

June 15, 2021

Ms. Jennifer Dorman
Remediation and Redevelopment Program
Wisconsin Department of Natural Resources
2300 North Martin Luther King Drive
Milwaukee, WI 53212

Project # 40443

Subject: **Proposed Modification of Remedial Action Plan / Vapor Mitigation System for
Community Within the Corridor – West Block
3212 W. Center St., 2727 N. 32nd St., and 2758 N. 33rd St., Milwaukee, WI 53210
BRRTS #: 02-41-587376, FID #: 341333190**

Dear Ms. Dorman:

On behalf of the Community Within the Corridor Limited Partnership, K. Singh & Associates, Inc. (KSingh) submits a proposed modification of the remedial action plan and vapor mitigation system of the referenced site. This modification is based on the review letter for the Pressure Field Extension Testing and Vapor Mitigation System Feasibility Study received on June 1, 2021. A copy of the review letter is included in Attachment A. KSingh requests that the WDNR review this response and grant approval to proceed with source removal in Building 7, installation of the vapor mitigation system in buildings 7, 8A, and 8B, and to perform further sub-slab vapor sampling in basement areas and in buildings 4 and 5. A Technical Assistance Fee in the amount of \$700 is attached with this letter. KSingh requests a review by July 2, 2021.

Project Background

KSingh performed a Phase II Environmental Site Assessment (ESA) to identify and provide information regarding potential impacts within the facility from historical land use in April 2020. Soil borings B-1 to B-6 were performed to depths of ten to twenty feet (below ground surface) bgs on April 10, 2020, to assess areas of contamination in the West Block of the facility. Soil samples were collected and analyzed for volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), Resource Conservation and Recovery Act (RCRA) metals, and polychlorinated biphenyls (PCBs). The RCRA metal arsenic was detected above the industrial direct contact protection Residual Contaminant Levels (RCLs) but below the established background threshold value. All other detections were below respective Groundwater Protection RCLs. Groundwater was not encountered in any of the borings.

On June 25, 2020, three soil borings (B-13 to B-15) were advanced to depths of two feet bgs via hand-auger methods. Soil samples were collected and analyzed for Per- and Polyfluoroalkyl Substances (PFAS). No PFAS contamination was detected exceeding established RCLs.

Additional Site Investigation Activities

Site investigation activities were performed to evaluate sub-slab vapor (SSV) and soil quality conditions within

the footprint of the existing buildings.

Fourteen (14) initial sub-slab vapor sampling locations (WB-SS-1 to WB-SS-14) were installed March 1, 2021 and sampled March 2, 2021. Synergy Environmental Lab, Inc. (Synergy) analyzed the samples in accordance with EPA Method TO-15.

Findings of the SSV sampling activities March 2, 2021 are described as follows:

- 1,4-Dioxane, a known constituent of chlorinated VOCs (CVOCs), was detected at concentrations exceeding the Residential Vapor Risk Screening Level (VRSL) of 18 micrograms per cubic meter (ug/m³) at WB-SS-3.
- Tetrachloroethene (PCE) was detected at concentrations exceeding the Residential VRSL of 1400 ug/m³ at WB-SS-7.
- Trichloroethene (TCE) was detected at concentrations exceeding the Residential VRSL of 70 ug/m³ at WB-SS-4 and WB-SS-7.
- No Large Commercial / Industrial VRSLs were detected.

In addition to SSV, soil sampling at five (5) of the fourteen (14) SSV sampling locations were collected March 2, 2021 after SSV sampling was completed. WB-SS-2, WB-SS-6, and WB-SS-12 were analyzed for VOCs. WB-SS-6 and WB-SS-14 were analyzed for VOCs and PCBs. Eurofins TestAmerica Laboratories, Inc. (TestAmerica) analyzed the samples in accordance with EPA Methods 8260B and 8082A.

The findings of the soil activities were described as follows:

- 1,2-Dichlorobenzene was detected in soil sample WB-SS-2 exceeding its Groundwater protection RCL of 1.168 milligrams per kilogram (mg/Kg).
- 1,4-Dichlorobenzene was detected in soil sample WB-SS-2 exceeding its Groundwater protection RCL of 0.144 mg/Kg.
- Benzene was detected in soil sample WB-SS-14 exceeding its Groundwater Protection RCL of 0.0051 mg/Kg.
- PCE was detected in soil sample WB-SS-2 exceeding its Groundwater Protection RCL of 0.0045 mg/Kg.
- TCE was detected in soil sample WB-SS-2 exceeding its Groundwater Protection RCL of 0.0036 mg/Kg.
- PCB-1254 was detected in soil samples WB-SS-6 exceeding its Groundwater Protection RCL of 0.0094 mg/Kg, and in WB-SS-14 exceeding the Industrial Direct Contact RCL of 1.000 mg/Kg.

Based on the findings of the SSV and soil sampling activities performed March 2, 2021 and elevated levels of chlorinated volatile organic compounds (CVOCs) and VOCs detected in the Community of the Corridor – East Block, additional SSV and soil sampling was recommended to determine extents of VOC and PCB contamination by the WDNR.

Additional site investigation activities to determining extents of contaminants occurred April 1, 2021 to April 5, 2021.

Eleven (11) additional SSV sampling locations (WB-SS-15 to WB-SS-25) were installed and sampled April 1, 2021. Synergy analyzed the samples in accordance with EPA Method TO-15.

Findings from the SSV sampling activities April 1, 2021 are described as follows:

- PCE was detected at concentrations exceeding the Residential VRSL of 1400 ug/m³ at WB-SS-19.
- No Large Commercial / Industrial VRSLs were exceeded.

Seventeen soil samples (WB-Int-1 to WB-Int-17) were collected April 2 to April 5, 2021 and analyzed for VOCs and PCBs. TestAmerica analyzed the samples in accordance with EPA Methods 8260B and 8082A.

- PCE was detected in soil samples WB-Int-6 and WB-Int-7 exceeding its Groundwater Protection RCL of 0.0045 mg/Kg.
- TCE was detected in soil samples WB-Int-7 and WB-Int-11 exceeding its Groundwater Protection RCL of 0.0036 mg/Kg.
- PCB-1248 was detected in soil samples WB-Int-13, WB-Int-14, and WB-Int-17 exceeding its Groundwater Protection RCL of 0.0094 mg/Kg.
- PCB-1254 was detected in soil samples WB-Int-1, WB-Int-2, WB-Int-3, and WB-Int-4 exceeding its Groundwater Protection RCL of 0.0094 mg/Kg, and in WB-Int-16 exceeding the Non-Industrial Direct Contact RCL of 0.239 mg/Kg.
- No Industrial Direct Contact RCLs were detected.
- Methylene chloride was detected in multiple samples exceeding its Groundwater Protection RCL of 0.0026 mg/Kg, but also detected in the collected trip blank. Methylene Chloride is a common laboratory artifact and was detected in the method blank for the analysis. Therefore, Methylene Chloride is not considered to be present.

Representative trench samples have been collected to assist with estimating mass removal during excavations for underground plumbing as part of reconstruction and are collected every 300 linear feet of trenched length.

RTS-1 was collected on March 3, 2021 and analyzed for VOCs, SVOCs, PCBs, and RCRA-Metals. RTS-2 was collected on April 6, 2021 and analyzed for VOCs and PCBs. RTS-3 to RTS-6 were collected on May 18, 2021 and tested for VOCs and PCBs. Test America analyzed the samples in accordance with EPA Methods 8260B, 8270D, 8082A, 6010B, and 7471A.

The findings from the Representative trench sample collections were as follows:

- Benzene was detected in RTS-2 at 0.022 mg/kg exceeding its Groundwater Protection RCL of 0.0051 mg/kg.
- PCE was detected in RTS-2 and RTS-3 at concentration of 0.12 mg/kg and 0.90 mg/kg, respectively, exceeding its Groundwater Protection RCL of 0.0045 mg/Kg.
- TCE was detected in RTS-1 and RTS-2 exceeding its Groundwater Protection RCL of 0.0036 mg/kg.
- PCB-1242 was detected in RTS-1 exceeding its Groundwater Protection RCL of 0.0094 mg/kg.
- PCB-1254 was detected in RTS-2 and RTS-6 at concentrations of 0.018 mg/kg and 1.6 mg/kg, respectively, exceeding its Groundwater Protection RCL of 0.0094 mg/kg. RTS-6 also exceeds the Non-Industrial and Industrial Direct Contact RCLs.
- Arsenic was detected in RTS-1 exceeding its Industrial Direct Contact RCL of 3 mg/kg, but under the established Background Threshold Value of 8.3 mg/kg.

Results of all SSV sampling to date are shown in Table 1. SSV results for contaminants of concern are summarized in Table 2. SSV sampling locations are shown on Figure 2. SSV Sampling Results are shown on Figure 3. Isoconcentration plumes for SSV exceedances are shown on Figure 4.

Results of all soil sampling to date are shown in Table 3. Soil results for contaminants of concern are summarized in Table 4. PFAS analytical results are shown in Table 5. Soil sampling locations are shown on Figure 5. Soil sampling results are shown on Figure 6. Extents of RCL exceedances in soil are shown on Figure 7.

PCE is the primary contaminant of concern at the site principally found beneath Building 7. The greatest concentration of PCE is encountered in soil sample WB-Int-7 with a concentration of 3 mg/kg. KSingh estimates that the depth of contamination beneath the building is approximately 5 feet and 7.8 pounds of PCE is present in the soils beneath the West Block building. Relatively little contamination has been detected outside of the West Block buildings.

Pressure Field Extension Testing

KSingh performed pressure field extension (PFE) testing on April 8 and April 9, 2021. Three (3) temporary vapor extraction points were advanced through the concrete slab in Buildings 7 and 8 of the facility. Concrete thickness varied between 6 and 10.8 inches. Locations of the vapor extraction points are shown on Figure 8. Approximately 1.125 cubic feet of soil was removed beneath the slab at each location to act as a suction pit during testing. Subsurface soils were classified to assist with evaluation of the mitigation design.

- Extraction point WB-VE-1 located in the northern portion of Building 8B consisted of a 10.8-inch concrete slab overlaying brown silty-clay with sand. Some gravel was encountered.
- Extraction point WB-VE-2 located in the northern portion of Building 7 consisted of an 8-inch concrete slab overlaying light brown well-graded sands with gravel and cobbles.
- Extraction point WB-VE-3 located in the southern portion of Building 7 consisted of a 6-inch concrete slab overlaying brown sand with some gravel to 16 inches below ground surface. From 16 inches to the bottom of the extraction point, observed fill changed from brown to dark grey.

Temporary negative pressure points were installed into the concrete slab in ten-foot increments from each extraction point to determine the zone of influence during testing. The negative pressure points were installed by installing Vapor Pins into 5/8-inch surface penetrations.

Three separate tests were performed as follows:

- A GP501c series mitigation fan (fan) was selected to perform the PFE testing.
- Three-inch schedule-40 piping was run between each extraction point and fan.
- The piping run had two ports installed to measure negative pressure, air velocity, and temperature during testing.
- The port which air velocity and temperature was measured was 12 duct-diameters downstream of the vapor extraction point and 7-duct diameters upstream from the fan to limit turbulent flow.
- Upon initialization of testing, vacuum was applied to the vapor extraction point and field measurements were collected across the slab after the first 5 minutes and every 10 minutes thereafter until a minimum of 45 minutes of readings were collected or when measurements appeared to stabilize.
- A dual-input digital micromanometer (model TP 621) with a resolution of 0.001 inches of water column (inH₂O) was used to measure negative pressure.
- A thermo-anemometer (model 471B-1) capable of measuring air velocities up to 6000 feet-per-minute (FPM) was used to measure flow velocity and temperature.

The resulting PFE from testing is shown on Figure 9. The calculated radii of influence are as follows:

- WB-VE-1 14.6 feet to the South
 20.0 feet to the East
- WB-VE-2 20.0 feet to the South
 20.0 feet to the East
- WB-VE-3 40.0 feet to the North
 24.8 feet to the West

Based on the findings from SSV and soil sampling, vapor mitigation is recommended in sections Building 7, Building 8A, and Building 8B of the facility due to the presence of chlorinated at concentrations greater than Residential VRSLs. Construction of engineered barriers is also recommended in Building 8A.

Based on the findings of the investigation, a vapor mitigation system design was submitted to WDNR on April 27, 2021. The WDNR responded in a letter dated June 1, 2021 requesting revisions.

Remedial Action Review Response

KSingh has prepared a response to WDNR's comments and questions in regard to the Remedial Action Plan for vapor intrusion in the order which they are included in the letter with WDNR's comments and questions presented in italics. KSingh's responses are as follows.

A. Remedial Action

1. Considering site investigation conducted to-date has identified sub-slab vapor contamination greater than its applicable VRSLs, propose a remedial action to reduce the mass and concentration of contamination at this site. Additionally, provide an estimate for the mass of contamination that will be removed during the proposed remedial action(s). The DNR recommends that remedial actions be considered for building 7, since site investigation has identified the highest known concentration of PCE in the sub-slab vapors and soils in building 7. Please note that the DNR does not consider vapor mitigation an active remedy.

Based on the WDNR's request for mass removal, KSingh is proposing to remove the top six inches of soil beneath the concrete in the vicinity of WB-Int-7, the highest concentration of soil contamination. The proposed area of excavation is shown on Figure 10 and will be approximately 930 square feet by 1.5 feet deep. Additional excavation will take place for trenching work in the building. KSingh estimates a total amount for PCE of 7.8 pounds beneath the West Block Building as calculated in Table 6. KSingh is proposing to remove approximately 0.9 pounds of PCE, approximately 12% of the total PCE. Up to 6 confirmatory samples for VOCs will be collected from the floor of the excavation. The excavated soils will be replaced with gravel to bring the excavation back up to necessary grade for pouring the slab. A 50-mil liner will be placed and the concrete will be poured atop. The removal of soil and enhanced area for vapor mitigation will ensure protection of occupants.

Further, the Vapor Mitigation System proposed is estimated to remove approximately 140 CFM of vapors from under the building. Combined with the source removal, it is anticipated that the vapor mitigation will perform additional mass removal over time and assist in long term attenuation of vapor contamination.

B. Mitigation

1. Only one round of sub-slab vapor sampling has occurred to-date. Additional sub-slab vapor sampling is required to demonstrate that the VMS is not necessary to mitigate the entire footprint of the building. The DNR recommends that two to three consecutive rounds of vapor sampling identify contaminant concentrations below their applicable VRSLs (i.e., residential, small-commercial or industrial) prior to ruling out an area of the building for vapor mitigation. Therefore, either expand the VMS to include the entire building

footprint or conduct additional vapor sampling to help to define the extent and degree of sub-slab vapor contamination at this site. For additional guidance on vapor investigation and mitigation you may reference DNR guidance document RR-800, Addressing Vapor Intrusion at Remediation & Redevelopment Sites in Wisconsin.

KSingh has revised the design of Sub-Slab Depressurization Systems (SSDS) to induce negative pressure of all at grade levels of building 7, 8A, and 8B. KSingh proposes installation of the following SSDS designs throughout the facility:

Building 8A

Current floor plans for reconstruction in Building 8A are being revised; plans will be to remove the hardwood flooring and pour concrete flooring, estimated to be six inches thick. A 50 mil submembrane is recommended to be installed ahead of pouring the concrete slab. Exposed subsoils will be screened with a photo-ionization detector (PID) during removal of the wood flooring for possible hotspot removal.

Three RadonAway HS3000 mitigation fans, or equivalent, shall be installed, capable of -21 inH₂O at a flow rate of 19 CFM. TCE is the sole contaminant of concern, concentrated in the southern section of Building 8A. Each fan will be paired with two extraction points (EP-1 to EP-6), effective in depressurizing sub-slab vapors under the on-grade portion of Building 8A.

Building 8B

One RadonAway HS3000 mitigation fan and one RadonAway HS2000 mitigation fan, or equivalent, shall be installed. 1,4-Dioxane is the sole contaminant of concern, isolated in the northern section of Building 8B. To mitigate the extent of 1,4-Dioxane, six vapor extraction points (EP-7 to EP-12) will be effective in depressurizing sub-slab vapors beneath the entire building footprint. A 50-mil submembrane is recommended to be installed ahead of restoration of trenches.

Building 7

Two RadonAway HS2000 mitigation fans, or equivalent, shall be installed, capable of -14 inH₂O at a flow rate of 24 CFM. Tetrachloroethene (PCE) and TCE are the contaminants of concern. Five vapor extraction points (EP-13 to EP-17) will be effective in depressurizing sub-slab vapors under the entire building footprint. Pairing of vapor extraction points was chosen based on the zone of influence encountered during PFE testing being more favorable in the southern portions of Building 7. A 50-mil submembrane is recommended to be installed ahead of restoration of trenches.

Basement of Building 8A

No vapor mitigation is recommended to occur in the basement of Building 8A. Sub-slab vapors were not detected during the sub-slab vapor investigation exceeding residential vapor risk screening levels.

Building 6

No vapor mitigation is recommended to occur in building 6. Sub-slab vapors were not detected during the sub-slab vapor investigation exceeding residential vapor risk screening levels.

Building 5

No vapor mitigation is recommended to occur in building 6. Sub-slab vapors were not detected during the sub-slab vapor investigation exceeding residential vapor risk screening levels.

Building 4

No vapor mitigation is recommended to occur in building 6. Sub-slab vapors were not detected during the sub-slab vapor investigation exceeding residential vapor risk screening levels.

The layout of the SSDS and the estimated zone of influence of the system is shown on Figures 11 and 12. Further details related to mitigation fan and piping selections and specifications are included in Attachment B.

Criteria Applicable for all Sub-Slab Depressurization System Locations

Vapor extraction point penetrations into the concrete slab shall be no less than 3.5 inches in diameter. At each vapor extraction point, a sump pit will be dug into the underlying soil; a minimum of 2.250 cubic feet of material shall be removed, then backfilled with gravel. Pipe rises and runs shall be 3-inch schedule-40 PVC pipe. Piping shall be pitched at a minimum of 1.5% toward extraction point to distribute any condensate vertically. All gaps or penetrations evident in the concrete surface, including the extraction point, shall be sealed to prevent any pressure loss. Ball valves will be installed on each individual pipe run to balance depressurization across the slab. Ports will be installed in each individual pipe run to measure static pressure and air flow rates. The mitigation fan may be installed on the roof or building exterior as reconstruction plans permit. Exhaust venting from the fan must be discharged 2 feet above the roof and/or 12 feet from any window. All valves and PVC fittings between the vapor extraction point and the venting point shall be sealed with solvent welds. Each fan will be equipped with electrical disconnects in the vicinity of each fan location. Independent electrical circuits will be assigned for each mitigation fan in electrical control panels.

Commissioning testing will be performed following installation of the vapor mitigation system and operation of the HVAC system. Modifications will be made to the system if it is shown that depressurization is not complete.

For the basement of Building 8A, Building 6, Building 5, and Building 4, up to two additional round of sub-slab vapor sampling will be performed for VOCs. Sub-slab vapor points WB-SS-2, WB-SS-8, WB-SS-9, WB-SS-10, WB-SS-11, WB-SS-12, WB-SS-13, WB-SS-14, WB-SS-22, WB-SS-23, WB-SS-24, and WB-SS-25 are proposed for additional sampling. One round of sampling is proposed in the Summer of 2021 and one round of sampling is proposed in Winter 2021/2022 after the heating system is active. If Residential VRSLs are exceeded in the additional subslab samples, additional vapor mitigation system fans will be added.

We request WDNR's approval of plan for Source Removal, Vapor Mitigation of Buildings 7, 8A, and 8B, and additional sub-slab vapor sampling of the basement of Building 8A, and of Buildings 6, 5, and 4. Please contact us, if you have any questions or seek clarification regarding this submittal.

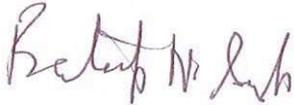
Sincerely,
K. SINGH & ASSOCIATES, INC.



Aileen M. Zebrowski, E.I.T.
Staff Engineer



Robert T. Reineke, P.E.
Project Manager



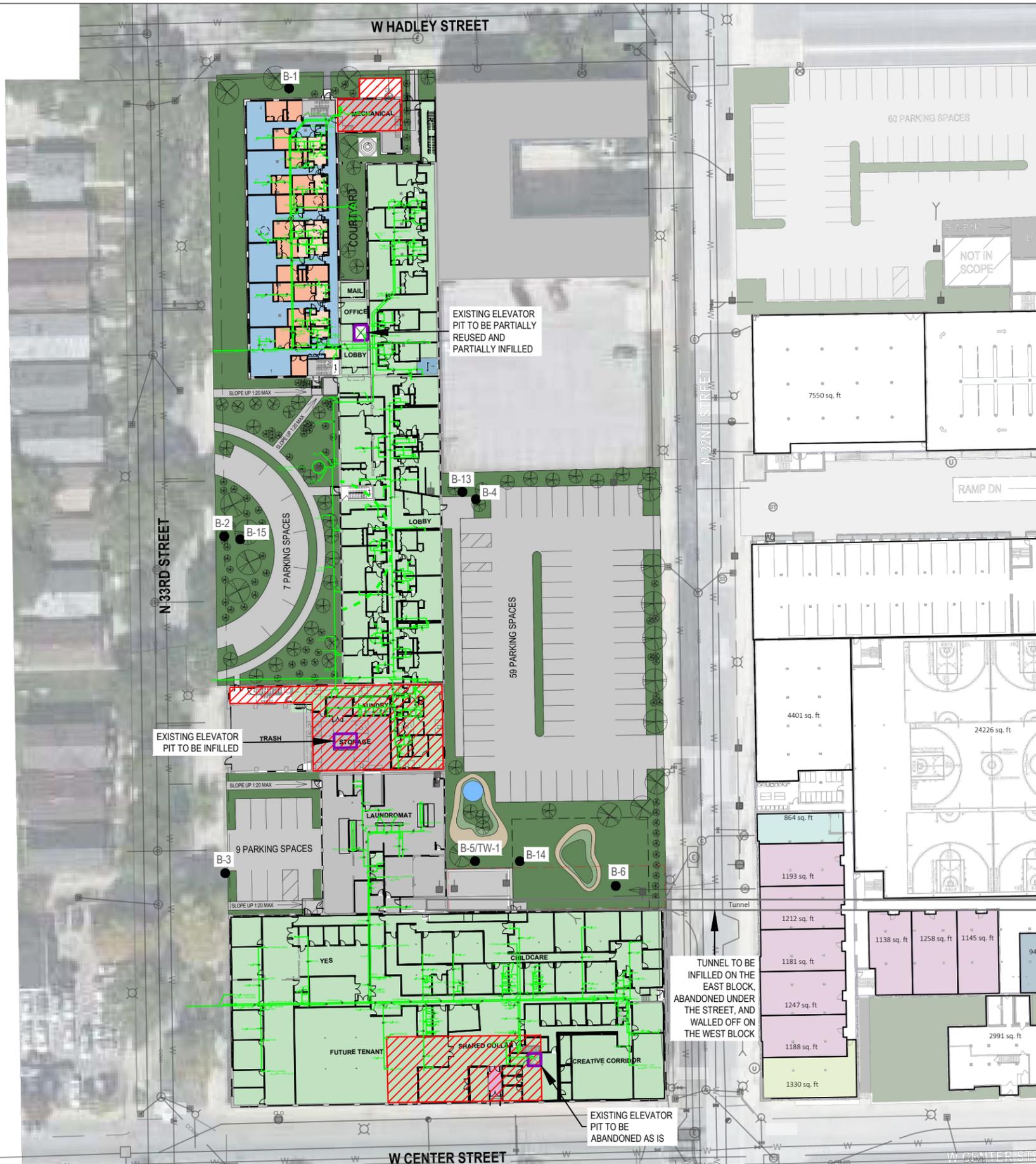
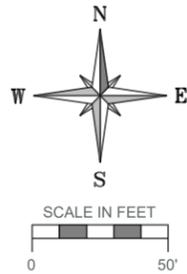
Pratap N. Singh, Ph.D., P.E.
Principal Engineer

cc: Shane LaFave / Roers Companies
Que El-Amin / Scott Crawford, Inc.

Attachments:

Figure 1	Site Layout
Figure 2	Sub-Slab Vapor Sampling Locations
Figure 3	Sub-Slab Vapor Sampling Results
Figure 4	VRSL Exceedance Plumes for VOCs
Figure 5	Soil Sampling Locations
Figure 6	Soil Sampling Results
Figure 7	RCL Extents in Soil
Figure 8	Pressure Field Extension Test Locations
Figure 9	Results of Pressure Field Extension Testing
Figure 10	Proposed Soil Removal Area
Figure 11	Proposed Vapor Mitigation Design Layout
Figure 12	Layout Vs. VRSL Exceedance Plumes for VOCs
Table 1	Sub-Slab Vapor Analytical Results
Table 2	Sub-Slab Vapor Analytical Results – Contaminants of Concern
Table 3	Soil Analytical Results
Table 4	Soil Analytical Results – Contaminants of Concern
Table 5	PFAS Analytical Results
Table 6	Estimate of Mass of PCE in Soil
Attachment A	WDNR Review Letter
Attachment B	Vapor Mitigation Plan Details

FIGURES

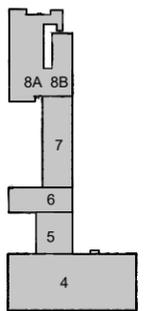


FLOOR FINISH LEGEND

	CPT-1	BROADLOOM CARPET (UNIT BEDROOMS)
	CT-1	CERAMIC TILE (UNIT BATHROOMS W/ ROLL-IN SHOWERS ONLY)
	EXTG-WD	EXISTING WOOD FLOORING TO REMAIN IN PLACE & BE REFINISHED
	LVT-1	LUXURY VINYL TILE (UNIT BATHROOMS)
	MZ-1	EXISTING HISTORIC MOSAIC TILE - TO REMAIN IN PLACE & CLEAN
	PC-1	POLISHED CONCRETE
	SC-1	SEALED CONCRETE
	WD-SV	SALVAGED WOOD - REMOVED, REINSTALLED AND REFINISHED (SALVAGED WOOD WILL BE REINSTALLED IN CORRIDORS FIRST THEN CONTINUE INTO UNITS - IF THERE IS NOT ENOUGH QUANTITY - INSTALL NEW WOOD FLOORING TO MATCH HISTORIC SIZE)

LEGEND

- Previous Boring and Temporary Well Locations
- Known Elevator Shaft
- Planned Underground Plumbing
- Underground Tunnel
- Basement Area(s)



KEY PLAN

CONSULTANT

CONSULTANT

PROJECT TITLE: COMMUNITY WITHIN THE CORRIDOR - WEST BLOCK
MILWAUKEE, WI
PROJECT NUMBER: 40443

CLIENT:
COMMUNITY WITHIN THE CORRIDOR LIMITED
PARTNERSHIP

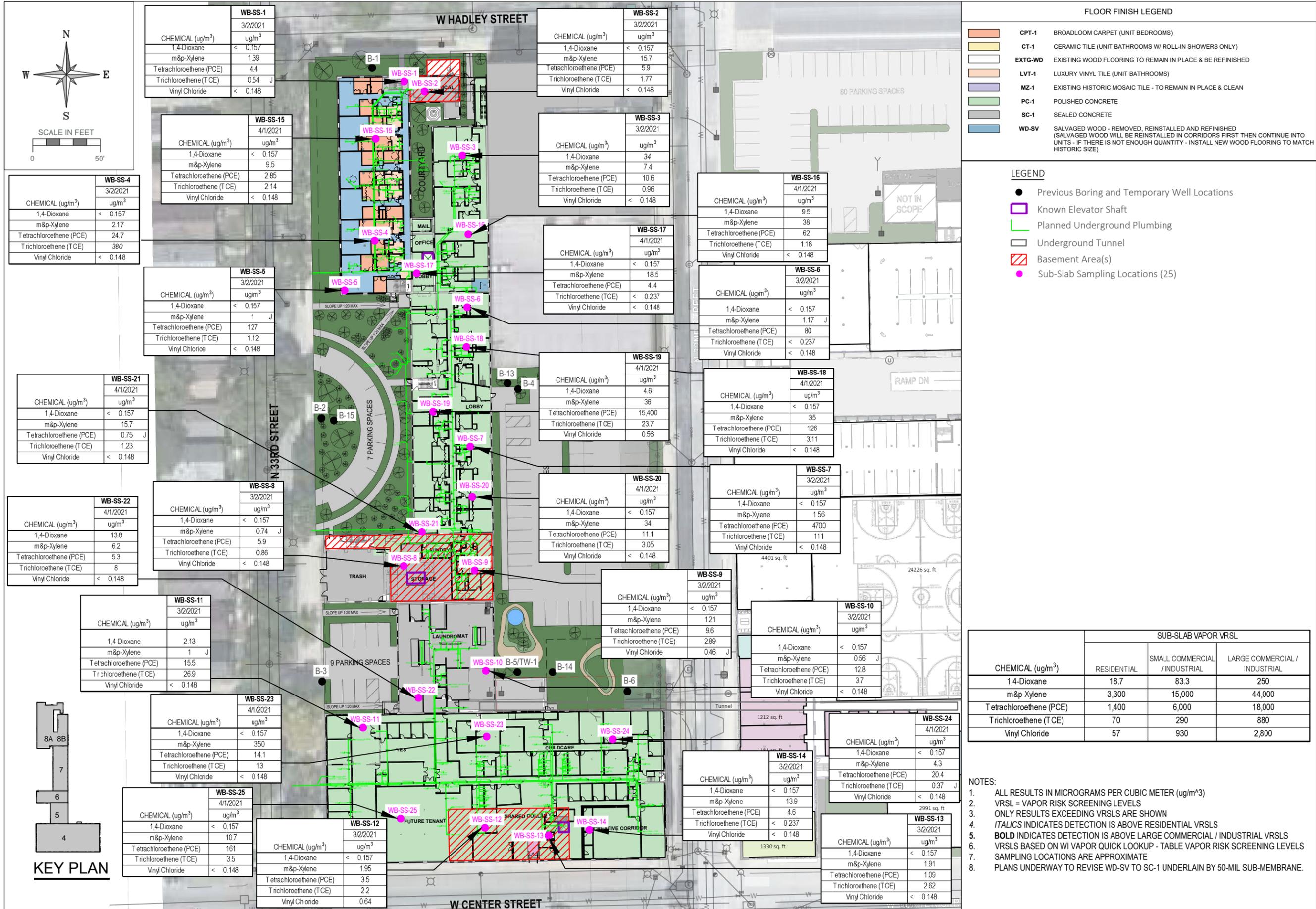
REVISIONS	DATE	DESCRIPTION

DRAWN BY AMZ	DATE 05/26/2021
CHECKED BY DKP	DATE 05/26/2021

SHEET TITLE
SITE LAYOUT

FIGURE 1

NOTE:
• PLANS UNDERWAY TO REVISE WD-SV TO SC-1 UNDERLAIN BY 50-MIL SUB-MEMBRANE.



CONSULTANT

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PARTNERSHIP

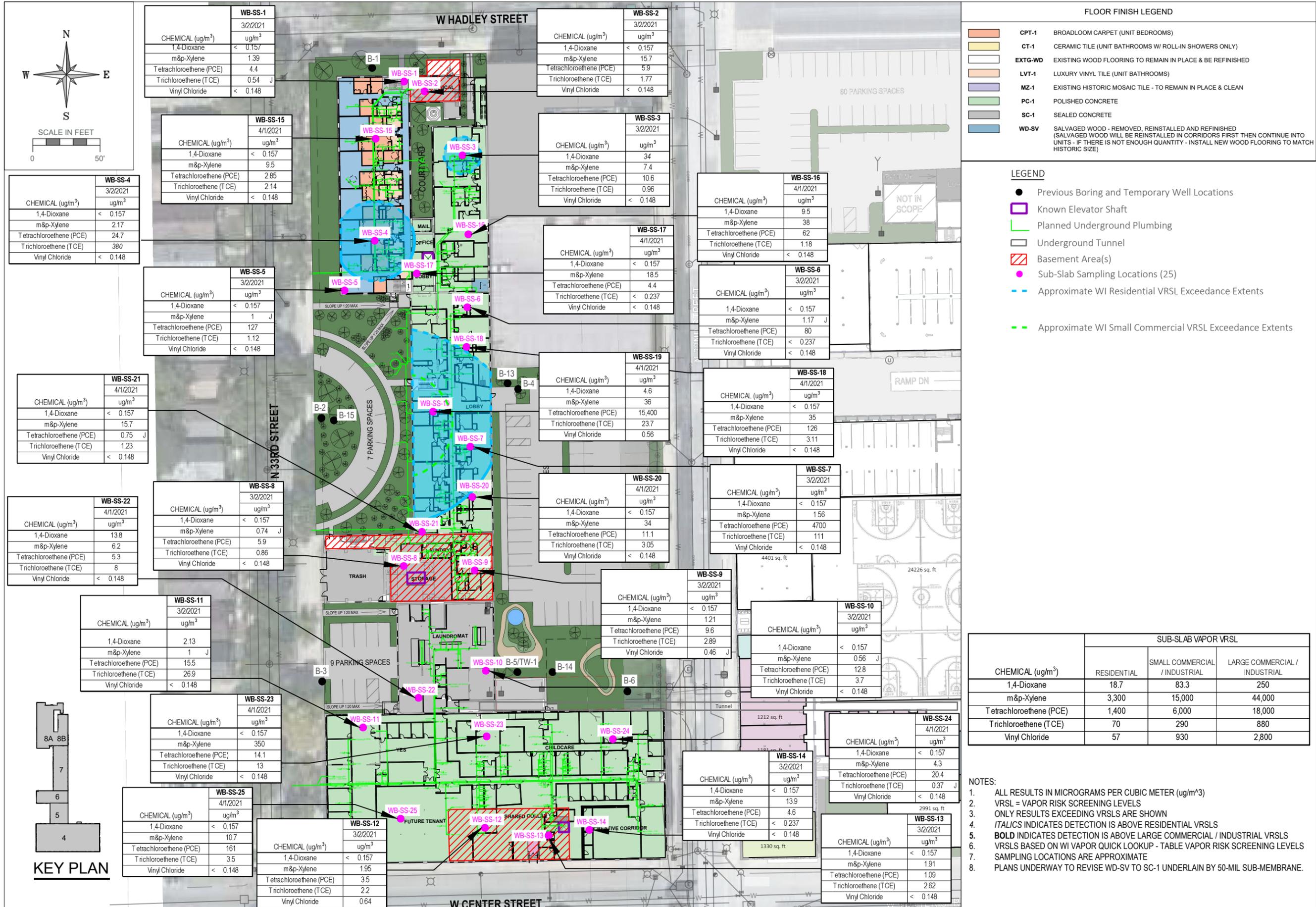
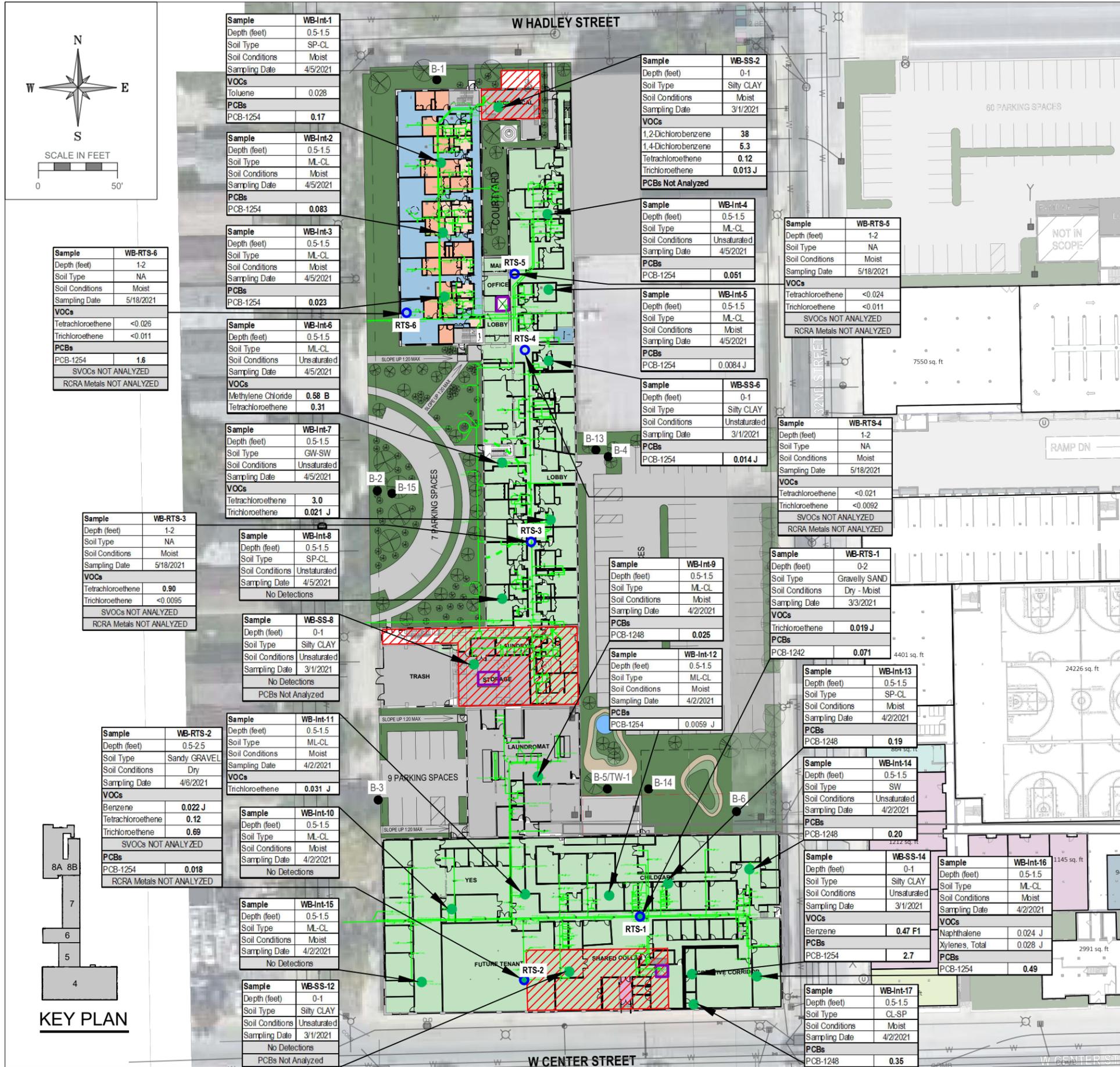


FIGURE 4



FLOOR FINISH LEGEND

	CPT-1	BROADLOOM CARPET (UNIT BEDROOMS)
	CT-1	CERAMIC TILE (UNIT BATHROOMS W/ ROLL-IN SHOWERS ONLY)
	EXTG-WD	EXISTING WOOD FLOORING TO REMAIN IN PLACE & BE REFINISHED
	LVT-1	LUXURY VINYL TILE (UNIT BATHROOMS)
	MZ-1	EXISTING HISTORIC MOSAIC TILE - TO REMAIN IN PLACE & CLEAN
	PC-1	POLISHED CONCRETE
	SC-1	SEALED CONCRETE
	WD-SV	SALVAGED WOOD - REMOVED, REINSTALLED AND REFINISHED (SALVAGED WOOD WILL BE REINSTALLED IN CORRIDORS FIRST THEN CONTINUE INTO UNITS - IF THERE IS NOT ENOUGH QUANTITY - INSTALL NEW WOOD FLOORING TO MATCH HISTORIC SIZE)

LEGEND

- Previous Boring and Temporary Well Locations
- Known Elevator Shaft
- Planned Underground Plumbing
- Underground Tunnel
- ▨ Basement Area(s)
- Soil Sampling Locations (24)
- RTS (6)

Analyte	NR 720 RCLs for GW Protection (1)	NR 720 RCLs Non-Industrial Use for Direct Contact Protection (1)	NR 720 RCLs Industrial Use for Direct Contact Protection (1)
Volatile Organic Compounds (VOCs)			
1,2,4-Trimethylbenzene	1.3787*	219	219
1,2-Dichlorobenzene	1.168	376	376
1,3,5-Trimethylbenzene	1.3787*	182	182
1,3-Dichlorobenzene	1.1528	297	297
1,4-Dichlorobenzene	0.144	3.74	16.4
Benzene	0.0051	1.6	7.07
Isopropylbenzene	---	268.0	268
Chlorobenzene	---	370	761
Ethylbenzene	1.57	8.02	35.4
Naphthalene	0.658182	5.52	24.10
n-Butylbenzene	---	108	108
N-Propylbenzene	---	264	264
p-Isopropyltoluene	---	162	162
sec-Butylbenzene	---	145	145
Styrene	0.22	867	867
Tetrachloroethene	0.0045	33	145
Toluene	1.1072	818	818
Trichloroethene	0.0036	1.3	8.41
Xylenes, Total	3.96	1,212	1212
Polychlorinated Biphenyls (PCBs)			
PCB-1242	0.0094**	0.235	0.972
PCB-1248	0.0094**	0.236	0.975
PCB-1254	0.0094**	0.239	0.988

- NOTES:**
- (1) FROM WDNR RCLs WORKSHEET DATED DECEMBER 2018
 - REPORTED UNITS IN MG/KG
 - ONLY DETECTIONS SHOWN
 - BOLD** = DETECTION IS ABOVE GROUNDWATER PROTECTION OR DIRECT CONTACT RCLs
 - = NO ESTABLISHED STANDARD
 - * = COMBINED ESTABLISHED STANDARD OF 1,2,4- & 1,3,5- TRIMETHYLBENZENE
 - ** = COMBINED ESTABLISHED STANDARD OF PCBs
 - "F1" = MATRIX SPIKE AND/OR MATRIX SPIKE DUP RECOVERY EXCEEDS CONTROL LIMITS
 - "J" = ANALYTE DETECTED BETWEEN 'LIMIT OF DETECTION' AND 'LIMIT OF QUANTITATION'
 - METHYLENE CHLORIDE OMITTED - COMPOUND DETECTED IN BLANK
 - SAMPLING LOCATIONS ARE APPROXIMATE
 - PLANS UNDERWAY TO REVISE WD-SV TO SC-1 UNDERLAIN BY 50-MIL SUB-MEMBRANE.

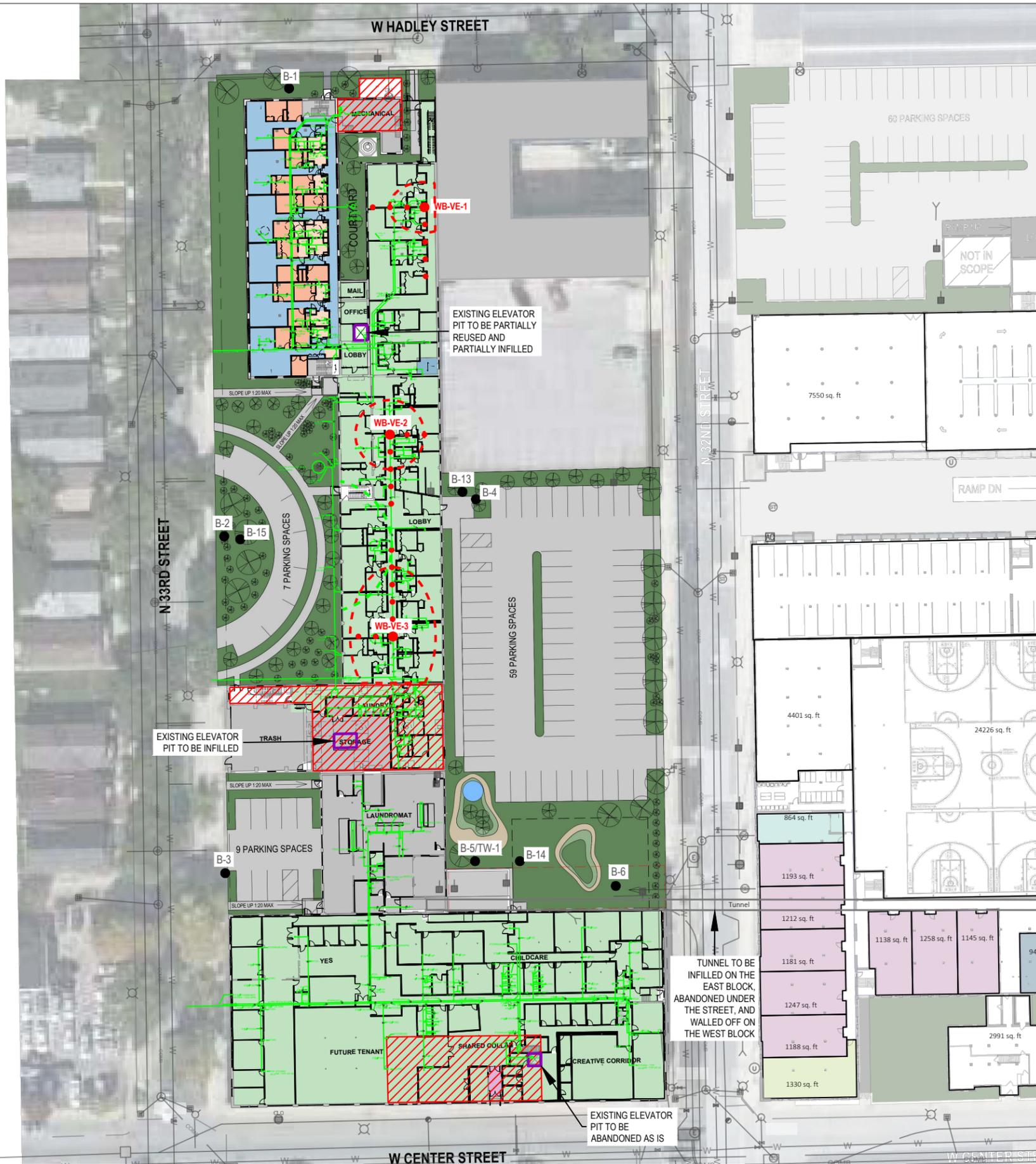
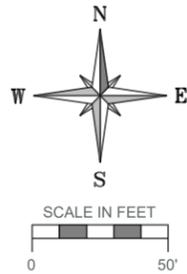
PROJECT TITLE: COMMUNITY WITHIN THE CORRIDOR - WEST BLOCK
MILWAUKEE, WI
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CLIENT: COMMUNITY WITHIN THE CORRIDOR LIMITED PARTNERSHIP

REVISIONS	DATE	DESCRIPTION

SOIL SAMPLING RESULTS

FIGURE 6

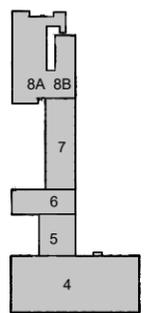


FLOOR FINISH LEGEND

	CPT-1	BROADLOOM CARPET (UNIT BEDROOMS)
	CT-1	CERAMIC TILE (UNIT BATHROOMS W/ ROLL-IN SHOWERS ONLY)
	EXTG-WD	EXISTING WOOD FLOORING TO REMAIN IN PLACE & BE REFINISHED
	LVT-1	LUXURY VINYL TILE (UNIT BATHROOMS)
	MZ-1	EXISTING HISTORIC MOSAIC TILE - TO REMAIN IN PLACE & CLEAN
	PC-1	POLISHED CONCRETE
	SC-1	SEALED CONCRETE
	WD-SV	SALVAGED WOOD - REMOVED, REINSTALLED AND REFINISHED (SALVAGED WOOD WILL BE REINSTALLED IN CORRIDORS FIRST THEN CONTINUE INTO UNITS - IF THERE IS NOT ENOUGH QUANTITY - INSTALL NEW WOOD FLOORING TO MATCH HISTORIC SIZE)

LEGEND

- Previous Boring and Temporary Well Locations
- Known Elevator Shaft
- Planned Underground Plumbing
- Underground Tunnel
- Basement Area(s)
- Vapor Extraction Point(s)
- Negative Pressure Locations
- Radius of Influence Achieved



KEY PLAN

CONSULTANT

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PROJECT TITLE: COMMUNITY WITHIN THE CORRIDOR - WEST BLOCK
MILWAUKEE, WI
PROJECT NUMBER: 40443

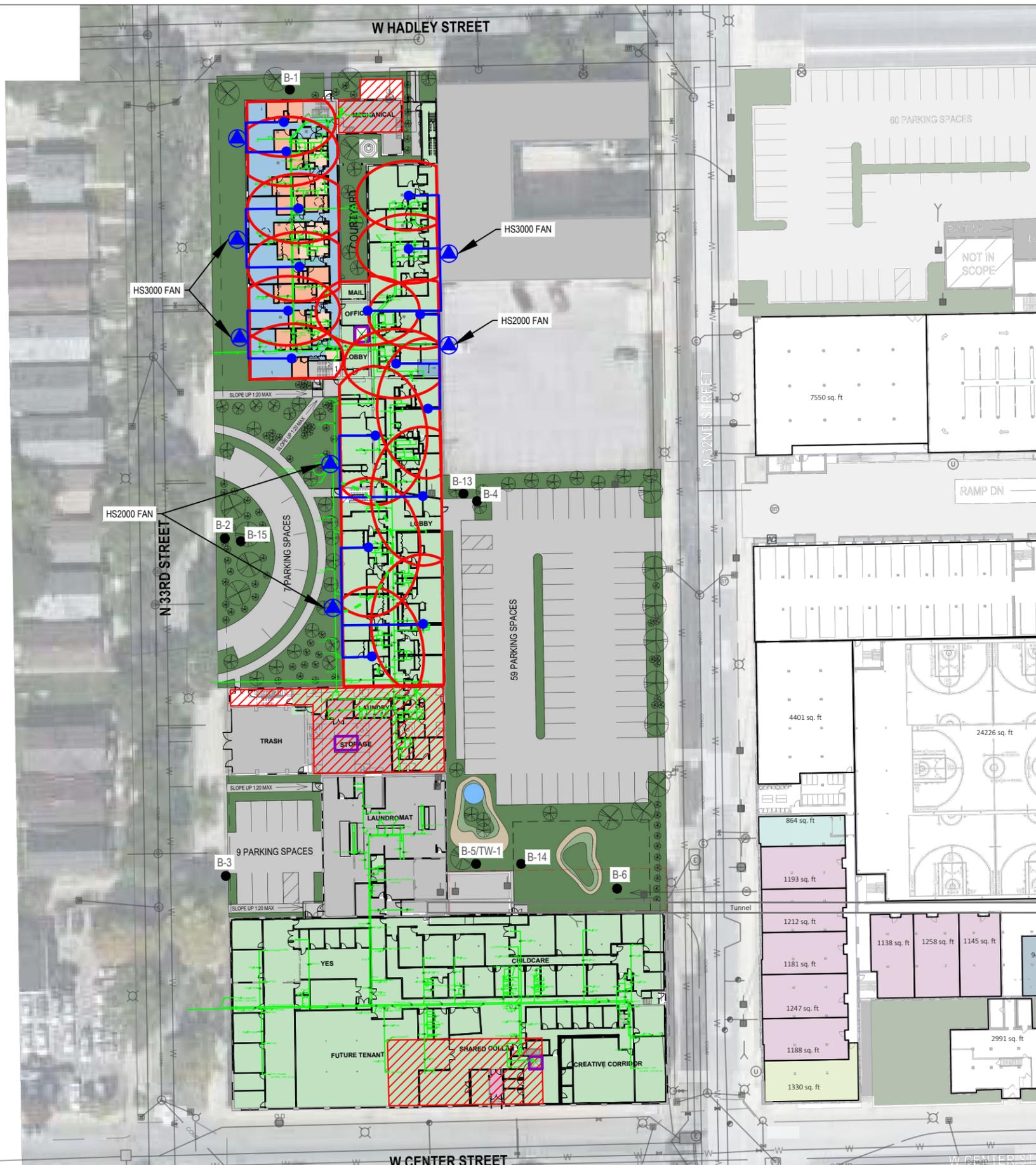
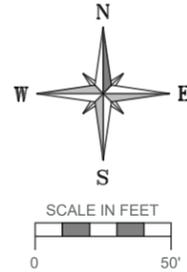
CLIENT:
COMMUNITY WITHIN THE CORRIDOR LIMITED
PARTNERSHIP

REVISIONS	DATE	DESCRIPTION

DRAWN BY: AMZ DATE: 05/26/2021
CHECKED BY: DKP DATE: 05/26/2021
SHEET TITLE: RESULTS OF PRESSURE FIELD EXTENSION TESTING

FIGURE 9

- NOTE:
- PLANS UNDERWAY TO REVISE WD-SV TO SC-1 UNDERLAIN BY 50-MIL SUB-MEMBRANE.
 - GP501C SERIES FAN USED DURING PFE TESTING.

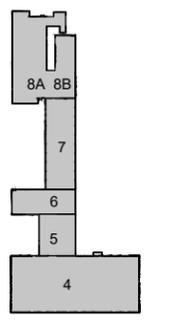


FLOOR FINISH LEGEND

	CPT-1	BROADLOOM CARPET (UNIT BEDROOMS)
	CT-1	CERAMIC TILE (UNIT BATHROOMS W/ ROLL-IN SHOWERS ONLY)
	EXTG-WD	EXISTING WOOD FLOORING TO REMAIN IN PLACE & BE REFINISHED
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LEGEND

- Previous Boring and Temporary Well Locations
- Known Elevator Shaft
- Planned Underground Plumbing
- Underground Tunnel
- Basement Area(s)
- Extraction Point Location
- 3" sch. 40 PVC pipe (may be modified)
- Exterior Fan Location
- Zone of Influence
- Approximate WI Residential VRSL Exceedance Extents
- Approximate WI Small Commercial VRSL Exceedance Extents



KEY PLAN

- NOTES:**
1. MINIMUM OF 3.5" SLAB PENETRATION
 2. 10-15 "GALL" SOIL REMOVED BENEATH SLAB TO ACT AS SUCTION PIT
 3. SEE TABLE FOR RADII FOOTAGE
 4. 3" SCH. 40 PVC
 5. BALL VALVES FOR EACH EXTRACTION POINT TO REGULATE FLOW
 6. MANOMETER AND VELOCITY PORTS FOR EACH EXTRACTION POINT TO MEASURE FLOW AND NEGATIVE PRESSURE
 7. MANOMETER POINT AT EACH FAN INLET FOR NEGATIVE PRESSURE
 8. EXHAUST VENTING 2 FT ABOVE ROOF AND/OR 12 FT FROM WINDOWS
 9. MIN 1.5% SLOPE TOWARD EXTRACTION POINTS
 10. ELECTRICAL DISCONNECT AND OWN CIRCUIT FOR EACH FAN
 11. 2" EXHAUST PIPING FOR HS FANS, 3" FOR GP501C
 12. SEAL ALL CRACKS IN FLOORS
 13. PLANS UNDERWAY TO REVISE WD-SV TO SC-1 UNDERLAIN BY 50-MIL SUB-MEMBRANE.

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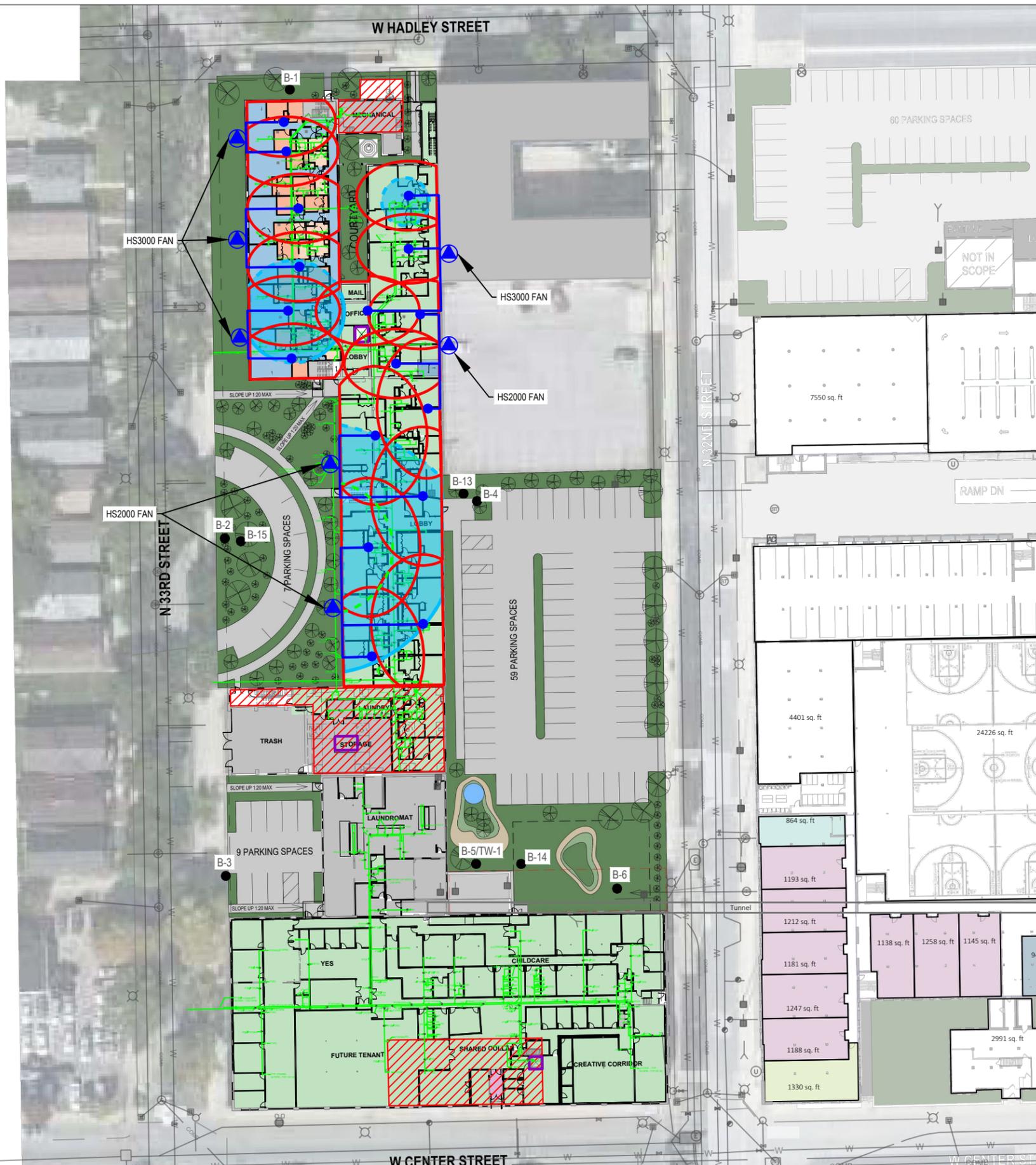
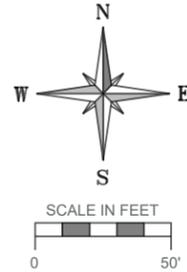
PROJECT TITLE: COMMUNITY WITHIN THE CORRIDOR - WEST BLOCK
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REVISIONS	DATE	DESCRIPTION

DRAWN BY: AMZ DATE: 05/26/2021
CHECKED BY: DKP DATE: 05/26/2021
SHEET TITLE: PROPOSED VAPOR MITIGATION DESIGN LAYOUT

FIGURE 11

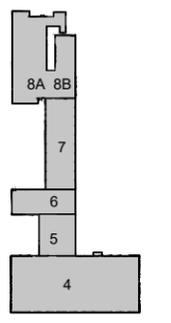


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LEGEND

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REVISIONS	DATE	DESCRIPTION

DRAWN BY: AMZ DATE: 05/26/2021
CHECKED BY: DKP DATE: 05/26/2021
SHEET TITLE: LAYOUT VS VRSL EXCEEDANCE PLUMES FOR VOCs

FIGURE 12

TABLES

TABLE 1
SUB-SLAB VAPOR ANALYTICAL RESULTS
COMMUNITY WITHIN THE CORRIDOR - WEST BLOCK
MILWAUKEE, WI
PROJECT NUMBER: 40443

CHEMICAL (ug/m ³)	SUB-SLAB VAPOR VRSL			WB-SS-1	WB-SS-2	WB-SS-3	WB-SS-4	WB-SS-5	WB-SS-6	WB-SS-7	WB-SS-8	WB-SS-9	WB-SS-10	WB-SS-11	WB-SS-12	WB-SS-13
	AF = 0.03	AF=0.03	AF = 0.01	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT
	RESIDENTIAL	SMALL COMMERCIAL	LARGE COMMERCIAL / INDUSTRIAL	3/2/2021	3/2/2021	3/2/2021	3/2/2021	3/2/2021	3/2/2021	3/2/2021	3/2/2021	3/2/2021	3/2/2021	3/2/2021	3/2/2021	3/2/2021
				ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³
1,1,1-Trichloroethane	170,000	730,000	2,200,000	< 0.249	0.33 J	118	6.5	3.6	1.25	297	3.9	1.41	0.92	3300	34	7.9
1,1,2,2-Tetrachloroethane	1.6	7	21	< 0.325	< 0.325	< 0.325	< 0.325	< 0.325	< 0.325	< 0.325	< 0.325	< 0.325	< 0.325	< 0.325	< 0.325	< 0.325
1,1,2-Trichloroethane	0.7	2.9	8.8	< 0.258	< 0.258	< 0.258	< 0.258	< 0.258	< 0.258	< 0.258	< 0.258	< 0.258	< 0.258	< 0.258	< 0.258	< 0.258
1,1-Dichloroethane	600	2,600	7,700	< 0.187	< 0.187	0.56 J	< 0.187	< 0.187	< 0.187	0.4 J	< 0.187	< 0.187	< 0.187	5.6	< 0.187	< 0.187
1,1-Dichloroethene	7,000	29,000	88,000	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	81	0.277 J	< 0.21
1,2,4-Trichlorobenzene	700	2933	8,800	< 0.657	< 0.657	< 0.657	< 0.657	< 0.657	< 0.657	< 0.657	< 0.657	< 0.657	< 0.657	< 0.657	< 0.657	< 0.657
1,2,4-Trimethylbenzene	2,100	8,700	26,000	0.49 J	6.6	6.1	0.44 J	< 0.283	0.64 J	0.83 J	0.54 J	0.44 J	0.49 J	19.2	0.98	5.5
1,2-Dichlorobenzene	700	2933	8,800	< 0.235	16.1	6.1	< 0.235	< 0.235	< 0.235	< 0.235	< 0.235	< 0.235	< 0.235	< 0.235	< 0.235	< 0.235
1,2-Dichloroethane	36	160	470	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24
1,2-Dichloropropane	14	60	180	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28
1,2-Dichlorotetrafluoroethane	---	---	---	< 0.446	< 0.446	< 0.446	< 0.446	< 0.446	< 0.446	< 0.446	< 0.446	< 0.446	< 0.446	< 0.446	< 0.446	< 0.446
1,3,5-Trimethylbenzene	2,100	8,700	26,000	< 0.232	3.4	1.82	< 0.232	< 0.232	< 0.232	< 0.232	< 0.232	< 0.232	< 0.232	11.7	0.39 J	1.67
1,3-Butadiene	---	---	---	< 0.143	< 0.143	< 0.143	< 0.143	< 0.143	< 0.143	< 0.143	< 0.143	< 0.143	< 0.143	< 0.143	< 0.143	< 0.143
1,3-Dichlorobenzene	---	---	---	< 0.302	0.42 J	0.96	< 0.302	< 0.302	< 0.302	< 0.302	< 0.302	< 0.302	< 0.302	< 0.302	< 0.302	0.36 J
1,4-Dichlorobenzene	8	37	110	< 0.302	1.62	0.9 J	< 0.302	< 0.302	< 0.302	< 0.302	< 0.302	< 0.302	< 0.302	< 0.302	< 0.302	< 0.302
1,4-Dioxane	18	83.3	250	< 0.157	< 0.157	34	< 0.157	< 0.157	< 0.157	< 0.157	< 0.157	< 0.157	< 0.157	2.13	< 0.157	< 0.157
2-Hexanone	---	---	---	0.74	< 0.222	8.5	< 0.222	< 0.222	0.33 J	1.43	< 0.222	< 0.222	< 0.222	1.6	2.41	< 0.222
4-Ethyltoluene	---	---	---	< 0.214	5.1	0.74	< 0.214	< 0.214	< 0.214	< 0.214	< 0.214	< 0.214	< 0.214	2.55	< 0.214	0.49 J
Acetone	106,667	466,667	1,400,000	14.1	4.9	305 10	57	9.3	14.8	48	15.1	39	15.6	41	71	20.5
Acrolein	---	---	---	0.44	< 0.094	0.94	< 0.094	0.6	< 0.094	< 0.094	< 0.094	0.62	< 0.094	< 0.094	0.76	0.41
Benzene	120	530	1,600	1.15	1.79	3.7	1.85	2.36	0.42 J	1.05	0.96	5.4	0.32 J	0.48	1.69	1.18
Benzyl Chloride	1.9	8	25	< 0.209	< 0.209	< 0.209	< 0.209	< 0.209	< 0.209	< 0.209	< 0.209	< 0.209	< 0.209	< 0.209	< 0.209	< 0.209
Bromodichloromethane	2.53	11	33	< 0.374	< 0.374	< 0.374	< 0.374	< 0.374	< 0.374	< 0.374	< 0.374	< 0.374	< 0.374	0.54 J	< 0.374	< 0.374
Bromoform	86.6	367	1,100	< 0.414	< 0.414	< 0.414	< 0.414	< 0.414	< 0.414	< 0.414	< 0.414	< 0.414	< 0.414	< 0.414	< 0.414	< 0.414
Bromomethane	17.3	73	220	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Carbon Disulfide	2,433	10,333	31,000	6.2	0.59	14.6	9.4	0.28 J	2.68	2.24	1.93	15.6	1.12	19.8	3.4	0.218 J
Carbon Tetrachloride	156	667	2,000	0.69 J	0.5 J	< 0.307	3.4	0.5 J	0.88 J	10.3	< 0.307	< 0.307	< 0.307	< 0.307	0.76 J	< 0.307
Chlorobenzene	173	733	2,200	< 0.251	20.8	0.97	< 0.251	< 0.251	< 0.251	< 0.251	< 0.251	< 0.251	< 0.251	< 0.251	< 0.251	< 0.251
Chloroethane	33,333	146,667	440,000	< 0.159	2.77	< 0.159	< 0.159	< 0.159	< 0.159	< 0.159	< 0.159	< 0.159	< 0.159	< 0.159	0.84	< 0.159
Chloroform	3,100	13,000	39,000	< 0.3	0.34 J	< 0.3	0.78 J	< 0.3	< 0.3	< 0.97	< 0.3	< 0.3	< 0.3	9	0.44 J	< 0.3
Chloromethane	3,100	13,000	39,000	< 0.831	< 0.831	< 0.831	< 0.831	1.61 J	< 0.831	< 0.831	< 0.831	< 0.831	< 0.831	< 0.831	4.7	< 0.831
cis-1,2-Dichloroethene	---	---	---	< 0.197	0.75	< 0.197	< 0.197	< 0.197	< 0.197	< 0.197	< 0.197	< 0.197	< 0.197	< 0.197	< 0.197	< 0.197
cis-1,3-Dichloropropene	---	---	---	< 0.234	< 0.234	< 0.234	< 0.234	< 0.234	< 0.234	< 0.234	< 0.234	< 0.234	< 0.234	< 0.234	< 0.234	< 0.234
Cyclohexane	3,333	14,667	44,000	2.86	4.1	2.62	2.86	0.55 J	0.241 J	0.41 J	< 0.212	0.59 J	< 0.212	0.38 J	1.17	1.45
Dibromochloromethane	---	---	---	< 0.376	< 0.376	< 0.376	< 0.376	< 0.376	< 0.376	< 0.376	< 0.376	< 0.376	< 0.376	< 0.376	< 0.376	< 0.376
Dichlorodifluoromethane	3,300	14,667	44,000	3.8	2.87	2.62	2.87	2.62	2.57	2.52	2.77	2.82	2.72	2.57	2.37	1.04
EDB (1,2-Dibromoethane)	0.157	0.67	2	< 0.342	< 0.342	< 0.342	< 0.342	< 0.342	< 0.342	< 0.342	< 0.342	< 0.342	< 0.342	< 0.342	< 0.342	< 0.342
Ethanol	---	---	---	37	19.1	170 10	283	32	179 10	102	12.6	45	27.7	67	83 10	43
Ethyl Acetate	---	---	---	16.7	< 0.176	< 0.176	1.62	< 0.176	< 0.176	< 0.176	< 0.176	1.48	< 0.176	< 0.176	< 0.176	4.6
Ethylbenzene	370	1,600	4,900	0.82	17.1	3.6	0.61 J	0.39 J	0.61 J	0.65	0.39 J	1.04	< 0.203	0.39 J	1.17	0.87
Heptane	---	---	---	19.4	4.7	6.5	1.8	1.1	0.9	1.92	1.27	27.4	< 0.265	0.65 J	4.5	5.7
Hexachlorobutadiene	4.3	19	56	< 0.489	< 0.489	< 0.489	< 0.489	< 0.489	< 0.489	< 0.489	< 0.489	< 0.489	< 0.489	< 0.489	< 0.489	< 0.489
Hexane	1,400	6,000	18,000	8.7	340	42	1.83	34	2.64	1.62	2.36	38	0.74 J	1.2	3.9	6.3
Isopropyl Alcohol	---	---	---	7.3	3.8	32	15.5	3.5	14.8	25.5	1.67	8.6	5.7	15	12.6	8.7
m&p-Xylene	3,300	15,000	44,000	1.39	15.7	7.4	2.17	1 J	1.17 J	1.56	0.74 J	1.21	0.56 J	1 J	1.95	1.91
Methyl ethyl ketone (MEK)	17,333	73,333	220,000	6	2.18	96	14.1	3.4	2.15	12.9	43	13.5	6.1	8.6	17.4	6.7
Methyl isobutyl ketone (MIBK)	10,333	43,333	130,000	0.98	< 0.168	6.4	0.57	< 0.168	0.86	1.88	0.98	1.15	0.78	1.96	3.07	0.53 J

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COMMUNITY WITHIN THE CORRIDOR - WEST BLOCK
MILWAUKEE, WI
PROJECT NUMBER: 40443

CHEMICAL (ug/m ³)	SUB-SLAB VAPOR VRSL			WB-SS-1	WB-SS-2	WB-SS-3	WB-SS-4	WB-SS-5	WB-SS-6	WB-SS-7	WB-SS-8	WB-SS-9	WB-SS-10	WB-SS-11	WB-SS-12	WB-SS-13	
	AF = 0.03	AF=0.03	AF = 0.01	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	
	RESIDENTIAL	SMALL COMMERCIAL	LARGE COMMERCIAL / INDUSTRIAL	3/2/2021	3/2/2021	3/2/2021	3/2/2021	3/2/2021	3/2/2021	3/2/2021	3/2/2021	3/2/2021	3/2/2021	3/2/2021	3/2/2021	3/2/2021	3/2/2021
			ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³
Methyl Methacrylate	---	---	---	< 0.217	< 0.217	< 0.217	< 0.217	< 0.217	< 0.217	< 0.217	< 0.217	< 0.217	< 0.217	< 0.217	< 0.217	< 0.217	< 0.217
Methyl tert-butyl ether (MTBE)	3,700	16,000	47,000	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16
Methylene chloride	21,000	87,000	260,000	< 0.159	< 0.159	< 0.159	< 0.159	< 0.159	< 0.159	< 0.159	< 0.159	< 0.159	< 0.159	< 0.159	< 0.159	< 0.159	< 0.159
Naphthalene	28	6,000	360	< 0.675	< 0.675	13.3	< 0.675	< 0.675	< 0.675	< 0.675	< 0.675	< 0.675	< 0.675	< 0.675	< 0.675	< 0.675	< 0.675
o-Xylene	3,300	15,000	44,000	0.61 J	8	3.12	0.87	0.43 J	0.52 J	0.74	0.35 J	0.65 J	0.303 J	1	0.87	1.3	
Propene	---	---	---	< 0.079	< 0.079	< 0.079	< 0.079	< 0.079	< 0.079	< 0.079	< 0.079	< 0.079	< 0.079	< 0.079	< 0.079	< 0.079	< 0.079
Styrene	3,333	14,667	44,000	0.255 J	0.298 J	0.298 J	< 0.181	< 0.181	< 0.181	< 0.181	< 0.181	0.213 J	< 0.181	< 0.181	< 0.181	< 0.181	< 0.181
Tetrachloroethene (PCE)	1,400	6,000	18,000	4.4	5.9	10.6	24.7	127	80	4700	5.9	9.6	12.8	15.5	3.5	1.09	
Tetrahydrofuran	7,000	29,333	88,000	0.85	< 0.131	0.91	1.24	< 0.131	< 0.131	1.15	12.2	2.59	9.8	< 0.131	12.1	2.86	
Toluene	170,000	730,000	2,200,000	5.6	12.5	21.2	6.8	6.4	5.2	7	23.2	11.7	5.4	6.1	12.9	9.1	
trans-1,2-Dichloroethene	---	---	---	< 0.231	1.15	< 0.231	< 0.231	< 0.231	< 0.231	< 0.231	< 0.231	< 0.231	< 0.231	< 0.231	< 0.231	< 0.231	< 0.231
trans-1,3-Dichloropropene	---	---	---	< 0.198	< 0.198	< 0.198	< 0.198	< 0.198	< 0.198	< 0.198	< 0.198	< 0.198	< 0.198	< 0.198	< 0.198	< 0.198	< 0.198
Trichloroethene (TCE)	70	290	880	0.54 J	1.77	0.96	380	1.12	< 0.237	111	0.86	2.89	3.7	26.9	2.2	2.62	
Trichlorofluoromethane	---	---	---	1.8	1.69	1.29	3.3	1.29	2.13	7.8	1.97	1.74	7	2.47	27.8	11.2	
Trichlorotrifluoroethane	---	---	---	0.69 J	0.61 J	3.9	2.07	0.54 J	0.61 J	3.8	0.54 J	0.54 J	0.54 J	0.46 J	< 0.402	< 0.402	
Vinyl acetate	700	2933	8,800	< 0.203	< 0.203	< 0.203	< 0.203	< 0.203	< 0.203	< 0.203	< 0.203	< 0.203	< 0.203	< 0.203	< 0.203	< 0.203	< 0.203
Vinyl Chloride	57	930	2,800	< 0.148	< 0.148	< 0.148	< 0.148	< 0.148	< 0.148	< 0.148	< 0.148	0.46 J	< 0.148	< 0.148	0.64	< 0.148	

Comments

All results in micrograms per cubic meter (ug/m³)

"J" Flag = Analyte detected between Limit of Detection and Limit of Quantitation

"10" Code = Linear Range of Calibration Curve Exceeded

VRSL = Vapor Risk Screening Levels

Indicates detection is above Residential VRSLs

TABLE 1
SUB-SLAB VAPOR ANALYTICAL RESULTS
COMMUNITY WITHIN THE CORRIDOR - WEST BLOCK
MILWAUKEE, WI
PROJECT NUMBER: 40443

CHEMICAL (ug/m ³)	SUB-SLAB VAPOR VRSL			WB-SS-14	WB-SS-15	WB-SS-16	WB-SS-17	WB-SS-18	WB-SS-19	WB-SS-20	WB-SS-21	WB-SS-22	WB-SS-23	WB-SS-24	WB-SS-25
	AF = 0.03	AF=0.03	AF = 0.01	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT
	RESIDENTIAL	SMALL COMMERCIAL	LARGE COMMERCIAL / INDUSTRIAL	3/2/2021	4/1/2021	4/1/2021	4/1/2021	4/1/2021	4/1/2021	4/1/2021	4/1/2021	4/1/2021	4/1/2021	4/1/2021	4/1/2021
	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³
1,1,1-Trichloroethane	170,000	730,000	2,200,000	1.69	0.76 J	78	1.58	17	460	154	36	650	22.4	2.88	1110
1,1,2,2-Tetrachloroethane	1.6	7	21	< 0.325	< 0.325	< 0.325	< 0.325	< 0.325	< 0.325	< 0.325	< 0.325	< 0.325	< 0.325	< 0.325	< 0.325
1,1,2-Trichloroethane	0.7	2.9	8.8	< 0.258	< 0.258	< 0.258	< 0.258	< 0.258	< 0.258	< 0.258	< 0.258	< 0.258	< 0.258	< 0.258	< 0.258
1,1-Dichloroethane	600	2,600	7,700	< 0.187	< 0.187	0.36 J	< 0.187	< 0.187	2.12	< 0.187	< 0.187	< 0.187	< 0.187	< 0.187	< 0.187
1,1-Dichloroethene	7,000	29,000	88,000	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	0.238 J
1,2,4-Trichlorobenzene	700	2933	8,800	< 0.657	< 0.657	< 0.657	< 0.657	< 0.657	< 0.657	< 0.657	< 0.657	< 0.657	< 0.657	< 0.657	< 0.657
1,2,4-Trimethylbenzene	2,100	8,700	26,000	8.7	2.16	8.5	3.6	7.7	5.2	9.2	3.8	3.7	5.2	3.2	3.8
1,2-Dichlorobenzene	700	2933	8,800	< 0.235	0.71 J	29	< 0.235	< 0.235	< 0.235	< 0.235	< 0.235	< 0.235	< 0.235	< 0.235	< 0.235
1,2-Dichloroethane	36	160	470	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24
1,2-Dichloropropane	14	60	180	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28
1,2-Dichlorotetrafluoroethane	---	---	---	< 0.446	< 0.446	< 0.446	< 0.446	< 0.446	< 0.446	< 0.446	< 0.446	< 0.446	< 0.446	< 0.446	< 0.446
1,3,5-Trimethylbenzene	2,100	8,700	26,000	3.3	0.78	3.7	1.03	2.45	2.16	3.2	1.47	1.37	2.16	1.32	1.23
1,3-Butadiene	---	---	---	< 0.143	< 0.143	< 0.143	3.6	5.4	12.5	4.4	7.5	< 0.143	< 0.143	< 0.143	2.48
1,3-Dichlorobenzene	---	---	---	< 0.302	< 0.302	0.72 J	< 0.302	< 0.302	< 0.302	< 0.302	< 0.302	< 0.302	< 0.302	< 0.302	< 0.302
1,4-Dichlorobenzene	8	37	110	< 0.302	< 0.302	2.28	< 0.302	< 0.302	< 0.302	< 0.302	< 0.302	< 0.302	< 0.302	< 0.302	< 0.302
1,4-Dioxane	18	83.3	250	< 0.157	< 0.157	9.5	< 0.157	< 0.157	4.6	< 0.157	< 0.157	13.8	< 0.157	< 0.157	< 0.157
2-Hexanone	---	---	---	< 0.222	1.02	< 0.222	6.5	19.9	< 0.222	< 0.222	15.8	3.8	3.3	3.07	55
4-Ethyltoluene	---	---	---	0.74	0.69	2.7	1.32	2.35	1.82	2.6	1.23	1.03	1.42	0.74	0.93
Acetone	106,667	466,667	1,400,000	9.5	26.4	288 10	31.4	330	< 0.299	60	211 10	< 0.299	20.2	81	900
Acrolein	---	---	---	< 0.094	0.83	2.86	2.25	1.38	0.83	1.51	0.73	< 0.094	0.46	0.44	0.71
Benzene	120	530	1,600	0.86	6	24.7	14.1	30.7	34	27	13.9	4.1	9	2.68	5.2
Benzyl Chloride	1.9	8	25	< 0.209	< 0.209	< 0.209	< 0.209	< 0.209	< 0.209	< 0.209	< 0.209	< 0.209	< 0.209	< 0.209	< 0.209
Bromodichloromethane	2.53	11	33	< 0.374	< 0.374	< 0.374	< 0.374	< 0.374	< 0.374	< 0.374	< 0.374	< 0.374	< 0.374	< 0.374	< 0.374
Bromoform	86.6	367	1,100	< 0.414	< 0.414	< 0.414	< 0.414	< 0.414	< 0.414	< 0.414	< 0.414	< 0.414	< 0.414	< 0.414	< 0.414
Bromomethane	17.3	73	220	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Carbon Disulfide	2,433	10,333	31,000	2.18	207	10.7	3.9	9.8	18.4	12.8	8.4	26	55	272	39
Carbon Tetrachloride	156	667	2,000	< 0.307	0.94 J	< 0.307	< 0.307	0.88 J	7.8	0.94 J	< 0.307	< 0.307	< 0.307	< 0.307	< 0.307
Chlorobenzene	173	733	2,200	< 0.251	0.46 J	16.5	< 0.251	0.32 J	1.15	0.32 J	< 0.251	< 0.251	< 0.251	< 0.251	< 0.251
Chloroethane	33,333	146,667	440,000	< 0.159	< 0.159	< 0.159	< 0.159	< 0.159	0.37 J	< 0.159	< 0.159	< 0.159	< 0.159	< 0.159	< 0.159
Chloroform	3,100	13,000	39,000	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	0.34 J	< 0.3	0.54 J	< 0.3	< 0.3	< 0.3	< 0.3
Chloromethane	3,100	13,000	39,000	< 0.831	< 0.831	< 0.831	< 0.831	< 0.831	< 0.831	< 0.831	< 0.831	1.03 J	< 0.831	< 0.831	< 0.831
cis-1,2-Dichloroethene	---	---	---	< 0.197	< 0.197	0.32 J	< 0.197	< 0.197	< 0.197	< 0.197	< 0.197	< 0.197	< 0.197	< 0.197	< 0.197
cis-1,3-Dichloropropene	---	---	---	< 0.234	< 0.234	< 0.234	< 0.234	< 0.234	< 0.234	< 0.234	< 0.234	< 0.234	< 0.234	< 0.234	< 0.234
Cyclohexane	3,333	14,667	44,000	3.3	25.2	34	9.4	17.1	25	27.1	14.7	9.9	31	4.8	19.7
Dibromochloromethane	---	---	---	< 0.376	< 0.376	< 0.376	< 0.376	< 0.376	< 0.376	< 0.376	< 0.376	< 0.376	< 0.376	< 0.376	< 0.376
Dichlorodifluoromethane	3,300	14,667	44,000	1.53	1.88	1.83	1.93	1.78	1.83	1.88	1.93	2.03	1.93	1.93	1.93
EDB (1,2-Dibromoethane)	0.157	0.67	2	< 0.342	< 0.342	< 0.342	< 0.342	< 0.342	< 0.342	< 0.342	< 0.342	< 0.342	< 0.342	< 0.342	< 0.342
Ethanol	---	---	---	29.7	8.5	15.3	5.8	23.2	38	6.4	20.8	21.7	1.09	4.1	53
Ethyl Acetate	---	---	---	< 0.176	< 0.176	< 0.176	< 0.176	< 0.176	< 0.176	< 0.176	< 0.176	< 0.176	< 0.176	1.62	< 0.176
Ethylbenzene	370	1,600	4,900	3.9	8.3	25.2	24.1	37	23.9	29	10	4.6	128	2.77	5.5
Heptane	---	---	---	11.8	27.3	115	39	64	71	75	43	19.6	87	8.9	30.3
Hexachlorobutadiene	4.3	19	56	< 0.489	< 0.489	< 0.489	< 0.489	< 0.489	< 0.489	< 0.489	< 0.489	< 0.489	< 0.489	< 0.489	< 0.489
Hexane	1,400	6,000	18,000	5.4	34	140	38	62	78	80	52	37	99	15.2	42
Isopropyl Alcohol	---	---	---	3.6	4.1	22.6	10.2	49	97	8.5	30.3	43	1.6	< 0.109	79
m&p-Xylene	3,300	15,000	44,000	13.9	9.5	38	18.5	35	36	34	15.7	6.2	350	4.3	10.7
Methyl ethyl ketone (MEK)	17,333	73,333	220,000	6.2	12.5	77	20.9	129	291	31	103	8100	23.7	38	252
Methyl isobutyl ketone (MIBK)	10,333	43,333	130,000	1.06	1.64	4.7	5.2	34	26.9	3.07	11.3	4.6	25.5	2.91	63

TABLE 1
SUB-SLAB VAPOR ANALYTICAL RESULTS
COMMUNITY WITHIN THE CORRIDOR - WEST BLOCK
MILWAUKEE, WI
PROJECT NUMBER: 40443

CHEMICAL (ug/m ³)	SUB-SLAB VAPOR VRSL			WB-SS-14	WB-SS-15	WB-SS-16	WB-SS-17	WB-SS-18	WB-SS-19	WB-SS-20	WB-SS-21	WB-SS-22	WB-SS-23	WB-SS-24	WB-SS-25
	AF = 0.03	AF=0.03	AF = 0.01	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT
	RESIDENTIAL	SMALL COMMERCIAL	LARGE COMMERCIAL / INDUSTRIAL	3/2/2021	4/1/2021	4/1/2021	4/1/2021	4/1/2021	4/1/2021	4/1/2021	4/1/2021	4/1/2021	4/1/2021	4/1/2021	4/1/2021
	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³
Methyl Methacrylate	---	---	---	< 0.217	< 0.217	< 0.217	< 0.217	< 0.217	< 0.217	< 0.217	< 0.217	< 0.217	< 0.217	< 0.217	< 0.217
Methyl tert-butyl ether (MTBE)	3,700	16,000	47,000	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	1.04	< 0.16	< 0.16	< 0.16
Methylene chloride	21,000	87,000	260,000	< 0.159	< 0.159	< 0.159	< 0.159	< 0.159	< 0.159	< 0.159	< 0.159	< 0.159	< 0.159	< 0.159	< 0.159
Naphthalene	28	6,000	360	< 0.675	< 0.675	< 0.675	< 0.675	< 0.675	< 0.675	< 0.675	< 0.675	< 0.675	< 0.675	< 0.675	< 0.675
o-Xylene	3,300	15,000	44,000	7.7	4	17.2	8.1	14.8	15.9	14.6	6.1	2.82	35	2.3	3.8
Propene	---	---	---	< 0.079	< 0.079	< 0.079	< 0.079	< 0.079	< 0.079	< 0.079	< 0.079	770	< 0.079	57	< 0.079
Styrene	3,333	14,667	44,000	0.213 J	0.38 J	0.34 J	0.255 J	0.85	2.93	0.89	0.6	0.298 J	0.34 J	0.51 J	0.34 J
Tetrachloroethene (PCE)	1,400	6,000	18,000	4.6	2.85	62	4.4	126	15,400	11.1	0.75 J	5.3	14.1	20.4	161
Tetrahydrofuran	7,000	29,333	88,000	5.1	2.18	3.8	2.53	4.7	3.9	4.6	3.6	14.3	5.7	6	8
Toluene	170,000	730,000	2,200,000	12	31.5	93	72	111	201	87	41	14.4	73	6	14.4
trans-1,2-Dichloroethene	---	---	---	< 0.231	< 0.231	< 0.231	< 0.231	< 0.231	< 0.231	< 0.231	< 0.231	< 0.231	< 0.231	< 0.231	< 0.231
trans-1,3-Dichloropropene	---	---	---	< 0.198	< 0.198	< 0.198	< 0.198	< 0.198	< 0.198	< 0.198	< 0.198	< 0.198	< 0.198	< 0.198	< 0.198
Trichloroethene (TCE)	70	290	880	< 0.237	2.14	1.18	< 0.237	3.11	23.7	3.05	1.23	8	13	0.37 J	3.5
Trichlorofluoromethane	---	---	---	18.2	1.24	1.52	1.57	2.25	3.4	2.7	1.91	4.7	21.4	14.8	18.3
Trichlorotrifluoroethane	---	---	---	< 0.402	0.61 J	5.1	0.84 J	0.77 J	2.15	5.1	0.69 J	0.61 J	0.61 J	0.61 J	0.54 J
Vinyl acetate	700	2933	8,800	< 0.203	< 0.203	< 0.203	< 0.203	< 0.203	< 0.203	< 0.203	< 0.203	< 0.203	< 0.203	< 0.203	< 0.203
Vinyl Chloride	57	930	2,800	< 0.148	< 0.148	< 0.148	< 0.148	< 0.148	0.56	< 0.148	< 0.148	< 0.148	< 0.148	< 0.148	< 0.148

Comments

All results in micrograms per cubic meter (ug/m³)

"J" Flag = Analyte detected between Limit of Detection and Limit of Quantitation

"10" Code = Linear Range of Calibration Curve Exceeded

VRSL = Vapor Risk Screening Levels

Indicates detection is above Residential VRSLs

TABLE 2
SUB-SLAB VAPOR ANALYTICAL RESULTS - CONTAMINANTS OF CONCERN
COMMUNITY WITHIN THE CORRIDOR - WEST BLOCK
MILWAUKEE, WI
PROJECT NUMBER: 40443

CHEMICAL (ug/m ³)	SUB-SLAB VAPOR VRSL			WB-SS-1	WB-SS-2	WB-SS-3	WB-SS-4	WB-SS-5	WB-SS-6	WB-SS-7	WB-SS-8	WB-SS-9	WB-SS-10	WB-SS-11	WB-SS-12	WB-SS-13
	AF = 0.03	AF = 0.03	AF = 0.01	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT
	RESIDENTIAL	SMALL COMMERCIAL	LARGE COMMERCIAL / INDUSTRIAL	3/2/2021	3/2/2021	3/2/2021	3/2/2021	3/2/2021	3/2/2021	3/2/2021	3/2/2021	3/2/2021	3/2/2021	3/2/2021	3/2/2021	3/2/2021
			ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³
1,1,1-Trichloroethane	170,000	730,000	2,200,000	< 0.249	0.33 J	118	6.5	3.6	1.25	297	3.9	1.41	0.92	3300	34	7.9
1,1-Dichloroethane	600	2566.67	7,700	< 0.187	< 0.187	0.56 J	< 0.187	< 0.187	< 0.187	0.4 J	< 0.187	< 0.187	< 0.187	5.6	< 0.187	< 0.187
1,1-Dichloroethene	7,000	29,333	88,000	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	81	0.277 J	< 0.21
1,2,4-Trimethylbenzene	210	8,700	2,600	0.49 J	6.6	6.1	0.44 J	< 0.283	0.64 J	0.83 J	0.54 J	0.44 J	0.49 J	19.2	0.98	5.5
1,2-Dichlorobenzene	700	2,933	8,800	< 0.235	16.1	6.1	< 0.235	< 0.235	< 0.235	< 0.235	< 0.235	< 0.235	< 0.235	< 0.235	< 0.235	< 0.235
1,3,5-Trimethylbenzene	210	8,700	2,600	< 0.232	3.4	1.82	< 0.232	< 0.232	< 0.232	< 0.232	< 0.232	< 0.232	< 0.232	11.7	0.39 J	1.67
1,3-Butadiene	---	---	---	< 0.143	< 0.143	< 0.143	< 0.143	< 0.143	< 0.143	< 0.143	< 0.143	< 0.143	< 0.143	< 0.143	< 0.143	< 0.143
1,3-Dichlorobenzene	---	---	---	< 0.302	< 0.42 J	0.96	< 0.302	< 0.302	< 0.302	< 0.302	< 0.302	< 0.302	< 0.302	< 0.302	< 0.302	< 0.36 J
1,4-Dichlorobenzene	8	37	110	< 0.302	1.62	0.9 J	< 0.302	< 0.302	< 0.302	< 0.302	< 0.302	< 0.302	< 0.302	< 0.302	< 0.302	< 0.302
1,4-Dioxane	18	83.3	250	< 0.157	< 0.157	34	< 0.157	< 0.157	< 0.157	< 0.157	< 0.157	< 0.157	< 0.157	2.13	< 0.157	< 0.157
2-Hexanone	---	---	---	0.74	< 0.222	8.5	< 0.222	< 0.222	0.33 J	1.43	< 0.222	< 0.222	< 0.222	1.6	2.41	< 0.222
4-Ethyltoluene	---	---	---	< 0.214	5.1	0.74	< 0.214	< 0.214	< 0.214	< 0.214	< 0.214	< 0.214	< 0.214	2.55	< 0.214	0.49 J
Acetone	106,667	466,667	1,400,000	14.1	4.9	305 10	57	9.3	14.8	48	15.1	39	15.6	41	71	20.5
Acrolein	---	---	---	0.44	< 0.094	0.94	< 0.094	0.6	< 0.094	< 0.094	< 0.094	0.62	< 0.094	< 0.094	0.76	0.41
Benzene	120	530	1,600	1.15	1.79	3.7	1.85	2.36	0.42 J	1.05	0.96	5.4	0.32 J	0.48	1.69	1.18
Bromodichloromethane	2.53	11	33	< 0.374	< 0.374	< 0.374	< 0.374	< 0.374	< 0.374	< 0.374	< 0.374	< 0.374	< 0.374	0.54 J	< 0.374	< 0.374
Carbon Disulfide	2,433	10,333	31,000	6.2	< 0.59	14.6	9.4	0.28 J	2.68	2.24	1.93	15.6	1.12	19.8	3.4	0.218 J
Carbon Tetrachloride	156	667	2,000	0.69 J	0.5 J	< 0.307	3.4	0.5 J	0.88 J	10.3	< 0.307	< 0.307	< 0.307	< 0.307	0.76 J	< 0.307
Chlorobenzene	173	733	2,200	< 0.251	20.8	0.97	< 0.251	< 0.251	< 0.251	< 0.251	< 0.251	< 0.251	< 0.251	< 0.251	< 0.251	< 0.251
Chloroethane	33,333	146,667	440,000	< 0.159	2.77	< 0.159	< 0.159	< 0.159	< 0.159	< 0.159	< 0.159	< 0.159	< 0.159	< 0.159	0.84	< 0.159
Chloroform	3,100	13,000	39,000	< 0.3	0.34 J	< 0.3	0.78 J	< 0.3	< 0.3	0.97	< 0.3	< 0.3	< 0.3	9	0.44 J	< 0.3
Chloromethane	3,100	13,000	39,000	< 0.831	< 0.831	< 0.831	< 0.831	1.61 J	< 0.831	< 0.831	< 0.831	< 0.831	< 0.831	< 0.831	4.7	< 0.831
cis-1,2-Dichloroethene	---	---	---	< 0.197	0.75	< 0.197	< 0.197	< 0.197	< 0.197	< 0.197	< 0.197	< 0.197	< 0.197	< 0.197	< 0.197	< 0.197
Cyclohexane	3,333	14,667	44,000	2.86	4.1	2.62	2.86	0.55 J	0.241 J	0.41 J	< 0.212	0.59 J	< 0.212	0.38 J	1.17	1.45
Dichlorodifluoromethane	3,300	14,667	44,000	3.8	2.87	2.62	2.87	2.62	2.57	2.52	2.77	2.82	2.72	2.57	2.37	1.04
Ethanol	---	---	---	37	19.1	170 10	283	32	179 10	102	12.6	45	27.7	67	83 10	43
Ethyl Acetate	---	---	---	16.7	< 0.176	< 0.176	1.62	< 0.176	< 0.176	< 0.176	< 0.176	1.48	< 0.176	< 0.176	< 0.176	4.6
Ethylbenzene	370	1,600	4,900	0.82	17.1	3.6	0.61 J	0.39 J	0.61 J	0.65	0.39 J	1.04	< 0.203	0.39 J	1.17	0.87
Heptane	---	---	---	19.4	4.7	6.5	1.8	1.1	0.9	1.92	1.27	27.4	< 0.265	0.65 J	4.5	5.7
Hexane	1,400	6,000	18,000	8.7	340	42	1.83	34	2.64	1.62	2.36	38	0.74 J	1.2	3.9	6.3
Isopropyl Alcohol	---	---	---	7.3	3.8	32	15.5	3.5	14.8	25.5	1.67	8.6	5.7	15	12.6	8.7
m&p-Xylene	333	---	4,400	1.39	15.7	7.4	2.17	1 J	1.17 J	1.56	0.74 J	1.21	0.56 J	1 J	1.95	1.91
Methyl ethyl ketone (MEK)	17,333	73,333	220,000	6	2.18	96	14.1	3.4	2.15	12.9	43	13.5	6.1	8.6	17.4	6.7
Methyl isobutyl ketone (MIBK)	10,333	43,333	130,000	0.98	< 0.168	6.4	0.57	< 0.168	0.86	1.88	0.98	1.15	0.78	1.96	3.07	0.53 J
o-Xylene	3,300	---	44,000	0.61 J	8	3.12	0.87	0.43 J	0.52 J	0.74	0.35 J	0.65 J	0.303 J	1	0.87	1.3
Propene	---	---	---	< 0.079	< 0.079	< 0.079	< 0.079	< 0.079	< 0.079	< 0.079	< 0.079	< 0.079	< 0.079	< 0.079	< 0.079	< 0.079
Styrene	3,333	14,667	44,000	0.255 J	0.298 J	0.298 J	< 0.181	< 0.181	< 0.181	< 0.181	< 0.181	0.213 J	< 0.181	< 0.181	< 0.181	< 0.181
Tetrachloroethene (PCE)	1,400	---	18,000	4.4	5.9	10.6	24.7	127	80	4700	5.9	9.6	12.8	15.5	3.5	1.09
Tetrahydrofuran	7,000	29,333	88,000	0.85	< 0.131	0.91	1.24	< 0.131	< 0.131	1.15	12.2	2.59	9.8	< 0.131	12.1	2.86
Toluene	170,000	730,000	2,200,000	5.6	12.5	21.2	6.8	6.4	5.2	7	23.2	11.7	5.4	6.1	12.9	9.1
trans-1,2-Dichloroethene	---	---	---	< 0.231	1.15	< 0.231	< 0.231	< 0.231	< 0.231	< 0.231	< 0.231	< 0.231	< 0.231	< 0.231	< 0.231	< 0.231
Trichloroethene (TCE)	70	290	880	0.54 J	1.77	0.96	380	1.12	< 0.237	111	0.86	2.89	3.7	26.9	2.2	2.62
Trichlorofluoromethane	---	---	---	1.8	1.69	1.29	3.3	1.29	2.13	7.8	1.97	1.74	7	2.47	27.8	11.2
Trichlorotrifluoroethane	---	---	---	0.69 J	0.61 J	3.9	2.07	0.54 J	0.61 J	3.8	0.54 J	0.54 J	0.54 J	0.46 J	< 0.402	< 0.402
Vinyl Chloride	57	930	2,800	< 0.148	< 0.148	< 0.148	< 0.148	< 0.148	< 0.148	< 0.148	< 0.148	0.46 J	< 0.148	< 0.148	0.64	< 0.148

Comments

All results in micrograms per cubic meter (ug/m³)

"J" Flag = Analyte detected between Limit of Detection and Limit of Quantitation

"10" Code = Linear Range of Calibration Curve Exceeded

TABLE 2
 SUB-SLAB VAPOR ANALYTICAL RESULTS - CONTAMINANTS OF CONCERN
 COMMUNITY WITHIN THE CORRIDOR - WEST BLOCK
 MILWAUKEE, WI
 PROJECT NUMBER: 40443

CHEMICAL (ug/m ³)	SUB-SLAB VAPOR VRSL			WB-SS-1	WB-SS-2	WB-SS-3	WB-SS-4	WB-SS-5	WB-SS-6	WB-SS-7	WB-SS-8	WB-SS-9	WB-SS-10	WB-SS-11	WB-SS-12	WB-SS-13
	AF = 0.03	AF = 0.03	AF = 0.01	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT
	RESIDENTIAL	SMALL COMMERCIAL	LARGE COMMERCIAL / INDUSTRIAL	3/2/2021	3/2/2021	3/2/2021	3/2/2021	3/2/2021	3/2/2021	3/2/2021	3/2/2021	3/2/2021	3/2/2021	3/2/2021	3/2/2021	3/2/2021
				ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³

VRSL = Vapor Risk Screening Levels

Italics indicates detection is above Residential VRSLs

TABLE 2
SUB-SLAB VAPOR ANALYTICAL RESULTS - CONTAMINANTS OF CONCERN
COMMUNITY WITHIN THE CORRIDOR - WEST BLOCK
MILWAUKEE, WI
PROJECT NUMBER: 40443

CHEMICAL (ug/m ³)	SUB-SLAB VAPOR VRSL			WB-SS-14	WB-SS-15	WB-SS-16	WB-SS-17	WB-SS-18	WB-SS-19	WB-SS-20	WB-SS-21	WB-SS-22	WB-SS-23	WB-SS-24	WB-SS-25
	AF = 0.03	AF = 0.03	AF = 0.01	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT
	RESIDENTIAL	SMALL COMMERCIAL	LARGE COMMERCIAL / INDUSTRIAL	3/2/2021	4/1/2021	4/1/2021	4/1/2021	4/1/2021	4/1/2021	4/1/2021	4/1/2021	4/1/2021	4/1/2021	4/1/2021	4/1/2021
			ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³
1,1,1-Trichloroethane	170,000	730,000	2,200,000	1.69	0.76 J	78	1.58	17	460	154	36	650	22.4	2.88	1110
1,1-Dichloroethane	600	2566.67	7,700	< 0.187	< 0.187	0.36 J	< 0.187	< 0.187	2.12	< 0.187	< 0.187	< 0.187	< 0.187	< 0.187	< 0.187
1,1-Dichloroethene	7,000	29,333	88,000	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	0.238 J
1,2,4-Trimethylbenzene	210	8,700	2,600	8.7	2.16	8.5	3.6	7.7	5.2	9.2	3.8	3.7	5.2	3.2	3.8
1,2-Dichlorobenzene	700	2,933	8,800	< 0.235	0.71 J	29	< 0.235	< 0.235	< 0.235	< 0.235	< 0.235	< 0.235	< 0.235	< 0.235	< 0.235
1,3,5-Trimethylbenzene	210	8,700	2,600	3.3	0.78	3.7	1.03	2.45	2.16	3.2	1.47	1.37	2.16	1.32	1.23
1,3-Butadiene	---	---	---	< 0.143	< 0.143	< 0.143	3.6	5.4	12.5	4.4	7.5	< 0.143	< 0.143	< 0.143	2.48
1,3-Dichlorobenzene	---	---	---	< 0.302	< 0.302	0.72 J	< 0.302	< 0.302	< 0.302	< 0.302	< 0.302	< 0.302	< 0.302	< 0.302	< 0.302
1,4-Dichlorobenzene	8	37	110	< 0.302	< 0.302	2.28	< 0.302	< 0.302	< 0.302	< 0.302	< 0.302	< 0.302	< 0.302	< 0.302	< 0.302
1,4-Dioxane	18	83.3	250	< 0.157	< 0.157	9.5	< 0.157	< 0.157	4.6	< 0.157	< 0.157	13.8	< 0.157	< 0.157	< 0.157
2-Hexanone	---	---	---	< 0.222	1.02	< 0.222	6.5	19.9	< 0.222	< 0.222	15.8	3.8	3.3	3.07	55
4-Ethyltoluene	---	---	---	0.74	0.69	2.7	1.32	2.35	1.82	2.6	1.23	1.03	1.42	0.74	0.93
Acetone	106,667	466,667	1,400,000	9.5	26.4	288 10	31.4	330	< 0.299	60	211 10	< 0.299	20.2	81	900
Acrolein	---	---	---	< 0.094	0.83	2.86	2.25	1.38	0.83	1.51	0.73	< 0.094	0.46	0.44	0.71
Benzene	120	530	1,600	0.86	6	24.7	14.1	30.7	34	27	13.9	4.1	9	2.68	5.2
Bromodichloromethane	2.53	11	33	< 0.374	< 0.374	< 0.374	< 0.374	< 0.374	< 0.374	< 0.374	< 0.374	< 0.374	< 0.374	< 0.374	< 0.374
Carbon Disulfide	2,433	10,333	31,000	2.18	207	10.7	3.9	9.8	18.4	12.8	8.4	26	55	272	39
Carbon Tetrachloride	156	667	2,000	< 0.307	0.94 J	< 0.307	< 0.307	0.88 J	7.8	0.94 J	< 0.307	< 0.307	< 0.307	< 0.307	< 0.307
Chlorobenzene	173	733	2,200	< 0.251	0.46 J	16.5	< 0.251	0.32 J	1.15	0.32 J	< 0.251	< 0.251	< 0.251	< 0.251	< 0.251
Chloroethane	33,333	146,667	440,000	< 0.159	< 0.159	< 0.159	< 0.159	< 0.159	0.37 J	< 0.159	< 0.159	< 0.159	< 0.159	< 0.159	< 0.159
Chloroform	3,100	13,000	39,000	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	0.34 J	< 0.3	0.54 J	< 0.3	< 0.3	< 0.3	< 0.3
Chloromethane	3,100	13,000	39,000	< 0.831	< 0.831	< 0.831	< 0.831	< 0.831	< 0.831	< 0.831	< 0.831	1.03 J	< 0.831	< 0.831	< 0.831
cis-1,2-Dichloroethene	---	---	---	< 0.197	< 0.197	0.32 J	< 0.197	< 0.197	< 0.197	< 0.197	< 0.197	< 0.197	< 0.197	< 0.197	< 0.197
Cyclohexane	3,333	14,667	44,000	3.3	25.2	34	9.4	17.1	25	27.1	14.7	9.9	31	4.8	19.7
Dichlorodifluoromethane	3,300	14,667	44,000	1.53	1.88	1.83	1.93	1.78	1.83	1.88	1.93	2.03	1.93	1.93	1.93
Ethanol	---	---	---	29.7	8.5	15.3	5.8	23.2	38	6.4	20.8	21.7	1.09	4.1	53
Ethyl Acetate	---	---	---	< 0.176	< 0.176	< 0.176	< 0.176	< 0.176	< 0.176	< 0.176	< 0.176	< 0.176	< 0.176	1.62	< 0.176
Ethylbenzene	370	1,600	4,900	3.9	8.3	25.2	24.1	37	23.9	29	10	4.6	128	2.77	5.5
Heptane	---	---	---	11.8	27.3	115	39	64	71	75	43	19.6	87	8.9	30.3
Hexane	1,400	6,000	18,000	5.4	34	140	38	62	78	80	52	37	99	15.2	42
Isopropyl Alcohol	---	---	---	3.6	4.1	22.6	10.2	49	97	8.5	30.3	43	1.6	< 0.109	79
m&p-Xylene	333	---	4,400	13.9	9.5	38	18.5	35	36	34	15.7	6.2	350	4.3	10.7
Methyl ethyl ketone (MEK)	17,333	73,333	220,000	6.2	12.5	77	20.9	129	291	31	103	8100	23.7	38	252
Methyl isobutyl ketone (MIBK)	10,333	43,333	130,000	1.06	1.64	4.7	5.2	34	26.9	3.07	11.3	4.6	25.5	2.91	63
o-Xylene	3,300	---	44,000	7.7	4	17.2	8.1	14.8	15.9	14.6	6.1	2.82	35	2.3	3.8
Propene	---	---	---	< 0.079	< 0.079	< 0.079	< 0.079	< 0.079	< 0.079	< 0.079	< 0.079	< 0.079	770	< 0.079	< 0.079
Styrene	3,333	14,667	44,000	0.213 J	0.38 J	0.34 J	0.255 J	0.85	2.93	0.89	0.6	0.298 J	0.34 J	0.51 J	0.34 J
Tetrachloroethene (PCE)	1,400	---	18,000	4.6	2.85	62	4.4	126	15,400	11.1	0.75 J	5.3	14.1	20.4	161
Tetrahydrofuran	7,000	29,333	88,000	5.1	2.18	3.8	2.53	4.7	3.9	4.6	3.6	14.3	5.7	6	8
Toluene	170,000	730,000	2,200,000	12	31.5	93	72	111	201	87	41	14.4	73	6	14.4
trans-1,2-Dichloroethene	---	---	---	< 0.231	< 0.231	< 0.231	< 0.231	< 0.231	< 0.231	< 0.231	< 0.231	< 0.231	< 0.231	< 0.231	< 0.231
Trichloroethene (TCE)	70	290	880	< 0.237	2.14	1.18	< 0.237	3.11	23.7	3.05	1.23	8	13	0.37 J	3.5
Trichlorofluoromethane	---	---	---	18.2	1.24	1.52	1.57	2.25	3.4	2.7	1.91	4.7	21.4	14.8	18.3
Trichlorotrifluoroethane	---	---	---	< 0.402	0.61 J	5.1	0.84 J	0.77 J	2.15	5.1	0.69 J	0.61 J	0.61 J	0.61 J	0.54 J
Vinyl Chloride	57	930	2,800	< 0.148	< 0.148	< 0.148	< 0.148	< 0.148	0.56	< 0.148	< 0.148	< 0.148	< 0.148	< 0.148	< 0.148

Comments

All results in micrograms per cubic meter (ug/m³)

"J" Flag = Analyte detected between Limit of Detection and Limit of Quantitation

"10" Code = Linear Range of Calibration Curve Exceeded

TABLE 2
 SUB-SLAB VAPOR ANALYTICAL RESULTS - CONTAMINANTS OF CONCERN
 COMMUNITY WITHIN THE CORRIDOR - WEST BLOCK
 MILWAUKEE, WI
 PROJECT NUMBER: 40443

CHEMICAL (ug/m ³)	SUB-SLAB VAPOR VRSL			WB-SS-14	WB-SS-15	WB-SS-16	WB-SS-17	WB-SS-18	WB-SS-19	WB-SS-20	WB-SS-21	WB-SS-22	WB-SS-23	WB-SS-24	WB-SS-25
	AF = 0.03	AF = 0.03	AF = 0.01	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT	PRE-DEVELOPMENT
	RESIDENTIAL	SMALL COMMERCIAL	LARGE COMMERCIAL / INDUSTRIAL	3/2/2021	4/1/2021	4/1/2021	4/1/2021	4/1/2021	4/1/2021	4/1/2021	4/1/2021	4/1/2021	4/1/2021	4/1/2021	4/1/2021
	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³

VRSL = Vapor Risk Screening Levels

Italics indicates detection is above Residential VRSLs

TABLE 3
SOIL ANALYTICAL RESULTS
COMMUNITY WITHIN THE CORRIDOR - WEST BLOCK
MILWAUKEE, WI
PROJECT NUMBER: 40443

Sample	Units	Method	NR 720 RCLs for GW Protection (1)	NR 720 RCLs - Non-Industrial Use for Direct Contact Protection (1)	NR 720 RCLs - Industrial Use for Direct Contact Protection (1)	Background Threshold Value	B-1	B-2	B-3	B-4	B-5	B-6	WB-SS-2	WB-SS-6	WB-SS-8	WB-SS-12	
							5.5-7.5	4-6	4-6	4-6	3-5	3-5	0-1	0-1	0-1	0-1	
							ML-CL	ML-CL	ML-CL	ML-CL	CL	SP-CL	ML-CL	ML-CL	ML-CL	ML-CL	
							Unsaturated	Unsaturated	Unsaturated	Unsaturated	Unsaturated	Unsaturated	Moist	Unsaturated	Unsaturated	Unsaturated	
							Exterior	Exterior	Exterior	Exterior	Exterior	Exterior	Interior	Interior	Interior	Interior	
Sampling Date																	
Physical Characteristics																	
Percent Moisture							11.9	12.4	11.7	12.1	13.1	11.4	13.8	5.2	10.8	12.5	
Percent Solids							88.1	87.6	88.3	87.9	86.9	88.6	86.2	94.8	89.2	87.5	
Volatile Organic Compounds (VOCs)																	
1,1,1,2-Tetrachloroethane	mg/Kg	8260B	0.0534	2.78	12.3	---	<0.040	<0.036	<0.039	<0.043	<0.046	<0.059	<0.030	<0.030	<0.028	<0.029	
1,1,1-Trichloroethane	mg/Kg	8260B	0.1402	640	640	---	<0.033	<0.030	<0.032	<0.035	<0.038	<0.048	<0.025	<0.025	<0.023	<0.024	
1,1,2,2-Tetrachloroethane	mg/Kg	8260B	0.0002	0.81	3.6	---	<0.035	<0.031	<0.033	<0.037	<0.040	<0.051	<0.026	<0.026	<0.024	<0.025	
1,1,2-Trichloroethane	mg/Kg	8260B	0.0032	1.59	7.01	---	<0.031	<0.028	<0.029	<0.032	<0.035	<0.045	<0.023	<0.023	<0.022	<0.022	
1,1-Dichloroethane	mg/Kg	8260B	0.4834	5.06	22.2	---	<0.036	<0.032	<0.034	<0.038	<0.041	<0.052	<0.027	<0.027	<0.025	<0.026	
1,1-Dichloroethene	mg/Kg	8260B	0.005	320	1,190	---	<0.034	<0.031	<0.033	<0.036	<0.039	<0.050	<0.025	<0.025	<0.024	<0.025	
1,1-Dichloropropene	mg/Kg	8260B	---	---	---	---	<0.026	<0.024	<0.025	<0.027	<0.030	<0.038	<0.019	<0.019	<0.018	<0.019	
1,2,3-Trichlorobenzene	mg/Kg	8260B	---	62.6	934	---	<0.040	<0.036	<0.038	<0.042	<0.046	<0.058	<0.030	<0.030	<0.028	<0.029	
1,2,3-Trichloropropane	mg/Kg	8260B	0.0519	0.005	0.109	---	<0.036	<0.033	<0.035	<0.038	<0.041	<0.053	<0.027	<0.027	<0.025	<0.026	
1,2,4-Trichlorobenzene	mg/Kg	8260B	0.408	24	113	---	<0.030	<0.027	<0.029	<0.032	<0.034	<0.044	<0.022	<0.022	<0.021	<0.022	
1,2,4-Trimethylbenzene	mg/Kg	8260B	1.3787**	219	219	---	<0.031	<0.028	<0.030	<0.033	<0.036	<0.046	<0.023	<0.023	<0.022	<0.023	
1,2-Dibromo-3-Chloropropane	mg/Kg	8260B	0.0002	0.008	0.092	---	<0.17	<0.16	<0.17	<0.18 *	<0.20 *	<0.25 *	<0.13	<0.13	<0.12	<0.13	
1,2-Dibromoethane	mg/Kg	8260B	0.000282	0.05	0.221	---	<0.034	<0.030	<0.032	<0.036	<0.039	<0.049	<0.025	<0.025	<0.024	<0.025	
1,2-Dichlorobenzene	mg/Kg	8260B	1.168	376	376	---	<0.029	<0.026	<0.028	<0.031	<0.033	<0.043	3B	0.064 J	<0.021	<0.021	
1,2-Dichloroethane	mg/Kg	8260B	0.0028	0.652	2.87	---	<0.034	<0.031	<0.033	<0.036	<0.039	<0.050	<0.026	<0.025	<0.024	<0.025	
1,2-Dichloropropane	mg/Kg	8260B	0.0033	3.4	15	---	<0.037	<0.034	<0.036	<0.039	<0.043	<0.055	<0.028	<0.028	<0.026	<0.027	
1,3,5-Trimethylbenzene	mg/Kg	8260B	1.3787**	182	182	---	<0.033	<0.030	<0.032	<0.035	<0.038	<0.048	<0.025	<0.025	<0.023	<0.024	
1,3-Dichlorobenzene	mg/Kg	8260B	1.1528	297	297	---	<0.035	<0.032	<0.033	<0.037	<0.040	<0.051	0.58	<0.026	<0.025	<0.025	
1,3-Dichloropropane	mg/Kg	8260B	0.0003	2.37	10.6	---	<0.032	<0.029	<0.030	<0.033	<0.036	<0.046	<0.024	<0.023	<0.022	<0.023	
1,4-Dichlorobenzene	mg/Kg	8260B	0.144	3.74	16.4	---	<0.032	<0.029	<0.030	<0.034	<0.036	<0.046	5.3	<0.024	<0.022	<0.023	
2,2-Dichloropropane	mg/Kg	8260B	---	191	191	---	<0.039	<0.035	<0.037	<0.041	<0.044	<0.057	<0.029	<0.029	<0.027	<0.028	
2-Chlorotoluene	mg/Kg	8260B	---	907	907	---	<0.027	<0.025	<0.026	<0.029	<0.031	<0.040	<0.020	<0.020	<0.019	<0.020	
4-Chlorotoluene	mg/Kg	8260B	---	253	253	---	<0.030	<0.028	<0.029	<0.032	<0.035	<0.045	<0.023	<0.023	<0.022	<0.022	
Benzene	mg/Kg	8260B	0.0051	1.6	7.07	---	<0.013	<0.012	<0.012	<0.013	<0.015	<0.019	<0.0095	<0.0095	<0.0090	<0.0093	
Bromobenzene	mg/Kg	8260B	---	342	679	---	<0.031	<0.028	<0.030	<0.033	<0.036	<0.045	<0.023	<0.023	<0.022	<0.023	
Bromochloromethane	mg/Kg	8260B	---	216	906	---	<0.037	<0.034	<0.036	<0.039	<0.043	<0.055	<0.028	<0.028	<0.026	<0.027	
Bromodichloromethane	mg/Kg	8260B	0.0003	0.418	1.83	---	<0.032	<0.029	<0.031	<0.034	<0.037	<0.047	<0.024	<0.024	<0.023	<0.024	
Bromoform	mg/Kg	8260B	0.0023	25.4	113	---	<0.042	<0.038	<0.040	<0.045	<0.048	<0.062	<0.032	<0.031	<0.030	<0.031	
Bromomethane	mg/Kg	8260B	0.0051	9.6	43	---	<0.069 *	<0.063 *	<0.067 *	<0.073 *	<0.080 *	<0.10 *	<0.052	<0.052	<0.049	<0.051	
Carbon tetrachloride	mg/Kg	8260B	0.0039	0.916	4.03	---	<0.033	<0.030	<0.032	<0.035	<0.038	<0.049	<0.025	<0.025	<0.024	<0.024	
Chlorobenzene	mg/Kg	8260B	---	370	761	---	<0.034	<0.030	<0.032	<0.036	<0.039	<0.049	2.1	<0.025	<0.024	<0.025	
Chloroethane	mg/Kg	8260B	0.2266	2,120	2,120	---	<0.044	<0.040	<0.042	<0.046	<0.050	<0.064	<0.033	<0.033	<0.031	<0.032	
Chloroform	mg/Kg	8260B	0.0033	0.454	1.98	---	<0.032	<0.029	<0.031	<0.034	<0.037	<0.047	<0.024	<0.024	<0.023	<0.024	
Chloromethane	mg/Kg	8260B	0.0155	159	669	---	<0.028	<0.025	<0.027	<0.029	<0.032	<0.041	<0.021	<0.021	<0.020	<0.020	
cis-1,2-Dichloroethene	mg/Kg	8260B	0.0412	156	2,340	---	<0.036	<0.032	<0.034	<0.038	<0.041	<0.052	<0.027	<0.026	<0.025	<0.026	
cis-1,3-Dichloropropene	mg/Kg	8260B	0.0003	1,210	1,210	---	<0.036	<0.033	<0.035	<0.038	<0.042	<0.053	<0.027	<0.027	<0.026	<0.027	
Dibromochloromethane	mg/Kg	8260B	0.032	8.28	38.9	---	<0.042	<0.039	<0.041	<0.045	<0.049	<0.062	<0.032	<0.032	<0.030	<0.031	
Dibromomethane	mg/Kg	8260B	---	34	143	---	<0.023	<0.021	<0.023	<0.025	<0.027	<0.034	<0.018	<0.018	<0.017	<0.017	
Dichlorodifluoromethane	mg/Kg	8260B	3.0863	126	530	---	<0.059	<0.053	<0.056	<0.062	<0.067	<0.086	<0.044	<0.044	<0.041	<0.043	
Ethylbenzene	mg/Kg	8260B	1.57	8.02	35.4	---	<0.016	<0.014	<0.015	<0.017	<0.018	<0.023	<0.012	<0.012	<0.011	<0.012	
Hexachlorobutadiene	mg/Kg	8260B	---	1.63	7.19	---	<0.039	<0.035	<0.037	<0.041	<0.045	<0.057	<0.029	<0.029	<0.027	<0.028	
Isopropyl ether	mg/Kg	8260B	---	2,260	2,260	---	<0.024	<0.022	<0.023	<0.025	<0.028	<0.035	<0.018	<0.018	<0.017	<0.018	
Isopropylbenzene	mg/Kg	8260B	---	268	268	---	<0.033	<0.030	<0.032	<0.035	<0.038	<0.049	<0.025	<0.025	<0.024	<0.024	
Methyl tert-butyl ether	mg/Kg	8260B	0.027	63.8	282	---	<0.034	<0.031	<0.033	<0.036	<0.039	<0.050	<0.026	<0.026	<0.024	<0.025	
Methylene Chloride	mg/Kg	8260B	0.0026	61.8	1,150	---	<0.14	<0.13	<0.14	<0.15	<0.16	<0.21	<0.11	<0.11	<0.10	<0.10	
Naphthalene	mg/Kg	8260B	0.658182	5.52	24.10	---	<0.029	<0.026	<0.028	<0.031	<0.033	<0.043	<0.022	<0.022	<0.021	<0.021	
n-Butylbenzene	mg/Kg	8260B	---	108	108	---	<0.034	<0.031	<0.032	<0.036	<0.039	<0.049	0.050 J	<0.025	<0.024	<0.025	
N-Propylbenzene	mg/Kg	8260B	---	264	264	---	<0.036	<0.033	<0.035	<0.038	<0.041	<0.053	<0.027	<0.027	<0.025	<0.026	
p-Isopropyltoluene	mg/Kg	8260B	---	162	162	---	<0.032	<0.029	<0.030	<0.033	<0.036	<0.046	<0.024	<0.023	<0.022	<0.023	
sec-Butylbenzene	mg/Kg	8260B	---	145	145	---	<0.035	<0.031	<0.033	<0.037	<0.040	<0.051	0.063 J	<0.026	<0.024	<0.025	
Styrene	mg/Kg	8260B	0.22	867	867	---	<0.034	<0.030	<0.032	<0.036	<0.039	<0.049	<0.025	<0.025	<0.024	<0.025	
tert-Butylbenzene	mg/Kg	8260B	---	183	183	---	<0.035	<0.031	<0.033	<0.037	<0.040	<0.051	<0.026	<0.026	<0.024	<0.025	
Tetrachloroethene	mg/Kg	8260B	0.0045	33	145	---	<0.032	<0.029	<0.031	<0.034	<0.037	<0.047	0.12	<0.024	<0.023	<0.024	
Toluene	mg/Kg	8260B	1.1072	818	818	---	<0.013	<0.012	<0.012	<0.014	<0.015	<0.019	<0.0096	<0.0095	<0.0090	<0.0094	
trans-1,2-Dichloroethene	mg/Kg	8260B	0.0626	1560	1850	---	<0.030	<0.028	<0.029	<0.032	<0.035	<0.045	<0.023	<0.023	<0.022	<0.022	

TABLE 3
SOIL ANALYTICAL RESULTS
COMMUNITY WITHIN THE CORRIDOR - WEST BLOCK
MILWAUKEE, WI
PROJECT NUMBER: 40443

Sample	Units	Method	NR 720 RCLs for GW Protection (1)	NR 720 RCLs - Non-Industrial Use for Direct Contact Protection (1)	NR 720 RCLs - Industrial Use for Direct Contact Protection (1)	Background Threshold Value	B-1	B-2	B-3	B-4	B-5	B-6	WB-SS-2	WB-SS-6	WB-SS-8	WB-SS-12	
							5.5-7.5	4-6	4-6	4-6	3-5	3-5	0-1	0-1	0-1	0-1	
							ML-CL	ML-CL	ML-CL	ML-CL	CL	SP-CL	ML-CL	ML-CL	ML-CL	ML-CL	
							Unsaturated	Unsaturated	Unsaturated	Unsaturated	Unsaturated	Unsaturated	Moist	Unsaturated	Unsaturated	Unsaturated	
							Exterior	Exterior	Exterior	Exterior	Exterior	Exterior	Interior	Interior	Interior	Interior	
Sampling Date																	
trans-1,3-Dichloropropene	mg/Kg	8260B	---	1,510	1,510	---	<0.032	<0.029	<0.030	<0.033	<0.036	<0.046	<0.024	<0.023	<0.022	<0.023	<0.023
Trichloroethene	mg/Kg	8260B	0.0036	1.3	8.41	---	<0.014	<0.013	<0.014	<0.015	<0.016	<0.021	0.013 J	<0.011	<0.010	<0.010	<0.010
Trichlorofluoromethane	mg/Kg	8260B	---	1,230	1,230	---	<0.037	<0.034	<0.036	<0.039	<0.043	<0.055	<0.028	<0.028	<0.026	<0.027	<0.027
Vinyl chloride	mg/Kg	8260B	0.0001	0.067	2.08	---	<0.023	<0.021	<0.022	<0.024	<0.026	<0.033	<0.017	<0.017	<0.016	<0.017	<0.017
Xylenes, Total	mg/Kg	8260B	3.96	1,212	1212	---	<0.019	<0.017	<0.018	<0.020	<0.022	<0.028	<0.014	<0.014	<0.014	<0.014	<0.014
Polycyclic Aromatic Hydrocarbons (PAHs)																	
1-Methylnaphthalene	mg/Kg	8270D	---	17.6	72.7	---	<0.0091	<0.0092	<0.0092	<0.0091	<0.0093	<0.0090	---	---	---	---	---
2-Methylnaphthalene	mg/Kg	8270D	---	239	3010	---	<0.0069	<0.0069	<0.0069	<0.0069	<0.0070	<0.0068	---	---	---	---	---
Acenaphthene	mg/Kg	8270D	---	3590	45,200	---	<0.0067	<0.0068	<0.0068	<0.0067	<0.0068	<0.0066	---	---	---	---	---
Acenaphthylene	mg/Kg	8270D	---	---	---	---	<0.0049	<0.0050	<0.0050	<0.0049	<0.0050	<0.0048	---	---	---	---	---
Anthracene	mg/Kg	8270D	196.9492	17,900	100,000	---	<0.0063	<0.0063	<0.0063	<0.0063	<0.0064	<0.0061	---	---	---	---	---
Benzo[a]anthracene	mg/Kg	8270D	---	1.14	21	---	<0.0050	<0.0051	<0.0051	<0.0050	<0.0051	<0.0049	---	---	---	---	---
Benzo[a]pyrene	mg/Kg	8270D	0.47	0.115	2.11	---	<0.0072	<0.0073	<0.0073	<0.0072	<0.0074	<0.0071	---	---	---	---	---
Benzo[b]fluoranthene	mg/Kg	8270D	0.4781	1.15	21.1	---	<0.0081	<0.0081	<0.0081	0.0090 J	<0.0082	<0.0079	---	---	---	---	---
Benzo[g,h,i]perylene	mg/Kg	8270D	---	---	---	---	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	---	---	---	---	---
Benzo[k]fluoranthene	mg/Kg	8270D	---	11.5	211	---	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	---	---	---	---	---
Chrysene	mg/Kg	8270D	0.1442	115	2110	---	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	---	---	---	---	---
Dibenz[a,h]anthracene	mg/Kg	8270D	---	0.115	2	---	<0.0072	<0.0073	<0.0073	<0.0072	<0.0074	<0.0071	---	---	---	---	---
Fluoranthene	mg/Kg	8270D	88.8778	2390	30,100	---	<0.0069	<0.0070	<0.0070	<0.0069	<0.0071	<0.0068	---	---	---	---	---
Fluorene	mg/Kg	8270D	14.8299	2390	30,100	---	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0052	---	---	---	---	---
Indeno[1,2,3-cd]pyrene	mg/Kg	8270D	---	1.15	21.1	---	<0.0097	<0.0097	<0.0097	<0.0097	<0.0099	<0.0095	---	---	---	---	---
Naphthalene	mg/Kg	8270D	0.6582	5.52	24.1	---	<0.0058	<0.0058	<0.0058	0.0061 J	<0.0059	<0.0057	---	---	---	---	---
Phenanthrene	mg/Kg	8270D	---	---	---	---	<0.0052	<0.0052	<0.0052	0.0089 J	<0.0053	<0.0051	---	---	---	---	---
Pyrene	mg/Kg	8270D	54.5455	1790	22,600	---	<0.0074	<0.0075	<0.0075	0.0092 J	<0.0076	<0.0073	---	---	---	---	---
Polychlorinated Biphenyls (PCBs)																	
PCB-1016	mg/Kg	8082A	0.0094***	4.11	28	---	---	---	---	---	<0.0067	---	---	<0.019	---	---	---
PCB-1221	mg/Kg	8082A	0.0094***	0.213	0.883	---	---	---	---	---	<0.0084	---	---	<0.023	---	---	---
PCB-1232	mg/Kg	8082A	0.0094***	0.190	0.792	---	---	---	---	---	<0.0083	---	---	<0.023	---	---	---
PCB-1242	mg/Kg	8082A	0.0094***	0.235	0.972	---	---	---	---	---	<0.0062	---	---	<0.017	---	---	---
PCB-1248	mg/Kg	8082A	0.0094***	0.236	0.975	---	---	---	---	---	<0.0075	---	---	<0.021	---	---	---
PCB-1254	mg/Kg	8082A	0.0094***	0.239	0.988	---	---	---	---	---	<0.0041	---	---	0.014 J	---	---	---
PCB-1260	mg/Kg	8082A	0.0094***	0.243	1.000	---	---	---	---	---	<0.0093	---	---	<0.026	---	---	---
RCRA Metals																	
Arsenic	mg/Kg	6010B	0.584	0.677	3	8.3	5	7.7	4.6	3.5	5.2	4.4	---	---	---	---	---
Barium	mg/Kg	6010B	164.8	15,300	100,000	364	42 V	50	29	32	39	36	---	---	---	---	---
Cadmium	mg/Kg	6010B	0.752	71.1	985	1	0.19 B	0.40 B	0.28 B	0.23 B	0.25 B	0.26 B	---	---	---	---	---
Chromium	mg/Kg	6010B	360,000*	---	---	44	15	18	13	12	15	15	---	---	---	---	---
Lead	mg/Kg	6010B	27	400	800	51.6	9.3	22	12	8.2	9.7	9	---	---	---	---	---
Mercury	mg/Kg	7471A	0.208	3.13	3.13	---	0.019	0.018	0.015 J	0.012 J	0.013 J	0.011 J	---	---	---	---	---
Selenium	mg/Kg	6010B	0.52	391	5840	---	<0.57	<0.64	<0.60	<0.60	<0.59	<0.58	---	---	---	---	---
Silver	mg/Kg	6010B	0.8491	391	5840	---	0.27 J	0.24 J	0.23 J	0.19 J	0.24 J	0.23 J	---	---	---	---	---

Notes:

(1) From WDNR RCLs Worksheet dated December 2018

BOLD values exceed Groundwater Protection, Non-Industrial Direct Contact, or Industrial Direct-Contact RCLs

--- = Not analyzed / No established standard

J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value

F1 = Matrix spike (MS) and/or matrix spike duplicate (MSD) recovery exceeds control limits

J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value

B = Compound was found in the blank and sample

* = Laboratory control sample and/or laboratory control sample duplicate is outside acceptance limits

** = Combined established standard of 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene; and 3 & 4 Methylphenol

*** = Combined established standard of PCBs

*+ = Laboratory Control Sample or Laboratory Control Sample Duplicate is outside acceptance limits, high biased

TABLE 3
SOIL ANALYTICAL RESULTS
COMMUNITY WITHIN THE CORRIDOR - WEST BLOCK
MILWAUKEE, WI
PROJECT NUMBER: 40443

Sample	Depth (feet)	Soil Type	Soil Conditions	Sampling Location	Sampling Date	Units	Method	NR 720 RCLs for GW Protection (1)	NR 720 RCLs - Non-Industrial Use for Direct Contact Protection (1)	NR 720 RCLs - Industrial Use for Direct Contact Protection (1)	Background Threshold Value	WB-SS-14	WB-Int-1	WB-Int-2	WB-Int-3	WB-Int-4	WB-Int-5	WB-Int-6	WB-Int-7	WB-Int-8	WB-Int-9	
												0-1	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5
												ML-CL	SP-CL	ML-CL	ML-CL	ML-CL	ML-CL	ML-CL	ML-CL	ML-CL	ML-CL	ML-CL
												Unsaturated	Moist	Moist	Moist	Unsaturated	Moist	Unsaturated	Unsaturated	Unsaturated	Unsaturated	Moist
												Interior	Interior	Interior	Interior	Interior	Interior	Interior	Interior	Interior	Interior	Interior
Physical Characteristics																						
Percent Moisture												8.6	12.3	13.0	13.1	10.4	13.4	10.7	10.1	8.9	12.1	
Percent Solids												91.4	87.7	87.0	86.9	89.6	86.6	89.3	89.9	91.1	87.9	
Volatile Organic Compounds (VOCs)																						
1,1,1,2-Tetrachloroethane	mg/Kg	8260B	0.0534	2.78	12.3	---	<0.027	<0.029	<0.029	<0.030	<0.029	<0.030	<0.029	<0.028	<0.028	<0.029						
1,1,1-Trichloroethane	mg/Kg	8260B	0.1402	640	640	---	<0.023	<0.024	<0.024	<0.025	<0.024	<0.025	<0.023	<0.023	<0.023	<0.024						
1,1,2,2-Tetrachloroethane	mg/Kg	8260B	0.0002	0.81	3.6	---	<0.024	<0.025	<0.025	<0.026	<0.025	<0.026	<0.025	<0.024	<0.024	<0.025						
1,1,2-Trichloroethane	mg/Kg	8260B	0.0032	1.59	7.01	---	<0.021	<0.022	<0.022	<0.023	<0.022	<0.023	<0.022	<0.021	<0.021	<0.022						
1,1-Dichloroethane	mg/Kg	8260B	0.4834	5.06	22.2	---	<0.024	<0.026	<0.026	<0.027	<0.026	<0.027	<0.025	<0.025	<0.024	<0.026						
1,1-Dichloroethene	mg/Kg	8260B	0.005	320	1,190	---	<0.023	<0.025	<0.024	<0.026	<0.024	<0.026	<0.024	<0.024	<0.023	<0.025						
1,1-Dichloropropene	mg/Kg	8260B	---	---	---	---	<0.018	<0.019	<0.019	<0.020	<0.019	<0.020	<0.018	<0.018	<0.018	<0.019						
1,2,3-Trichlorobenzene	mg/Kg	8260B	---	62.6	934	---	<0.027	<0.029	<0.029	<0.030	<0.029	<0.030	<0.028	<0.028	<0.027	<0.029						
1,2,3-Trichloropropane	mg/Kg	8260B	0.0519	0.005	0.109	---	<0.025	<0.026	<0.026	<0.027	<0.026	<0.027	<0.026	<0.025	<0.025	<0.026						
1,2,4-Trichlorobenzene	mg/Kg	8260B	0.408	24	113	---	<0.020	<0.022	<0.021	<0.023	<0.021	<0.022	<0.021	<0.021	<0.020	<0.022						
1,2,4-Trimethylbenzene	mg/Kg	8260B	1.3787**	219	219	---	0.34	<0.023	<0.022	<0.024	<0.022	<0.023	<0.022	<0.021	<0.021	<0.023						
1,2-Dibromo-3-Chloropropane	mg/Kg	8260B	0.0002	0.008	0.092	---	<0.12	<0.13	<0.12	<0.13	<0.12	<0.13	<0.12	<0.12	<0.12	<0.13						
1,2-Dibromoethane	mg/Kg	8260B	0.000282	0.05	0.221	---	<0.023	<0.025	<0.024	<0.025	<0.024	<0.025	<0.024	<0.024	<0.023	<0.024						
1,2-Dichlorobenzene	mg/Kg	8260B	1.168	376	376	---	<0.020	<0.021	<0.021	<0.022	<0.021	<0.022	<0.021	<0.020	<0.020	<0.021						
1,2-Dichloroethane	mg/Kg	8260B	0.0028	0.652	2.87	---	<0.023	<0.025	<0.024	<0.026	<0.024	<0.026	<0.024	<0.024	<0.023	<0.025						
1,2-Dichloropropane	mg/Kg	8260B	0.0033	3.4	15	---	<0.025	<0.027	<0.027	<0.028	<0.027	<0.028	<0.026	<0.026	<0.026	<0.027						
1,3,5-Trimethylbenzene	mg/Kg	8260B	1.3787**	182	182	---	0.13	<0.024	<0.024	<0.025	<0.024	<0.025	<0.023	<0.023	<0.023	<0.024						
1,3-Dichlorobenzene	mg/Kg	8260B	1.1528	297	297	---	<0.024	<0.025	<0.025	<0.026	<0.025	<0.026	<0.025	<0.024	<0.024	<0.025						
1,3-Dichloropropane	mg/Kg	8260B	0.0003	2.37	10.6	---	<0.022	<0.023	<0.023	<0.024	<0.023	<0.024	<0.022	<0.022	<0.022	<0.023						
1,4-Dichlorobenzene	mg/Kg	8260B	0.144	3.74	16.4	---	<0.022	<0.023	<0.023	<0.024	<0.023	<0.024	<0.022	<0.022	<0.022	<0.023						
2,2-Dichloropropane	mg/Kg	8260B	---	191	191	---	<0.026	<0.028	<0.028	<0.029	<0.028	<0.029	<0.027	<0.027	<0.026	<0.027						
2-Chlorotoluene	mg/Kg	8260B	---	907	907	---	<0.019	<0.020	<0.020	<0.021	<0.020	<0.021	<0.019	<0.019	<0.019	<0.020						
4-Chlorotoluene	mg/Kg	8260B	---	253	253	---	<0.021	<0.022	<0.022	<0.023	<0.022	<0.023	<0.022	<0.021	<0.021	<0.022						
Benzene	mg/Kg	8260B	0.0051	1.6	7.07	---	0.47 F1	<0.0093	<0.0091	<0.0096	<0.0091	<0.0096	<0.0090	<0.0089	<0.0087	<0.0092						
Bromobenzene	mg/Kg	8260B	---	342	679	---	<0.021	<0.023	<0.022	<0.023	<0.022	<0.023	<0.022	<0.021	<0.021	<0.022						
Bromochloromethane	mg/Kg	8260B	---	216	906	---	<0.025	<0.027	<0.027	<0.028	<0.027	<0.028	<0.026	<0.026	<0.026	<0.027						
Bromodichloromethane	mg/Kg	8260B	0.0003	0.418	1.83	---	<0.022	<0.024	<0.023	<0.025	<0.023	<0.024	<0.023	<0.023	<0.022	<0.023						
Bromoform	mg/Kg	8260B	0.0023	25.4	113	---	<0.029	<0.031	<0.030	<0.032	<0.030	<0.032	<0.030	<0.029	<0.029	<0.031						
Bromomethane	mg/Kg	8260B	0.0051	9.6	43	---	<0.047	<0.051	<0.050	<0.053	<0.050	<0.052	<0.049	<0.048	<0.047	<0.050						
Carbon tetrachloride	mg/Kg	8260B	0.0039	0.916	4.03	---	<0.023	<0.024	<0.024	<0.025	<0.024	<0.025	<0.024	<0.023	<0.023	<0.024						
Chlorobenzene	mg/Kg	8260B	---	370	761	---	<0.023	<0.025	<0.024	<0.025	<0.024	<0.025	<0.024	<0.024	<0.023	<0.024						
Chloroethane	mg/Kg	8260B	0.2266	2,120	2,120	---	<0.030	<0.032	<0.031	<0.033	<0.031	<0.033	<0.031	<0.031	<0.030	<0.031						
Chloroform	mg/Kg	8260B	0.0033	0.454	1.98	---	<0.022	<0.024	<0.023	<0.024	<0.023	<0.024	<0.023	<0.023	<0.022	<0.023						
Chloromethane	mg/Kg	8260B	0.0155	159	669	---	<0.019	<0.020	<0.020	<0.021	<0.020	<0.021	<0.020	<0.019	<0.019	<0.020						
cis-1,2-Dichloroethene	mg/Kg	8260B	0.0412	156	2,340	---	<0.024	<0.026	<0.025	<0.027	<0.025	<0.027	<0.025	<0.025	<0.024	<0.026						
cis-1,3-Dichloropropene	mg/Kg	8260B	0.0003	1,210	1,210	---	<0.025	<0.026	<0.026	<0.027	<0.026	<0.027	<0.026	<0.025	<0.025	<0.026						
Dibromochloromethane	mg/Kg	8260B	0.032	8.28	38.9	---	<0.029	<0.031	<0.030	<0.032	<0.030	<0.032	<0.030	<0.030	<0.029	<0.031						
Dibromomethane	mg/Kg	8260B	---	34	143	---	<0.016	<0.017	<0.017	<0.018	<0.017	<0.018	<0.017	<0.016	<0.016	<0.017						
Dichlorodifluoromethane	mg/Kg	8260B	3.0863	126	530	---	<0.040	<0.043	<0.042	<0.044	<0.042	<0.044	<0.042	<0.041	<0.040	<0.043						
Ethylbenzene	mg/Kg	8260B	1.57	8.02	35.4	---	0.18	<0.012	<0.011	<0.012	<0.011	<0.012	<0.011	<0.011	<0.011	<0.012						
Hexachlorobutadiene	mg/Kg	8260B	---	1.63	7.19	---	<0.027	<0.028	<0.028	<0.029	<0.028	<0.029	<0.028	<0.027	<0.027	<0.028						
Isopropyl ether	mg/Kg	8260B	---	2,260	2,260	---	<0.016	<0.018	<0.017	<0.018	<0.017	<0.018	<0.017	<0.017	<0.016	<0.017						
Isopropylbenzene	mg/Kg	8260B	---	268	268	---	<0.023	<0.024	<0.024	<0.025	<0.024	<0.025	<0.024	<0.023	<0.023	<0.024						
Methyl tert-butyl ether	mg/Kg	8260B	0.027	63.8	282	---	<0.023	<0.025	<0.025	<0.026	<0.025	<0.026	<0.024	<0.024	<0.024	<0.025						
Methylene Chloride	mg/Kg	8260B	0.0026	61.8	1,150	---	<0.097	0.20 J B	0.62 B	0.65 B	0.60 B	0.61 B	0.58 B	0.57 B	0.57 B	<0.10						
Naphthalene	mg/Kg	8260B	0.658182	5.52	24.10	---	0.25	<0.021	<0.021	<0.022	<0.021	<0.022	<0.021	<0.020	<0.020	<0.021						
n-Butylbenzene	mg/Kg	8260B	---	108	108	---	0.10	<0.025	<0.024	<0.026	<0.024	<0.026	<0.025	<0.024	<0.024	<0.025						
N-Propylbenzene	mg/Kg	8260B	---	264	264	---	0.050 J	<0.026	<0.026	<0.027	<0.026	<0.027	<0.026	<0.025	<0.025	<0.026						
p-Isopropyltoluene	mg/Kg	8260B	---	162	162	---	<0.022	<0.023	<0.023	<0.024	<0.023	<0.024	<0.022	<0.022	<0.022	<0.023						
sec-Butylbenzene	mg/Kg	8260B	---	145	145	---	<0.024	<0.025	<0.025	<0.026	<0.025	<0.026	<0.025	<0.024	<0.024	<0.025						
Styrene	mg/Kg	8260B	0.22	867	867	---	0.078	<0.025	<0.024	<0.025	<0.024	<0.025	<0.024	<0.024	<0.023	<0.024						
tert-Butylbenzene	mg/Kg	8260B	---	183	183	---	<0.024	<0.025	<0.025	<0.026	<0.025	<0.026	<0.025	<0.024	<0.024	<0.025						
Tetrachloroethane	mg/Kg	8260B	0.0045	33	145	---	<0.022	<0.024	<0.023	<0.024	<0.023	<0.024	<0.023	<0.023	<0.022	<0.023						
Toluene	mg/Kg	8260B	1.1072	818	818	---	0.32	0.028	<0.0092	<0.0097	<0.0092	&										

TABLE 3
SOIL ANALYTICAL RESULTS
COMMUNITY WITHIN THE CORRIDOR - WEST BLOCK
MILWAUKEE, WI
PROJECT NUMBER: 40443

Sample	Units	Method	NR 720 RCLs for GW Protection (1)	NR 720 RCLs - Non-Industrial Use for Direct Contact Protection (1)	NR 720 RCLs - Industrial Use for Direct Contact Protection (1)	Background Threshold Value	WB-SS-14	WB-Int-1	WB-Int-2	WB-Int-3	WB-Int-4	WB-Int-5	WB-Int-6	WB-Int-7	WB-Int-8	WB-Int-9
							0-1	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5
Depth (feet)							ML-CL	SP-CL	ML-CL	ML-CL	ML-CL	ML-CL	ML-CL	ML-CL	ML-CL	ML-CL
Soil Type							Unsaturated	Moist	Moist	Moist	Unsaturated	Moist	Unsaturated	Unsaturated	Unsaturated	Moist
Soil Conditions							Interior	Interior	Interior	Interior	Interior	Interior	Interior	Interior	Interior	Interior
Sampling Location							3/1/2021	4/5/2021	4/5/2021	4/5/2021	4/5/2021	4/5/2021	4/5/2021	4/5/2021	4/5/2021	4/2/2021
Sampling Date																
trans-1,3-Dichloropropene	mg/Kg	8260B	---	1,510	1,510	---	<0.022	<0.023	<0.023	<0.024	<0.023	<0.024	<0.022	<0.022	<0.022	<0.023
Trichloroethene	mg/Kg	8260B	0.0036	1.3	8.41	---	<0.0098	<0.010	<0.010	<0.011	<0.010	<0.011	<0.010	0.021 J	<0.0098	<0.010
Trichlorofluoromethane	mg/Kg	8260B	---	1,230	1,230	---	<0.025	<0.027	<0.027	<0.028	<0.027	<0.028	<0.026	<0.026	<0.026	<0.027
Vinyl chloride	mg/Kg	8260B	0.0001	0.067	2.08	---	<0.016	<0.017	<0.016	<0.017	<0.016	<0.017	<0.016	<0.016	<0.016	<0.017
Xylenes, Total	mg/Kg	8260B	3.96	1,212	1212	---	0.73	<0.014	<0.014	<0.015	<0.014	<0.014	<0.014	<0.013	<0.013	<0.014
Polycyclic Aromatic Hydrocarbons (PAHs)																
1-Methylnaphthalene	mg/Kg	8270D	---	17.6	72.7	---	---	---	---	---	---	---	---	---	---	---
2-Methylnaphthalene	mg/Kg	8270D	---	239	3010	---	---	---	---	---	---	---	---	---	---	---
Acenaphthene	mg/Kg	8270D	---	3590	45,200	---	---	---	---	---	---	---	---	---	---	---
Acenaphthylene	mg/Kg	8270D	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Anthracene	mg/Kg	8270D	196.9492	17,900	100,000	---	---	---	---	---	---	---	---	---	---	---
Benzo[a]anthracene	mg/Kg	8270D	---	1.14	21	---	---	---	---	---	---	---	---	---	---	---
Benzo[a]pyrene	mg/Kg	8270D	0.47	0.115	2.11	---	---	---	---	---	---	---	---	---	---	---
Benzo[b]fluoranthene	mg/Kg	8270D	0.4781	1.15	21.1	---	---	---	---	---	---	---	---	---	---	---
Benzo[g,h,i]perylene	mg/Kg	8270D	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Benzo[k]fluoranthene	mg/Kg	8270D	---	11.5	211	---	---	---	---	---	---	---	---	---	---	---
Chrysene	mg/Kg	8270D	0.1442	115	2110	---	---	---	---	---	---	---	---	---	---	---
Dibenz[a,h]anthracene	mg/Kg	8270D	---	0.115	2	---	---	---	---	---	---	---	---	---	---	---
Fluoranthene	mg/Kg	8270D	88.8778	2390	30,100	---	---	---	---	---	---	---	---	---	---	---
Fluorene	mg/Kg	8270D	14.8299	2390	30,100	---	---	---	---	---	---	---	---	---	---	---
Indeno[1,2,3-cd]pyrene	mg/Kg	8270D	---	1.15	21.1	---	---	---	---	---	---	---	---	---	---	---
Naphthalene	mg/Kg	8270D	0.6582	5.52	24.1	---	---	---	---	---	---	---	---	---	---	---
Phenanthrene	mg/Kg	8270D	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Pyrene	mg/Kg	8270D	54.5455	1790	22,600	---	---	---	---	---	---	---	---	---	---	---
Polychlorinated Biphenyls (PCBs)																
PCB-1016	mg/Kg	8082A	0.0094***	4.11	28	---	<0.12	<0.0067	<0.0065	<0.0068	<0.0066	<0.0067	<0.0064	<0.0065	<0.0064	<0.0066
PCB-1221	mg/Kg	8082A	0.0094***	0.213	0.883	---	<0.16	<0.0084	<0.0081	<0.0084	<0.0082	<0.0083	<0.0080	<0.0081	<0.0079	<0.0083
PCB-1232	mg/Kg	8082A	0.0094***	0.190	0.792	---	<0.15	<0.0083	<0.0080	<0.0083	<0.0081	<0.0082	<0.0079	<0.0080	<0.0079	<0.0082
PCB-1242	mg/Kg	8082A	0.0094***	0.235	0.972	---	<0.12	<0.0062	<0.0061	<0.0063	<0.0061	<0.0062	<0.0060	<0.0061	<0.0059	<0.0062
PCB-1248	mg/Kg	8082A	0.0094***	0.236	0.975	---	<0.14	<0.0075	<0.0073	<0.0075	<0.0073	<0.0074	<0.0072	<0.0073	<0.0071	0.025
PCB-1254	mg/Kg	8082A	0.0094***	0.239	0.988	---	2.7	0.17	0.083	0.023	0.051	0.0084 J	<0.0039	<0.0040	<0.0039	<0.0040
PCB-1260	mg/Kg	8082A	0.0094***	0.243	1.000	---	<0.17	<0.0093	<0.0091	<0.0094	<0.0091	<0.0093	<0.0089	<0.0091	<0.0089	<0.0092
RCRA Metals																
Arsenic	mg/Kg	6010B	0.584	0.677	3	8.3	---	---	---	---	---	---	---	---	---	---
Barium	mg/Kg	6010B	164.8	15,300	100,000	364	---	---	---	---	---	---	---	---	---	---
Cadmium	mg/Kg	6010B	0.752	71.1	985	1	---	---	---	---	---	---	---	---	---	---
Chromium	mg/Kg	6010B	360,000*	---	---	44	---	---	---	---	---	---	---	---	---	---
Lead	mg/Kg	6010B	27	400	800	51.6	---	---	---	---	---	---	---	---	---	---
Mercury	mg/Kg	7471A	0.208	3.13	3.13	---	---	---	---	---	---	---	---	---	---	---
Selenium	mg/Kg	6010B	0.52	391	5840	---	---	---	---	---	---	---	---	---	---	---
Silver	mg/Kg	6010B	0.8491	391	5840	---	---	---	---	---	---	---	---	---	---	---

Notes:

(1) From WDNR RCLs Worksheet dated December 2018

BOLD values exceed Groundwater Protection, Non-Industrial Direct Contact, or Industrial Direct-Contact RCLs

--- = Not analyzed / No established standard

J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value

F1 = Matrix spike (MS) and/or matrix spike duplicate (MSD) recovery exceeds control limits

J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value

B = Compound was found in the blank and sample

* = Laboratory control sample and/or laboratory control sample duplicate is outside acceptance limits

** = Combined established standard of 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene; and 3 & 4 Methylphenol

*** = Combined established standard of PCBs

*+ = Laboratory Control Sample or Laboratory Control Sample Duplicate is outside acceptance limits, high biased

TABLE 3
SOIL ANALYTICAL RESULTS
COMMUNITY WITHIN THE CORRIDOR - WEST BLOCK
MILWAUKEE, WI
PROJECT NUMBER: 40443

Sample	Depth (feet)	Soil Type	Soil Conditions	Sampling Location	Sampling Date	Units	Method	NR 720 RCLs for GW Protection (1)	NR 720 RCLs - Non-Industrial Use for Direct Contact Protection (1)	NR 720 RCLs - Industrial Use for Direct Contact Protection (1)	Background Threshold Value	WB-Int-10	WB-Int-11	WB-Int-12	WB-Int-13	WB-Int-14	WB-Int-15	WB-Int-16	WB-Int-17	WB-MW-1		WB-MW-2		
												0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	4-6	10-12	3-5
												ML-CL	ML-CL	ML-CL	SP-CL	SW	ML-CL	ML-CL	CL-SP	CL	CL	CL	CL	
												Moist	Moist	Moist	Moist	Unsaturated	Moist	Moist	Moist	Moist	Moist	Moist	Moist	
												Interior	Interior	Interior	Interior	Interior	Interior	Interior	Interior	Interior	Exterior	Exterior	Exterior	Exterior
												4/2/2021	4/2/2021	4/2/2021	4/2/2021	4/2/2021	4/2/2021	4/2/2021	4/2/2021	4/2/2021	5/3/2021	5/3/2021	5/3/2021	5/3/2021
Physical Characteristics																								
Percent Moisture												12.8	12.9	12.4	13.4	5.2	11.5	14.7	14.1	11.8	16.5	12.1	9.5	
Percent Solids												87.2	87.1	87.6	86.6	94.8	88.5	85.3	85.9	88.2	83.5	87.9	90.5	
Volatile Organic Compounds (VOCs)																								
1,1,1,2-Tetrachloroethane	mg/Kg	8260B	0.0534	2.78	12.3	---	<0.028	<0.030	<0.030	<0.030	<0.025	<0.029	<0.029	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	
1,1,1-Trichloroethane	mg/Kg	8260B	0.1402	640	640	---	<0.023	<0.024	<0.024	<0.025	<0.021	<0.024	<0.024	<0.025	<0.024	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	
1,1,2,2-Tetrachloroethane	mg/Kg	8260B	0.0002	0.81	3.6	---	<0.024	<0.025	<0.025	<0.026	<0.022	<0.025	<0.025	<0.025	<0.026	<0.025	<0.025	<0.025	<0.026	<0.026	<0.026	<0.026	<0.026	
1,1,2-Trichloroethane	mg/Kg	8260B	0.0032	1.59	7.01	---	<0.021	<0.023	<0.023	<0.023	<0.019	<0.022	<0.022	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	
1,1-Dichloroethane	mg/Kg	8260B	0.4834	5.06	22.2	---	<0.025	<0.026	<0.026	<0.026	<0.022	<0.025	<0.026	<0.026	<0.027	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	
1,1-Dichloroethene	mg/Kg	8260B	0.005	320	1,190	---	<0.024	<0.025	<0.025	<0.025	<0.021	<0.024	<0.025	<0.026	<0.026	<0.025	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	
1,1-Dichloropropene	mg/Kg	8260B	---	---	---	---	<0.018	<0.019	<0.019	<0.019	<0.016	<0.019	<0.019	<0.019	<0.020	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	
1,2,3-Trichlorobenzene	mg/Kg	8260B	---	62.6	934	---	<0.028	<0.029	<0.029	<0.030	<0.025	<0.028	<0.028	<0.028	<0.030	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	
1,2,3-Trichloropropane	mg/Kg	8260B	0.0519	0.005	0.109	---	<0.025	<0.026	<0.026	<0.027	<0.023	<0.026	<0.026	<0.026	<0.027	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	
1,2,4-Trichlorobenzene	mg/Kg	8260B	0.408	24	113	---	<0.021	<0.022	<0.022	<0.022	<0.019	<0.021	<0.022	<0.023	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	
1,2,4-Trimethylbenzene	mg/Kg	8260B	1.3787**	219	219	---	<0.022	<0.023	<0.023	<0.023	<0.020	<0.022	<0.023	<0.023	<0.024	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	
1,2-Dibromo-3-Chloropropane	mg/Kg	8260B	0.0002	0.008	0.092	---	<0.12	<0.13	<0.13	<0.13	<0.11	<0.12	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	
1,2-Dibromoethane	mg/Kg	8260B	0.000282	0.05	0.221	---	<0.023	<0.025	<0.025	<0.025	<0.021	<0.024	<0.024	<0.024	<0.025	<0.024	<0.024	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	
1,2-Dichlorobenzene	mg/Kg	8260B	1.168	376	376	---	<0.020	<0.021	<0.021	<0.022	<0.018	<0.021	<0.021	<0.021	<0.022	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	
1,2-Dichloroethane	mg/Kg	8260B	0.0028	0.652	2.87	---	<0.024	<0.025	<0.025	<0.025	<0.021	<0.024	<0.025	<0.026	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	
1,2-Dichloropropane	mg/Kg	8260B	0.0033	3.4	15	---	<0.026	<0.027	<0.027	<0.028	<0.023	<0.027	<0.027	<0.028	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	
1,3,5-Trimethylbenzene	mg/Kg	8260B	1.3787**	182	182	---	<0.023	<0.024	<0.024	<0.025	<0.021	<0.024	<0.024	<0.025	<0.024	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	
1,3-Dichlorobenzene	mg/Kg	8260B	1.1528	297	297	---	<0.024	<0.026	<0.026	<0.026	<0.022	<0.025	<0.025	<0.025	<0.026	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	
1,3-Dichloropropane	mg/Kg	8260B	0.0003	2.37	10.6	---	<0.022	<0.023	<0.023	<0.023	<0.020	<0.022	<0.023	<0.023	<0.024	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	
1,4-Dichlorobenzene	mg/Kg	8260B	0.144	3.74	16.4	---	<0.022	<0.023	<0.023	<0.023	<0.020	<0.023	<0.023	<0.023	<0.024	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	
2,2-Dichloropropane	mg/Kg	8260B	---	191	191	---	<0.027	<0.028	<0.028	<0.029	<0.024	<0.028	<0.028	<0.028	<0.029	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	
2-Chlorotoluene	mg/Kg	8260B	---	907	907	---	<0.019	<0.020	<0.020	<0.020	<0.017	<0.020	<0.020	<0.020	<0.021	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	
4-Chlorotoluene	mg/Kg	8260B	---	253	253	---	<0.021	<0.022	<0.022	<0.023	<0.019	<0.022	<0.022	<0.022	<0.023	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	
Benzene	mg/Kg	8260B	0.0051	1.6	7.07	---	<0.0089	<0.0093	<0.0093	<0.0094	<0.0080	<0.0091	<0.0092	<0.0096	<0.0094	<0.0094	<0.0094	<0.0094	<0.0094	<0.0094	<0.0094	<0.0094	<0.0094	
Bromobenzene	mg/Kg	8260B	---	342	679	---	<0.022	<0.023	<0.023	<0.023	<0.019	<0.022	<0.022	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	
Bromochloromethane	mg/Kg	8260B	---	216	906	---	<0.026	<0.027	<0.027	<0.028	<0.023	<0.027	<0.027	<0.028	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	
Bromodichloromethane	mg/Kg	8260B	0.0003	0.418	1.83	---	<0.023	<0.024	<0.024	<0.024	<0.020	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	
Bromoform	mg/Kg	8260B	0.0023	25.4	113	---	<0.029	<0.031	<0.031	<0.031	<0.026	<0.030	<0.030	<0.030	<0.031	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	
Bromomethane	mg/Kg	8260B	0.0051	9.6	43	---	<0.048	<0.051	<0.051	<0.051	<0.043	<0.049	<0.050	<0.053	<0.051	<0.051	<0.051	<0.051	<0.051	<0.051	<0.051	<0.051	<0.051	
Carbon tetrachloride	mg/Kg	8260B	0.0039	0.916	4.03	---	<0.023	<0.025	<0.025	<0.025	<0.021	<0.024	<0.024	<0.024	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	
Chlorobenzene	mg/Kg	8260B	---	370	761	---	<0.023	<0.025	<0.025	<0.025	<0.021	<0.024	<0.024	<0.024	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	
Chloroethane	mg/Kg	8260B	0.2266	2,120	2,120	---	<0.031	<0.032	<0.032	<0.033	<0.027	<0.031	<0.032	<0.033	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	
Chloroform	mg/Kg	8260B	0.0033	0.454	1.98	---	<0.023	<0.024	<0.024	<0.024	<0.020	<0.024	<0.023	<0.023	<0.024	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	
Chloromethane	mg/Kg	8260B	0.0155	159	669	---	<0.019	<0.020	<0.020	<0.021	<0.017	<0.020	<0.020	<0.020	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	
cis-1,2-Dichloroethene	mg/Kg	8260B	0.0412	156	2,340	---	<0.025	<0.026	<0.026	<0.026	<0.022	<0.025	<0.026	<0.026	<0.027	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	
cis-1,3-Dichloropropene	mg/Kg	8260B	0.0003	1,210	1,210	---	<0.025	<0.027	<0.027	<0.027	<0.023	<0.026	<0.026	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	
Dibromochloromethane	mg/Kg	8260B	0.032	8.28	38.9	---	<0.030	<0.031	<0.031	<0.032	<0.027	<0.030	<0.031											

TABLE 3
SOIL ANALYTICAL RESULTS
COMMUNITY WITHIN THE CORRIDOR - WEST BLOCK
MILWAUKEE, WI
PROJECT NUMBER: 40443

Sample	Units	Method	NR 720 RCLs for GW Protection (1)	NR 720 RCLs - Non-Industrial Use for Direct Contact Protection (1)	NR 720 RCLs - Industrial Use for Direct Contact Protection (1)	Background Threshold Value	WB-Int-10	WB-Int-11	WB-Int-12	WB-Int-13	WB-Int-14	WB-Int-15	WB-Int-16	WB-Int-17	WB-MW-1		WB-MW-2		
							0.5-1.5 ML-CL	0.5-1.5 ML-CL	0.5-1.5 ML-CL	0.5-1.5 SP-CL	0.5-1.5 SW	0.5-1.5 ML-CL	0.5-1.5 ML-CL	0.5-1.5 CL-SP	4-6 CL	10-12 CL	3-5 CL	8.5-10.5 CL	
Depth (feet)							Moist	Moist	Moist	Moist	Unsaturated	Moist	Moist	Moist	Moist	Moist	Moist	Moist	
Soil Type							Interior	Interior	Interior	Interior	Interior	Interior	Interior	Interior	Interior	Interior	Interior	Interior	
Soil Conditions							4/2/2021	4/2/2021	4/2/2021	4/2/2021	4/2/2021	4/2/2021	4/2/2021	4/2/2021	4/2/2021	5/3/2021	5/3/2021	5/3/2021	
Sampling Location																			
Sampling Date																			
trans-1,3-Dichloropropene	mg/Kg	8260B	---	1,510	1,510	---	<0.022	<0.023	<0.023	<0.023	<0.020	<0.022	<0.023	<0.024	<0.023	<0.025	<0.023	<0.022	
Trichloroethene	mg/Kg	8260B	0.0036	1.3	8.41	---	<0.010	0.031 J	<0.010	<0.011	<0.0089	<0.010	<0.010	<0.011	<0.011 *	<0.011 *	<0.010 *	<0.0098 *	
Trichlorofluoromethane	mg/Kg	8260B	---	1,230	1,230	---	<0.026	<0.027	<0.027	<0.028	<0.023	<0.027	<0.027	<0.028	<0.027	<0.030	<0.027	<0.026	
Vinyl chloride	mg/Kg	8260B	0.0001	0.067	2.08	---	<0.016	<0.017	<0.017	<0.017	<0.014	<0.016	<0.016	<0.017	<0.017	<0.018	<0.016	<0.016	
Xylenes, Total	mg/Kg	8260B	3.96	1,212	1212	---	<0.013	<0.014	<0.014	<0.014	<0.012	<0.014	0.028 J	<0.015	<0.014	<0.015	<0.014	<0.013	
Polycyclic Aromatic Hydrocarbons (PAHs)																			
1-Methylnaphthalene	mg/Kg	8270D	---	17.6	72.7	---	---	---	---	---	---	---	---	---	<0.0091	---	<0.0090	---	
2-Methylnaphthalene	mg/Kg	8270D	---	239	3010	---	---	---	---	---	---	---	---	---	<0.0069	---	<0.0068	---	
Acenaphthene	mg/Kg	8270D	---	3590	45,200	---	---	---	---	---	---	---	---	---	<0.0067	---	<0.0066	---	
Acenaphthylene	mg/Kg	8270D	---	---	---	---	---	---	---	---	---	---	---	---	<0.0049	---	<0.0049	---	
Anthracene	mg/Kg	8270D	196.9492	17,900	100,000	---	---	---	---	---	---	---	---	---	<0.0062	---	<0.0062	---	
Benzo[a]anthracene	mg/Kg	8270D	---	1.14	21	---	---	---	---	---	---	---	---	---	<0.0050	---	0.0053 J	---	
Benzo[a]pyrene	mg/Kg	8270D	0.47	0.115	2.11	---	---	---	---	---	---	---	---	---	<0.0072	---	<0.0071	---	
Benzo[b]fluoranthene	mg/Kg	8270D	0.4781	1.15	21.1	---	---	---	---	---	---	---	---	---	<0.0080	---	0.0093 J	---	
Benzo[g,h,i]perylene	mg/Kg	8270D	---	---	---	---	---	---	---	---	---	---	---	---	<0.012	---	<0.012	---	
Benzo[k]fluoranthene	mg/Kg	8270D	---	11.5	211	---	---	---	---	---	---	---	---	---	<0.011	---	<0.011	---	
Chrysene	mg/Kg	8270D	0.1442	115	2110	---	---	---	---	---	---	---	---	---	<0.010	---	<0.010	---	
Dibenz[a,h]anthracene	mg/Kg	8270D	---	0.115	2	---	---	---	---	---	---	---	---	---	<0.0072	---	<0.0071	---	
Fluoranthene	mg/Kg	8270D	88.8778	2390	30,100	---	---	---	---	---	---	---	---	---	<0.0069	---	0.0093 J	---	
Fluorene	mg/Kg	8270D	14.8299	2390	30,100	---	---	---	---	---	---	---	---	---	<0.0052	---	<0.0052	---	
Indeno[1,2,3-cd]pyrene	mg/Kg	8270D	---	1.15	21.1	---	---	---	---	---	---	---	---	---	<0.0097	---	<0.0096	---	
Naphthalene	mg/Kg	8270D	0.6582	5.52	24.1	---	---	---	---	---	---	---	---	---	<0.0057	---	<0.0057	---	
Phenanthrene	mg/Kg	8270D	---	---	---	---	---	---	---	---	---	---	---	---	<0.0052	---	<0.0051	---	
Pyrene	mg/Kg	8270D	54.5455	1790	22,600	---	---	---	---	---	---	---	---	---	<0.0074	---	0.0077 J	---	
Polychlorinated Biphenyls (PCBs)																			
PCB-1016	mg/Kg	8082A	0.0094***	4.11	28	---	<0.0067	<0.0068	<0.0067	<0.0068	<0.0062	<0.0066	<0.069	<0.034	<0.0066	---	<0.0066	---	
PCB-1221	mg/Kg	8082A	0.0094***	0.213	0.883	---	<0.0083	<0.0084	<0.0084	<0.0084	<0.0077	<0.0083	<0.085	<0.042	<0.0081	---	<0.0082	---	
PCB-1232	mg/Kg	8082A	0.0094***	0.190	0.792	---	<0.0082	<0.0083	<0.0083	<0.0084	<0.0076	<0.0082	<0.085	<0.041	<0.0081	---	<0.0081	---	
PCB-1242	mg/Kg	8082A	0.0094***	0.235	0.972	---	<0.0062	<0.0063	<0.0062	<0.0063	<0.0057	<0.0062	<0.064	<0.031	<0.0061	---	<0.0061	---	
PCB-1248	mg/Kg	8082A	0.0094***	0.236	0.975	---	<0.0074	<0.0075	<0.0075	0.19	0.20	<0.0074	<0.076	0.35	<0.0073	---	<0.0073	---	
PCB-1254	mg/Kg	8082A	0.0094***	0.239	0.988	---	<0.0041	<0.0041	0.0059 J	<0.0041	<0.0038	<0.0041	0.49	<0.020	<0.0040	---	<0.0040	---	
PCB-1260	mg/Kg	8082A	0.0094***	0.243	1.000	---	<0.0093	<0.0094	<0.0093	<0.0094	<0.0086	<0.0092	<0.095	<0.047	<0.0091	---	<0.0092	---	
RCRA Metals																			
Arsenic	mg/Kg	6010B	0.584	0.677	3	8.3	---	---	---	---	---	---	---	---	---	---	---	---	
Barium	mg/Kg	6010B	164.8	15,300	100,000	364	---	---	---	---	---	---	---	---	---	---	---	---	
Cadmium	mg/Kg	6010B	0.752	71.1	985	1	---	---	---	---	---	---	---	---	---	---	---	---	
Chromium	mg/Kg	6010B	360,000*	---	---	44	---	---	---	---	---	---	---	---	---	---	---	---	
Lead	mg/Kg	6010B	27	400	800	51.6	---	---	---	---	---	---	---	---	---	---	---	---	
Mercury	mg/Kg	7471A	0.208	3.13	3.13	---	---	---	---	---	---	---	---	---	---	---	---	---	
Selenium	mg/Kg	6010B	0.52	391	5840	---	---	---	---	---	---	---	---	---	---	---	---	---	
Silver	mg/Kg	6010B	0.8491	391	5840	---	---	---	---	---	---	---	---	---	---	---	---	---	

Notes:

(1) From WDNR RCLs Worksheet dated December 2018

BOLD values exceed Groundwater Protection, Non-Industrial Direct Contact, or Industrial Direct-Contact RCLs

--- = Not analyzed / No established standard

J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value

F1 = Matrix spike (MS) and/or matrix spike duplicate (MSD) recovery exceeds control limits

J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value

B = Compound was found in the blank and sample

* = Laboratory control sample and/or laboratory control sample duplicate is outside acceptance limits

** = Combined established standard of 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene; and 3 & 4 Methylphenol

*** = Combined established standard of PCBs

*+ = Laboratory Control Sample or Laboratory Control Sample Duplicate is outside acceptance limits, high biased

TABLE 3
SOIL ANALYTICAL RESULTS
COMMUNITY WITHIN THE CORRIDOR - WEST BLOCK
MILWAUKEE, WI
PROJECT NUMBER: 40443

Sample	Depth (feet)	Soil Type	Soil Conditions	Sampling Location	Sampling Date	Units	Method	NR 720 RCLs for GW Protection (1)	NR 720 RCLs - Non-Industrial Use for Direct Contact Protection (1)	NR 720 RCLs - Industrial Use for Direct Contact Protection (1)	Background Threshold Value	WB-MW-3		WB-MW-4		RTS-1	RTS-2	RTS-3	RTS-4	RTS-5	RTS-6	Trip Blank
												1-3	10-12	2-4	10-12	0-2	0.5-2.5	1-2	1-2	1-2	1-2	---
												SW	CL	CL	CL	SP	GP	N/A	N/A	N/A	N/A	---
												Moist	Moist	Moist	Moist	Moist	Unsaturated	Moist	Moist	Moist	Moist	---
												Exterior	Exterior	Exterior	Exterior	Interior	Interior	Interior	Interior	Interior	Interior	---
												5/3/2021	5/3/2021	5/3/2021	5/3/2021	3/3/2021	4/6/2021	5/18/2021	5/18/2021	5/18/2021	5/18/2021	4/2/2021
Physical Characteristics																						
Percent Moisture												9.1	12.5	13.8	13.9	15.5	5.1	7.3	5.5	13.8	16.7	14.1
Percent Solids												90.9	87.5	86.2	86.1	84.5	94.9	92.7	94.5	86.2	83.3	85.9
Volatile Organic Compounds (VOCs)																						
1,1,1,2-Tetrachloroethane	mg/Kg	8260B	0.0534	2.78	12.3	---	<0.028 *	<0.029 *	<0.030 *	<0.030 *	<0.031	<0.049	<0.027	<0.026	<0.030	<0.032	<0.023					
1,1,1-Trichloroethane	mg/Kg	8260B	0.1402	640	640	---	<0.023	<0.024	<0.025	<0.025	<0.040	<0.022	<0.021	<0.025	<0.027	<0.019						
1,1,2,2-Tetrachloroethane	mg/Kg	8260B	0.0002	0.81	3.6	---	<0.024	<0.025	<0.026	<0.026	<0.042	<0.023	<0.022	<0.026	<0.028	<0.020						
1,1,2-Trichloroethane	mg/Kg	8260B	0.0032	1.59	7.01	---	<0.021 *	<0.022 *	<0.023 *	<0.023 *	<0.037	<0.020	<0.020	<0.023	<0.025	<0.018						
1,1-Dichloroethane	mg/Kg	8260B	0.4834	5.06	22.2	---	<0.025 *	<0.026 *	<0.027 *	<0.027 *	<0.044 *	<0.024	<0.023	<0.027	<0.029	<0.021						
1,1-Dichloroethene	mg/Kg	8260B	0.005	320	1,190	---	<0.024	<0.025	<0.025	<0.025	<0.041	<0.023	<0.022	<0.025	<0.027	<0.020						
1,1-Dichloropropene	mg/Kg	8260B	---	---	---	---	<0.018	<0.019	<0.019	<0.019	<0.032	<0.017	<0.017	<0.019	<0.021	<0.015						
1,2,3-Trichlorobenzene	mg/Kg	8260B	---	62.6	934	---	<0.028	<0.029	<0.030	<0.030	<0.049	<0.027	<0.026	<0.030	<0.032	<0.023						
1,2,3-Trichloropropane	mg/Kg	8260B	0.0519	0.005	0.109	---	<0.025 *	<0.026 *	<0.027 *	<0.027 *	<0.044	<0.024	<0.023	<0.027	<0.029	<0.021						
1,2,4-Trichlorobenzene	mg/Kg	8260B	0.408	24	113	---	<0.021	<0.022	<0.022	<0.023	<0.036	<0.020	<0.019	<0.022	<0.024	<0.017						
1,2,4-Trimethylbenzene	mg/Kg	8260B	1.3787**	219	219	---	<0.022	<0.023	<0.023	<0.023	0.5	<0.021	<0.020	<0.023	<0.025	<0.018						
1,2-Dibromo-3-Chloropropane	mg/Kg	8260B	0.0002	0.008	0.092	---	<0.12 *	<0.13 *+*	<0.13 *+*	<0.13 *+*	<0.21	<0.12	<0.11	<0.13	<0.14	<0.10						
1,2-Dibromoethane	mg/Kg	8260B	0.000282	0.05	0.221	---	<0.024 *	<0.025 *	<0.025 *	<0.025 *	<0.041	<0.022	<0.022	<0.025	<0.027	<0.019						
1,2-Dichlorobenzene	mg/Kg	8260B	1.168	376	376	---	<0.020 *	<0.021 *	<0.022 *	<0.022 *	<0.036	<0.019	<0.019	<0.022	<0.023	<0.017						
1,2-Dichloroethane	mg/Kg	8260B	0.0028	0.652	2.87	---	<0.024 *	<0.025 *	<0.025 *	<0.026 *	<0.042	<0.023	<0.022	<0.026	<0.027	<0.020						
1,2-Dichloropropane	mg/Kg	8260B	0.0033	3.4	15	---	<0.026 *	<0.027 *	<0.028 *	<0.028 *	<0.046 *	<0.025	<0.024	<0.028	<0.030	<0.021						
1,3,5-Trimethylbenzene	mg/Kg	8260B	1.3787**	182	182	---	<0.023	<0.024	<0.025	<0.025	0.17	<0.022	<0.021	<0.025	<0.027	<0.019						
1,3-Dichlorobenzene	mg/Kg	8260B	1.1528	297	297	---	<0.024	<0.025	<0.026	<0.026	<0.043	<0.023	<0.022	<0.026	<0.028	<0.020						
1,3-Dichloropropane	mg/Kg	8260B	0.0003	2.37	10.6	---	<0.022 *	<0.023 *	<0.024 *	<0.024 *	<0.039	<0.021	<0.020	<0.024	<0.025	<0.018						
1,4-Dichlorobenzene	mg/Kg	8260B	0.144	3.74	16.4	---	<0.022	<0.023	<0.024	<0.024	<0.039	<0.021	<0.020	<0.024	<0.025	<0.018						
2,2-Dichloropropane	mg/Kg	8260B	---	191	191	---	<0.027	<0.028	<0.029	<0.029	<0.047	<0.026	<0.025	<0.029	<0.031	<0.022						
2-Chlorotoluene	mg/Kg	8260B	---	907	907	---	<0.019	<0.020	<0.020	<0.020	<0.033	<0.018	<0.018	<0.020	<0.022	<0.016						
4-Chlorotoluene	mg/Kg	8260B	---	253	253	---	<0.021	<0.022	<0.023	<0.023	<0.037	<0.020	<0.020	<0.023	<0.024	<0.018						
Benzene	mg/Kg	8260B	0.0051	1.6	7.07	---	<0.0089 *	<0.0093 *	<0.0095 *	<0.0095 *	<0.0097	0.022 J	<0.0085	<0.0082	<0.0095	<0.010	<0.0073					
Bromobenzene	mg/Kg	8260B	---	342	679	---	<0.022 *	<0.023 *	<0.023 *	<0.023 *	<0.024	<0.038	<0.021	<0.020	<0.023	<0.025	<0.018					
Bromochloromethane	mg/Kg	8260B	---	216	906	---	<0.026 *	<0.027 *	<0.028 *	<0.028 *	<0.046	<0.025	<0.024	<0.028	<0.030	<0.021						
Bromodichloromethane	mg/Kg	8260B	0.0003	0.418	1.83	---	<0.023 *	<0.024 *	<0.024 *	<0.024 *	<0.040	<0.022	<0.021	<0.024	<0.026	<0.019						
Bromoform	mg/Kg	8260B	0.0023	25.4	113	---	<0.030 *	<0.031 *	<0.031 *	<0.032 *	<0.051	<0.028	<0.027	<0.032	<0.034	<0.024						
Bromomethane	mg/Kg	8260B	0.0051	9.6	43	---	<0.049 *	<0.051 *	<0.052 *	<0.052 *	<0.085	<0.046	<0.045	<0.052	<0.056	<0.040						
Carbon tetrachloride	mg/Kg	8260B	0.0039	0.916	4.03	---	<0.023	<0.024	<0.025	<0.025	<0.041	<0.022	<0.022	<0.025	<0.027	<0.019						
Chlorobenzene	mg/Kg	8260B	---	370	761	---	<0.024 *	<0.025 *	<0.025 *	<0.025 *	<0.041	<0.022	<0.022	<0.025	<0.027	<0.019						
Chloroethane	mg/Kg	8260B	0.2266	2,120	2,120	---	<0.031 *	<0.032 *	<0.033 *	<0.033 *	<0.054	<0.029	<0.028	<0.033	<0.035	<0.025						
Chloroform	mg/Kg	8260B	0.0033	0.454	1.98	---	<0.023 *	<0.024 *	<0.024 *	<0.024 *	<0.039	<0.021	<0.021	<0.024	<0.026	<0.019						
Chloromethane	mg/Kg	8260B	0.0155	159	669	---	<0.020	<0.020	<0.021	<0.021	<0.034	<0.019	<0.018	<0.021	<0.022	<0.016						
cis-1,2-Dichloroethene	mg/Kg	8260B	0.0412	156	2,340	---	<0.025	<0.026	<0.026	<0.027	<0.043	<0.024	<0.023	<0.027	<0.028	<0.020						
cis-1,3-Dichloropropene	mg/Kg	8260B	0.0003	1,210	1,210	---	<0.025	<0.027	<0.027	<0.027	<0.044	<0.024	<0.023	<0.027	<0.029	<0.021						
Dibromochloromethane	mg/Kg	8260B	0.032	8.28	38.9	---	<0.030 *	<0.031 *	<0.032 *	<0.032 *	<0.052	<0.028	<0.027	<0.032	<0.034	<0.024						
Dibromomethane	mg/Kg	8260B	---	34	143	---	<0.016 *	<0.017 *	<0.018 *	<0.018 *	<0.029	<0.016	<0.015	<0.018	<0.019	<0.014						
Dichlorodifluoromethane	mg/Kg	8260B	3.0863	126	530	---	<0.041	<0.043	<0.044	<0.044	<0.072	<0.039	<0.038	<0.044	<0.047	<0.034						
Ethylbenzene	mg/Kg	8260B	1.57	8.02	35.4	---	<0.011	<0.012	<0.012	<0.012	0.066	<0.011	<0.010	<0.012	<0.013	<0.0092						
Hexachlorobutadiene	mg/Kg	8260B	---	1.63	7.19	---	<0.027	<0.028	<0.029	<0.029	<0.047	<0.026	<0.025	<0.029	<0.031	<0.022						
Isopropyl ether	mg/Kg	8260B	---	2,260	2,260	---	<0.017	<0.018	<0.018	<0.018	<0.029	<0.016	<0.016	<0.018	<0.019	<0.014						
Isopropylbenzene	mg/Kg	8260B	---	268	268	---	<0.023	<0.024	<0.025	<0.025	<0.075 J	<0.022	<0.022	<0.025	<0.027	<0.019						
Methyl tert-butyl ether	mg/Kg	8260B	0.027	63.8	282	---	<0.024 *	<0.025 *	<0.026 *	<0.026 *	<0.042	<0.023	<0.022	<0.026	<0.027	<0.020						
Methylene Chloride	mg/Kg	8260B	0.0026	61.8	1,150	---	<0.099 *	<0.10 *	<0.11 *	<0.11 *	<0.17	<0.094	<0.092	<0.11	<0.11	0.16 J B						
Naphthalene	mg/Kg	8260B	0.658182	5.52	24.10	---	<0.020	0.044 J	0.022 J	<0.022	0.63	<0.019	<0.019	<0.022	0.053 J	<0.017						
n-Butylbenzene	mg/Kg	8260B	---	108	108	---	<0.024	<0.025	<0.025	<0.025	<0.026	0.057 J	<0.022	<0.022	<0.025	<0.027	<0.019					
N-Propylbenzene	mg/Kg	8260B	---	264	264	---	<0.025	<0.026	<0.027	<0.027	0.07 J	<0.024	<0.023	<0.027	<0.029	<0.021						
p-Isopropyltoluene	mg/Kg	8260B	---	162	162	---	<0.022	<0.023	<0.024	<0.024	<0.024	<0.021	<0.020	<0.024	<0.025	<0.018						
sec-Butylbenzene	mg/Kg	8260B	---	145	145	---	<0.024	<0.025	<0.026	<0.026	<0.042	<0.023	<0.022	<0.026	<0.028	<0.020						
Styrene	mg/Kg	8260B	0.22	867	867	---	<0.024 *	<0.025 *	<0.025 *	<0.025 *	<0.041	<0.022	<0.022	<0.025	<0.027	<0.019						
tert-Butylbenzene	mg/Kg	8260B	---	183	183	---	<0.024	<0.025	<0.026	<0.026	<0.042	<0.023	<0.022	<0.026	<0.028	<0.020						
Tetrachloroethane	mg/Kg	8260B	0.0045	33	145	---	<0.023	<0.024	<0.024	<0.025	0.12	0.90	<0.021	<0.024	<0.026	<0.019						
Toluene	mg/Kg	8260B	1.1072	818	818	---	0.022	<0.0094	<0.0095	<0.0096	0.062	<0.0085	<0.0083	<0.0096	<0.010	<0.0074						

TABLE 3
SOIL ANALYTICAL RESULTS
COMMUNITY WITHIN THE CORRIDOR - WEST BLOCK
MILWAUKEE, WI
PROJECT NUMBER: 40443

Sample	Depth (feet)	Soil Type	Soil Conditions	Sampling Location	Sampling Date	Units	Method	NR 720 RCLs for GW Protection (1)	NR 720 RCLs - Non-Industrial Use for Direct Contact Protection (1)	NR 720 RCLs - Industrial Use for Direct Contact Protection (1)	Background Threshold Value	WB-MW-3		WB-MW-4		RTS-1	RTS-2	RTS-3	RTS-4	RTS-5	RTS-6	Trip Blank	
												1-3	10-12	2-4	10-12	0-2	0.5-2.5	1-2	1-2	1-2	1-2	1-2	
												SW	CL	CL	CL	SP	GP	N/A	N/A	N/A	N/A	N/A	---
												Moist	Moist	Moist	Moist	Unsaturated	Moist	Moist	Moist	Moist	Moist	Moist	---
												Exterior	Exterior	Exterior	Exterior	Interior	Interior	Interior	Interior	Interior	Interior	Interior	---
												5/3/2021	5/3/2021	5/3/2021	5/3/2021	3/3/2021	4/6/2021	5/18/2021	5/18/2021	5/18/2021	5/18/2021	5/18/2021	4/2/2021
trans-1,3-Dichloropropene						mg/Kg	8260B	---	1,510	1,510	---	<0.022	<0.023	<0.024	<0.024	<0.024	<0.039	<0.021	<0.020	<0.024	<0.025	<0.018	
Trichloroethene						mg/Kg	8260B	0.0036	1.3	8.41	---	<0.010 *+	<0.010 *+	<0.011 *+	<0.011 *+	0.019 J	0.69	<0.0095	<0.0092	<0.011	<0.011	<0.0082	
Trichlorofluoromethane						mg/Kg	8260B	---	1,230	1,230	---	<0.026	<0.027	<0.028	<0.028	<0.028	<0.046	<0.025	<0.024	<0.028	<0.030	<0.021	
Vinyl chloride						mg/Kg	8260B	0.0001	0.067	2.08	---	<0.016	<0.017	<0.017	<0.017	<0.017	<0.028	<0.015	<0.015	<0.017	<0.018	<0.013	
Xylenes, Total						mg/Kg	8260B	3.96	1,212	1212	---	<0.013	<0.014	<0.014	<0.014	<0.015	0.83	<0.013	<0.012	<0.014	<0.015	<0.011	
Polycyclic Aromatic Hydrocarbons (PAHs)																							
1-Methylnaphthalene						mg/Kg	8270D	---	17.6	72.7	---	<0.0086	---	<0.0092	---	0.018 J	---	---	---	---	---	---	
2-Methylnaphthalene						mg/Kg	8270D	---	239	3010	---	<0.0064	---	<0.0069	---	0.022 J	---	---	---	---	---	---	
Acenaphthene						mg/Kg	8270D	---	3590	45,200	---	<0.0063	---	<0.0068	---	<0.0071	---	---	---	---	---	---	
Acenaphthylene						mg/Kg	8270D	---	---	---	---	0.006 J	---	<0.0050	---	<0.0052	---	---	---	---	---	---	
Anthracene						mg/Kg	8270D	196.9492	17,900	100,000	---	0.012 J	---	<0.0063	---	<0.0066	---	---	---	---	---	---	
Benzo[a]anthracene						mg/Kg	8270D	---	1.14	21	---	0.074	---	<0.0051	---	0.021 J	---	---	---	---	---	---	
Benzo[a]pyrene						mg/Kg	8270D	0.47	0.115	2.11	---	0.12	---	<0.0073	---	0.020 J	---	---	---	---	---	---	
Benzo[b]fluoranthene						mg/Kg	8270D	0.4781	1.15	21.1	---	0.16	---	<0.0081	---	0.030 J	---	---	---	---	---	---	
Benzo[g,h,i]perylene						mg/Kg	8270D	---	---	---	---	0.11	---	<0.012	---	0.015 J F1	---	---	---	---	---	---	
Benzo[k]fluoranthene						mg/Kg	8270D	---	11.5	211	---	0.082	---	<0.011	---	<0.012	---	---	---	---	---	---	
Chrysene						mg/Kg	8270D	0.1442	115	2110	---	0.13	---	<0.010	---	0.034 J	---	---	---	---	---	---	
Dibenz[a,h]anthracene						mg/Kg	8270D	---	0.115	2	---	0.021 J	---	<0.0073	---	<0.0076	---	---	---	---	---	---	
Fluoranthene						mg/Kg	8270D	88.8778	2390	30,100	---	0.18	---	<0.0070	---	0.044	---	---	---	---	---	---	
Fluorene						mg/Kg	8270D	14.8299	2390	30,100	---	<0.0049	---	<0.0053	---	<0.0055	---	---	---	---	---	---	
Indeno[1,2,3-cd]pyrene						mg/Kg	8270D	---	1.15	21.1	---	0.095	---	<0.0098	---	0.017 J F1	---	---	---	---	---	---	
Naphthalene						mg/Kg	8270D	0.6582	5.52	24.1	---	0.0074 J	---	<0.0058	---	0.014 J	---	---	---	---	---	---	
Phenanthrene						mg/Kg	8270D	---	---	---	---	0.082	---	<0.0052	---	0.052	---	---	---	---	---	---	
Pyrene						mg/Kg	8270D	54.5455	1790	22,600	---	0.16	---	<0.0075	---	0.041	---	---	---	---	---	---	
Polychlorinated Biphenyls (PCBs)																							
PCB-1016						mg/Kg	8082A	0.0094***	4.11	28	---	<0.0063	---	<0.0065	---	<0.0069	<0.0061	<0.0063	<0.0061	<0.0068	<0.069	---	
PCB-1221						mg/Kg	8082A	0.0094***	0.213	0.883	---	<0.0079	---	<0.0080	---	<0.0086	<0.0076	<0.0079	<0.0076	<0.0084	<0.085	---	
PCB-1232						mg/Kg	8082A	0.0094***	0.190	0.792	---	<0.0078	---	<0.0080	---	<0.0085	<0.0076	<0.0078	<0.0075	<0.0083	<0.085	---	
PCB-1242						mg/Kg	8082A	0.0094***	0.235	0.972	---	<0.0059	---	<0.0060	---	0.071	<0.0057	<0.0059	<0.0057	<0.0063	<0.064	---	
PCB-1248						mg/Kg	8082A	0.0094***	0.236	0.975	---	<0.0070	---	<0.0072	---	<0.0077	<0.0068	<0.0071	<0.0068	<0.0075	<0.076	---	
PCB-1254						mg/Kg	8082A	0.0094***	0.239	0.988	---	<0.0039	---	<0.0039	---	<0.0042	0.018	<0.0039	<0.0037	<0.0041	1.6	---	
PCB-1260						mg/Kg	8082A	0.0094***	0.243	1.000	---	0.040	---	<0.0090	---	<0.0096	<0.0085	<0.0088	<0.0085	<0.0094	<0.095	---	
RCRA Metals																							
Arsenic						mg/Kg	6010B	0.584	0.677	3	8.3	---	---	---	---	5.5	---	---	---	---	---	---	
Barium						mg/Kg	6010B	164.8	15,300	100,000	364	---	---	---	---	69	---	---	---	---	---	---	
Cadmium						mg/Kg	6010B	0.752	71.1	985	1	---	---	---	---	0.31	---	---	---	---	---	---	
Chromium						mg/Kg	6010B	360,000*	---	---	44	---	---	---	---	15	---	---	---	---	---	---	
Lead						mg/Kg	6010B	27	400	800	51.6	---	---	---	---	14	---	---	---	---	---	---	
Mercury						mg/Kg	7471A	0.208	3.13	3.13	---	---	---	---	---	0.049	---	---	---	---	---	---	
Selenium						mg/Kg	6010B	0.52	391	5840	---	---	---	---	---	<0.68	---	---	---	---	---	---	
Silver						mg/Kg	6010B	0.8491	391	5840	---	---	---	---	---	0.27 J	---	---	---	---	---	---	

Notes:
(1) From WDNR RCLs Worksheet dated December 2018
BOLD values exceed Groundwater Protection, Non-Industrial Direct Contact, or Industrial Direct-Contact RCLs
--- = Not analyzed / No established standard
J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value
F1 = Matrix spike (MS) and/or matrix spike duplicate (MSD) recovery exceeds control limits
J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value
B = Compound was found in the blank and sample
* = Laboratory control sample and/or laboratory control sample duplicate is outside acceptance limits
** = Combined established standard of 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene; and 3 & 4 Methylphenol
*** = Combined established standard of PCBs
*+ = Laboratory Control Sample or Laboratory Control Sample Duplicate is outside acceptance limits, high biased

TABLE 4
 SOIL ANALYTICAL RESULTS - CONTAMINANTS OF CONCERN
 COMMUNITY WITHIN THE CORRIDOR - WEST BLOCK
 MILWAUKEE, WI
 PROJECT NUMBER: 40443

Sample	Units	Method	NR 720 RCLs for GW Protection (1)	NR 720 RCLs - Non-Industrial Use for Direct Contact Protection (1)	NR 720 RCLs - Industrial Use for Direct Contact Protection (1)	Background Threshold Value	B-1	B-2	B-3	B-4	B-5	B-6	WB-SS-2	WB-SS-6	WB-SS-8	WB-SS-12
Depth (feet)							5.5-7.5	4-6	4-6	4-6	3-5	3-5	0-1	0-1	0-1	0-1
Soil Type							ML-CL	ML-CL	ML-CL	ML-CL	CL	SP-CL	ML-CL	ML-CL	ML-CL	ML-CL
Soil Conditions							Unsaturated	Unsaturated	Unsaturated	Unsaturated	Unsaturated	Unsaturated	Moist	Unsaturated	Unsaturated	Unsaturated
Sampling Location							Exterior	Exterior	Exterior	Exterior	Exterior	Exterior	Interior	Interior	Interior	Interior
Sampling Date							4/10/2020	4/10/2020	4/10/2020	4/10/2020	4/10/2020	4/10/2020	3/1/2021	3/1/2021	3/1/2021	3/1/2021
Physical Characteristics																
Percent Moisture							11.9	12.4	11.7	12.1	13.1	11.4	13.8	5.2	10.8	12.5
Percent Solids							88.1	87.6	88.3	87.9	86.9	88.6	86.2	94.8	89.2	87.5
Volatile Organic Compounds (VOCs)																
1,2-Dichlorobenzene	mg/Kg	8260B	1.168	376	376	---	<0.029	<0.026	<0.028	<0.031	<0.033	<0.043	38	0.064 J	<0.021	<0.021
1,4-Dichlorobenzene	mg/Kg	8260B	0.144	3.74	16.4	---	<0.032	<0.029	<0.030	<0.034	<0.036	<0.046	5.3	<0.024	<0.022	<0.023
Benzene	mg/Kg	8260B	0.0051	1.6	7.07	---	<0.013	<0.012	<0.012	<0.013	<0.015	<0.019	<0.0095	<0.0095	<0.0090	<0.0093
cis-1,2-Dichloroethene	mg/Kg	8260B	0.0412	156	2,340	---	<0.036	<0.032	<0.034	<0.038	<0.041	<0.052	<0.027	<0.026	<0.025	<0.026
Methylene Chloride	mg/Kg	8260B	0.0026	61.8	1,150	---	<0.14	<0.13	<0.14	<0.15	<0.16	<0.21	<0.11	<0.11	<0.10	<0.10
Naphthalene	mg/Kg	8260B	0.658182	5.52	24.10	---	<0.029	<0.026	<0.028	<0.031	<0.033	<0.043	<0.022	<0.022	<0.021	<0.021
Tetrachloroethene	mg/Kg	8260B	0.0045	33	145	---	<0.032	<0.029	<0.031	<0.034	<0.037	<0.047	0.12	<0.024	<0.023	<0.024
Toluene	mg/Kg	8260B	1.1072	818	818	---	<0.013	<0.012	<0.012	<0.014	<0.015	<0.019	<0.0096	<0.0095	<0.0090	<0.0094
trans-1,2-Dichloroethene	mg/Kg	8260B	0.0626	1560	1850	---	<0.030	<0.028	<0.029	<0.032	<0.035	<0.045	<0.023	<0.023	<0.022	<0.022
Trichloroethene	mg/Kg	8260B	0.0036	1.3	8.41	---	<0.014	<0.013	<0.014	<0.015	<0.016	<0.021	0.013 J	<0.011	<0.010	<0.010
Vinyl chloride	mg/Kg	8260B	0.0001	0.067	2.08	---	<0.023	<0.021	<0.022	<0.024	<0.026	<0.033	<0.017	<0.017	<0.016	<0.017
Xylenes, Total	mg/Kg	8260B	3.96	1,212	1212	---	<0.019	<0.017	<0.018	<0.020	<0.022	<0.028	<0.014	<0.014	<0.014	<0.014
Polychlorinated Biphenyls (PCBs)																
PCB-1016	mg/Kg	8082A	0.0094***	4.11	28	---	---	---	---	---	<0.0067	---	---	<0.019	---	---
PCB-1221	mg/Kg	8082A	0.0094***	0.213	0.883	---	---	---	---	---	<0.0084	---	---	<0.023	---	---
PCB-1232	mg/Kg	8082A	0.0094***	0.190	0.792	---	---	---	---	---	<0.0083	---	---	<0.023	---	---
PCB-1242	mg/Kg	8082A	0.0094***	0.235	0.972	---	---	---	---	---	<0.0062	---	---	<0.017	---	---
PCB-1248	mg/Kg	8082A	0.0094***	0.236	0.975	---	---	---	---	---	<0.0075	---	---	<0.021	---	---
PCB-1254	mg/Kg	8082A	0.0094***	0.239	0.988	---	---	---	---	---	<0.0041	---	---	0.014 J	---	---
PCB-1260	mg/Kg	8082A	0.0094***	0.243	1.000	---	---	---	---	---	<0.0093	---	---	<0.026	---	---

Notes:

(1) From WDNR RCLs Worksheet dated December 2018

BOLD values exceed Groundwater Protection, Non-Industrial Direct Contact, or Industrial Direct-Contact RCLs

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J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value

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** = Combined established standard of 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene; and 3 & 4 Methylphenol

*** = Combined established standard of PCBs

*+ = Laboratory Control Sample or Laboratory Control Sample Duplicate is outside acceptance limits, high biased

TABLE 4
 SOIL ANALYTICAL RESULTS - CONTAMINANTS OF CONCERN
 COMMUNITY WITHIN THE CORRIDOR - WEST BLOCK
 MILWAUKEE, WI
 PROJECT NUMBER: 40443

Sample	Units	Method	NR 720 RCLs for GW Protection (1)	NR 720 RCLs - Non-Industrial Use for Direct Contact Protection (1)	NR 720 RCLs - Industrial Use for Direct Contact Protection (1)	Background Threshold Value	WB-SS-14	WB-Int-1	WB-Int-2	WB-Int-3	WB-Int-4	WB-Int-5	WB-Int-6	WB-Int-7	WB-Int-8	WB-Int-9		
							0-1	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5		
Depth (feet)							ML-CL	SP-CL	ML-CL	ML-CL	ML-CL	ML-CL	ML-CL	GW-SW	SP-CL	ML-CL		
Soil Type							Unsaturated	Moist	Moist	Moist	Unsaturated	Moist	Unsaturated	Unsaturated	Unsaturated	Moist		
Soil Conditions							Interior	Interior	Interior	Interior	Interior	Interior	Interior	Interior	Interior	Interior		
Sampling Location							3/1/2021	4/5/2021	4/5/2021	4/5/2021	4/5/2021	4/5/2021	4/5/2021	4/5/2021	4/5/2021	4/2/2021		
Sampling Date																		
Physical Characteristics																		
Percent Moisture							8.6	12.3	13.0	13.1	10.4	13.4	10.7	10.1	8.9	12.1		
Percent Solids							91.4	87.7	87.0	86.9	89.6	86.6	89.3	89.9	91.1	87.9		
Volatile Organic Compounds (VOCs)																		
1,2-Dichlorobenzene	mg/Kg	8260B	1.168	376	376	---	<0.020	<0.021	<0.021	<0.022	<0.021	<0.022	<0.021	<0.020	<0.020	<0.021		
1,4-Dichlorobenzene	mg/Kg	8260B	0.144	3.74	16.4	---	<0.022	<0.023	<0.023	<0.024	<0.023	<0.024	<0.022	<0.022	<0.022	<0.023		
Benzene	mg/Kg	8260B	0.0051	1.6	7.07	---	0.47 F1	<0.0093	<0.0091	<0.0096	<0.0091	<0.0096	<0.0090	<0.0089	<0.0087	<0.0092		
cis-1,2-Dichloroethene	mg/Kg	8260B	0.0412	156	2,340	---	<0.024	<0.026	<0.025	<0.027	<0.025	<0.027	<0.025	<0.025	<0.024	<0.026		
Methylene Chloride	mg/Kg	8260B	0.0026	61.8	1,150	---	<0.097	0.20 J B	0.62 B	0.65 B	0.60 B	0.61 B	0.58 B	0.57 B	0.57 B	<0.10		
Naphthalene	mg/Kg	8260B	0.658182	5.52	24.10	---	0.25	<0.021	<0.021	<0.022	<0.021	<0.022	<0.021	<0.020	<0.020	<0.021		
Tetrachloroethene	mg/Kg	8260B	0.0045	33	145	---	<0.022	<0.024	<0.023	<0.024	<0.023	<0.024	0.31	3.0	<0.022	<0.023		
Toluene	mg/Kg	8260B	1.1072	818	818	---	0.32	0.028	<0.0092	<0.0097	<0.0092	<0.0096	<0.0091	<0.0090	<0.0088	<0.0093		
trans-1,2-Dichloroethene	mg/Kg	8260B	0.0626	1560	1850	---	<0.021	<0.022	<0.022	<0.023	<0.022	<0.023	<0.022	<0.021	<0.021	<0.022		
Trichloroethene	mg/Kg	8260B	0.0036	1.3	8.41	---	<0.0098	<0.010	<0.010	<0.011	<0.010	<0.011	<0.010	0.021 J	<0.0098	<0.010		
Vinyl chloride	mg/Kg	8260B	0.0001	0.067	2.08	---	<0.016	<0.017	<0.016	<0.017	<0.016	<0.017	<0.016	<0.016	<0.016	<0.017		
Xylenes, Total	mg/Kg	8260B	3.96	1,212	1212	---	0.73	<0.014	<0.014	<0.015	<0.014	<0.014	<0.014	<0.013	<0.013	<0.014		
Polychlorinated Biphenyls (PCBs)																		
PCB-1016	mg/Kg	8082A	0.0094***	4.11	28	---	<0.12	<0.0067	<0.0065	<0.0068	<0.0066	<0.0067	<0.0064	<0.0065	<0.0064	<0.0066		
PCB-1221	mg/Kg	8082A	0.0094***	0.213	0.883	---	<0.16	<0.0084	<0.0081	<0.0084	<0.0082	<0.0083	<0.0080	<0.0081	<0.0079	<0.0083		
PCB-1232	mg/Kg	8082A	0.0094***	0.190	0.792	---	<0.15	<0.0083	<0.0080	<0.0083	<0.0081	<0.0082	<0.0079	<0.0080	<0.0079	<0.0082		
PCB-1242	mg/Kg	8082A	0.0094***	0.235	0.972	---	<0.12	<0.0062	<0.0061	<0.0063	<0.0061	<0.0062	<0.0060	<0.0061	<0.0059	<0.0062		
PCB-1248	mg/Kg	8082A	0.0094***	0.236	0.975	---	<0.14	<0.0075	<0.0073	<0.0075	<0.0073	<0.0074	<0.0072	<0.0073	<0.0071	0.025		
PCB-1254	mg/Kg	8082A	0.0094***	0.239	0.988	---	2.7	0.17	0.083	0.023	0.051	0.0084 J	<0.0039	<0.0040	<0.0039	<0.0040		
PCB-1260	mg/Kg	8082A	0.0094***	0.243	1.000	---	<0.17	<0.0093	<0.0091	<0.0094	<0.0091	<0.0093	<0.0089	<0.0091	<0.0089	<0.0092		

Notes:

(1) From WDNR RCLs Worksheet dated December 2018

BOLD values exceed Groundwater Protection, Non-Industrial Direct Contact, or Industrial Direct-Contact RCLs

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J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value

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B = Compound was found in the blank and sample

* = Laboratory control sample and/or laboratory control sample duplicate is outside acceptance limits

** = Combined established standard of 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene; and 3 & 4 Methylphenol

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TABLE 4
SOIL ANALYTICAL RESULTS - CONTAMINANTS OF CONCERN
COMMUNITY WITHIN THE CORRIDOR - WEST BLOCK
MILWAUKEE, WI
PROJECT NUMBER: 40443

Sample	Depth (feet)	Soil Type	Soil Conditions	Sampling Location	Sampling Date	Units	Method	NR 720 RCLs for GW Protection (1)	NR 720 RCLs - Non-Industrial Use for Direct Contact Protection (1)	NR 720 RCLs - Industrial Use for Direct Contact Protection (1)	Background Threshold Value	WB-Int-10	WB-Int-11	WB-Int-12	WB-Int-13	WB-Int-14	WB-Int-15	WB-Int-16	WB-Int-17	WB-MW-1		WB-MW-2		
												0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	4-6	10-12	3-5
												ML-CL	ML-CL	ML-CL	SP-CL	SW	ML-CL	ML-CL	CL-SP	CL	CL	CL	CL	
												Moist	Moist	Moist	Moist	Unsaturated	Moist	Moist	Moist	Moist	Moist	Moist	Moist	
												Interior	Interior	Interior	Interior	Interior	Interior	Interior	Interior	Interior	Exterior	Exterior	Exterior	Exterior
												4/2/2021	4/2/2021	4/2/2021	4/2/2021	4/2/2021	4/2/2021	4/2/2021	4/2/2021	4/2/2021	5/3/2021	5/3/2021	5/3/2021	5/3/2021
Physical Characteristics																								
Percent Moisture												12.8	12.9	12.4	13.4	5.2	11.5	14.7	14.1	11.8	16.5	12.1	9.5	
Percent Solids												87.2	87.1	87.6	86.6	94.8	88.5	85.3	85.9	88.2	83.5	87.9	90.5	
Volatile Organic Compounds (VOCs)																								
1,2-Dichlorobenzene	mg/Kg	8260B	1.168	376	376	---						<0.020	<0.021	<0.021	<0.022	<0.018	<0.021	<0.021	<0.022	<0.021 *	<0.023 *	<0.021 *	<0.020 **	
1,4-Dichlorobenzene	mg/Kg	8260B	0.144	3.74	16.4	---						<0.022	<0.023	<0.023	<0.023	<0.020	<0.023	<0.023	<0.024	<0.023	<0.025 *	<0.023 *	<0.022	
Benzene	mg/Kg	8260B	0.0051	1.6	7.07	---						<0.0089	<0.0093	<0.0093	<0.0094	<0.0080	<0.0091	<0.0092	<0.0096	<0.0094 *	<0.010 *	<0.0092 *	<0.0087 **	
cis-1,2-Dichloroethene	mg/Kg	8260B	0.0412	156	2,340	---						<0.025	<0.026	<0.026	<0.026	<0.022	<0.025	<0.026	<0.027	<0.026 *	<0.028 *	<0.026 *	<0.024	
Methylene Chloride	mg/Kg	8260B	0.0026	61.8	1,150	---						<0.099	<0.10	<0.10	<0.11	<0.089	0.20 J B	0.20 J B	0.20 J B	<0.10 *	<0.11 *	<0.10 *	<0.097 **	
Naphthalene	mg/Kg	8260B	0.658182	5.52	24.10	---						<0.020	<0.021	<0.021	<0.022	<0.018	<0.021	0.024 J	<0.022	0.03 J	<0.023	<0.021	<0.020	
Tetrachloroethene	mg/Kg	8260B	0.0045	33	145	---						<0.023	<0.024	<0.024	<0.024	<0.020	<0.023	<0.023	<0.024	<0.024	<0.026	<0.023	<0.022	
Toluene	mg/Kg	8260B	1.1072	818	818	---						<0.0089	<0.0094	<0.0094	<0.0095	<0.0080	<0.0091	<0.0092	<0.0097	0.010 J	<0.010 *	<0.0092 *	<0.0088	
trans-1,2-Dichloroethene	mg/Kg	8260B	0.0626	1560	1850	---						<0.021	<0.022	<0.022	<0.023	<0.019	<0.022	<0.022	<0.023	<0.022 *	<0.024 *	<0.022 *	<0.021	
Trichloroethene	mg/Kg	8260B	0.0036	1.3	8.41	---						<0.010	0.031 J	<0.010	<0.011	<0.0089	<0.010	<0.010	<0.011	<0.011 *	<0.011 *	<0.010 *	<0.0098 **	
Vinyl chloride	mg/Kg	8260B	0.0001	0.067	2.08	---						<0.016	<0.017	<0.017	<0.017	<0.014	<0.016	<0.016	<0.017	<0.017	<0.018	<0.016	<0.016	
Xylenes, Total	mg/Kg	8260B	3.96	1,212	1212	---						<0.013	<0.014	<0.014	<0.014	<0.012	<0.014	0.028 J	<0.015	<0.014	<0.015	<0.014	<0.013	
Polychlorinated Biphenyls (PCBs)																								
PCB-1016	mg/Kg	8082A	0.0094***	4.11	28	---						<0.0067	<0.0068	<0.0067	<0.0068	<0.0062	<0.0066	<0.069	<0.034	<0.0066	---	<0.0066	---	
PCB-1221	mg/Kg	8082A	0.0094***	0.213	0.883	---						<0.0083	<0.0084	<0.0084	<0.0084	<0.0077	<0.0083	<0.085	<0.042	<0.0081	---	<0.0082	---	
PCB-1232	mg/Kg	8082A	0.0094***	0.190	0.792	---						<0.0082	<0.0083	<0.0083	<0.0084	<0.0076	<0.0082	<0.085	<0.041	<0.0081	---	<0.0081	---	
PCB-1242	mg/Kg	8082A	0.0094***	0.235	0.972	---						<0.0062	<0.0063	<0.0062	<0.0063	<0.0057	<0.0062	<0.064	<0.031	<0.0061	---	<0.0061	---	
PCB-1248	mg/Kg	8082A	0.0094***	0.236	0.975	---						<0.0074	<0.0075	<0.0075	0.19	0.20	<0.0074	<0.0075	<0.076	0.35	<0.0073	---	<0.0073	---
PCB-1254	mg/Kg	8082A	0.0094***	0.239	0.988	---						<0.0041	<0.0041	0.0059 J	<0.0041	<0.0038	<0.0041	0.49	<0.020	<0.0040	---	<0.0040	---	
PCB-1260	mg/Kg	8082A	0.0094***	0.243	1.000	---						<0.0093	<0.0094	<0.0093	<0.0094	<0.0086	<0.0092	<0.095	<0.047	<0.0091	---	<0.0092	---	

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B = Compound was found in the blank and sample

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** = Combined established standard of 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene; and 3 & 4 Methylphenol

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 COMMUNITY WITHIN THE CORRIDOR - WEST BLOCK
 MILWAUKEE, WI
 PROJECT NUMBER: 40443

Sample	Units	Method	NR 720 RCLs for GW Protection (1)	NR 720 RCLs - Non-Industrial Use for Direct Contact Protection (1)	NR 720 RCLs - Industrial Use for Direct Contact Protection (1)	Background Threshold Value	WB-MW-3		WB-MW-4		RTS-1	RTS-2	RTS-3	RTS-4	RTS-5	RTS-6	Trip Blank		
							1-3	10-12	2-4	10-12	0-2	0.5-2.5	1-2	1-2	1-2	1-2	---		
Depth (feet)																		---	
Soil Type							SW	CL	CL	CL	SP	GP	N/A	N/A	N/A	N/A	N/A	---	
Soil Conditions							Moist	Moist	Moist	Moist	Unsaturated	Moist	Moist	Moist	Moist	Moist	Moist	---	
Sampling Location							Exterior	Exterior	Exterior	Exterior	Interior	Interior	Interior	Interior	Interior	Interior	Interior	---	
Sampling Date							5/3/2021	5/3/2021	5/3/2021	5/3/2021	3/3/2021	4/6/2021	5/18/2021	5/18/2021	5/18/2021	5/18/2021	5/18/2021	4/2/2021	
Physical Characteristics							Percent Moisture		9.1	12.5	13.8	13.9	15.5	5.1	7.3	5.5	13.8	16.7	14.1
							Percent Solids		90.9	87.5	86.2	86.1	84.5	94.9	92.7	94.5	86.2	83.3	85.9
Volatile Organic Compounds (VOCs)																			
1,2-Dichlorobenzene	mg/Kg	8260B	1.168	376	376	---	<0.020 *+	<0.021 *+	<0.022 *+	<0.022 *+	<0.022	<0.036	<0.019	<0.019	<0.022	<0.023	<0.017		
1,4-Dichlorobenzene	mg/Kg	8260B	0.144	3.74	16.4	---	<0.022	<0.023	<0.024	<0.024	<0.024	<0.039	<0.021	<0.020	<0.024	<0.025	<0.018		
Benzene	mg/Kg	8260B	0.0051	1.6	7.07	---	<0.0089 *+	<0.0093 *+	<0.0095 *+	<0.0095 *+	<0.0097	0.022 J	<0.0085	<0.0082	<0.0095	<0.010	<0.0073		
cis-1,2-Dichloroethene	mg/Kg	8260B	0.0412	156	2,340	---	<0.025	<0.026	<0.026	<0.027	<0.027	<0.043	<0.024	<0.023	<0.027	<0.028	<0.020		
Methylene Chloride	mg/Kg	8260B	0.0026	61.8	1,150	---	<0.099 *+	<0.10 *+	<0.11 *+	<0.11 *+	<0.11	<0.17	<0.094	<0.092	<0.11	<0.11	0.16 J B		
Naphthalene	mg/Kg	8260B	0.658182	5.52	24.10	---	<0.020	0.044 J	0.022 J	<0.022	0.63	<0.019	<0.019	<0.022	0.053 J	<0.017			
Tetrachloroethene	mg/Kg	8260B	0.0045	33	145	---	<0.023	<0.024	<0.024	<0.024	<0.025	0.12	0.90	<0.021	<0.024	<0.026	<0.019		
Toluene	mg/Kg	8260B	1.1072	818	818	---	0.022	<0.0094	<0.0095	<0.0096	0.027	0.062	<0.0085	<0.0083	<0.0096	<0.010	<0.0074		
trans-1,2-Dichloroethene	mg/Kg	8260B	0.0626	1560	1850	---	<0.021	<0.022	<0.023	<0.023	<0.023	<0.037	<0.020	<0.020	<0.023	<0.024	<0.018		
Trichloroethene	mg/Kg	8260B	0.0036	1.3	8.41	---	<0.010 *+	<0.010 *+	<0.011 *+	<0.011 *+	0.019 J	0.69	<0.0095	<0.0092	<0.011	<0.011	<0.0082		
Vinyl chloride	mg/Kg	8260B	0.0001	0.067	2.08	---	<0.016	<0.017	<0.017	<0.017	<0.017	<0.028	<0.015	<0.015	<0.017	<0.018	<0.013		
Xylenes, Total	mg/Kg	8260B	3.96	1,212	1212	---	<0.013	<0.014	<0.014	<0.014	<0.015	0.83	<0.013	<0.012	<0.014	<0.015	<0.011		
Polychlorinated Biphenyls (PCBs)																			
PCB-1016	mg/Kg	8082A	0.0094***	4.11	28	---	<0.0063	---	<0.0065	---	<0.0069	<0.0061	<0.0063	<0.0061	<0.0068	<0.069	---		
PCB-1221	mg/Kg	8082A	0.0094***	0.213	0.883	---	<0.0079	---	<0.0080	---	<0.0086	<0.0076	<0.0079	<0.0076	<0.0084	<0.085	---		
PCB-1232	mg/Kg	8082A	0.0094***	0.190	0.792	---	<0.0078	---	<0.0080	---	<0.0085	<0.0076	<0.0078	<0.0075	<0.0083	<0.085	---		
PCB-1242	mg/Kg	8082A	0.0094***	0.235	0.972	---	<0.0059	---	<0.0060	---	0.071	<0.0057	<0.0059	<0.0057	<0.0063	<0.064	---		
PCB-1248	mg/Kg	8082A	0.0094***	0.236	0.975	---	<0.0070	---	<0.0072	---	<0.0077	<0.0068	<0.0071	<0.0068	<0.0075	<0.076	---		
PCB-1254	mg/Kg	8082A	0.0094***	0.239	0.988	---	<0.0039	---	<0.0039	---	<0.0042	0.018	<0.0039	<0.0037	<0.0041	1.6	---		
PCB-1260	mg/Kg	8082A	0.0094***	0.243	1.000	---	0.040	---	<0.0090	---	<0.0096	<0.0085	<0.0088	<0.0085	<0.0094	<0.095	---		

Notes:

(1) From WDNR RCLs Worksheet dated December 2018

BOLD values exceed Groundwater Protection, Non-Industrial Direct Contact, or Industrial Direct-Contact RCLs

--- = Not analyzed / No established standard

J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value

F1 = Matrix spike (MS) and/or matrix spike duplicate (MSD) recovery exceeds control limits

J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value

B = Compound was found in the blank and sample

* = Laboratory control sample and/or laboratory control sample duplicate is outside acceptance limits

** = Combined established standard of 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene; and 3 & 4 Methylphenol

*** = Combined established standard of PCBs

*+ = Laboratory Control Sample or Laboratory Control Sample Duplicate is outside acceptance limits, high biased

TABLE 5
 PFAS ANALYTICAL RESULTS
 COMMUNITY WITHIN THE CORRIDOR - WEST BLOCK
 MILWAUKEE, WI
 PROJECT NUMBER: 40443

Sample	Units	NR 720 Non-Industrial Direct Contact RCL	NR 720 Industrial Direct Contact RCL	B-13	B-14	B-15
Depth (feet)				5-6	8.5-9.5	8.5-9.5
Soil Type				Clayey SAND	Clayey SAND	Clayey SAND
Soil Conditions				Unsaturated	Unsaturated	Unsaturated
Sampling Date				4/7/2020	4/7/2020	4/7/2020
Physical Characteristics						
Percent Moisture	%	---	---	12.2	17.7	13.5
Percent Solids	%	---	---	87.8	82.3	86.5
Method 537 (modified) - Fluorinated Alkyl Substances						
Perfluorobutanoic acid (PFBA)	ug/Kg	---	---	0.040 J B	0.041 J B	0.21 J B
Perfluoropentanoic acid (PFPeA)	ug/Kg	---	---	<0.087	<0.093	<0.088
Perfluorohexanoic acid (PFHxA)	ug/Kg	---	---	<0.047	<0.051	<0.048
Perfluoroheptanoic acid (PFHpA)	ug/Kg	---	---	<0.033	<0.035	<0.033
Perfluorooctanoic acid (PFOA)	ug/Kg	1260	16,400	<0.097	<0.10	<0.098
Perfluorononanoic acid (PFNA)	ug/Kg	---	---	<0.041	<0.043	<0.041
Perfluorodecanoic acid (PFDA)	ug/Kg	---	---	<0.025	<0.027	<0.025
Perfluoroundecanoic acid (PFUnA)	ug/Kg	---	---	<0.041	<0.043	<0.041
Perfluorododecanoic acid (PFDoA)	ug/Kg	---	---	<0.076	<0.081	<0.076
Perfluorotridecanoic acid (PFTriA)	ug/Kg	---	---	<0.057	<0.062	<0.058
Perfluorotetradecanoic acid (PFTeA)	ug/Kg	---	---	<0.061	<0.065	<0.062
Perfluoro-n-hexadecanoic acid (PFHxDA)	ug/Kg	---	---	<0.050	<0.053	<0.050
Perfluoro-n-octadecanoic acid (PFODA)	ug/Kg	---	---	<0.032	<0.034	<0.032
Perfluorobutanesulfonic acid (PFBS)	ug/Kg	---	---	<0.028	<0.030	<0.029
Perfluoropentanesulfonic acid (PFPeS)	ug/Kg	---	---	<0.023	<0.024	<0.023
Perfluorohexanesulfonic acid (PFHxS)	ug/Kg	---	---	<0.035	<0.037	<0.035
Perfluoroheptanesulfonic acid (PFHpS)	ug/Kg	---	---	<0.039	<0.042	<0.040
Perfluorooctanesulfonic acid (PFOS)	ug/Kg	1260	16,400	<0.23	<0.24	<0.23
Perfluoronanesulfonic acid (PFNS)	ug/Kg	---	---	<0.023	<0.024	<0.023
Perfluorodecanesulfonic acid (PFDS)	ug/Kg	---	---	<0.044	<0.047	<0.044
Perfluorododecanesulfonic acid (PFDoS)	ug/Kg	---	---	<0.068	<0.072	<0.068
Perfluorooctanesulfonamide (FOSA)	ug/Kg	---	---	<0.092	<0.099	<0.094
NEFOSA	ug/Kg	---	---	<0.027	<0.029	<0.027
NMeFOSA	ug/Kg	---	---	<0.046	<0.050	<0.047
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ug/Kg	---	---	<0.44	<0.47	<0.44
N-ethylperfluorooctanesulfonamidoacetic acid (NEFOSAA)	ug/Kg	---	---	<0.42	<0.45	<0.42
NMeFOSE	ug/Kg	---	---	<0.080	<0.086	<0.081
NEFOSE	ug/Kg	---	---	<0.041	<0.043	<0.041
4:2 FTS	ug/Kg	---	---	<0.42	<0.45	<0.42
6:2 FTS	ug/Kg	---	---	<0.17	<0.18	<0.17
8:2 FTS	ug/Kg	---	---	<0.28	<0.30	<0.29
10:2 FTS	ug/Kg	---	---	<0.056	<0.060	<0.057
DONA	ug/Kg	---	---	<0.020	<0.022	<0.021
HFPO-DA (GenX)	ug/Kg	---	---	<0.12	<0.13	<0.13
F-53B Major	ug/Kg	---	---	<0.030	<0.033	<0.031
F-53B Minor	ug/Kg	---	---	<0.25	<0.027	<0.025

NOTES:

All results in micrograms per kilogram (ug/Kg)
 B = Compound was found in the blank and sample
 J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value
 RL = Reporting Limit or Requested Limit (Radiochemistry)
 MDL = Method Detection Limit

Table 6
 Estimate of Mass of PCE in Soil
 Community Within the Corridor - West Block

Area ID	Sample Point	Area	Depth of Vadose Zone	Soil Density	PCE Concentration	PCE Mass*
		(square feet)	(feet)	(pcf)	(mg/kg, ppm)	(pounds)
Bldg 7	WB-Int-6, WB-Int-7, RTS-3	8,586	5	130	1.4	7.8
Grand Total		8586				7.8

Proposed Hotspot Removal	WB-Int-7	930	1.5	130	3	0.54
Trenching	---	1000	2	130	1.4	0.36
Grand Total						0.91

Mass = Area * Depth * Density * TCE Concentration / 1,000,000

ATTACHMENTS

ATTACHMENT A

WDNR Review Letter



June 1, 2021

Roers Companies
c/o: Mr. Shane LaFave
110 Cheshire Lane
Suite 120
Minnetonka, MN 55305

Subject: Technical Assistance Provided
Community Within the Corridor – West Block
3212 W Center St., 2727 N 32nd St., & 2758 N 33rd St., Milwaukee, WI
BRRTS #: 02-41-587376, FID #: 341333190

Dear Mr. LaFave:

On May 3, 2021, the Wisconsin Department of Natural Resources (DNR) received *Pressure Field Extension Testing and Vapor Mitigation System Feasibility Study*, dated April 27, 2021, prepared on your behalf by K. Singh and Associates, Inc. (K. Singh) for the above-referenced site. This submittal was presented with a Technical Assistance fee of \$700 for DNR review and response. On May 18, 2021, the DNR requested additional information regarding the potential sources of contamination at this site, and on May 19, 2021, the additional information was received (collectively, the Report). In the Report, K. Singh presents recently collected data pertaining to the site investigation and proposes a vapor mitigation system (VMS) design plan.

The DNR reviewed the site investigation portion of the Report for regulatory compliance with Wis. Admin Code ch. NR 716 and the remedial action portion of the Report for regulatory compliance with Wis. Admin. Code chs. NR 722 and NR 724. The DNR's comments, as presented below, provide you with recommendations for additional site investigation to complete the delineation of the extent and degree of contamination at this site, which must be completed prior to case closure, per Wis. Admin. Code ch. NR 716. Furthermore, the results of a complete site investigation must be applied when evaluating remedial action options. Remedial actions are required to prevent any threat to public health, safety, welfare and the environment.

Similar to the DNR's review of your proposals for the Community Within the Corridor – East Block (BRRTS #: 02-41-263675), as outlined in the *Review of Remedial Action Design Report* DNR letter dated April 9, 2021, the DNR is unable to approve the vapor mitigation plan (VMS) design plan until remedial actions are evaluated and proposed. The DNR understands that a strict construction schedule has been established for this site, nevertheless, this activity must follow the Wis. Admin. NR 700 code series to entirely investigate and remediate the environmental contamination on site to ensure protective conditions for the citizens that will reside in and utilize this residential and community-oriented project.

Background

The site is made up of three parcels, which total approximately 2.83 acres, and is covered by paved parking lots and driveways, greenspaces and a multi-building facility (the building) that was constructed in the early 1900s. The site has been used for various industrial purposes, such as manufacturing activities that may have included painting, degreasing activities, and leather working, for over the past 100 years. A *Notification of Hazardous Substance Discharge* was received by the DNR on March 25, 2021, for soil and sub-slab vapor contaminated with chlorinated volatile organic compounds (CVOCs) and/or polychlorinated biphenyls (PCBs). The source of contamination was identified as the general former industrial use of the building. Construction began in February 2021 to redevelop the site into an affordable housing and commercial complex that is a part of the Community Within the Corridor project.

Site Investigation Summary

In preparation for site redevelopment, K. Singh performed a Phase I Environmental Site Assessment (ESA), and subsequently performed a Phase II ESA. The Phase II ESA identified CVOCs in soils greater than the Wis. Admin. Code ch. NR 720 residual contaminant levels (RCLs). Following the Phase II ESA, K. Singh conducted additional soil and sub-slab vapor sampling throughout the building, which identified soil RCL exceedances in addition to residential, small-commercial and industrial VRSL exceedances of petroleum VOCs (PVOCs), CVOCs and/or PCBs. The DNR received the *Site Investigation Work Plan* (SIWP) on March 31, 2021, without a fee for DNR review and response. The SIWP presents a plan for additional soil, groundwater and vapor investigation at the site. As indicated in the Report, the proposed investigation activities are currently underway.

Site Investigation Review

Wis. Admin. Code ch. NR 716 provides the requirements for conducting a site investigation. In summary, the required steps to follow include 1) collecting and evaluating information to scope the investigation, 2) preparing a site investigation work plan, 3) conducting the field investigation, and 4) preparing a site investigation report. Investigative activities have occurred at this site, but additional site investigation, per Wis. Admin. Code ch. NR 716, which is based on and supports a conceptual site model, is required, as outlined below:

I. Source identification (scoping the investigation)

Wis. Admin. Code § NR 716.01 states that the site investigation must define the extent and degree of contamination and identify the source(s) of contamination. Furthermore, Wis. Admin. Code § NR 716.07(1) requires that the history of the site or facility, including industrial land uses that may have been associated with one or more hazardous substance discharges, be evaluated.

- A. The Report presents a limited discussion of the potential sources and how these correspond with the data collected during investigation activities to-date. Provide a more thorough discussion of potential sources of contamination which considers the site data and is related to a conceptual site model.
- B. The Phase I ESA indicates that there is evidence of historical degreasers identified at the 2758 North 32nd Street parcel. Provide additional details regarding where the degreasers were located, the duration of time that they were used and the historical operations that they may be associated with. Consider the contamination identified at the site to-date and discuss whether may be related the historical degreasers. Provide a figure showing the locations of the historical degreasers.

C. Evaluation of emerging contaminants

On August 24, 2020, the DNR received *Environmental Investigation Memorandum for Community Within the Corridor* (PFAS Report) prepared on your behalf by K. Singh, which presents PFAS soil analytical results related to this site and the Community Within the Corridor – East Block site. However, an evaluation, as described below, was not provided.

Wis. Admin. Code §§ NR 716.07, NR 716.09 requires that site investigation scoping and work plans include an evaluation of potential perfluoroalkyl and polyfluoroalkyl substances (PFAS) and other applicable emerging contaminants that were historically or are presently produced, used, handled, or stored at the site.

1. Provide an evaluation of emerging contaminants, and include any available information on whether the historical site operations used any products containing PFAS in any process services, the duration of PFAS containing product use, the type of PFAS contained in the product, and any areas of the site where PFAS-containing products may have been used, stored, managed, or discarded. This evaluation should consider and incorporate the extent and degree of contamination that has been identified at the site and discuss whether the data indicates that there were discharges related to any of the historical site operations that may have used PFAS containing products. Specifically discuss the individual types of manufacturing operations involved in the historical operations - painting, degreasing, leather working, etc. You may reference the August 17, 2020, DNR letter titled, *Reminder to Include Evaluation of Emerging Contaminants in Site Investigation*, for additional details on this requirement.
2. Discuss how this emerging contaminant evaluation relates to the results presented in both the PFAS Report and the Report. Discuss whether additional PFAS or other emerging contaminant investigation is required given the data presented in the Report. Provide a work plan as needed.

II. Degree and extent of contamination in all affected media (field investigation)

Wis. Admin. Code § NR 716.11(3)(a) requires the field investigation to determine the nature, degree and extent, both areal and vertical, of the hazardous substances or environmental pollution in all affected media.

A. Soil

1. Additional soil investigation is needed to define the degree and extent of soil contamination. This additional investigation should focus on the potential source areas and should consider the site investigation analytical results identified to-date.

B. Groundwater

1. Additional groundwater investigation is needed to define the degree and extent of groundwater contamination. This additional investigation should focus on the potential source areas and should consider the site investigation analytical results identified to-date.

C. Vapor

1. The sub-slab vapor investigation is incomplete. Please see the vapor mitigation section below for more discussion on this topic.
2. A robust indoor air sampling program will be required following the installation of the VMS and after the interior construction is complete and the heating, ventilation and air conditioning (HVAC) systems are operational.

III. Submitting site investigation information (site investigation report)

Wis. Admin. Code § NR 716.15 requires that a site investigation report be submitted to the DNR within 60 days after completion of the field investigation and receipt of laboratory data. As you are aware based on the work conducted at this site thus far, the site investigation can be an iterative process and data results may indicate further assessment is needed to define the degree and extent of contamination. Although work status update information and field data notifications may be submitted to the DNR throughout the field investigation phase, it is expected that each submittal evaluating results and recommending additional work builds on previous site information, therefore developing and maintaining the comprehensive site investigation reporting up to submittal of the final comprehensive site investigation report.

Next Steps - Remedial Action & Mitigation

Wis. Admin. Code § NR 722.05(4)(a) states that responsible parties shall identify, evaluate, and document an appropriate range of remedial action options to address each contaminated medium when a site investigation report is completed in accordance with Wis. Admin. Code ch. NR 716. As previously stated, the DNR understands that the site redevelopment has a strict construction schedule and that any remedial actions taken at this time may act as the final remedy proposed for case closure. Therefore, remedial actions must be considered and implemented as soon as possible to help to establish protective conditions for the citizens that will reside in and utilize this residential and community-oriented redevelopment. The DNR cannot approve the VMS design plan presented in the Report as part of a final remedial strategy at this time, because the site investigation is not complete, and no remedial actions have been proposed. Based on the DNR's review of the Report, the following recommendations and feedback are provided to assist with remedial actions options evaluation(s):

I. Vapor

Wis. Admin Code § NR 726.05(8)(b) states that prior to case closure, any site where vapors are present above their respective VRSLs must complete a remedial action to reduce the mass and concentration of volatile organic compounds (VOCs) to the extent practical. Additionally, the vapor exposure pathway must be interrupted or mitigated.

A. Remedial Action

1. Considering site investigation conducted to-date has identified sub-slab vapor contamination greater than its applicable VRSLs, propose a remedial action to reduce the mass and concentration of contamination at this site. Additionally, provide an estimate for the mass of contamination that will be removed during the proposed remedial action(s). The DNR recommends that remedial actions be considered for building 7, since site investigation has identified the highest known concentration of PCE in the sub-slab

vapors and soils in building 7. Please note that the DNR does not consider vapor mitigation an active remedy.

B. Mitigation

1. Only one round of sub-slab vapor sampling has occurred to-date. Additional sub-slab vapor sampling is required to demonstrate that the VMS is not necessary to mitigate the entire footprint of the building. The DNR recommends that two to three consecutive rounds of vapor sampling identify contaminant concentrations below their applicable VRSLs (i.e., residential, small-commercial or industrial) prior to ruling out an area of the building for vapor mitigation. Therefore, either expand the VMS to include the entire building footprint or conduct additional vapor sampling to help to define the extent and degree of sub-slab vapor contamination at this site. For additional guidance on vapor investigation and mitigation you may reference DNR guidance document RR-800, *Addressing Vapor Intrusion at Remediation & Redevelopment Sites in Wisconsin*.

Documentation

The following documentation issues must be addressed in future submittals:

- II. Revise the soil data tables to specifically indicate which type of soil RCL exceedance (i.e., soil to groundwater pathway, non-industrial direct contact and industrial direct contact) exists for each constituent at each sample interval.
- III. Revise the vapor data tables to display all applicable VRSLs (i.e., residential, small-commercial and industrial).
- IV. Display applicable vapor detections on the vapor figures. If all the identified vapor detections do not fit on a given figure, then you may limit the detections that are included on a given figure to the contaminants of concern and the contaminants whose identified concentrations are close in value to their applicable VRSLs.

Schedule

In consideration of administrative code requirements, the DNR is requesting the implementation of the following schedule:

- Per Wis. Admin. Code § NR 716.14, submit all sampling results within 10 days of receiving laboratory data.
- Per Wis. Admin. Code § NR 708.15, submit an interim action report (IAR) describing the interim actions taken at this site following the completion of additional vapor investigation and/or remediation. This should include information regarding activities conducted to-date, the activities requested above, and an operation, maintenance and monitoring (OMM) plan.
- Per Wis. Admin. Code § NR 716.09(1), submit an updated site investigation work plan within 45 days of the date of this letter, by July 16, 2021, that incorporates the DNR's review of site investigation, as presented above.
- Per Wis. Admin Code § NR. 716.15, submit a site investigation report within 60 days after the completion of the field investigation and receipt of the laboratory data.

The DNR appreciates the actions you are taking to restore the environment at this site. If you have any questions concerning this site or this letter, please contact me, the DNR Project Manager, at (414) 435-8021, or by email at jane.pfeiffer@wisconsin.gov.

Sincerely,

A handwritten signature in black ink that reads "Jane Pfeiffer". The signature is written in a cursive style with a large initial "J" and "P".

Jane K. Pfeiffer
Project Manager – Hydrogeologist
Remediation & Redevelopment Program

cc: Mr. Que El-Amin, Scott Crawford, Inc., que@scott-crawford.com – electronic copy
Mr. Robert Reineke, K. Singh & Associates, Inc., reineke@ksinghengineering.com – electronic copy
Dr. Pratap N. Singh, K Singh & Associates, Inc., psingh@ksinghengineering.com – electronic copy

ATTACHMENT B

Vapor Mitigation Plan Details



Radon Mitigation Fan

HS fans offer a proven solution for tough radon mitigation jobs, providing up to 25 times the suction of inline tube fans to deal with sand, tight soil or clay sub-slab material.

Features

- Internal condensate bypass
- Brackets for vertical mounting indoors and outdoors
- Inlet: 3.0" PVC / Outlet: 2.0" PVC
- Weight: 18 lbs.
- Size: 15.5"W x 13.3"H x 8.2"D
- Warranty: 1 year

MODEL	WATTS	SOUND RATING (dBA)			RECOM. MAX. OP. PRESSURE "WC	TYPICAL CFM* vs. STATIC PRESSURE WC					
		OPEN	1/2	CLOSED		0"	10"	15"	20"	25"	35"
HS2000 with cord	174-307	56.5	56.2	51.9	14	63	37	12	-	-	-
HS3000 with cord	120-250	47.9	48.0	46.2	21	39	30	25	19	-	-
HS5000 with cord	223-385	56.0	55.3	53.1	35	44	37	33	29	25	16
HS2000E with switch box	174-307	56.5	56.2	51.9	14	63	37	12	-	-	-
HS3000E with switch box	120-250	47.9	48.0	46.2	21	39	30	25	19	-	-
HS5000E with switch box	223-385	56.0	55.3	53.1	35	44	37	33	29	25	16

 Made in the USA with U.S. and imported parts.

* CFM measured through suction.

For Further Information, Contact Your Radon Professional: