



# GILES

ENGINEERING ASSOCIATES, INC.

GEOTECHNICAL, ENVIRONMENTAL & CONSTRUCTION MATERIALS CONSULTANTS

• Dallas, TX  
• Los Angeles, CA  
• Manassas, VA  
• Milwaukee, WI

May 8, 2023

Wisconsin Department of Natural Resources  
Remediation and Redevelopment Program  
Southeast Region Office  
1027 W. St. Paul Avenue  
Milwaukee, WI 53233

Attention: Ms. Shanna Laube-Anderson c/o  
Ms. Jennifer Meyer

Subject: Response to WDNR Correspondence dated July 26, 2022  
Martinizing Dry Cleaning Site  
1730 State St.  
Racine, Wisconsin 53404  
BRRTS No. 02-52-549890 / FID No. 252251010  
Project No. 1E-0909013

Dear Ms. Laube-Anderson:

Giles Engineering Associates, Inc. (Giles) has prepared the following response to the Wisconsin Department of Natural Resources (WDNR) concerns presented in their correspondence dated July 26, 2022. The WDNR has requested that the following concerns be addressed including:

***1. The DNR concurs with the proposal to collect one full round of groundwater samples from the current groundwater monitoring wells to be analyzed for VOCs prior to installing the proposed monitoring wells and, piezometers, with the recommendations that the monitoring wells be redeveloped prior to sampling and that water level elevations be measured as part of the sampling effort to ensure proposed monitoring well placements are appropriate based upon the most current flow direction information.***

Understood.

***2. Evaluate whether the proposed piezometer located near MW-5 would be placed closer to the western side of the property near MW-3. The DNR concurs with locating a piezometer near MW-2. Provide the proposed depths for the piezometers compared to the depths of existing monitoring wells.***

After considering your thought, Giles will relocate the piezometer from near MW-5 to MW-3. The existing wells were installed to depths of either 13 or 16 feet. The piezometer depths will be determined in the field based on soil types encountered and will likely be greater than twenty-five (25) feet or more with a 5-foot screen. See the revised Figure 1 within the Revised proposal dated July 8, 2020, which is attached.



**3. Provide the specific proposed monitoring well construction details and request a variance to Wis Admin. Code ch. NR 141 requirements, if necessary. Describe the protective measures that will be taken when installing the piezometers to prevent them from becoming conduits for downward migration of shallow contamination, especially the source area.**

The groundwater table monitoring wells will need a variance since the water table is shallow between 2 to 6 feet deep and Giles is planning on using  $\frac{3}{4}$ -inch inner diameter (I.D.) pre-packed well screens using soil probing methods. The filter pack seal shall be reduced from 2 feet of fine sand material to 1 foot. The bentonite seal (granules) and annular space seal (bentonite granules) shall be placed as one unit and be 1 foot thick instead of 2 and 2 feet (4 feet total), respectively. The proposed wells/piezometers will be finished with flushmount well covers with 1 foot of concrete as the surface seal.

Piezometers will be installed by the drillers as per WDNR NR 141 requirements with a variance for  $\frac{3}{4}$ -inch I.D pre-packed well screens. Piezometers will be installed by the drillers using soil probing methods. Soil within the sleeves of the soil probe will be containerized by the drillers in 55-gallon drums and staged on-site for latter disposal. Soil sleeves and hand tools will be cleaned by the drillers prior to arrival and cleaned in between each drilling hole to minimize cross contamination.

**4. The DNR concurs with the proposal to conduct quarterly sampling of the existing and proposed monitoring wells.**

Understood.

**5. The WDNR concurs with the soil borings proposed within the building.**

Understood.

**6. Shallow soil contamination near State Street would be better defined by adding soil borings in the area between MW-7 and MW-3, to collect samples from 0-4 feet below the ground surface.**

Giles will perform two additional soil probes between MW-3 and MW-7 from 0-4 feet and analyze the soil samples for VOCs.

**7. Potential migration of groundwater and/or vapor along the underground utilities should be evaluated, adding the location of all underground utilities that are adjacent to or on the property on the site maps.**

These additions to the series of maps will be performed by Giles within the Supplemental Site Investigation Report.



**8. The vapor migration system should be designed to protect the entire building. Additional sub-slab vapor samples beneath the building on the property are not recommended. The sub-slab vapor samples previously collected had PCE levels that warrant installation of a sub-slab vapor mitigation system. Given the expected temporal and spatial variability of vapor results, the proposed additional sub-slab vapor samples would not be adequate to either limit the aerial coverage required for the mitigation system or to determine that a system is not needed. A commissioning plan should be proposed to demonstrate that the system is working as designed.**

The RP is in the process of coordinating the work with a vapor mitigation contractor directly. Giles will be installing three vapor ports on both sides of the building to use for performing sub-slab pressure field test after the installation of the depressurization system. A Vapor Commissioning Plan will then be prepared following the sub-slab pressure field test.

Please contact the undersigned with any questions.

Very truly yours,

GILES ENGINEERING ASSOCIATES, INC.

Daniel K. Pelczar, P.G., C.P.G.  
Senior Project Manager

Kevin T. Bugel, P.G., C.P.G.  
Environmental Division Manager

Attachments: Change Order No. 3 (October 27, 2015; REV: July 8, 2020)

Distribution: Wisconsin Department of Natural Resources  
Attn: Ms. Shanna Laube-Anderson (Upload to DNR website)  
BMP Reality, LLC  
Attn: Mr. Jason Berry (via email: [jberry1907@gmail.com](mailto:jberry1907@gmail.com))

**ATTACHMENT**

***Change Order No. 3***  
***(October 27, 2015; REV: July 8, 2020)***



# GILES

ENGINEERING ASSOCIATES, INC.

GEOTECHNICAL, ENVIRONMENTAL & CONSTRUCTION MATERIALS CONSULTANTS

- Atlanta, GA
- Dallas, TX
- Los Angeles, CA
- Manassas, VA
- Milwaukee, WI

October 27, 2015  
**Revised** July 8, 2020

Wisconsin Department of Natural Resources  
141 NW Barstow Street  
Waukesha, WI 53188

Attention: Ms. Shanna Laube-Anderson

Subject: Change Order No. 3 - Proposed Additional Site Investigation  
and Cost Estimate  
Martinizing Dry Cleaning Site  
1730 State Street  
Racine, Wisconsin  
Proposal No. 1EP-1904012  
BRRTS No. 02-52-549890/FID No. 252251010

Dear Ms. Laube-Anderson:

Giles Engineering Associates, Inc. (Giles) has prepared this Change Order #3 which includes a scope of services and cost estimate on behalf of BMP Realty LLC, owner of the Martinizing Racine property (the "Site"), located at 1730 State Street, in Racine, Wisconsin. Based on our previous correspondence and dialog, it is our understanding that the Wisconsin Department of Natural Resources (WDNR) has requested that additional site investigation (SI) work be completed to determine the vertical extent of contamination near soil boring GP-1/MW-2. In addition, up to four quarterly groundwater sampling events are required to establish the groundwater contaminant trends.

## **BACKGROUND**

The Site operated as a gasoline filling station in the early 1930s to 1970. In 1970, the Site became a self-service coin laundromat and a dry cleaning facility. Dry cleaning operations were performed at the Site until approximately 2004. Currently, the former dry cleaning portion of the building Site is leased and occupied a cell phone store. The south portion of the building continues to operate as a laundromat. Site Plan illustrating the current building is included as Figure 1.

The results of the initial environmental investigation (2007) and the SI (2010) have shown that low-level petroleum volatile organic compounds (PVOCs) and elevated concentrations of chlorinated VOCs (CVOCs) were detected in the soil and groundwater at the Site. The petroleum impacts are inferred to be associated with the historic use of the Site as a gasoline station, and CVOCs are associated with the former on-Site dry cleaning operation. The extent of groundwater impacts are shown on Figure 2 and soil impacts are shown on Figure 3.



The detected PVOCs in soil are generally present on the western portion of the Site at concentrations below the WDNR NR 720 residual contaminant levels (RCLs). CVOCs were detected in soil at levels exceeding the RCLs for protection of groundwater. The distribution of the CVOCs generally appears to be beneath the building and in the paved area immediately northwest of the building. The highest soil concentrations exceed the WDNR landfill standard for Contaminated-Out, Non-Hazardous Material and are located immediately north and west of the service door on the north side of the building. Soil results are summarized in Table 1.

The direction of groundwater flow has been generally to the south or southwest across the Site. However, a "mounded" groundwater condition was noted during groundwater sampling events performed in August and December of 2010, with the high point being monitoring well MW-2, located on the north side of the building.

PVOCs were detected in the groundwater on the west portion of the Site. The detected concentration of benzene exceeded its NR 140 Preventative Action Limit (PAL) or Enforcement Standard (ES) in a groundwater grab sample from temporary well TW-1 in February 2010 and during the two quarterly groundwater sampling events in 2010 in wells MW-6 and MW-7.

Groundwater samples collected from monitoring wells located within the building (MW-1) and to the north, west, and south of the building (MW-2, MW-3, MW-4, MW-7, and MW-8) contained concentrations of CVOCs above their respective NR 140 ES or PAL. Groundwater results are summarized in Table 2.

Sub-slab vapor samples were collected from inside the on-Site building from vapor points VP-1 and VP-2. Vapor point VP-1 was located near the dry cleaning machine, and VP-2 was located in the other unit. Both soil vapor samples contained PCE above the Vapor Risk Screening Level for large commercial/industrial properties. The locations of the sampling points are shown on Figure 4 and the soil gas analytical results are summarized in Table 3.

At this time, it is our understanding that additional SI activities are necessary to determine the vertical extent of contamination near soil boring GP-1/MW-2. In addition, the WDNR has requested that we establish the current groundwater contaminant trends, the extent of groundwater contamination to the north, west and east, and a vapor intrusion assessment for the property to the north. The additional SI activities will be completed prior to bidding the remediation phase of this project.

## **PROPOSED SCOPE OF SERVICES**

- Prepare this Change Order #3 to provide a description of the proposed soil, soil gas, and groundwater sampling services and associated costs for WDNR review and approval.
- Establish top of casing elevations for the existing groundwater monitoring well network, wells MW-1 through MW-8, and gauge the groundwater elevations in each of the wells.
- Re-develop existing wells MW-1 through MW-8. The wells were last sampled in 2010; therefore, redevelopment is necessary to ensure representative groundwater samples are





collected. Development water will be temporarily stored on-Site until Giles can arrange proper disposal.

- Collect one groundwater sample from each of the groundwater monitoring wells (eight samples total) to evaluate the current groundwater conditions at the Site. Groundwater samples will be collected using a peristaltic pump and low-flow sampling techniques. The groundwater samples will be submitted to a Wisconsin Licensed Analytical Laboratory for analysis of VOCs by U.S. EPA Method 8260.
- Evaluate the groundwater results from the initial groundwater sampling event. Based on the results of the initial sampling event, Giles will install up to four NR-141 variance wells, and up to two NR-141 variance piezometers to further define the extent of groundwater contamination at the Site (up to 6 new wells/piezometers total).
- Survey and develop the newly installed wells/piezometers.
- Two soil samples will be collected during the completion of each new well/piezometer and submitted to a Wisconsin licensed analytical laboratory for analysis of VOCs (possible total of 12 soil samples).
- Additionally, Giles will complete two soil borings within the on-Site building to further define the extent of soil impacts. Two soil samples will be collected from each interior boring and submitted to a Wisconsin licensed analytical laboratory for analysis of VOCs.
- Perform up to three quarterly groundwater sampling events to include the existing (8) and any newly installed (up to 6) monitoring wells/piezometers. Sampling events will include a minimum of 8 and a maximum of 14 groundwater samples per sampling event (24 to 42 samples total for three events). Groundwater will be collected using low-flow sampling techniques. The groundwater samples will be submitted to a Wisconsin Licensed Analytical Laboratory for analysis of VOCs by U.S. EPA Method 8260.
- Coordinate the transport and disposal of wastewater generated during development and from the groundwater sampling events, and soil spoils generated during the well installation.
- Install two sub-slab vapor points within the on-Site building, and one within the off-Site garage building that abuts the Site to the north. Collect one sub-slab soil gas sample from each of the three vapor points and submit the samples for laboratory analysis of VOCs.
- Coordinate with a subcontractor for the installation of a sub-slab depressurization system beneath the existing on-Site building's concrete slab. The system will likely require two separate manifolds due to the presence of a structural wall down the center of the building.
- Perform a sub-slab pressure field test after installation of the depressurization system to ensure the system is working properly, and that an adequate pressure field is established (> or = to 0.04 inches of water).
- Prepare a Supplemental Investigation Report summarizing the tasks performed, results of soil, soil gas, and groundwater chemical analyses, and provide recommendations for additional delineation, site characterization, monitoring, or remediation.







Proposed locations of the groundwater wells, piezometers, and soil samples included in the scope of services are shown on Figures 1 through 3. The proposed sub-slab depressurization system and locations of the two proposed sub-slab vapor points are shown on Figure 4.

## **COST**

The estimated cost to complete referenced scope of services is **\$32,870**. The costs for soil and groundwater sampling assumes that in addition to the eight existing wells, four groundwater monitoring wells and two piezometers will be installed and sampled (total of 14 wells/piezometers in the groundwater monitoring network). The cost also assumes that the two interior soil borings will be completed the same day the additional wells/piezometers are installed. Should these wells/piezometers not be installed, the drilling costs for mobilization/demobilization costs and decontamination would still apply.

A detailed cost summary is attached as Table 4 and in the attached DERF Investigation Bid Sheet (WDNR Form 4400-233). The estimated costs have been prepared based on good-faith estimates submitted from select qualified commodity service providers based on the proposed scope of services. Due to the potential for WDNR revisions/additional to the scope of services, final compensation will be determined based on the actual lineal footage of borings drilled, waste disposal tipping and transportation fees, number of types of laboratory tests performed, and the actual costs for professional services. Also, it should be noted that the fees presented in the attached bid sheets do not include costs for expedited analytical turnaround time

If project costs are envisioned to exceed the estimated amount due to circumstances listed in NR169.21(2)(e), Giles will not incur additional costs in excess of \$3,000.00 or 5 percent of the total project amount (whichever is lower) without prior authorization from you and the WDNR. Additional communication, correspondence, or supplemental reporting is not included in the scope of services or cost estimate.

## **SCHEDULE**

Giles anticipates 10 to 12 months from the anticipated date of authorization to proceed to complete through the completion of the proposed scope of services.





Proposed Additional Site Investigation and Cost Estimate  
Martinizing Dry Cleaning Site - Change Order No. 3  
Racine, Wisconsin  
Project No. 1EP-1904012  
Page 5



**GILES**  
ENGINEERING ASSOCIATES, INC.

## CLOSURE

Thank you for the opportunity to offer our engineering services. Should you have any questions relating to the proposed services or if we can be of additional assistance, please do not hesitate to call.

Respectfully submitted,

GILES ENGINEERING ASSOCIATES, INC.

A handwritten signature in blue ink, appearing to read 'Kevin T. Bugel'.

Kevin T. Bugel, P.G., C.P.G.  
Environmental Division Manager

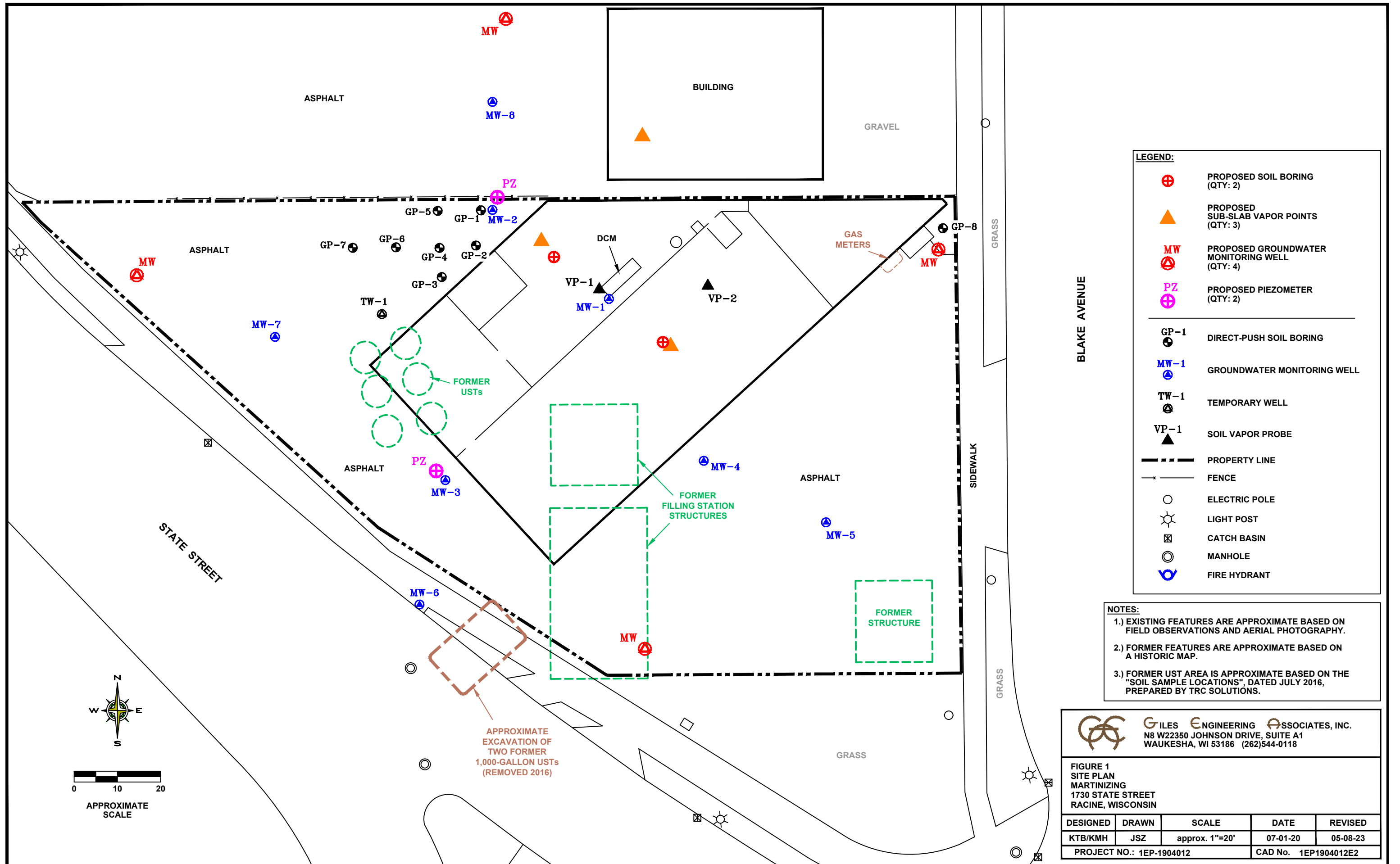
## ENCLOSURES

Figures: Figure 1 Site Plan  
Figure 2 Soil Analytical Results  
Figure 3 Groundwater Analytical Results  
Figure 4 Proposed Sub-Slab Depressurization System

Attachments: Table 1 Soil Analytical Results  
Table 2 Groundwater Analytical Results  
Table 3 Vapor Analytical Results  
Table 4 Proposed Cost Estimate  
DERF Site Investigation Bid Sheet Form 4400-233 (R4/04)

Distribution: Wisconsin Department of Natural Resources  
Attn: Ms. Shanna Laube-Anderson (via USPS and DNR Upload)  
BMP Realty  
Attn: Mr. Jason Berry (via email: [jberry1907@gmail.com](mailto:jberry1907@gmail.com))





**LEGEND:**

- ⊕ PROPOSED SOIL BORING (QTY: 2)
- ▲ PROPOSED SUB-SLAB VAPOR POINTS (QTY: 3)
- ⊗ PROPOSED GROUNDWATER MONITORING WELL (QTY: 4)
- ⊕ PROPOSED PIEZOMETER (QTY: 2)

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- GP-1 DIRECT-PUSH SOIL BORING
- ⊗ MW-1 GROUNDWATER MONITORING WELL
- ⊗ TW-1 TEMPORARY WELL
- ▲ VP-1 SOIL VAPOR PROBE
- PROPERTY LINE
- FENCE
- ELECTRIC POLE
- ☀ LIGHT POST
- ⊠ CATCH BASIN
- ⊙ MANHOLE
- ⊕ FIRE HYDRANT

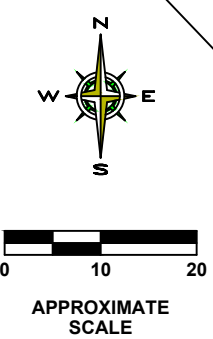
**NOTES:**

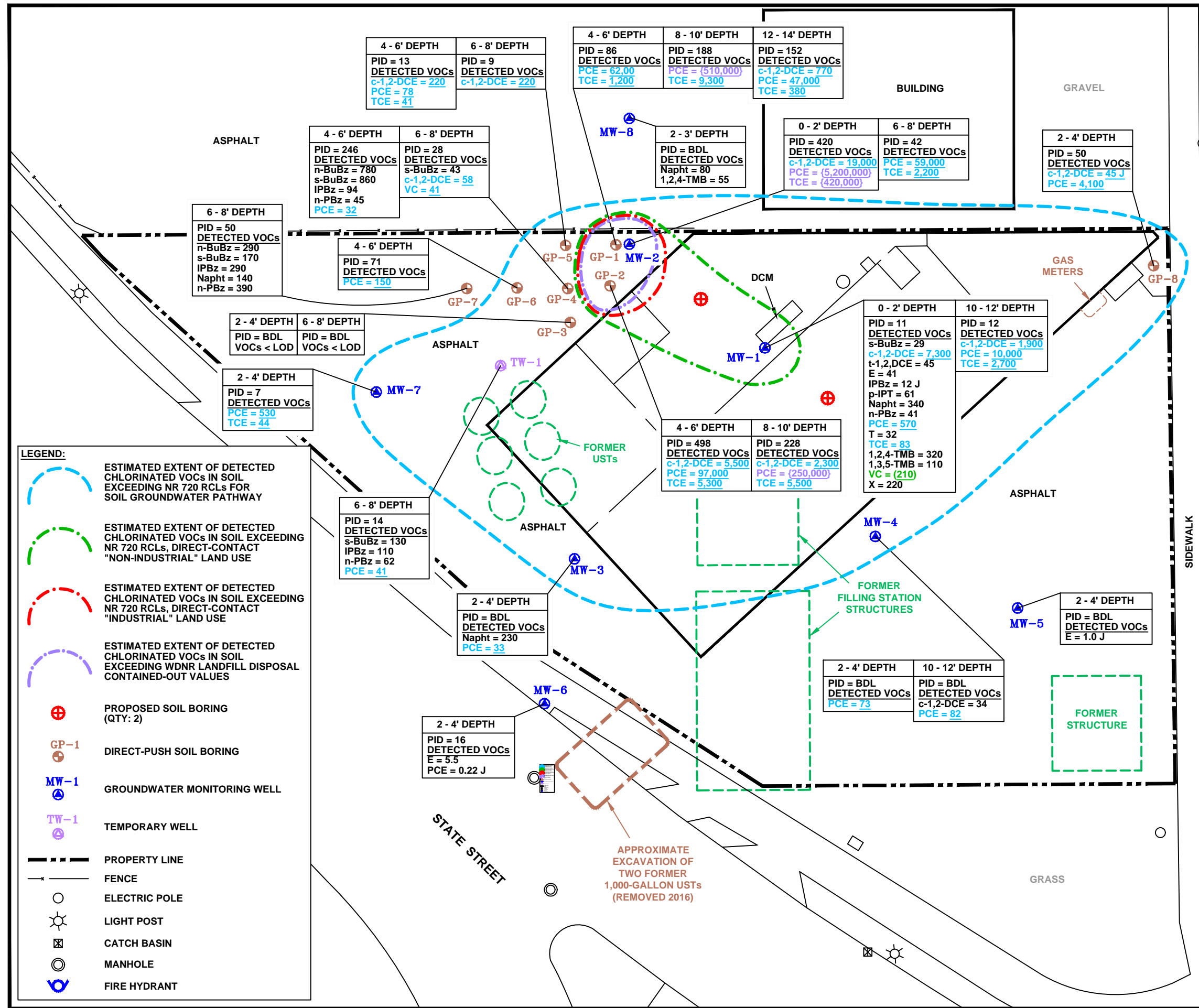
- 1.) EXISTING FEATURES ARE APPROXIMATE BASED ON FIELD OBSERVATIONS AND AERIAL PHOTOGRAPHY.
- 2.) FORMER FEATURES ARE APPROXIMATE BASED ON A HISTORIC MAP.
- 3.) FORMER UST AREA IS APPROXIMATE BASED ON THE "SOIL SAMPLE LOCATIONS", DATED JULY 2016, PREPARED BY TRC SOLUTIONS.

**GILES ENGINEERING ASSOCIATES, INC.**  
 N8 W22350 JOHNSON DRIVE, SUITE A1  
 WAUKESHA, WI 53186 (262)544-0118

**FIGURE 1**  
 SITE PLAN  
 MARTINIZING  
 1730 STATE STREET  
 RACINE, WISCONSIN

DESIGNED	DRAWN	SCALE	DATE	REVISED
KTB/KMH	JSZ	approx. 1"=20'	07-01-20	05-08-23
PROJECT NO.: 1EP-1904012			CAD No. 1EP1904012E2	





**NOTES:**

FIELD PID RESULTS EXPRESSED IN INSTRUMENT UNITS

VOC RESULTS EXPRESSED IN MICROGRAMS PER KILOGRAM (ug/kg) EQUIVALENT TO PARTS PER BILLION (ppb)

J: CONCENTRATION BETWEEN LABORATORY LIMIT OF DETECTION AND QUANTITATION LIMIT.

RESULTS INDICATED IN BLUE / UNDERLINED EXCEED THE WAC NR 720 RCLs FOR SOIL TO GROUNDWATER PATHWAY.

RESULTS INDICATED IN GREEN / (PARENTHESIS) EXCEED THE WAC NR 720 RCLs, DIRECT CONTACT, NON-INDUSTRIAL LAND USE.

RESULTS INDICATED IN PURPLE / {...} EXCEED THE WDNR LANDFILL DISPOSAL CONTAINED-OUT VALUES.

**ABBREVIATIONS:**

BDL: BELOW DETECTION LIMIT  
 LOD: LIMIT OF DETECTION  
 PID: PHOTOIONIZATION DETECTOR (FIELD)  
 RCLs: RESIDUAL CONTAMINANT LEVELS  
 USEPA: UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 VOCs: VOLATILE ORGANIC COMPOUNDS  
 WDNR: WISCONSIN DEPARTMENT OF NATURAL RESOURCES

**CHEMICAL KEY:**

c-DCE: cis-DICHLOROETHENE  
 E: ETHYLBENZENE  
 IPBz: ISOPROPYLBENZENE  
 n-BuBz: n-BUTYLBENZENE  
 n-PBz: n-PROPYLBENZENE  
 Napht: NAPHTHALENE  
 PCE: TETRACHLOROETHENE  
 p-IPT: p-ISOPROPYLTOLUENE  
 s-BuBz: sec-BUTYLBENZENE  
 T: TOLUENE  
 TCE: TRICHLOROETHENE  
 t-DCE: trans-DICHLOROETHENE  
 TMB: TRIMETHYLBENZENE  
 VC: VINYL CHLORIDE  
 X: XYLENE (TOTAL)

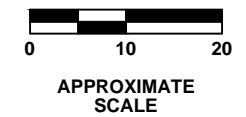
**LEGEND:**

- ESTIMATED EXTENT OF DETECTED CHLORINATED VOCs IN SOIL EXCEEDING NR 720 RCLs FOR SOIL GROUNDWATER PATHWAY
- ESTIMATED EXTENT OF DETECTED CHLORINATED VOCs IN SOIL EXCEEDING NR 720 RCLs, DIRECT-CONTACT "NON-INDUSTRIAL" LAND USE
- ESTIMATED EXTENT OF DETECTED CHLORINATED VOCs IN SOIL EXCEEDING NR 720 RCLs, DIRECT-CONTACT "INDUSTRIAL" LAND USE
- ESTIMATED EXTENT OF DETECTED CHLORINATED VOCs IN SOIL EXCEEDING WDNR LANDFILL DISPOSAL CONTAINED-OUT VALUES
- PROPOSED SOIL BORING (QTY: 2)
- DIRECT-PUSH SOIL BORING
- GROUNDWATER MONITORING WELL
- TEMPORARY WELL
- PROPERTY LINE
- FENCE
- ELECTRIC POLE
- LIGHT POST
- CATCH BASIN
- MANHOLE
- FIRE HYDRANT

BLAKE AVENUE

SIDEWALK

STATE STREET



**NOTES:**

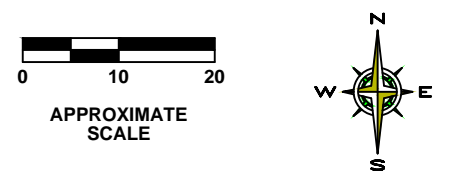
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2.) FORMER FEATURES ARE APPROXIMATE BASED ON A HISTORIC MAP.

**GILES ENGINEERING ASSOCIATES, INC.**  
 N8 W22350 JOHNSON DRIVE, SUITE A1  
 WAUKESHA, WI 53186 (262)544-0118

**FIGURE 2**  
 SOIL ANALYTICAL RESULTS  
 MARTINIZING  
 1730 STATE STREET  
 RACINE, WISCONSIN

DESIGNED	DRAWN	SCALE	DATE	REVISED
KTB/KMH	JSZ	approx. 1"=20'	07-01-20	--
PROJECT NO.: 1EP-1904012			CAD No. 1EP1904012G	



2-8-10	8-3-10	12-1-10
DETECTED VOCs 1,1-DCE = 11 J c-1,2-DCE = 2,600 t-1,2-DCE = (20) J PCE = 11,000 TCE = 4,200 VC = 110	DETECTED VOCs c-1,2-DCE = 2,300 PCE = 21,000 TCE = 8,300 VC = 54 J	DETECTED VOCs c-1,2-DCE = 2,700 PCE = 22,000 TCE = 7,000

8-3-10	12-1-10
DETECTED VOCs 1,1-DCE = 1.3 J c-1,2-DCE = 410 t-1,2-DCE = 3.0 J PCE = 170 TCE = 110 VC = 24	DETECTED VOCs c-1,2-DCE = 670 t-1,2-DCE = 4.9 J PCE = 150 TCE = 100 VC = 45

2-8-10
DETECTED VOCs B = (1.6) n-BuBz = 1.1 s-BuBz = 1.2 c-1,2-DCE = (17) t-1,2-DCE = 0.61 J IPBz = 3.7 Napht = 0.72 J n-PBz = 4.1 PCE = (3.0) VC = 7.0

2-8-10	8-3-10	12-1-10
DETECTED VOCs c-1,2-DCE = 1,000 t-1,2-DCE = 12 J PCE = 280 TCE = 260 VC = 71	DETECTED VOCs c-1,2-DCE = 3,800 t-1,2-DCE = (40) J PCE = 1,700 TCE = 1,900 VC = 340	DETECTED VOCs c-1,2-DCE = 2,000 t-1,2-DCE = (25) J PCE = 730 TCE = 860 VC = 210

8-3-10	12-1-10
DETECTED VOCs B = (1.8) J VC = 2.4	DETECTED VOCs B = (0.97) J ChIE = 2.8 J VC = 2.1

2-8-10	8-3-10	12-1-10
DETECTED VOCs c-1,2-DCE = (20) PCE = 210 TCE = 61 VC = 0.84 J	DETECTED VOCs c-1,2-DCE = 1.0 J PCE = (0.60) J	DETECTED VOCs c-1,2-DCE = 5.5 PCE = (0.80) J TCE = 0.22 J

8-3-10	12-1-10
DETECTED VOCs B = 16.0 IPBz = 0.57 J n-PBz = 0.52 J	DETECTED VOCs B = (3.4) IPE = 0.71 J IPBz = 0.47 J

**CHEMICAL KEY:**  
 B: BENZENE  
 c-DCE: cis-DICHLOROETHENE  
 ChIE: CHLOROETHANE  
 DCE: DICHLOROETHENE  
 IPBz: ISOPROPYL BENZENE  
 IPE: ISOPROPYL ETHER  
 n-BuBz: n-BUTYLBENZENE  
 n-PBz: n-PROPYLBENZENE  
 Napht: NAPHTHALENE  
 PCE: TETRACHLOROETHENE  
 s-BuBz: s-BUTYLBENZENE  
 TCE: TRICHLOROETHENE  
 t-DCE: trans-DICHLOROETHENE  
 VC: VINYL CHLORIDE

**NOTES:**  
 VOC RESULTS EXPRESSED IN MICROGRAMS PER LITER (ug/L) EQUIVALENT TO PARTS PER BILLION (ppb)  
**RESULTS INDICATED IN RED / UNDERLINED EXCEED THE WAC NR 140 ENFORCEMENT STANDARDS**  
**RESULTS INDICATED IN BLUE / (PARENTHESIS) EXCEED THE WAC NR 140 PREVENTIVE ACTION LIMITS**  
 J: CONCENTRATION BETWEEN LABORATORY LIMIT OF DETECTION AND QUANTITATION LIMIT.

APPROXIMATE EXCAVATION OF TWO FORMER 1,000-GALLON USTs (REMOVED 2016)

**LEGEND:**

- PROPOSED GROUNDWATER MONITORING WELL (QTY: 4)
- PROPOSED PIEZOMETER (QTY: 2)
- ESTIMATED EXTENT OF VOC IMPACTED GROUNDWATER EXCEEDING NR 140 PREVENTIVE ACTION LIMITS
- ESTIMATED EXTENT OF VOC IMPACTED GROUNDWATER EXCEEDING NR 140 ENFORCEMENT STANDARDS
- GROUNDWATER MONITORING WELL
- TEMPORARY WELL
- PROPERTY LINE
- FENCE
- ELECTRIC POLE
- LIGHT POST
- CATCH BASIN
- MANHOLE
- FIRE HYDRANT

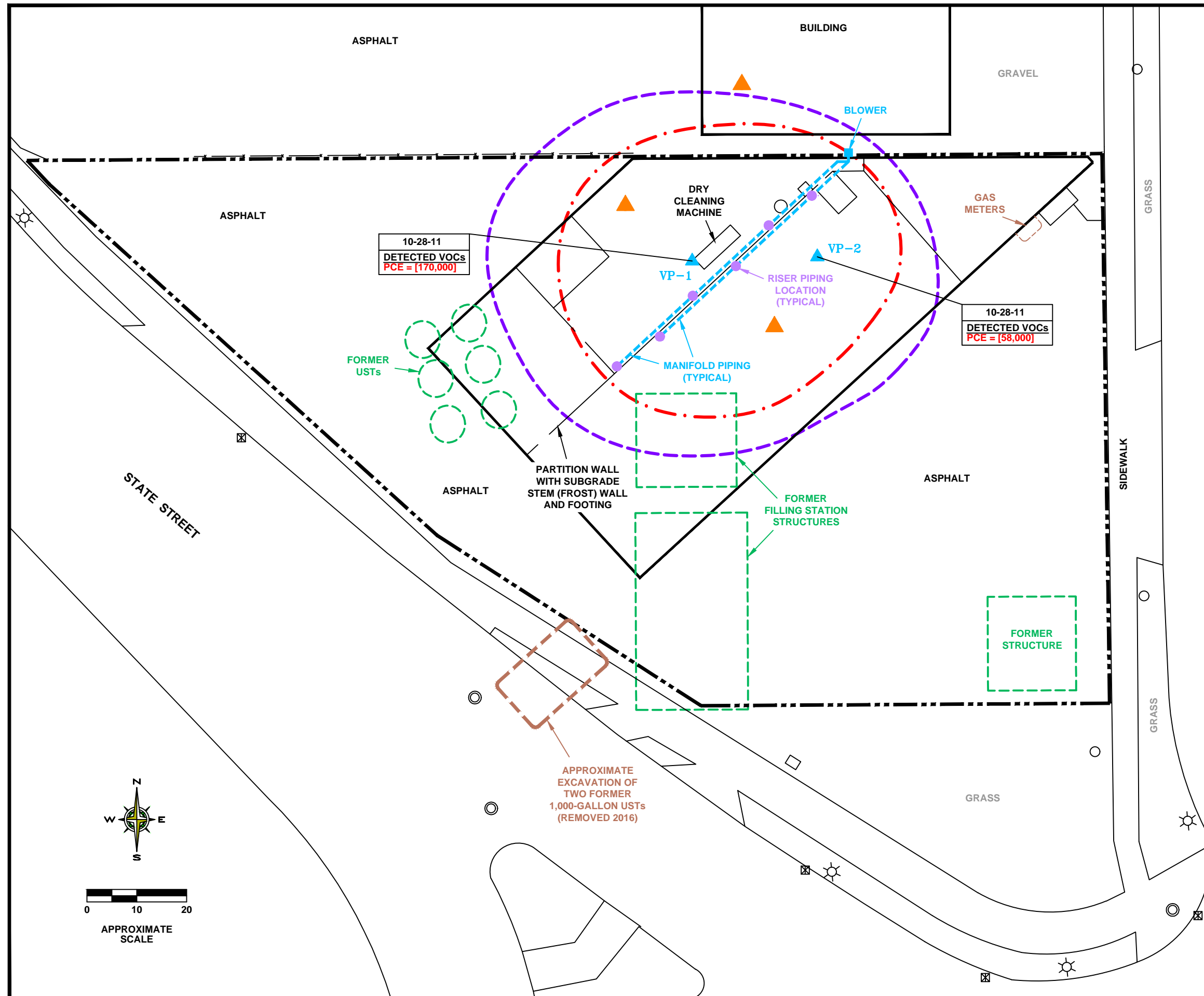
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GILES ENGINEERING ASSOCIATES, INC.  
 N8 W22350 JOHNSON DRIVE, SUITE A1  
 WAUKESHA, WI 53186 (262)544-0118

**FIGURE 3**  
 GROUNDWATER ANALYTICAL RESULTS  
 MARTINIZING  
 1730 STATE STREET  
 RACINE, WISCONSIN

DESIGNED	DRAWN	SCALE	DATE	REVISED
KTB/KMH	JSZ	approx. 1"=20'	04-10-20	--
PROJECT NO.: 1EP-1904012			CAD No. 1EP1904012F	





**CHEMICAL KEY:**  
PCE: TETRACHLOROETHENE

**ABBREVIATIONS:**  
VOCs: VOLATILE ORGANIC COMPOUNDS  
VRSL: VAPOR RISK SCREENING LEVEL

**NOTES:**  
VOC RESULTS EXPRESSED IN MICROGRAMS PER CUBIC METER (ug/m3)  
**RESULTS INDICATED IN RED/[BRACKETS] EXCEED THE SUB-SLAB VAPOR VRSL LARGE COMMERCIAL / INDUSTRIAL LAND USE.**

**LEGEND:**

- APPROXIMATE EXTENT OF SUB-SLAB VAPOR EXCEEDING SMALL COMMERCIAL LAND USE
- APPROXIMATE EXTENT OF SUB-SLAB VAPOR EXCEEDING LARGE COMMERCIAL / INDUSTRIAL LAND USE
- PROPOSED SUB-SLAB VAPOR POINTS (QTY: 3)
- VP-1 SOIL VAPOR PROBE
- PROPERTY LINE
- FENCE
- ELECTRIC POLE
- LIGHT POST
- CATCH BASIN
- MANHOLE
- FIRE HYDRANT

**NOTES:**

- 1.) EXISTING FEATURES ARE APPROXIMATE BASED ON FIELD OBSERVATIONS AND AERIAL PHOTOGRAPHY.
- 2.) FORMER FEATURES ARE APPROXIMATE BASED ON A HISTORIC MAP.
- 3.) FORMER UST AREA IS APPROXIMATE BASED ON THE "SOIL SAMPLE LOCATIONS", DATED JULY 2016, PREPARED BY TRC SOLUTIONS.

GILES ENGINEERING ASSOCIATES, INC.  
N8 W22350 JOHNSON DRIVE, SUITE A1  
WAUKESHA, WI 53186 (262)544-0118

FIGURE 4  
PROPOSED SUB-SLAB DEPRESSURIZATION SYSTEM  
MARTINIZING  
1730 STATE STREET  
RACINE, WISCONSIN

DESIGNED	DRAWN	SCALE	DATE	REVISED
KTB/KMH	JSZ	approx. 1"=20'	07-01-20	--
PROJECT NO.: 1EP-1904012			CAD No. 1EP1904012H	

**TABLE 1  
SOIL ANALYTICAL RESULTS**

Martinizing Racine  
1730 State Street  
Racine, Wisconsin  
1E-0909013

Analyte	Sample Location												NR 720 RCLs <sup>1</sup> (µg/kg)			WDNR Landfill Disposal Contained-Out Values <sup>3</sup>
	TW-1	MW-1		MW-2		MW-3	MW-4		MW-5	MW-6	MW-7	MW-8	Soil to Groundwater Pathway	Direct Contact <sup>2</sup>		
Sample Depth (feet)	6 - 8	0 - 2	10 - 12	0 - 2	6 - 8	2 - 4	2 - 4	10 - 12	2 - 4	2 - 4	2 - 4	2 - 3			Non-Industrial Land Use	Industrial Land Use
Sample Date	1/21/10	1/21/10	1/21/10	1/21/10	1/21/10	1/21/10	1/21/10	1/21/10	7/23/10	7/23/10	7/23/10	7/23/10				
PID	14	11	12	420	42	BDL	BDL	BDL	BDL	16	7	BDL				
<b>Detected VOCs (µg/kg)</b>																
n-Butylbenzene	<29	<28	<58	<14,000	<300	<27	<31	<29	<31	<31	<31	<34	NS	108,000	108,000	NS
sec-Butylbenzene	130	29	<58	<14,000	<300	<27	<31	<29	<31	<31	<31	<34	NS	145,000	145,000	NS
cis-1,2-Dichloroethene	<29	<u>7,300</u>	<u>1,900</u>	<u>19,000</u>	<300	<27	<31	34	<31	<31	<31	<34	41.2	156,000	2,340,000	NS
trans-1,2-Dichloroethene	<29	45	<58	<14,000	<300	<27	<31	<29	<31	<31	<31	<34	62.6	1,560,000	1,850,000	NS
Ethylbenzene	<29	41	<58	<14,000	<300	<27	<31	<29	1.0 J	5.5	<31	<34	1,570	8,020	35,400	NS
Isopropylbenzene	110	12 J	<58	<14,000	<300	<27	<31	<29	<31	<31	<31	<34	NS	268,000	268,000	NS
p-Isopropyltoluene	<29	61	<58	<14,000	<300	<27	<31	<29	<31	<31	<31	<34	NS	162,000	162,000	NS
Naphthalene	<58	340	<120	<28,000	<610	230	<63	<57	<62	<61	<62	80	658.2	5,520	24,100	NS
n-Propylbenzene	62	41	<58	<14,000	<300	<27	<31	<29	<31	<31	<31	<34	NS	264,000	264,000	NS
Tetrachloroethene	<u>41</u>	<u>570</u>	<u>10,000</u>	<u>{5,200,000}</u>	<u>59,000</u>	<u>33</u>	<u>73</u>	<u>82</u>	<31	<31	<u>530</u>	<34	4.5	33,000	145,000	153,000
Toluene	<29	32	<58	<14,000	<300	<27	<31	<29	<31	<31	<31	<34	1,107	818,000	818,000	NS
Trichloroethene	<29	<u>83</u>	<u>2,700</u>	<u>{420,000}</u>	<u>2,200</u>	<27	<31	<29	<31	0.22 J	<u>44</u>	<34	3.6	1,300	8,410	8,800
1,2,4-Trimethylbenzene	<29	320	<58	<14,000	<300	<27	<31	<29	<31	<31	<31	55	1,379 <sup>4</sup>	219,000	219,000	NS
1,3,5-Trimethylbenzene	<29	110	<58	<14,000	<300	<27	<31	<29	<31	<31	<31	<34		182,000	182,000	NS
Vinyl chloride	<41	<u>(210)</u>	<82	<20,000	<420	<38	<44	<40	<44	<43	<43	<47	0.1	67	2,080	2,000
total Xylenes	<99	220	<200	<47,000	<1,000	<93	<110	<98	<110	<100	<110	<110	3,960	260,000	260,000	NS

**NOTES:**

<sup>1</sup>Wisconsin Administrative Code Natural Resources Chapter (NR) 720 Residual Contaminant Levels were obtained from the Wisconsin Department of Natural Resources (WDNR) spreadsheet, last updated December 2018

<sup>2</sup>Direct Contact RCLs only apply to soil samples collected within four feet of the ground surface

<sup>3</sup>WDNR Landfill Disposal "Contained-Out" Values obtained from the fact sheet titled "Contained-Out Values for PCE, TCE, and Vinyl Chloride" (RR-969) effective as of November of 2013

<sup>4</sup>Soil to Groundwater Pathway RCLs for 1,2,4- and 1,3,5-Trimethylbenzene are combined

**PID:** Photoionization Detector

**BDL:** Below Detection Limit

**VOCs:** Volatile organic compounds

**µg/kg:** Micrograms per kilogram; equivalent to parts per billion (ppb)

**J:** Result is below the method quantitation limit (MQL)

**NS:** No Standard Established

<xx.x: Result detected below the method detection limit of x

xx.x: Underlined results exceed the NR 720 RCL for the Soil to Groundwater Pathway

(xx.x): Parenthesized results exceed the NR 720 RCL for Non-Industrial Direct Contact

[xx.x]: Bracketed results exceed the NR 720 RCL for Industrial and Non-Industrial Direct Contact

{xx.x}: Braced results exceed the WDNR Landfill Disposal Contained-Out Value

**TABLE 1 (Continued)  
SOIL ANALYTICAL RESULTS**

Martinizing Racine  
1730 State Street  
Racine, Wisconsin  
1E-0909013

Analyte	Sample Location														NR 720 RCLs <sup>1</sup> (µg/kg)			WDNR Landfill Disposal Contained-Out Values <sup>3</sup>
	GP-1		GP-2		GP-3		GP-4		GP-5		GP-6	GP-7	GP-8	Soil to Groundwater Pathway	Direct Contact <sup>2</sup>			
Sample Depth (feet)	4 - 6	8 - 10	12 - 14	4 - 6	8 - 10	2 - 4	6 - 8	4 - 6	6 - 8	4 - 6	6 - 8	4 - 6	6 - 8		2-4	Non-Industrial Land Use	Industrial Land Use	
Sample Date	6/23/10	6/23/10	6/23/10	6/23/10	6/23/10	6/23/10	6/23/10	6/23/10	6/23/10	6/23/10	6/23/10	6/23/10	6/23/10	10/28/10				
PID	86	188	152	498	228	BDL	BDL	246	28	13	9	71	50	50				
Detected VOCs (µg/kg)																		
n-Butylbenzene	<290	<2,900	<290	<580	<1,400	<31	<29	780	<29	<31	<29	<28	290	<30	NS	108,000	108,000	NS
sec-Butylbenzene	<290	<2,900	<290	<580	<1,400	<31	<29	860	43	<31	<29	<28	170	<30	NS	145,000	145,000	NS
cis-1,2-Dichloroethene	<290	<2,900	<u>770</u>	<u>5,500</u>	<u>2,300</u>	<31	<29	<31	<u>58</u>	<u>220</u>	<u>220</u>	<28	<31	<u>45 J</u>	41.2	156,000	2,340,000	NS
trans-1,2-Dichloroethene	<290	<2,900	<290	<580	<1,400	<31	<29	<31	<29	<31	<29	<28	<31	<30	62.6	1,560,000	1,850,000	NS
Ethylbenzene	<290	<2,900	<290	<580	<1,400	<31	<29	<31	<29	<31	<29	<28	<31	<30	1,570	8,020	35,400	NS
Isopropylbenzene	<290	<2,900	<290	<580	<1,400	<31	<29	94	<29	<31	<29	<28	290	<30	NS	268,000	268,000	NS
p-Isopropyltoluene	<290	<2,900	<290	<580	<1,400	<31	<29	<31	<29	<31	<29	<28	<31	<30	NS	162,000	162,000	NS
Naphthalene	<590	<2,900	<570	<1200	<2,900	<62	<58	<61	<58	<63	<58	<57	140	<30	658.2	5,520	24,100	NS
n-Propylbenzene	<290	<2,900	<290	<580	<1,400	<31	<29	45	<29	<31	<29	<28	390	<30	NS	264,000	264,000	NS
Tetrachloroethene	<u>62,000</u>	<u>{510,000}</u>	<u>47,000</u>	<u>97,000</u>	<u>{250,000}</u>	<31	<29	<u>32</u>	<29	<u>78</u>	<29	150	<31	<u>4,100</u>	4.5	33,000	145,000	153,000
Toluene	<290	<2900	<290	<580	<1400	<31	<29	<31	<29	<31	<29	<28	<31	<30	1,107	818,000	818,000	NS
Trichloroethene	<u>1,200</u>	<u>9,300</u>	<u>380</u>	<u>5,300</u>	<u>5,500</u>	<31	<29	<31	<29	<u>41</u>	<29	<28	<31	<30	3.6	1,300	8,410	8,800
1,2,4-Trimethylbenzene	<290	<2,900	<290	<580	<1,400	<31	<29	<31	<29	<31	<29	<28	<31	<30	1,379 <sup>4</sup>	219,000	219,000	NS
1,3,5-Trimethylbenzene	<290	<2,900	<290	<580	<1,400	<31	<29	<31	<29	<31	<29	<28	<31	<30		182,000	182,000	NS
Vinyl chloride	<410	<4,100	<400	<810	<2,000	<43	<41	<43	<u>41</u>	<44	<40	<40	<43	<30	0.1	67	2,080	2,000
total Xylenes	<1,000	<9,900	<980	<2,000	<4,900	<110	<99	<100	<99	<110	<98	<97	<100	<89	3,960	260,000	260,000	NS

**NOTES:**

<sup>1</sup>Wisconsin Administrative Code Natural Resources Chapter (NR) 720 Residual Contaminant Levels were obtained from the Wisconsin Department of Natural Resources (WDNR) spreadsheet, last updated December 2018

<sup>2</sup>Direct Contact RCLs only apply to soil samples collected within four feet of the ground surface

<sup>3</sup>WDNR Landfill Disposal "Contained-Out" Values obtained from the fact sheet titled "Contained-Out Values for PCE, TCE, and Vinyl Chloride" (RR-969) effective as of November of 2013

<sup>4</sup>Soil to Groundwater Pathway RCLs for 1,2,4- and 1,3,5-Trimethylbenzene are combined

**PID:** Photoionization Detector

**BDL:** Below Detection Limit

**VOCs:** Volatile organic compounds

**µg/kg:** Micrograms per kilogram; equivalent to parts per billion (ppb)

**J:** Result is below the method quantitation limit (MQL)

**NS:** No Standard Established

<xx.x: Result detected below the method detection limit of x

xx.x: Underlined results exceed the NR 720 RCL for the Soil to Groundwater Pathway

(xx.x): Parenthesized results exceed the NR 720 RCL for Non-Industrial Direct Contact

[xx.x]: Bracketed results exceed the NR 720 RCL for Industrial and Non-Industrial Direct Contact

{xx.x}: Braced results exceed the WDNR Landfill Disposal Contained-Out Value



**TABLE 2  
GROUNDWATER ANALYTICAL RESULTS**

Martinizing Racine  
1730 State Street  
Racine, Wisconsin  
Project No. 1E-0909013

Analyte	Sample Location									NR 140 <sup>1</sup> (µg/L)	
	MW-1			MW-2			MW-3			PAL	ES
Sample Date	02/08/10	08/03/10	12/01/10	02/08/10	08/03/10	12/01/10	02/08/10	08/03/10	12/01/10		
<b>Detected VOCs (µg/L)</b>											
Benzene	<3.2	<8.0	<10	<2.0	<40	<50	<0.40	<0.20	<0.20	0.5	5
n-Butylbenzene	<3.2	<8.0	<10	<2.0	<40	<50	<0.40	<0.20	<0.20	NS	NS
sec-Butylbenzene	<4.0	<10	<13	<2.5	<50	<63	<0.50	<0.25	<0.25	NS	NS
chloroethane	<16	<40	<50	<10	<200	<250	<2.0	<1.0	<1.0	80	400
1,1-Dichloroethene	<8.0	<20	<25	11 J	<100	<130	<1.0	<0.50	<0.50	0.7	7
cis-1,2-Dichloroethene	1,000	3,800	2,000	2,600	2,300	2,700	(20)	1.0 J	5.5	7	70
trans-1,2-Dichloroethene	12 J	(40 J)	(25 J)	(20 J)	<100	<130	<1.0	<0.50	<0.50	20	100
isopropyl ether	<8.0	<20	<25	<5.0	<100	<130	<1.0	<0.50	<0.50	NS	NS
Isopropylbenzene	<3.2	<8.0	<10	<2.0	<40	<50	<0.40	<0.20	<0.20	NS	NS
Naphthalene	<4.0	<10	<13	<2.5	<50	<63	<0.50	<0.25	<0.25	10	100
n-Propylbenzene	<8.0	<20	<25	<5.0	<100	<130	<1.0	<0.50	<0.50	NS	NS
Tetrachloroethene	280	1,700	730	11,000	21,000	22,000	210	(0.60 J)	(0.80 J)	0.5	5
Trichloroethene	260	1,900	860	4,200	8,300	7,000	61	<0.20	0.22 J	0.5	5
Vinyl chloride	71	340	210	110	54 J	<50 J	0.84 J	<0.20	<0.20	0.02	0.2

**NOTES:**

<sup>1</sup>Wisconsin Administrative Code Natural Resources Chapter (NR) 140

**PAL:** Preventive Action Limit

**ES:** Enforcement Standard

**VOCs:** Volatile Organic Compounds

**µg/L:** Micrograms per Liter; equivalent to parts per billion (ppb)

**J:** Result is less than the reporting limit but greater than the method detection limit and the concentration is an approximate value

**NS:** No Standard Established

<xx.x: Result concentration was detected below the method detection limit of x

(xx.x): Result exceeds the NR 140 Preventive Action Limit

xx.x: Result exceeds the NR 140 Enforcement Standard

**TABLE 2 (Continued)**  
**GROUNDWATER ANALYTICAL RESULTS**

Martinizing Racine  
1730 State Street  
Racine, Wisconsin  
Project No. 1E-0909013

Analyte	Sample Location												NR 140 <sup>1</sup> (µg/L)	
	MW-4			MW-5		MW-6		MW-7		MW-8		TW-1	PAL	ES
Sample Date	02/08/10	08/03/10	12/01/10	08/03/10	12/01/10	08/03/10	12/01/10	08/03/10	12/01/10	08/03/10	12/01/10	02/08/10		
<b>Detected VOCs (µg/L)</b>														
Benzene	<1.0	<0.20	<0.20	<0.20	<0.20	<u>16.0</u>	(3.4)	(1.8 J)	(0.97 J)	<0.40	<1.0	(1.6)	0.5	5
n-Butylbenzene	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.40	<1.0	1.1	NS	NS
sec-Butylbenzene	<1.2	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.50	<1.3	1.2	NS	NS
chloroethane	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.8 J	<2.0	<5.0	<1.0	80	400
1,1-Dichloroethene	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	(1.3 J)	<2.5	<0.5	0.7	7
cis-1,2-Dichloroethene	(13)	(27)	(21)	0.58 J	4.6	<0.50	<0.50	<0.50	<0.50	410	670	(17)	7	70
trans-1,2-Dichloroethene	<2.5	2.8	1.2 J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	3.0 J	4.9 J	0.61 J	20	100
isopropyl ether	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50	0.71 J	<0.50	<0.50	<1.0	<2.5	<0.50	NS	NS
Isopropylbenzene	<1.0	<0.20	<0.20	<0.20	<0.20	0.57 J	0.47 J	<0.20	<0.20	<0.40	<1.0	3.7	NS	NS
Naphthalene	<1.2	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.50	<1.3	0.72 J	10	100
n-Propylbenzene	<2.5	<0.50	<0.50	<0.50	<0.50	0.52 J	<0.50	<0.50	<0.50	<1.0	<2.5	4.1	NS	NS
Tetrachloroethene	<u>130</u>	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<u>170</u>	<u>150</u>	(3.0)	0.5	5
Trichloroethene	<u>27</u>	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<u>110</u>	<u>100</u>	<0.2	0.5	5
Vinyl chloride	<1.0	<u>0.36 J</u>	<0.20	<0.20	<0.20	<0.20	<0.20	<u>2.4</u>	<u>2.1</u>	<u>24</u>	<u>45</u>	<u>7.0</u>	0.02	0.2

**NOTES:**

<sup>1</sup>Wisconsin Administrative Code Natural Resources Chapter (NR) 140

**PAL:** Preventive Action Limit

**ES:** Enforcement Standard

**VOCs:** Volatile Organic Compounds

**µg/L:** Micrograms per Liter; equivalent to parts per billion (ppb)

**J:** Result is less than the reporting limit but greater than the method detection limit and the concentration is an approximate value

**NS:** No Standard Established

<xx.x: Result concentration was detected below the method detection limit of x

(xx.x): Result exceeds the NR 140 Preventive Action Limit

xx.x: Result exceeds the NR 140 Enforcement Standard

**TABLE 3  
SOIL GAS ANALYTICAL RESULTS**

Martinizing Racine  
1730 State Street  
Racine, Wisconsin  
Project No. 1E-0909013

Analyte	Sample Location		Sub-Slab Vapor VRSL* ( $\mu\text{g}/\text{m}^3$ )		
	VP-1	VP-2	Land Use		
Sample Date	10/28/2011	10/28/2011	Residential	Small Commercial	Large Commercial / Industrial
Sample Depth (feet below grade)	Sub-Slab	Sub-Slab			
<b>Detected VOCs (<math>\mu\text{g}/\text{m}^3</math>)</b>					
Tetrachloroethene	[170,000]	[58,000]	1,400	6,000	18,000

**Notes:**

**VRSL:** Vapor Risk Screening Level

**VOCs:** Volatile Organic Compounds

$\mu\text{g}/\text{m}^3$ : Micrograms per cubic meter

**J:** Concentration reported between the laboratory method detection limit and the reporting limit.

**xx.x:** Result exceeds the sub-slab VRSL for Residential, Small Commercial, and Large Commercial/Industrial land uses

\*VRSLs are calculated from the indoor air Vapor Action Level (VAL). VALs are calculated from the United States Environmental Protection Agency (USEPA) Vapor Intrusion Screening Levels (VISLs) calculator spreadsheet. The VALs are based on a Target Risk for Carcinogens of  $1 \times 10^{-5}$  and a Target Hazard Quotient for Non-Carcinogens of 1. An attenuation factor is applied to the indoor air VAL to calculate the sub-slab VRSL. For Residential and Small Commercial land use, an attenuation factor of 0.03 is applied. For Large Commercial or Industrial land use, an attenuation factor of 0.01 is applied.

**TABLE 4  
PROPOSED COST ESTIMATE  
SITE INVESTIGATION CHANGE ORDER NO. 3- STATE STREET MARTINIZING RACINE, WI  
RACINE, WISCONSIN**

Phase No.	Description	CONSULTANT FEES			SUBCONTRACTOR FEES	Budget
		Labor	Expenses	Equipment		
TASK 01:	SAMPLING PLAN PREPARATION	\$880	\$0	\$0	\$0	\$880
TASK 02:	SHSP PREPARATION & UTILITY LOCATE	\$130	\$0	\$0	\$350	\$480
TASK 03:	WELL RE-DEVELOP, SURVEY, & GAUGING	\$1,240	\$60	\$260	\$0	\$1,560
TASK 04:	GW SAMPLING (INITIAL EVENT)	\$1,065	\$60	\$215	\$540	\$1,880
TASK 05:	ON-SITE/OFF-SITE SUB-SLAB VAPOR TESTING	\$620	\$60	\$340	\$885	\$1,905
TASK 06:	SUB-SLAB DEPRESSURIZATION SYSTEM INSTALL	\$1,240	\$60	\$0	\$5,000	\$6,300
TASK 07:	ADDITIONALL BORINGS/WELLS INSTALL, DEVEL. SU	\$1,010	\$60	\$240	\$4,820	\$6,130
TASK 08:	INTERIOR SOIL BORINGS	\$130	\$0	\$0	\$440	\$570
TASK 09:	GW SAMPLING (3 QUARTERLY EVENTS)	\$4,200	\$360	\$960	\$3,585	\$9,105
TASK 10:	SI REPORT PREPARATION	\$4,060	\$0	\$0	\$0	\$4,060
<b>Fee Estimate</b>		<b>\$14,575</b>	<b>\$660</b>	<b>\$2,015</b>	<b>\$15,620</b>	<b>\$32,870</b>

**TABLE 4  
PROPOSED COST ESTIMATE  
SITE INVESTIGATION CHANGE ORDER NO. 3- STATE STREET MARTINIZING RACINE, WI  
RACINE, WISCONSIN**

SUBCONTRACTOR FEES DETAIL		SUBCONTRACTOR FEES	Budget
<b>TASK 01:</b>	<b>SAMPLING PLAN PREPARATION</b>	<b>\$0</b>	<b>\$0</b>
<b>TASK 02:</b>	<b>SHSP PREPARATION &amp; UTILITY LOCATE</b>	<b>\$350</b>	<b>\$350</b>
<b>TASK 03:</b>	<b>WELL RE-DEVELOP, SURVEY, &amp; GAUGING</b>	<b>\$0</b>	<b>\$0</b>
<b>TASK 04:</b>	<b>GW SAMPLING (INITIAL EVENT)</b>	<b>\$540</b>	<b>\$540</b>
	Laboratory Subcontractor Costs	\$540	
<b>TASK 05:</b>	<b>ON-SITE/OFF-SITE SUB-SLAB VAPOR TESTING</b>	<b>\$885</b>	<b>\$885</b>
	Laboratory Subcontractor Costs	\$885	
<b>TASK 06:</b>	<b>SUB-SLAB DEPRESSURIZATION SYSTEM INSTALL</b>	<b>\$5,000</b>	<b>\$5,000</b>
	American Radon	\$5,000	
<b>TASK 07:</b>	<b>ADDITIONALL BORINGS/WELLS INSTALL, DEVEL. SURVEY- IF NEEDED</b>	<b>\$4,820</b>	<b>\$4,820</b>
	Laboratory Subcontractor Costs	\$810	
	Direct-push Subcontractor Costs	\$3,855	
<b>TASK 08:</b>	<b>INTERIOR SOIL BORINGS</b>	<b>\$440</b>	<b>\$440</b>
	Laboratory Subcontractor Costs	\$270	
	Purge/ Dev. Water Soil Waste Disposal Subcontractor Costs	\$0	
<b>TASK 09:</b>	<b>GW SAMPLING (3 QUARTERLY EVENTS)</b>	<b>\$3,585</b>	<b>\$3,585</b>
	Laboratory Subcontractor Costs	\$2,835	
	Purge/ Dev. Water Soil Waste Disposal Subcontractor Costs	\$750	
<b>TASK 10:</b>	<b>SI REPORT PREPARATION</b>	<b>\$0</b>	<b>\$0</b>
<b>TOTALS:</b>			<b>\$15,620</b>

Notice: Use this form to notify the Department of Natural Resources of the consultant you are selecting to conduct a site investigation and to submit and summarize the bids required in the Dry Cleaner Environmental Response Fund (DERF) Program. This form is authorized under s. 292.65, Wis. Stats. and s. NR 169.23, Wis. Adm. Code. Completion of this form is mandatory for any person applying for DERF reimbursement. Persons who do not submit a completed form will not be eligible for reimbursement under DERF. Personal information will be used to manage the DERF program, and be made available to requesters under Wisconsin's Open Records laws (ss. 19.32-19.39, Wis. Stats.) and requirements.

Complete the following information and submit it to your DNR regional project manager. Copy this form as necessary.

<b>Site Information</b>		
Site name: Martinizing Cleaners Site Investigation	Facility Name: 1730 State Street, Racine WI	BRRTS # 02-52-549890

<b>Consultant Selected</b>	
Consultant Name: Giles Engineering Associates, Inc.	Consultant Address: N8W22350 Johnson Drive Suite A 1 Waukesha, WI 53186

<b>Summary of Costs:</b>			
<b>Consultant Name: Giles Engineering Associates, Inc.</b>		<b>Consultant Name:</b>	
Consulting costs:	\$ 14,575	Consulting costs:	
Drilling costs:	\$ 4,025	Drilling costs:	
Analytical costs:	\$ 5,340	Analytical costs:	
Miscellaneous costs:	\$ 8,930	Miscellaneous costs:	
Total Costs:	\$ 32,870	Total Costs:	

<b>Consultant Name:</b>	
Consulting costs:	
Drilling costs:	
Analytical costs:	
Miscellaneous costs:	
Total Costs:	
Justification for Selection:	

<b>Optional 4th bid information:</b>	
<b>Consultant Name:</b>	
Consulting costs:	
Drilling costs:	
Analytical costs:	
Miscellaneous costs:	
Total Costs:	

Martinizing Cleaners has Selected Giles Engineering to perform the requested services of the RFP because their proposal provides a thorough and complete approach to accomplish the requested work.

**Applicant Information and Certification**

I certify that the information contained above is true and correct to the best of my knowledge.

Applicant Name Laurie I. Berry		Date	
Street Address 3319 Nobb Hill Drive	City Racine	State WI	Zip Code 53406
Signature			

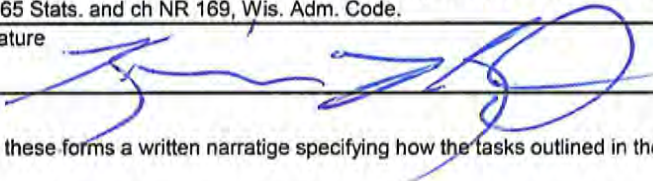
**Department Use Only**

Project Manager Approval Signature	Phone Number	Date
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If not approved, reason for non-approval:

Consultant Name: Giles Eng  
 Site Name: Martinizing Cleaners; State Street Racine, WI  
 BRRTS #:02-52-549890  
 Date:6/11/13

**DERF Site Investigation Bid Sheet**  
**Consultant Bid Summary**  
 Form 4400-233 (R 4/04) Page 2 of 6

Site Information		
Site Name Martinizing Cleaners State Street, Racine WI		
Consultant Name: Giles Engineering Associates, Inc.		Applicant Name: Kevin T. Bugel, P.G., C.P.G.
Bid Summary		
Drilling Costs Total =	\$	4,025
Analytical Costs Total =	\$	5,340
Consulting Costs Total =	\$	14,575
Misc Costs Total =	\$	8,930
<b>Grand Total =</b>	<b>\$</b>	<b>32,870</b>
I certify that the costs are an accurate estimate of my total projected costs for the site investigation and I understand and will adhere to s.292.65 Stats. and ch NR 169, Wis. Adm. Code.		
Consultant Signature 		Date 07/08/2010

Please attach to these forms a written narratige specifying how the tasks outlined in these sheets will be performed.



Drilling Costs						
Task	Interval	Number of Borings or Wells	Number of Days	Total Number Feet Drilled	Cost/feet, Day or Well	Total Cost
Direct Push/Hand Auger Borings (per point)						
Hand Probe/Auger	< 10 ft depth	2				\$170
NR 141 Variance Well Piezometer	<10 ft depth	6				\$2,475
Decontamination Costs						\$150
Mobilization Costs						\$275
Other						
Drums	1					\$55
Flush Mount Covers		6			150	\$900
Total Drilling Costs			1			\$4,025

Parameter	WI Certified Lab			Field Test/Field Kit			Mobile Lab			Total Costs
	\$/sample	# samples	Method Used	\$/sample	# samples	Method Used	\$/Sample \$/Day	# Samples # Days	Method Used	
<b>Solids Analysis</b>										
VOCs (6 new wells/pz)	\$67.50	12	8260							\$810.00
VOC (interior soil borings)	\$67.50	4	8260							\$270.00
<b>Water Analysis (low flow sampling assumed unless otherwise indicated at bottom of this sheet)</b>										
VOCs (existing 8 wells)	\$67.50	32	8260							\$2,160.00
VOCs (6 new wells/pz)	\$67.50	18	8260							\$1,215.00
<b>Air Analysis</b>										
VOCs	\$295	3	TO-15							\$885.00
<b>Total Analytical Costs</b>										<b>\$5,340.00</b>

\* Natural Attenuation parameters required for consideration of NA as remedy.

Major Activity	Specifications	Commodity Unit (specify)	Unit Rate	Number of Units	Total Cost
<b>IDW Disposal</b>					
Soil Disposal - Special Waste	Non-Hazardous	per drum	\$80	1	\$80
Soil Disposal - Assume Direct Subtile C	Hazardous	per drum			
Soil Drum Transportation		trip	\$75	1	\$75
<b>Groundwater Disposal</b>					
Groundwater Disposal	Non-Hazardous	per drum	\$125	4	\$500
Groundwater Disposal	Hazardous	per drum			
Groundwater Transportation		trip	\$250	1	\$250
<b>Field Supplies (list)</b>					
Peristaltic Pump			\$40	8	\$320
Whale Pump & Tubing			\$35	1	\$35
Water Level Indicator			\$20	9	\$180
Water Quality Meter			\$100	7	\$700
Photoionization detector			\$75	1	\$75
Drums			\$55	5	\$275
Survey Equipment			\$40	2	\$80
Hammer Drill & Supplies			\$50	1	\$50
Vapor Pin assembly			\$100	3	\$300
Surveying					0
					0
<b>Personal Protection Equipment (list)</b>					
				850	0
					0
<b>Sample Shipping Costs</b>					
					0
					0
					0
<b>Other (specify)</b>					
'Sub-Slab Depressorization Sys			\$5,000.00	1	\$5,000
Private Utility locator			\$350.00	1	\$350
Mileage (Not Eligible)		100 Miles\rndtrip	\$0.60	1100	\$660
<b>Total Miscellaneous Costs</b>					<b>\$8,930</b>

**Reminders:** DERF does not reimburse for attorney, closure or GIS fees. Mileage and meals are also non-reimbursable. Also, costs to prepare a reimbursement application and discuss the application with the department are not reimburseable. No expedited shipping w/o prior PM approval.

Position (specify)	Hourly Rate	Hours/Task															Total Costs				
		Workplan Development	SHSP Prep & Utility Locate	Receptor Survey	Waste Determination	Drilling Oversight	Soil Sampling	Drilling sampling	Well Development & Survey - Initial	Well Development & Survey - New wells (6)	Groundwater sampling - Initial (8 wells)	Groundwater sampling - 3 Quarterly (14 wells/pz)	Soil gas/vapor intrusion survey	Sub-Slab System Oversight	SSRCL calculations (contained out or remedial actions)	SI Report preparation		RAOR Report preparation	Project Management	Other Data Reduction	
Professional Staff																					
Sr. Project Manager	115	2						2	4		2		6	2	4		10				\$3,680.00
Field Staff																					
Field Technician	65	10	2					12	12	2	12	54	6	12		40					\$10,530.00
Office Support Staff																					
CAD Operator	55								1							4					\$275.00
Clerical	45															2					\$90.00
<b>Total Consulting Costs</b>																					<b>\$14,575.00</b>