

December 20, 2016

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

Sent via Email and Regular Mail

RE: Additional Proposed Scope of Work, including Modifications to Sept 27 and July 16, 2016 Additional Investigation and Remedial Action Proposal, Master Dry Cleaners DERF Site, 6326 W. Bluemound Road, Wauwatosa, WI, BRRTS # 02-41-545142

Dear Pam and John:

Per our recent discussion, the WDNR has requested additional tasks and information be added to the proposed scope of work that has previously been provided in documents dated July 16 and September 27, 2016. Specifically, the following additional tasks and information has been requested:

- Off-site subslab mitigation system installation on the adjacent property to the north, with maintenance plan and inspections
- Off-site subslab vapor mitigation testing of the property located two addresses to the north, with a contingency plan for installation of a vapor mitigation system, with maintenance plan and inspections
- Clarification of groundwater monitoring plans with a comparison to the original remedial action proposal
- Confirmation of the consultant fee schedule from the original remedial action and the current plans / budget
- Discussion of utility issues and the indoor and outdoor excavation plans

Since this is the third document that describes the proposed scope and budget, with tasks spread across several documents, it is getting difficult to keep the details straight. To simplify, I have summarized all the proposed anticipated work going forward into brief bullet points of key activities, and tied them to budget tasks that align with the cost estimate table and change order request. I've included all the proposed additional work items in the change order, which will need to be approved by the WDNR and Master Cleaners.

For the sake of brevity, I have NOT regurgitated all the details and rationale for the various tasks. If further detail is needed, the scope of work documents from July 16, 2016 and September 27, 2016 provide that information.

#### PROPOSED ADDITIONAL WORK

##### Task 0: Project Management

- Additional scope and budget request preparations
- Additional correspondence with DNR, client, and other interested parties
- Hazardous Waste Determination request with DNR fee

- Access and greater communication with two neighbors to north and neighbor to east regarding subslab systems and vapor monitoring

#### Task F: Additional Assessment of Utility Corridors

- Video monitor (plumber) building sanitary sewer line and lateral to 64<sup>th</sup> Street
- Mark utility location at grade, and potential leak areas
- Geoprobe drilling at identified key locations (6 borings to 10', including two inside)
- Soil sample 16 samples for VOCs, two for TCLP VOC

#### Task G: Landfill Disposal Approval

- Obtain DNR Hazardous Waste Determination (Contained-Out) - *APPROVED 11.14.16*
- Identify landfill, complete profile, billing arrangements for non-hazardous material
- Identify landfill, profile, billing for hazardous material

#### Task H: Soil Excavation and Disposal

- Permit City Wauwatosa, Water shut off at curb
- Saw cut surfaces (concrete and asphalt) inside and outside
- Remove, regrind asphalt / concrete
- Indoor under utilities excavation- mini-excavator - 40' x 2' x 6'
- Indoor Sump excavation - 4' x 4' x 8' less sump void - 2.7 tons)
- Outdoor utility excavation on site Property - not into the right of way - regular backhoe with trench box 40' x 4' x 8'
- Lab soil walls and floor 13 samples VOCs
- Reuse shallow outside soil (35 tons) from 0 to 4' as backfill (based on lab Task F)
- Hazardous waste transport and disposal around Sump - 5 drums
- Double handle inside soil - dig, skid steer to outside to dump truck
- Direct load outside soil into dump truck for landfill
- Soil disposal at landfill: 70 tons - 30 tons inside, 40 tons outside
- Licensed plumber restore indoor bathroom sanitary connection
- Licensed plumber restore outside laterals sewer and water to 64<sup>th</sup> Street mains
- Clay plugs / vapor barriers to make subslab vapor mitigation system effective
- Clay plug and plastic barrier at connection with right of way lateral
- Backfill with clay inside, then gravel
- Resurface asphalt and concrete

#### Task I: Chemical Addition in Excavation Base

- Add 150 gallons of 8% emulsified zero valent iron (EZVI) to indoor excavation base via gravity drainage
- Extension of injection permit to cover EZVI
- Notify City Wauwatosa prior to addition
- Monitor with four gas meter readings in 7 wells before and after addition

#### Task E: Building Restoration, Subslab Vapor Mitigation System Installation and Monitoring

- Install indoor subslab vapor mitigation system in trench and sump floor areas

- Horizontal pipe - 30' - to vertical extraction well in stone, clay / plastic at top
- One floor penetration, 3-inch pipe extraction point
- One Fan- mounted outside
- Communication testing on three events, with at least one assessment in summer and one in winter, verify -0.004" induced vacuum at four floor locations, including one in bathroom
- If fail communication test, install second extraction point, possibly second fan, seal floor joints. If necessary, additional cost will be required
- Test indoor air chemistry with summa canister for select CVOCs from sample obtained at breathing height, two samples, one event before occupancy, one 6 months after occupancy
- Prepare documentation report of vapor mitigation system components, with operations and maintenance schedule

#### Task J: Documentation Report Preparation

- Document excavation activities in report
- Document proper disposal
- Lab reports
- Maps and tables of final results

#### Task C1: Vapor Sampling Subslab: Two Structures: Milwaukee Police Association Building 6310 W. Bluemound Road and Second Residence North of Property 524 N 64<sup>th</sup> Street

- Permission / discussion of needs with Property Owner
- Owner 524 N 64<sup>th</sup> may be difficult to locate or get permission
- Two subslab vapor probes per structure (4 total)
- Stainless steel vapor probes, shut in test, water dam floor seal, 30-minute Summa Canister grab
- TO-15 chlorinated VOCs - short list of PCE, TCE, DCE, VC
- Remove vapor probes, seal floor
- Tabulate and compare to standards
- Letter results to property owner

#### Task C2: Residential Vapor Mitigation System (518 N 64<sup>th</sup> Street - Rusch Home)

Testing of the subslab vapors beneath the building basement was completed in July 2009 from three locations and retested in April 2010 from one location. Indoor air monitoring was completed in February 2012 from the basement and the first floor of the building. Results indicate levels of tested chlorinated solvents (PCE, TCE, DCE, VC) from the indoor air were all non-detectable. Indoor air monitoring was also performed using field meters during the injection at the Property in December 2015, with no elevated measurements.

However, in the subslab vapor testing back in 2009 and 2010, levels of trichloroethene were above theoretical standards that pose a risk for human health in the subslab vapors beneath a residential structure, and the available groundwater chemistry results indicate contaminated groundwater likely extends beneath the building basement.

The WDNR has required that a vapor mitigation system be installed beneath the building to capture sub-basement vapors so they will not enter the building. Confirmation testing for negative pressure to demonstrate adequate capture is also required.

The building has a finished basement, with a recreation room, laundry room, and storage areas. There are at least two floor drains in the basement, which are expected to be connected to the sanitary sewer, one located in the laundry room and the other in the recreational room.

The following actions will be completed:

- Get permission / describe need with Property Owner
- Inspection of the basement to assess the best approach. It may be necessary to use a two-fan system to draw air from beneath the entire basement subsurface.
- Seal visible floor penetrations (cracks around the floor drains, etc.) to prevent short circuiting of the subslab vapor extraction to the basement air.
- Installation of one subslab floor penetration to remove subfloor vapor
- Install electric low horsepower fan, outside, with piping
- Wire to dedicated circuit on electric panel (assumes adequate space to accommodate)
- During install, perform communication test to verify minimum of -0.004 inches induced vacuum present across building subfloor.
- If fail, install second floor penetration point from fan, or if necessary install a second fan.
- Install visible u-tube manometer on vertical piping for easy observation of system operation.
- Prepare documentation report for system function and maintenance needs
- Verify function one month after installation, and then in combination with other site visits

#### Contingency Task C3: Vapor Mitigation System at 524 N 64<sup>th</sup> Street

Upon receipt of subslab information from 524 N. 64<sup>th</sup>, installation of a subslab system similar to that at 518 N 64<sup>th</sup> will be completed. The nature of the basement in the structure is not known, and there may be a need for modification of the vapor mitigation system components if the building has a sump reservoir, for example.

#### Task 6: Groundwater Monitoring

The site has 19 monitoring wells and piezometers.

Original remedial action proposal budgeted samples: assumed 18 wells - but there are 19 wells

Total samples budgeted for project: 114 VOCs, 24 Methane, ethane, ethene (MEE)

Completed already: 52 VOCs, 5 MEE, 4 for RCRA metals, TOC, SO<sub>4</sub>, Fe, Mn per WPDES permit requirements. Lab cost for analyses of RCRA metals authorized in Change Order #1, but not time to sample

Revised needs: based on site chemistry, best to sample at 14 wells, not 12 wells, going forward, and all 19 wells on two events going forward. Plan is for the following events:

Time	Number of Wells / Parameters	Status	Comments
Sept 30, 2015	19 - VOC	DONE	Task 2 from Proposal
Nov 30, 2015 and April 26, 2016	4 - RCRA Metals, SO4, FE, MN, TOC	DONE	Reqd by WPDES permit
April 2016	19	DONE	Task 4 from Proposal
Oct 2016	14 - VOC 5 - MEE	DONE - report pending	Skipped clean wells 1,2,5, 12, 13
Jan 2017	14		
April 2017	19		Sample All Wells
July 2017	14		
Oct 2017	14		
Jan 2018	19		Sample All Wells
<b>TOTAL PROJECT</b>	<b>132 VOC 24 MEE 4 WPDES permit addns</b>	<b>52 VOC 5 MEE 4 WPDES permit addns</b>	<b>Increase of 18 VOC's and 4 WPDES permit additions over approved</b>

Line items needed to add for budget request:

- Additional laboratory charges for 18 VOC samples
- Additional labor time to sample 18 additional wells and 4 RCRA metals, etc.

Task 7: Groundwater Monitoring Status Reports

With the additional sampling comes a need for additional data evaluation, interpretation, and reporting.

- Increase in reporting time for private well communications - DNR requires more information than when bid out, due to sensitivity, need to be more detailed than typical communication
- Increase in data evaluation and reporting due to increased samples

Utility Assessment in 64<sup>th</sup> Street

The WDNR has requested further comment on the need to evaluate the utility corridors in 64<sup>th</sup> Street.

During the utility work that has been proposed, there will be an estimated 12 soil samples from borings that will be obtained from near the outside utility laterals, and we propose obtaining nine additional final limit soil samples during the outside utility excavation, with locations to be determined based on observations. Two of these samples will be located at the edge of the right of way where the utility lateral extends toward the main lines beneath 64<sup>th</sup> Street. A clay plug will then be installed at the edge of the newly restored laterals, to prevent migration of any remaining contamination toward 64<sup>th</sup> Street.

As for the assessment of migration of groundwater to the utility lines, it appears the depth to water at the site is ten to 11 feet below grade, while the base of the sanitary sewer lateral does not extend below the water table. The base of the sanitary sewer manhole in 64<sup>th</sup> Street located south and west of the site is approximately 8 feet below grade. Further information on the sewer depths will be pursued from the City of Wauwatosa, but it appears unlikely groundwater intercepts the backfill of the utility lines in 64<sup>th</sup> Street.

### Cost Estimate

The previously approved budget for the project totals \$94,012, including the original Remedial Action cost approval of \$71,501.50, and approved Change Order # 1 from January 2016 totaling \$22,510.50.

There were additional cost estimates provided in the July and September 2016 submittals that were approved by Master Cleaners, but these were never formally approved by the WDNR. To simplify, those estimates should be scrapped, and this submittal includes the costs for all necessary additional work summarized above.

Estimated costs are broken down on a task by task basis and documented on Table A with details showing unit rates and quantities. The totals are also shown on attached Change Order 2, and approval of the Change Order by the WDNR is requested for DERF eligibility.

*Change order #2*

One caveat, the excavation work was bid for completion in non-frozen conditions, and adjustments to the budget may be necessary if the work needs to be completed in mid-winter. A new change order will be pursued prior to completion of the work if the contractor requires additional funds to complete the work in mid-winter. Given the current time frame, we should proceed with the initial tasks and then see where we stand relative to spring thaw.

*- winter expense? Addition?*

As requested, we confirm that the unit rates for labor, laboratory, and all unit costs identified in the original approved Remedial Action proposal remain the same, and should be fully eligible for DERF reimbursement.

DERF ineligible costs that may occur on this project have been identified where known on Table 1A, and include WDNR Fees, municipal permit fees, and the program deductible of 8% if total project cost exceeds \$200,000.

*ineligible costs Table 1A*

Please review the costs, and provide approval of the attached Change Order # 2.

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 will depend on obtaining DNR approval, and the weather. The proposed duration for the various field tasks is laid out below, with the work to commence shortly after WDNR approval of the Change Order and scope. Some field tasks assume unfrozen conditions, and the outdoor excavation may be best delayed until spring. However, the drilling and possibly the indoor excavation can proceed during winter.

In addition, the timing for the subslab vapor monitoring will depend on access and homeowner schedules, so it is difficult to know specifically when those elements can be completed.

Activity	Duration
Sewer Video and Evaluation	1 day
Geoprobe Borings	1 day
Vapor Mitigation System North Neighbor	1-2 days
Subslab Vapor Sampling to East and North	1 day
Soil and Vapor Lab Analysis	2 weeks
Landfill Approval	2 weeks
Excavn & Restoration Inside	1 week
Excavation Outside	1 week
Building Vapor Mitigation System Install	1 day
Vapor Communication Testing	1 day
Data Evaluation, Interpretation, Reporting	On-Going

The groundwater sampling schedule was laid out under Task 6 above, with the next round of 14 samples from monitoring wells planned for January 2017.

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



Kendrick A. Ebbott, P.G.  
Branch Manager

Attachments: Table A: Cost Estimate  
Change Order 2

CC: Mr. Harold Shipshock, Master Cleaners, c/o Mr. Tom Shipshock, via email  
Mr. Don Gallo, Husch Blackwell, LLP, via email only

O:\Master Drycleaning\15-1209\REPORTS\2016 Scope Response to DNR May 2016 letter\12 20 16 FINAL Modifications Dec 13 to Sept 27 and July 2016 Scope.docx

TABLE A: Additional Remedial Action Cost Estimate  
 December 19, 2016  
 Master Drycleaner, 6326 W. Bluemound Road, Wauwatosa, WI

ITEM DESCRIPTION	Unit Price	Quantity	Units	Total Cost
<b>CONSULTING SERVICES</b>				
<b>Task 0: Project Management (addl actions)</b>				
Sr. Hydrogeologist or Engineer	\$100.00	52	hour	\$5,200.00
Administrative	\$60.00	5	hour	\$300.00
WDNR Fee (Haz Waste Determination)	\$700.00	1	lump	\$700.00
<b>Subtotal Task</b>				<b>\$6,200.00</b>
<b>Task C1: Subslab Vapor Chemistry Smpl/ Analysis Neighbor to East and 2nd North</b>				
Sr. Hydrogeologist (PM and letter rpt)	\$100.00	8	hour	\$800.00
Field Technician / Geologist	\$70.00	8	hour	\$560.00
Field Technician / Geologist (rpt)	\$70.00	4	hour	\$280.00
Drafting	\$60.00	4	hour	\$240.00
PID	\$100.00	1	day	\$100.00
Vapor Pins	\$50.00	4	day	\$200.00
Field Supplies	\$25.00	1	lump	\$25.00
Hammer Drill	\$100.00	1	day	\$100.00
<b>Subtotal Task</b>				<b>\$2,305.00</b>
<b>Task C2: Subslab Vapor System Neighbor to North</b>				
Oversight, System Communication Testing, Doc Report, Follow Up Functioning				
Sr. Hydrogeologist	\$100.00	4	hour	\$400.00
Field Technician / Geologist	\$70.00	12	hour	\$840.00
Hammer Drill, Induced Vacuum Meter	\$100.00	1	day	\$100.00
<b>Subtotal Task</b>				<b>\$1,340.00</b>
<b>Task C3: Subslab Vapor System Second Neighbor to North</b>				
Oversight, System Communication Testing, Doc Report, Follow Up Functioning				
Sr. Hydrogeologist	\$100.00	4	hour	\$400.00
Field Technician / Geologist	\$70.00	12	hour	\$840.00
Hammer Drill, Induced Vacuum Meter	\$100.00	1	day	\$100.00
<b>Subtotal Task</b>				<b>\$1,340.00</b>
<b>Task E: Building Restoration with Subslab Vapor Mitigation System Installation</b>				
<i>Communication Testing - three events - one winter, one summer, one other</i>				
Sr. Hydrogeologist	\$100.00	4	hour	\$400.00
Field Technician 3 days	\$70.00	12	hour	\$840.00
Technician - table, report	\$70.00	3	hour	\$210.00
Bentonite	\$20.00	5	bag	\$100.00
Hammer Drill	\$50.00	3	day	\$150.00
Induced Vacuum Meter Rental	\$50.00	3	day	\$150.00
<i>Chemical Testing - two Events- one pre-occupancy, one post-occupancy</i>				
Sr. Hydrogeologist	\$100.00	4	hour	\$400.00
Field Technician 4 visits - deploy, pickup	\$70.00	6	hour	\$420.00
Field Technician - report	\$70.00	6	hour	\$420.00
PID	\$100.00	2	day	\$200.00
<b>Subtotal Task</b>				<b>\$3,290.00</b>
<b>Task F: Addl Assessment Utility Corridors</b>				
<i>Video Sewer, Six Geoprobos w 12 soil samples</i>				
Sr. Hydrogeologist or Engineer	\$100.00	8	hour	\$800.00
Field Technician Drill, Soil Sample	\$70.00	12	hour	\$840.00
Field Technician Prep, Logs, COC, Ship	\$70.00	4	hour	\$280.00
Drafting	\$60.00	5	hour	\$300.00
Field Supplies	\$50.00	1	day	\$50.00
<b>Subtotal Task</b>				<b>\$2,270.00</b>
<b>Task G: Landfill Disposal Approval</b>				
Sr. Hydrogeologist or Engineer	\$100.00	16	hour	\$1,600.00
Field Technician	\$70.00	6	hour	\$420.00
<b>Subtotal Task</b>				<b>\$2,020.00</b>
<b>Task H: Soil Excavation and Disposal</b>				
<i>Indoor 3 days, Outdoor 2 days</i>				
Sr. Hydrogeologist	\$100.00	10	hour	\$1,000.00
Field Technician 5 days	\$70.00	50	hour	\$3,500.00
Field Technician (Prep, notes, COC)	\$70.00	10	hour	\$700.00
PID Meter	\$100.00	5	day	\$500.00
Field Supplies	\$50.00	2	day	\$100.00
<b>Subtotal Task</b>				<b>\$5,800.00</b>

NOTES

DERF Ineligible



TABLE A: Additional Remedial Action Cost Estimate  
 December 19, 2016  
 Master Drycleaner, 6326 W. Bluemound Road, Wauwatosa, WI

ITEM DESCRIPTION	Unit Price	Quantity	Units	Total Cost
<b>Task I: Contingency Addition Chemicals in Excvn Base</b>				
Oversight of Mixing, Monitor Well Headspace, Permit Amendment				
Sr. Hydrogeologist (Permit, Correspondence)	\$100.00	10	hour	\$1,000.00
Sr. Hydrogeologist (Field PM)	\$100.00	6	hour	\$600.00
Field Technician Mix Assist, Monitoring	\$70.00	10	hour	\$700.00
Field Technician Data Eval / process	\$70.00	10	hour	\$700.00
Four Gas Meter	\$150.00	2	day	\$300.00
PID Meter	\$100.00	2	day	\$200.00
Field Supplies	\$50.00	1	day	\$50.00
<b>Subtotal Task</b>				<b>\$3,550.00</b>
<b>Task J: Documentation Report</b>				
Sr. Hydrogeologist or Engineer	\$100.00	24	hour	\$2,400.00
Field Technician Data Entry, Tables	\$70.00	12	hour	\$840.00
Drafting	\$60.00	24	hour	\$1,440.00
Project Assistant	\$60.00	5	hour	\$300.00
<b>Subtotal Task</b>				<b>\$4,980.00</b>
<b>Task 6 GW Monitoring</b>				
<i>Addl 18 Wells and labor for 4 WPDES Samples</i>				
Sr. Hydrogeologist	\$100.00	5	hour	\$500.00
Field Technician Sample Addl Wells	\$70.00	22	hour	\$1,540.00
Technician Addl ship, prep	\$70.00	4	hour	\$280.00
Field Supplies	\$20.00	22	well	\$440.00
<b>Subtotal Task</b>				<b>\$2,760.00</b>
<b>Task 7: Groundwater Monitoring Status Reports</b>				
Addl Time for neighbors wells commun., and addl samples, addl Data eval, report				
Sr. Hydrogeologist - neighbor letters	\$100.00	10	hour	\$1,000.00
Sr. Hydrogeologist status reports	\$100.00	10	hour	\$1,000.00
Field Technician Data Entry, Tables	\$70.00	15	hour	\$1,050.00
Drafting	\$60.00	10	hour	\$600.00
<b>Subtotal Task</b>				<b>\$3,650.00</b>
<b>CONSULTING SERVICES TOTAL</b>				<b>\$39,505.00</b>

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TABLE A: Additional Remedial Action Cost Estimate  
 December 19, 2016  
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ITEM DESCRIPTION	Unit Price	Quantity	Units	Total Cost
<b>CONTRACTOR</b>				
<b>Task C1: Subslab Vapor Chemistry Smp/ Analysis Neighbor to East and 2nd North</b>				
Laboratory				
VOCs Vapor	\$288.00	4	each	\$1,152.00
<b>Subtotal Task</b>				<b>\$1,152.00</b>
<b>Task C2: Subslab Vapor System Neighbor to North</b>				
Mitigation System Contractor				
Site Visit, Scope	\$250.00	1	lump	\$250.00
System Install, one fan, one penetration	\$2,500.00	1	lump	\$2,500.00
<b>Subtotal Task</b>				<b>\$2,750.00</b>
<b>Task C3: Subslab Vapor System Second Neighbor to North</b>				
Mitigation System Contractor				
Site Visit, Scope	\$250.00	1	lump	\$250.00
System Install, one fan, one penetration	\$2,500.00	1	lump	\$2,500.00
<b>Subtotal Task</b>				<b>\$2,750.00</b>
<b>Task E: Building Restoration with Subslab Vapor Mitigation System Installation</b>				
Mitigation System Contractor				
Additional Testing and floor penetration	\$650.00	1	lump	\$650.00
Laboratory				
VOCs Vapor	\$288.00	2	each	\$576.00
<b>Subtotal Task</b>				<b>\$1,226.00</b>
<b>Task F: Addl Assessment Utility Corridors</b>				
<i>Video Sewer, Six Geoprobos w 12 soil samples</i>				
Video Sewer Line	750	1	lump	750
Private Utility Locate	350	1	lump	350
Geoprobe Mobilize	500	1	lump	500
Drill / Sample Interior	9.5	20	foot	190
Drill / Sample Exterior	7.5	40	foot	300
Abandon	1.2	60	foot	72
Decon	75	1	hour	75
Conc Penetrations	50	2	each	100
Laboratory				
Soil VOCs	52	16	each	832
TCLP VOC	117	2	each	234
Landfill Criteria Testing	500	1	each	500
<b>TASK SUBTOTAL</b>				<b>3903</b>
<b>Task H: Soil Excavation and Disposal</b>				
Environmental Contractor				
Mobilization indoor	1600	1	lump	\$1,600.00
Concrete Saw / Break Inside	4.2	102	feet	\$428.40
Concrete Disposal Inside	3.5	136	sf	\$476.00
Concrete Load / Haul	500	1	lump	\$500.00
Mini Excvtor w/ Operator	135	32	hour	\$4,320.00
Crew / Equipment Per Day Charge	636	3	day	\$1,908.00
Non-Haz Soil Load, Haul out of bldg	35	30	ton	\$1,050.00
Haz Soil Load and Haul out of Bldg,	100	5	drum	\$500.00
Drums	60	5	each	\$300.00
Haz Soil Disposal	450	5	drum	\$2,250.00
Non-Haz Soil Displ Indoor Tip Fee	34	30	ton	\$1,020.00
Non-Haz Soil Displ Haul	16	30	ton	\$480.00
Indoor Lateral Replacement	14.8	20	foot	\$296.00
Vapor Pipe and Install	10	30	foot	\$300.00
Stego Wrap Barrier	627	1	lump	\$627.00
Pea Gravel Backfill	31	30	ton	\$930.00
Concrete Resurfacing	6.5	136	SF	\$884.00
Shipping	275	1	Ground	\$275.00
Outdoor Excavation				
City Permit / Water Shur off	150	1	lump	\$150.00
Mobilization Outdoor	1550	1	lump	\$1,550.00
Asphalt Saw	4.2	86	ft	\$361.20
Asphalt Remove	2.5	160	SF	\$400.00
Asphalt Load / Haul / Dispose - lump	500	1	lump	\$500.00
Non-Haz Soil Load and Haul	16	40	ton	\$640.00
Outdoor Lateral Replacement	14.8	40	foot	\$592.00
Outdoor Water Replacement	10.33	40	foot	\$413.20
Excavation and Operator	135	16	hour	\$2,160.00

DERF Inelig

TABLE A: Additional Remedial Action Cost Estimate  
 December 19, 2016  
 Master Drycleaner, 6326 W. Bluemound Road, Wauwatosa, WI


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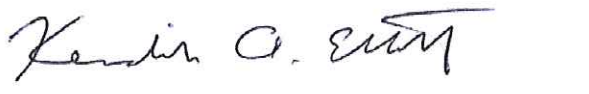
ITEM DESCRIPTION	Unit Price	Quantity	Units	Total Cost
Trench Box Install and Use	1500	1	lump	\$1,500.00
Resurface Asphalt	11	200	SF	\$2,200.00
Pea Gravel Backfill	15	40	ton	\$600.00
Landfill Tip Fee Outsdie	34	40		\$1,360.00
Laboratory Analyses				
Soil VOC	52	12	each	\$624.00
<b>Subtotal Task</b>				<b>\$31,194.80</b>
<b>Task I: Contingency Addition of Chemicals</b>				
One Day Mix and Deliver				
Contractor				
Mix Equipment Mob	\$900.00	1	lump	\$900.00
Decon Equipment	\$150.00	1	lump	\$150.00
2 man Crew 1 day	\$1,000.00	1	day	\$1,000.00
Water Truck with Water	\$0.50	200	gallon	\$100.00
PPE	\$100.00	2	man day	\$200.00
<i>Chemicals</i>				
Delivery	\$500.00	1	lump	\$500.00
Nano EZVI	\$23.50	150	gallon	\$3,525.00
<b>Subtotal Task</b>				<b>\$6,375.00</b>
<b>Task 6 GW Monitoring</b>				
<i>Addl 18 Wells VOCs</i>				
Laboratory	\$50.00	18	each	\$900.00
<b>Subtotal Task</b>				<b>\$900.00</b>
<b>CONTRACTOR SERVICES TOTAL</b>				<b>\$50,250.80</b>
<b>TOTAL ESTIMATED COST</b>				<b>\$89,755.80</b>

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. Hnat, WDNR Project Manager Date 12/22/2016

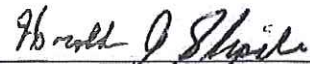
  
 Mr. Kendrick A. Ebbott, Fehr Graham Date 19-Dec-16

REMEDIAL ACTION CHANGE ORDER # 2: December 19, 2016  
 Master Cleaners, Wauwatosa, WI BRRTS # 02-41-545142

# 2  
 1/27/16  
 Change order #1

DESCRIPTION	Unit Price	Quant.	Units	Total ADDL Cost	Prior Apprvd Cost	TOTAL COST
<b>CONSULTANT SERVICES</b>						
Task O: Project Management	See Table A			6200	4420	10620
Task A: Remove DCM				0	0	0
Task B: Geoprobe Borings Inside Bldg				0	1685	1685
Task C: Subslab Vapor Sample / Analysis				0	1765	1765
Task C1: Subslab Vapor Sample / Analysis Neighbor to East, 2nd North	See Table A			2305	0	2305
Task C2: Subslab Vapor System Neighbor to North	See Table A			1340	0	1340
Task C3 Subslab Vapor System Second Neighbor to North (if needed)	See Table A			1340	0	1340
Task D Floor Drain Removal, Chem Treat Sub Building				0	2390	2390
Task E Vapor Mit System Instln with three comm tests and two chem tests	See Table A			3290	1460	4750
Task 1 RA Report, WPDES Permit, Notifications, Access				0	5280	5280
Task 2 Pre-Inj. Baseline GW Sampling (18 wells) Indoor Util Locate				0	3087	3087
Task 3 Injection				0	10760	10760
Task 4 Post Inj GW Monitor 4 months				0	3431	3431
Task 5 Inj Doc Report				0	2880	2880
Task 6 GW Monitoring	See Table A			2760	8718	11478
Task 7 GW Monitor Status	See Table A			3650	4140	7790
Task 8 Closure Request w DNR Fees				0	6120	6120
Task 9 Well Abandonment				0	2450	2450
Task F Addl Assessment Utility Corridors	See Table A			2270	0	2270
Task G Landfill Disposal Approval	See Table A			2020	0	2020
Task H Soil Excvn and Disposal	See Table A			5800	0	5800
Task I Contingency Chemical Adn under Building Post Excvn	See Table A			3550	0	3550
Task J Documentation Report	See Table A			4980	0	4980
<b>Total Consultant</b>				<b>39505</b>	<b>58586</b>	<b>98091</b>
<b>CONTRACTOR SERVICES</b>						
Task A Remove DCM				0	0	0
Task B Geoprobe Borings Inside Bldg				0	1853	1853
Task C Subslab Vapor Sample / Analysis				0	576	576
Task C1: Subslab Vapor Sample / Analysis Neighbor to East	See Table A			1152	0	1152
Task C2: Subslab Vapor System Neighbor to North	See Table A			2750	0	2750
Task C3 Subslab Vapor System Second Neighbor to North (if needed)	See Table A			2750	0	2750
Task D Floor Drain Removal, Chem Treat Sub-Building				0	8473.5	8473.5
Task E Vapor Mit System Instln with three comm tests and two chem tests				1226	2500	3726
Task 2 Pre-Inj Baseline GW Sample (18 wells) Indoor Util locate				0	1300	1300
Task 3 Injection Outside				0	14723.5	14723.5
Task 4 Post Inj Monitor 4 months Lab GW				0	900	900
Task 6 GW Monitoring	See Table A			600	5400	6000
Task F Addl Assessment Utility Corridors	See Table A			3903	0	3903
Task H Soil Excvn and Disposal	See Table A			31195	0	31195
Task I Contingency Chemical Adn under Building Post Excvn	See Table A			6375	0	6375
<b>Total Contractor</b>				<b>50251</b>	<b>35428</b>	<b>85677</b>
<b>TOTALS</b>				<b>89756</b>	<b>94012</b>	<b>183768</b>

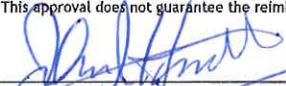
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 Master Cleaners Inc.

12/19/16  
 \_\_\_\_\_  
 Date

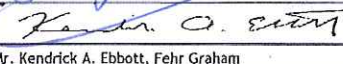
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 Mr. J. Hnat, WDNR Project Manager

12/22/2016  
 \_\_\_\_\_  
 Date

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 Mr. Kendrick A. Ebbott, Fehr Graham

19-Dec-16  
 \_\_\_\_\_  
 Date