

MEMORANDUM

DATE : October 28, 2023

TO : Shane LaFave / Roers Companies, LLC

FROM : Pratap Singh, Ph.D., PE / KSingh

SUBJECT : Weekly Test Results for the Week Ending 10/28/2023
Community Within the Corridor - East Block

COPY TO : Que El-Amin / Scott Crawford, Inc., Robert Reineke, PE, Robert Fedorchak, PE
Project #40441B

The purpose of this memorandum is to report the test results and provide a summary of the work performed as a part of the emergency response for the referenced project for the week ending 10/28/2023. The following tasks were performed throughout the week:

1. Task #1 - Blower Fan Exhaust Sampling

Samples were collected from the blower exhaust of all 11 operational blowers. All blowers had a cumulative blow rate of about 4500 cfm leading to about 0.11 lbs removal of TCE in the fourth week of October. Due to the ongoing excavation work, Blowers 8, 9, and 10 are currently functioning as an exhaust for the indoor air as compared to the others that are connected to the VMS. Since March, we have successfully removed over 2 lbs. of TCE from the site. The individual blower exhaust rates and their corresponding actual TCE removal with Year-To-Date exhaust quantities can be seen in Tables 1 and 2. The layout of the floor plan with the placement of blowers can be found in Figure 1.

2. Task #2 – Background Indoor Air Quality Testing

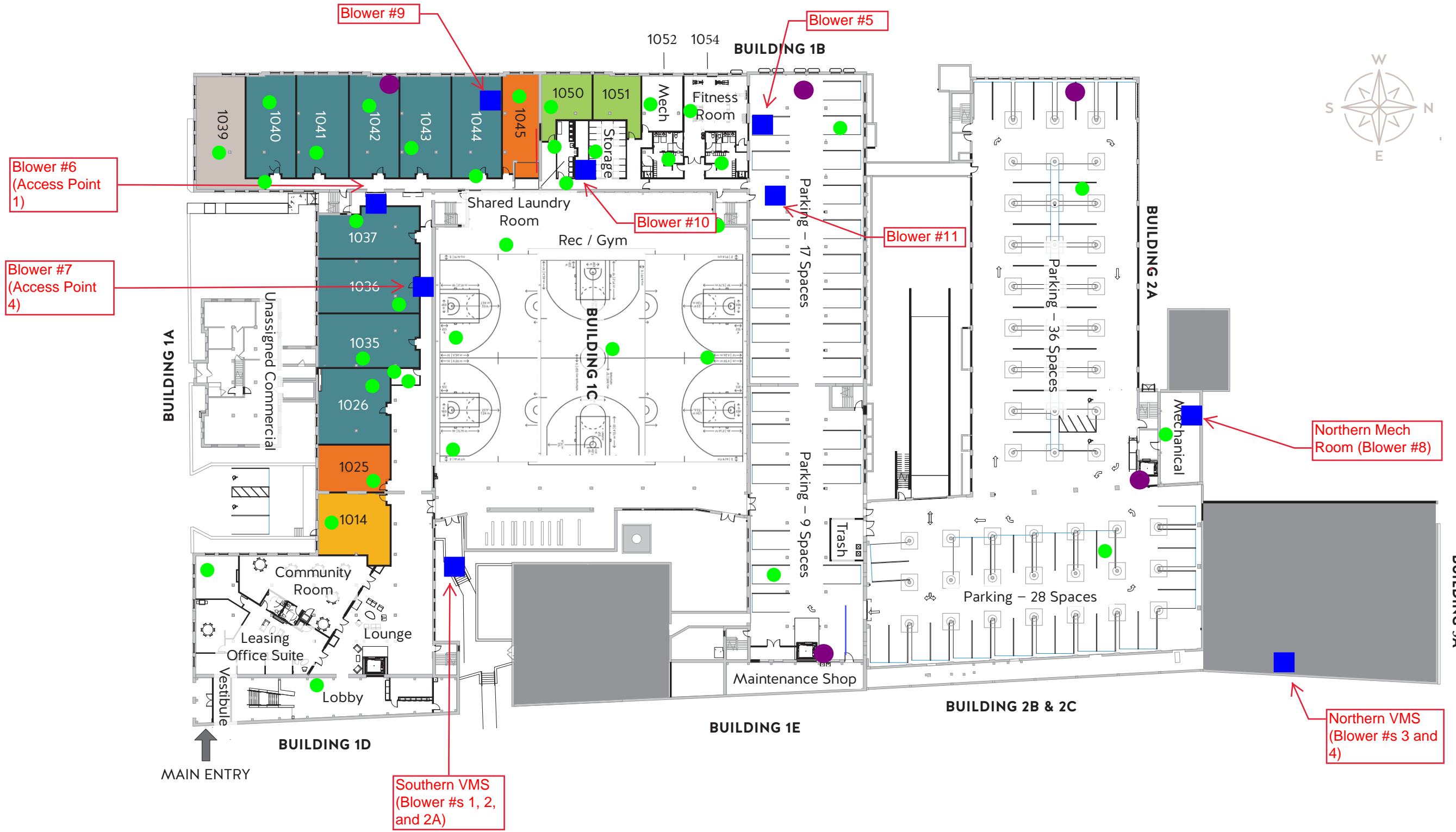
In lieu of the active excavation work, background TCE concentrations were recorded from the areas of excavation in order to ensure a safe working environment for the contractors. All the areas recorded TCE values lesser than the VAL of 2.1 µg/m³. The TCE detections in the areas are recorded in Table 3.

Attachments

KSingh has included the following figures, tables, and pictures for reference:

- Figure 1: CWC EB Floor Plan
- Table 1: Blower Fan Exhaust Data Table for October
- Table 2: Blower Fan Exhaust Data Table since March
- Table 3: Indoor Air Quality

East Building Level 1



- Vapor Mitigation Systems (Blowers)
- Vapor Pins
- Sumps

Figure 1 - CWC EB Level 1 Map with Blower, Vapor Pin and Sump Locations

Table 1: Blower Fan Exhaust Data Table for October

GC TCE Measurements of Blower Effluent and Estimated Removal Rates						
Date: October 27, 2023						
Blower No.	Pipe Diameter	Exhaust Velocity	Flow Rate	TCE Concentration	TCE Removal Rate	TCE Removal
	inches	fpm	cfm	µg/m3	lbs/day	lbs
1	4	4705	411	2.28	0.000084	0.000589
2	4	5020	438	14.67	0.000578	0.004044
2A	4	5174	452	17.44	0.000708	0.004955
3 and 4	6	5827	1144	5.85	0.000602	0.004212
5	4	5138	448	255.28	0.010290	0.072027
6	4	4410	385	73.45	0.002541	0.017788
7	4	1673	146	12.55	0.000165	0.001153
8	4	4370	381	3.67	0.000126	0.000881
9	4	2126	186	3.41	0.000057	0.000398
10	4	2756	241	0.73	0.000016	0.000110
11	4	2973	259	48.07	0.001121	0.007848
			4490		Total	0.11

Table 2: Blower Fan Exhaust Data Table since March

TCE Measurements of Blower Effluent and Removal							
TCE Removal (lbs in Month)							
Blower No.	May	June	July	August	September	October	Total
1	0.0172	0.0619	0.0250	0.0039	0.0049	0.0033	0.1162
2	0.0313	0.0206	0.0190	0.0149	0.0144	0.0166	0.1168
2A				0.0277	0.0201	0.0170	0.0648
3+4	0.0241	0.0154	0.0387	0.0471	0.0220	0.0154	0.1626
5		0.4196	0.2556	0.3277	0.1883	0.3067	1.4978
6		0.0229	0.0085	0.0886	0.0445	0.0669	0.2315
7		0.0093	0.0210	0.0179	0.0000	0.0212	0.0694
8		0.0015		0.0052	0.0066	0.0035	0.0168
9				0.0001	0.0004	0.0011	0.0015
10					0.0003	0.0011	0.0014
11					0.0252	0.0292	0.0544
Total	0.0726	0.5511	0.3677	0.5330	0.3267	0.4821	2.3332
Cumulative Flow Rate (cfm)	1342	2078	2766	3523	3817	4422	17948

Tables 3
Monitoring Results by Date
On-site EPA Method TO-14 Data

Instrument: SRI 8610 Gas Chromatograph with ECD
Operator: Samuel Ramirez / KSingh

Table 3: Indoor Air Monitoring Results from 10/26/2023

No.	Location	Time	TCE Reading ($\mu\text{g}/\text{m}^3$)	>8.8 $\mu\text{g}/\text{m}^3$
1	Calibration	12: 05 PM	2.06 ppbv	Std: 2 ppbv
2	SW Garage	12:28 PM	<0.6	-
3	N Hall	12:36 PM	<0.6	-
4	Storage Room	12:45 PM	1.13	-
5	Laundry Room	1:56 PM	0.75	-
6	Electrical Room	2:06 PM	0.87	-
7	Unit 1050	2:14 PM	1.23	-
8	Unit 1045	2:24 PM	0.75	-
9	Hallway Outside 1043	2:33 PM	<0.6	-
10	Gym (BB2)	2:50 PM	<0.6	-
11	N Mechanical Room	2:58 PM	0.66	-
12	Gym (BB1)	3:06 PM	<0.6	-
13	Unit 3039	3:14 PM	<0.6	-
14	Unit 3093	3:22 PM	<0.6	-

**Reporting Limit = 0.6 $\mu\text{g}/\text{m}^3$