Periodic Review Report
NYSDEC Site #C851049
October 31, 2023 to October 31, 2025

Location:

Former Corning Hospital
176 Denison Parkway East & 171 & 201 East First Street
Corning, New York

Prepared for:

Riedman Companies
45 East Avenue, 6th Floor
Rochester, New York 14604

LaBella Project No. 2244244

January 5, 2026

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300 State Street, Suite 201 | Rochester, NY 14614 | p 585-454-6110 | f 585-454-3066

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1.0 INTRODUCTION

LaBella Associates, D.P.C. (LaBella) is pleased to submit this Periodic Review Report (PRR) for the Former Corning Hospital Site located at 176 Denison Parkway East and 171 and 201 East First Street, Corning, New York, herein after referred to as the "Site". The report details the monitoring period from October 31, 2023 to October 31, 2025. The Site is identified as New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) Site #C851049. A Site Location Map is included as Figure 1.

The Site is located in the city of Corning, Steuben County, New York and is identified as 176 Denison Parkway East (Tax Map No. 318.09-01-018.100), 171 East First Street (Tax Map No. 318.09-01-018.200) and 201 East First Street (Tax Map No. 318.09-01- 013.000) (see Figure 2). During the BCP project, the 176 Denison Parkway East parcel was subdivided into the current 176 Denison Parkway East parcel and 171 East First Street parcel. The current 176 Denison Parkway East and 171 East First Street Parcels also now includes the former Pearl Street; however, that is not part of the BCP. Figure 2 illustrates the BCP limits and current parcel boundaries.

The site is a 4.77-acre area and is bounded by Denison Parkway East to the north, East First Street to the south, commercial buildings to the east, and Chemung Street to the west (see Figure 2). The 176 Denison Parkway East parcel is improved with a 40,000 square foot apartment building (i.e., Building 1), 171 East First Street is improved with a 22,000 square foot apartment building (i.e., Building 2), and 201 East First Street is improved with an asphalt paved parking lot.

LaBella was retained by Riedman Companies to assist in the monitoring and reporting requirements associated with the Site Management Plan (SMP) prepared for the Site.

2.0 BACKGROUND

Remedial actions were performed at the Site from March 2018 through October 2018, which included the removal of impacted historical fill material from the subsurface and the construction of a clean cover (or cap) system. These remedial actions were performed in accordance with a NYSDEC approved Remedial Action Work Plan (RAWP) dated February 16, 2018 and NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation dated May 2010. A Certificate of Completion (COC) was issued for the Site on December 21, 2018. A Site Management Plan (SMP) dated December 2018 (last Updated 2024) was prepared for the Site and approved by NYSDEC on September 12. 2024.

3.0 INSTITUTIONAL AND ENGINEERING CONTROLS (IC/EC)

3.1 IC/EC Certification

IC/EC certifications are provided by a designated representative of Riedman Companies, and a Qualified Environmental Professional in the State of New York working on behalf of Riedman Companies. Refer to Appendix 1 for a copy of the certification forms.

3.2 Institutional Controls

The Institutional Controls for the Site are laid out in the SMP and include the following:

1. The property may be used for Restricted Residential (per 6 NYCRR Part 375- 1.8(g)(2)(ii)), Commercial (per 6 NYCRR Part 375-1.8(g)(2)(iii)) and Industrial (per 6 NYCRR Part 375-1.8(g)(2)(iv));
2. All ECs must be operated and maintained as specified in the SMP;
3. All ECs must be inspected at a frequency and in a manner defined in the SMP.
4. The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the Steuben County Department of Health to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department.
5. Environmental or public health monitoring must be performed as defined in the SMP;
6. Data and information pertinent to site management must be reported at the frequency and in a manner as defined in the SMP;
7. All future activities that will disturb remaining contaminated material must be conducted in accordance with the SMP;
8. Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in the SMP;
9. Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical component of the remedy shall be performed as defined in the SMP;
10. Access to the site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by the Environmental Easement.
11. The potential for vapor intrusion must be evaluated for any buildings developed in the area within the IC boundaries, and any potential impacts that are identified must be monitored or mitigated. SSD systems may be installed and activated in lieu of a soil vapor intrusion evaluation;
12. Vegetable gardens and farming on the site are prohibited.

3.3 Engineering Controls

The Engineering Controls for the Site are described as follows:

1. Vapor Mitigation System
2. Cover System

4.0 ANNUAL MONITORING

The current monitoring program is summarized in the following table:

TABLE 1 - Monitoring/Inspection Schedule

Monitoring Program	Frequency	Matrix	Status
Site Wide Inspection	Annually	Site Use	Ongoing
SSDS	Annually or as needed	Operation, Condition	Ongoing

A summary of the monitoring work completed is provided below.

4.1 Sub Slab Depressurization System Monitoring

The sub-slab depressurization systems (SSDS) were inspected on October 18, 2024 and September 19, 2025 to verify proper operation of the system. Note that additional tests of the SSDS were completed during the reporting period as part of Corrective Measures which are described in Section 5. There are four (4) fans that operate in the 40,000 square foot apartment building (i.e., Building 1) and there are two fans that operate in the 22,000 square foot apartment building (i.e., Building 2) as shown on Figures 3A and 3B. The following inspections were made on each system:

- the in-line U-tube manometer on the suction side of the piping system was observed to determine a pressure differential that would indicate the fan was operating properly.
- the piping condition was observed to determine if any portion of the piping required repair;
- labeling of the system was intact;
- the audible alarm was operational, and,
- descriptions of actions taken to address any concerns of the SSDS (if applicable).

The pressure differential readings for each building are summarized in Table 2 below. The pressure differential monitoring locations for Building 1 are shown on Figure 3A and the pressure differential monitoring locations for Building 2 are shown on Figure 3B.

TABLE 2 – Pressure Field Extension (PFE) Readings

	Date	10/18/2024	09/19/2025
Building	Monitoring Point ID	Manometer Reading (Inches of Water Column)	Manometer Reading (Inches of Water Column)
Building 1 - addressed as 176 Denison Parkway East	1	0.000	-0.001
	2	-0.004	-0.004
	3	-0.010	-0.008
	4	-0.010	-0.005
	5	0.002	0.002
	6	-0.018	-0.016
	7	0.000	0.003
	8	-0.008	-0.011
	9	-0.015	-0.008

	Date	10/18/2024	09/19/2025
Building	Monitoring Point ID	Manometer Reading (Inches of Water Column)	Manometer Reading (Inches of Water Column)
Building 2 - addressed as 171 East 1st Street	1	-0.019	-0.027
	2	-0.032	-0.041
	3	-0.065	-0.070
	4	-0.041	-0.017

Note: The monitoring points IDS 1, 2, . . are from north to south.

As indicated in Table 2, pressure field extension (PFE) monitoring point 5 had positive readings, and monitoring points 1 and 7 had readings of 0.000 inches of water column during the October 18, 2024 inspection. Monitoring points 5 and 7 had positive readings during the September 19, 2025 inspection. As a result of these readings corrective measures were requested by the NSYDEC and are further described in Section 5. The cause of these readings may be due to potential damaged piping and is unlikely an issue with the operations of the SSDS.

The U-tube pressure differential readings and alarm check for each SSDS are summarized in Table 3 below.

TABLE 3 – U-Tube Manometer and Audible Alarm Inspection

	Date	10/18/2024		09/19/2025	
Building	SSD System ID	Manometer Reading (Inches of Water Column)	Audible Alarm Checked and Operation	Manometer Reading (Inches of Water Column)	Audible Alarm Checked and Operation
Building 1 - addressed as 176 Denison Parkway East	1	-0.310	Yes	-0.307	Yes
	2	-0.645	Yes	-0.637	Yes
	3	-0.512	Yes	-0.599	Yes
	4	-0.420	Yes	-0.291	Yes
Building 2 - addressed as 171 East 1st Street	1	-0.473	Yes	-0.466	Yes
	2	-0.332	Yes	-0.356	Yes

Based on the inspection, the SSDS appeared to be in good working order, with the exception of PFE monitoring point readings for points 1, 5, and 7 in Building 1 that were 0.0 IWC or positive. The issues with the PFE monitoring point pressures are addressed in Section 5 which describes corrective measures completed. Copies of the photographs of pertinent portions of the system and site cover are included in Appendix 3.

The design of the SSDS for each building are included in Appendix 2. The as-built drawings of the SSDS installation were provided to the NYSDEC in a Construction Completion Report (CCR).

4.2 Site Cover and Use Inspection

A site-wide inspection of the property was conducted on October 18, 2024 and September 19, 2025 to assess the general condition and use of the Site. Based on the results of the general site conditions inspection, the Site cover remains in good condition and the Site is occupied by a bank and residential apartment buildings. Photos of the site are included in Appendix 3.

5.0 CORRECTIVE MEASURES

A letter received from the NYSDEC dated April 17, 2025 required the submittal of a Corrective Measures Work Plan (CMWP) as a result of several PFE monitoring points yielding zero or positive pressure readings during the past two reporting periods (May 21, 2021 through October 31, 2023 and October 31, 2023 through October 31, 2024).

5.1 Corrective Measures Work Plan

A CMWP dated May 7, 2025, was developed to address issues related to PFE monitoring readings collected on and prior to October 18, 2024. Specifically, negative pressures were not observed at PFE points 1, 5, and 7 in Building 1 during routine monitoring which implies that the SSDS may not be properly depressurizing the sub-slab to the extent for which it was designed. The CMWP detailed procedures to assess the SSDS to determine if it continued to operate properly or if additional actions would be necessary to extend influence of the system to additional areas. The CMWP generally included the following steps:

- Utilize a hammer drill to install temporary PFE monitoring points in the vicinity of PFE locations 1, 5, and 7.
- Utilize a handheld manometer to collect pressure differential readings at the temporary points.
- Repair the floor following completion of the work.
- Evaluate the data for determination if further work is needed.

5.2 Corrective Measures Implementation

On July 14, 2025, Labella mobilized to the Site to assess the neutral or positive differential pressure readings that were observed in Building 1 PFE monitoring points 1, 5, and 7. Three temporary monitoring points designated as 1A, 5A and 7A were installed through the site building slab in the general vicinity of PFE monitoring points 1, 5, and 7, respectively. However, the exact same locations could not be used due to site features or occupied apartment units at the time of the work. The temporary PFE monitoring points were installed by drilling ½-inch diameter holes through the building slab utilizing a rotary hammer drill. A digital micromanometer was then used to measure the differential pressure at each of the new temporary PFE monitoring points.

The following readings were recorded:

Table 4 – Building 1 PFE Monitoring Summary

Date	7/14/2025
Building 1 PFE Monitoring Point	Manometer Reading (Inches of Water Column)
1A	-0.010
5A	0.000
7A	-0.030

As shown on Table 4, negative pressures were observed at the temporary monitoring points 1A and 7A. Based on these measurements, the system is creating sufficient vacuum at these locations. It is possible that the tubing associated with the originally installed monitoring points 1 and 7 has become plugged or damaged preventing the ability to collect accurate differential pressure readings from those points. Monitoring point 5A located in the stairwell area indicated 0.0 inches of water column (IWC). Based on this result, an additional temporary PFE monitoring point location was installed in the hallway north of garage unit G110 which was tested and indicated a pressure of -0.005 IWC. Two additional temporary PFE monitoring points were installed and tested, one just outside the stairwell and one at the east end of the corridor, and each indicated a differential pressure of 0.0 IWC. It is possible that monitoring point 5 is not under vacuum; however, it is still possible that the original monitoring point may also not be functioning properly or could be damaged, similarly to points 1 and 7.

Following the completion of the Site activities, the temporary PFE monitoring points were patched and sealed using concrete mix.

Refer to Figure 4 for locations of the temporary PFE monitoring points and differential pressure readings observed.

Based on the findings, adequate vacuum was present beneath the slab in the vicinity of points 1A and 7A; however, no vacuum was observed to be present in the vicinity of point 5A. It was then recommended that supplemental corrective measures be completed.

5.3 Supplemental Corrective Measures Work Plan

Based on the findings of activities completed for the May 2025 Corrective Measures Work Plan implementation, Labella developed a Supplemental Corrective Measures Work Plan (SCMWP) dated August 15, 2025. The SCMWP described the results of the Corrective Measures that were already implemented and outlined supplemental corrective measures to investigate and determine a remedy for the lack of apparent SSDS influence in the vicinity of PFE monitoring point 5 and temporary PFE monitoring point 5A. The SCMWP outlined the following additional corrective measures:

- Test a higher powered fan to determine if it will increase the influence of the system to cause a negative differential pressure reading in monitoring point 5. If adequate pressure differential is realized, then the higher powered fan will replace the existing fan.
- If the higher powered fan does not appear to depressurize the slab at PFE point 5, conduct a pilot test by placing a temporary suction point in the stairwell to assess for radius of influence.

5.4 Supplemental Corrective Measures Implementation

On September 19, 2025, LaBella and Mitigation Tech mobilized to the Site for implementation of the supplemental corrective measures. All fans were first confirmed to be operational prior to activities. Three (3) additional PFE points were then drilled into the east stairwell of Building 1 utilizing a rotary hammer drill to create ½-inch diameter holes through the slab. A digital micromanometer was used for testing differential pressure at the PFE monitoring points. Readings in each of the three points were 0.0 IWC which confirmed that no vacuum was achieved in this area with operation of the existing Radonaway GP-501 fans.

The GP-501 fans were removed from the two northernmost SSDS risers on Building 1 and replaced with two Fantech RN-4 fans. The RN-4s are capable of moving a higher volume of air at a similar pressure to the Radonaway GP-501 fans that were in use at the Site. The RN-4 fans were activated and confirmed to be operating while the fans on the two southern risers on Building 1 were turned off. PFE monitoring point #5 was checked again while the RN-4 fans were in operation and still no vacuum was observed in the PFE monitoring point. The temporary PFE monitoring points that were drilled in the Building 1 east stairwell were again evaluated to determine the differential pressure at the points to establish if vacuum was achieved in these areas. Upon testing three locations in the stairwell it was determined that no vacuum was achieved even with the use of the higher-powered fans. Temporary PFE monitoring points were then drilled immediately north of the stair well area in the hallway and at the east end of the hallway just outside the door to the space where Monitoring Point #5 is intended to monitor and it was observed that a vacuum was achieved in these two locations at approximately -0.009 and -0.016, respectively. The vacuum was present both when the RN-4 fans were attached to the vent stack and also when the typical GP-501 fans were returned to operation for all the systems.

Refer to Figure 5A for locations of temporary PFE monitoring points and observed differential pressure readings at the points while the RN-4 fans were operated on the vent stacks. Refer to Figure 5B for observed differential pressure readings from the temporary PFE monitoring points while the typical GP-501 fans were operating.

In the testing completed in July as part of the Corrective Measures Work Plan no system influence (i.e., 0.0 IWC or positive pressure) was noted in the hallway just outside the stairwell and at the east end of the hallway. However in testing completed as part the Supplemental Corrective Measures, it was found that the system does appear to be properly influencing these areas. Based on review foundation plans for the building and of the locations of the points in July it is likely that the points installed were advanced in areas of thickened slabs and therefore were not advanced deep enough to penetrate the slab.

Following testing with the higher-powered RN-4 fans active, a temporary suction point was installed in the stairwell area to determine what would be required to depressurize the stairwell and to see if the vacuum created would reach beyond the stairwell area. One of the RN-4 fans was disconnected from the roof stack and affixed to the new suction point in the stairwell. The RN-4 fan was activated and the stairwell area was depressurized with the RN-4. The RN-4 was observed to be pulling 4.5 inches IWC of vacuum at the suction point resulting in -0.057 IWC vacuum at the nearest temporary PFE point in the stairwell located approximately 7.5-feet to the north of the suction point and with the minimum pressure achieved of -0.002 at a temporary PFE point located approximately 15.5-feet from the suction point in the southwest corner of the stairwell at the bottom of the stairs. While the RN-4 was operating at the new temporary suction point location in the stair well, temporary PFE

points in the hallway were tested to see if there was any influence outside of the stairwell area. No significant depressurization was achieved in the hallway outside the stairwell during operation of the fan and suction point in the stairwell. Foundation plans reviewed for the building indicate that there are concrete footers surrounding the stairwell that could isolate the sub-slab area from other areas in the building.

Refer to Figure 5C showing the locations of temporary suction point and differential pressure readings from the temporary PFE monitoring points during the pilot test.

Following completion of the testing, the suction cavity in the stair well was sealed with concrete and GP-501 fans were returned to operation. PFE points in the hallway outside the stairwell, and in the hallway in front of the door to the area where PFE point #5 is intended to monitor showed adequate vacuum readings around -0.007 without the higher powered fan.However, no vacuum was again observed in the stairwell area. The temporary PFE monitoring points were then sealed with concrete.

5.5 Additional Corrective Measures Investigation

As a result of the supplemental corrective measures completed, LaBella remobilized to the Site on October 30, 2025 to assess the sub-slab depressurization system #3 via checking the vacuum in garage spaces in Building 1. The garage spaces are located to the west of the eastern stairwell and were targeted for testing due to the lack of vacuum observed in the stairwell. LaBella was provided access to garage spaces units G108 and G116 to assess the pressure field extension of the sub-slab depressurization system #3 in these areas. Temporary PFE monitoring points were installed by drilling ½ inch diameter holes using a rotary hammer drill through the slab of the building. Five temporary PFE points were installed in garage 116 and two temporary PFE testing points were drilled in garage 108. A digital micromanometer was utilized to measure the pressure differential between the sub-slab and the indoor air to determine if a vacuum was achieved by the SSDS system in the temporary PFE monitoring point locations. Negative differential pressure readings are indicative of a vacuum beneath the slab.

During differential pressure monitoring at the PFE points, the differential pressure did not remain steady and appeared to fluctuate at any given moment. Differential pressure readings observed in garage 116 were generally between -0.001 and -0.005 IWC with slight variations based on which point in the space was being observed. In the garage space for unit 108 differential pressure readings typically fluctuated between -0.002 and -0.004 inches H_2O. Fluctuations may be attributed to wind or wind gusts outside as garages are typically not airtight which can lead to wind-induced pressure changes during the differential pressure reading. Based on the readings observed, it appears that a negative pressure (i.e., vacuum) was achieved beneath the slab in the garage spaces tested.

Following completion of the testing, the temporary monitoring points were patched and sealed with concrete.

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Compliance

The requirements dictated in the SMP regarding IC/EC's and the Monitoring Plan were generally met during the reporting period. As such, no steps are currently deemed necessary to correct areas of non-compliance.

6.2 Performance and Effectiveness of Remedy

An evaluation of the components of the SMP during this reporting period indicates that the IC/EC controls appear to be protective of human health and the environment. The monitoring plan sufficiently monitored the performance of the remedy.

The east stairwell in Building 1 does not appear to be depressurized, however, this space is not continuously occupied and is often supplied with fresh outdoor air as the doorway is utilized for entrance into the building by its occupants. Additionally, PFE monitoring point 5 does not appear to be functioning properly; however, the other areas such as the hallway and garage spaces in the east end of Building 1 were observed to be properly depressurized.

6.3 Recommendations

Since residual contamination remains at the Site, applicable site management requirements should be continued.

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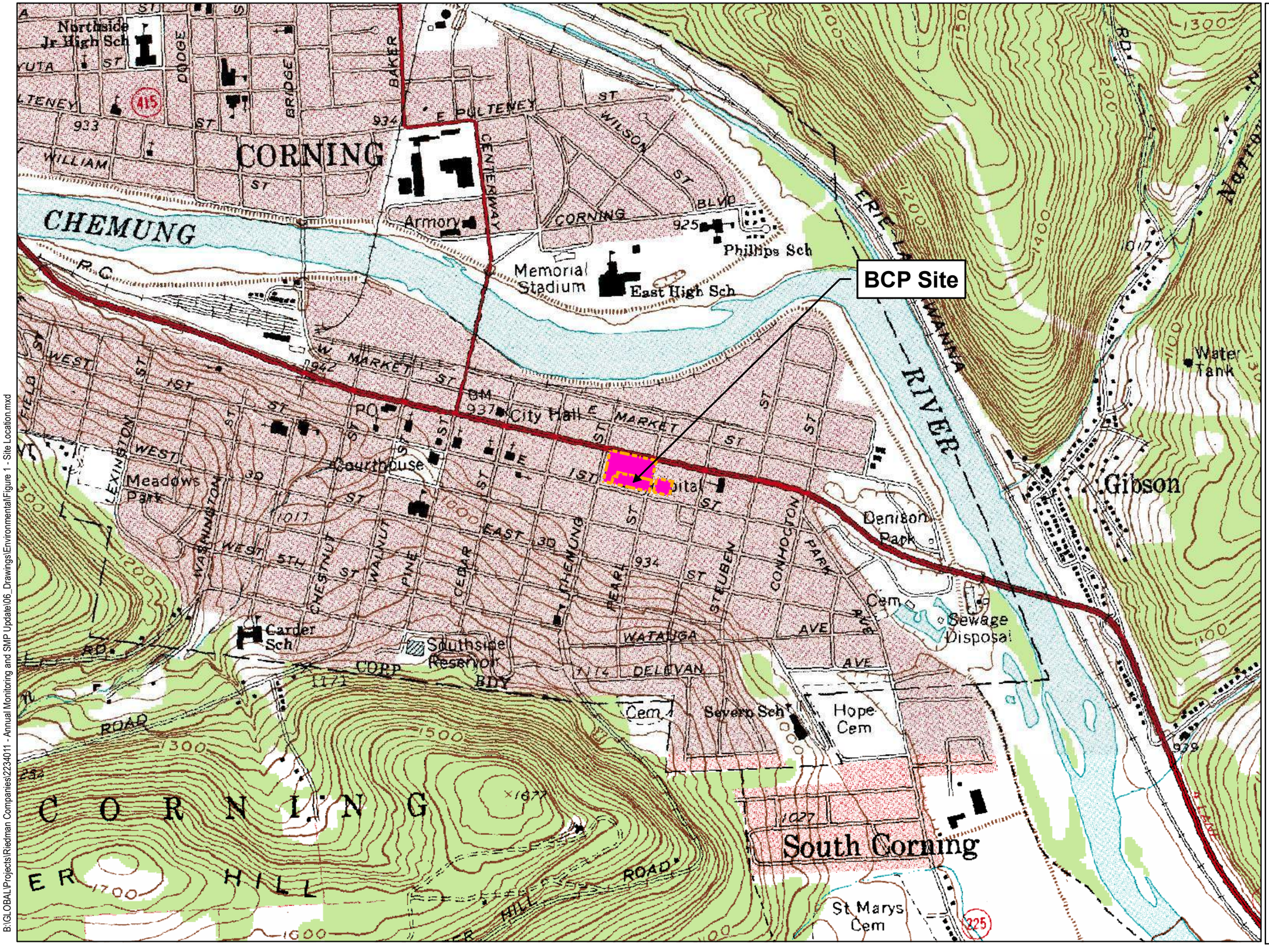
FIGURES



B:\GLOBAL\Projects\Riedman Companies\2234011 - Annual Monitoring and SMP Update\06. Drawings\Environmental\Figure 1 - Site Location.mxd

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RIEDMAN COMPANIES

Former Corning Hospital
176 Denison Parkway East
171 and 201 East First Street
Corning, New York

N

0 500 1,000 Feet

1 inch = 1,000 feet

Legend

Approximate BCP Boundary

Sources/Notes:

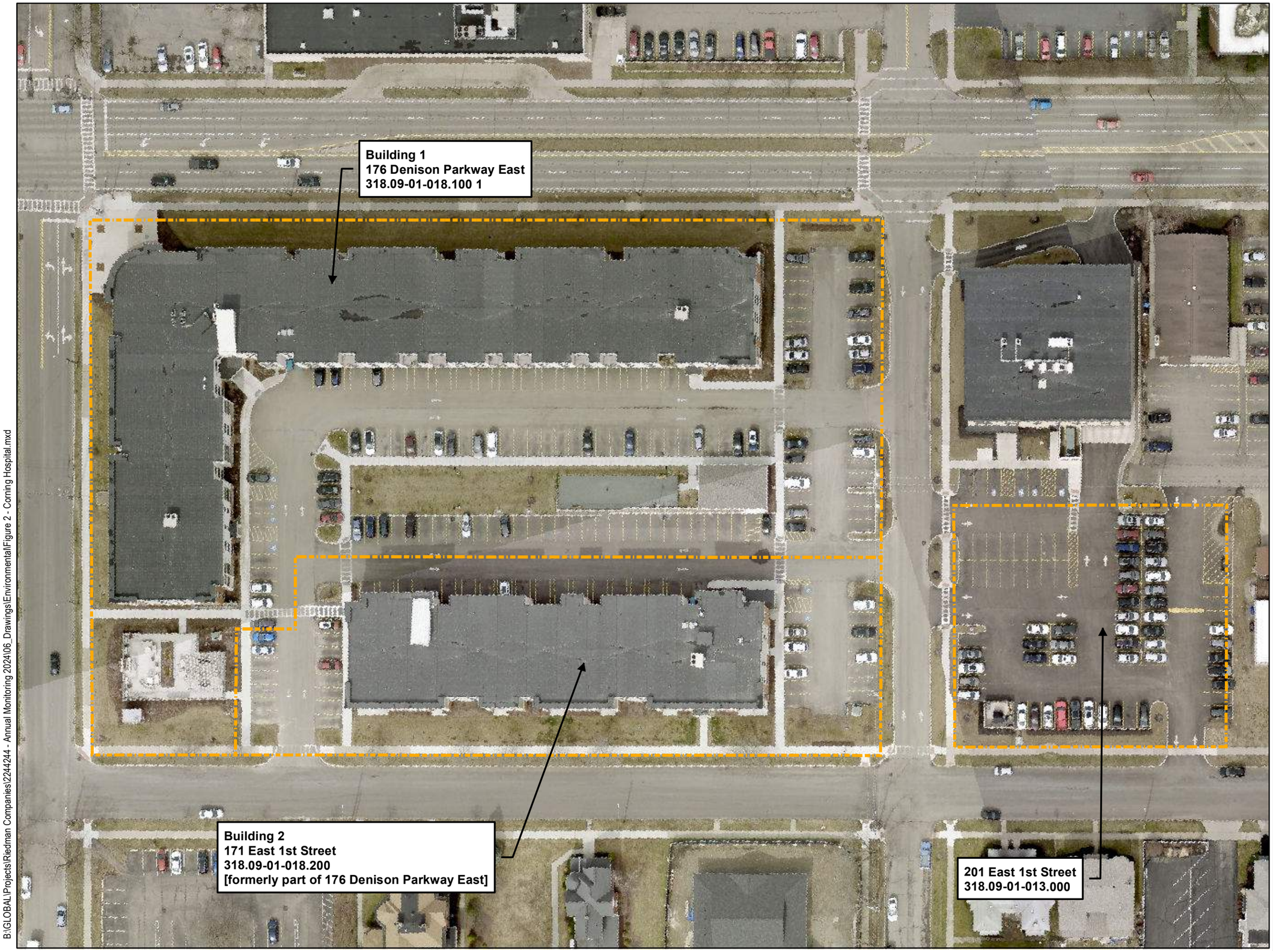
1) USGS image obtained from NYS GIS Clearinghouse.
2) All locations should be considered approximate.

LaBella Project No: 2234011
Date: 10/31/2023

SITE LOCATION

FIGURE 1

INTENDED TO PRINT AS: 11" X 17"



B:\GLOBAL\Projects\Riedman Companies\2244244 - Annual Monitoring 2024\06_Drawings\Environmental\Figure 2 - Corning Hospital.mxd

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RIEDMAN COMPANIES

Former Corning Hospital
176 Denison Parkway East
171 and 201 East First Street
Corning, New York

N

0 30 60 Feet

1 inch = 60 feet

Legend

Approximate BCP Boundary

Sources/Notes:

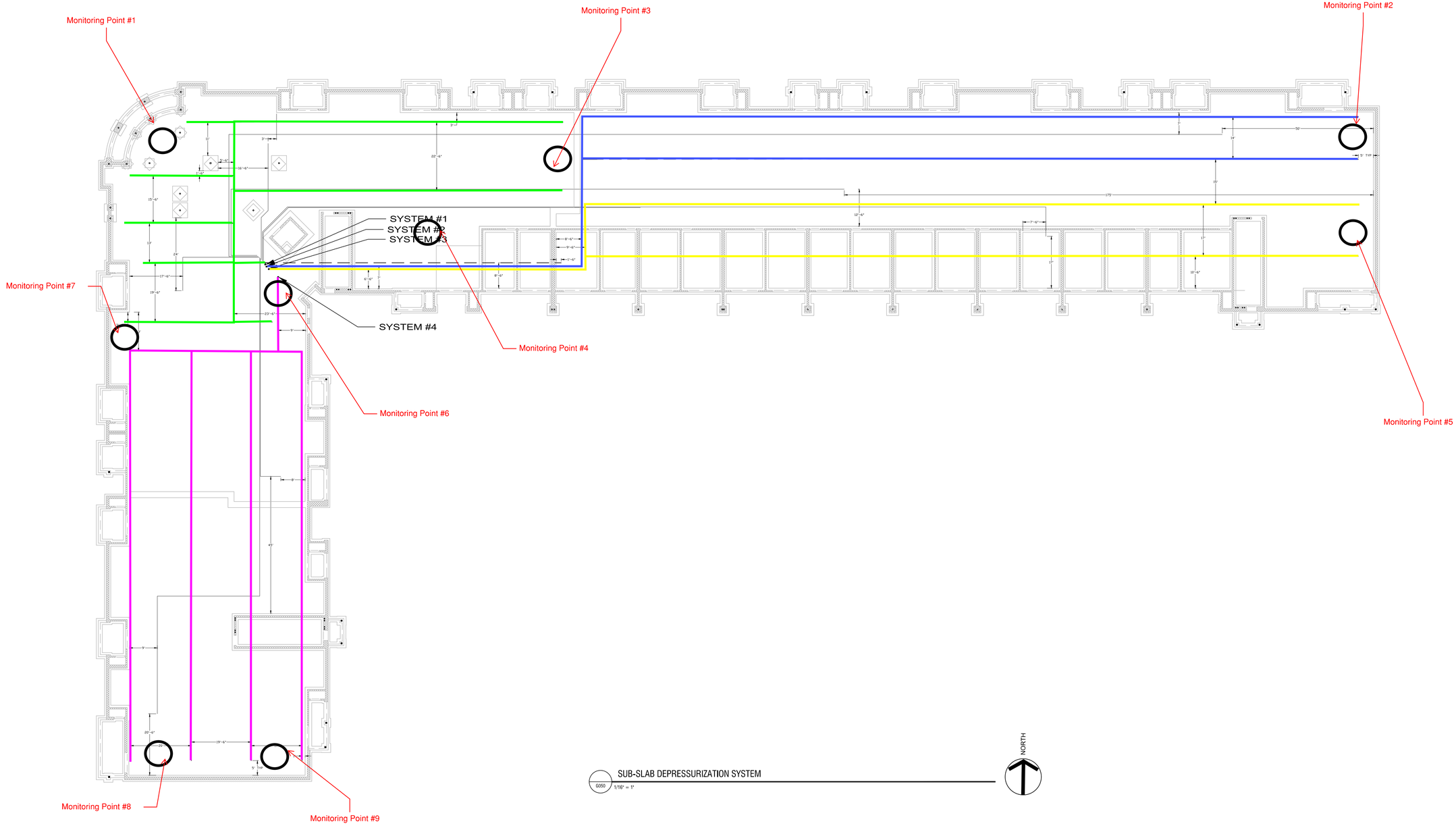
1) Aerial image obtained from Eaglveview, Inc. and may not represent current conditions.
2) All locations should be considered approximate.

LaBella Project No: 2244244
Date: 1/20/2026

BCP SITE BOUNDARY

FIGURE 2

INTENDED TO PRINT AS: 11" X 17"



G050 SUB-SLAB DEPRESSURIZATION SYSTEM
1/16" = 1'

NORTH

NOTES:

1. 1/4 INCH STAINLESS STEEL MONITORING POINTS MOUNTED APPROXIMATELY 2 FEET ABOVE FINISHED FLOOR AGAINST AN INTERIOR WALL WITHIN ELECTRIC ROOM. REFER TO DETAIL 3: PROFILE AT GAUGE POINT.
2. 1/4 STAINLESS STEEL TUBING TERMINATED ABOVE SUB-BASE WITH FABRIC WRAPPED END. REFER TO DETAIL 6: MATERIAL PROFILE.
3. 4 INCH SCHEDULE 40 PVC RISER TO BE LOCATED 6 INCHES FROM WALL AND VENTED UP THROUGH THE ROOF. REFER TO DETAIL 1: REAR END WALL.
4. INSTALL ALARM ON EACH RISER PIPE WITHIN ELECTRIC ROOM. REFER TO DETAIL 4: SUB-SLAB DEPRESSURIZATION ALARM SYSTEM.
5. 4 INCH SCHEDULE 40 PVC TO 4 INCH HDPE PERFORATED PIPE CONNECTION. REFER TO DETAIL 2: DETAIL AT HEADER.
6. 4 INCH HDPE PIPE WRAPPED IN FABRIC AND PLACED IN PEA STONE TRENCH. REFER TO DETAIL 6: MATERIAL PROFILE
7. 4 INCH SOLID PVC EXTENDING MAXIMUM 2 FEET AND ON EITHER SIDE OF WALL, GROUTED IN PLACE TO FORM WATER TIGHT CONNECTION. REFER TO DETAIL 7: PROFILE AT PENETRATION.
8. MOVE PIPING AS NEEDED IN FIELD TO AVOID PLUMBING.
9. INSTALL 4" CAP AT EACH VAPOR COLLECTION PIPE TERMINATION.
10. ALL SUB-SLAB VAPOR COLLECTION PIPING TO BE GEOTEXTILE-WRAPPED 4 INCH PERFORATED DUAL-WALLED CORRUGATED EXTERIOR SMOOTH INTERIOR HDPE.
11. HEADER PIPING TO BE 4 INCH SCHEDULE 40 PVC.
12. PEA STONE SHALL CONSIST OF WASHED MATERIAL THAT WILL PASS THROUGH A 2 INCH SIEVE AND BE RETAINED BY A 1/4 INCH SIEVE.
13. TO PROTECT THE VAPOR BARRIER, ALL PENETRATIONS MADE AFTER POURING OF THE SLAB, SUCH AS JOINTS, ETC, SHALL BE CUT IN A MANNER TO AVOID PENETRATING THE VAPOR BARRIER.
14. SEAL ALL PENETRATIONS AND GAPS WITH AN ELASTOMERIC JOINT SEALANT.
15. THIS DRAWING IS NOT TO INTEND TO PROVIDE STRUCTURAL INFORMATION. REFER TO STRUCTURAL DRAWINGS.
16. CONTRACTOR TO CONFIRM NO AIR INTAKE IS WITHIN 25' FROM FAN EXHAUST.
17. SYSTEM 1, 2, 3, AND 4 INSTALL RADON AWAY GP-501 FAN OR EQUIVALENT.

LEGEND

- — — — — FABRIC WRAPPED 4 INCH HDPE PERFORATED PIPE PLACED WITHIN MIDDLE OF PEA STONE TRENCH
- ——— 4 INCH SOLID SCH 40 PVC PIPE PLACED WITHIN MIDDLE OF PEA STONE TRENCH, SLOPED AWAY FROM VERTICAL RISER AT 1/4 INCH PER FOOT TO ALLOW FOR DRAINAGE.
- ——— 1/4 INCH STAINLESS STEEL MONITORING POINTS PLACED ABOVE COMPACTED SUB-BASE MATERIAL, FABRIC WRAPPED AT END.

NO.	REVISION	BY	DATE
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STATE OF NEW YORK
DANIEL P. HOLL
LICENSED PROFESSIONAL ENGINEER

LaBella
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PROJECT/CLIENT
176 DENISON PARKWAY EAST
CORNING, NEW YORK 14830

DRAWING TITLE
SUB-SLAB DEPRESSURIZATION
SYSTEM LAYOUT
AS-BUILT

ISSUED FOR
CONSTRUCTION

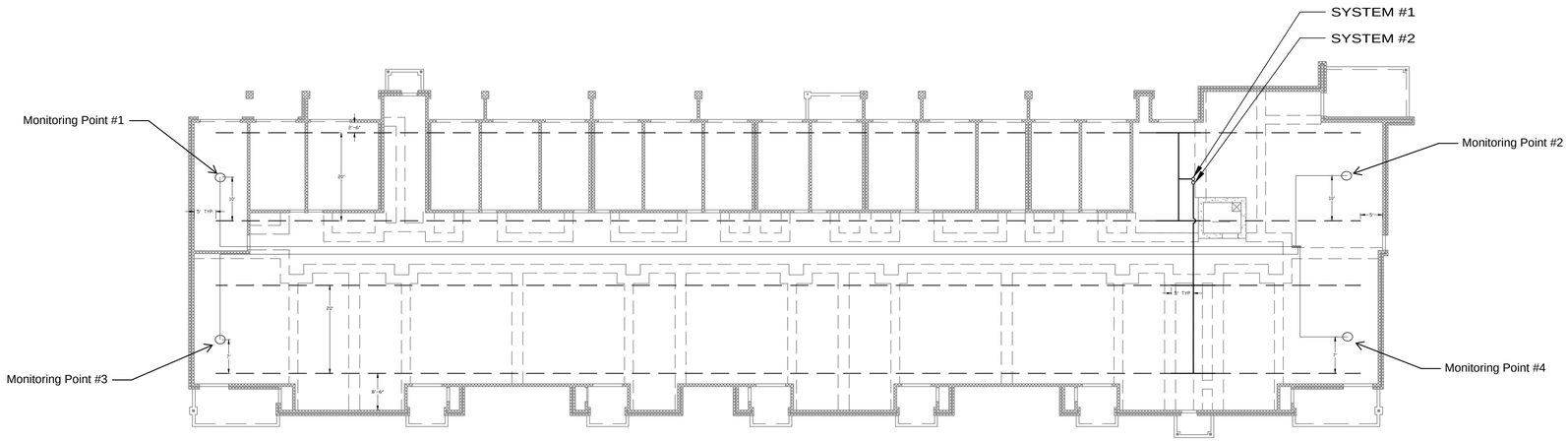
DESIGNED BY: ---
DRAWN BY: DRP
REVIEWED BY: ---
DATE: NOVEMBER, 2018

I:\Corning Hospital\2150906 - Phase II \2018\SSDS\SSDS.dwg

PROJECT/DRAWING NUMBER
2244244

FIG 3A

Building 2



G050 SUB-SLAB DEPRESSURIZATION SYSTEM 1/16" = 1'

NOTES:

1. 1/4 INCH STAINLESS STEEL MONITORING POINTS MOUNTED APPROXIMATELY 2 FEET ABOVE FINISHED FLOOR AGAINST AN INTERIOR WALL WITHIN ELECTRIC ROOM. REFER TO DETAIL 3: PROFILE AT GAUGE POINT.
2. 1/4 STAINLESS STEEL TUBING TERMINATED ABOVE SUB-BASE WITH FABRIC WRAPPED END. REFER TO DETAIL 6: MATERIAL PROFILE.
3. 4 INCH SCHEDULE 40 PVC RISER TO BE LOCATED 6 INCHES FROM WALL AND VENTED UP THROUGH THE ROOF. REFER TO DETAIL 1: REAR END WALL.
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8. MOVE PIPING AS NEEDED IN FIELD TO AVOID PLUMBING.
9. INSTALL 4" CAP AT EACH VAPOR COLLECTION PIPE TERMINATION.
10. ALL SUB-SLAB VAPOR COLLECTION PIPING TO BE GEOTEXTILE-WRAPPED 4 INCH PERFORATED DUAL-WALLED CORRUGATED EXTERIOR SMOOTH INTERIOR HDPE.
11. HEADER PIPING TO BE 4 INCH SCHEDULE 40 PVC.
12. PEA STONE SHALL CONSIST OF WASHED MATERIAL THAT WILL PASS THROUGH A 2 INCH SIEVE AND BE RETAINED BY A 1/4 INCH SIEVE.
13. TO PROTECT THE VAPOR BARRIER, ALL PENETRATIONS MADE AFTER POURING OF THE SLAB, SUCH AS JOINTS, ETC, SHALL BE CUT IN A MANNER TO AVOID PENETRATING THE VAPOR BARRIER.
14. SEAL ALL PENETRATIONS AND GAPS WITH AN ELASTOMERIC JOINT SEALANT.
15. THIS DRAWING IS NOT TO INTEND TO PROVIDE STRUCTURAL INFORMATION. REFER TO STRUCTURAL DRAWINGS.
16. CONTRACTOR TO CONFIRM NO AIR INTAKE IS WITHIN 25' FROM FAN EXHAUST.
17. SYSTEM 1, 2, 3, AND 4 INSTALL RADON AWAY GP-501 FAN OR EQUIVALENT.

LEGEND

- FABRIC WRAPPED 4 INCH HDPE PERFORATED PIPE PLACED WITHIN MIDDLE OF PEA STONE TRENCH
- 4 INCH SOLID SCH 40 PVC PIPE PLACED WITHIN MIDDLE OF PEA STONE TRENCH, SLOPED AWAY FROM VERTICAL RISER AT 1/4 INCH PER FOOT TO ALLOW FOR DRAINAGE.
- 1/4 INCH STAINLESS STEEL MONITORING POINTS PLACED ABOVE COMPACTED SUB-BASE MATERIAL, FABRIC WRAPPED AT END.

NO.	REVISION	BY	DATE

LaBella
Powered by partnership.

PROJECT/CLIENT
176 DENISON PARKWAY EAST
CORNING, NEW YORK 14830

DRAWING TITLE
SUB-SLAB DEPRESSURIZATION SYSTEM LAYOUT

ISSUED FOR
CONSTRUCTION

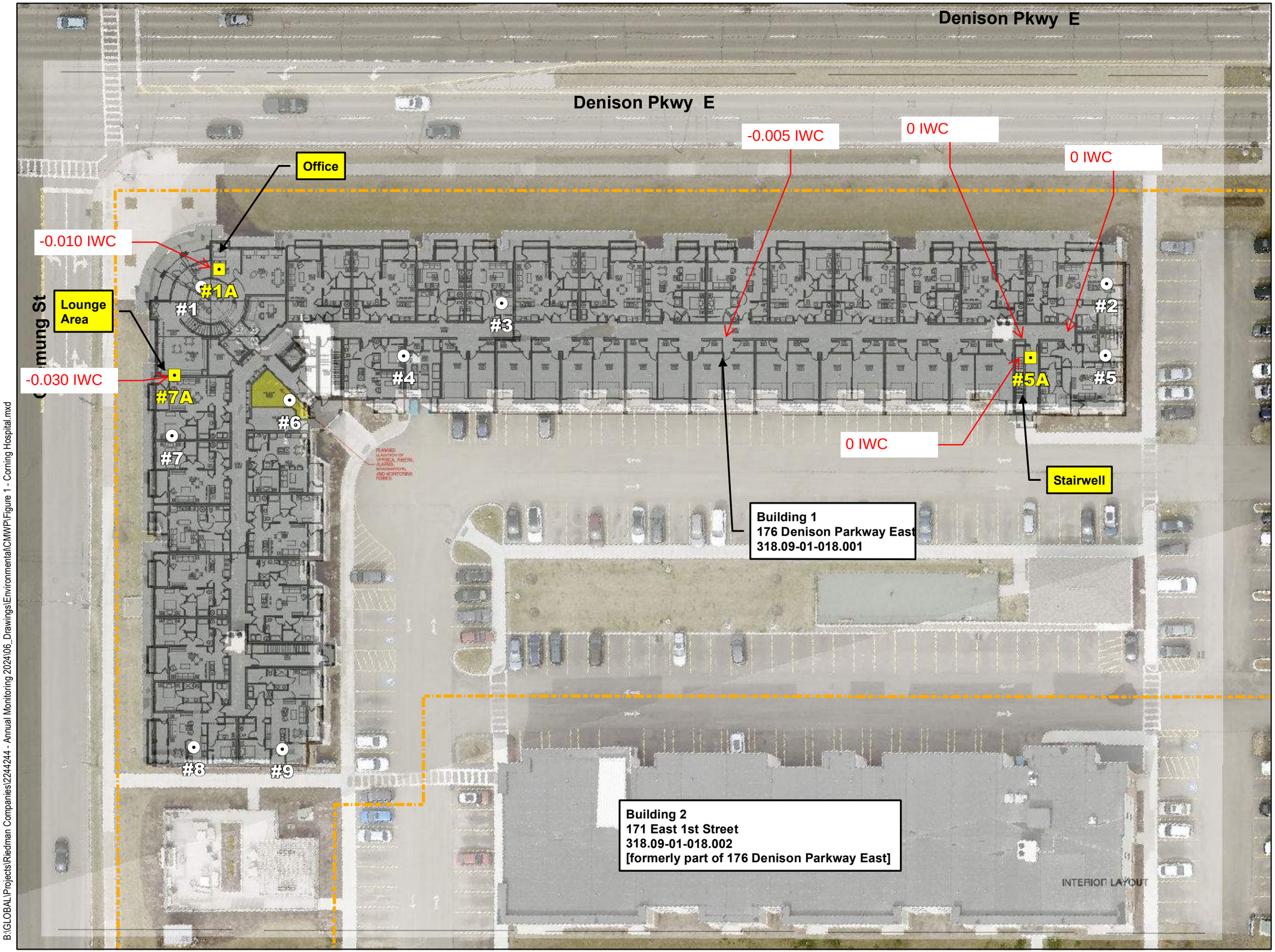
DATE:
NOVEMBER, 2018

DESIGNED BY: ---
DRAWN BY: DRP
REVIEWED BY: ---

J:\Rochon Development Corporation\219002 - Sumner Corning Project SSDS Drawings SSDS.dwg

PROJECT/DRAWING NUMBER
2244244

FIG 3B



B:\GLOBAL\Projects\Riedman Companies\2244244 - Annual Monitoring 2024\06_Drawings\Environmental\CMWP\Figure 1 - Corning Hospital.mxd

LaBella
Powered by partnership.

RIEDMAN COMPANIES

Former Corning Hospital
176 Denison Parkway East
171 and 201 East First Street
Corning, New York

N

0 20 40 Feet

1 inch = 40 feet

Legend

- Temporary PFE Monitoring Point
- Approximate BCP Boundary
- PFE Monitoring Point

Sources/Notes:

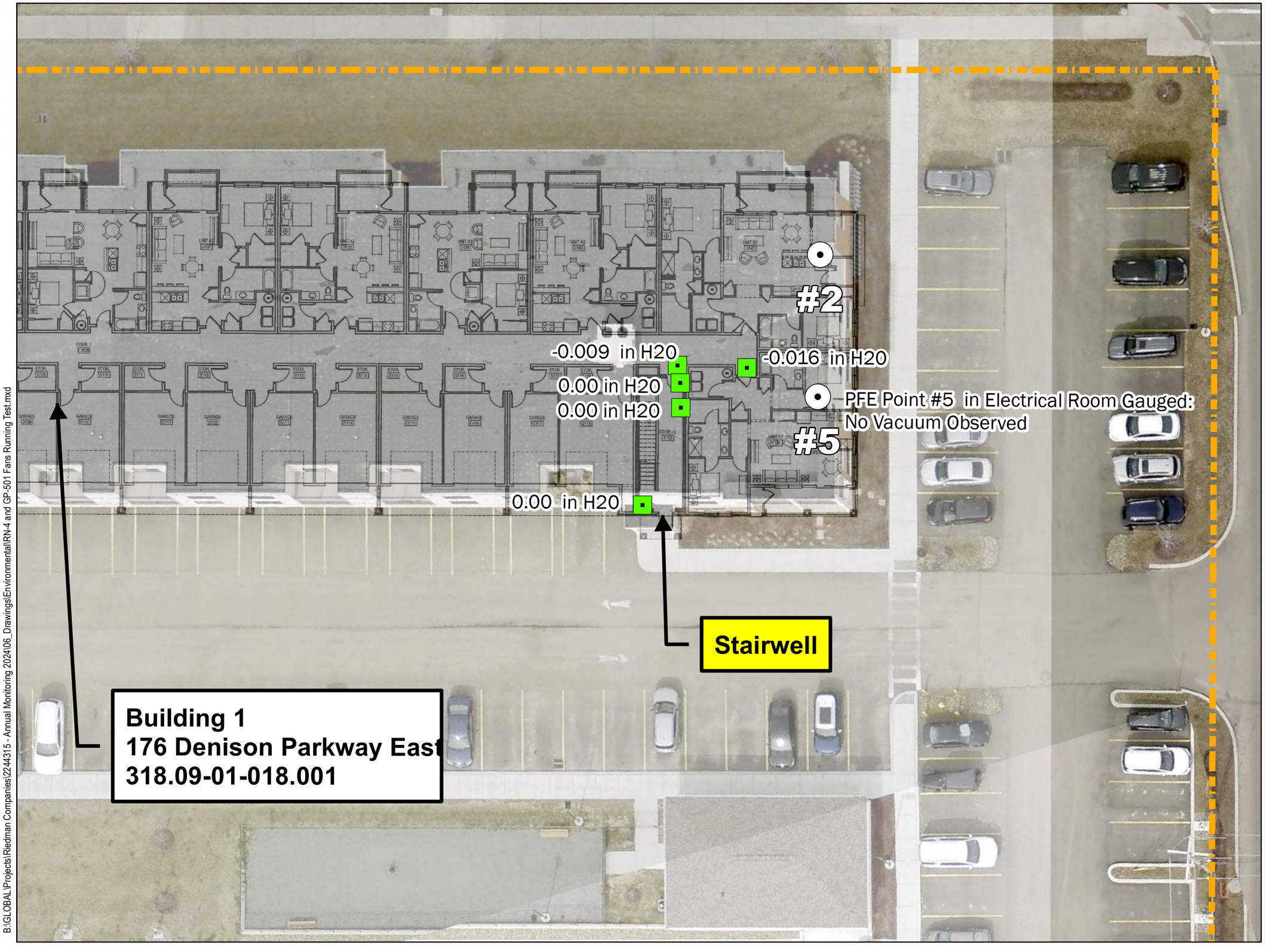
1) Aerial image obtained from Eaglveview, Inc. and may not represent current conditions.
2) All locations should be considered approximate.

LaBella Project No: 2244244
Date: 5/13/2025

Corrective Measures Temporary PFE Testing Locations and Readings

FIGURE 4

INTENDED TO PRINT AS: 11" X 17"



B:\GLOBAL\Projects\Riedman Companies\2244315 - Annual Monitoring 2024\06_Drawings\Environmental\RN-4 and GP-501 Fans Running Test.mxd

LaBella
Powered by partnership.

RIEDMAN COMPANIES

Former Corning Hospital
176 Denison Parkway East
171 and 201 East First Street
Corning, New York

N

0 10 20 Feet

1 inch = 20 feet

Legend

- Temporary PFE Monitoring Point
- Approximate BCP Boundary
- PFE Monitoring Point

Sources/Notes:

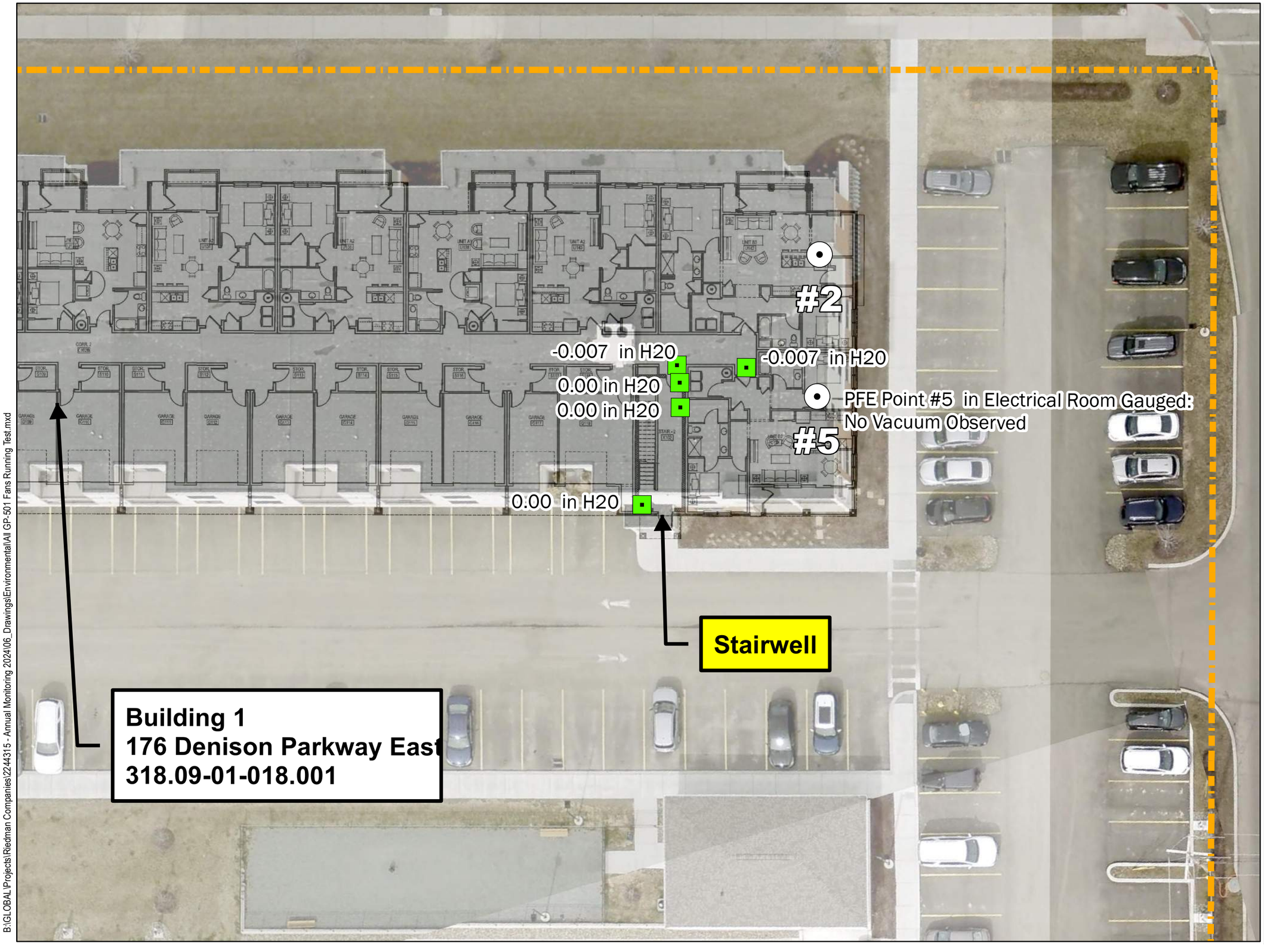
1) Aerial image obtained from Eaglveview, Inc. and may not represent current conditions.
2) All locations should be considered approximate.

LaBella Project No: 2244244
Date: 10/3/2025

Supplemental Corrective Measures Temporary PFE Testing Locations with Two RN-4 Fans

FIGURE 5A

INTENDED TO PRINT AS: 11" X 17"



B:\GLOBAL\Projects\Riedman Companies\2244315 - Annual Monitoring 2024\06_Drawings\Environmental\All GP-501 Fans Running Test.mxd

LaBella
Powered by partnership.

RIEDMAN COMPANIES

Former Corning Hospital
176 Denison Parkway East
171 and 201 East First Street
Corning, New York

N

0 10 20 Feet

1 inch = 20 feet

Legend

- Temporary PFE Monitoring Point
- Approximate BCP Boundary
- PFE Monitoring Point

Sources/Notes:

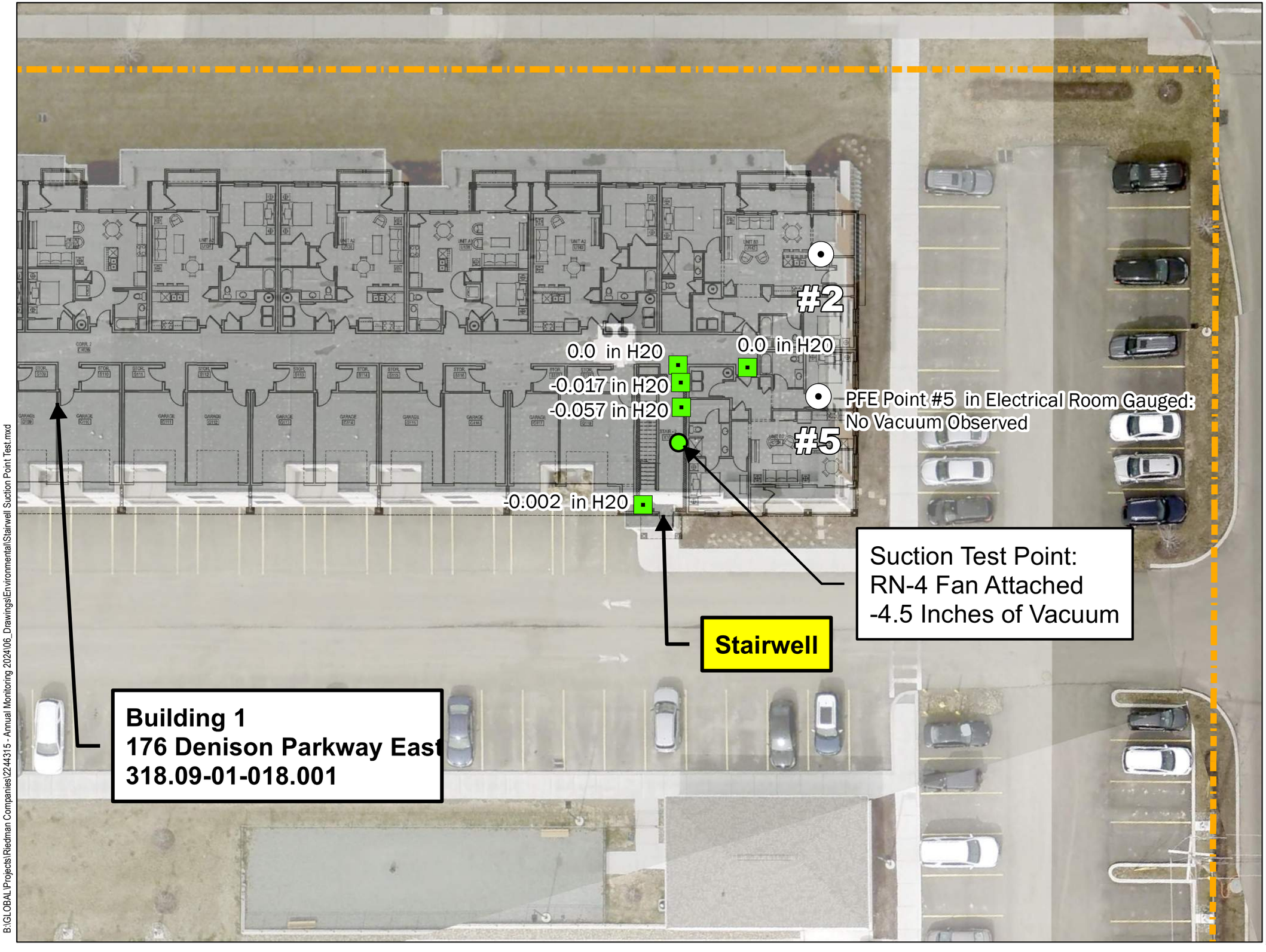
1) Aerial image obtained from Eaglveview, Inc. and may not represent current conditions.
2) All locations should be considered approximate.

LaBella Project No: 2244244
Date: 10/3/2025

Supplemental Corrective Measures Temporary PFE Testing Locations with Existing GP-501 Fans

FIGURE 5B

INTENDED TO PRINT AS: 11" X 17"



B:\GLOBAL\Projects\Riedman Companies\2244315 - Annual Monitoring 2024\06_Drawings\Environmental\Stairwell Suction Point Test.mxd

LaBella
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RIEDMAN COMPANIES

Former Corning Hospital
176 Denison Parkway East
171 and 201 East First Street
Corning, New York

N

0 10 20 Feet

1 inch = 20 feet

Legend

- Temporary PFE Monitoring Point
- Temporary Suction Point
- Approximate BCP Boundary
- PFE Monitoring Point

Sources/Notes:

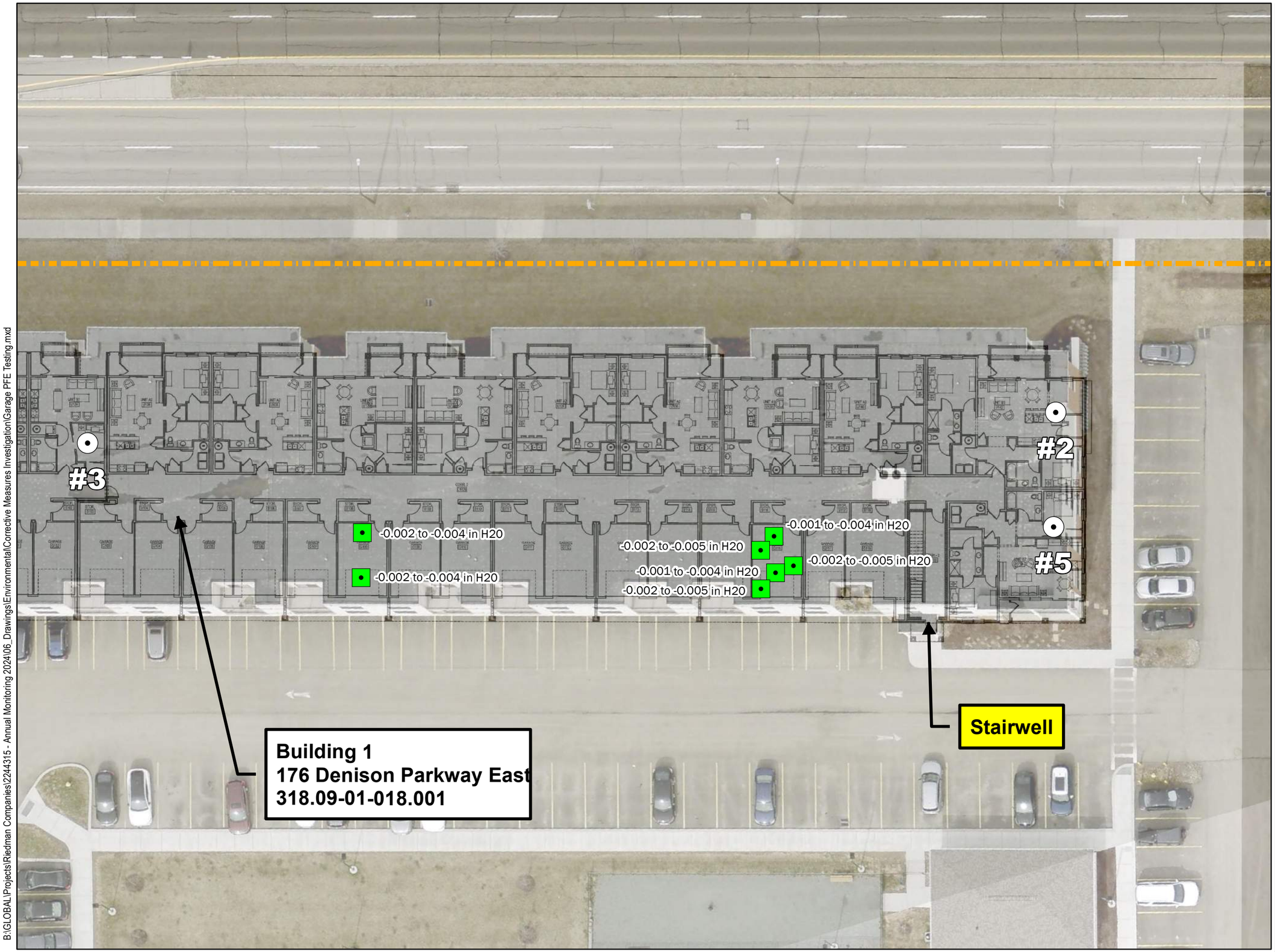
1) Aerial image obtained from Eaglveview, Inc. and may not represent current conditions.
2) All locations should be considered approximate.

LaBella Project No: 2244244
Date: 10/2/2025

Supplemental Corrective Measures Stairwell Suction Point Pilot Test

FIGURE 5C

INTENDED TO PRINT AS: 11" X 17"



B:\GLOBAL\Projects\Riedman Companies\2244315 - Annual Monitoring 2024\06_Drawings\Environmental\Corrective Measures Investigation\Garage PFE Testing.mxd

LaBella
Powered by partnership.

RIEDMAN COMPANIES

Former Corning Hospital
176 Denison Parkway East
171 and 201 East First Street
Corning, New York

N

0 12.5 25 Feet

1 inch = 25 feet

Legend

- Temporary PFE Monitoring Point
- Approximate BCP Boundary
- PFE Monitoring Point

Sources/Notes:

1) Aerial image obtained from Eaglveview, Inc. and may not represent current conditions.
2) All locations should be considered approximate.

LaBella Project No: 2244244
Date: 11/6/2025

Additional Corrective Measures Temporary Garage PFE Testing Locations and Readings

FIGURE 6

INTENDED TO PRINT AS: 11" X 17"

APPENDIX 1

ICEC Form

Enclosure 2
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. **C851049**

Site Name Former Corning Hospital and Related Parcels

Site Address: 176 East Denison Pkwy. Zip Code: 14830
City/Town: Corning
County: Steuben
Site Acreage: 4.771

Reporting Period: ~~May 21, 2021 to _____~~
October 31, 2023 through October 31, 2025

	YES	NO
1. Is the information above correct?	X	☐
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	X
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	X
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	X
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?	☐	X

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Restricted-Residential, Commercial, and Industrial	X	☐
7. Are all ICs in place and functioning as designed?	X	☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

_____ _____
Signature of Owner, Remedial Party or Designated Representative Date

Box 2A

	YES	NO
8. Has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid?	☐	☒

If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form.

	YES	NO
9. Are the assumptions in the Qualitative Exposure Assessment still valid? (The Qualitative Exposure Assessment must be certified every five years)	☒	☐

If you answered NO to question 9, the Periodic Review Report must include an updated Qualitative Exposure Assessment based on the new assumptions.

SITE NO. C851049 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
318.09-01-013.000	~~Riedman Purcell CH I LLC~~ FHFCU LOT LLC	Ground Water Use Restriction Soil Management Plan Site Management Plan IC/EC Plan Landuse Restriction

An Environmental Easement (EE) limits the site to Restricted Residential use and prohibits the use of groundwater. In addition, the EE references a Site Management Plan, inclusive of an IC/EC Plan and Soil Management Plan necessary to ensure the remedy remains protective of human health and the environment.

~~**318.09-01-018.001**~~ 318.09-01-018.100	Riedman Purcell CH II LLC	Landuse Restriction Site Management Plan Ground Water Use Restriction Soil Management Plan IC/EC Plan

An Environmental Easement (EE) limits the site to Restricted Residential use and prohibits the use of groundwater. In addition, the EE references a Site Management Plan, inclusive of an IC/EC Plan and Soil Management Plan necessary to ensure the remedy remains protective of human health and the environment.

~~**318.09-01-018.002**~~ 318.09-01-018.200	Riedman Purcell CH II LLC	Ground Water Use Restriction Soil Management Plan Site Management Plan IC/EC Plan Landuse Restriction

An Environmental Easement (EE) limits the site to Restricted Residential use and prohibits the use of groundwater. In addition, the EE references a Site Management Plan, inclusive of an IC/EC Plan and Soil Management Plan necessary to ensure the remedy remains protective of human health and the environment.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
318.09-01-013.000	Cover System
Track 4 cleanup requires maintenance of cover systems consistent with restricted residential site use. Provisions for soil vapor intrusion evaluation and the installation of mitigation systems are required for all new occupied buildings.	
~~**318.09-01-018.001**~~ 318.09-01-018.100	Vapor Mitigation Cover System
Track 4 cleanup requires maintenance of cover systems consistent with restricted residential site use. Provisions for soil vapor intrusion evaluation and the installation of mitigation systems are required for all new occupied buildings.	
~~**318.09-01-018.002**~~ 318.09-01-018.200	Vapor Mitigation Cover System
Track 4 cleanup requires maintenance of cover systems consistent with restricted residential site use. Provisions for soil vapor intrusion evaluation and the installation of mitigation systems are required for all new occupied buildings.	

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the Engineering Control certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
X	☐

2. For each Engineering control listed in Box 4, I certify by checking "YES" below that all of the following statements are true:

   (a) The Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
X	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

_____ _____

Signature of Owner, Remedial Party or Designated Representative — Date

IC CERTIFICATIONS
SITE NO. C851049

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Jerold Watkins at 45 East Avenue Rochester, NY 14604.
print name print business address

am certifying as Agent of the Owner (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Agent of the Owner 1-20-26
Signature of Owner, Remedial Party, or Designated Representative Rendering Certification Date

EC CERTIFICATIONS

Box 7

Professional Engineer Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Julia Ispentchian at LaBella Associates, DPC, 300 State Street, Rochester NY 14614,

print name — print business address

am certifying as a Professional Engineer for the Owner

(Owner or Remedial Party)

1/20/2026

Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification

Stamp (Required for PE)

Date

APPENDIX 2

SSDS Work Plans

November 2, 2018

Timothy A. Schneider, PE
New York State Department of Environmental Conservation
6274 East Avon-Lima Road
Avon, New York 14414

RE: Former Corning Hospital - NYSDEC BCP Site #C851049
Sub-Slab Depressurization System Designs
176 Denison Parkway East
Corning, New York
LaBella Project #2190002

Dear Mr. Schneider,

LaBella Associates, D.P.C. ("LaBella") is pleased to submit this sub-slab depressurization system (SSDS) design on behalf of Riedman Acquisitions, LLC for a new building at the Former Corning Hospital Site located at 176 Denison Parkway East, City of Corning, Steuben County, New York, hereinafter referred to as the "Site." The Site is in the New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) (Site #C851049).

An approximate 40,000 square foot residential apartment building is currently being constructed at the Site. This SSDS design is for the 40,000 square foot building at 176 Denison Parkway East with frontage on Denison Parkway East. Additional designs will be submitted for other buildings in the future.

SUB-SLAB DEPRESSURIZATION SYSTEM COMPONENTS

Four (4) sub-slab systems will be installed within the 40,000 square foot building (approximately 1 per 10,000 square feet). It should be noted eighteen (18) individual garages will be constructed on the ground level of the building; the garages have direct access to the building and will be mitigated.

The systems will consist of perforated HDPE piping installed within a peastone trench connected to a schedule 40 PVC header pipe. All sub-slab piping will be 4-inch diameter. Each of the four (4) header pipes will be routed to the Electric Room and will penetrate the floor slab against the interior wall of the Electric Room. The vertical risers will be routed to above the roof and an in-line fan (RadonAway® GP-501), or similar, will be installed above the roofline. Fans will be installed a minimum of 25 feet from any air intake. A 10-mil vapor barrier will be installed beneath the slab. All penetrations through the floor slab will be sealed.

Eight (8) monitoring points (2 per system; approximately 1 per 5,000 square feet) consisting of ¼ inch stainless steel tubing will be installed above the compacted sub-base, beneath the vapor barrier, and daylight in the Electric Room for sub-slab pressure monitoring.

A visual and audible alarm will be installed on each riser pipe to alert maintenance staff if any system loses vacuum. Each alarm will be installed on a separate circuit from its associated fan. A U-tube manometer will be installed on each riser pipe to demonstrate that pressure within the pipe is below atmospheric.

Refer to the attached drawings (G0.01 and G0.02) for SSDS layout and details. Also attached is an interior layout with Electric Room depicted, and a specification. As-built drawings of the installed systems will be developed and provided upon completion.

CERTIFICATION

I Daniel P. Noll certify that I am currently a NYS registered professional engineer and that this design 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).

If you have any questions please do not hesitate to call me at 585-295-6611 or email me at dnoll@labellapc.com.

Respectfully submitted,

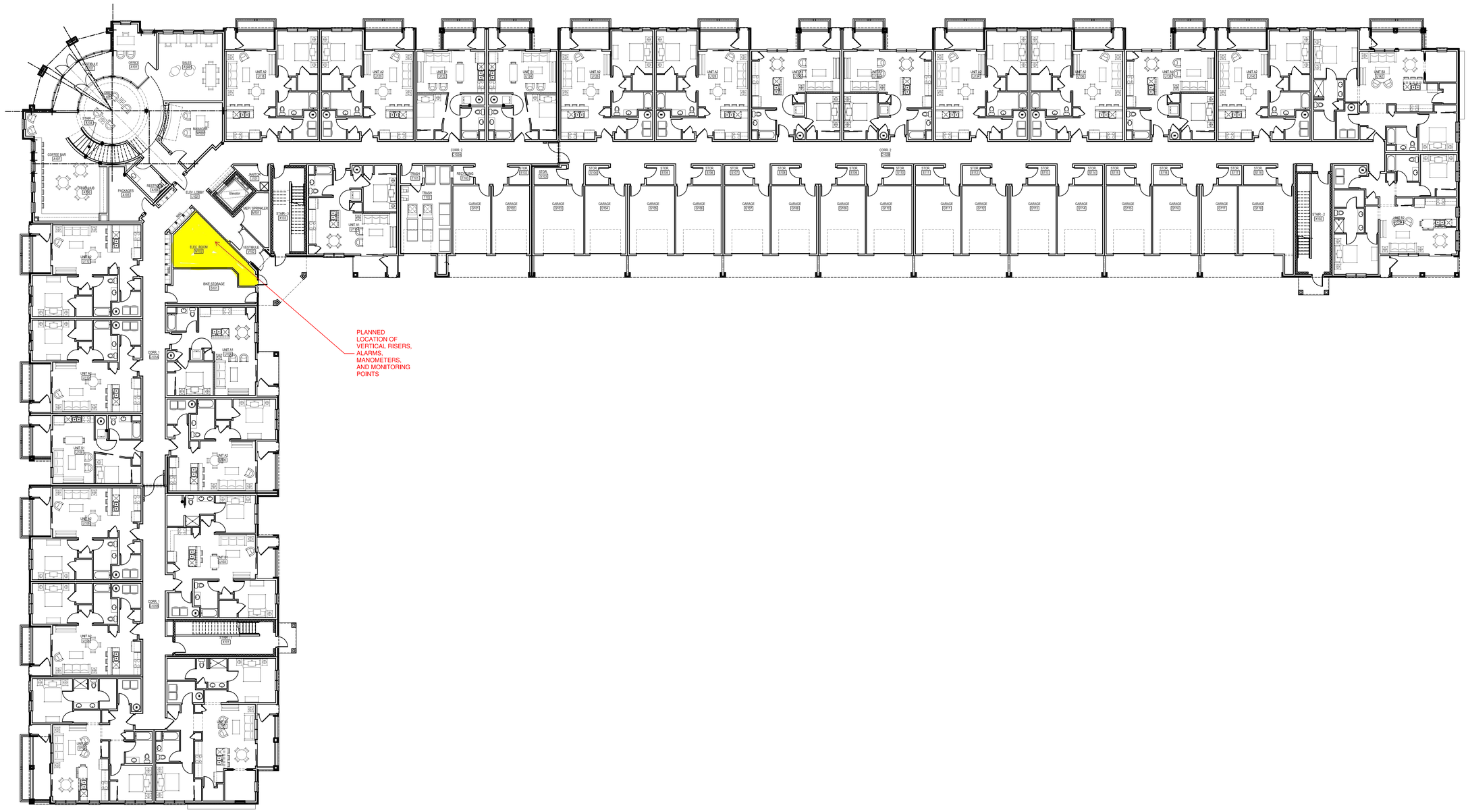
LaBella Associates, D.P.C.

Daniel P. Noll, P.E.
Project Manager

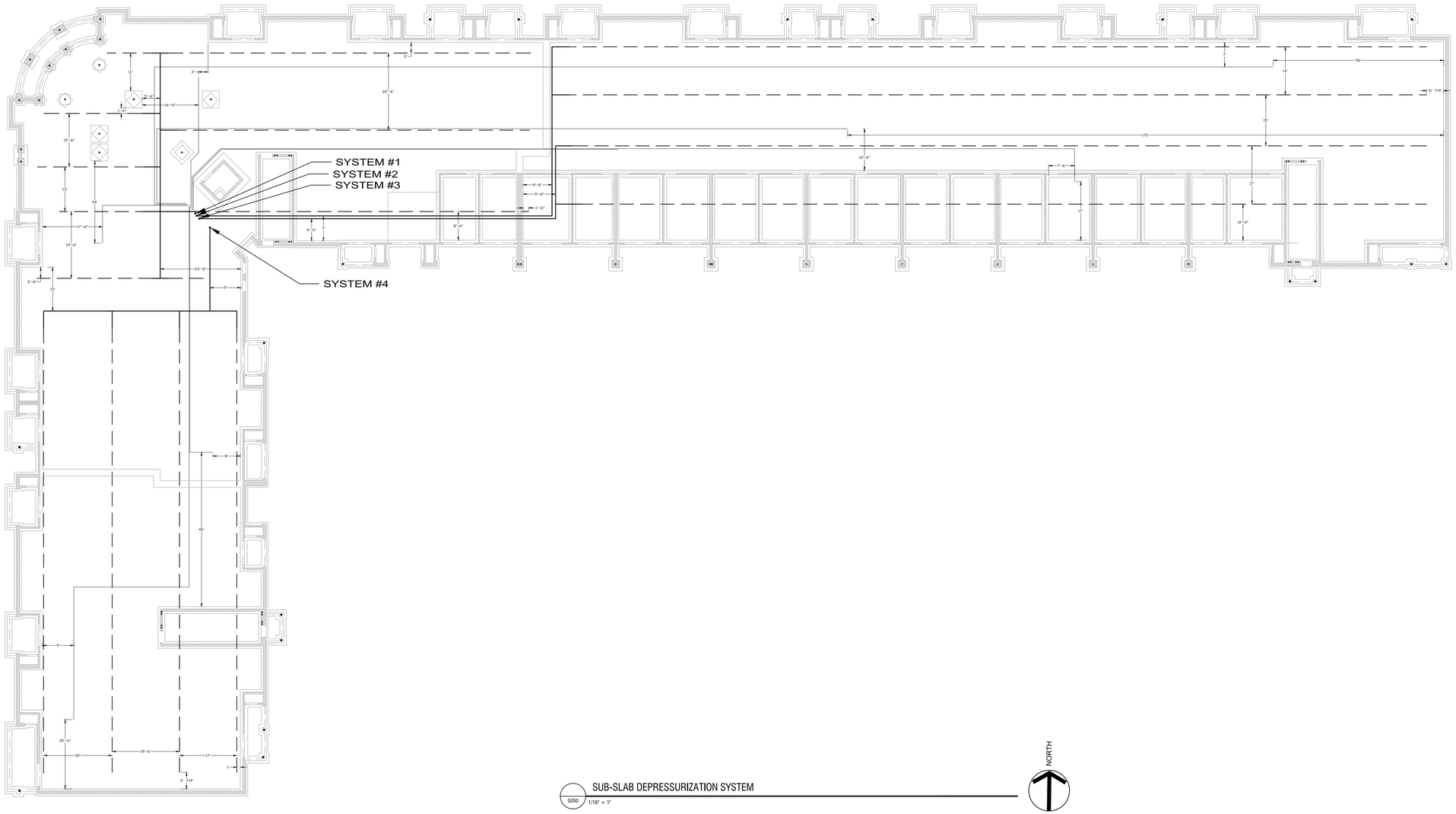
Attachments

cc: Mark Sergott (NYSDOH)
Jerry Watkins (Riedman Acquisitions, LLC)

DRAWINGS



INTERIOR LAYOUT



G050 SUB-SLAB DEPRESSURIZATION SYSTEM
1/16" = 1'

NOTES:

1. 1/4 INCH STAINLESS STEEL MONITORING POINTS MOUNTED APPROXIMATELY 2 FEET ABOVE FINISHED FLOOR AGAINST AN INTERIOR WALL WITHIN ELECTRIC ROOM. REFER TO DETAIL 3: PROFILE AT GAUGE POINT.
2. 1/4 STAINLESS STEEL TUBING TERMINATED ABOVE SUB-BASE WITH FABRIC WRAPPED END. REFER TO DETAIL 6: MATERIAL PROFILE.
3. 4 INCH SCHEDULE 40 PVC RISER TO BE LOCATED 6 INCHES FROM WALL AND VENTED UP THROUGH THE ROOF. REFER TO DETAIL 1: REAR END WALL.
4. INSTALL ALARM ON EACH RISER PIPE WITHIN ELECTRIC ROOM. REFER TO DETAIL 4: SUB-SLAB DEPRESSURIZATION ALARM SYSTEM.
5. 4 INCH SCHEDULE 40 PVC TO 4 INCH HDPE PERFORATED PIPE CONNECTION. REFER TO DETAIL 2: DETAIL AT HEADER.
6. 4 INCH HDPE PIPE WRAPPED IN FABRIC AND PLACED IN PEA STONE TRENCH. REFER TO DETAIL 6: MATERIAL PROFILE
7. 4 INCH SOLID PVC EXTENDING MAXIMUM 2 FEET AND ON EITHER SIDE OF WALL, GROUTED IN PLACE TO FORM WATER TIGHT CONNECTION. REFER TO DETAIL 7: PROFILE AT PENETRATION.
8. MOVE PIPING AS NEEDED IN FIELD TO AVOID PLUMBING.
9. INSTALL 4" CAP AT EACH VAPOR COLLECTION PIPE TERMINATION.
10. ALL SUB-SLAB VAPOR COLLECTION PIPING TO BE GEOTEXTILE-WRAPPED 4 INCH PERFORATED DUAL-WALLED CORRUGATED EXTERIOR SMOOTH INTERIOR HDPE.
11. HEADER PIPING TO BE 4 INCH SCHEDULE 40 PVC.
12. PEA STONE SHALL CONSIST OF WASHED MATERIAL THAT WILL PASS THROUGH A 2 INCH SIEVE AND BE RETAINED BY A 1/4 INCH SIEVE.
13. TO PROTECT THE VAPOR BARRIER, ALL PENETRATIONS MADE AFTER POURING OF THE SLAB, SUCH AS JOINTS, ETC, SHALL BE CUT IN A MANNER TO AVOID PENETRATING THE VAPOR BARRIER.
14. SEAL ALL PENETRATIONS AND GAPS WITH AN ELASTOMERIC JOINT SEALANT.
15. THIS DRAWING IS NOT TO INTEND TO PROVIDE STRUCTURAL INFORMATION. REFER TO STRUCTURAL DRAWINGS.
16. CONTRACTOR TO CONFIRM NO AIR INTAKE IS WITHIN 25' FROM FAN EXHAUST.
17. SYSTEM 1, 2, 3, AND 4 INSTALL RADON AWAY GP-501 FAN OR EQUIVALENT.

LEGEND

- — — — — FABRIC WRAPPED 4 INCH HDPE PERFORATED PIPE PLACED WITHIN MIDDLE OF PEA STONE TRENCH
- ——— 4 INCH SOLID SCH 40 PVC PIPE PLACED WITHIN MIDDLE OF PEA STONE TRENCH, SLOPED AWAY FROM VERTICAL RISER AT 1/4 INCH PER FOOT TO ALLOW FOR DRAINAGE.
- ——— 1/4 INCH STAINLESS STEEL MONITORING POINTS PLACED ABOVE COMPACTED SUB-BASE MATERIAL, FABRIC WRAPPED AT END.

NO.	REVISION	BY	DATE
1			
2			
3			
4			
5			
6			

STATE OF NEW YORK
DANIEL P. HOLL
No. 091890
LICENSED PROFESSIONAL ENGINEER

LaBella
Powered by partnership.

PROJECT/CLIENT
176 DENISON PARKWAY EAST
CORNING, NEW YORK 14830

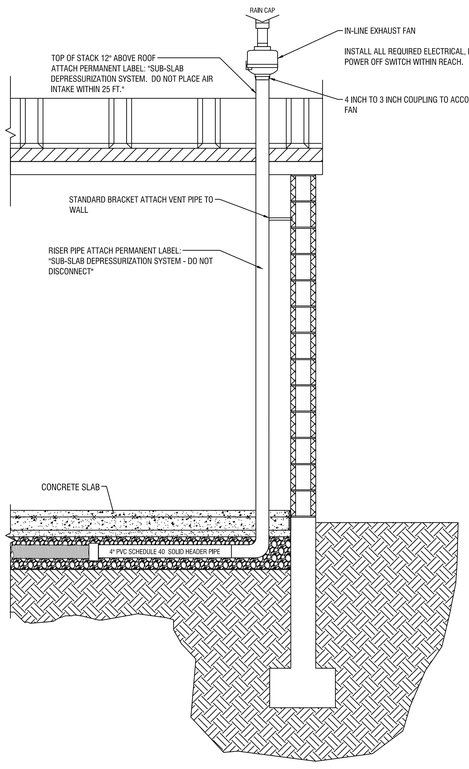
DRAWING TITLE
SUB-SLAB DEPRESSURIZATION SYSTEM LAYOUT

ISSUED FOR
CONSTRUCTION

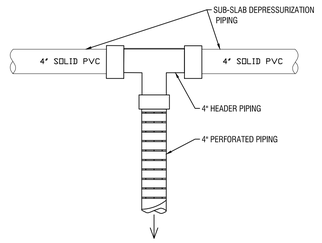
DESIGNED BY: ---
DRAWN BY: DRP
REVIEWED BY: ---
DATE: NOVEMBER, 2018
I:\Corning Inc\pdf 2190002 - Phase II ESA\GS\GS03.dwg

PROJECT/DRAWING NUMBER
2190002

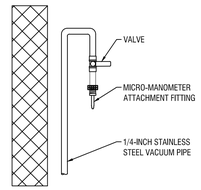
G0.01



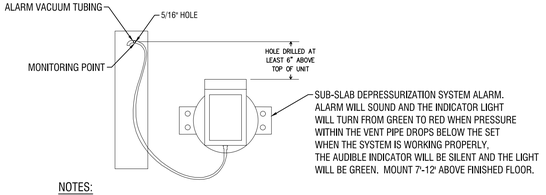
1 REAR END WALL
SCALE: NONE



2 DETAIL AT HEADER
SCALE: NONE

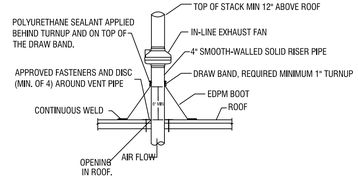


3 PROFILE AT GAUGE POINT
SCALE: NONE

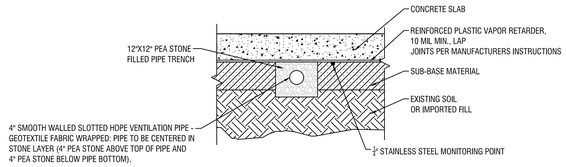


NOTES:
1. CONTRACTOR TO INSTALL ALARM ON SEPARATE CIRCUIT.

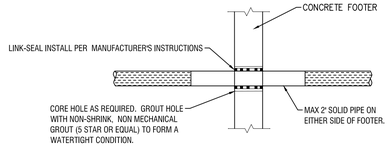
4 SUB-SLAB DEPRESSURIZATION SYSTEM ALARM
SCALE: NONE



5 DETAIL AT ROOF
SCALE: NONE



6 MATERIAL PROFILE
SCALE: NONE



7 PROFILE AT PENETRATION
SCALE: NONE

NOTES:
1. 1/4 INCH STAINLESS STEEL MONITORING POINTS MOUNTED APPROXIMATELY 2 FEET ABOVE FINISHED FLOOR AGAINST AN INTERIOR WALL. REFER TO DETAIL 3: PROFILE AT GAUGE POINT.
2. 1/4 STAINLESS STEEL TUBING TERMINATED ABOVE SUB-BASE WITH FABRIC WRAPPED END. REFER TO DETAIL 6: MATERIAL PROFILE.
3. 4 INCH SCHEDULE 40 PVC RISER TO BE LOCATED 6 INCHES FROM WALL AND VENTED UP THROUGH THE ROOF. REFER TO DETAIL 1: REAR END WALL.
4. INSTALL ALARM ON EACH RISER PIPE WITHIN ELECTRIC ROOM. REFER TO DETAIL 4: SUB-SLAB DEPRESSURIZATION ALARM SYSTEM.
5. 4 INCH SCHEDULE 40 PVC TO 4 INCH HDPE PERFORATED PIPE CONNECTION. REFER TO DETAIL 2: DETAIL AT HEADER.
6. 4 INCH HDPE PIPE WRAPPED IN FABRIC AND PLACED IN PEA STONE TRENCH. REFER TO DETAIL 6: MATERIAL PROFILE
7. 4 INCH SOLID PVC EXTENDING MAXIMUM 2 FEET AND ON EITHER SIDE OF WALL, GROUTED IN PLACE TO FORM WATER TIGHT CONNECTION. REFER TO DETAIL 7: PROFILE AT PENETRATION.
8. MOVE PIPING AS NEEDED IN FIELD TO AVOID PLUMBING.
9. INSTALL 4" CAP AT EACH VAPOR COLLECTION PIPE TERMINATION.
10. ALL SUB-SLAB VAPOR COLLECTION PIPING IS GEOTEXTILE-WRAPPED 4 INCH PERFORATED DUAL-WALLED CORRUGATED EXTERIOR SMOOTH INTERIOR HDPE.
11. HEADER PIPING SHOWN IS 4 INCH SCHEDULE 40 PVC.
12. PEA STONE SHALL CONSIST OF WASHED MATERIAL THAT WILL PASS THROUGH A 2 INCH SIEVE AND BE RETAINED BY A 1/4 INCH SIEVE.
13. TO PROTECT THE VAPOR BARRIER, ALL PENETRATIONS MADE AFTER POURING OF THE SLAB, SUCH AS JOINTS, ETC, SHALL BE CUT IN A MANNER TO AVOID PENETRATING THE VAPOR BARRIER.
14. SEAL ALL PENETRATIONS AND GAPS WITH AN ELASTOMERIC JOINT SEALANT.
15. THIS DRAWING IS NOT TO INTENDED TO PROVIDE STRUCTURAL INFORMATION. REFER TO STRUCTURAL DRAWING.
16. CONTRACTOR TO CONFIRM NO AIR INTAKE IS WITHIN 25' FROM FANS.
17. SYSTEM 1, 2, 3, AND 4 INSTALL RADON AWAY GP-501 FAN, OR EQUIVALENT.

NO.	REVISION	BY	DATE

PROJECT/CLIENT
176 DENISON PARKWAY EAST
CORNING, NEW YORK 14830

DRAWING TITLE
SUB-SLAB DEPRESSURIZATION SYSTEM DETAILS

ISSUED FOR:
CONSTRUCTION

DESIGNED BY: :
DRAWN BY: DRP
REVIEWED BY: :

DATE: NOVEMBER, 2018

I:\Corning Houses\P-2190002 - Phase II EA\4-SSDS\SSDS.dwg

PROJECT/DRAWING NUMBER
2190002

G0.02

SPECIFICATION

SECTION 026216 – SUB-SLAB VAPOR MITIGATION SYSTEM

PART 1 - VAPOR BARRIER

1.1 GAS PERMEABLE LAYER

A. A layer of gas permeable material shall be placed under all concrete floor slabs and other floor systems that directly contact the ground and are within the walls of the interior spaces of the building, to facilitate installation of a Sub-Slab Depressurization System (SSDS). The gas permeable material shall consist of a uniform layer of clean aggregate, a minimum of 6-inches thick. The aggregate shall meet the requirements of NYSDOT Bedding Material 733-23 or equivalent.

1.2 VAPOR RETARDER

A. A minimum 10-mil polyethylene or approved equivalent flexible sheeting material shall be placed above the crushed stone layer to serve as a soil-gas-barrier by bridging any cracks that develop in the slab or floor assembly. The sheeting should cover the entire floor area, and separate sections of sheeting should be overlapped at least 12 inches and sealed at these seems according to the manufacturer's instructions. The sheeting shall be sealed around any pipe, wire or other penetrations of the material, per the manufacturer's instructions. All punctures or tears in the material shall be repaired according to the manufacturer's instructions. The sheeting shall meet the following requirements (Stego Wrap 10-mil Class A Vapor Retarder or approved equivalent)

Property and ASTM Standard	**Performance Standard**
Underslab Vapor Retarders, ASTM E 1745 Class A, B, & C	Exceeds Class A, B, & C
Water Vapor Permeance, ASTM F1249	0.0254 perms
Tensile Strength, ASTM D 882	50.60 lbf./in.
Puncture Resistance, ASTM D1709	3006 grams

B. Seams in the vapor barrier shall be sealed with a product designed to be compatible with the vapor barrier (e.g., Stego Tape for Stego Wrap products).

C. Follow all manufacturer's instructions and specifications.

PREVENTION OF SOIL VAPOR ENTRY

A. All concrete floor slabs shall be designed, mixed, placed, reinforced, consolidated, finished, and cured to minimize the formation of cracks in accordance with standards set forth in the Model

Building Codes.

B. Large openings, if any, through the concrete floor slab, grade beams, or other foundation components in contact with the soil (e.g., spaces around storm sewer piping, etc.) shall be filled or closed with materials that provide a permanent airtight seal such as non-shrink mortar, grouts, expanding foam, or similar materials designed for such application.

C. Smaller gaps around all pipe, wire, or other objects, if any, that penetrate concrete floor slab or other floor assemblies shall be made air-tight with an elastomeric joint sealant, as defined in ASTM C920-87, and applied in accordance with the manufacturer's recommendations.

D. All control joints, isolation joints, construction joints, and any other joints in the concrete floor slab or between the floor slab and the building's walls shall be sealed. A continuous formed gap (for example, a "tooled edge") which allows the application of a sealant that will provide a continuous, airtight seal shall be created along all joints. When the slab has cured, the gap shall be cleared of loose material and filled with an elastomeric joint sealant, as defined in ASTM C920-97, and applied in accordance with the manufacturer's recommendations.

E. Joints, cracks, or other openings around all penetrations of both exterior and interior surfaces of masonry block or poured concrete foundation components below the ground surface shall be sealed with an elastomeric sealant that provides an air-tight seal. Penetrations of poured concrete walls should also be sealed on the exterior surface. This includes sealing of wall tie penetrations, if applicable.

PART 2 – VAPOR COLLECTION AND VENT SYSTEM

A. Lengths of sub-slab vapor collection piping shall be installed beneath the vapor barrier as depicted on drawing G0.01. Sub-slab vapor collection piping shall be geotextile-wrapped, 4-inch diameter, perforated, dual-walled, corrugated exterior, smooth interior high density polyethylene (HDPE).

B. Vapor collection piping shall be installed in the center of 12" x 12" pipe trenches as depicted on drawing G0.02. Pipe trenches shall be backfilled with PEA STONE, which shall consist of material that will pass through a 2-inch sieve and be retained by a ¼-inch sieve.

C. Install perforated cap at each vapor collection pipe termination, and slope header pipe up ¼-inch per foot from connection with vapor collection piping.

D. The collection piping shall be connected via the appropriate fittings to 4-inch, schedule 40, polyvinyl chloride (PVC) header pipe. The header pipes shall penetrate the building envelope, through the concrete floor slab within Electric Room, as depicted on drawings G0.01 and G0.02.

E. The header pipes shall terminate at vertical standpipes at least 12 inches above the surface of the roof, in a location that is: at least 25 feet from any air intakes; at least 10 feet away from any window, air intake, or other opening into the conditioned spaces of the building that is less than 2 feet below the exhaust point; and at least 10 feet from any adjoining or adjacent buildings.

F. All exposed and visible interior and exterior vent pipes shall be identified with labels placed at least every 25 feet. The labels shall read: "Sub-Slab Depressurization System – Do Not Disconnect."

G. Vent pipes shall be installed in a configuration and supported in a manner that ensures that any rain water or condensation accumulating within the pipes drains downward into the ground beneath the vapor barrier.

H. Completion is subject to owner/environmental consultant approval. The owner and environmental consultant shall be provided 48-hour notice to inspect the system prior to any portion being covered. Inspections will include at least (but not limited to) the following:

a. Below Grade Portions of Sub-Slab Depressurization System Piping and Monitoring Piping – prior to covering with stone

b. Soil Vapor Barrier – after sealing all penetrations, foundations edges and seams and prior to pouring of concrete

c. Above Grade Portions of Sub-Slab Depressurization System – Prior to any portions being sealed behind walls, pipe chases, etc.

I. Contractor shall provide photos of piping, trenches, etc.

PART 3 – FANS

3.1 GENERAL

A. "Activation" of the SSDS shall be completed by adding exhaust fans in the vertical stand pipes on the roof, as shown on drawing G0.02.

B. The fans shall meet the following requirements (in-line exhaust fans, such as the "RadonAway GP-501", or approved equivalent).

Watts	Max Pres. "wc	Typical flow [ft^3/min (cfm)] vs. static pressure [water column inches ("wc)]								
60-140	4.2	0.0" wc	0.5" wc	1.0" wc	1.5" wc	2.0" wc	2.5" wc	3.0" wc	3.5" wc	4.0" wc
		-- cfm	-- cfm	95 cfm	87 cfm	80 cfm	70 cfm	57 cfm	30 cfm	10 cfm

C. The fans in the vent pipes and all positively-pressurized portions of the vent pipes shall be located outside the habitable space of the building or within interior mechanical pipe chases if open to the atmosphere and closed to interior spaces.

D. The fans in the vent pipes shall be installed in vertical runs of the vent pipes, at an approximate height of at least 1-ft. above the roofline to facilitate maintenance and repair.

3.2 WARNING SYSTEMS

A. Each vertical standpipe shall be equipped with a U-tube type manometer or approved equivalent below the fan and within the Electric Room in a visible location, to demonstrate that pressure within the pipe is below atmospheric pressure.

B. Each fan shall be equipped with a prominently positioned visible or audible warning system (e.g., RadonAway Checkpoint IIA Mitigation Alarm or approved equivalent) to alert the building occupant if there is loss of pressure or air flow in the vent pipe, or if the fan ceases operation. Location of the warning system shall be subject to owner/Environmental Project Monitor approval.

The Contractor will connect the alarm and fan on separate breakers and provide that information to the Environmental Project Monitor. The fans and alarms shall be labeled with a distinct number in order to identify each fan and associated alarm system. The breakers shall also be labeled with fan number and alarm number. The breaker information will be provided to the Engineer.

PART 4 – TEST POINTS

A. Test Points, consisting of an open length of stainless steel vacuum tubing, shall be installed beneath the slab as depicted on drawing G0.01. The open end of the stainless steel vacuum tubing shall be fabric-wrapped at its sub-slab termination as located as shown on drawing G0.02. The vacuum tubing shall be routed as shown on drawings G0.01 and G0.02 and terminate in a barbed ¼-inch hose fitting. The terminations shall be mounted at an approximate height of three (3) feet above the local grade within the Electric Room and fitted with a stop valve beneath the barbed fitting as depicted in drawing G0.01. The contractor shall label each test point at the termination point and provide labeling to the Engineer along with a figure illustrating the full route of the test point and the associated label.

B. If located in a high-traffic area, each gauge/test point will be protected by the Contractor.

PART 5 – MISCELLANEOUS

A. Heating, Ventilating, and Air Conditioning (HVAC) systems shall be designed and installed to avoid depressurization of the building relative to underlying and surrounding soil. Specifically, joints in air ducts and plenums passing through unconditioned spaces shall be sealed.

B. The Contractor shall conduct a backdraft test to ensure the operation of the SSDS system does not create backdraft when the HVAC system is in operation. The Contractor will complete the backdraft test per the NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York dated October 2016. The Contractor will provide a letter or report documenting the backdraft test to the Environmental Project Monitor within 14 days of completing the backdraft test.

C. Contractor shall label each monitoring point and system riser numerically in a visible location above the floor slab within Electric Room.

END OF SECTION 026216

March 6, 2020

Timothy A. Schneider, PE
New York State Department of Environmental Conservation
6274 East Avon-Lima Road
Avon, New York 14414

Re: **Former Corning Hospital – NYSDEC BCP Site #C851049**
Sub-Slab Depressurization System Design
176 Dennison Parkway & 201 East 1st Street, Corning, New York
LaBella Project No. 2190002

Dear Mr. Schneider,

LaBella Associates, D.P.C. ("LaBella") is pleased to submit this updated sub-slab depressurization system (SSDS) design on behalf of Riedman Acquisitions, LLC for a new building at the Former Corning Hospital Site located at 176 Dennison Parkway & 201 East 1st Street, City of Corning, Steuben County, New York, hereinafter referred to as the "Site." The Site is in the New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) (Site #C851049). These updates are based on comments received from NYSDEC on January 16,2020.

An approximate 22,000 square foot (SF) residential apartment building is currently planned for the Site. This SSDS design is for the 22,000 SF building at 176 Dennison Parkway with frontage on East 1st Street (see attached Figure 1). This SSDS system is separate from the northern building currently in place on the Site.

This SSDS design was designed in accordance with the New York State Department of Health's (NYSDOH) "Guidance for Evaluating Soil Vapor Intrusion in the State of New York," dated October 2006.

SUB-SLAB DEPRESSURIZATION SYSTEM COMPONENTS

Two (2) sub-slab systems will be installed within the 22,000 SF building (approximately 1 per 11,000 SF). It should be noted sixteen (16) individual garages will be constructed on the ground level of the building; the garages have direct access to the building and will be mitigated.

The systems will consist of perforated HDPE piping installed within a peastone trench connected to a schedule 40 PVC header pipe. All sub-slab piping will be 4-inch diameter. Each of the two (2) header pipes will be routed to the Trash Collection room and will penetrate the floor slab against the interior wall of the Trash Collection room adjacent to the Elevator Shaft. The vertical risers will be routed to above the roof and an in-line fan (RadonAway® GP-501), or similar, will be installed above the roofline. Fans will be installed a minimum of 25 feet from any air intake. A 10-mil vapor barrier will be installed beneath the slab. All penetrations through the floor slab will be sealed.

Four (4) monitoring points (2 per system; approximately 1 per 5,500 SF) consisting of ¼ inch stainless steel tubing will be installed above the compacted sub-base, beneath the vapor barrier, and daylight in the Electrical Room for sub-slab pressure monitoring.

A visual and audible alarm will be installed on each riser pipe to alert maintenance staff if any system loses vacuum. Each alarm will be installed on a separate circuit from its associated fan. A U-tube manometer will be installed on each riser pipe to demonstrate that pressure within the pipe is below atmospheric.

Refer to the attached drawings (G0.01 and G0.02) for SSDS layout and details. Also attached is an interior layout with the Trash Collection Room depicted, and a specification. As-built drawings of the installed systems will be developed and provided upon completion and the Site Management Plan (SMP) will be updated.

CERTIFICATION

I, Daniel P. Noll, certify that I am currently a NYS-registered professional engineer and that this design 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).

If you have any questions, please do not hesitate to call me at (585) 295-6611 or email me at dnoll@labellapc.com.

Respectfully submitted,

LABELLA ASSOCIATES, D.P.C.

Daniel P. Noll, P.E.
Project Manager

Attachment

Drawings

ACCESSIBLE UNIT CALCULATIONS

BUILDING TYPE 1
TOTAL UNITS = 97

BUIDING TYPE 2
TOTAL UNITS = 35

1. 100% OF UNITS SHALL COMPLY WITH NEW YORK STATE ACCESSIBILITY REQUIREMENTS.

GENERAL SITE NOTES

1. THIS ARCHITECTURAL SITE PLAN IS TO BE USED FOR GENERAL INFORMATION, BUILDING IDENTIFICATION, AND RELATIVE POSITIONING OF THE BUILDINGS ONLY. FOR PRECISE SITE DOCUMENTATION INCLUDING, BUT NOT LIMITED TO GEOMETRY, WATER, SEWER, DRAINAGE AND ADA SITE ACCESSIBILITY, REFER TO PLANS BY CIVIL ENGINEER. PERMITS ON SUCH PORTION OF WORK TO BE SUBMITTED SEPARATELY.
2. COORDINATE WITH ALL ELECTRICAL, PLUMBING & MECHANICAL ENGINEERING DOCUMENTS AFFECTING CONSTRUCTION, PRIOR TO FABRICATION, PURCHASE OR INSTALLATION OF ANY EQUIPMENT.
3. SEE CIVIL DRAWINGS FOR SITE ACCESSIBILITY REQUIREMENTS.
4. RETAINING WALLS OVER 30" IN HEIGHT WILL HAVE 42" GUARDRAILS WITH RAIL SPACING OF LESS THAN 4" CLEAR.
5. SEE CIVIL FOR CURB CUTS AND SIDEWALK INFORMATION.
6. PROVIDE SIGNAGE FOR USE BY FIRE DEPARTMENT INDICATING SPRINKLER EQUIPMENT ROOM AND FIRE PROTECTION EQUIPMENT COMPONENTS. SPRINKLER EQUIPMENT ROOM DOOR ASSEMBLIES SHALL BE PROVIDED WITH A SIGN CONFORMING TO THE REQUIREMENTS OF NFPA-13 AND SHALL BE AT LEAST 4" IN HEIGHT AND SHALL READ "SPRINKLER CONTROL VALVES". G.C. TO PROVIDE SHOP DRAWING SUBMITTAL TO ARCHITECT FOR APPROVAL PRIOR TO FABRICATION.

VICINITY MAP

FIRE ACCESS LEGEND

- FIRE DEPARTMENT PERSONNEL ACCESS POINT
- FIRE DEPARTMENT CONNECTION
- TRAFFIC DIRECTION

DENISON PARKWAY EAST – N.Y.S. ROUTE 352
(90' RIGHT-OF-WAY)

EXISTING BUILDING TYPE 1
(NOT IN CONTRACT)

BUILDING TYPE 2

New SSDS Installation Building

CHEMUNG STREET
(63' RIGHT-OF-WAY)

EAST FIRST STREET
(63' RIGHT-OF-WAY)

GRAVEL

RIGHT-OF-WAY LINE EXISTING CONCRETE SIDEWALK

CONCRETE CURB

GRANITE CURB

ACCESSIBLE ENTRANCE

FIRE DEPARTMENT CONNECTION

NO LIMIT UNPROTECTED OPENINGS ALLOWED THIS SIDE

PHASE 1A

PHASE 1B

PHASE 1C

PROVIDE SIGNAGE TO IDENTIFY: "ACCESSIBLE PARKING" - SEE SHEET A0.07

PROVIDE SIGNAGE TO IDENTIFY: "ACCESS AISLE, NO PARKING" - SEE SHEET A0.07

TRANSFORMER

OUTDOOR SPACE BY OTHERS - UNDER SEPARATE PERMIT

N

1 ARCH SITE PLAN
1/16" = 1'-0"

ISSUE DATE: 07/09/2019
REVISIONS

RIEDMAN Purcell

PERMIT REVIEW SET: 08-23-2019

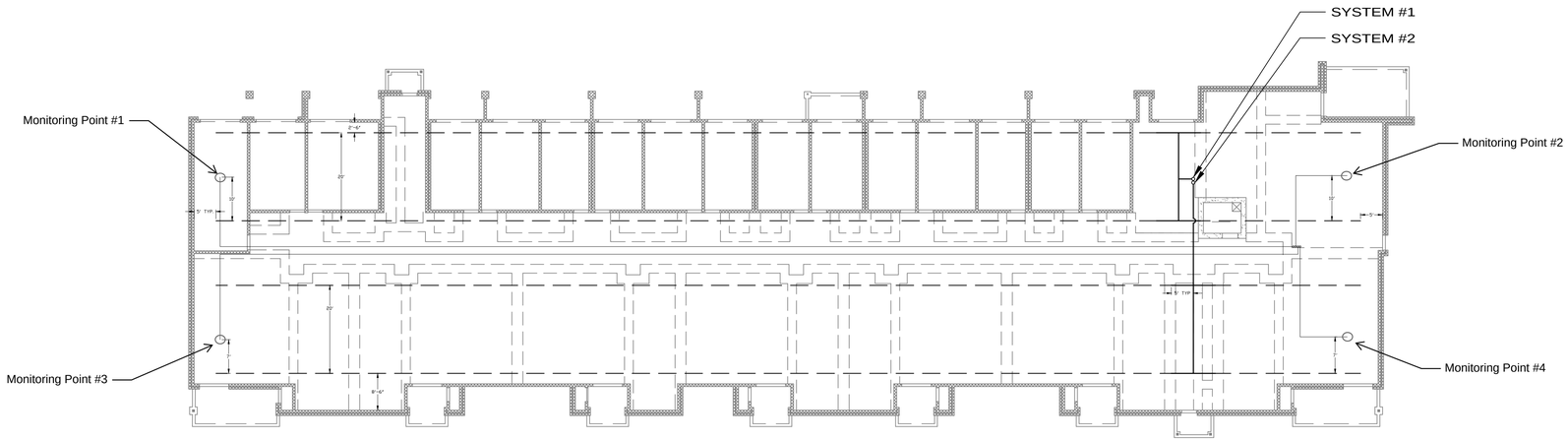
RIEDMAN PURCELL CH III
176 DENISON PARKWAY EAST
CORNING, NY 14830

BSB DESIGN
BSBDESIGN.COM
220 N. Smith St, Suite 210
Palatine, IL 60067
847-705-2200

JOB NO: MR170262 PROJ MGR: DR
DRAWN: SD CHECKED: SD

ARCHITECTURAL SITE PLAN

A0.02



SUB-SLAB DEPRESSURIZATION SYSTEM

G050 1/16" = 1'

NORTH

NOTES:

1. 1/4 INCH STAINLESS STEEL MONITORING POINTS MOUNTED APPROXIMATELY 2 FEET ABOVE FINISHED FLOOR AGAINST AN INTERIOR WALL WITHIN ELECTRIC ROOM. REFER TO DETAIL 3: PROFILE AT GAUGE POINT.
2. 1/4 STAINLESS STEEL TUBING TERMINATED ABOVE SUB-BASE WITH FABRIC WRAPPED END. REFER TO DETAIL 6: MATERIAL PROFILE.
3. 4 INCH SCHEDULE 40 PVC RISER TO BE LOCATED 6 INCHES FROM WALL AND VENTED UP THROUGH THE ROOF. REFER TO DETAIL 1: REAR END WALL.
4. INSTALL ALARM ON EACH RISER PIPE WITHIN ELECTRIC ROOM. REFER TO DETAIL 4: SUB-SLAB DEPRESSURIZATION ALARM SYSTEM.
5. 4 INCH SCHEDULE 40 PVC TO 4 INCH HDPE PERFORATED PIPE CONNECTION. REFER TO DETAIL 2: DETAIL AT HEADER.
6. 4 INCH HDPE PIPE WRAPPED IN FABRIC AND PLACED IN PEA STONE TRENCH. REFER TO DETAIL 6: MATERIAL PROFILE
7. 4 INCH SOLID PVC EXTENDING MAXIMUM 2 FEET AND ON EITHER SIDE OF WALL, GROUTED IN PLACE TO FORM WATER TIGHT CONNECTION. REFER TO DETAIL 7: PROFILE AT PENETRATION.
8. MOVE PIPING AS NEEDED IN FIELD TO AVOID PLUMBING.
9. INSTALL 4" CAP AT EACH VAPOR COLLECTION PIPE TERMINATION.
10. ALL SUB-SLAB VAPOR COLLECTION PIPING TO BE GEOTEXTILE-WRAPPED 4 INCH PERFORATED DUAL-WALLED CORRUGATED EXTERIOR SMOOTH INTERIOR HDPE.
11. HEADER PIPING TO BE 4 INCH SCHEDULE 40 PVC.
12. PEA STONE SHALL CONSIST OF WASHED MATERIAL THAT WILL PASS THROUGH A 2 INCH SIEVE AND BE RETAINED BY A 1/4 INCH SIEVE.
13. TO PROTECT THE VAPOR BARRIER, ALL PENETRATIONS MADE AFTER POURING OF THE SLAB, SUCH AS JOINTS, ETC, SHALL BE CUT IN A MANNER TO AVOID PENETRATING THE VAPOR BARRIER.
14. SEAL ALL PENETRATIONS AND GAPS WITH AN ELASTOMERIC JOINT SEALANT.
15. THIS DRAWING IS NOT TO INTEND TO PROVIDE STRUCTURAL INFORMATION. REFER TO STRUCTURAL DRAWINGS.
16. CONTRACTOR TO CONFIRM NO AIR INTAKE IS WITHIN 25' FROM FAN EXHAUST.
17. SYSTEM 1, 2, 3, AND 4 INSTALL RADON AWAY GP-501 FAN OR EQUIVALENT.

LEGEND

- FABRIC WRAPPED 4 INCH HDPE PERFORATED PIPE PLACED WITHIN MIDDLE OF PEA STONE TRENCH
- 4 INCH SOLID SCH 40 PVC PIPE PLACED WITHIN MIDDLE OF PEA STONE TRENCH, SLOPED AWAY FROM VERTICAL RISER AT 1/4 INCH PER FOOT TO ALLOW FOR DRAINAGE.
- 1/4 INCH STAINLESS STEEL MONITORING POINTS PLACED ABOVE COMPACTED SUB-BASE MATERIAL, FABRIC WRAPPED AT END.

NO.	REVISION	BY	DATE

LaBella
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PROJECT/CLIENT
176 DENISON PARKWAY EAST
CORNING, NEW YORK 14830

DRAWING TITLE
SUB-SLAB DEPRESSURIZATION SYSTEM LAYOUT

ISSUED FOR
CONSTRUCTION

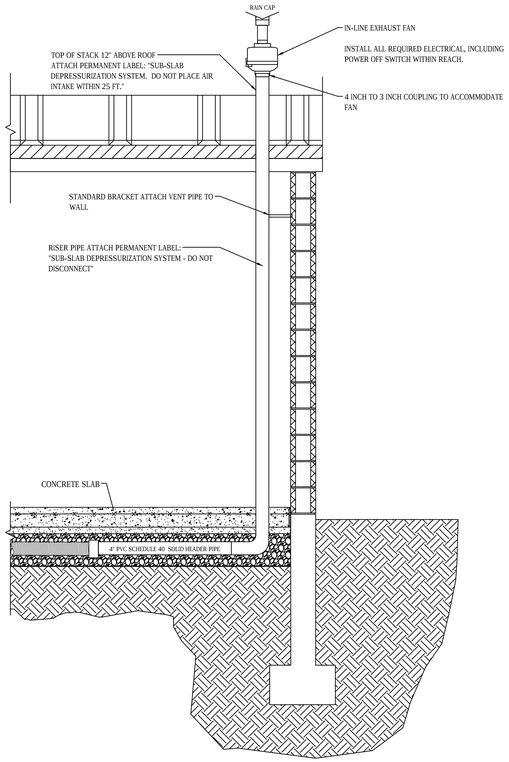
DATE:
NOVEMBER, 2018

J:\Buchan Development Corporation\2190002 - Sumner Corning Project SSDS Drawings SSDS.dwg

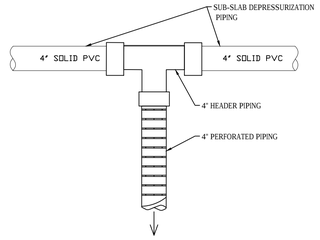
DESIGNED BY: ---
DRAWN BY: DRP
REVIEWED BY: ---

PROJECT/DRAWING NUMBER
2190002

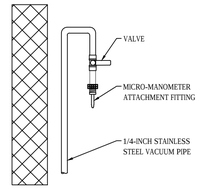
G0.01



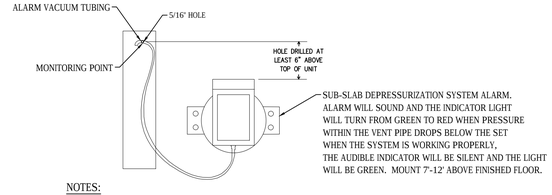
1 REAR END WALL
SCALE: NONE



2 DETAIL AT HEADER
SCALE: NONE

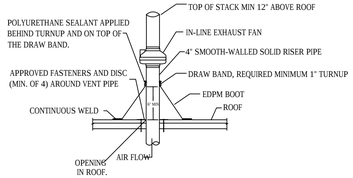


3 PROFILE AT GAUGE POINT
SCALE: NONE

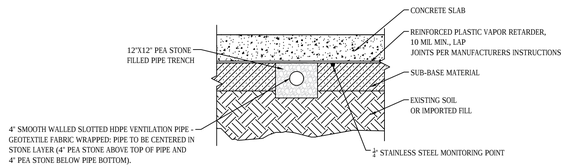


NOTES:
1. CONTRACTOR TO INSTALL ALARM ON SEPARATE CIRCUIT.

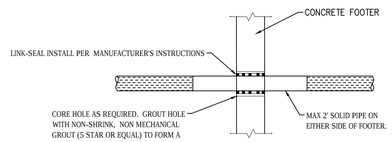
4 SUB-SLAB DEPRESSURIZATION SYSTEM ALARM
SCALE: NONE



5 DETAIL AT ROOF
SCALE: NONE



6 MATERIAL PROFILE
SCALE: NONE



7 PROFILE AT PENETRATION
SCALE: NONE

NOTES:
1. 1/4 INCH STAINLESS STEEL MONITORING POINTS MOUNTED APPROXIMATELY 2 FEET ABOVE FINISHED FLOOR AGAINST AN INTERIOR WALL. REFER TO DETAIL 3: PROFILE AT GAUGE POINT.
2. 1/4 STAINLESS STEEL TUBING TERMINATED ABOVE SUB-BASE WITH FABRIC WRAPPED END. REFER TO DETAIL 6: MATERIAL PROFILE.
3. 4 INCH SCHEDULE 40 PVC RISER TO BE LOCATED 6 INCHES FROM WALL AND VENTED UP THROUGH THE ROOF. REFER TO DETAIL 1: REAR END WALL.
4. INSTALL ALARM ON EACH RISER PIPE WITHIN TRASH COLLECTION ROOM. REFER TO DETAIL 4: SUB-SLAB DEPRESSURIZATION ALARM SYSTEM.
5. 4 INCH SCHEDULE 40 PVC TO 4 INCH HDPE PERFORATED PIPE CONNECTION. REFER TO DETAIL 2: DETAIL AT HEADER.
6. 4 INCH HDPE PIPE WRAPPED IN FABRIC AND PLACED IN PEA STONE TRENCH. REFER TO DETAIL 6: MATERIAL PROFILE
7. 4 INCH SOLID PVC EXTENDING MAXIMUM 2 FEET AND ON EITHER SIDE OF WALL, GROUTED IN PLACE TO FORM WATER TIGHT CONNECTION. REFER TO DETAIL 7: PROFILE AT PENETRATION.
8. MOVE PIPING AS NEEDED IN FIELD TO AVOID PLUMBING.
9. INSTALL 4" CAP AT EACH VAPOR COLLECTION PIPE TERMINATION.
10. ALL SUB-SLAB VAPOR COLLECTION PIPING IS GEOTEXTILE-WRAPPED 4 INCH PERFORATED DUAL-WALLED CORRUGATED EXTERIOR SMOOTH INTERIOR HDPE.
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16. CONTRACTOR TO CONFIRM NO AIR INTAKE IS WITHIN 25' FROM FANS.
17. SYSTEM 1 AND 2 INSTALL RADON AWAY GP-501 FAN, OR EQUIVALENT.

NO.	REVISION	BY	DATE
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LaBella
Powered by partnership.

PROJECT/CLIENT
176 DENISON PARKWAY EAST
CORNING, NEW YORK 14830

DRAWING TITLE
SUB-SLAB DEPRESSURIZATION SYSTEM DETAILS

ISSUED FOR
CONSTRUCTION

DESIGNED BY: ---
DRAWN BY: DRP
REVIEWED BY: ---
DATE: NOVEMBER, 2018
J:\Rochon Development Corporation\2190002 - Tranter Corning\Project Submittals\Drawings\SSDS.dwg

PROJECT/DRAWING NUMBER
2190002

G0.02

Specification

Section 026216 – SUB-SLAB VAPOR MITIGATION SYSTEM

PART 1 – VAPOR BARRIER

1.1 GAS PERMEABLE layer

A. A layer of gas permeable material shall be placed under all concrete floor and other floor systems that directly contact the ground and are within the walls of the interior spaces of the building, to facility installation of a Sub-Slab Depressurization System (SSDS). The gas permeable material shall consist of a uniform layer of clean aggregate, a minimum of 6-inches thick. The aggregate shall meet the requirements of NYSDOT Bedding Material 733-23 or equivalent.

1.2 VAPOR RETARDER

A. A minimum 10-mil polyethylene or approved equivalent flexible sheeting material shall be placed above the crushed stone layer to serve as a soil-gas-barrier by bridging any cracks that develop in the slab or floor assembly. The sheeting should cover the entire floor area, and separate sections of sheeting should be overlapped at least 12 inches and sealed at these seams according to the manufacturer's instructions. The sheeting shall be sealed around any pipe, wire, or other penetrations of the material, per the manufacturer's instructions. All punctures or tears in the material shall be repaired according to the manufacturer's instructions. The sheeting shall meet the following requirements (Stego Wrap 10-mil Class A Vapor Retarder or approved equivalent):\

Property and ASTM Standard	**Performance Standard**
Underslab Vapor Retarders, ASTM E 1745 Class A, B, & C	Exceeds Class A, B, & C
Water Vapor Permeance, ASTM F1249	0.0254 perms
Tensile Strength, ASTM D 882	50.60 lbf/in
Puncture Resistance, ASTM D1709	3006 grams

B. Seams in the vapor barrier shall be sealed with a product designed to be compatible with the vapor barrier (e.g. Stego Tape for Stego Wrap products).

C. Follow all manufacturer's instructions and specifications.

1.3 PREVENTION OF SOIL VAPOR ENTRY

A. All concrete floor slabs shall be designed, mixed, placed, reinforced, consolidated, finished, and cured to minimize the formation of cracks in accordance with standards set forth in the Model Building Codes.

B. Large openings, if any, through the concrete floor slab, grade beams, or other foundation components in contact with the soil (e.g. spaces around storm sewer piping, etc.) shall be filled or closed with materials that provide a permanent airtight seal such as non-shrink mortar, grouts, expanding foam, or similar materials designed for such application.

C. Smaller gaps around all pipe, wire, or other objects, if any, that penetrate concrete floor slab or other floor assemblies shall be made air-tight with an elastomeric joint sealant, as defined in ASTM C920-87, and applied in accordance with the manufacturer's recommendations.

D. All control joints, isolation joints, and any other joints in the concrete floor slab or between the floor slab and the building's walls shall be sealed. A continuous formed gap (for example, a "tooled edge") which allows the application of a sealant that will provide a continuous, airtight seal shall be created along all joints. When the slab has cured, the gap shall be cleared of loose material and filled with an elastomeric joint sealant, as defined in ASTM C920-97, and applied in accordance with the manufacturer's recommendations.

E. Joints, cracks, or other openings around all penetrations of both exterior and interior surfaces of masonry block or poured concrete foundation components below the ground surface shall be sealed with an elastomeric sealant that provides an airtight seal. Penetrations of poured concrete walls should also be sealed on the exterior surface. This includes sealing of wall tie penetrations, if applicable.

PART 2 – VAPOR COLLECTION AND VENT SYSTEM

A. Lengths of sub-slab vapor collection piping shall be installed beneath the vapor barrier as depicted on drawing G0.01. Sub-slab vapor collection piping shall be geotextile-wrapped, 4-inch diameter, perforated, dual-walled, corrugated exterior, smooth interior high-density polyethylene (HDPE).

B. Vapor collection piping shall be installed in the center of 12" x 12" pipe trenches as depicted on drawing G0.02. Pipe trenches shall be backfilled with PEA STONE, which shall consist of material that will pass through a 2-inch sieve and be retained by a ¾-inch sieve.

C. Install perforated cap at each vapor collection pipe termination, and slope header pipe up ¼-inch per foot from connection with vapor collection piping.

D. The collection piping shall be connected via appropriate fittings to 4-inch, Schedule 40, poly-vinyl chloride (PVC) header pipe. The header pipes shall penetrate the building envelope, through the concrete floor slab within the Trash Collection Room, as depicted on drawings G0.01 and G0.02.

E. The header pipes shall terminate at vertical standpipes at least 12 inches above the surface of the roof, in a location that is: at least 25 feet from any air intakes; at least 10 feet away from any window, air intake, or other opening into the conditioned spaces of the building that is less than 2 feet below the exhaust point, and at least 10 feet from any adjoining or adjacent buildings.

F. All exposed and visible interior and exterior vent pipes shall be identified with labels placed at least every 25 feet. The labels shall read: "Sub-Slab Depressurization System – Do Not Disconnect."

G. Vent pipes shall be installed in a configuration and supported in a manner that ensures that any rain water or condensation accumulating within the pipes drains downward into the ground beneath the vapor barrier.

H. Completion is subject to owner/environmental consultant approval. The owner and environmental consultant shall be provided 48-hour notice to inspect the system prior to any portion being covered. Inspections will include at least (but not limited to) the following:

   a. Below Grade Portions of Sub-Slab Depressurization System Piping and Monitoring Piping – prior to covering with stone

   b. Soil Vapor Barrier – after sealing all penetrations, foundations edges and seams and prior to pouring of concrete

c. Above Grade Portions of Sub-Slab Depressurization System – Prior to any portions being sealed behind walls, pipe chases, etc.

I. Contractor shall provide photos of piping, trenches, etc.

PART 3 – FANS

3.1 GENERAL

A. "Activation" of the SSDS shall be completed by adding exhaust fans in the vertical stand pipes on the roof, as shown on drawing G0.02.

B. The fans shall meet the following requirements (in-line exhaust fans, such as the "RadonAway GP-501", or approved equivalent).

Watts	Max Pres. "wc	Typical flow [ft^3/min (cfm)] vs. static pressure [water column inches ("sc")]								
60-140	4.2	0.0" wc	0.5" wc	1.0" wc	1.5" wc	2.0" wc	2.5" wc	3.0" wc	3.5" wc	4.0" wc
		--cfm	--cfm	95 cfm	87 cfm	80 cfm	70 cfm	57 cfm	30 cfm	10 cfm

C. The fans in the vent pipes and all positively-pressurized portions of the vent pipes shall be located outside the habitable space of the building or within interior mechanical pipe chases if open to the atmosphere and closed to interior spaces.

D. The fans in the vent pipes shall be installed in vertical runs of the vent pipes, at an approximate height of at least 1-ft. above the roofline to facilitate maintenance and repair.

3.2 WARNING SYSTEMS

A. Each vertical standpipe shall be equipped with a U-tube type manometer or approved equivalent below the fan and within the Trash Collection room in a visible manner, to demonstrate that pressure within the pipe is below atmospheric pressure.

B. Each fan shall be equipped with a prominently positioned visible or audible warning system (e.., RadonAway Checkpoint IIA Mitigation Alarm or approved equivalent) to alter the building occupant is there is loss of pressure or air flow in the vent pipe, or if the fan ceases operation. Location of the warning system shall be subject to owner/Environmental Project Monitor approval. The Contractor will connect the alarm and fan on separate breakers and provide that information to the Environmental Project Monitor. The fans and alarms shall be labeled with a distinct number in order to identify each fan and associated alarm system. The breakers shall also be labeled with fan number and alarm number. The breaker information will be provided to the Engineer.

PART 4 – TEST POINTS

A. Test Points, consisting of an open length of stainless steel vacuum tubing, shall be installed beneath the slab as depicted on drawing G0.01. The open end of the stainless steel vacuum tubing shall be fabric-wrapped as its sub-slab termination as shown on drawing G0.02. The vacuum tubing shall be routed as shown on drawings G0.01 and G0.02 and terminate in a barbed ¼-inch hose fitting. The terminations shall be mounted at an approximate height of three (3) feet above the local grade within the Electric Room and fitted with a stop valve beneath the barbed fitting as depicted in drawing G0.01. The contractor shall label each test point at the termination point and provide labeling to the Engineer along with a figure illustrating the full route of the test point and the associated label.

B. If located in a high-traffic area, each gauge/test point will be protected by the Contractor.

PART 5 – MISCELLANEOUS

A. Heating, Ventilating, and Air Conditioning (HVAC) systems shall be designed and installed to avoid depressurization of the building relative to the underlying and surrounding soil. Specifically, joints in air ducts and plenums passing through unconditioned spaces shall be sealed.

B. The Contractor shall conduct a backdraft test to ensure the operation of the SSDS system does not create backdraft when the HVAC system is in operation. The Contractor will complete the backdraft test per the NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York dated October 2016. The Contractor will provide a letter or report documenting the backdraft test to the Environmental Project Monitor within 14 days of completing the backdraft test.

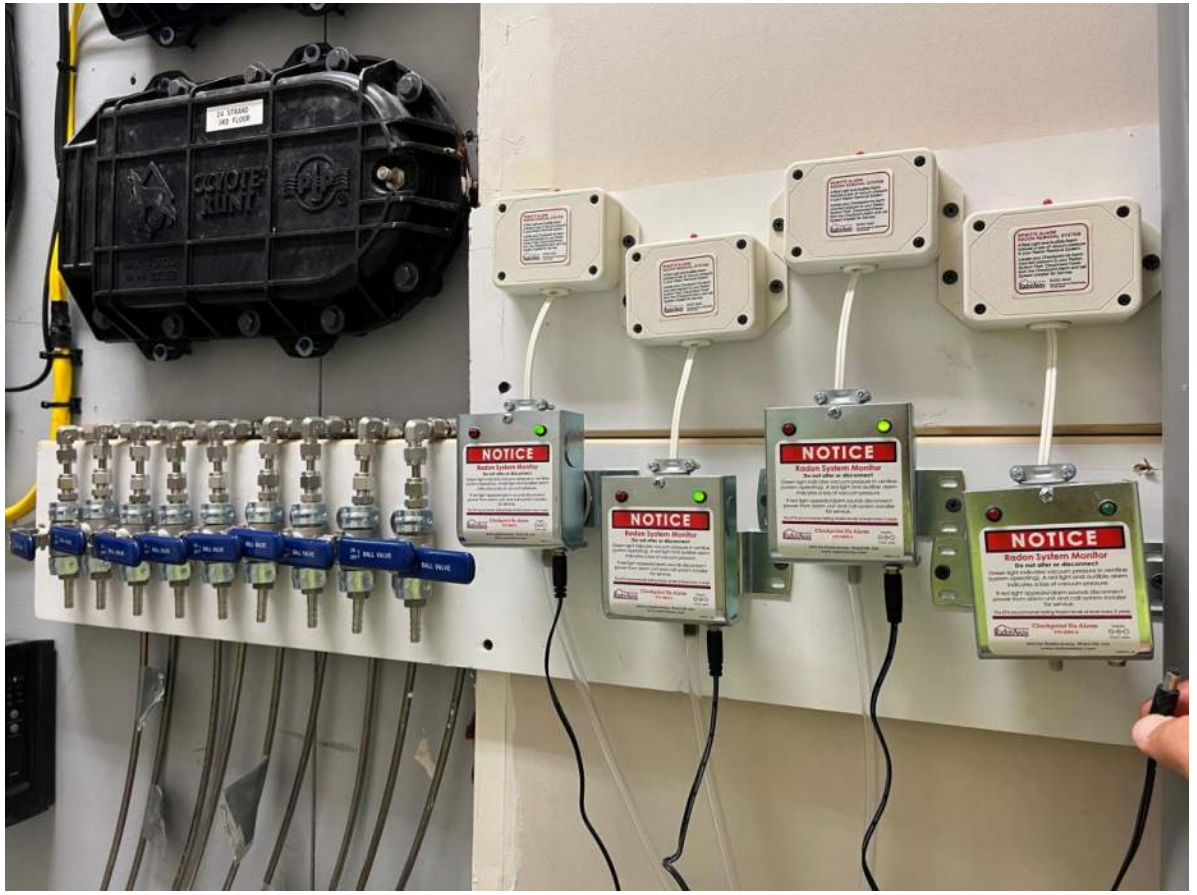
C. Contractor shall label each monitoring point and system riser numerically in a visible location above the floor slab within the Electric Room.

END OF SECTION 026216

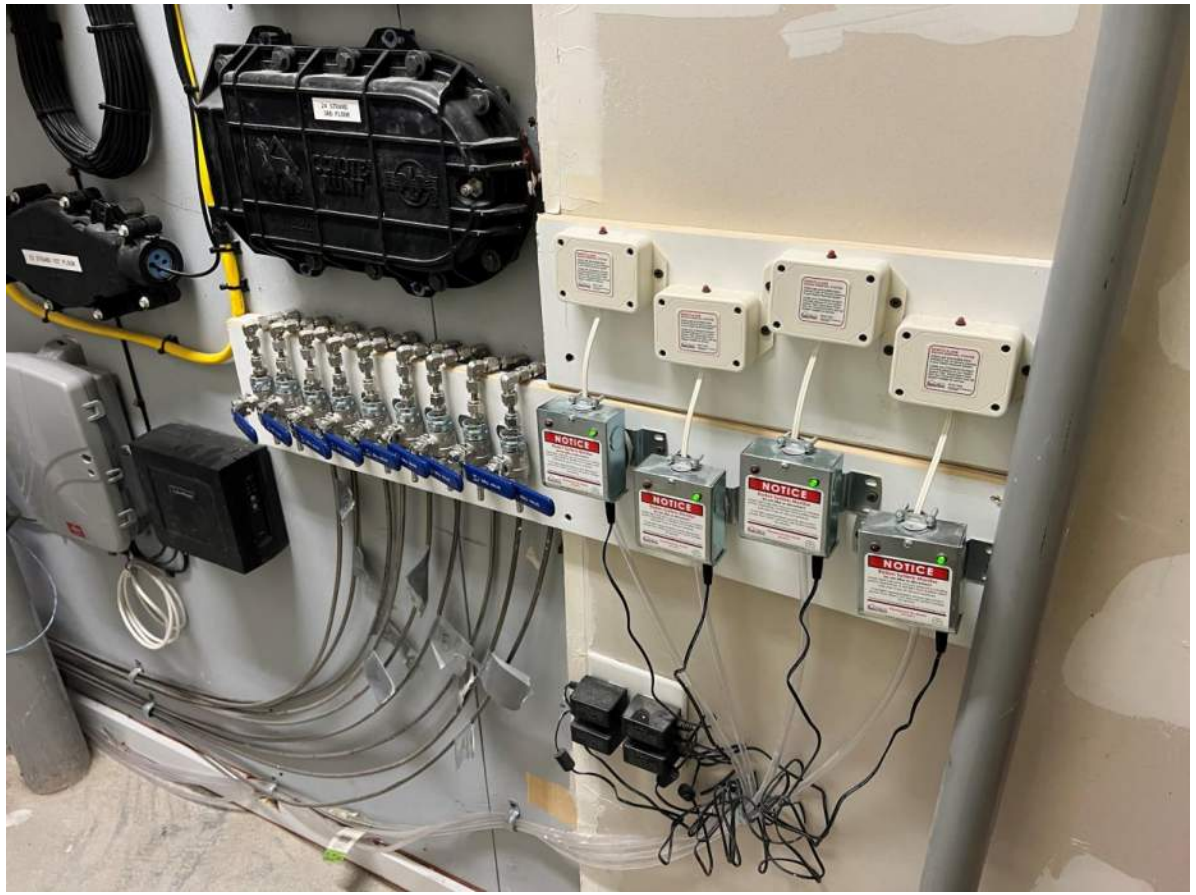
APPENDIX 3

Site Inspection Photographs

10/18/24 – Looking East at Building 2



10/18/24 – Building 1 Alarms and PFE Monitoring Points



10/18/24 – Building 1 Alarms and PFE Monitoring Points

10/18/24 – Building 1 Fans

10/18/24 – Building 1 Fans

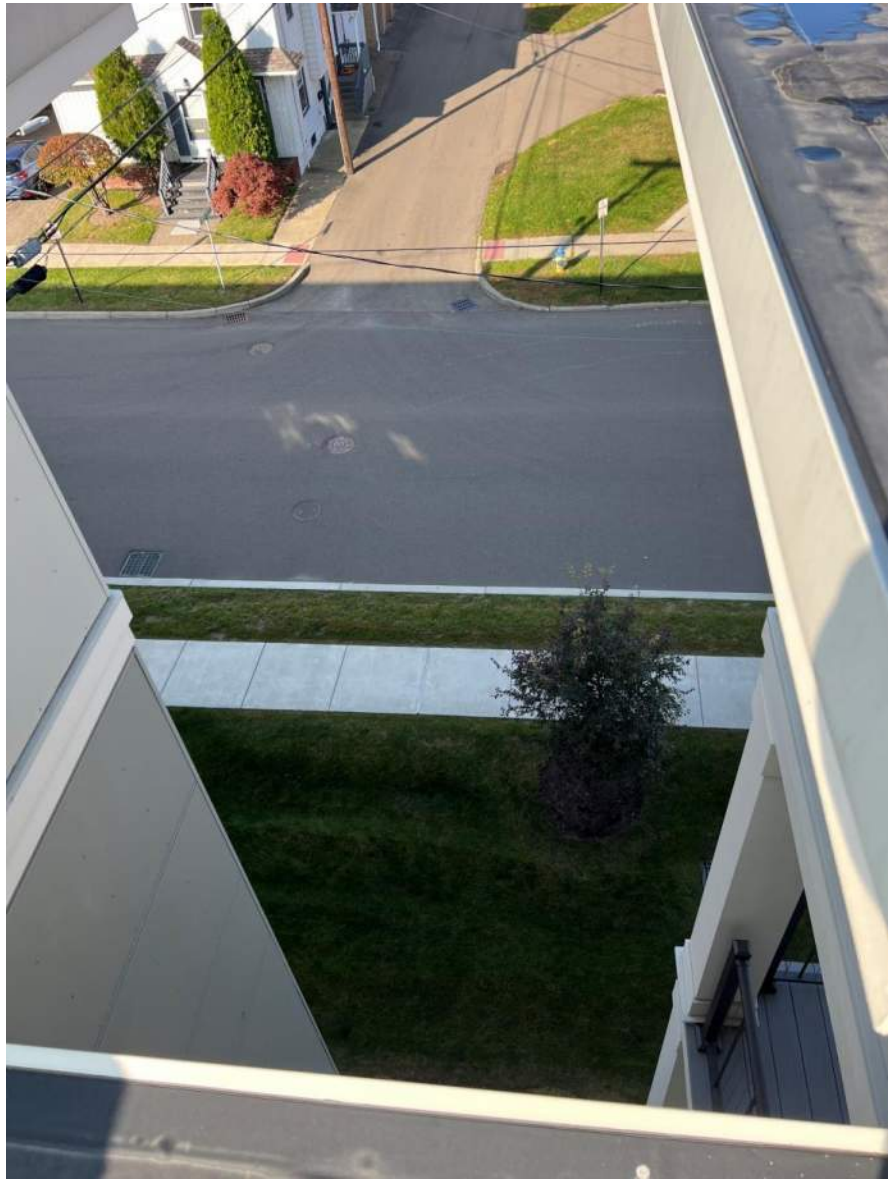
10/18/24 – Building 1 Fans

10/18/24 – View of Site Looking East

10/18/24 – View of Site Looking East

10/18/24 - View of Site Looking East

10/18/24 – View of Site Looking South towards Building 2



10/18/24 – View Looking West towards Chemung St

10/18/24 - View Looking West towards of Chemung St and Cintra Ln E

10/18/24 - View Looking West

10/18/24 – Building 2 Alarms and PFE Points

10/18/24 - Building 2 Alarms

10/18/24 - Building 2 Alarms and PFE Points

10/18/24 – Building 2 Fans

10/18/24 – View of Site and Pearl St Looking Northeast

10/18/24 – View of Site and East 1st/Pearl St intersection Looking Southeast

10/18/24 – View of Building 1 Looking North

10/18/24 – View of Site Looking East

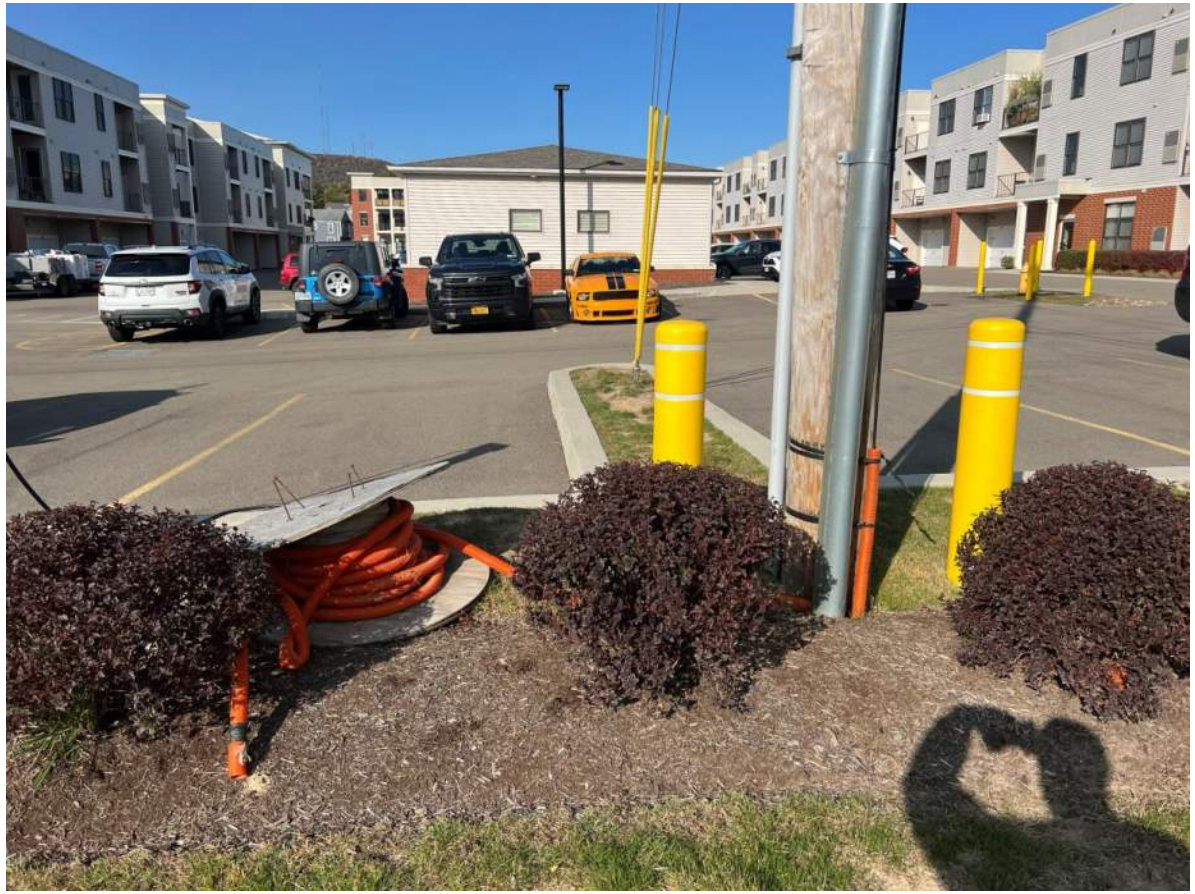
10/18/24 – View of Site Looking Northeast

10/18/24 – View of 171 East 1st Site Looking South

10/18/24 – View of Site Building 1 and Denison Pkwy Looking West

10/18/24 – View of Site and Pearl St/Denison Pkwy Intersection Looking North

10/18/24 – View of Site and Pearl St Looking South



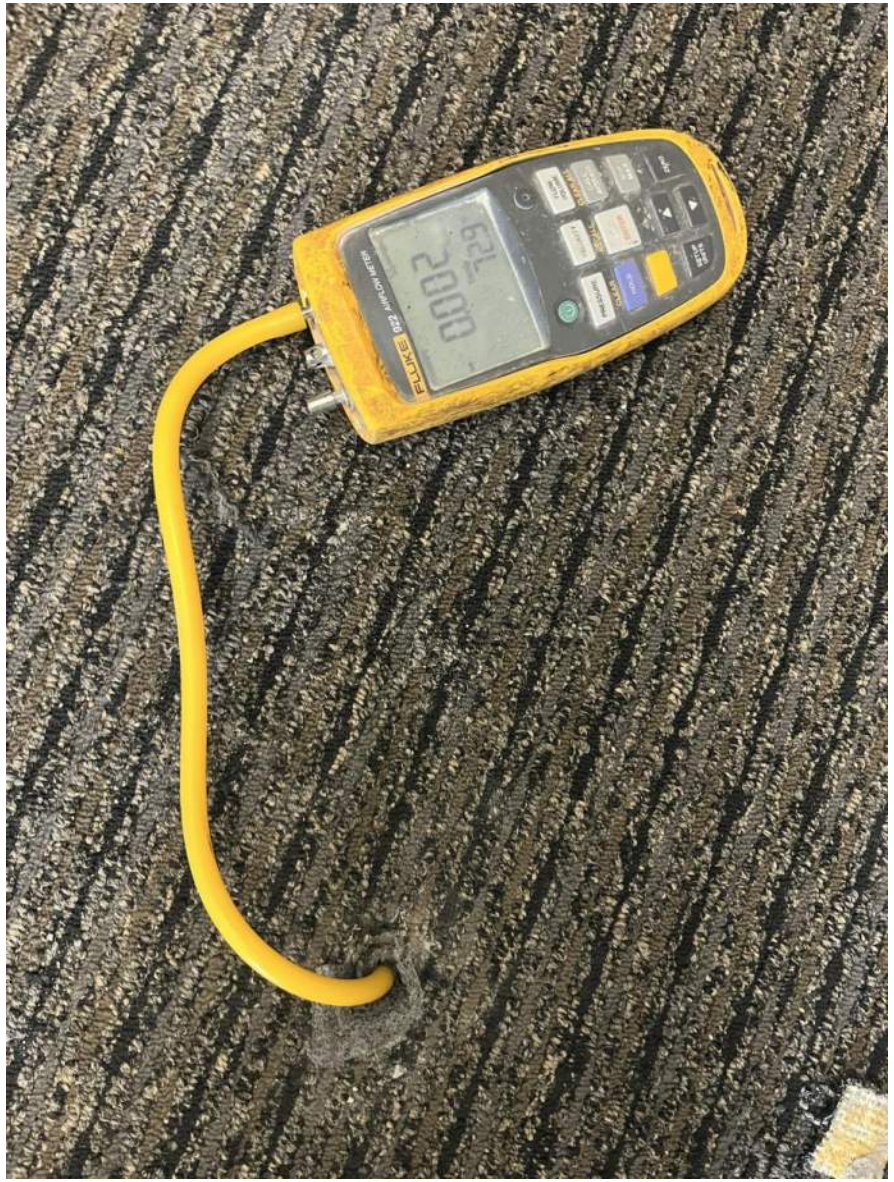
10/18/24 – View of 176 Denison Pkwy Site Looking West

10/18/24 – View of East 1st St and Site Building 2 Looking West

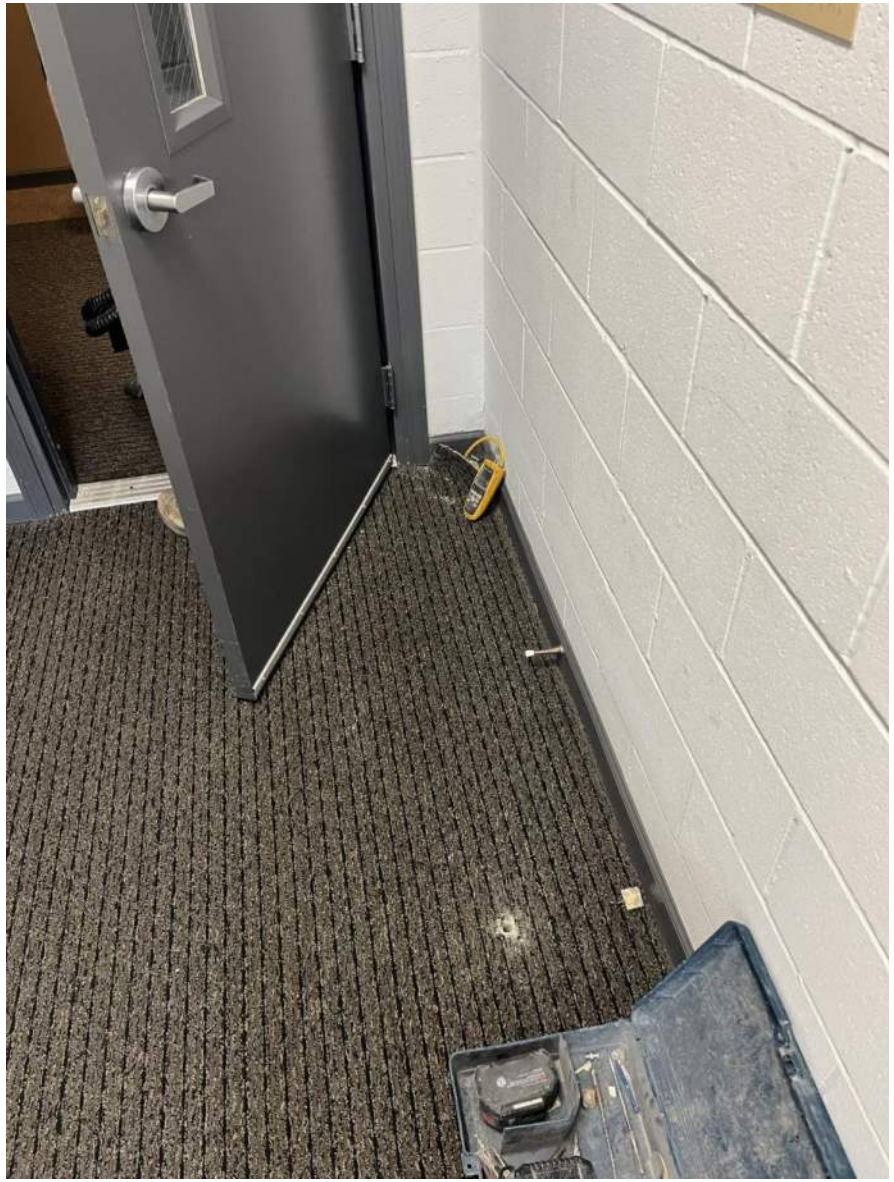
10/18/24 – View of Site and Pearl St Looking North

10/18/24 – View of Outdoor Area Looking Northwest

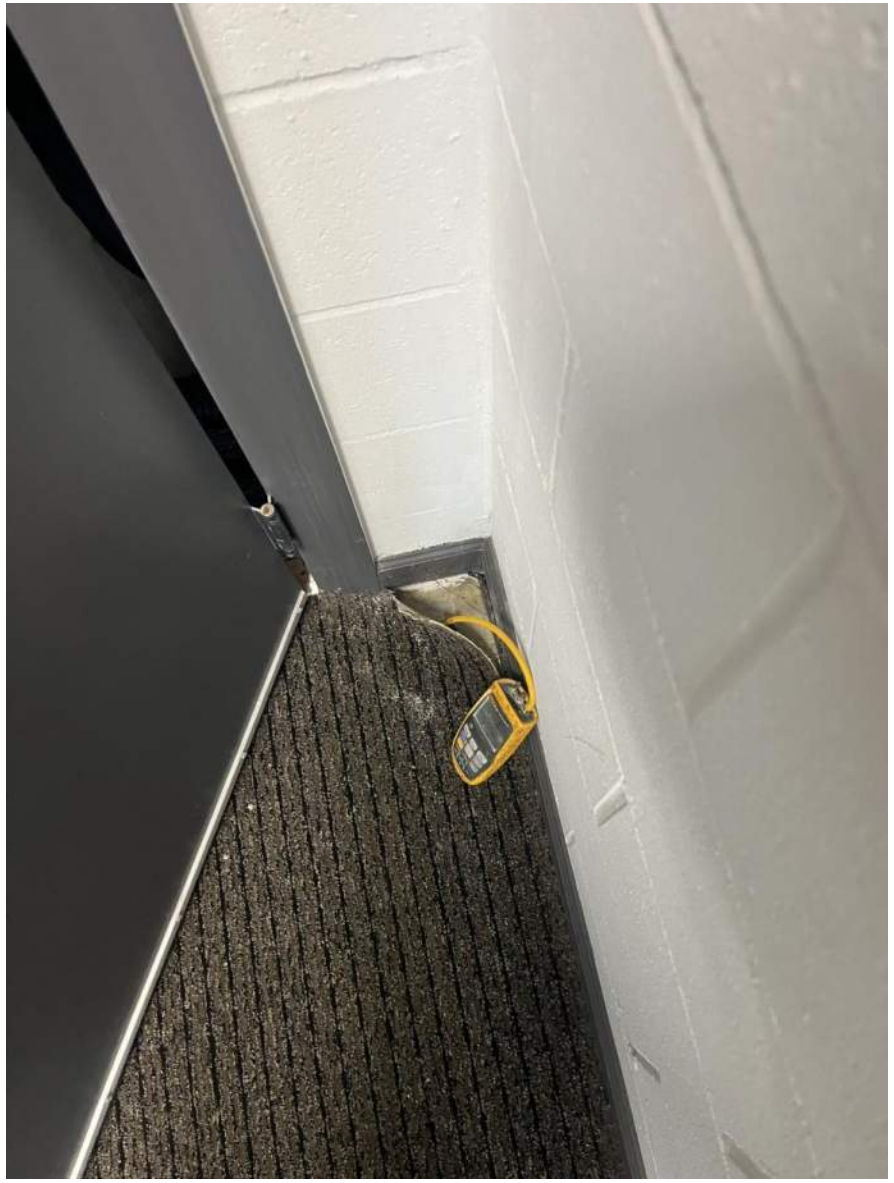
10/18/24 – View of Building 1 Looking Northwest



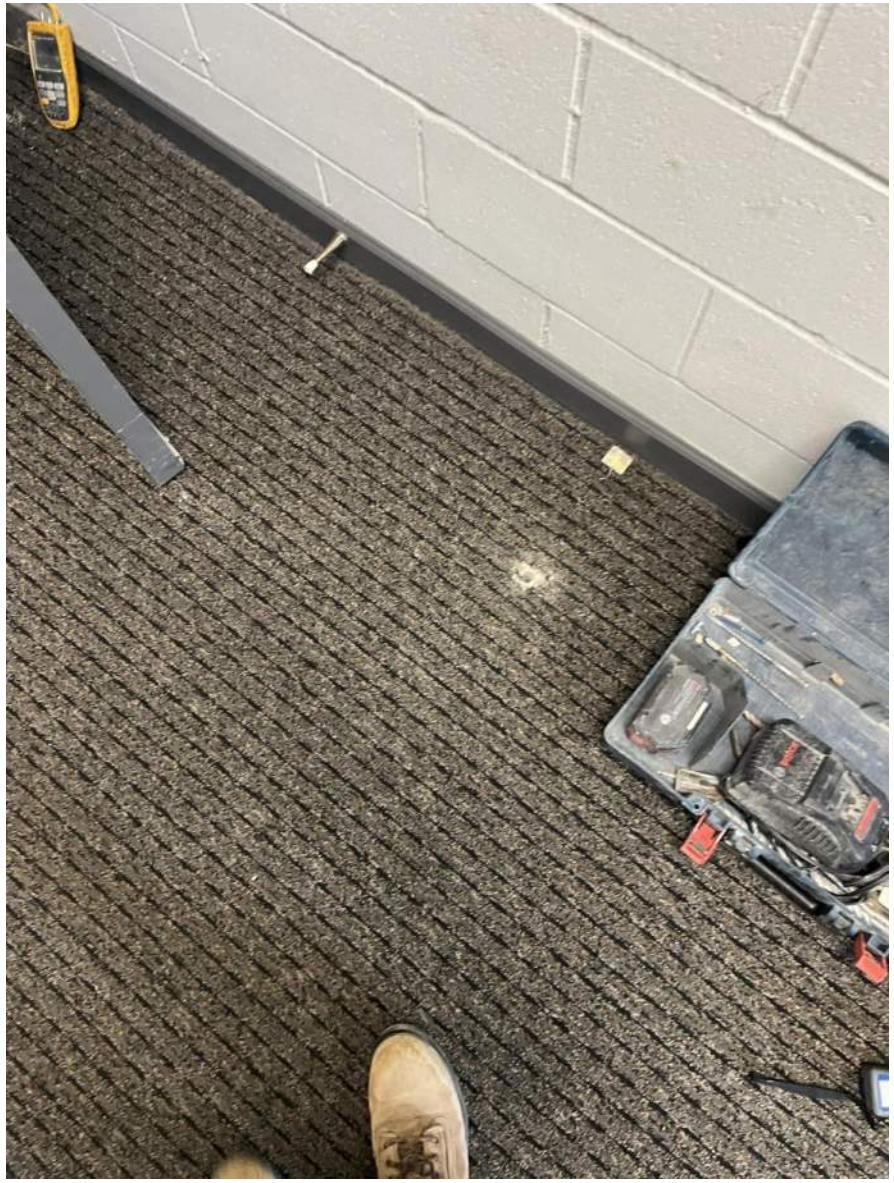
9/19/25 - View of East Stairwell PFE testing during additional suction point.



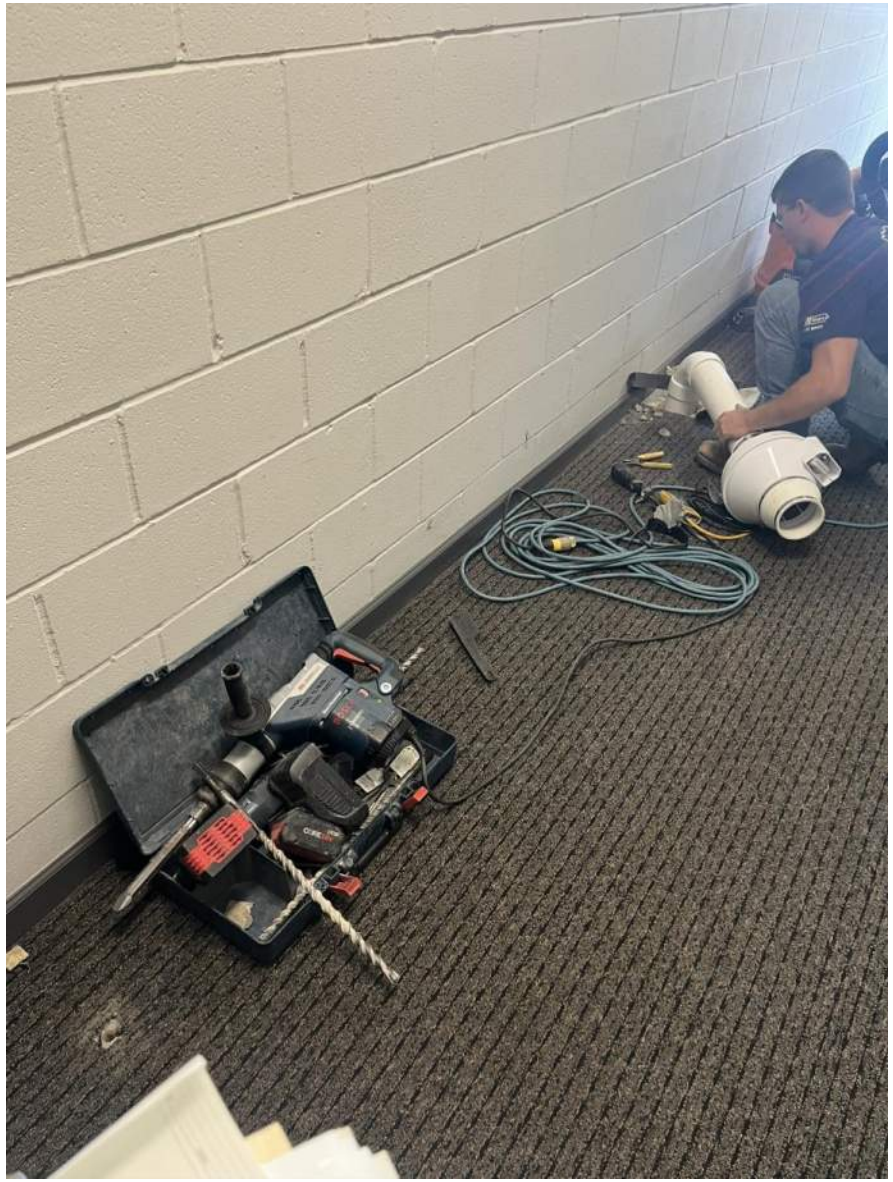
9/19/25 - View of PFE testing in Building 1 east stairwell



9/19/25 - View of PFE testing in Building 1 east stairwell



9/19/25 - View of PFE newly drilled PFE test holes in Building 1 east stairwell



9/19/25 - View of stairwell suction point test

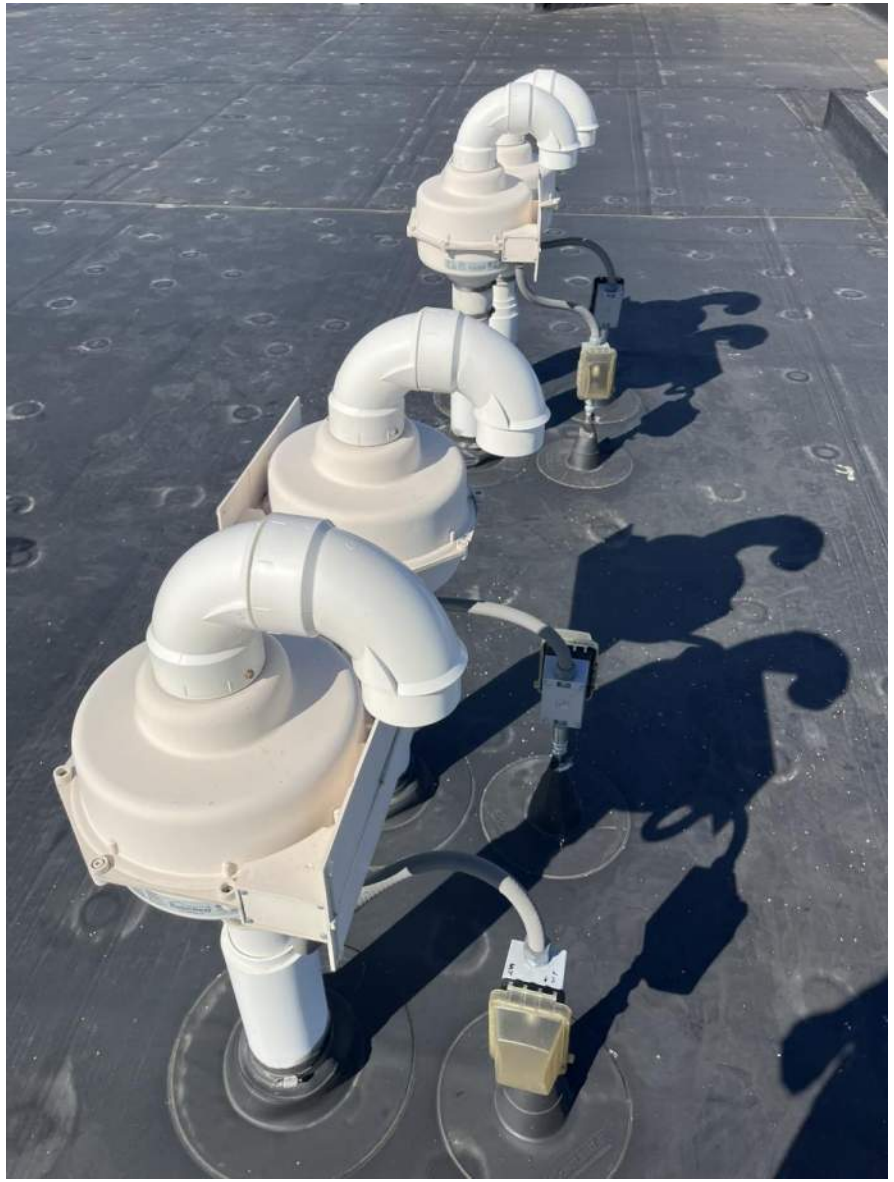
9/19/25 - View of Building 2 alarms and PFE points

9/19/25 – View of Building 1 alarms and PFE points

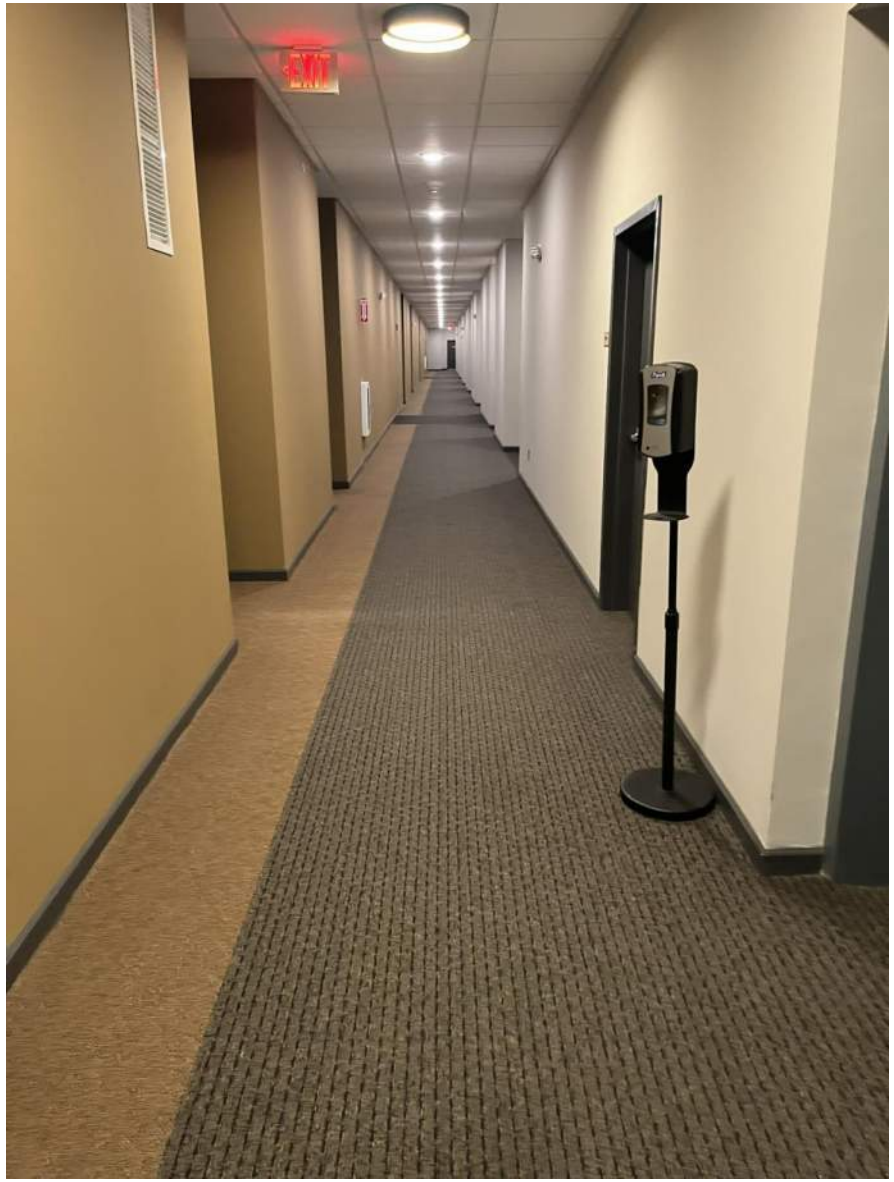
9/19/25 – Building 1 fans

9/19/25 – Building 1 fans

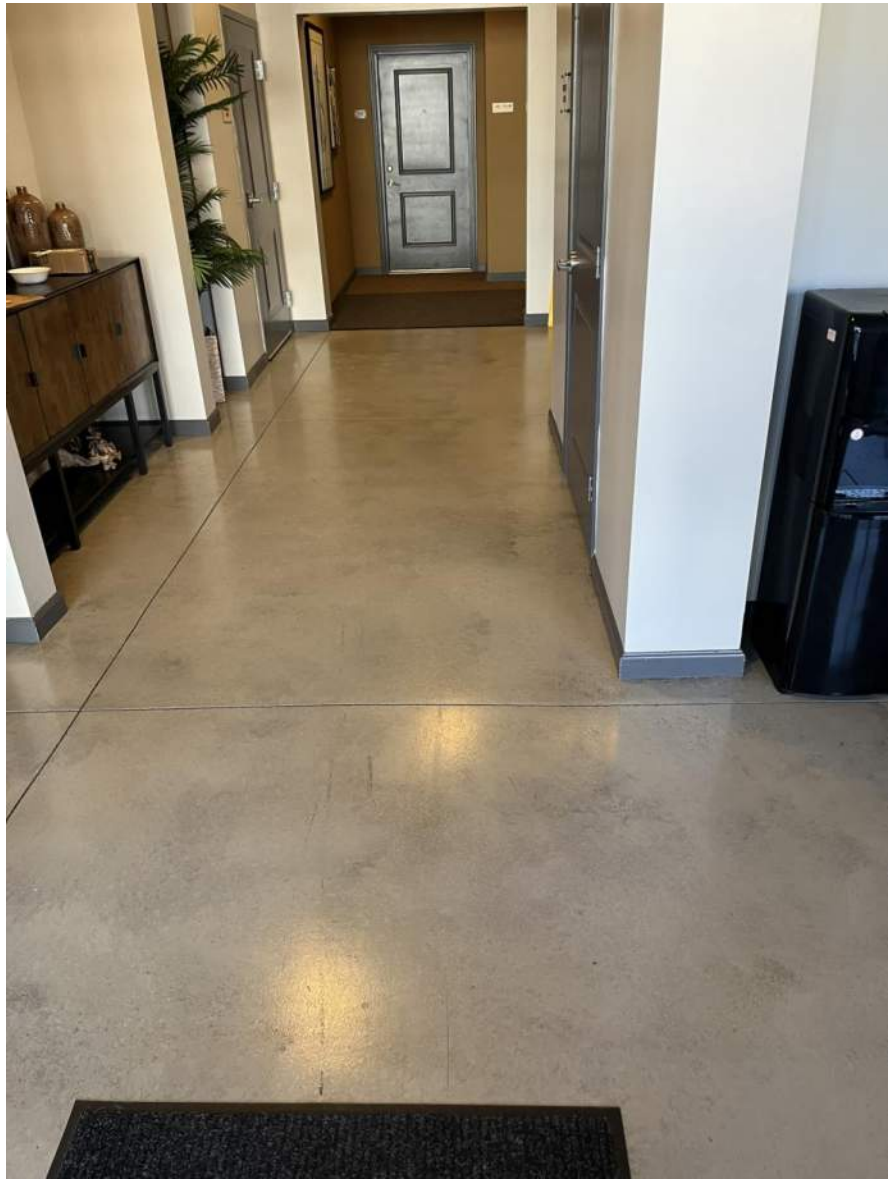
9/19/25 – Building 1 fans



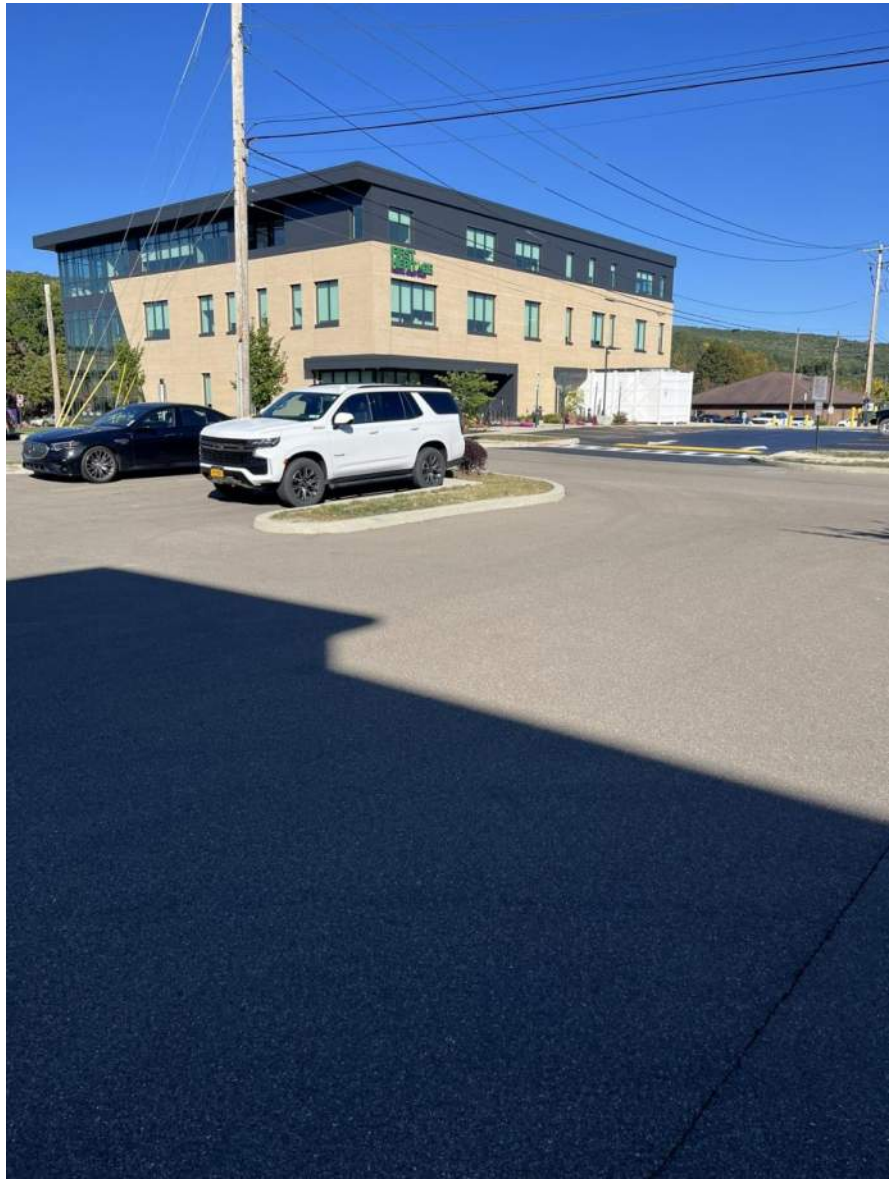
9/19/25 – Building 1 fans



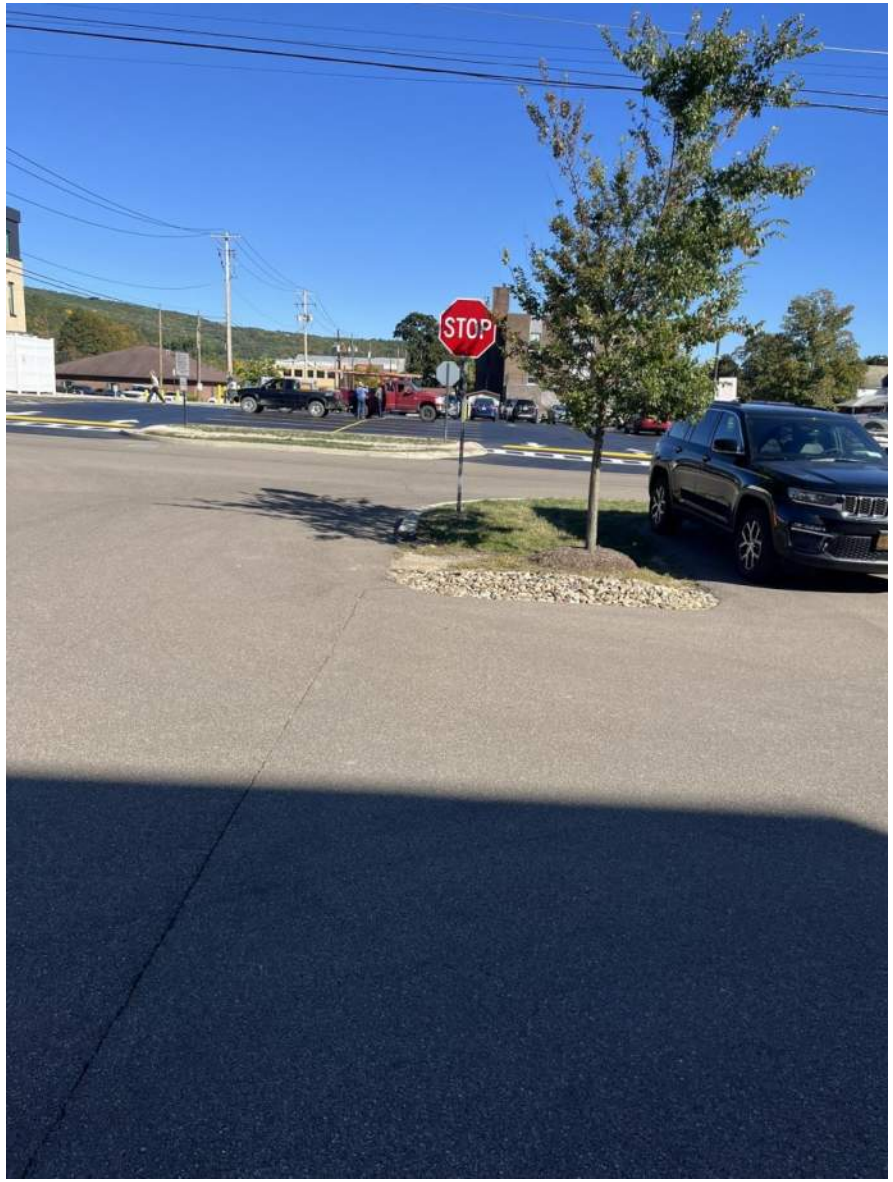
9/19/25 – View of Building 2 corridor



9/19/25 – Building 2 lobby slab



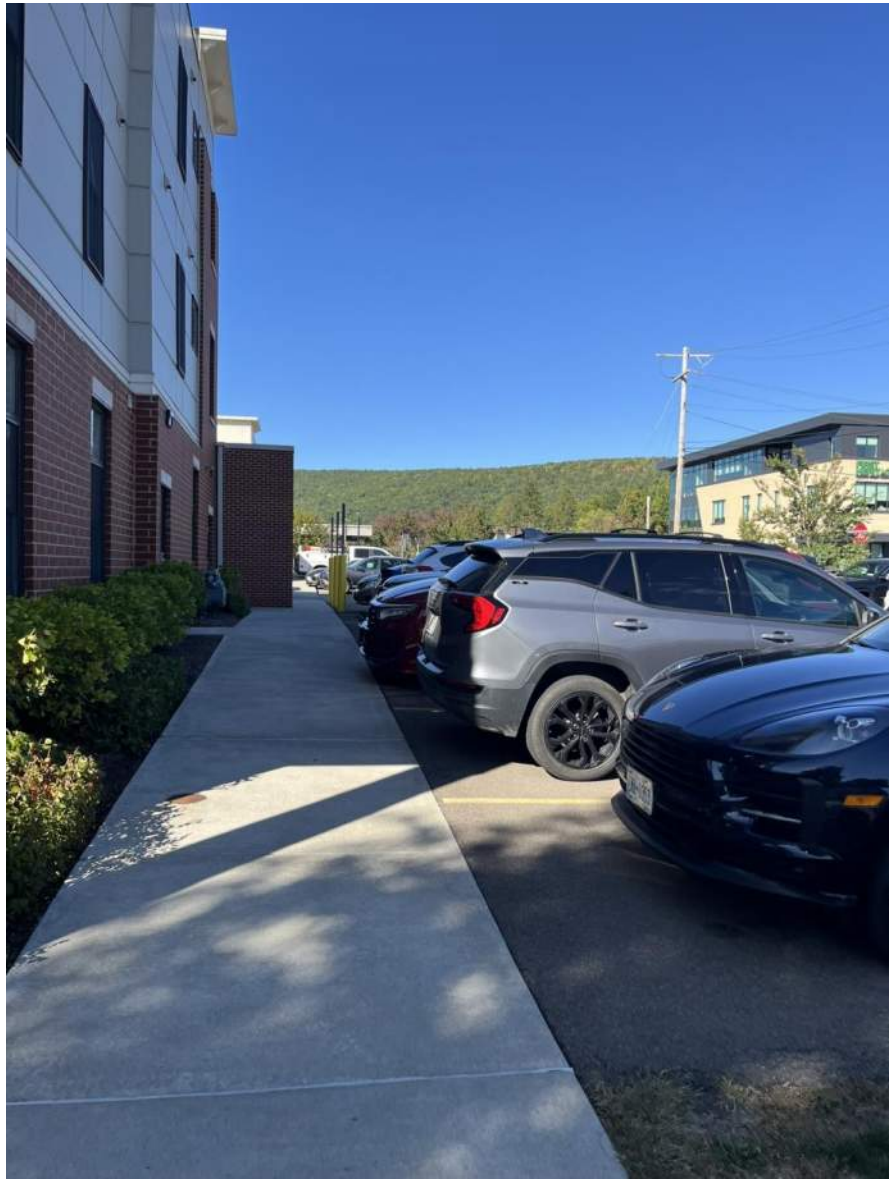
9/19/25 – View of Site looking northeast toward Pearl St



9/19/25 – View of Site looking east toward Pearl St

9/19/25 – View of Site looking South towards E 1st St

9/19/25 – View of Site Building 2 and E 1st St looking west



9/19/25 – View of Site Building 2 looking north

9/19/25 – Site looking West

9/19/25 – Site dog park area looking east

9/19/25 – Site looking west towards building 1

9/19/25 – Site view looking south toward E 1st St

9/19/25 – View of outdoor space looking toward west

9/19/25 - View of outdoor space looking toward west alongside building 1

9/19/25 – View of Site looking north towards building 1

9/19/25 – View of outdoor space looking south

9/19/25 - View of outdoor space looking southwest

9/19/25 – View of Site looking east

9/19/25 – Building 1 Corridor

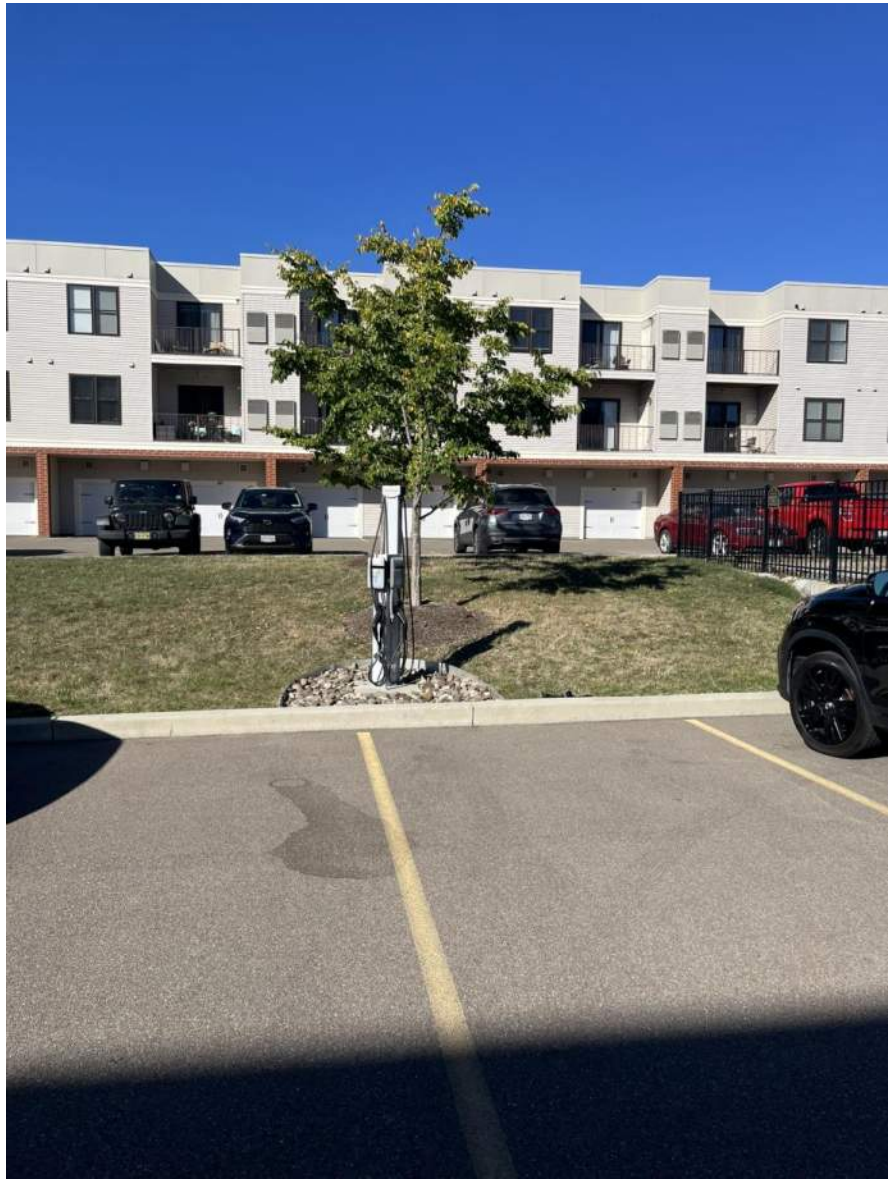
9/19/25 – Building 1 Lobby

9/19/25 – View of Denison Pkwy and Building 1 looking east

9/19/25 – View of Building 1 entrance looking south

9/19/25 – View of Site along Chemung St looking south

9/19/25 – View of Site looking east along E 1st St



9/19/25 – View of Site and Building 1 looking north

9/19/25 – View of 201 E 1st St looking north

9/19/25 - View of 201 E 1st St looking west

9/19/25 – View of 201 E 1st St looking west

9/19/25 - View of 201 E 1st St looking south

9/19/25 - View of 201 E 1st St looking east