

RECEIVED

January 18, 2016

JAN 25 2016

Mr. John Hnat
WDNR
2300 N Dr Martin Luther King Jr Dr
Milwaukee, WI 53212

Initial: JA

RE: Scope of Additional Work, Master Dry Cleaners DERF Site, 6326 W. Bluemound Road, Wauwatosa, WI, BRRTS # 02-41-545142

Dear Mr. Hnat:

FID 241 398 630

Objective

The purpose of this letter is to present a scope of work and budget for additional soil, groundwater, and vapor assessment and remediation at the Master Cleaners site. The drycleaning business ceased operations in 2015, and a new tenant is seeking to use the building. Prior to occupancy, some additional assessment and remediation would be prudent while the building is vacant.

Site Status

As you know, the site investigation was completed by Sigma Environmental, Milwaukee, WI, with the investigation completed in 2012. Soil borings and a monitoring well network consisting of 19 locations have been established during the investigation. Subslab and indoor vapor samples of the neighboring residential property to the north were also obtained, with no elevated responses.

Petroleum investigation and remediation actions had previously been completed, as the property was also formerly a gas station from approximately 1950 to 1970. Soil excavation and disposal in 2006 addressed the former tank bed contamination, with remaining petroleum persisting in the soil and groundwater southwest of the building.

In early December 2015, Fehr Graham directed the injection of an aqueous mixture containing 3,200 pounds of Provectus IR at the most contaminated area of the property. Areas of injection focused on the south, east, and north edges of the building, but couldn't access the building interior.

Proposed Additional Actions

With closing of the drycleaning operation, the building is temporarily vacant. Activities are proposed to take advantage of this opportunity for building access so the case can be further positioned for eventual case closure.

These steps are also considered helpful to position the building for occupancy by a non-drycleaning business.

The following actions are proposed:

1. Removal of the drycleaning machine and residual clean chemicals, with proper disposal or reuse of remaining chemicals.
2. Evaluation of soil and groundwater west of the drycleaning machine to better evaluate the magnitude and extent of impacts beneath the 40' x 28' building
3. Testing of the subslab vapor chemistry beneath the building to evaluate if a subslab vapor mitigation system may be needed prior to occupancy by a non-drycleaning tenant.
4. Removal of a sealed floor drain that is suspected to be connected to the sanitary sewer. Following removal, additional Provectus IR chemical solution will be added to the open excavation to treat contamination known to be present in the soil surrounding the former drycleaning machine.
5. If necessary, installation of a subslab vapor mitigation system.

With the exception of the removal of the drycleaning machine and chemicals, all proposed activities are anticipated to be eligible for reimbursement under DERF.

Proposed Scope of Work

Task 0: Project Management

Additional project management time has been included on the cost estimate to cover additional labor needed to perform these additional activities.

Task A: Removal of Drycleaning Machine and Residual Chemicals

This task will be performed by the building owner. It is expected the machine and chemicals can be beneficially reused by other drycleaning operations. The machine will be carefully removed to avoid release of chemicals. Residual small containers of cleaning and spot remover products will be used by other facilities, or properly discarded.

Task B: Geoprobe Borings Inside Building

Three geoprobe borings (B-101, B-102, and B-103) will be advanced inside the building using a hand cart geoprobe rig. The borings will be located as shown on Figure 1.

The purpose of the borings is to further understand the vertical and horizontal extent of soil and groundwater contamination beneath the building. Each boring will be advanced to the bedrock surface, estimated at 16 feet, and continuous soil samples will be retained. Geologic logs will be prepared, and soil samples will be assessed in the field for volatile organic compounds (VOCs) using a photoionization detector (PID).

Two soil samples will be retained from each boring, one from the top four feet, and one from the most elevated PID response. At the boring adjacent to the drycleaning machine, the soil samples will be obtained from the approximate water table surface at eight to ten feet, and from the bedrock surface, as shallow soil has already been evaluated at hand auger borings HA-1 and HA-2.

Grab water samples will be retained from each boring. It is assumed this will require the installation of a temporary well, with a grab water sample retained for laboratory analysis of VOCs. Upon sampling, the temporary well will be removed, the borehole abandoned with granular bentonite, and the floor will be patched.

The samples will be submitted to Pace Analytical Laboratory for analysis of VOCs. Upon receipt of the results, the information will be tabulated and plotted with other historic data.

Task C: Subslab Vapor Chemistry Sampling and Analysis

Two subslab vapor probe samples (VP-1, VP-2) will be retained from inside the building at the locations shown on Figure 1. At each location, a one-inch diameter boring will be advanced through the concrete floor to tap the soil vapor beneath the building, and a vapor pin sampler will be installed. A 30-minute, grab vapor sample will be obtained of the subslab vapors using a six-liter Summa canister. Upon completion of the sampling, the vapor pin will be removed and the floor sealed with cement.

Because of the presence of both petroleum and drycleaning solvents, the samples will be submitted to Pace Analytical Laboratory for analysis of full VOCs using the TO-15 analytical method. Upon receipt of the results, the information will be tabulated and plotted, and a brief e-mail report will be prepared that describes the results. An assessment of the need for a vapor mitigation system will be based on the findings from the subslab sampling, and will be presented in a letter report that summarizes the subslab vapor results.

Task D: Removal of Indoor Floor Drain and Supplemental Chemical Treatment

The site has a former floor drain located adjacent to the former drycleaning machine that should be removed. The 30-inch diameter drain is currently sealed shut with a solid steel lid with a small hole in it, and measurements indicate the drain is approximately three feet deep. The drain may have formerly been connected to the sanitary sewer, or may have been a French drain, or may have been a solid sump.

Under this task, the entire drain will be removed using manual excavation methods, likely using a concrete saw, jackhammer, and shovels. An estimated four drums of soil, steel, and concrete from the excavation will be drummed and properly discarded. Soil disposal approval will be obtained, and it is anticipated no WDNR input on the waste classification will be needed. (i.e.: no need for a Hazardous Waste Determination and associated DNR review fee). Upon removal, the drain configuration will be determined. If the drain was connected to the sanitary sewer, the sewer laterals will be plugged with concrete and bentonite. A permit may be necessary from the City of Wauwatosa to deal with the drain if there is a connection to the sewer lateral.

Three laboratory soil samples will be obtained from the excavation, one of the contaminated removed soil, one from beneath the base of the sump at approximately 3.5 feet, and one beneath any observed lateral, if present. The soil samples will be analyzed for analysis of VOCs, and the disposal sample will be analyzed for TCLP VOCs.

Treatment of the remaining in place sub-building soil and groundwater will be performed by adding additional Provectus IR solution to the former sump excavation. Five bags (250 pounds) of compounds will be mixed with 100 gallons of water, added to the sump excavation, and allowed to gravity drain into the formation. The solution will be allowed to soak in overnight, if necessary, prior to filling the sump excavation with bank run sand and gravel fill. The fill will be compacted using manual methods in one foot lifts, and the surface of the backfill will be sealed with a plastic vapor barrier layer and/or bentonite clay prior to restoration of the three-inch thick concrete floor.

Addition of the Provectus IR solution can be completed under the existing injection permit. Because the building is unoccupied, and the addition will only drain under gravity flow and will not be pressure-injected, no monitoring of water elevations or subsurface gasses at nearby monitoring wells is considered necessary.

Upon completion of this task, a brief letter report will be prepared that documents the activities and presents the results. Depending on timing, this report information may be combined with other planned reports on completed activities.

Task E: Vapor Mitigation System

If the results of Task 3 indicate a vapor mitigation system is needed, bids will be obtained, and a contractor will be hired to install a system for the building. The system will consist of an estimated two three-inch diameter PVC floor penetrations that tap into the subfloor and extract the subslab vapor using a low-horsepower fan. Per code requirements, the fan will be mounted on the building exterior. Installation will be performed by a licensed radon abatement contractor, or equivalent.

If considered advantageous, one of the floor extraction points may tap the sand and gravel backfill of the former sump.

During and after installation, system performance testing will be completed to verify the vapor mitigation system successfully captures subslab vapors from the building subslab. An estimated four ¼ inch diameter holes will be advanced through the building floor, and the induced vacuum will be measured using a digital manometer. The field VOC content will also be measured using a PID.

A manometer will be installed on the extraction pipe to verify the fan is functioning. The fan will be kept on a separate circuit to prevent accidental shut downs.

Upon installation, a brief documentation report will be prepared summarizing the system construction and presenting the results of the performance communication testing. Instructions and a field monitoring form will be left at the site for the property owners to fill out and track proper operation and function.

Cost Estimate

The estimated cost for the proposed work is provided on Table 1. The cost estimate excludes Task A: Removal of Drycleaning Machine and Residual Chemicals, as that work is to be performed by the property owner, and is not eligible for DERF reimbursement.

We have obtained competitive bids for the excavation and drilling subcontractor work, and have obtained competitive quotations for the other outside services (laboratory, chemical supplies). Please review the costs, and provide approval of the attached Change Order # 1.

The Change Order also includes contractor charges listed under "Task 3: Injection" for completion of WDNR-required sampling of groundwater for compounds not originally anticipated to be needed. The WDNR, in the WPDES permit, requires testing of groundwater for sulfate, total organic carbon, dissolved iron, dissolved manganese, and RCRA metals. Testing was completed for these substances at two locations before the injection, and will be completed at these same two locations in April 2016. No additional consulting charges are requested for satisfaction of this task, as there is adequate consulting budget available to cover the cost of obtaining these extra samples.

As required by the DERF program bidding requirements, we certify that we will complete services in compliance with ch NR 169, NR 140, and the NR 700 to NR 754 rule series. We will make available to the WDNR for inspection and copying, upon request, all documents and records related to the contract services. We have not prepared this bid in collusion with any other consultant submitting a bid on this site. We will perform all services in an ethical, professional and timely manner. Insurance information for Fehr Graham has previously been provided. We have and will maintain the necessary insurance and deductible coverages specified by NR169.

Schedule

The anticipated project schedule for the proposed additional work is estimated below. The schedule will depend on the length of time for agency review and the availability of contractors.

Activity	Estimated Start	Duration	Comments
Removal of Drycleaning Machine and Chemicals	January / February 2016	1 day	Client to arrange
DERF Claim RA 1	January 2016		Reimbursement Likely 2018?
Indoor Geoprobe Drilling and Sampling; Subslab Vapor Testing	February 2016	3 days Soil, Vapor, GW Lab results 2 weeks	
Floor Drain Removal and Addition of Supplemental Chemical Treatment	February / March 2016	2 days Soil Lab 2 Weeks	
Data Evaluation / Interpretation / Report	March / April 2016		
Vapor Mitigation System	April 2016	1 day installation	
Sample Groundwater Monitoring Wells	April 2016	2 days	First Round Post-injection Event
DERF Claim RA 2	May 2016		Reimbursement likely 2019?
Letter Report	May 2016		
Post-Injection Monitoring and Reporting Events	Oct 2016 April 2017 Oct 2017		Wait six months between events
Closure Request	Dec 2017		Depending on results, could be sooner
Well Abandonment	Jan 2018		After DNR Conditional Closure
Final DERF Claim	Feb 2018	After final closure	Reimbursement likely 2020?

I trust this information meets your needs. If you have any questions, please give me a call.

Sincerely,



Kendrick A. Ebbott, P.G.
 Branch Manager

Attachment: Table 1 Cost Estimate
 Figure 1 Proposed Soil Borings & Vapor Points
 Remedial Action Change Order 1

Cc: Mr. Harold Shipshock, Master Cleaners, c/o Mr. Tom Shipshock, via email
 Mr. Don Gallo, Whyte Hirschboeck, via email only

TABLE 1: Supplemental Remedial Action Cost Estimate
 January 18, 2016
 Master Drycleaner, 6326 W. Bluemound Road, Wauwatosa, WI

ITEM DESCRIPTION	Unit Price	Quantity	Units	Total Cost
CONTRACTOR				
Task B: Geoprobe Borings Inside Building (3 borings)				
Geoprobe Contractor				
Mobilization	\$500.00	1	lump	\$500.00
Drill and Sample	\$9.00	48	foot	\$432.00
Temporary Well	\$8.00	48	foot	\$384.00
Decontamination	\$0.00	1	hour	\$0.00
Concrete Penetration	\$25.00	3	each	\$75.00
Abandonment (bentonite)	\$0.00	2	bag	\$0.00
Laboratory				
VOCs Soil	\$52.00	6	each	\$312.00
VOCs Groundwater	\$50.00	3	each	\$150.00
Subtotal Task				\$1,853.00
Task C: Subslab Vapor Chemistry Sampling and Analysis				
Laboratory				
VOCs Vapor	\$288.00	2	each	\$576.00
Subtotal Task				\$576.00
Task D: Floor Drain Removal and Supplemental Chemical Treatment Beneath Building				
Environmental Contractor				
Mobilization	1500	1	lump	\$1,500.00
Sump Removal	1200	1	lump	\$1,200.00
Soil Removal and Disposal	800	4	drum	\$3,200.00
Mix Provect IR with 100 gal water, add	250	1	lump	\$250.00
Plug Sewer and get permit	650	1	lump	\$650.00
Backfill Bank Run sand	350	1	lump	\$350.00
Install plastic and bentonite top materials	150	1	lump	\$150.00
Restore 3" concrete surface	250	1	lump	\$250.00
Chemical Contractor				
Provect IKR	1.95	250 pound		\$487.50
Shipping	150	1 Ground		\$150.00
Laboratory				
TCLP VOCs Soil for Disposal	\$130.00	1	each	\$130.00
VOCs Soil	\$52.00	3	each	\$156.00
Subtotal Task				\$8,473.50
Task E: Vapor Migitation System and Documentation (if needed)				
Contractor Estimated - will get bids if needed				
System Installation	2500	1	lump	\$2,500.00
Task 3: Injection (Additional Lab Testing Per Permit Requirements of DNR)				
Laboratory				
GW - SO4, TOC, FE, Mn, RCRA Metals	\$127.00	4	each	\$508.00
Subtotal Task				\$508.00
CONTRACTOR SERVICES TOTAL				\$13,910.50
TOTAL ESTIMATED COST				\$22,510.50

TABLE 1: Supplemental Remedial Action Cost Estimate

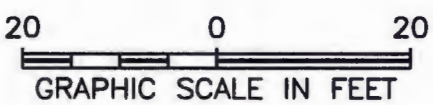
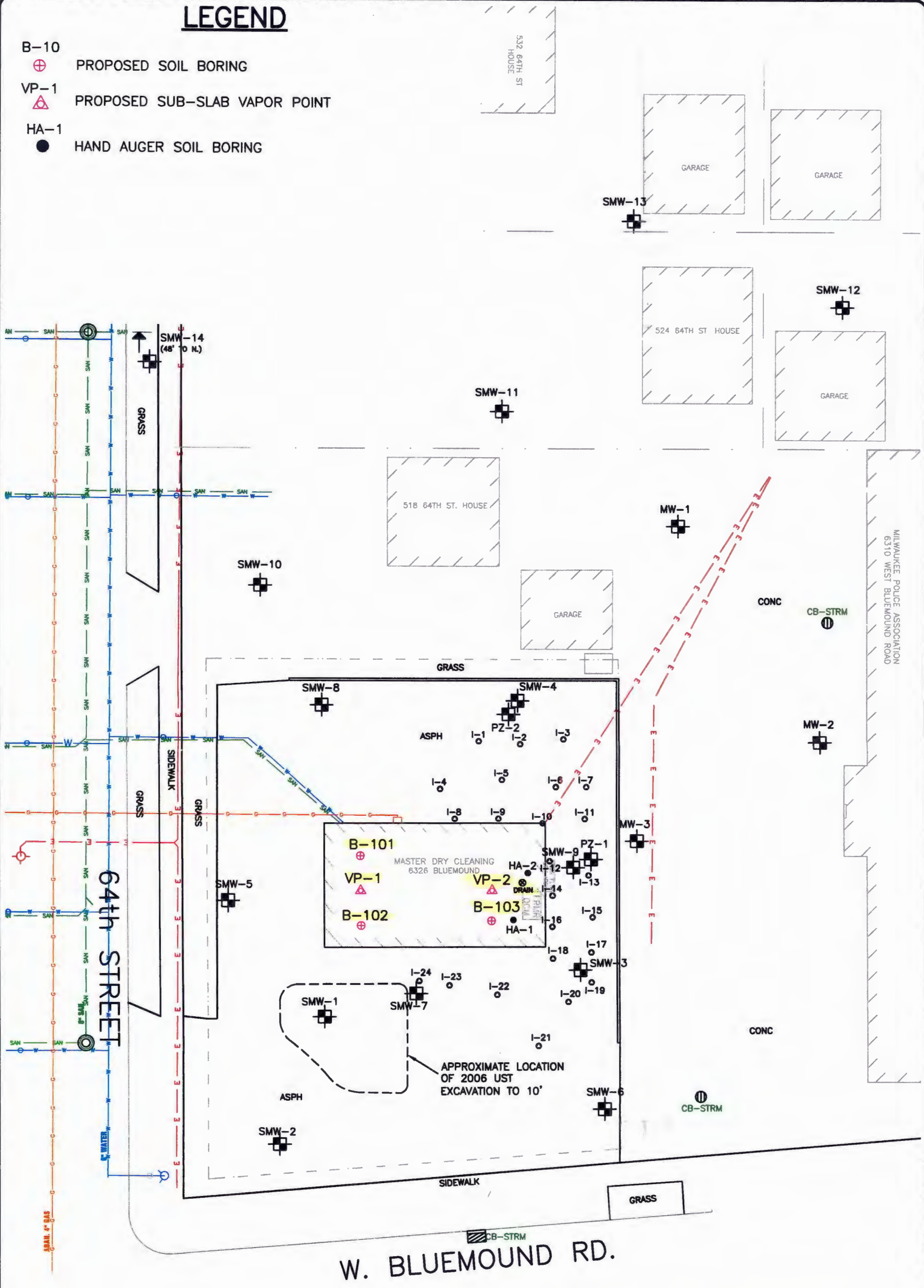
January 18, 2016

Master Drycleaner, 6326 W. Bluemound Road, Wauwatosa, WI

ITEM DESCRIPTION	Unit Price	Quantity	Units	Total Cost
CONSULTING SERVICES				
Task 0: Project Management (addl actions)				
Sr. Hydrogeologist or Engineer	\$100.00	10	hour	\$1,000.00
Administrative	\$60.00	5	hour	\$300.00
Subtotal Task				\$1,300.00
Task A: Removal Dry Cleaning Machine and Residual Chemicals (by Owner, Not DERF Eligible)				
Task B: Geoprobe Borings Inside Building (3 borings)				
Sr. Hydrogeologist or Engineer	\$100.00	2	hour	\$200.00
Field Technician / Geologist (Sample, Ship)	\$70.00	10	hour	\$700.00
Field Technician / Geologist (logs, GW Sample, Abandon)	\$70.00	8	hour	\$560.00
WL Probe, PID	\$140.00	1	day	\$140.00
Peristaltic, Tubing	\$65.00	1	day	\$65.00
Field Supplies (ice, gloves, dist h2o, etc.)	\$20.00	1	lump	\$20.00
Subtotal Task				\$1,685.00
Task C: Subslab Vapor Chemistry Sampling and Analysis				
Sr. Hydrogeologist (PM and letter rpt)	\$100.00	6	hour	\$600.00
Field Technician / Geologist	\$70.00	7	hour	\$490.00
Field Technician / Geologist (rpt)	\$70.00	4	hour	\$280.00
Drafting	\$60.00	2	hour	\$120.00
PID	\$100.00	1	day	\$100.00
Vapor Pins	\$50.00	2	day	\$100.00
Field Supplies	\$25.00	1	lump	\$25.00
Hammer Drill	\$100.00	0.5	day	\$50.00
Subtotal Task				\$1,765.00
Task D: Floor Drain Removal and Supplemental Chemical Treatment Beneath Building				
Sr. Hydrogeologist (PM and letter rpt)	\$100.00	6	hour	\$600.00
Sr. Hydrogeologist (disposal approval)	\$100.00	2	hour	\$200.00
Field Technician 2 days	\$70.00	16	hour	\$1,120.00
Field Technician (rpt)	\$70.00	5	hour	\$350.00
PID Meter	\$100.00	1	day	\$100.00
Field Supplies	\$20.00	1	day	\$20.00
Subtotal Task				\$2,390.00
Task E: Vapor Migitation System and Documentation (if needed)				
Sr. Hydrogeologist (report)	\$100.00	5	hour	\$500.00
Field Technician: oversight, Comm test	\$70.00	10	hour	\$700.00
Drafting	\$60.00	2	hour	\$120.00
PID	\$100.00	0.5	day	\$50.00
Hammer Drill	\$100.00	0.5	day	\$50.00
Electronic Flow Meter	\$80.00	0.5	day	\$40.00
Subtotal Task				\$1,460.00
CONSULTING SERVICES TOTAL				\$8,600.00

LEGEND

- B-10 PROPOSED SOIL BORING
- VP-1 PROPOSED SUB-SLAB VAPOR POINT
- HA-1 HAND AUGER SOIL BORING



FEHR GRAHAM
ENGINEERING & ENVIRONMENTAL

ILLINOIS
IOWA
WISCONSIN

MASTER DRYCLEANING INC.
6326 W. BLUEMOUND RD.
WAUWATOSA, WI 53213

DRWN: MKH DATE: 00/00/00 APPD: XXX

TITLE: PROPOSED SOIL BORINGS & VAPOR POINTS

BRRTS: 02-41-545142
JOB NO.: 15-1209
PLOT DATE: 1/15/16

FIGURE: 1

REMEDIAL ACTION CHANGE ORDER # 1: January 19, 2016
 Master Cleaners, Wauwatosa, WI, BRRTS # 02-41-545142

ITEM DESCRIPTION	Unit Price	Quantity	Units	Total Addl Cost	Prior Appvd Cost	Total Cost
ADDITIONAL REQUESTED SERVICES						
CONSULTANT SERVICES						
Task 0: Project Management (3 years)	See Table 1			1300	3,120.00	4,420.00
Task A: Removal Dry Clean Machine and Chemicals	Not Eligible			0	0.00	0.00
Task B: Geoprobe Borings Inside Bldg	See Table 1			1685	0.00	1,685.00
Task C: Subslab Vapor Sample and Analysis	See Table 1			1765	0.00	1,765.00
Task D Floor Drain Removal, Chem Treat Sub-Bldg	See Table 1			2390	0.00	2,390.00
Task E Vapor Mit System and Documntation	See Table 1			1460	0.00	1,460.00
Task 1: RA Report, WPDES Permit, Notifications, Access Agrmnt				0	5,280.00	5,280.00
Task 2: Prelnj Baseline GW Sampling (18 wells) Indoor Util Locate				0	3,087.00	3,087.00
Task 3 Injection				0	10,760.00	10,760.00
Task 4 Post Inj Monitor 2 weeks Field, 4 Monhs Lab GW, Field Vapor				0	3,431.00	3,431.00
Task 5 Inj Doc Report				0	2,880.00	2,880.00
Task 6: GW Monitoring 6 events at 12 wells				0	8,718.00	8,718.00
Task 7 GW Monitor Status				0	\$ 4,140.00	4,140.00
Task 8 Closure Request w DNR Fees				0	\$ 6,120.00	6,120.00
Task 9 Well Abandonment				0	\$ 2,450.00	2,450.00
RA Consulting				8600	\$49,986.00	\$58,586.00
CONTRACTOR SERVICES						
Task A: Removal Dry Clean Machine and Chemicals	Not Eligible			0	0	0
Task B: Geoprobe Borings Inside Bldg	See Table 1					
Driller				1391	0	1,391.00
Lab				462	0	462.00
Task C: Subslab Vapor Sample and Analysis	See Table 1			576	0	576.00
Task D Floor Drain Removal, Chem Treat Sub-Bldg	See Table 1					
Contractor				7550	0	7,550.00
Chemical				637.5	0	637.50
Lab				286	0	286.00
Task E Vapor Mit System and Documntation	See Table 1			2500	0	2,500.00
Task 2: Prelnj Baseline GW Sampling (18 wells) Indoor Util Locate						
Lab	900.00			0	900.00	900.00
Private Locate	400.00			0	400.00	400.00
Task 3 Injection						
Geoprobe Injection 4 day	6,735.00			0	6,735.00	6,735.00
Chemical Supplier and Mix	7,480.50			0	7,480.50	7,480.50
Lab Requd by Inject Permit	0.00			508	0.00	508.00
Task 4 Post Inj Monitor 2 weeks Field, 4 Monhs Lab GW, Field Vapor						
Lab	900.00			0	900.00	900.00
Task 6: GW Monitoring 6 events at 12 wells						
lab	5,100.00			0	5,100.00	5,100.00
RA Contractor				\$13,910.50	\$21,515.50	\$35,426.00
TOTALS				\$22,510.50	\$71,501.50	\$94,012.00

TOTAL REQUESTED ADDITIONAL FUNDS \$22,510.50

TOTAL REMEDIAL ACTION BUDGET	Consulting	\$58,586
	Commodity	\$35,426
	TOTAL	\$94,012

Master Drycleaners Inc. approves of the site remediation costs described above and authorizes Fehr Graham to proceed with these activities. Fehr Graham shall not exceed any of these costs without receiving written authorization. The terms and conditions of the original contract for this project will apply to these services.

Master Cleaners Inc. _____ Date _____

This approval does not guarantee the reimbursement of costs. Final determination regarding the eligibility of costs will be determined at the time of claim review.

Mr. J. Hjat, WDNR Project Manager _____ Date 1/27/2016

Mr. Kendrick A. Ebbott, Fehr Graham _____ Date _____