TRUE NORTH CONSULTANTS

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March 27, 2019

Mr. Michael Schmoller
Wisconsin Department of Natural Resources
3911 Fish Hatchery Road
Fitchburg, WI 53711

RE: Vapor Mitigation System Documentation and Maintenance Plan
4002 Dental Building, LLC Property
4002 Monona Drive
Madison, Wisconsin
Project #T2I8047
BRRTS #: 02-13-368525

Dear Mr. Schmoller:

On behalf of Mr. Ralph Stinson and SCS Engineers (SCS), True North Consultants, Inc. (True North) is providing the following report, which includes construction documentation and a maintenance plan for a vapor mitigation system (VMS) installed in the building located at 4002 Monona Drive in Madison, Wisconsin (*property*, **Figure 1**).

BACKGROUND

As part of a planned real estate transaction, sub-slab vapor samples were collected from beneath the basement slab at the *property*. Tetrachloroethylene (PCE) was detected in sub-slab vapor samples at levels in excess of the Wisconsin Department of Natural Resources (WDNR) vapor risk screening levels (VRSL), indicating a potential for vapor intrusion into indoor air. Based on these sampling results, the *property* owner, 4002 Dental Building, LLC, requested the installation of a vapor mitigation system (VMS).

The WDNR acknowledged the appropriateness of a VMS at the *property*, however further communication assessment was necessary to determine the appropriate design of the system. The VMS testing, design, and installation was proposed in the Drycleaner Environmental Response Fund (DERF) Change Order No. 8 dated March 6, 2019 and approved via e-mail correspondence on March 8, 2019. This report documents the results of the VMS communication testing, design, and installation.

COMMUNICATION TESTING

Acura and True North performed communication assessment on March 13, 2019. Seven temporary vacuum observation points (PT-1 through PT-3 and PT-7 through PT-10), which were installed through the building slab, and five vapor sampling points (SS-01 through SS-05) were utilized to evaluate the VMS pressure field extension. The location of the temporary vacuum observation points and vapor sampling points are identified on **Figure 2**.

Pressure field extension documentation is summarized in the table below.

Observation Point	Test Pick-up Point	Distance (ft)	Vacuum (inches WC)
PT-1	PT-2	25	-0.001 to -0.002
PT-2	PT-3	25	-0.008
SS-03/PT-4	PT-5	26	-0.135
PT-5	PT-2	15	-0.023
PT-5	SS-04/PT-6	25	-0.145
SS-03/PT-4	SS-04/PT-6	50	-0.008 to -0.014
PT-7	SS-01/PT-8	12	-0.003 to -0.004
PT-9	PT-3	21	-0.002 to -0.004
PT-9	SS-02/PT-11	25	-0.000
PT-10	SS-02/PT-11	25	-0.000
PT-10	SS-01/PT-8	15	-0.000
PT-2	SS-05/PT-12	10	-0.080
PT-3	SS-05/PT-12	25	-0.001 to -0.002
PT-1	SS-05/PT-12	25	-0.001 to -0.002
PT-7	SS-05/PT-12	30	-0.008
PT-9	SS-05/PT-12	35	-0.000

Notes:
Inches WC – inches water column
ft - feet

Leakage was identified in various locations at the *property* along foundation walls, expansion seams, and utility penetrations. Acura performed smoke testing and sealed those areas identified with leakage with caulk and/or urethane spray foam, as appropriate. A copy of the communication testing results from Acura dated March 13, 2019 is included as **Attachment A**.

Based on this data, Acura and True North designed the VMS to account for the expected pressure field extension influences and leakage encountered at the *property*.

DESIGN CONCEPT

The *property* has two distinctly different sub-slab configurations. The northern portion of the building is the original building and measures approximately 50 feet wide by 55 feet long. The southern portion of the building is an addition that abuts the original basement and is approximately 50 feet wide by 30 feet long. Communication testing confirms that the southern

portion of the building had better sub-slab communication than the northern portion.

Acura and True North discussed the layout of the building, the future renovation plans, and the communication testing results to design a VMS that would provide sub-slab depressurization across the entire slab.

A single pick-up point was determined to be sufficient for the southern portion of the building due to the excellent communication of the sub-slab materials. Four pick-up points were determined to be sufficient for the northern portion of the building. The layout of the VMS is provided on **Figure 3**.

CONSTRUCTION DOCUMENTATION

Acura installed the VMS system at the *property* between March 18 and 26, 2019. Due to the building having been expanded, two separate systems were installed at the *property*.

The southern portion VMS was constructed with one vacuum pick-up point in the southeast corner of the building. This pick-up point was constructed of three-inch diameter schedule 40 polyvinyl chloride (PVC) piping set in the sub slab material. The PVC pipe was sealed to the floor to prevent leakage. The PVC riser pipe was run up to the ceiling of the basement and run towards the east well and then south, exiting near the southeast corner of the building. An AMG Prowler vacuum fan, with a maximum flow of 221 cubic feet per minute (cfm) at 0 inches of water column (WC) and a maximum operating pressure of 3.0 inches WC, was connected to PVC pipes on the exterior of the building. The exhaust pipe for the fan was extended a few feet above the roof line.

The northern VMS was constructed with four vacuum pick-up points located around the center mechanical room/break rooms. Two pick-up points were installed to the north of these rooms and two were installed to the south of these rooms. One of the pick-up points on the southwest corner of the mechanical room is a two-inch diameter schedule 40 PVC pipe. The remaining pick-up points are constructed of three-inch diameter schedule 40 PVC pipe.

Two-inch diameter PVC piping runs east, along the exterior of the mechanical room wall/breakroom wall, from the southwest pick-up point and connects with the southeast pick-up point and transitions to three-inch diameter schedule 40 PVC piping. The three-inch piping runs to the north, along the ceiling, and connects with the northeast pick-up point and then continues, along the ceiling, to exit to the north side of the building. The northwest pickup point piping runs to the east, along the ceiling, and connects to the piping for the other three pick-up points to exit on the north side of the building. A RadonAway GP501 vacuum fan, with a typical flow of 66 cfm at 2 inches of WC and a maximum operating pressure of 4.0 inches WC, was connected to PVC pipes on the exterior of the building. The exhaust pipe for the fan was extended a few feet above the roof line.

Each fan was equipped with an on/off switch for servicing and a manometer was fitted to one of the pick-up points for each system installed. Electrical service was connected on circuits not controlled by a switch, ensuring that the systems would be continuously operational.

OPERATION DOCUMENTATION

Pressure field extension influence was confirmed by utilizing the previously installed temporary vacuum observation points and vapor sampling points. Results of the operation confirmation monitoring is detailed in the following table.

Observation Point	Approximate Distance from Nearest Pick-up Point (ft)	Vacuum (inches WC)
North	Not Applicable	3.1
South	Not Applicable	2.9
PT-1	15	-0.008
PT-2	15	-0.024
PT-3	15	-0.011
PT-4	25	-0.043
PT-5	15	-0.078
PT-6	10	-0.209
PT-7	10	-0.137
PT-8	8	-0.006
PT-9	15	-0.022
PT-10	15	-0.058
PT-11	15	-0.004
PT-12	10	-0.009

Notes:
Inches WC – inches water column
ft - feet

Initial VMS fan and sub-slab vacuum readings were measured on March 25-26, 2019. The measurements show consistent VMS fan vacuums and good pressure field extensions under the slab. All temporary vacuum observation points and vapor monitoring points were sealed upon completion of the post-installation monitoring. A copy of Acura's report is included in **Attachment B**.

Based on these results, the VMS is successfully depressurizing the slab and will prevent vapor intrusion from occurring at the *property*.

MAINTENANCE PLAN

A VMS maintenance plan is included in **Attachment C**. The maintenance plan summarizes the purpose, design, maintenance requirements, and limitations.

If you have any questions, please contact Chris Valcheff at 608.577.8315 or cvalcheff@consulttruenorth.com.

Regards,
TRUE NORTH CONSULTANTS

Christopher H. Valcheff
Principal Consultant

Attachments:
Figure 1:	Site Location Map
Figure 2:	Site Layout Map
Figure 3:	VMS Layout
Attachment A:	Acura Communication Testing Report dated March 13, 2019
Attachment B:	Acura VMS Installation and Post-Mitigation Report dated March 26, 2019
Attachment C:	VMS Maintenance Plan

cc: Mr. Gary Ries, 4002 Dental Building, LLC (property owner, electronic only)
Mr. Ralph Stinson, Classic Cleaners (responsible party)
Mr. Rob Langdon, SCS Engineers (responsible party consultant, electronic only)
Ms. Janell Hoey, Hoey Properties – Madison, LLC (purchaser, electronic only)
Ms. Laura Peterson, Monona Bank (lender for Hoey Properties, electronic only)
Mr. Nick Drewson, WBD, Inc. (lender for Hoey Properties, electronic only)

FIGURES

TOPOGRAPHIC MAP ADAPTED FROM USGS

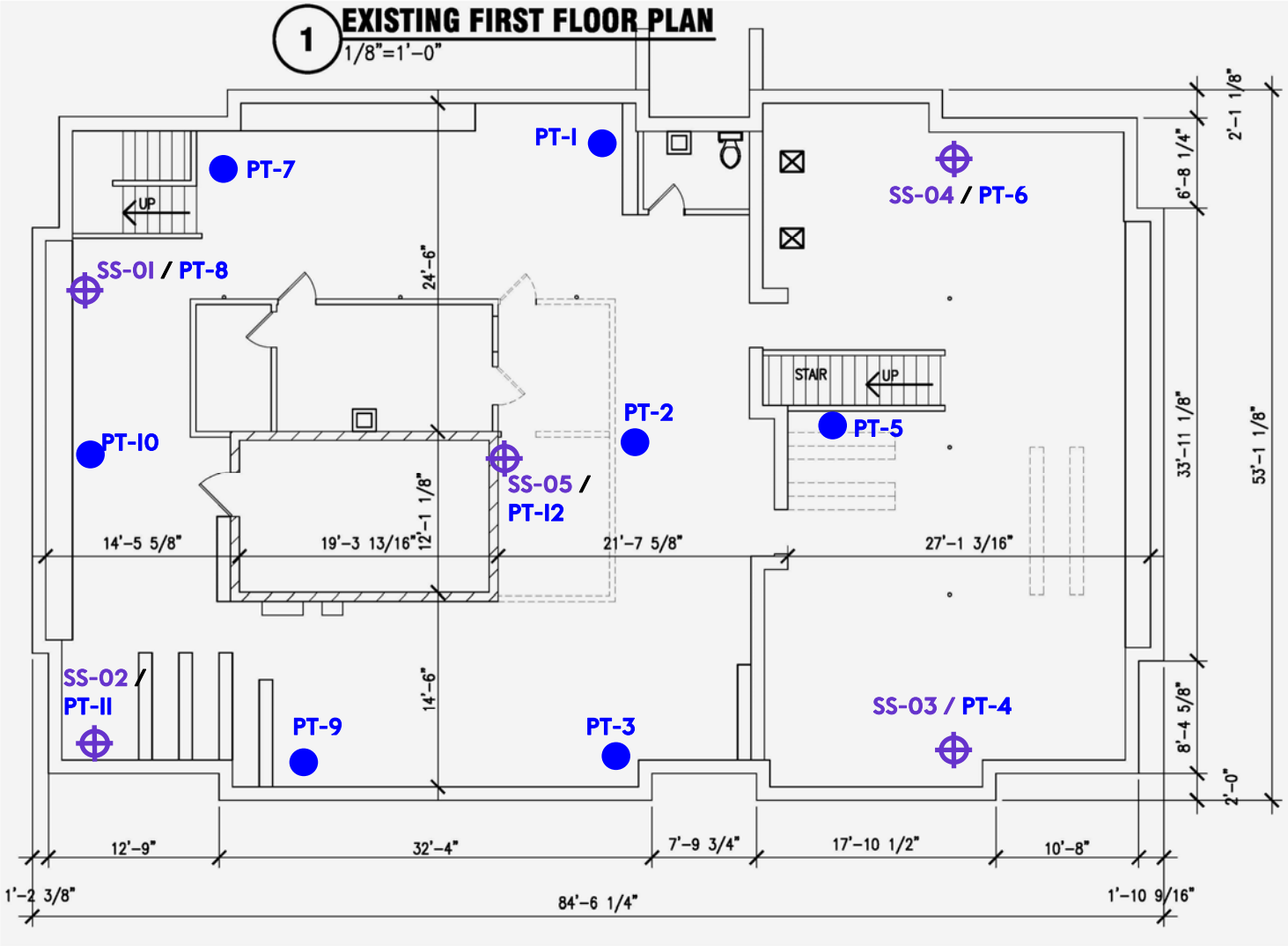
APPROXIMATE SITE BOUNDARY

TRUENORTH CONSULTANTS
525 JUNCTON ROAD
SUITE 1900
MADISON, WISCONSIN 53717

SITE LOCATION	DENTAL BUILDING, LLC PROPERTY 4002 MONONA DRIVE MADISON, WI 53716
CLIENT	DENTAL BUILDING, LLC 406 SCIENCE DRIVE, #410 MADISON, WI 53711

NOT TO SCALE

FIGURE	1
PROJECT NUMBER	T218047
DATE	12/06/2018



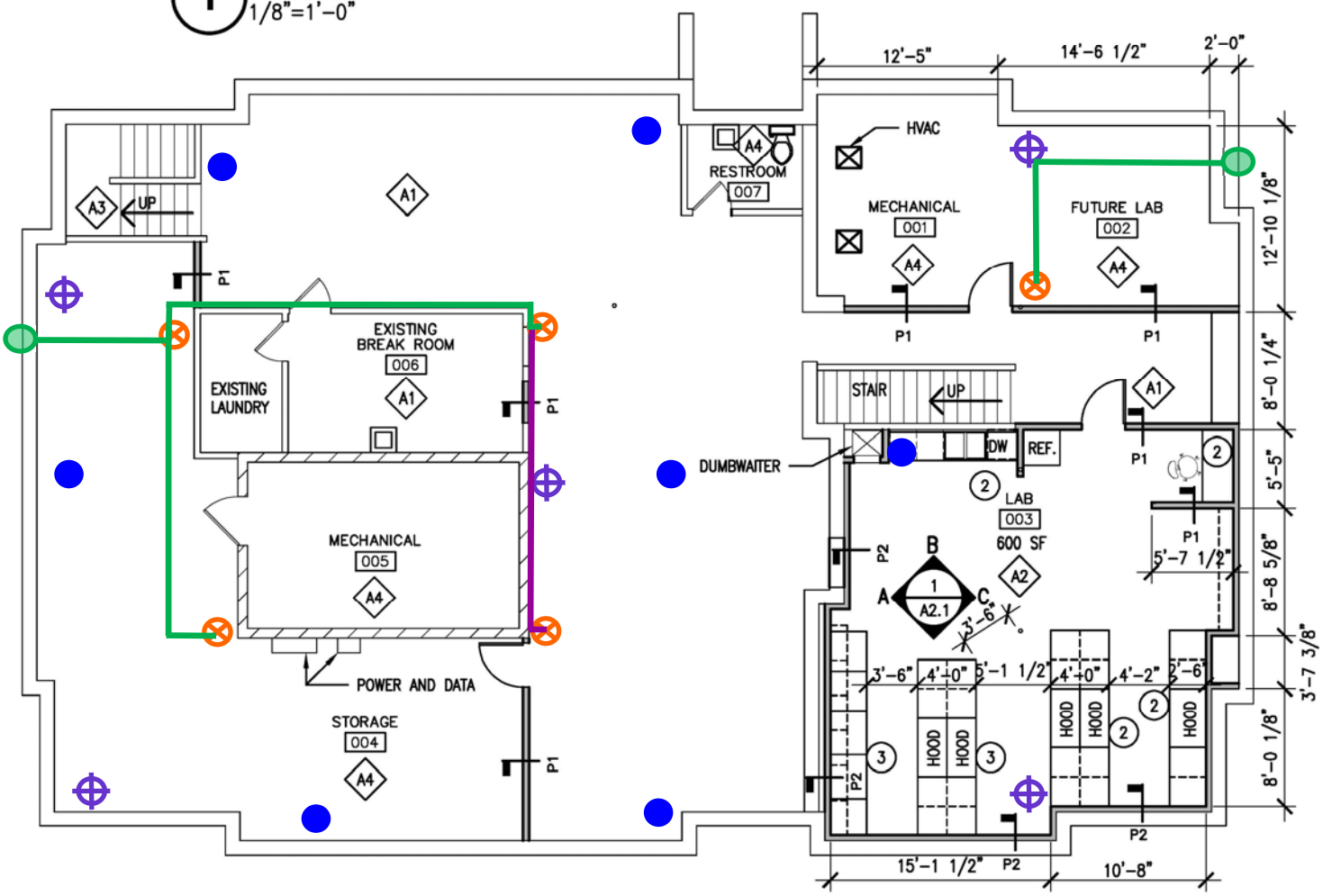
Adapted from Skechworks Architecture, LLC Floor Plans Bid Set, 12/26/2018

Approximate Vapor Pin Location

Approximate Communication Testing Point

TRUENORTH CONSULTANTS 525 Juncton Road Suite 1900 Madison, Wisconsin 53717	Site Location Client	Dental Building, LLC Property 4002 Monona Drive Madison, WI 53716 Dental Building, LLC 406 Science Drive, #410 Madison, WI 53711	Not To Scale	Figure 2 Project Number T218047 Date 03/15/2019

1 FIRST FLOOR AREA PLAN
1/8"=1'-0"



ADAPTED FROM SKECHWORKS ARCHITECTURE, LLC FLOOR PLANS BID SET, 12/26/2018

- VAPOR PIN LOCATION
- COMMUNICATION TESTING POINT
- MITIGATION SYSTEM PICK-UP POINT LOCATION
- VAPOR MITIGATION SYSTEM FAN AND VENT DISCHARGE
- 3-INCH DIAMETER PVC VENT PIPING
- 2-INCH DIAMETER PVC VENT PIPING

TRUENORTH CONSULTANTS
525 JUNCTON ROAD
SUITE 1900
MADISON, WISCONSIN 53717

SITE LOCATION
DENTAL BUILDING, LLC PROPERTY
4002 MONONA DRIVE
MADISON, WI 53716

CLIENT
DENTAL BUILDING, LLC
406 SCIENCE DRIVE, #410
MADISON, WI 53711

NOT TO SCALE

FIGURE 3

PROJECT NUMBER T218047

DATE 03/26/2019

ATTACHMENT A

Vapor Intrusion Mitigation Services

Anthony G. Hendricks P.E.

March 13, 2019

True North Consultants
Christopher H. Valcheff / Principal Consultant
525 Junction Rd. Suite 1900
Madison, WI 53717

Building Owner: Mr. Gary Ries, Dental Building LLC, 406 Science Drive, #410, Madison, WI 53711

Project: Mitigate Dental Building, LLC Property, 4002 Monona Dr., Monona, WI 53716

This location has been identified by other professionals as having a potential vapor intrusion problem and is in need of mitigation. Note: Acura Services LLC had no involvement in making this determination.

Building Description: The building is a one story commercial building over a basement. An addition was added to the building. The original basement is approximately 50 ft. wide by 55 ft. long. The basement addition which abuts the original basement is approximately 50 ft. wide by 30 ft. long.

Communication Testing

Communication testing was performed on March 13, 2019. Based on the communication testing and discussions with Chris Valcheff of True North Consultants a design concept for the mitigation system(s) was developed.

Summary

The communication testing in the original building demonstrated substantial leakage from perimeter cold joint, control cuts and gaps left around plumbing penetrations. Smoke testing was used to confirm that significant leakage was occurring. Some control joints were caulked in an attempt to improve communication. The large gap observed around a plumbing penetration was sealed with expanding foam. Based on leakage issues a design layout was developed moving most pickup points away from the perimeter of the building to reduce perimeter leakage from reducing the ability to extend the depressurization zone(s). The extensive nature of the leakage indicates that there is probably no vapor barrier under the slab in the original building. The material probed appeared to be a very fine builder's sand.

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Acura Services LLC

Vapor Intrusion Mitigation Services

Anthony G. Hendricks P.E.

Project: Mitigate Dental Building, LLC Property, 4002 Monona Dr., Monona, WI 53716

The communication testing in the addition on the south end of the building proved to be excellent indicating that potentially only one pickup point may be needed in that portion of the building.

Test Points (See sketch for approximate locations.)

Point 1 located near the bath room. A ¾ inch hole drilled through the concrete floor near the wall on the south east corner of the original building.
Point 2 located in the south end near the middle about 25 feet from Point. A ¾ inch hole drilled through the concrete floor about 8 feet of the south wall of the original building.
Point 3 located near the southwest corner of the original building. (The Monona Dr. side.)
Point 4 is the vapor pin in the addition is along the west wall near the middle.
Point 5 is a ¾ inch hole near the electric box in the addition.
Point 6 is a vapor pin near the east wall
Point 7 is a ¾ inch hole in the northeast corner near the stairs.
Point 8 is a vapor pin in the along the east northeast wall in front of the sump area.
Point 9 is located on the west wall in the original part of the building.
Point 10 is located on the north wall in the original part of the building.
Point 11, is a vapor pin located in the northwest corner of the original building.
Point 12 is a vapor pin located near the middle of the original building.

Test Results
Point 1 to 2 about 25 feet: - 0.001 to -0.002 WC; smoke testing reveal leakage in a control cut near point 2. Caulk was used to seal the joint. Retesting following sealing did not substantially improve.

Point 2 to 3 about 25 feet: - 0.008 WC.

Point 4 to point 5 about 26 feet: -0.135 WC. (In the addition.)

Point 5 to point 2 about 15 feet; -0.023 WC. Demonstrated communication under the footer between the original building and the addition.

Point 5 to point 6 about 25 feet: -0.145 WC. (In the addition.)

Point 4 to point 6 about 50 feet: -0.008 to -0.014 WC. (In the addition.)

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Project: Mitigate Dental Building, LLC Property, 4002 Monona Dr., Monona, WI 53716

Point 7 to point 8 about 12 feet: -0.003 to – 0.004 WC. Located near the unsealed sump; smoke testing indicated that the sump was leaking.

Point 9 to point 3 about 21 feet: -0.002 to -0.004 WC. Found a sewer near the wall not sealed to the floor. Sprayed urethane foam around the pipe to seal it.

Point 9 to point 11 about 25 feet; 0.000WC.

Point 10 to point 11 about 25 feet; 0.000 WC. Smoke testing found leakage along the wall at the cold joint.

Point 10 to point 8 about 15 feet; -0.000 WC. Negligible change probably due to leakage. Shelving prevented smoke testing to confirm.

Point 2 to point 12 about 10 feet; -0.080 WC.

Point 3 to point 12 about 25 feet; -0.001 WC.

Point 1 to point 12 about 25 feet: -0.001 to -0.002 WC.

Point 7 to point 12 about 30 feet; -0.008 WC

Point 9 to point 12 about 35 feet; 0.000 WC.

Design Concept

Original Building: Based on the results and discussions with Chris Valcheff about which walls would remain a design concept was developed. In the older part of the building due to the observed leakage issues most pickup points are to be located along interior walls that will remain in place. (See drawing for approximate location.) One pickup point is planned near the east wall in the approximate middle near where the system piping will exit the basement.

Addition: Based on the excellent communication results a single pickup point is planned in the designated utility area. The point will be moved out near the planned interior wall to the utility area. The system piping will then be run to exit the building.

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Fan test(s) on selected developed pickup points will be run to determine adequate fan sizing and check effectiveness of the design.

Testing To Establish Effectiveness of the Systems

Following startup of the systems depressurization testing will be done to demonstrate the effectiveness of the systems. A report will be written to document the results.

Prepared by;
Anthony G. Hendricks P.E / Owner

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ATTACHMENT B

Acura Services LLC

Vapor Intrusion Mitigation Services
Anthony G. Hendricks P.E.

March 26, 2019

True North Consultants
Christopher H. Valcheff / Principal Consultant
525 Junction Rd. Suite 1900
Madison, WI 53717

Building Owner: Mr. Gary Ries, Dental Building LLC, 406 Science Drive, #410, Madison, WI 53711

Project: Mitigate Dental Building, LLC Property, 4002 Monona Dr., Monona, WI 53716

Post Mitigation Report

Two mitigation systems were installed in the basement of this building based on communication testing and consultation with Chris Valcheff of True North Consultants. Communication testing was done March 13, 2019. Installation began March 18, 2019 and was completed March 26, 2019.

The system in the south end of the building, the addition that had been added on has one pickup point with one vacuum fan. The discharge exited the building on the south east corner. The discharge piping was run up above eave height.

The system in the main building, the northern two thirds of the building, had four pickup points all centrally located and all connected to one vacuum fan.

Vacuum Fans

The system in the south end of the building has an AMG Prowler fan mounted outside. The fan specifications are 115 V 60 HZ; 125 watts, MAX AMPs 1.32 at 2100 rpm. The Prowler has a max flow of 221 cfm at 0 inches WC and a MAX pressure of 3.0 inches W.G.

The system on the north end of the building has a Radonaway GP501 fan; 115 V 60 HZ; 85-153 Watts, has a maximum pressure of 4.0 inches WC and a recommended maximum operating pressure of 3.8 WC.

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Acura Services LLC

Vapor Intrusion Mitigation Services

Anthony G. Hendricks P.E.

Systems Startup

The south system was started up on 3/25/19 the installed manometer read 2.9 WC.

The north system was started up on 3/25/19 the installed manometer read 3.1 WC.

Post Mitigation/ Depressurization Testing

Readings were taken at points used for communication testing with a micro manometer.

Test Points (See sketch for approximate locations.)

Point 1 located near the bath room. A ¾ inch hole drilled through the concrete floor near the wall on the south east corner of the original building.
Point 2 located in the south end near the middle about 25 feet from Point. A ¾ inch hole drilled through the concrete floor about 8 feet of the south wall of the original building.
Point 3 located near the southwest corner of the original building. (The Monona Dr. side.)
Point 4 is the vapor pin in the addition is along the west wall near the middle.
Point 5 is a ¾ inch hole near the electric box in the addition.
Point 6 is a vapor pin near the east wall
Point 7 is a ¾ inch hole in the northeast corner near the stairs.
Point 8 is a vapor pin in the along the east northeast wall in front of the sump area.
Point 9 is located on the west wall in the original part of the building.
Point 10 is located on the north wall in the original part of the building.
Point 11, is a vapor pin located in the northwest corner of the original building.
Point 12 is a vapor pin located near the middle of the original building.

Test Readings Taken 3/26/19

Point 1 – minus -0.008 WC
Point 2 – minus -0.024 WC
Point 3 – minus -0.011 WC
Point 4 – minus -0.043 WC
Point 5 – minus -0.078 WC
Point 6 – minus -0.209 WC
Point 7 – minus -0.137 WC
Point 8 –minus -0.006 WC

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Point 9 – minus -0.022 WC
Point 10 – minus -0.058 WC
Point 11-- minus -0.004WC
Point 12 – minus –0.009 WC

Summary

The depressurization readings ranged from outstanding to adequate indicating that the sub slab has been successfully depressurized. During depressurization testing smoke testing found leakage near the pickup point on the northwest corner of the block utility room. Joints were caulked which led to improved readings. Some of the vapor pins may have been loose giving lower readings than were actually occurring. The sump lid was sealed. Ice and debris traps were installed outside in the piping just above each fan.

Prepared by;
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ATTACHMENT C

VAPOR MITIGATION SYSTEM MAINTENANCE PLAN
4002 Monona Drive, Madison, Wisconsin

March 27, 2019

Property Located at 4002 Monona Drive in Madison, Wisconsin

WDNR BRRTS Activity #02-13-368525

Legal Description, see **Attachment A**

Parcel ID #251/0710-093-0401-6

INTRODUCTION

This document is the Maintenance Plan for an active vapor mitigation system (VMS) at the above-referenced property consistent with requirements of s. NR 724.13(2), Wis. Adm. Code. More site-specific information about this property may be found in:

- The case file in the WDNR South Central office
- BRRTS on the Web (WDNR's internet-based database of contaminated sites) for the link to a PDF for site-specific information at the time of closure and on continuing obligations
- RR Sites Map/GIS Registry layer for a map view of the site
- The WDNR project manager for the property

D.I DESCRIPTIONS

System Description, Purpose, and Location

The VMS was constructed by Acura Services, LLC (Acura) consistent with approved Drycleaner Environmental Response Fund (DERF) Change Order No. 8 dated March 6, 2019. It was designed to reduce the potential for vapor intrusion into the building by depressurizing the building sub-slab. The VMS was required because chlorinated volatile organic compounds (CVOCs) were detected in the sub-slab concentrations in excess of the Wisconsin Department of Natural Resources (WDNR) vapor risk screening levels (VRSLs). The locations of various VMS components are shown on **Figure D.2**.

System Design and Construction Documentation

Photographs of the VMS are included in **Attachment B**. Due to the building having been expanded, two separate systems were installed at the *property*.

The southern portion VMS was constructed with one vacuum pick-up point in the southeast corner of the building. This pick-up point was constructed of three-inch diameter schedule 40 polyvinyl chloride (PVC) piping set in the sub slab material. The PVC pipe was sealed to the floor to prevent leakage. The PVC riser pipe was run up to the ceiling of the basement and run towards the east well and then south, exiting near the southeast corner of the building. An AMG Prowler vacuum fan, with a maximum flow of 221 cubic feet per minute (cfm) at 0 inches of water column (WC) and a maximum operating pressure of 3.0 inches WC, was connected to PVC pipes on the exterior of the building. The exhaust pipe for the fan was extended a few feet above the roof line. At start-up the fan was pulling approximately 2.9 inches of WC.

The northern VMS was constructed with four vacuum pick-up points located around the center mechanical room/break rooms. Two pick-up points were installed to the north of these rooms and two were installed to the south of these rooms. One of the pick-up points on the southwest corner of the mechanical room is a two-inch diameter schedule 40 PVC pipe. The remaining pick-up points are constructed of three-inch diameter schedule 40 PVC pipe.

Two-inch diameter PVC piping runs east, along the exterior of the mechanical room wall/breakroom wall, from the southwest pick-up point and connects with the southeast pick-up point and transitions to three-inch diameter schedule 40 PVC piping. The three-inch piping runs to the north, along the ceiling, and connects with the northeast pick-up point and then continues, along the ceiling, to exit to the north side of the building. The northwest pickup point piping runs to the east, along the ceiling, and connects to the piping for the other three pick-up points to exit on the north side of the building. A RadonAway GP501 vacuum fan, with a typical flow of 66 cfm at 2 inches of WC and a maximum operating pressure of 4.0 inches WC, was connected to PVC pipes on the exterior of the building. The exhaust pipe for the fan was extended a few feet above the roof line. At start-up the fan was pulling approximately 3.1 inches of WC.

Each fan was equipped with an on/off switch for servicing and a manometer was fitted to one of the pick-up points for each system installed. Electrical service was connected on circuits not controlled by a switch, ensuring that the systems would be continuously operational.

System Maintenance

Minimal operator control or maintenance of the VMS is required. There are no service requirements for the fans. The fans status is checked using manometers. If a manometer displays greater than zero, the vacuum fan is functioning properly.

The floor of the basement should be maintained as a barrier to prevent vapor intrusion. The structural integrity of the floor should be maintained, and any changes or repairs to the floor need to account for keeping the floor as impermeable as when the VMS was installed.

The potential for vapor intrusion of CVOCs should be re-evaluated if there are changes to the floor, building, HVAC system, or other changes that may influence the sub-slab vacuum distribution. If changes are made, pressure field extension testing of the sub-slab should be completed to make sure that adequate sub-slab vacuum is maintained.

Malfunctioning or damaged system components should be replaced as soon as possible, and any changes or repairs should be documented in the attached inspection and maintenance log (**Attachment C**).

Inspections

The VMS should be inspected at least once per year during the heating season as follows:

- Inspect manometers
  - If manometer vacuum reads zero, check the fan on/off switch to make sure the fan is on, and check the circuit breaker. Reset on/off switch and circuit breaker as needed. If resets do not restart the system, replace the fan.
  - If manometer shows low vacuum (e.g., less than 2.5 inches WC) check for vacuum leaks in pick-up point piping and repair as necessary.
  - If fan vacuum cannot be rectified contact SCS Engineers at (608)224-2830 or Acura Services LLC at (608)772-2349.

- Inspect fan exhaust lines to prevent clogging of fan exhaust, and remove any accumulated debris.

- Inspect floors and maintain as necessary to prevent vapor migration and vacuum loss.

- Record manometer readings and document repairs to VMS, floors, or HVAC system on Form 4400-305, Continuing Obligations Inspection and Maintenance Log (**Attachment C**).

- Keep copies of the Inspection and Maintenance Log at the facility and available for submittal or inspection by WDNR representatives upon request.

Prohibition of Activities and Notifications of WDNR Prior to Actions Affecting the VMS

The following activities are prohibited unless prior written approval has been obtained from the WDNR:

1. Shutdown or removal of the VMS
2. Replacement of the VMS
3. Construction or placement of a building or structure
4. Changing the use or occupancy of the property to a residential exposure setting, which may include certain uses, such as single-family or multi-family residences, a school, daycare, senior center, hospital, or similar residential exposure settings

If removal, replacement, or other changes are considered, the property owner will contact WDNR at least 45 days before taking such an action, to determine whether further action may be necessary to protect human health, safety, or welfare or the environment, in accordance with s. NR 727.07, Wis. Adm. Code.

Amendment or Withdrawal of Maintenance Plan

This Maintenance Plan can be amended or withdrawn by the property owner and its successors with the written approval of WDNR.

Contact Information

Property Owner:	Ms. Janell Hoey Hoey Properties – Madison, LLC 4002 Monona Drive Madison, WI 53713 608.221.4639
Consultant for Property Owner:	Mr. Chris Valcheff True North Consultants, Inc. 525 Junction Road, Suite 1900 Madison, WI 53717 608.234.5092
Responsible Party:	Mr. Ralph Stinson 4218 Green Avenue Madison, WI 53704 608.244.6172

Responsible Party Consultant:	Mr. Robert Langdon SCS Engineers 2830 Dairy Drive Madison, WI 53718 608.224.2830
WDNR Project Manager:	Mr. Michael Schmoller WDNR – South Central Region 3911 Fish Hatchery Road Fitchburg, WI 53711 608.275.3303

D.2 LOCATION MAP

See **Figure D.2** for a map of features to maintain.

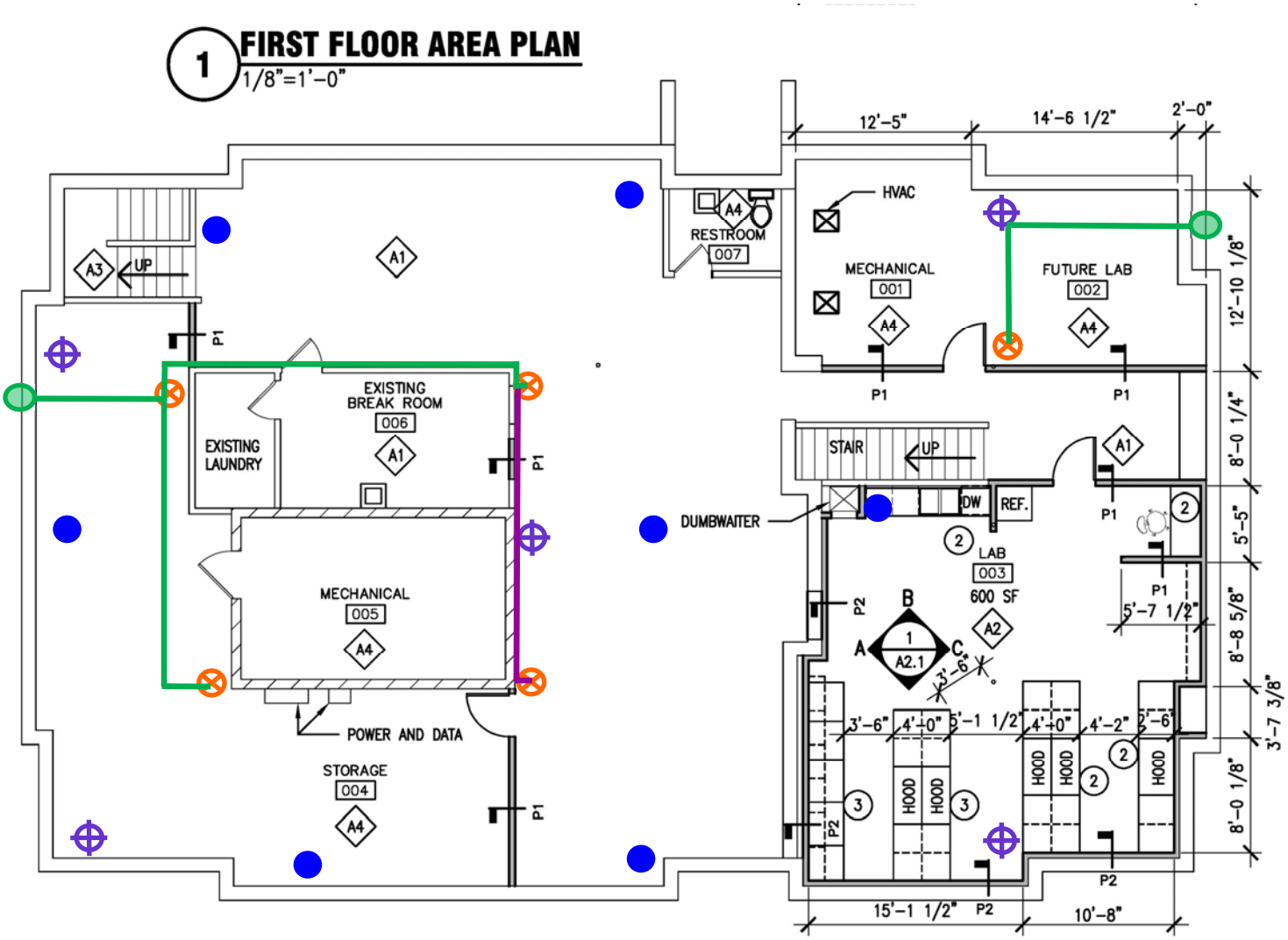
D.3 PHOTOGRAPHS

Photographs are included in **Attachment B**.

D.4 INSPECTION LOG

Inspection logs are included in **Attachment C**.

FIGURE



ADAPTED FROM SKECHWORKS ARCHITECTURE, LLC FLOOR PLANS BID SET, 12/26/2018

- VAPOR PIN LOCATION
- COMMUNICATION TESTING POINT
- MITIGATION SYSTEM PICK-UP POINT LOCATION
- VAPOR MITIGATION SYSTEM FAN AND VENT DISCHARGE
- 3-INCH DIAMETER PVC VENT PIPING
- 2-INCH DIAMETER PVC VENT PIPING

TRUENORTH CONSULTANTS
525 JUNCTON ROAD
SUITE 1900
MADISON, WISCONSIN 53717

SITE LOCATION
DENTAL BUILDING, LLC PROPERTY
4002 MONONA DRIVE
MADISON, WI 53716

CLIENT
DENTAL BUILDING, LLC
406 SCIENCE DRIVE, #410
MADISON, WI 53711

NOT TO SCALE

FIGURE
D.2

PROJECT NUMBER
T218047

DATE
03/26/2019

ATTACHMENT A

LEGAL DESCRIPTION

LEGAL DESCRIPTION

FEE SIMPLE WITH TEMPORARY LIMITED EASEMENT

Parcel 48 Project 5994-00-00-2

Fee title in and to the all land of the owner of Lots 12 and 13 Block 1 Lake Edge Park located in the Northwest One-Quarter of the Southwest One-Quarter of Section 9, T7N, R10E, City of Madison, Dane County, Wisconsin contained in the following described traverse:

Commencing at the West One-Quarter corner of Section 16, T7N, R10E, thence N00°39'48"E 2288.94 feet, along the west line of the Northwest One-Quarter of Section 16; thence N88°32'00"W 4.05 feet to a point; thence N01°28'00"E 159.63 feet, to the point of curvature of a curve to the right; thence northeasterly 376.65 feet along the arc of said curve having a radius of 947.45 feet, a chord bearing N12°51'19"E 374.17 feet, to a point of tangency; thence N24°14'39"E 943.63 feet, to the point of curvature of a curve to the left; thence northeasterly 50.98 feet along the arc of said curve having a radius of 900.00 feet, a chord bearing N22°37'17"E 50.97 feet, to a point of tangency; thence N19°33'24"E 1.67 feet, to the point of curvature of a curve to the left; thence northeasterly 105.02 feet along the arc of said curve having a radius of 792.09 feet, a chord bearing N15°45'31"E 104.94 feet, to a point of tangency; thence N11°57'38"E 39.20 feet, to the point of curvature of a curve to the left; thence northeasterly 231.30 feet along the arc of said curve having a radius of 895.00 feet, a chord bearing N04°33'24"E 230.66 feet, to a point of tangency; thence N05°09'38"W 54.26 feet; thence N84°50'22"E 35.76 feet, to the Point of Beginning; thence N06°40'04"W 211.62 feet; thence N15°17'16"W 100.01 feet; thence N15°14'33"W 434.20 feet; to the point of curvature of a curve to the right; thence northeasterly 9.63 feet along the arc of said curve having a radius of 15.00 feet, a chord bearing N03°09'10"E 9.47 feet; thence S15°15'10"E 294.76 feet; thence N74°44'50"E 1.00 feet; thence S15°15'10"E 194.26 feet, to the point of curvature of a curve to the right; thence southeasterly 92.41 feet along the arc of said curve having a radius of 737.00 feet, a chord bearing S11°39'38"E 92.35 feet; thence S08°24'06"E 229.86 feet; thence S01°12'58"E 50.73 feet; thence S00°12'08"W 36.43 feet; thence northwesterly 7.24 feet along the arc of said curve having a radius of 40.00 feet, a chord bearing N12°29'52"W 7.24 feet, to a point of tangency; thence N07°04'18"W 135.43 feet, to the Point of Beginning.

Said parcel contains 0.005 acres, more or less for highway purposes

LEGAL DESCRIPTION

Parcel 48 Project 5994-00-00-2

A **Temporary Limited Easement** for the right to construct cut and/or fill slopes, including for such purpose the right to operate the necessary equipment thereon and the right of ingress and egress as long as required for such public purpose, including the right to preserve, protect, remove, or plant thereon any vegetation that the highway authorities may deem necessary or desirable, in and to the following tract of land in the City of Madison, Dane County, State of Wisconsin, described as:

The West 14 feet of Lots 12 and 13 Block 1 Lake Edge Park located in the Northwest One-Quarter of the Southwest One-Quarter of Section 9, T7N, R10E, City of Madison, Dane County, Wisconsin

This parcel contains 0.02 acres, more or less.

All Temporary Limited Easements expire at the completion of the construction project for which this instrument is given.

ATTACHMENT B

PHOTOGRAPHS

#1: Pre-installation communication testing.

#2: Pre-installation communication testing.

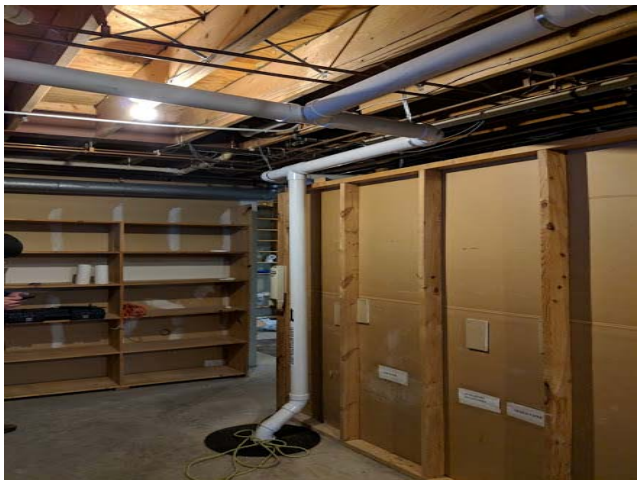
#3: Pick-up point installation through the slab exposing sub-slab materials.

#4: Pick-up point installation sealed to concrete slab.

#5: Pick-up point installed and fan temporarily mounted on pick-up point for evaluation of fan requirements.

#6: Completed pick-up point in northwest corner of basement.

#7: View of VMS piping located on northern portion of basement and labeled.

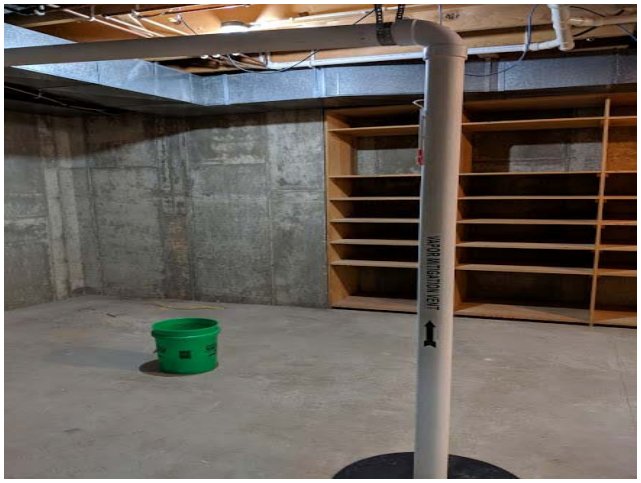


#8: View of completed pick-up point in northeast corner of basement.

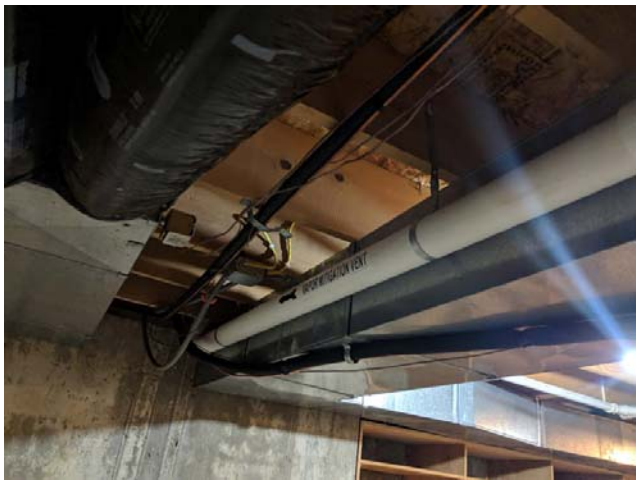
#9: View of VMS piping running along west side of breakroom and labeled.

#10: View of completed pickup points. Pick-up point in front is southeast point and pickup point in background is the southwest pick-up point.

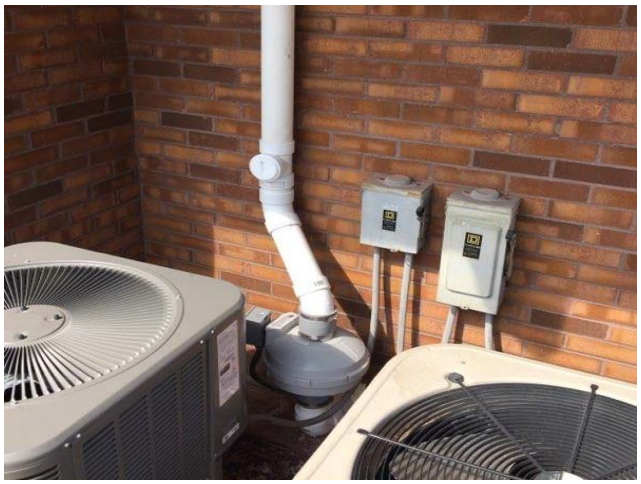
#11: View of southwest pick-up point and associated piping running to the east toward southeast pick-up point.



#12: View of completed, southern VMS system pick-up point.



#13: View of southern VMS piping exiting on the south side of the basement.



#14: View of exterior southern VMS fan and vent piping.

#15: View of exterior southern VMS fan and vent piping.

#16: Southern VMS fan and piping on the south side of the building.

#17: Northern VMS piping exit and fan location.

#18: Northern VMS fan and piping on the north side of the building.

ATTACHMENT C

INSPECTION LOGS

State of Wisconsin
Department of Natural Resources
dnr.wi.gov

Continuing Obligations Inspection and Maintenance Log

Form 4400-305 (2/14)

Directions: In accordance with s. NR 727.05 (1) (b) 3., Wis. Adm. Code, use of this form for documenting the inspections and maintenance of certain continuing obligations is required. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records law [ss. 19.31-19.39, Wis. Stats.]. When using this form, identify the condition that is being inspected. See the closure approval letter for this site for requirements regarding the submittal of this form to the Department of Natural Resources. A copy of this inspection log is required to be maintained either on the property, or at a location specified in the closure approval letter. Do NOT delete previous inspection results. This form was developed to provide a continuous history of site inspection results. The Department of Natural Resources project manager is identified in the closure letter. The project manager may also be identified from the database, BRRTS on the Web, at http://dnr.wi.gov/botw/SetUpBasicSearchForm.do, by searching for the site using the BRRTS ID number, and then looking in the "Who" section.

Activity (Site) Name	BRRTS No.
Classic Cleaners	02-13-368525

Inspections are required to be conducted (see closure approval letter):

- ◉ annually
- ○ semi-annually
- ○ other – specify ____________

When submittal of this form is required, submit the form electronically to the DNR project manager. An electronic version of this filled out form, or a scanned version may be sent to the following email address (see closure approval letter):

Inspection Date	Inspector Name	Item	Describe the condition of the item that is being inspected	Recommendations for repair or maintenance	Previous recommendations implemented?	Photographs taken and attached?
		☐ monitoring well ☐ cover/barrier ☒ vapor mitigation system ☐ other:			○ Y ○ N	○ Y ○ N
		☐ monitoring well ☐ cover/barrier ☒ vapor mitigation system ☐ other:			○ Y ○ N	○ Y ○ N
		☐ monitoring well ☐ cover/barrier ☒ vapor mitigation system ☐ other:			○ Y ○ N	○ Y ○ N
		☐ monitoring well ☐ cover/barrier ☒ vapor mitigation system ☐ other:			○ Y ○ N	○ Y ○ N
		☐ monitoring well ☐ cover/barrier ☒ vapor mitigation system ☐ other:			○ Y ○ N	○ Y ○ N
		☐ monitoring well ☐ cover/barrier ☒ vapor mitigation system ☐ other:			○ Y ○ N	○ Y ○ N

Continuing Obligations Inspection and Maintenance Log

{Click to Add/Edit Image}

Date added:

Title:

{Click to Add/Edit Image}

Date added:

Title: