the two off-site properties (4 and 10 Pixley Industrial Parkway) adjacent to the downgradient eastern Site boundary, followed if and as necessary by additional actions such as SVI mitigation or monitoring at the off-site properties. Because MFP, as the BCP Volunteer, would not bear responsibility under BCP regulations for quantitative assessment of the potential for SVI exposures at adjacent off-Site downgradient properties, it is anticipated that this component of the recommended remedy would be undertaken by others.

1.3 SUMMARY OF IRM

The IRM will consist of construction of the tangible components of the recommended remedy which are not already in place at the site:

- An SSDS will be installed which will cover the entire building (with the exception of unheated loading docks which are not routinely occupied by site workers or visitors). A design document for the proposed SSDS is presented in Appendix A. After installation of the SSDS, commissioning of the system and demonstration of sub-slab depressurization of the building footprint will be conducted. Full-time system operation will then be initiated.

- Plugging of the deep bedrock interval of recharge well RW-2 will be performed.

The remaining engineering and institutional control components of the recommended remedy will be addressed in the final Site Management Plan for the Site.

The IRM activities will also include supplemental surface soil sampling in lawn areas of the facility to confirm, in accordance with NYSDEC guidance, that existing surface soil conditions in the lawn areas, which are outside of the areas of potential environmental concern identified at the Site, are appropriate for the Site cover system.

2.0 GOALS AND OBJECTIVES

The IRM activities are being implemented to remedy impacts from the presence of CVOCs in Site groundwater, soil and soil vapor and to perform sampling necessary to confirm that existing soil conditions in lawn areas outside of AOCs are consistent with Department objectives for cover systems at a BCP site with current and reasonably-anticipated future uses that are commercial and industrial. Towards those ends, the goals and objectives of the IRM include the following:

- Goal: Mitigate the potential migration of soil vapor impacted by CVOCs from beneath the building footprint into the interior occupied spaces of the building.

  Objective: Construct, commission and operate an SSD system to achieve and maintain a minimum vacuum pressure differential of 0.002 inches of water column between the sub-slab and the routinely occupied interior spaces of the building.

- Goal: Reduce the potential for mobilization and migration of VOC contaminants in the deep bedrock horizons of the contaminated bedrock aquifer.

  Objective: Eliminate direct injection of stormwater into the deep bedrock horizons of the contaminated bedrock aquifer in the vicinity of the contaminant source area by plugging the bottom section of deep recharge well RW-2 up to a depth of approximately 60 feet below ground surface (ft bgs). A secondary objective is to maintain the shallow-bedrock section of the well (above 60 ft bgs) to allow RW-2 to continue to function with the other existing shallow recharge wells (RW-1 through -5) as an essential component of the Site stormwater management system.

- Goal: Verify the suitability of existing surface soil in lawn areas to serve as part of the cover system for the final remedy for the Site.

  Objective: Complete a pre-design investigation program of surface soil sampling to screen soil cover quality in the lawn areas of the Site.

2.1 STANDARDS, CRITERIA AND GUIDANCE

This IRM Work Plan was developed in general accordance with the applicable standards, criteria and guidance (SCGs) contained or referenced in the following:

- NYSDOH's "Guidance for Evaluating Soil Vapor Intrusion in the State of New York" dated October 2006, with matrices updated May 2017.
- NYSDEC's "DER-10 Technical Guidance for Site Investigation and Remediation".
- Applicable NYSDEC BCP guidance on surface soil sampling for remedial cover systems.
- U.S Environmental Protection Agency (USEPA) Underground Injection Control (UIC) Program injection well inventory reporting requirements applicable to Class V stormwater drainage wells.

Goals and Objectives

- Applicable current NYSDOH and NYS Dept. of Labor (NYSDOL) regulations and guidance on asbestos containing materials (ACMs) that may apply during the SSDS construction activities.

3.0 IRM WORK PLAN

3.1 SUB-SLAB DEPRESSURIZATION SYSTEM

3.1.1 Technical Approach and Project Plan

The proposed SSDS has been designed to provide pressure-differential coverage of the entire occupied interior of the building. To achieve this coverage, the planned system includes 43 suction points connected by a network of piping to 21 SSDS fans. Details of the planned design are presented in Appendix A. The proposed number and spacing of suction points and number and sizing of fans are based upon the results of previous sub-slab vacuum communication testing (described above in Section 1.2.2.5).

Proposed suction point locations are shown in Appendix A on Drawing ENV-100. Actual locations may need to be adjusted in the field during installation to accommodate existing equipment and operations. Fan sizing may be adjusted following installation depending on the radius of influence for each suction point determined by post-construction pressure field extension testing.

The SSDS suction points will be installed using the following methods. A hole will be cut through the concrete floor to allow a suction cavity of approximately 1 cubic foot to be excavated. Clean, washed #2 gravel will be placed in the suction cavity. A 4-inch diameter perforated polyvinyl chloride (PVC) pipe will be installed to a depth of approximately 12 inches below the bottom of the floor slab and encased with clean, washed #2 gravel. Stantec has not performed extensive field investigations of each sub-slab suction cavity location proposed. As a result, minor components of the design of each individual suction cavity may need to be field adjusted.

A network of vapor collection and discharge pipes/vent fans will be installed to convey the vapor to above the building roof line. Specifications for the discharge system are shown on the attached design drawings provided in Appendix A. Labels on the depressurization piping will clearly identify the purpose of the system. Discharge pipes will penetrate the roof where each fan will be mounted to a vertical discharge point. The building managers for the facility provided information on the location of air intakes on the building's roof. Discharge locations for the SSDS will be located a minimum of 25 horizontal feet away from air intakes. Where feasible, vertical discharge piping will terminate 10 feet above the highest roof line.

As indicated in Section 2.0, the objective of implementation of the SSDS will be to achieve and maintain a minimum vacuum pressure differential of 0.002 inches of water column between the sub-slab and the interior of the building. In addition to the SSDS suction point and fan network, other NYSDOH recommended methods of mitigation such as sealing cracks in portions of the concrete slab and sealing existing electrical conduits as feasible will be employed for this IRM to advance this objective. However, given that the Site building is an existing building constructed without a wall-to-wall vapor barrier beneath the floor slab, achieving a pressure differential of 0.002 over every square foot of floor space may not be feasible in all areas.

One differential pressure gauge per system fan will be permanently installed on the suction side of each fan to allow for monitoring and confirmation of effective operation. The gauges will be combined as practical into centralized monitoring panels. Each gauge will have a warning light that will be actuated if a fan is not creating suction.

Permanent sub-slab pressure monitoring points (PMPs) will be installed. These PMPs will allow for the confirmation of a minimum of 0.002-inches water pressure differential between the sub-slab and the indoor air in the future. These monitoring points will be placed in locations to minimize disturbance to existing and future tenants as well as to easily access them in routine monitoring of the SSDS. Preliminary planned locations are shown in the design package presented in Appendix A (Drawing ENV-100).

No depressurization is proposed for the three small unheated loading dock additions located on the north side of the facility. No suction points are proposed to be installed in these three spaces.

There are several large sub-slab pit features present in the facility. The pit features and the approach for addressing sub-slab depressurization surrounding and beneath each one are described below.

- In the main gym of the Bright Raven tenant space, five gym pits are present. These subgrade pits, which contain cushioned landing or trampoline equipment, have concrete masonry unit (CMU) walls and cast-in-place concrete floor slabs. The depths below the finished floor elevation of the tenant space of the gym pit floors range from approximately 2 to 6 feet.

  The SSDS design anticipates achieving effective depressurization around these features. At this time, no efforts are planned to remove the tenant's existing equipment from these gym pits to install suction points below the gym pit floor slabs or construct any other mitigation components in the gym pits, as this would represent a significant negative operational impact to the tenant. However, testing of vacuum differential at pit floor level in a pit or pits where the floor can be made to be temporarily accessible will be conducted as part of the SSDS installation and commissioning process. Results will be used to evaluate whether additional mitigation for the pits may be necessary.

- Four filled-in former AMSF-era press pits are present in various Excelsus tenant spaces. A filled-in former recessed loading dock is present in the south end of the A-Plus Cleaning tenant space. These former subgrade features are finished at grade with cast-in-place concrete matching the existing finished floor, and it is presumed that the walls and floors of the former pits and dock remain in place beneath the existing floor slab. The SSDS design anticipates achieving effective sub-slab depressurization around these features but not necessarily within the interior footprint of these features.

Several sumps are present in the building. They include the following:

- In the Bright Raven tenant space, a sump was installed in the deepest of the gym pits in the main gym to allow for collection of water in the event that groundwater water were to infiltrate it.

However, the floors of the pit and its sump are well above the water table, and no water has ever been found to be present in this pit.

- The Complete Automotive Solutions shop space has a sealed sump to collect water from the shop space trench drains, and sealed domestic wastewater sumps are present at a few other locations in the facility where direct access to an underground sanitary sewer is not available. When present, wastewater which collects in these sumps is pumped to overhead piping which discharges to the underground sewer lines at the facility.

None of the sumps function as foundation drain collection sumps (none extend below the water table), and none of the sumps are known to be open to or in communication with the sub-slab vapor environment. Therefore, no modification of the sumps for the purposes of SVI mitigation is anticipated.

3.1.2 Design and Specifications

Specifications for the SSDS piping, fans and equipment are presented on the Design Drawings presented in Appendix A.

Components of the system have been designed and will be installed in accordance with the NYSDOH SVI guidance document referenced above and in compliance with the applicable building codes. System components and piping will be PVC, and exterior piping and fans will be installed to minimize condensation on the exterior of the piping and permit condensation on the inside of the piping to drain back into the subsurface below the concrete floor slab. Some portions of the vertical piping will be Schedule 40 steel (instead of PVC) to minimize the possibility of damage by heavy machinery. The electrical components of the system will be low-power equipment compatible with the normal electrical loads and systems of the facility.

3.1.3 Pre-Construction ACM Survey

An ACM survey will be performed prior to initiation of construction activities. The survey will be performed to identify suspect ACM that may be present in floor or ceiling tiles or other building materials at the location of each planned suction point or permanent sub-slab pressure monitoring point. If a potential for disturbance of suspect ACMs during construction is identified at a location, the suspect ACM will be sampled in accordance with applicable regulations. If the sample analyses indicate the presence of asbestos, an ACM abatement will be performed in accordance with applicable regulations to remove the material prior to SSDS construction activities at that location.

3.1.4 Construction Monitoring and Agency Coordination during SSDS Construction Activities

A representative of the Consultant's Project Engineer will be present on-site during construction and installation of the SSDS to observe the activities of the SSDS contractor. It is anticipated that full-time observation will be performed during those activities that expose the sub-slab environment (including construction of suction points and installation of first sections of each riser, and installation of PMPs).

Part-time observation will be conducted for hanging of piping and other above-floor equipment and roofing components. Observation of installation of electrical wiring will be conducted on a spot-check basis.

Piping routes depicted in Appendix A are subject to change based upon field observations (e.g. in the event that an easier piping route is identified in the field in order to maintain proper pipe sloping). Such minor changes to pipe routing will not affect the overall design intent of the SSDS and will be performed in the field without seeking review and approval from NYSDEC and NYSDOH. All such changes will be captured in the Construction Completion Report and record drawings.

Agency review and approval will be sought in the following events:

1) Reductions in the proposed number of suction cavities and/or changes in sub-slab depressurization coverage.

2) As requested by NYSDEC or NYSDOH representatives.

3.1.5 Post-construction Pressure Field Testing

As discussed in Section 3.1, permanent sub-slab pressure monitoring points (PMPs) will be installed at locations indicated in Appendix A (Drawing ENV-100). Once the SSDS has been fully commissioned, the pressure differential at these PMPs will be measured using a digital manometer to allow for the confirmation of a minimum of 0.002-inches water pressure differential between the sub-slab and the indoor air. Temporary PMPs may also be utilized both before and after commissioning. The results of pressure field extension testing will be documented in the Construction Completion Report.

The location of these monitoring points will be placed in locations to minimize disturbance to existing and future tenants as well as to easily access them in routine monitoring of the SSDS.

3.1.6 Construction Completion Report

SSDS installation and post-installation pressure differential test results will be documented in an IRM Construction Completion Report (CCR). The report will include detailed descriptions and record drawings of the system locations and components.

An Operations, Maintenance & Monitoring (OM&M) Plan will be submitted with the CCR. The OM&M Plan will be provided to the site owner to facilitate understanding of the system's operation, maintenance and monitoring. The OM&M Plan will include the following:

- a description of the mitigation system installed and its basic operating principles;
- how the owner or tenant can check that the system is operating properly;
- how the system will be maintained and monitored and by whom;

- a list of appropriate actions for the Owner or a tenant to take if a system warning device (differential pressure gauge) indicates system degradation or failure;
- a description of the proper operating procedures for the system, including manufacturer's operation and maintenance instructions and warrantees; and
- contact information if the Owner or a tenant has questions, comments, or concerns about system operation or maintenance.

3.1.7 Maintenance and Monitoring

Future monitoring will be performed on an annual basis to monitor system operation. This routine monitoring will include:

- visual inspection of the equipment and piping;
- inspection of exhaust points to verify that no new air intakes have been located within the 25-foot buffer around each exhaust;
- identification and subsequent repair of leaks;
- measurement of differential pressure on all differential pressure gauges located on the suction side of exhaust fans; and
- measurement of differential pressure at all permanent PMPs to ensure a sufficiently lower pressure is being maintained in the sub-slab relative to indoor air pressure.

In addition, non-routine maintenance may be conducted should it appear that the mitigation system has reduced its effectiveness due to malfunction, renovation, or other unplanned circumstance. Examples of such circumstances include the following:

- the building's Owner or a tenant report that a warning device indicates that the mitigation system is not operating properly;
- the system is accidentally damaged; or
- the building has undergone renovations that may reduce the effectiveness of the mitigation system.

The sub-slab depressurization system will be operated until such time as permission in writing is received from NYSDEC and/or NYSDOH to terminate operation of the system.

3.1.8 Post-SSDS Installation Indoor Air/Sub-Slab Vapor monitoring

Following the installation of a sub-slab depressurization system as described in this IRM Work Plan, it is anticipated that cessation of the annual indoor air monitoring program specified by the June 2016 Stantec

IRM-SMP will be approved by the Department. No additional indoor air/sub-slab vapor monitoring events are planned after the installation of the sub-slab depressurization system.

3.2 PLUGGING OF THE DEEP SECTIONS OF RECHARGE WELL RW-2

3.2.1 Well Construction Information

The construction of RW-2 was evaluated in June 1993 as part of the initial environmental investigation activities at the Site[3]. At that time, the well was reported to be constructed with an 8-inch diameter steel well casing extending from the bottom of the 5.5-foot-deep RW-2 stormwater catch basin to a depth of 19 ft bgs, below which an uncased 8-inch-diameter well bore extended through bedrock to a bottom depth of 149 ft bgs.

Logging of the RW-2 borehole was performed in August 2004 during the ITT Site RI[4]. At that time, the well was reported to be constructed with a 10.5-foot-long, 6-inch-diameter steel well casing and an uncased well bore extending through fractured carbonate bedrock to a depth of 27 ft below the top of the casing. The logging tools could not be advanced beyond that point because of an obstruction in the well.

An attempt was made to clean out RW-2 in August 2015 as part of the AMSF RI, but an obstruction was present at a depth of 15 ft bgs which could not be removed. Video inspection performed in October 2015 found the well casing to be partially blocked at that depth by a rock or piece of concrete.

3.2.2 Planned Remedial Modification

The following activities are planned to permanently plug the deeper bedrock sections of RW-2:

- The well casing and uncased bedrock-lined well bore will be cleaned to a target depth of approximately 149 ft bgs. The cleanout will be performed using air-rotary drilling methods and a nominal 6-inch diameter drill bit. Air-rotary methods have been selected (rather than water- or mud-rotary) to minimize the loss of drilling fluid and suspended solids into the high-permeability shallow bedrock intervals at the top of the well bore.
- The actual final depth may be less than the target depth if obstructions present in the well are resistant to removal using conventional air-rotary drilling equipment and methods.
- Groundwater and solids generated by the drilling activity will be captured at ground surface and containerized for subsequent waste characterization and appropriate off-site disposal.
- Once the well has been cleaned out to the target depth (as feasible), the drill string will be withdrawn and replaced with a tremie pipe string, and a volume of cement grout sufficient to plug

[3] Report of June 1993 Site Testing and May 1994 Site Remediation Work, The Alliance Metal Stamping and Fabricating Property, Pixley Industrial Park, Gates, New York. GeoServices, Ltd., August 2, 1994.
[4] Remedial Investigation Report, Former ITT Rochester Form Machine Facility, Site # 8-28-112, Town of Gates, New York. O'Brien & Gere Engineers, Inc., April 11, 2014.

the well from its bottom to a depth of approximately 60 ft bgs will be installed using tremie methods.

- Water and solids produced from the well by the well-cleanout and grouting activities will be containerized for waste characterization and appropriate off-site disposal.
- The actual depth of the top of the grout plug may be different if significant intervals of high permeability are found to occur between the well bottom and 60 ft bgs. The depth to the top of the grout plug will be measured 12 hours after installation. If the depth to the top of the plug is significantly greater than 60 feet, the NYSDEC project manager will be contacted to discuss whether placement of additional grout should be performed.
- Drilling and grouting activities will be performed by an experienced environmental drilling services company. Monitoring and documentation of the field activities and of the conditions encountered will be performed by the environmental consultant's personnel (an experienced environmental geologist, scientist or engineer).

Plugging activities and results will be documented in the IRM CCR.

3.3 COVER SYSTEM PRE-DESIGN INVESTIGATION

NYSDEC guidance indicates that where an existing soil cover is proposed as a remedial cover system for a BCP Site, verification of soil quality consistent with site use is required. For sites like the Former AMSF Site where the current and anticipated future uses are commercial or industrial, composite samples should be collected for analysis of Target Analyte List (TAL) inorganic compounds and Target Compound List (TCL) semi-volatile organic chemicals from 0"-2" and 2"-12" bgs, and grab samples should be collected from 2"- 6"bgs for analysis of TCL VOCs.

NYSDEC guidance indicates that samples should be evenly distributed geographically in soil cover areas. The soil cover areas at the Site, which are shown on Figure 3, comprise 1.45 acres in total. The NYSDEC guidance indicates that for an area of 1 to 2 acres, 6 grab samples should be collected for VOC analysis, and three representative composite samples should be collected for the non-VOC parameters from both the 0"-2" and 2"-12" bgs intervals.

Three surface soil samples were collected at the Site during the RI (prior to issuance of the cover system verification guidance). While the sampling was conducted in accordance with the NYSDEC-approved RI Work Plan, the RI samples were not collected from the depth intervals prescribed by the cover system verification guidance, and they were grab samples collected from individual test borings rather than composites collected from locations evenly distributed in cover areas.

The following supplemental sampling is therefore planned to meet the Department's requirements for verification of soil quality for the Site cover system:

- Samples for analysis of TAL metals and TCL SVOCs, Pesticides and PCBs:

  - One sample of soil from 0”-2” and one sample of soil from 2”-12” bgs, with each sample composited from five locations evenly distributed along the length of the soil cover area located along the western edge of the Site (the same five locations for each depth interval).
  - One 0”-2” sample and one 2”-12” sample, each composited from the same five locations evenly distributed along the length of the soil cover area on the north side of the Site.
  - A 0”-2” sample and a 2”-12” sample, each composited from the same 5 locations distributed evenly among the several lawn areas located east and southeast of the Site building.

- Samples for analysis of TCL VOCs: Six 2”- 6” bgs grab samples, with two from randomly-selected, widely-spaced locations in each of the three soil cover areas (western, northern and eastern/southeastern).
- Sampling, laboratory analysis, quality assurance and quality control methods and procedures will be as specified in the RI Work Plan for the Site. Sample analysis results will be reported using ASP Category B deliverables, and the usability of the results will be evaluated by a third-party data validator.

Cover system pre-design investigation sampling activities and results will be documented in the IRM CCR.

3.4 PERMITTING

The SSDS installation contractor(s) will be responsible for obtaining the necessary permits for SSDS-related construction and electrical work inside the facility.

The environmental consultant will prepare and submit USEPA UIC Program inventory information for RW-2 and the other stormwater recharge wells at the Site prior to the plugging of RW-2.

An application to Monroe County for a short-term sewer use permit will be required if wastewater from the cleanout of RW-2 will be discharged to the municipal sanitary sewer system.

3.5 WASTE MANAGEMENT

Waste soil and concrete generated during installation of SSDS suction points will be placed in covered DOT-approved 55-gallon steel drums. Each drum will be labeled as to contents, and representative samples from the drums will be collected for waste characterization purposes. The drums will be staged on Site in a designated staging area pending analytical results and arrangements for transport and disposal.

Water and solids produced from the cleanout and plugging of RW-2 will be containerized in drums or, if necessary, larger totes or a frac tank. The container(s) will be staged on Site pending waste

characterization analytical results and arrangements for discharge or transport and disposal. Drums will be disposed of in accordance with applicable regulations.

Wastes will be disposed of in accordance with applicable regulations. Documentation of waste characterization results and waste disposal will be included in the CCR.

3.6 HEALTH & SAFETY PLAN

Health and safety procedures will be performed in accordance with the Health and Safety Plan (HASP) for the Site that was attached to the RI Work Plan. Contractors working on the site will be required to prepare and follow their own HASPs for the site.

3.7 COMMUNITY AIR MONITORING PROGRAM

The Community Air Monitoring Plan (CAMP) that was attached to the RI Work plan will be implemented during SSDS extraction point construction activities and RW-2 Cleanout activities.

For the SSDS suction point installation activities specifically, the CAMP will be conducted as follows. It is anticipated that the upwind and downwind VOC monitoring requirements of the generic NYSDOH CAMP will be applied as feasible and appropriate for work on an indoor construction project. VOC monitoring will be performed periodically using two 11.7 eV lamp PIDs. One PID will be operated in the immediate work area, the other PID will be placed in the tenant space where SSDS construction activity is occurring to monitor ambient conditions.

Periodic VOC monitoring will occur during the following activities:

1) Cutting through the concrete slab for the construction of sub-slab depressurization suction cavities and permanent pressure monitoring locations.

2) Installation of suction cavity piping from below the slab to an elevation above finished floor at which a ball valve will be installed in the closed position.

3) Installation of permanent pressure monitoring locations.

Exhaust fans will be used to remove air from the work area of each penetration of the concrete slab. The fan exhaust will be piped to the outside of the building except in cases where the distance to an exterior door makes it impractical to run exhaust piping. In these cases, the exhaust fan will be piped to carbon filtration units prior to interior discharge.

An effort will be made to maximize dust containment during work. For example, particulates created from penetrating the slab will be contained using a shop vacuum with a high efficiency particulate air (HEPA) cartridge filter. Particulate monitoring will be performed by visual inspection. Real time measuring of the particulates is not anticipated.

3.8 QUALITY ASSURANCE AND QUALITY CONTROL

Quality assurance and quality control methods and procedures will be as specified in the RI Work Plan for the Site. Field monitoring instrument calibration will be performed in accordance with DER-10 guidance. A NYSDOH ELAP certified analytical laboratory will be used for the analytical services of the project. With the exception of waste disposal samples, laboratory deliverables will be prepared in general accordance with NYSDOH ASP Category B guidelines and will be evaluated in a data usability summary report.

4.0 SCHEDULE

Implementation of the IRM will begin immediately following approval of this IRM Work Plan by the NYSDOH and NYSDEC. A proposed timeline is as follows:

- Comments and conditional approval received from NYSDEC and NYSDOH by July 21, 2019.
- SSDS construction to begin in August 2019 and be completed in approximately two (2) months, with substantial completion by early October 2019. SSDS construction will need to be coordinated with MFP to accommodate each tenant's daily operations.
- Alteration of RW-2 and Cover System Pre-design Investigation activities to be completed in August 2019.
- CCR to be submitted to NYSDOH and NYSDEC with the Final Engineering Report in mid-November 2019.

The NYSDEC project manager will be notified in advance of all IRM-related field activities.

5.0 REFERENCES

NYSDOH, 2006a. Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York. October 2006.

NYSDEC, 2006b. 6NYCRR Part 375 Environmental Remediation Programs. December 14, 2006.

NYSDEC, 2010a. NYSDEC's DER-10, Technical Guidance for Site Investigation and Remediation. May 3, 2010.

NYSDEC, 2010b. NYSDEC's Commissioner Policy CP-51 Soil Cleanup Guidance. October 21, 2010.

NYSDOH, October 2006. Guidance for Evaluating Soil Vapor Intrusion in the State of New York.

NYSDOH, 2017. Soil Vapor Intrusion Updates, May 2017: Updates to Soil Vapor/Indoor Air Decision Matrices. Website: https://health.ny.gov/environmental/indoors/vapor_intrusion/update.htm, accessed 7/26/2017.

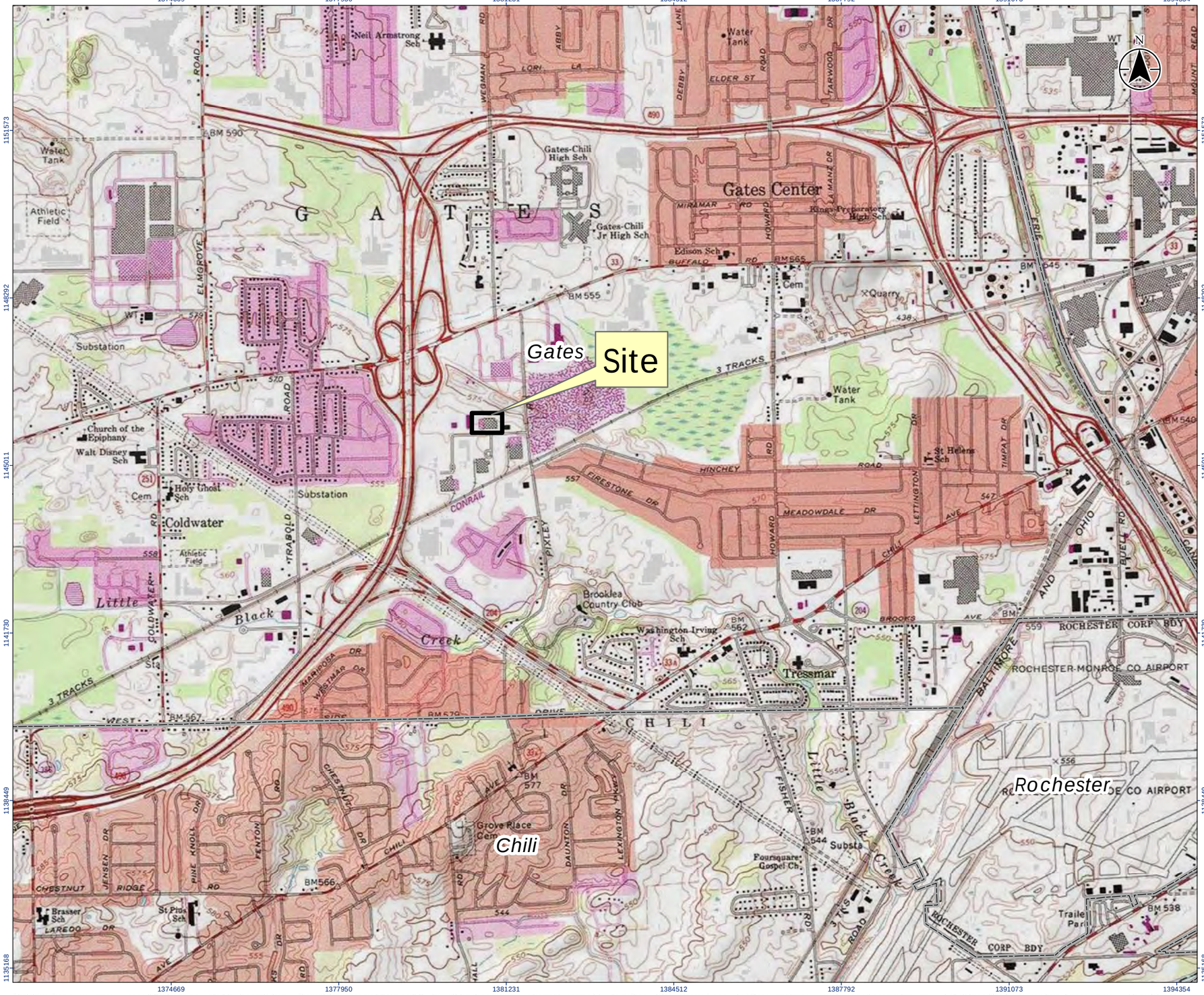
O'Brien & Gere Engineers, Inc., April 11, 2014. Remedial Investigation Report, Former ITT Rochester Form Machine Facility, Site # 8-28-112, Town of Gates, New York.

Stantec Consulting Services Inc., December 2015. Remedial Investigation Report, Brownfield Cleanup Program Site #C828101, Former Alliance Metal Stamping & Fabrication Facility, 12 Pixley Industrial Parkway, Town of Gates, Monroe County, New York.

Stantec Consulting Services Inc., Revised June 2016. Interim Remedial Measure Site Management Plan, Brownfield Cleanup Program Site #C828101, Former Alliance Metal Stamping & Fabrication Facility, 12 Pixley Industrial Parkway, Town of Gates, Monroe County, New York.

Stantec Consulting Services Inc., June 2018. Alternatives Analysis Report, Brownfield Cleanup Program Site #C828101, Former Alliance Metal Stamping & Fabrication Facility, 12 Pixley Industrial Parkway, Town of Gates, Monroe County, New York.

FIGURES



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Legend

- Property Boundary
- City/Town Boundary

0 2,000 4,000 Feet

Notes

1. Coordinate System: NAD 1983 StatePlane New York West FIPS 3103 Feet
2. Basemap: ArcGIS Basemap, USA Topo Maps (Main Frame). For more information on this map, including terms of use, visit online at http://goto.arcgisonline.com/maps/USA_Topo_Maps

Project Location:
12 Pixley Industrial Parkway
Town of Gates, NY

Prepared by AL on 2014-09-23
Technical Review by TW on 2014-09-23

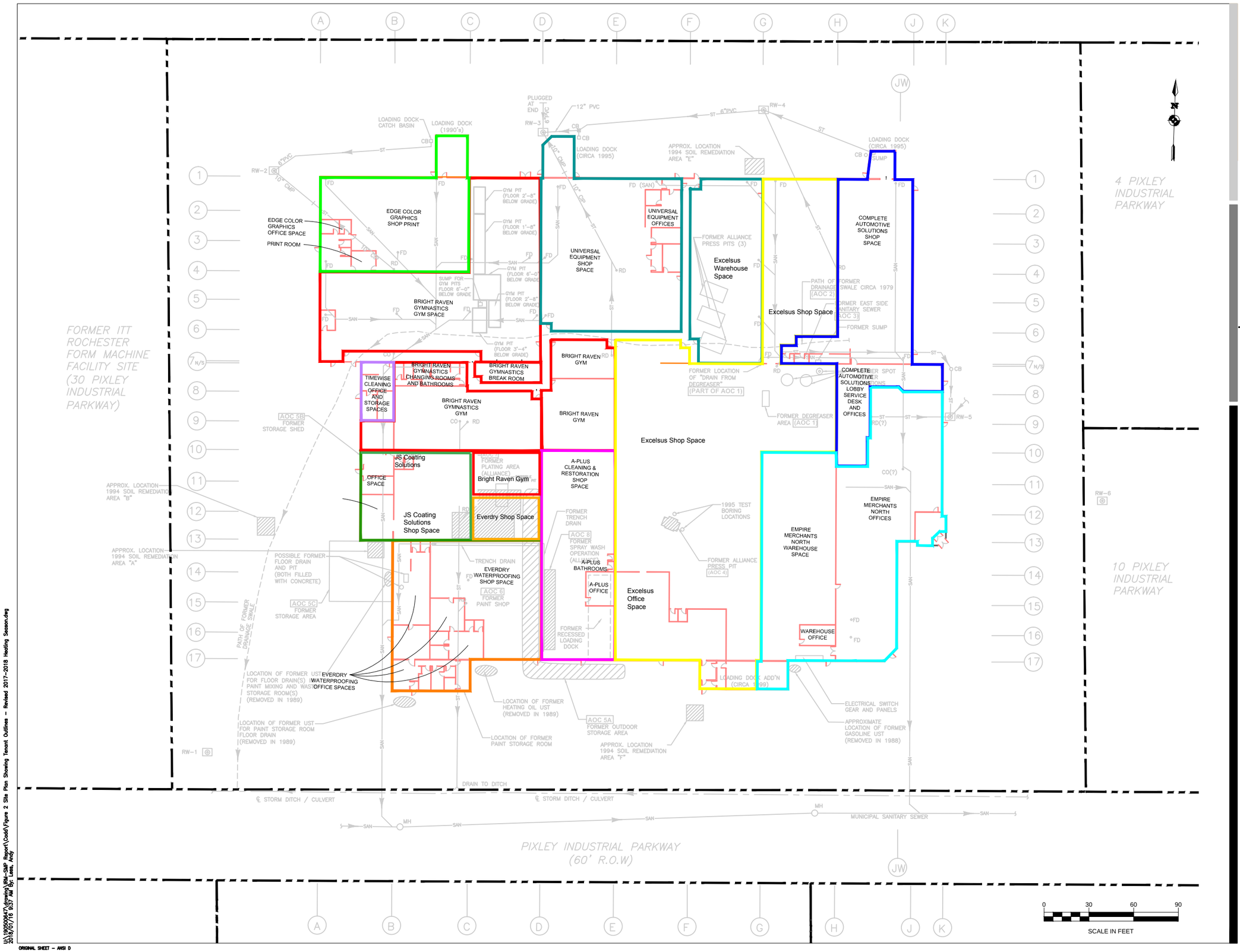
190500647

Client/Project
Former Alliance Metal Stamping and Fabrication Facility
Brownfield Cleanup Program #C828101
IRM Work Plan

Figure No.
1

Title
Site Location Map

I:\190500647\drawing\IRM-SMP Report\mxd\Figure1_Site Location Map_2017-2018pr1.mxd Revised: 2018-01-18 By: rbest



Stantec

61 Commercial Street
Rochester , NY
14614
Tel. 585-475-1440
Fax. 585-272-1814
www.stantec.com

Consultants

Legend

RW-5	RECHARGE WELL
FD	FLOOR DRAIN
CO	CLEAN OUT
RD	ROOF DRAIN
CB	CATCH BASIN
— SAN —	SANITARY SEWER PIPE
— ST —	STORM WATER PIPE
	APPROXIMATE PROPERTY LINE
AOC	AREA OF CONCERN
CIP	CAST IRON PIPE
B AND 2	BUILDING COLUMN LINES

Notes

1. REFER TO TABLE 1 FOR SUMMARY OF TENANT SPACES AND BUILDING OCCUPANCY.

Revision	By	Appd.	YY.MM.DD
REVISED IRM-SMP REPORT – 2017-2018 HEATING SEASON	TW	MPS	2018.01.16
REVISED IRM-SMP REPORT	TW	MPS	2016.05
UPDATE SAMPLE LOCATIONS	TW	MPS	2016.02
IRM-SMP	TW	MPS	2016.01
Issued	By	Appd.	YY.MM.DD

File Name:	Dwn.	Chkd.	Dsgn.	
	APL	TW	TW	2016.01 YY.MM.DD

Permit-Seal

Client/Project

FORMER ALLIANCE METAL STAMPING & FABRICATION FACILTY
BROWNFIELD CLEANUP PROGRAM SITE # C828101

12 PIXLEY INDUSTRIAL PARKWAY, GATES, NY
IRM Work Plan

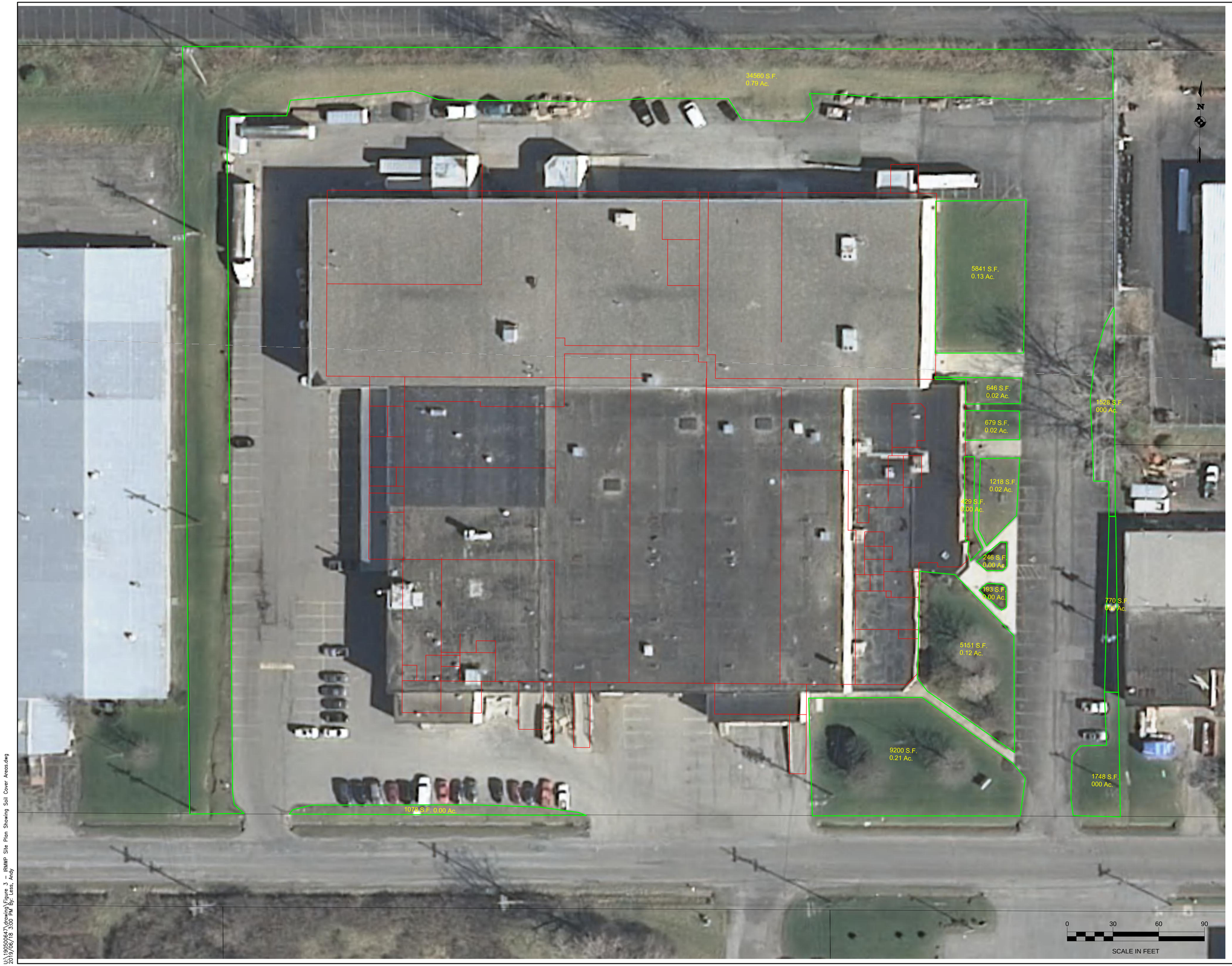
Title

SITE PLAN

Project No.	Scale	
190500647	AS SHOWN	
Drawing No.	Sheet	Revision
FIG. 2	of	

J:\190500647\Drawing\IRM-SMP Report\Cadd\Figure 2 Site Plan Showing Tenant Outlines - Revised 2017-2018 Heating Season.dwg
2018/01/16 8:37 AM EST, Andy

ORIGINAL SHEET – ANSI D



U:\190500647\drawings\Figure_3_-_IRMP_Site_Plan_Showing_Soil_Cover_Areas.dwg
2019/06/18 3:00 PM By: Lees, Andy

ORIGINAL SHEET – ANSI D

Stantec

61 Commercial Street
Rochester , NY
14614
Tel. 585-475-1440
Fax. 585-272-1814
www.stantec.com

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Legend

AREAS OF SOIL COVER
SF – SQUARE FEET
AC. – ACRES

Notes

Revision	By	Appd.	YY.MM.DD
RI Report	TW	MPS	2014.10
Issued	By	Appd.	YY.MM.DD
File Name:	APL	TW	TW	2014.10
	Dwn.	Chkd.	Dsgn.	YY.MM.DD

Permit-Seal

Client/Project

FORMER ALLIANCE METAL STAMPING & FABRICATION FACILTY
BROWNFIELD CLEANUP PROGRAM SITE # C828101

12 PIXLEY INDUSTRIAL PARKWAY, GATES, NY
IRM WORK PLAN

Title

SITE PLAN SHOWING SOIL COVER AREAS

Project No.	Scale	
190500647	AS SHOWN	
Drawing No.	Sheet	Revision
FIG. 3	of	

TABLES

Table 1
Tenant Spaces Summary as of June 2019

IRM Work Plan
Former Alliance Metal Stamping and Fabrication Facility BCP Site (C828101)
12 Pixley Industrial Parkway, Gates, New York

Tenant Name and Business Type	Building Area (column bays)	Occupied Spaces (Typical activities, space characteristics)	Occupancy Summary (Typical workweek for regular employees is 5 days, single 8-hour shifts, unless otherwise noted below)			
			Regular Employees	Typical shift duration	Regular Visitors	Typical visit duration
Edge Color Graphics Inc. - Large format printing and preparation of display products	A2 to A/B4	Two small offices, restrooms, lobby space (low ceiling)	1 to 2	4 to 8 hours	Visitors rarely present	
	A1 to C4	Print shop (open space, high ceiling)	2 to 3	8 hours	None	
	A/B4	Small print room (low ceiling)	1	Periodically each day	None	
Bright Raven Gymnastics Inc. - Gymnastics instruction and recreation facility	A5	Reception desk (in main gym space)	1 or 2	3 to 8 hours	Parents	Pick-up and drop-off times
	A4 to C7, C1 to D7 * D6 to E7/8 ** D7/8 to E10 A/B8 to D10 C10 to D11.5	Gym spaces (open spaces, high ceilings) * - Tumbling pits in main gym ** - Girls' gym straddles foundation wall along column line 7	2 to 8	2 to 8 hours	Students 2 to 6 years old and parents Older students (6 years and up) Summer camp (ages 6 and up) Parents	1 hour once per week 1 to 3 hrs, 1 to 3 times per week 3 hours 5 days per week 1 to 3 hours once per week
	B7 to C8	Changing rooms and restrooms (low ceiling)			Students and parents	Up to 20 minutes
	C7 to D8	Observation room (high ceiling)			Parents and siblings of students	1 to 3 hours once per week
TimeWise Cleaning - Residential cleaning service office and storage space	A/B7 to B9	Two office / meeting rooms, two storage / laundry rooms (low ceilings)	2 to 6	Briefly (up to 1 hour) at beginning and end of each work day	None	
JS Coating Solutions - Spray Paint Applicator	A/B10 to B11/12	Offices and restrooms (low ceiling)	1 to 2	8 hours	Visitors rarely present	
	A/B 11/12 to B13	Storage garage (intermediate ceiling)	None		None	
	B10 to C13	Shop (open space, high ceiling)	1 or 2	8 hours	None	
EverDry of Upstate New York - Basement waterproofing contractor	B13 to B/C16	Office spaces and break area (high ceiling)	2 to 4	1 to 8 hours	None	
	B16 to B/C17 B/C15 to C17 Add'n south of B17-C17	Multiple offices, restrooms (low ceilings)	6 to 10	8 hours	Visitors rarely present	
	B/C15 to D17 C11.5 to D13	Garage/Shop space (open space, high ceiling)	4 to 12	Briefly (up to 1 hour) at beginning and end of each work day	None	
A-Plus Cleaning & Restoration Inc. - Fire- and water-damage restoration service	D10 to E17	Storage and garage spaces (open spaces, high ceilings)	1 to 3	A few hours per day	None	
	D/E14 to E15	Office and restrooms (low ceilings)	1 or 2	A few hours per day	None	
Excelsus - Large format digital and preparation of display products - Operating two 8-hour shifts per day at time of monitoring event	E14 to F17, F15 to F/G17	Multiple offices, break room, restrooms (low ceilings)	6 to 10	8 hours	Visitors rarely present	
	E12 to F14	Open office and work rooms	6 to 12	8 hours	None	
	F1 to G7, G1 to H6, E7 to G17, G7 to H10	Shop and warehouse areas (open spaces, high ceilings)	6 to 10	8 hours	None	
	Add'n south of F17-G17	Loading dock, employee entrance	A few at a time	Brief stints or passing through	None	
Empire Merchants North - Office and promotional-materials warehouse operations for wine and liquor distributor	G10 to H17 G/H16 to H17	Promotional materials warehouse (open space, high ceiling) Warehouse office (low ceiling)	1 or 2 (warehouse staff)	8 hours total in warehouse and warehouse office	None	
	H10 to JW17, H/J8 to K13	Offices, conference rooms, restrooms and break room (low ceilings)	10 to 15 (some on-site all day, others in and out)	Up to 8 hours	Occasional visitors for training sessions	4 hours (infrequent occurences)
Complete Automotive Solutions - Automotive service and repair shop	H1 to J7 G6/7 to H7	Shop area (open space, high ceiling) and adjacent locker room and restroom (low ceiling)	4 to 6	8 hours	None	
	H/J7 to K8	Customer waiting area and service desk (low ceilings)			Customers (vehicle owners)	1 to 3 hours (typ. one-time visits)
	H7 to H/J11	Offices and restrooms (low ceilings)	3 to 4	8 hours	Customers (for restrooms)	
Universal Equipment Sales Inc. - Manufacture of counters and furnishings for food-service, convenience store and office applications; other specialty manufacturing	E/F1 to F4	Offices, restrooms (low ceilings)	1 full time, 2 in and out	8 hours	None	
	D1 to F6	Shop area (open space, high ceiling)	2	8 hours	None	

Appendix A

SSDS Design Drawings

ENV-000 – General Notes and Table of Contents

ENV-100 – Sub-Slab Depressurization System Coverage Plan

ENV-101 – Sub-Slab Depressurization System Discharge and Exhaust Locations

ENV-500 – Sub-Slab Depressurization System Interior Details

ENV-501 – Sub-Slab Depressurization System Exterior Details

ENV-502– Sub-Slab Depressurization System Monitoring Panel Details (Sheet 1 of 4)

ENV-503 – Sub-Slab Depressurization System Monitoring Panel Details (Sheet 2 of 4)

ENV-504 – Sub-Slab Depressurization System Monitoring Panel Details (Sheet 3 of 4)

ENV-505 – Sub-Slab Depressurization System Monitoring Panel Details (Sheet 4 of 4)

GENERAL NOTES

1. THERE HAS NOT BEEN A FORMAL SURVEY/INVENTORY OF SUB-SLAB UTILITIES/PIPING/CONDUIT. CONTRACTOR'S SCOPE AND BUDGET SHALL INCLUDE NECESSARY PROVISIONS TO PERFORM UTILITY LOCATING PRIOR TO ANY PENETRATIONS OF THE CONCRETE SLAB. ANY CONDUIT/PIPE/UTILITY REPAIR WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
2. THE CONFIGURATION OF THE BUILDING'S FOOTERS FOR INTERIOR OR EXTERIOR COLUMNS HAS NOT BEEN INVESTIGATED. PROPOSED SUCTION CAVITY CONSTRUCTIONS ARE PROVIDED FOR SEVERAL FOOTER CONFIGURATIONS. CONTRACTOR TO CONFIRM THE CONSTRUCTION OF EACH SUCTION CAVITY WITH THE ENGINEER BASED ON FIELD INVESTIGATION PERFORMED BY THE CONTRACTOR.
3. ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AND REGULATIONS, AS WELL AS THE INTERIM REMEDIAL WORK PLAN APPROVED BY THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) AND NEW YORK STATE DEPARTMENT OF HEALTH (NYSDOH).
4. ALL WORK SHALL BE DONE IN PROPER SEQUENTIAL PHASES. ALL STAGES OF WORK RELATED TO THE SUB-SLAB DEPRESSURIZATION SYSTEM SHALL BE INSPECTED AND APPROVED BY THE ENGINEER. CHANGES TO DRAWINGS AND SPECIFICATIONS RELATED TO THE SUB-SLAB DEPRESSURIZATION SYSTEM SHALL BE APPROVED BY THE ENGINEER BEFORE BEING IMPLEMENTED. NO SUB-SLAB DEPRESSURIZATION SYSTEM PIPING SHALL BE COVERED BEFORE INSPECTION AND APPROVAL IS GIVEN BY THE ENGINEER.
5. ALL SSDS COMPONENT LOCATIONS ON DRAWINGS ARE APPROXIMATE AND THEIR LOCATIONS MUST BE CONFIRMED IN THE FIELD PRIOR TO ANY WORK ON THE SSDS INSTALLATION.
6. FOR EACH COMMON PVC PIPE HEADER LEADING TO AN EXHAUST FAN, SUPPLY AND INSTALL ONE BRASS NIPPLE THREADED WITH TEFLON TAPE THAT CONNECTS ¼" I.D. POLYETHYLENE (PE) TUBING TO BE USED FOR PRESSURE MONITORING OF THE EXHAUST FANS. THE PE TUBING CONNECTS TO A DWYER MAGNEHELIC MANOMETER (WITH A MINIMUM OPERATING TEMPERATURE RANGE OF -20ºF TO 130ºF) AND LOW-PRESSURE SWITCH MOUNTED INSIDE MANOMETER/WARNING LIGHT BOXES. SEE ELECTRICAL DRAWINGS FOR LOCATIONS OF MONITORING PANELS. REFER TO THE CONTRACT DRAWING FOR FURTHER DETAILS.
7. LOW-PRESSURE SWITCHES SHALL BE RADONAWAY CHECKPOINT IIA MITIGATION SYSTEM ALARM, WITH AUDIBLE ALARM, GREEN AND RED LED LIGHTS, FACTORY PRESET TO ACTIVATE AT 0.25 INCHES OF WATER COLUMN.
8. EACH VERTICAL SUCTION CAVITY RISER SHALL HAVE A BALL VALVE INSTALLED. REFER TO THE CONTRACT DRAWINGS FOR MOUNTING HEIGHT ABOVE FINISHED FLOOR. BALL VALVES SHALL BE INSTALLED IN THE CLOSED POSITION IF THE END OF THE PIPE DOES NOT TERMINATE TO THE EXTERIOR OF THE BUILDING TO MINIMIZE THE POTENTIAL FOR CREATING A NEW VAPOR INTRUSION PATHWAY.
9. ALL POLYVINYL CHLORIDE (PVC) PIPING SHALL BE SOLID WALL, PRESSURE RATED PIPING, MEETING THE REQUIREMENTS OF ASTM D 2241, ASTM D 1785 OR ASTM F 480. ALL PVC PIPING IS SUBJECT TO FINAL APPROVAL BY THE ENGINEER.
10. CLEAN, WASHED GRAVEL FOR SUCTION CAVITIES, SHALL BE SUPPLIED AND MAINTAINED FREE OF CONTAMINANTS, SAND, SILT, CLAY OR OTHER FINE MATERIALS OR DEBRIS. PROPOSED MATERIAL IS SUBJECT TO APPROVAL BY THE ENGINEER.
11. ANY SLAB PENETRATION THAT WILL NOT IMMEDIATELY BE SEALED TO BE VAPOR TIGHT SHALL BE COVERED AT MINIMUM WITH A RIGID PLASTIC COVER THAT IS URETHANE CAULKED TO THE FLOOR.
12. CONTRACTOR TO PROVIDE NOTICE OF ANY PLANNED SUB-SLAB PENETRATION WORK A MINIMUM OF 48 HOURS IN ADVANCE TO THE ENGINEER TO ALLOW THE ENGINEER TO COORDINATE ANY NECESSARY MONITORING EQUIPMENT.
13. CONTRACTOR SHALL HAVE NEW ACTIVATED CARBON FILTERS ON-SITE IN THE EVENT THAT EXHAUST TUBING FOR USE DURING DRILLING OF SUCTION CAVITIES IS UNABLE TO REACH AN EXTERIOR DISCHARGE POINT.
14. SEAL ALL PENETRATIONS THROUGH THE CONCRETE SLAB IN ACCORDANCE WITH THE CONTRACT DRAWINGS AND MANUFACTURER'S SPECIFICATIONS. CONCRETE MIX USED SHALL HAVE A COMPRESSIVE STRENGTH OF 5,000 PSI AFTER 28 DAYS.
15. ALL PIPING SHALL MAINTAIN A MINIMUM OF 1% SLOPE DRAINING TOWARDS SUCTION CAVITIES (REFER TO THE CONTRACT DRAWINGS) TO ENSURE THAT CONDENSATE FLOWS DOWN THE RISERS TO THE SUBSURFACE.
16. ALL PVC CONSTRUCTION SHALL BE AIRTIGHT AND GLUED WITH APPROPRIATE ADHESIVES.
17. ROOF PENETRATIONS AND SEALS SHALL BE PERFORMED BY THE ROOFING CONTRACTOR WHO INSTALLED THE ROOF TO NOT VOID THE ROOF WARRANTY. CONTRACTOR TO MARK LOCATIONS OF PLANNED ROOF PENETRATIONS AND COORDINATE TIMING OF THOSE PENETRATIONS WITH THE ROOFING CONTRACTOR WHO WILL BE ENGAGED BY THE OWNER.

GENERAL NOTES (CONT.)

18. CLEARLY LABEL ALL COMPONENTS OF THE SUB-SLAB DEPRESSURIZATION SYSTEM ABOVE THE FLOOR SLAB AT 20-FOOT INTERVALS WITH THE FOLLOWING MESSAGE: "THIS IS A COMPONENT OF A SUB-SLAB DEPRESSURIZATION SYSTEM. DO NOT ALTER OR DISCONNECT." ALSO LABEL EACH VERTICAL SUCTION CAVITY RISER AT AN ELEVATION OF 4 FEET ABOVE FINISHED FLOOR.
19. USE SCHEDULE 80 PVC PIPE AND FITTINGS FOR ALL SSDS COMPONENTS LOCATED ON THE EXTERIOR OF THE BUILDING.
20. PROVIDE AND INSTALL RADONAWAY OR FANTECH IN-LINE FANS AS PER MANUFACTURER'S SPECIFICATIONS AND AS SHOWN ON THE CONTRACT DRAWINGS. INSTALL FANS WITH AIRTIGHT AND EASILY REMOVABLE COUPLINGS FOR EASE OF REPAIR, REPLACEMENT OR UPGRADE.
21. CLEARLY LABEL ALL EXHAUST FANS WITH THE PROPER ID (I.E. FAN #1, FAN #2, FAN #3, AND FAN #4).
22. RESERVED
23. RESERVED
24. ALL SUB-SLAB DEPRESSURIZATION SYSTEM ROOFTOP EXHAUST STACKS TERMINATIONS SHALL BE LOCATED A MINIMUM OF 25 HORIZONTAL FEET FROM AIR INTAKES OR BUILDING OPENINGS AND 10 HORIZONTAL FEET FROM ROOF EDGES.
25. INSTALL SCHEDULE 80 PVC RAIN CAP WITH GALVANIZED MESH TO PREVENT FOREIGN OBJECTS FROM ENTERING THE EXHAUST STACK.
26. CONTRACTOR SHALL CONTAINERIZE ALL CONSTRUCTION WATER GENERATED OR ENCOUNTERED (I.E. GROUNDWATER, WET CORING) IN 55-GALLON DOT APPROVED DRUMS. DRUMS SHALL BE STORED ON-SITE IN A LOCATION APPROVED BY THE ENGINEER AND THE OWNER.
27. CONTRACTOR SHALL CONTAINERIZE ALL CONCRETE CUTTINGS, SOIL CUTTINGS AND AGGREGATE CUTTINGS IN 55-GALLON DOT APPROVED DRUMS. DRUMS SHALL BE STORED ON-SITE IN A LOCATION APPROVED BY THE ENGINEER AND THE OWNER.
28. A REPRESENTATIVE OF THE ENGIINEER MUST BE ON-SITE AT ALL TIMES WHILE THE CONTRACTOR IS PERFORMING WORK.
29. CONTRACTOR TO FOLLOW APPROVED DUST CONTROL MEASURES.

HAZARDOUS MATERIALS

30. RESERVED
31. THE ENGINEER RESERVES THE RIGHT TO STOP WORK IF MATERIALS ARE ENCOUNTERED THAT HAVE THE POTENTIAL TO BE HAZARDOUS AND ARE DETERMINED TO REQUIRE FURTHER ANALYTICAL TESTING.
32. THE CONTRACTOR SHALL HAVE ALL WORKERS ON-SITE WITH 40-HOUR OSHA HAZWOPER TRAINING.
33. A HAZARDOUS MATERIALS SURVEY OF THE BUILDING MATERIALS (E.G. ASBESTOS, PCB CAULKS, LEAD BASED PAINTS). HAS NOT BEEN PERFORMED. THE POTENTIAL EXISTS FOR THESE HAZARDS TO BE ON-SITE. THE CONTRACTOR IS RESPONSIBLE FOR CONDUCTING THE WORK UNDER THEIR OWN HEALTH AND SAFETY PLAN PER OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REQUIREMENTS AND PER THE SITE-SPECIFIC SAFETY REQUIREMENTS.

ELECTRIC, GENERAL

34. ALL FAN BREAKERS SHOULD BE LABELED AS "SSDS FAN NO. __" ON THE PANELBOARD SCHEDULE.

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Rochester , NY
14614
Tel. 585-475-1440
Fax. 585-272-1814
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Client/Project

FORMER ALLIANCE METAL STAMPING & FABRICATION FACILTY
BROWNFIELD CLEANUP PROGRAM SITE # C828101
12 PIXLEY INDUSTRIAL PARKWAY, GATES, NY

INTERIM REMEDIAL MEASURE
WORK PLAN - SSDS - MARCH 2019

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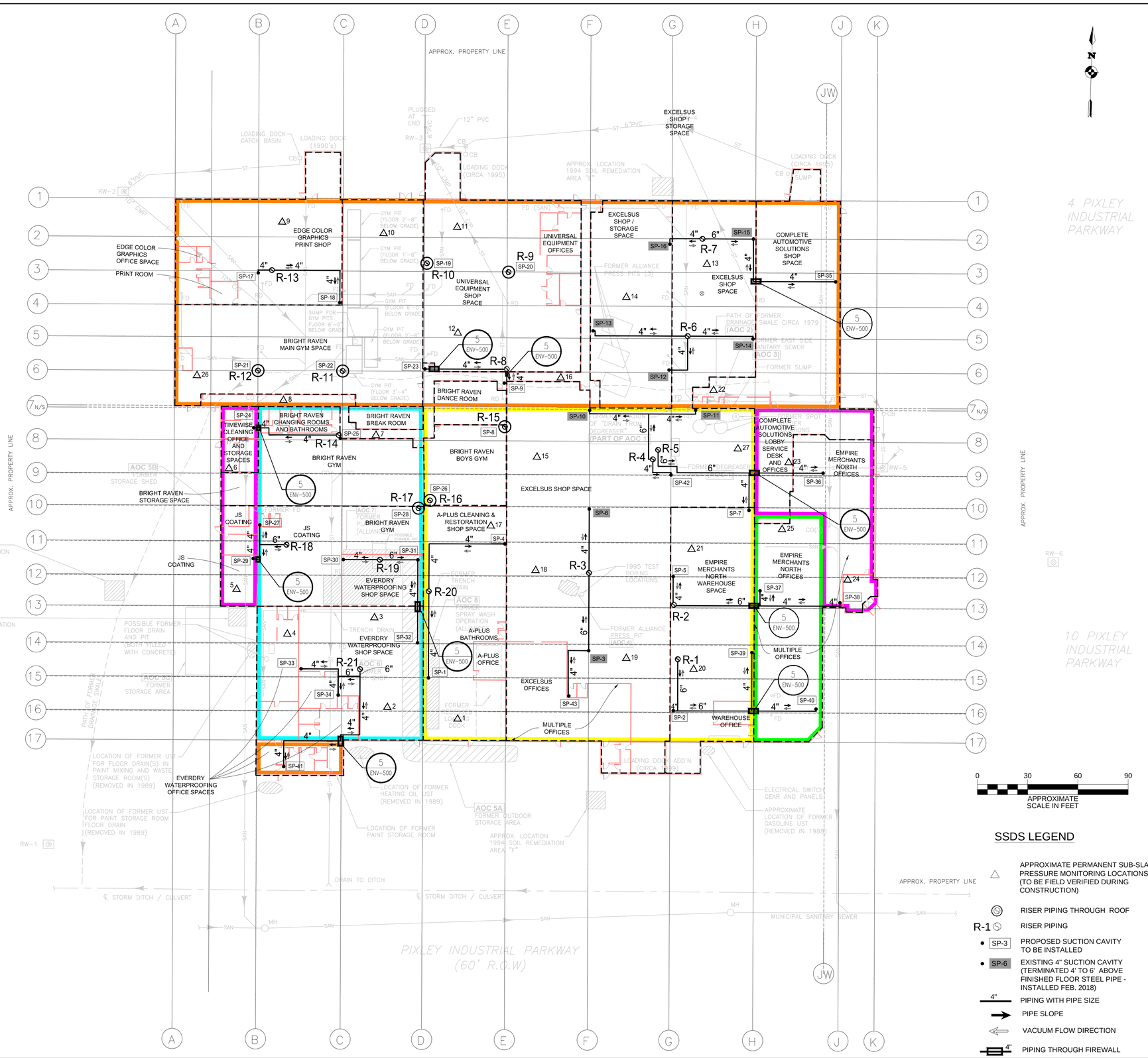

SSDS LEGEND

- APPROXIMATE PERMANENT SUB-SLAB PRESSURE MONITORING LOCATIONS (TO BE FIELD VERIFIED DURING CONSTRUCTION)
- RISER PIPING THROUGH ROOF
- R-1 RISER PIPING
- SP-3 PROPOSED SUCTION CAVITY TO BE INSTALLED
- SP-6 EXISTING 4" SUCTION CAVITY (TERMINATED 4' TO 6' ABOVE FINISHED FLOOR STEEL PIPE - INSTALLED FEB. 2018)
- 4" PIPING WITH PIPE SIZE
- PIPE SLOPE
- VACUUM FLOW DIRECTION
- 4" PIPING THROUGH FIREWALL

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TENANT SPACE OUTLINE

INTERIOR WALL (GENERALLY LESS THAN FULL HEIGHT IF SHOWN WITHOUT OVER-PRINTED DASHED LINE). NOT ALL INTERIOR WALLS ARE SHOWN.

FD FLOOR DRAIN
RD ROOF DRAIN PIPE UP
CB CATCH BASIN
SAN SANITARY SEWER
ST STORM SEWER
RW RECHARGE WELL
CO CLEAN OUT
MH MANHOLE

FOUNDATION WALL / GRADE BEAM/ FOOTER OUTLINES

- ORIGINAL MFG BUILDING
- ORIGINAL ADMIN BUILDING
- WEST ADDITION (1975)
- NORTH ADDITION (1979) AND PAINT STORAGE ADDITION (1979)
- OFFICE ADDITION (1988) AND STORAGE SHED ADDITION (1988)

Notes

1. The building floor plan shown on this drawing was drawn based on the floor plan shown on the following drawing: "Series: Tenant Layout, Floor: First, Title: Floor Plan, No.: TP-1", prepared by Miller Anderson Architects, Rochester, NY, date May 1999, issued 5-24-99.

2. Locations of floor drains, roof drains, catch basins and recharge wells were taken from various historic site plans (see separate *Summary of Available Building Plans* prepared by Stantec dated 4/19/12) and then field checked by Stantec personnel on 3/20/12 to confirm that they were present. Additional floor drains, roof drains, catch basins and recharge wells not shown on historic plans or drawings but noted during the field check are also shown. All locations are approximate. Interior tenant walls my have been revised.

3. Locations shown for underground sanitary sewer ('SAN') and storm sewer ('ST') lines and foundation features were taken from various historic site plans (see separate *Summary of Available Building Plans* prepared by Stantec dated 4/19/12). These features have not been field verified.

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12 PIXLEY INDUSTRIAL PARKWAY, GATES, NY

INTERIM REMEDIAL MEASURE
WORK PLAN - SSDS - MARCH 2019

Title

SUB-SLAB DEPRESSURIZATION SYSTEM COVERAGE PLAN

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190500647	As Shown	
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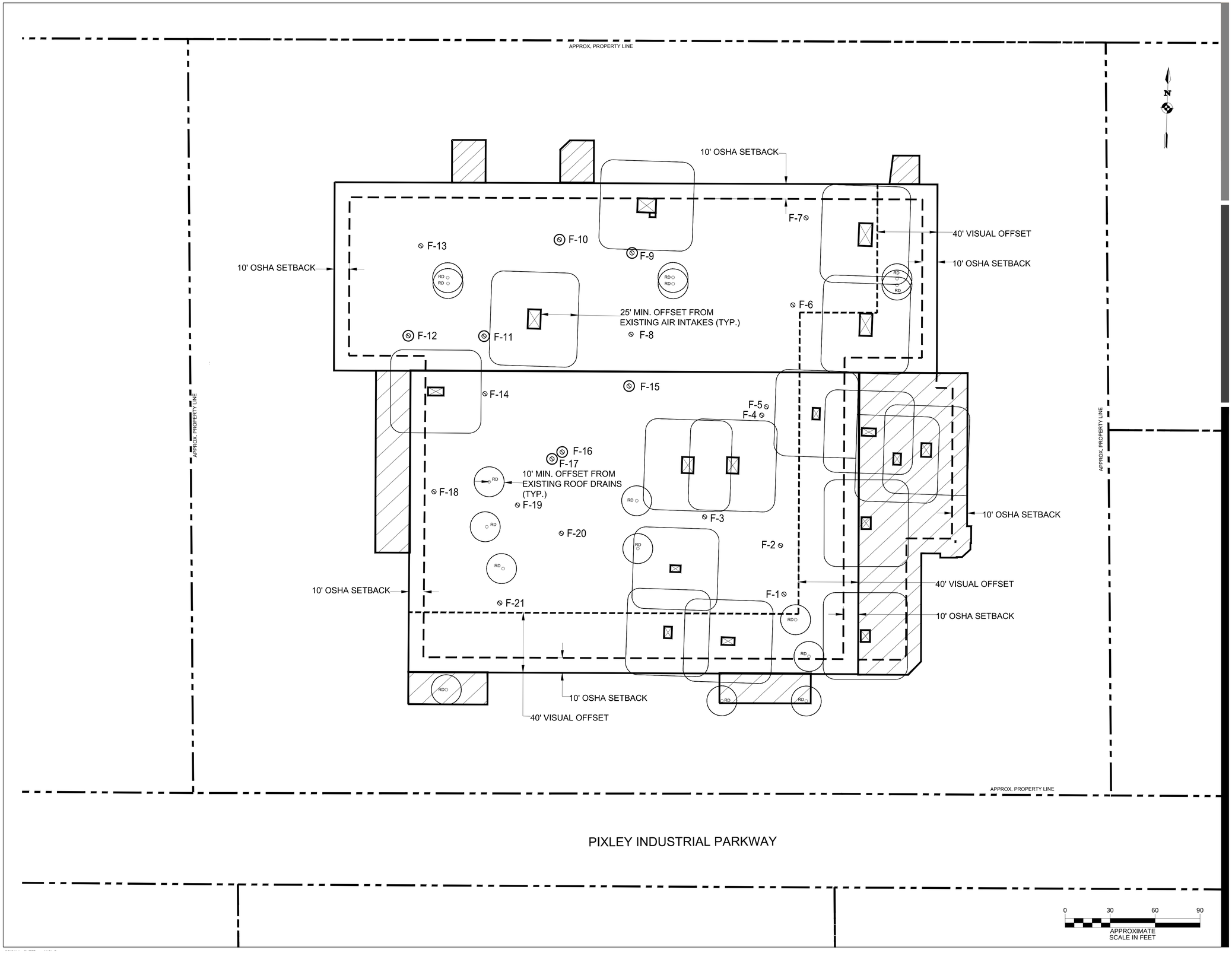

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Legend

- AIR INTAKE STRUCTURE
- LOWER ELEVATION ROOF
- AIR INTAKE BUFFER (AREA WITHIN 25 FEET OF OF AIR INTAKE EQUIPMENT)
- 40 FOOT VISUAL OFFSET
- OSHA FALL PROTECTION BOUNDARY (10 FOOT OFFSET FROM BUILDING EDGE)
- F-1 PROPOSED FAN/RISER DISCHARGE LOCATION WITH DESIGNATION FROM MULTIPLE SUCTION CAVITY POINTS
- F-11 PROPOSED FAN/RISER DISCHARGE LOCATION WITH DESIGNATION FROM SINGLE SUCTION CAVITY POINT
- RD EXISTING ROOF DRAIN WITH 10 FOOT OFFSET

Notes

1. The building floor plan shown on this drawing was drawn based on the floor plan shown on the following drawing: "Series: Tenant Layout, Floor: First, Title: Floor Plan, No.: TP-1", prepared by Miller Anderson Architects, Rochester, NY, date May 1999, issued 5-24-99.

2. Locations of floor drains, roof drains, catch basins and recharge wells were taken from various historic site plans (see separate *Summary of Available Building Plans* prepared by Stantec dated 4/19/12) and then field checked by Stantec personnel on 3/20/12 to confirm that they were present. Additional floor drains, roof drains, catch basins and recharge wells not shown on historic plans or drawings but noted during the field check are also shown. All locations are approximate.

3. Locations of air intakes are approximate and based on publicly available aerial imagery. Contractor to field verify SSDS discharge locations are a minimum of 25 horizontal feet away from any air intakes.

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FORMER ALLIANCE METAL STAMPING & FABRICATION FACILTY
BROWNFIELD CLEANUP PROGRAM SITE # C828101
12 PIXLEY INDUSTRIAL PARKWAY, GATES, NY

INTERIM REMEDIAL MEASURE
WORK PLAN - SSDS - MARCH 2019

Title

SUB-SLAB DEPRESSURIZATION SYSTEM
DISCHARGE AND EXHAUST LOCATIONS
ROOF PLAN

Project No.	Scale	
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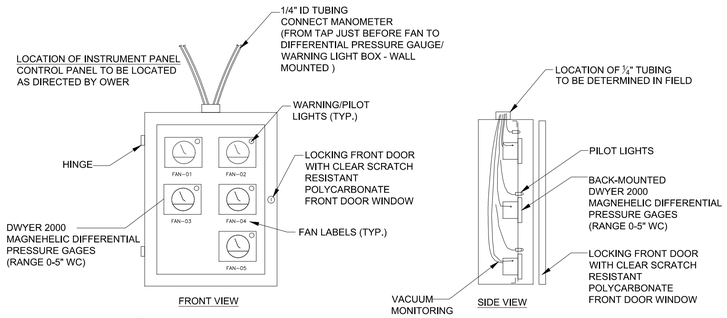
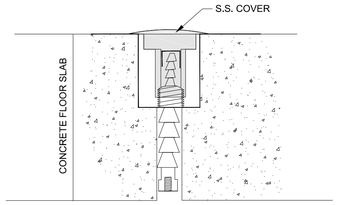


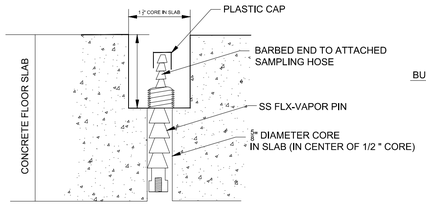
NOTE :
1) ¼" TUBING NOT TO BE RUN THROUGH DUCT WORK

2) SIZE OF INSTRUMENT PANEL BOX TO VARY BASED ON NUMBER OF MANOMETER SPECIFIED.
3) APPROVED MANUFACTURERS : ATTABOX OR APPROVED EQUAL

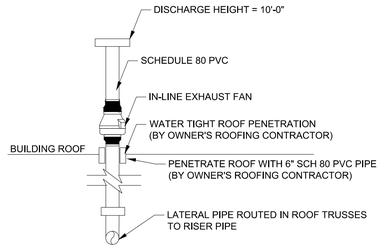
1 ENV-500 **TYPICAL WALL-MOUNTED INSTRUMENT PANEL INSTALLATION DETAIL**
NO SCALE



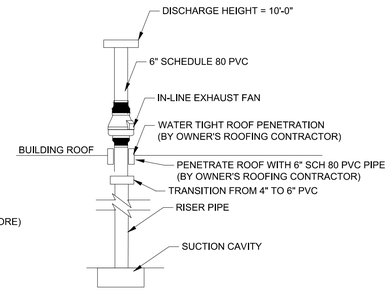
2 ENV-500 **SUB-SLAB VACUUM MONITORING PIN COVER DETAIL**
NOT TO SCALE



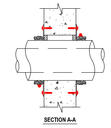
3 ENV-500 **SUB-SLAB VACUUM MONITORING PIN**
NOT TO SCALE



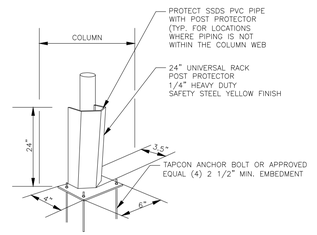
4A ENV-500 **TYPICAL VERTICAL RISER SECTION**
NOT TO SCALE



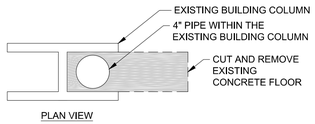
4B ENV-500 **TYPICAL VERTICAL RISER SECTION FOR SINGLE SUCTION CAVITY**
NOT TO SCALE

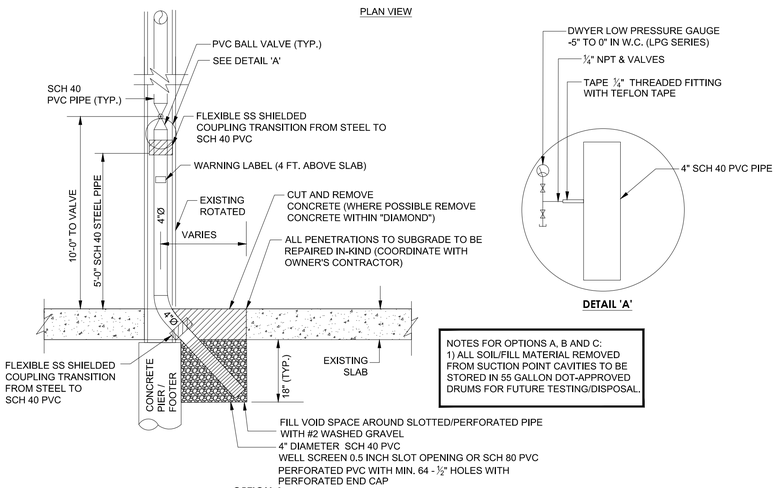


5 ENV-500 **TYPICAL WALL PENETRATION FIRE STOP**
NOT TO SCALE



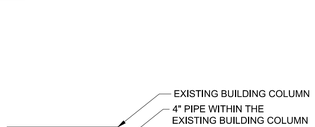
6 ENV-500 **TYPICAL PIPE PROTECTOR**
NOT TO SCALE

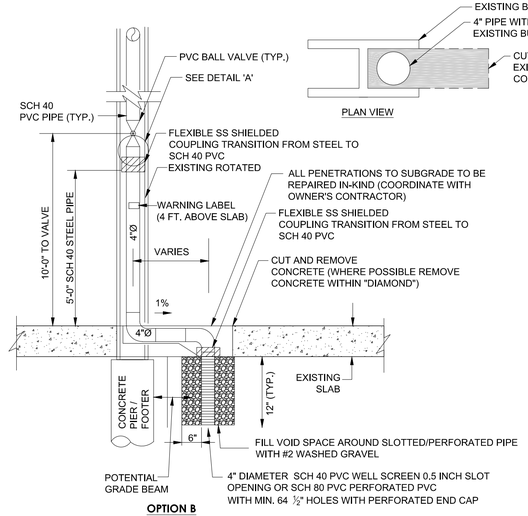




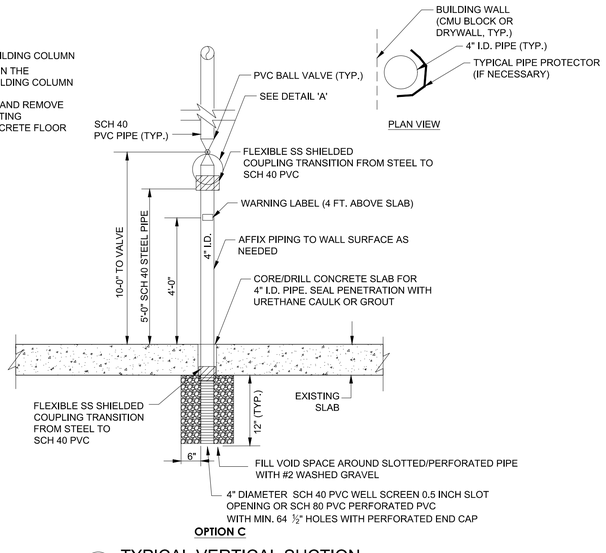
NOTES FOR OPTIONS A, B AND C:
1) ALL SOIL/FILL MATERIAL REMOVED FROM SUCTION POINT CAVITIES TO BE STORED IN 55 GALLON DOT-APPROVED DRUMS FOR FUTURE TESTING/DISPOSAL.

7 ENV-500 **TYPICAL COLUMN MOUNTED SUCTION POINT INSTALLATION SECTION**
NOT TO SCALE





8 ENV-500 **TYPICAL COLUMN MOUNTED VERTICAL SUCTION POINT INSTALLATION SECTION**
NOT TO SCALE



9 ENV-500 **TYPICAL VERTICAL SUCTION POINT INSTALLATION SECTION (NOT ON A COLUMN)**
NOT TO SCALE

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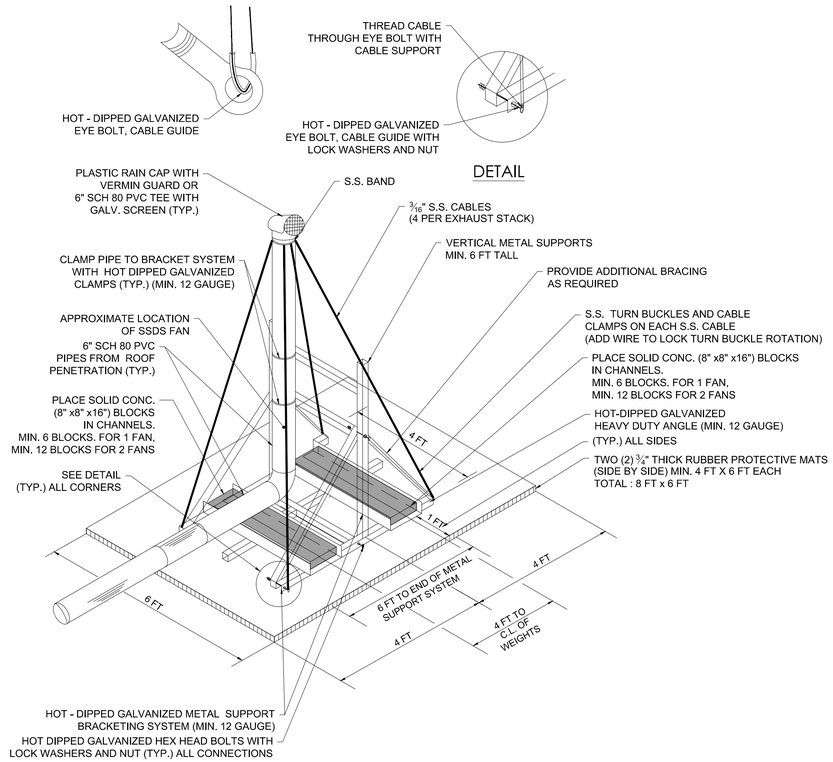
Client/Project
FORMER ALLIANCE METAL STAMPING & FABRICATION FACILTY
BROWNFIELD CLEANUP PROGRAM SITE # C828101
12 PIXLEY INDUSTRIAL PARKWAY, GATES, NY

INTERIM REMEDIAL MEASURE
WORK PLAN - SSDS - MARCH 2019

Title
SUB-SLAB DEPRESSURIZATION SYSTEM
INTERIOR DETAILS

Project No. 190500647
Scale AS SHOWN
Drawing No. ENV-500
Sheet 4 of 9
Revision 0



1 ENV-501 SSDS ROOF EXHAUST STACK SUPPORT SYSTEM (TYP.)
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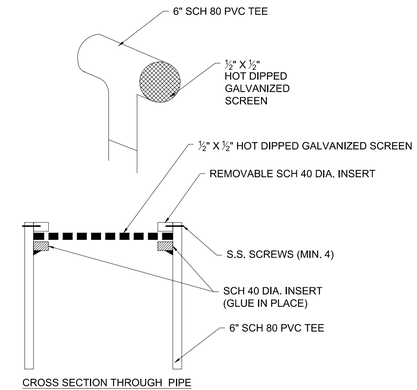
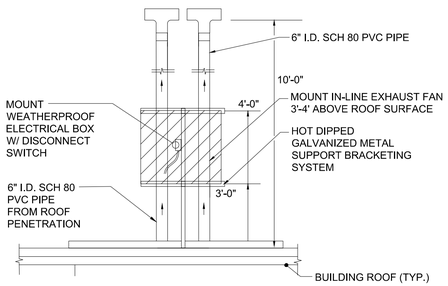


CROSS SECTION THROUGH PIPE

2 ENV-501 RAIN CAP SCREEN DETAIL
NO SCALE



SECTION

3 ENV-501 SSDS DOUBLE STACK ROOF EXHAUST STACK
NO SCALE

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FORMER ALLIANCE METAL STAMPING & FABRICATION FACILTY
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12 PIXLEY INDUSTRIAL PARKWAY, GATES, NY

MARCH 2019
INTERIM REMEDIAL MEASURE
WORK PLAN

Title
SUB-SLAB DEPRESSURIZATION SYSTEM
EXTERIOR DETAILS

Project No. 190500647
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Drawing No. ENV-501
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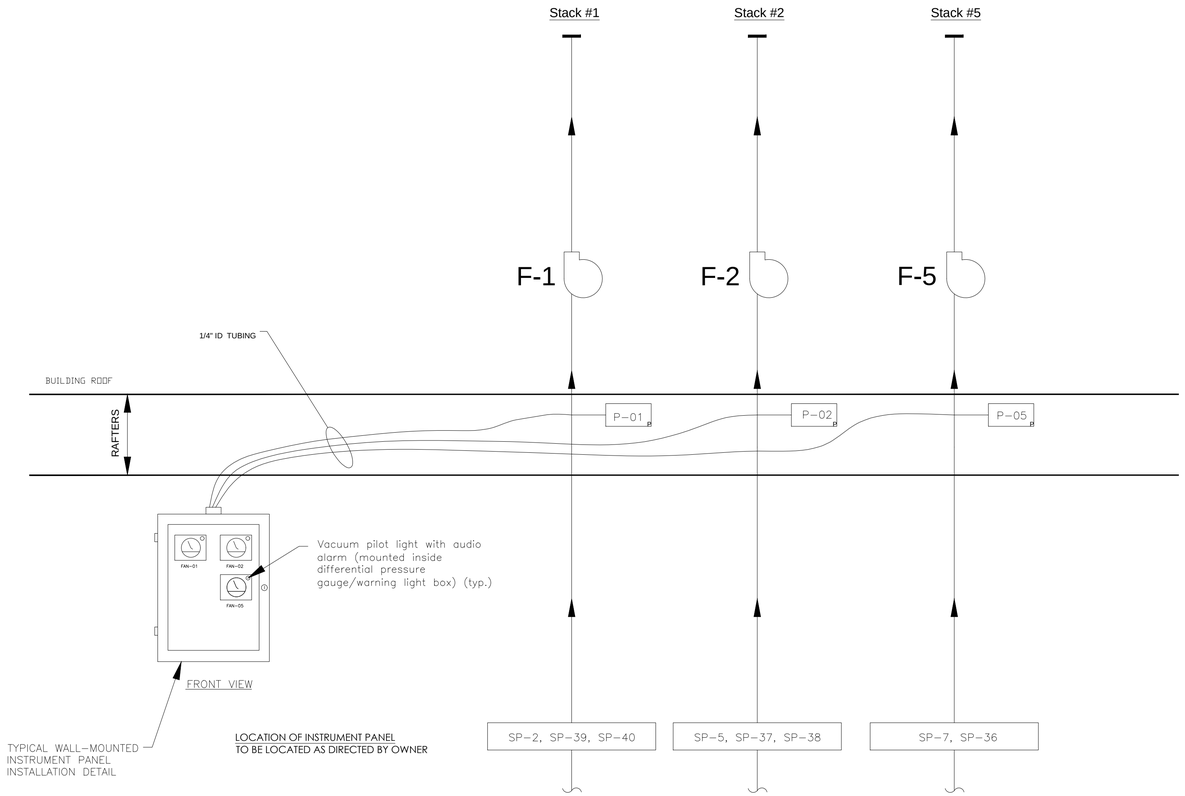


SSDS VACUUM MONITORING PANEL #1 (EMPIRE MERCHANTS SPACE)

NO SCALE

Legend

F-5 — In-line exhaust fan Radonaway RP265 (or approved equal) with Fan ID

P-01 — Point of Measurement for the Magnehelic Model 2000 differential pressure gauge (mounted inside differential pressure gauge/ warning light box)

Air Flow

Notes:

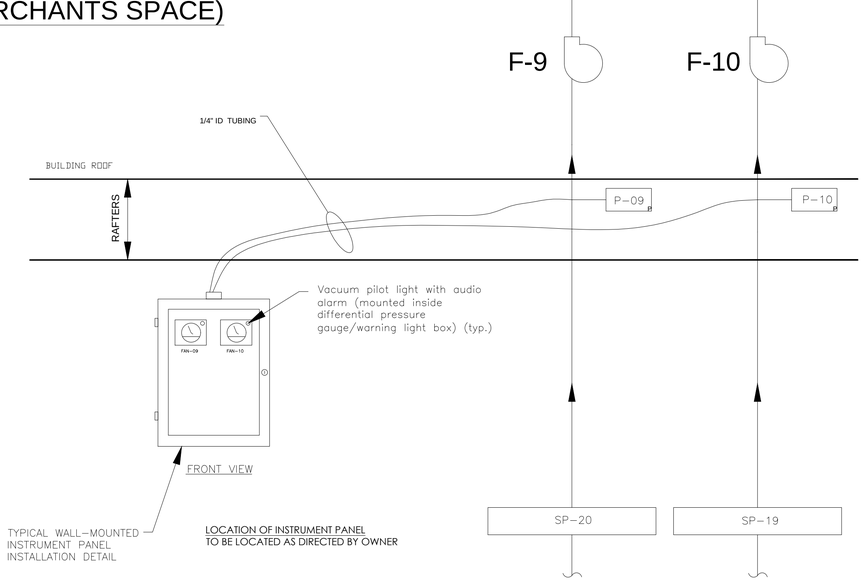
1.) ¼" tubing shall not be run through duct work .

2.) Refer to drawings for connection of ¼" tubing to differential pressure gauge.

3.) ¼" tubing to be Eaton Synflex 1219FR (or approved equal).

4.) Provide 1" Sch 80 PVC electrical conduit on vertical walls to run tubing in to connect to panel box.

5.) See Electrical Drawings for location of outlets related to low-pressure vacuum switches.



SSDS VACUUM MONITORING PANEL #2 (UNIVERSAL EQUIPMENT SPACE)

NO SCALE

Stantec
61 Commercial Street
Rochester , NY
14614
Tel. 585-475-1440
Fax. 585-272-1814
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Legend

Notes

Revision	By	Appd.	YY.MM.DD
ISSUED FOR AGENCY REVIEW	MB/AK	DH	2019.03
Issued	By	Appd.	YY.MM.DD
File Name:	APL Dwn.	DH Chkd.	MB/AK Dsgn.	2019.03 YY.MM.DD

Permit-Seal

Client/Project

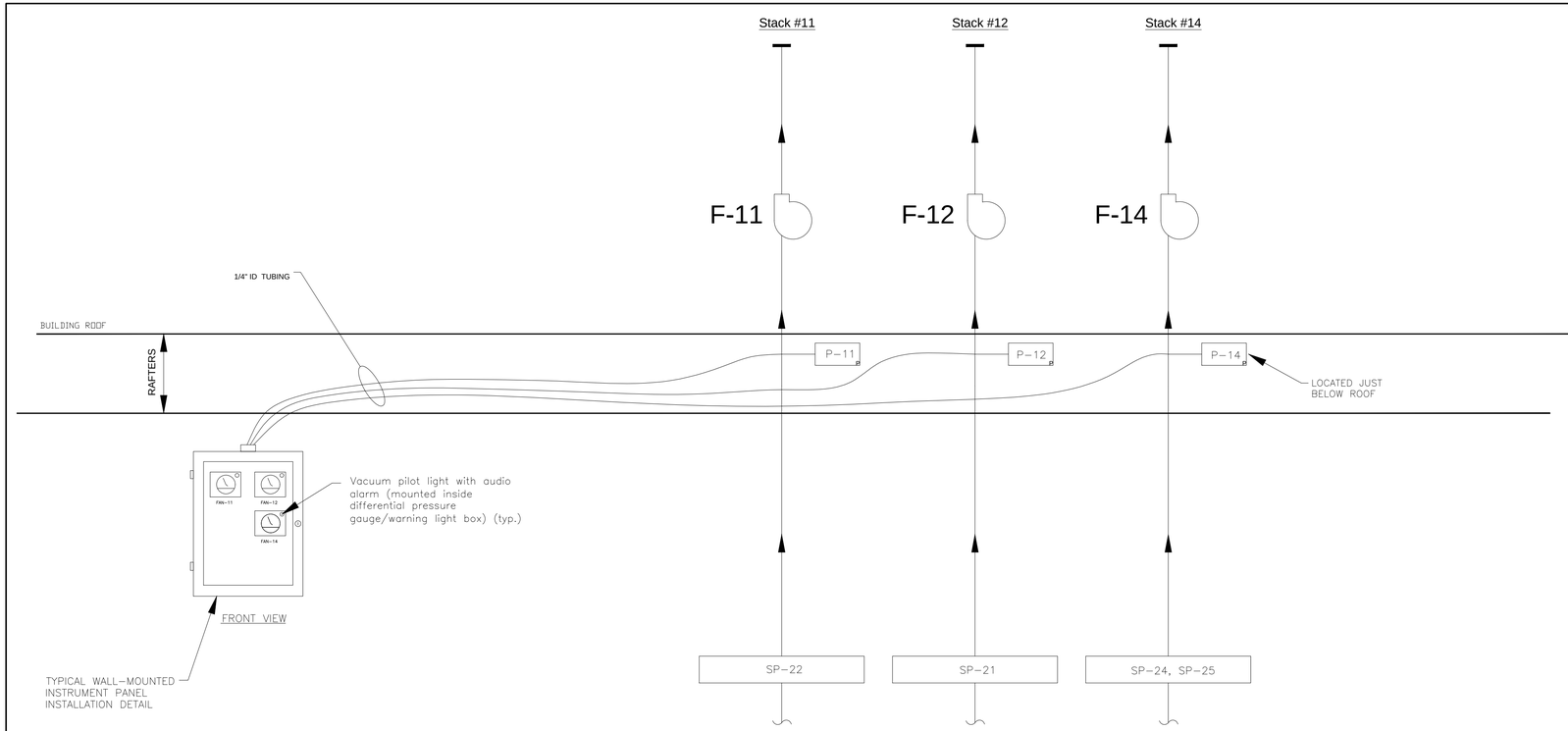
FORMER ALLIANCE METAL STAMPING & FABRICATION FACILTY
BROWNFIELD CLEANUP PROGRAM SITE # C828101
12 PIXLEY INDUSTRIAL PARKWAY, GATES, NY

INTERIM REMEDIAL MEASURE
WORK PLAN - SSDS - MARCH 2019

Title

SUB-SLAB DEPRESSURIZATION SYSTEM MONITORING PANEL DETAILS (SHEET 1 OF 4)

Project No.	Scale	
190500647	AS SHOWN	
Drawing No.	Sheet	Revision
ENV-502	6 of 9	0



LOCATION OF INSTRUMENT PANEL
TO BE LOCATED AS DIRECTED BY OWNER

SSDS VACUUM MONITORING PANEL #3 (BRIGHT RAVEN SPACE)

NO SCALE

Legend

F-14 — In-line exhaust fan Radonaway RP265 (or approved equal) with Fan ID

P-01 — Point of Measurement for the Magnehelic Model 2000 differential pressure gauge (mounted inside differential pressure gauge/ warning light box)

Air Flow

Notes:

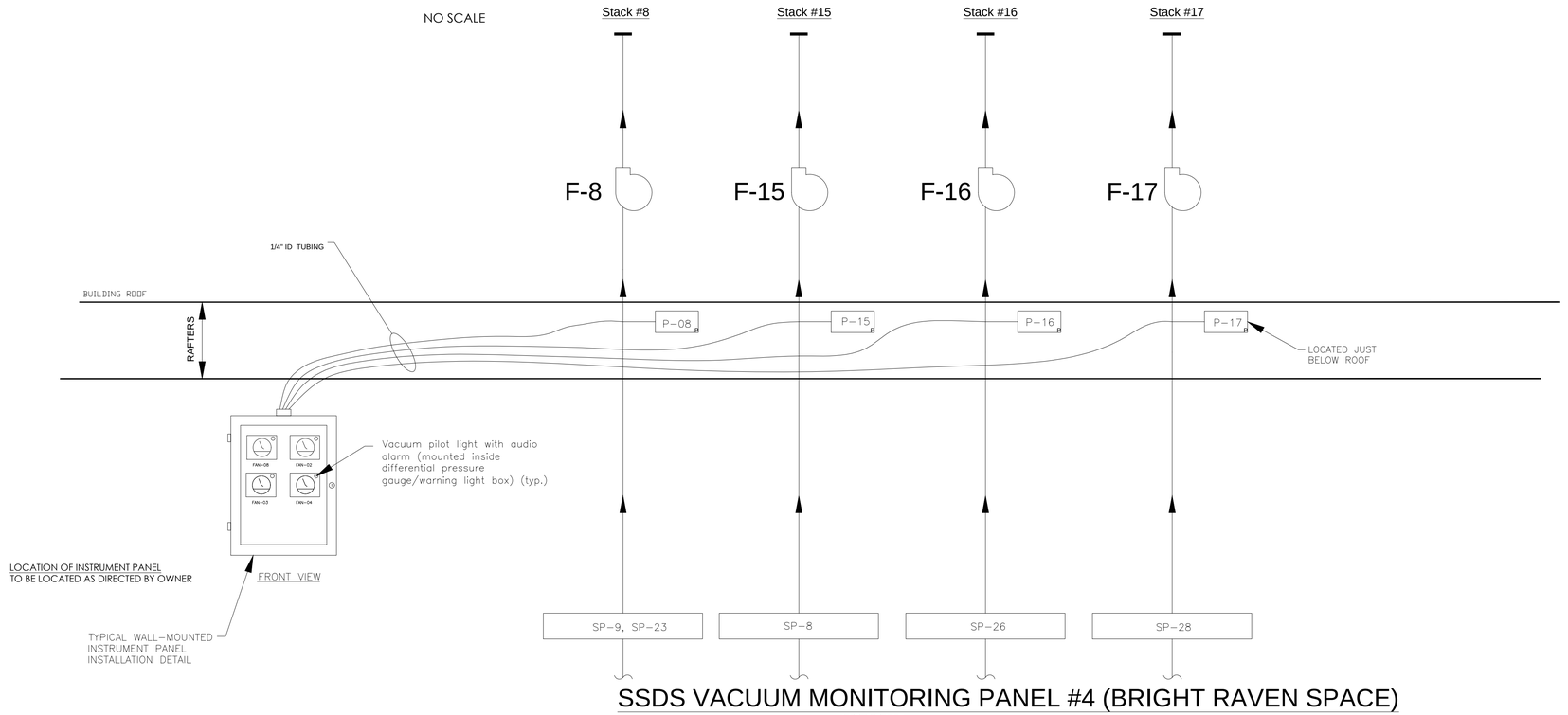
1.) ¼" tubing shall not be run through duct work .

2.) Refer to drawings for connection of ¼" tubing to differential pressure gauge.

3.) ¼" tubing to be Eaton Synflex 1219FR (or approved equal).

4.) Provide 1" Sch 80 PVC electrical conduit on vertical walls to run tubing in to connect to panel box.

5.) See Electrical Drawings for location of outlets related to low-pressure vacuum switches.



LOCATION OF INSTRUMENT PANEL
TO BE LOCATED AS DIRECTED BY OWNER

SSDS VACUUM MONITORING PANEL #4 (BRIGHT RAVEN SPACE)

NO SCALE

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Rochester , NY
14614
Tel. 585-475-1440
Fax. 585-272-1814
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Legend

Notes

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File Name:	APL	DH	MB/AK	2019.03
	Dwn.	Chkd.	Dsgn.	YY.MM.DD

Permit-Seal

Client/Project

FORMER ALLIANCE METAL STAMPING & FABRICATION FACILTY
BROWNFIELD CLEANUP PROGRAM SITE # C828101
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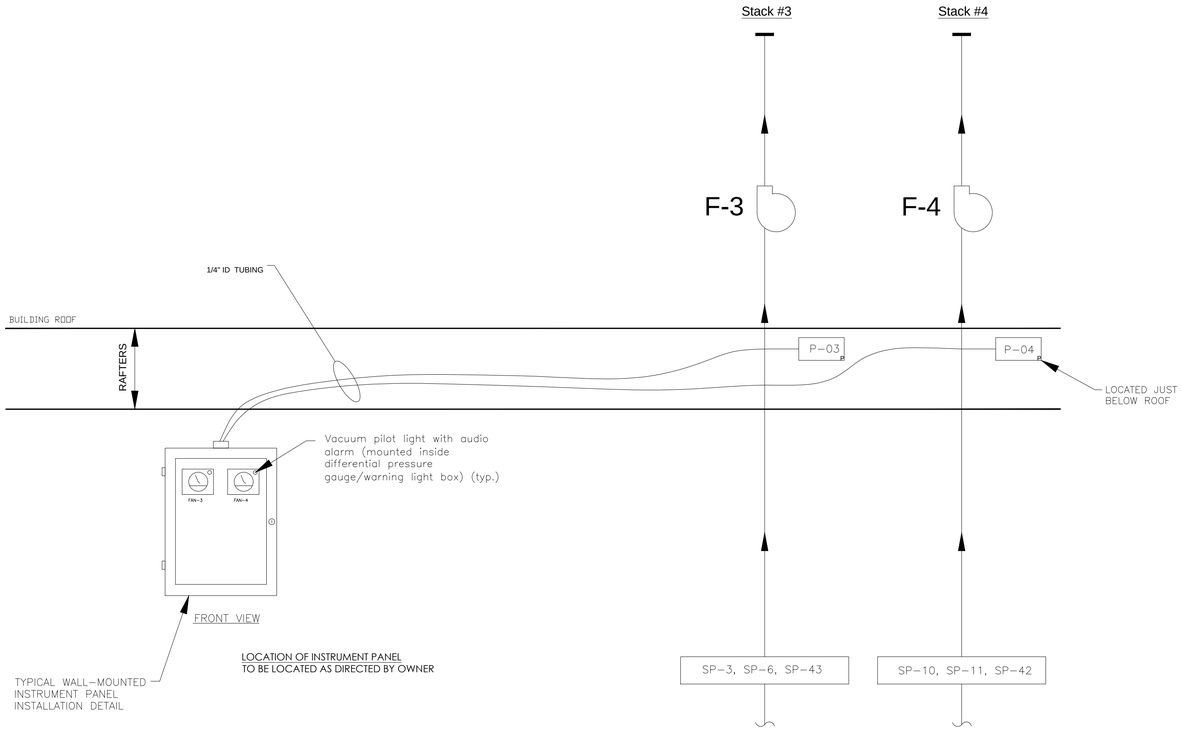
INTERIM REMEDIAL MEASURE
WORK PLAN - SSDS - MARCH 2019

Title

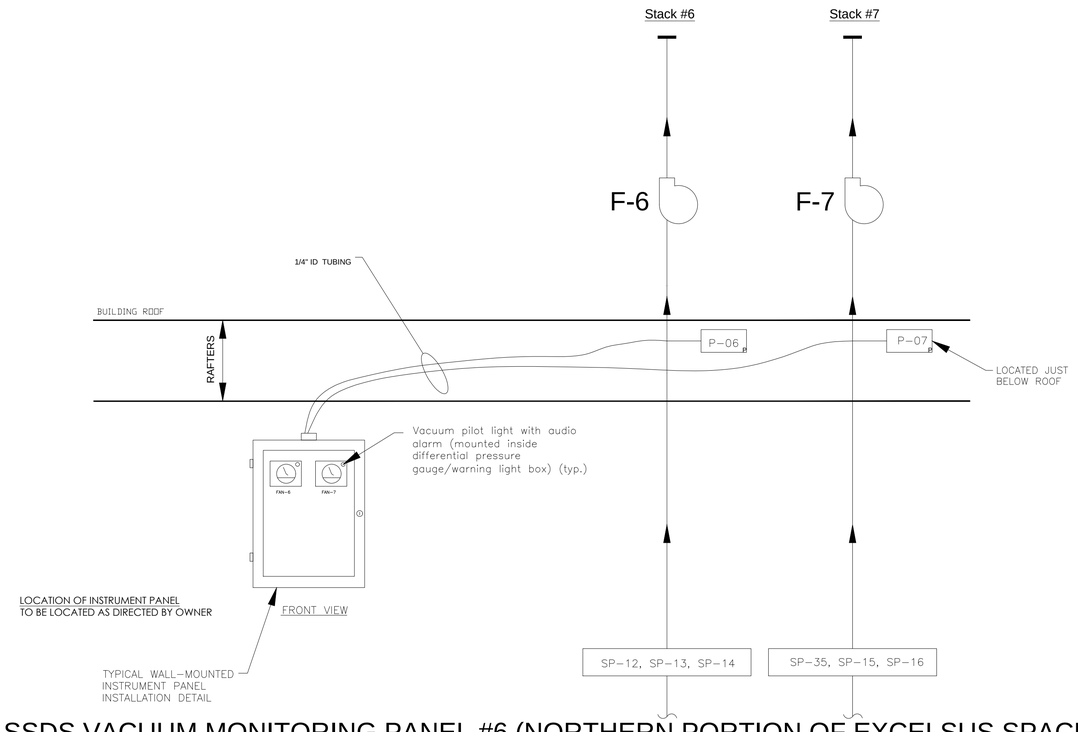
SUB-SLAB DEPRESSURIZATION SYSTEM
MONITORING PANEL DETAILS (SHEET 2 OF 4)

Project No.	Scale	
190500647	AS SHOWN	
Drawing No.	Sheet	Revision
ENV-503	7 of 9	0



SSDS VACUUM MONITORING PANEL #5 (SOUTHERN PORTION OF EXCELSUS SPACE)

NO SCALE



SSDS VACUUM MONITORING PANEL #6 (NORTHERN PORTION OF EXCELSUS SPACE)

NO SCALE

Legend

F-4 In-line exhaust fan Radonaway RP265 (or approved equal) with Fan ID

P-01 Point of Measurement for the Magnehelic Model 2000 differential pressure gauge (mounted inside differential pressure gauge/ warning light box)

Air Flow

Notes:

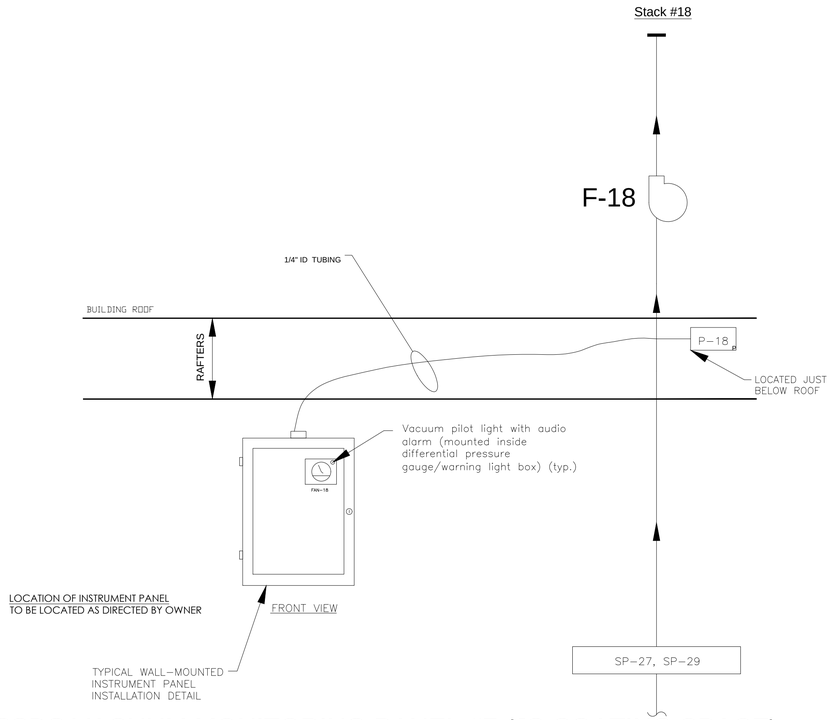
1.) ¼" tubing shall not be run through duct work .

2.) Refer to drawings for connection of ¼" tubing to differential pressure gauge.

3.) ¼" tubing to be Eaton Synflex 1219FR (or approved equal).

4.) Provide 1" Sch 80 PVC electrical conduit on vertical walls to run tubing in to connect to panel box.

5.) See Electrical Drawings for location of outlets related to low-pressure vacuum switches.



SSDS VACUUM MONITORING PANEL #7 (JS COATING SPACE)

NO SCALE

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Rochester , NY
14614
Tel. 585-475-1440
Fax. 585-272-1814
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Issued	By	Appd.	YY.MM.DD

File Name:	APL	DH	MB/AK	2019.03
	Dwn.	Chkd.	Dsgn.	YY.MM.DD

Permit-Seal

Client/Project

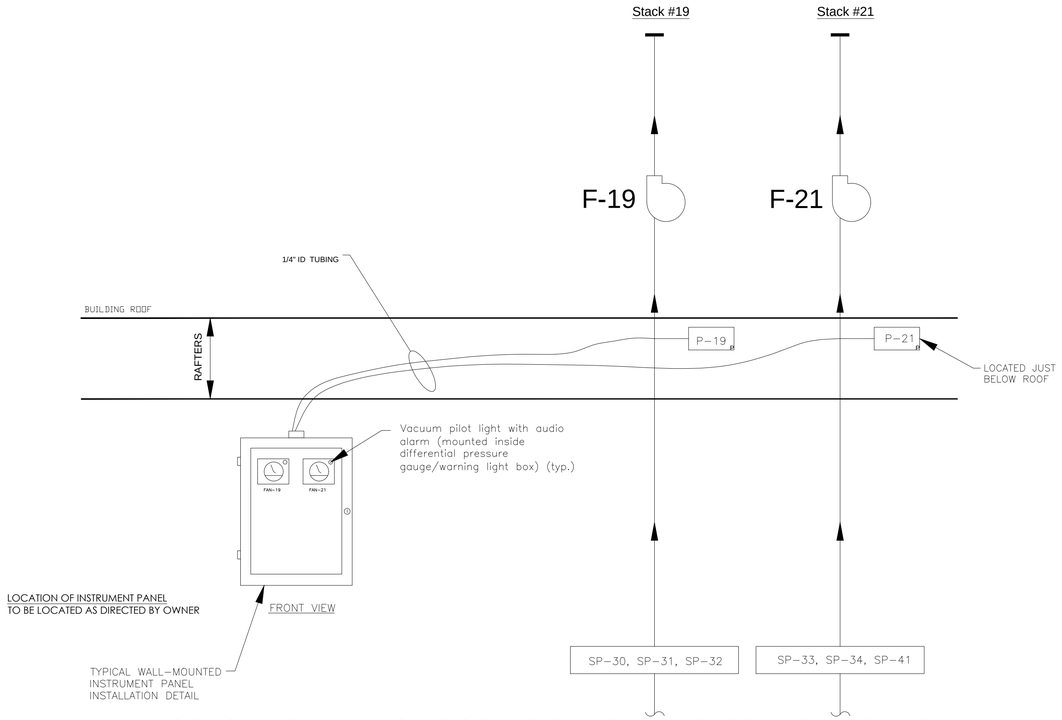
FORMER ALLIANCE METAL STAMPING & FABRICATION FACILTY
BROWNFIELD CLEANUP PROGRAM SITE # C828101
12 PIXLEY INDUSTRIAL PARKWAY, GATES, NY

INTERIM REMEDIAL MEASURE
WORK PLAN - SSDS - MARCH 2019

Title

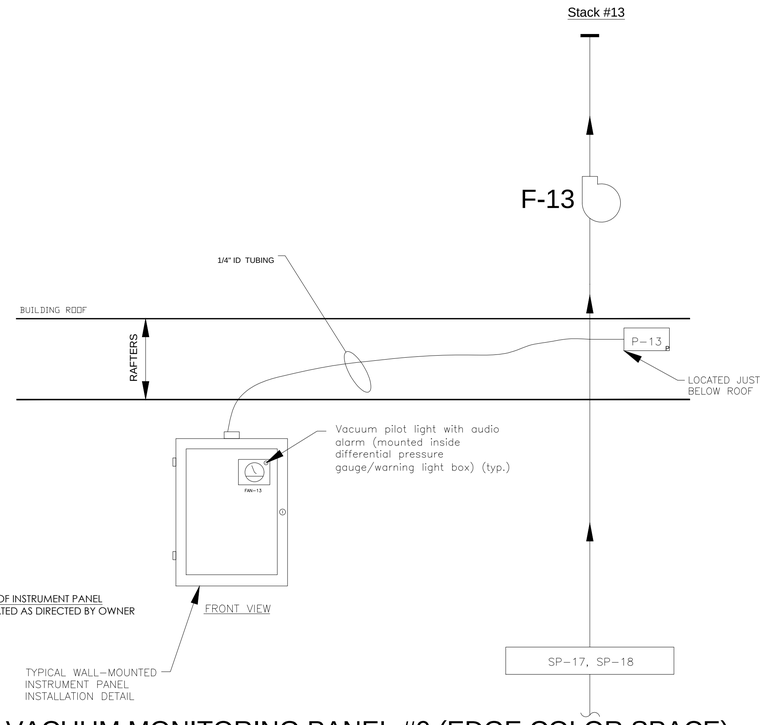
SUB-SLAB DEPRESSURIZATION SYSTEM
MONITORING PANEL DETAILS (SHEET 3 OF 4)

Project No.	Scale	
190500647	AS SHOWN	
Drawing No.	Sheet	Revision
ENV-504	8 of 9	0



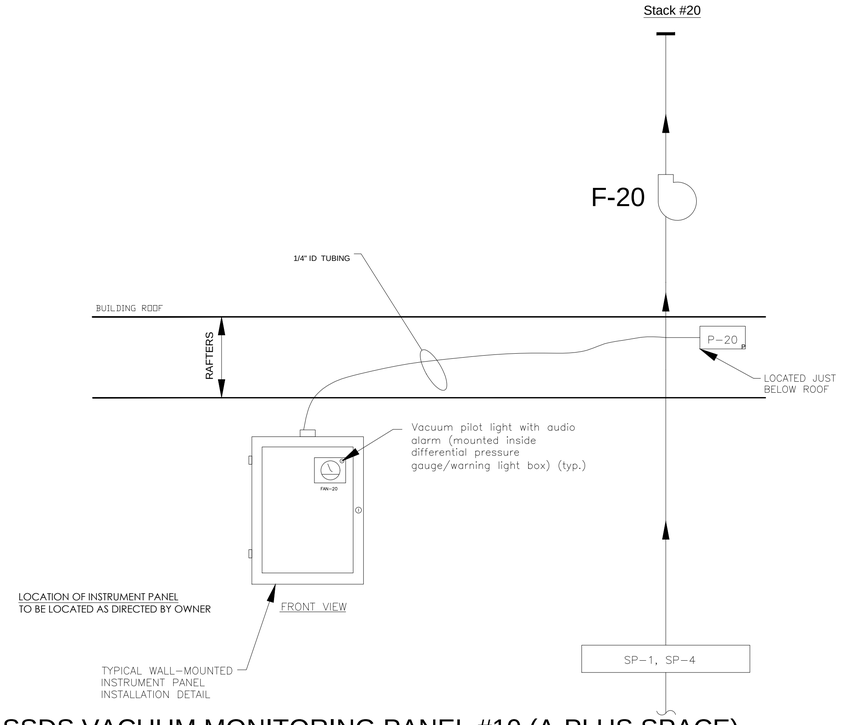
SSDS VACUUM MONITORING PANEL #8 (EVERYDRY SPACE)

NO SCALE



SSDS VACUUM MONITORING PANEL #9 (EDGE COLOR SPACE)

NO SCALE



SSDS VACUUM MONITORING PANEL #10 (A-PLUS SPACE)

NO SCALE

Legend

F-21 — In-line exhaust fan Radonaway RP265 (or approved equal) with Fan ID

P-01 — Point of Measurement for the Magnehelic Model 2000 differential pressure gauge (mounted inside differential pressure gauge/ warning light box)

Air Flow

Notes:

1.) ¼" tubing shall not be run through duct work .

2.) Refer to drawings for connection of ¼" tubing to differential pressure gauge.

3.) ¼" tubing to be Eaton Synflex 1219FR (or approved equal).

4.) Provide 1" Sch 80 PVC electrical conduit on vertical walls to run tubing in to connect to panel box.

5.) See Electrical Drawings for location of outlets related to low-pressure vacuum switches.

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61 Commercial Street
Rochester , NY
14614
Tel. 585-475-1440
Fax. 585-272-1814
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Legend

Notes

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Issued	By	Appd.	YY.MM.DD
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Permit-Seal

Client/Project

FORMER ALLIANCE METAL STAMPING & FABRICATION FACILTY
BROWNFIELD CLEANUP PROGRAM SITE # C828101
12 PIXLEY INDUSTRIAL PARKWAY, GATES, NY

INTERIM REMEDIAL MEASURE
WORK PLAN - SSDS - MARCH 2019

Title

SUB-SLAB DEPRESSURIZATION SYSTEM MONITORING PANEL DETAILS (SHEET 4 OF 4)

Project No.	Scale	
190500647	AS SHOWN	
Drawing No.	Sheet	Revision
ENV-505	9 of 9	0

Appendix B

Summary of March 2017 Sub-slab Vacuum Communication Testing Results

North Addition Test Area (Edge Color graphics main shop area)					
Suction Hole (SH)	Test Hole (TH)	Approx. distance, SH to TH	Vacuum (inches Water Column) measured at TH with suction applied at SH using RadonAway™ fan model:		
			GP-501	HS-5000	
SH-1	TH-1	22 ft.	-0.005 (*)	NT	
			-0.112 (**)	NT	
	TH-2	26 ft.	-0.020	NT	
SH-2	TH-1	57 ft.	NT	0.000	
	TH-2	24 ft.	-0.081	-0.165	
	TH-3	43.5 ft.	-0.010	-0.017	
NT = Not Tested					

Notes on floor penetrations:

In general, both construction joints along column lines and expansion joints along mid-column lines were unsealed and in most cases appeared to be cracked.

The initial SH-1 to TH-1 test (*) was performed before construction and expansion joints in the area were sealed. A second SH-1 to TH-1 test (**) was performed after construction and expansion joints between and surrounding SH-1 and TH-1 were sealed with caulk.

Accessible construction and expansion joints in the areas between and surrounding SH-2, TH-2 and TH-3 were sealed with masking tape prior to the remaining testing in this area. However, floor joints south of TH-1 were not accessible for sealing, and possible leakage along joints in that area may have affected vacuum extension for the test between SH-2 and TH-1.

Original Building Test Area (north end of Gold Pride Press main shop and adjacent Bright Raven dance room area)				
Suction Hole (SH)	Test Hole (TH)	Approx. distance, SH to TH	Vacuum pressure (inches Water Column) measured at TH with suction applied at SH using RadonAway™ fan model:	
			GP-501	HS-5000
SH-3	TH-4	36 ft.	-0.087	-0.320
	TH-5	31 ft.	-0.065	-0.290
	TH-6	55 ft.	-0.017	-0.063
	TH-7	38 ft.	-0.022	-0.098
	TH-8	49 ft.	NT	-0.001
	TH-9	51 ft.	NT	-0.005
SH-4	TH-6	55 ft.	-0.006	-0.010
	TH-10	47.5 ft.	-0.009	-0.015
	TH-11	37 ft.	-0.007	-0.020
NT = Not Tested				

Notes on floor penetrations:

No saw-cut expansion joints are present at mid-column lines in the original section of the building.

In the portion of the test area between suction hole SH-3 and test holes TH-4 through TH-7, construction joints and floor cracks are filled with caulk and the floor surface was painted. The sealing and painting had been done approximately 2 to 3 years ago prior to occupancy by Gold Pride Press.

The floor slab in the Bright Raven dance room and boys gym spaces (the area between SH-3 and test holes TH-8 and TH-9) is largely covered by spring floors, large mats or equipment and was not accessible for examination of joints or other possible penetrations. A short section of a construction joint was visible at the entrance to the boys gym; it was unsealed and appeared to be cracked, and it was not caulked or taped for the testing.

Floor cracks and joints in the SH-4/TH-10/TH-11 portion of the test area had not been previously sealed or painted. In general, joints in this area were filled with dirt and fine debris, and floor cracks were apparently tight with no obvious gaps. Floor cracks and joints in the SH-4/TH-10/TH-11 portion of the test area were not caulked or taped prior to testing.

West Addition Test Area (Monroe Vacuum shop area)					
Suction Hole (SH)	Test Hole (TH)	Approx. distance, SH to TH	Vacuum pressure (inches Water Column) measured at TH with suction applied at SH using RadonAway™ fan model:		
			GP-501	HS-5000	
SH-101	TH-101	45.5 ft.	-0.015	-0.047	
	TH-102	49.5 ft.	-0.001	-0.003	
	TH-102A	49 ft.	NT	-0.010	
	TH-103	42 ft.	-0.095	-0.180	
	TH-104	34 ft.	-0.215	-0.420	
	TH-105	32 ft.	-0.206	-0.400	
NT = Not Tested					

Notes on floor penetrations:

No saw-cut expansion joints are present at mid-column lines in this part of the building.

Large portions of the floor in the Monroe Vacuum shop area are covered with floor tile. Where the concrete slab is exposed, joints and cracks in the interior of the shop area are filled with dirt and fine debris.

Floor cracks and joints in this test area were not caulked or taped prior to testing.

Stantec

61 Commercial Street
Rochester , NY
14614
Tel. 585-475-1440
Fax. 585-272-1814
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Legend

- SH-4 ○ SUB–SLAB VACUUM COMMUNICATION TEST SUCTION HOLE
- TH-11 △ SUB–SLAB VACUUM COMMUNICATION TEST TEST HOLE
- TENANT SPACE OUTLINE
- INTERIOR WALL (GENERALLY LESS THAN FULL HEIGHT IF SHOWN WITHOUT OVER–PRINTED DASHED LINE)
- FD FLOOR DRAIN
- RD ROOF DRAIN PIPE UP
- CB CATCH BASIN
- SAN SANITARY SEWER
- ST STORM SEWER
- RW RECHARGE WELL
- CO CLEAN OUT
- MH MANHOLE

FOUNDATION WALL / GRADE BEAM/ FOOTER OUTLINES

- ORIGINAL MFG BUILDING
- ORIGINAL ADMIN BUILDING
- WEST ADDITION (1975)
- NORTH ADDITION (1979) AND PAINT STORAGE ADDITION (1979)
- OFFICE ADDITION (1988) AND STORAGE SHED ADDITION (1988)

Notes

1. The building floor plan shown on this drawing was drawn based on the floor plan shown on the following drawing: "Series: Tenant Layout, Floor: First, Title: Floor Plan, No.: TP-1", prepared by Miller Anderson Architects, Rochester, NY, date May 1999, issued 5-24-99.

2. Locations of floor drains, roof drains, catch basins and recharge wells were taken from various historic site plans (see separate *Summary of Available Building Plans* prepared by Stantec dated 4/19/12) and then field checked by Stantec personnel on 3/20/12 to confirm that they were present. Additional floor drains, roof drains, catch basins and recharge wells not shown on historic plans or drawings but noted during the field check are also shown. All locations are approximate.

3. Locations shown for underground sanitary sewer ('SAN') and storm sewer ('ST') lines and foundation features were taken from various historic site plans (see separate *Summary of Available Building Plans* prepared by Stantec dated 4/19/12). These features have not been field verified.

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File Name:	APL Dwn.	TW Chkd.	TW Dsgn.	2016.01 YY.MM.DD

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Client/Project

FORMER ALLIANCE METAL STAMPING & FABRICATION FACILTY
BROWNFIELD CLEANUP PROGRAM SITE # C828101

12 PIXLEY INDUSTRIAL PARKWAY, GATES, NY
APRIL 2017
SITE MANAGEMENT PLAN

Title

SUMMARY OF SUB-SLAB VACUUM COMMUNICATION TEST RESULTS

Project No.	Scale	
190500647	AS SHOWN	
Drawing No.	Sheet	Revision
FIG. 2	of	0

0 30 60 90
APPROXIMATE SCALE IN FEET

U:\190500647\Drawing\RM-SMP Report\Cadd\Figure 2 FEB 2017 Supplemental Activities Work Plan – Communication Testing.dwg
2017/04/10 8:24 AM By: Less, Andy