



Department of City Development
City Plan Commission
Redevelopment Authority of the City of Milwaukee
Neighborhood Improvement Development Corporation

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1/5/16
OFFICIAL NOTICE NO. 84

ADDENDUM NO. 2

NOTICE TO CONTRACTORS intending to bid on the above noted Official Notice. This bidder shall acknowledge receipt of this addendum on the appropriate page in their bid. The following attached documents, together with this cover page, constitute this entire addendum.

1. Attached you will find the following documents to be included in Addendum #2 for Official Notice #84.
 - Revised Davis Bacon Wage Decision General Decision Number: WI150010 12/25/15, Highway (18 pages). This version of the Wage Decision is to replace the previous version in the original bid documents and shall be used on this project.
 - Questions received via e-mail and the Answers (including attachments) (1 page)
 - Questions received at the walkthrough and the Answers (2 pages)
2. The attached "REVISED BID RESPONSE FORM" shall replace in its entirety the "BID RESPONSE FORM" included in the original Bid packet. **ALL BID COSTS MUST BE SUBMITTED ON THE REVISED BID RESPONSE FORM.** (See #8 in Walkthrough Q&A for more information)
3. The attached "Revised Project Breakdown" shall replace in its entirety the "Project Breakdown" included in the original bid packet. (See #8 in Walkthrough Q&A for more information)
4. Department of Public Works General Specifications - Provisions of the Department of Public Works General Specifications dated January 31, 1992, and subsequent addenda, except as may be modified or expanded upon in this Invitation to Bid, shall apply to all contractors and subcontractors working on the project. For a copy, please go to the following link and click on "General Specifications": http://www.mpw.net/services/bids_home
5. All documents referenced and attached herein can be obtained in .pdf format at the following website: http://www.mpw.net/services/bid_notice?84-2015

Very truly yours,

Scott Stange
Procurement and Compliance Manager



General Decision Number: WI150010 12/25/2015 WI10

Superseded General Decision Number: WI20140010

State: Wisconsin

Construction Type: Highway

Counties: Wisconsin Statewide.

HIGHWAY, AIRPORT RUNWAY & TAXIWAY CONSTRUCTION PROJECTS (does not include bridges over navigable waters; tunnels; buildings in highway rest areas; and railroad construction)

Note: Executive Order (EO) 13658 establishes an hourly minimum wage of \$10.10 for 2015 that applies to all contracts subject to the Davis-Bacon Act for which the solicitation is issued on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.10 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/02/2015
1	01/16/2015
2	03/20/2015
3	04/10/2015
4	05/22/2015
5	06/12/2015
6	06/26/2015
7	07/31/2015
8	08/07/2015
9	08/28/2015
10	10/09/2015
11	11/13/2015
12	12/25/2015

BRWI0001-002 06/01/2013

CRAWFORD, JACKSON, JUNEAU, LA CROSSE, MONROE, TREMPLEAU, AND VERNON COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 35.94	17.05

BRWI0002-002 06/01/2015

ASHLAND, BAYFIELD, DOUGLAS, AND IRON COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 36.10	16.13

 BRWI0002-005 06/01/2015

ADAMS, ASHLAND, BARRON, BROWN, BURNETT, CALUMET, CHIPPEWA,
 CLARK, COLUMBIA, DODGE, DOOR, DUNN, FLORENCE, FOND DU LAC,
 FOREST, GREEN LAKE, IRON, JEFFERSON, KEWAUNEE, LANGLADE,
 LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE,
 OCONTO, ONEIDA, OUTAGAMIE, POLK, PORTAGE, RUSK, ST CROIX, SAUK,
 SHAWANO, SHEBOYGAN, TAYLOR, VILAS, WALWORTH, WAUPACA, WAUSHARA,
 WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 34.16	16.38

 BRWI0003-002 06/01/2015

BROWN, DOOR, FLORENCE, KEWAUNEE, MARINETTE, AND OCONTO COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 31.59	16.39

 BRWI0004-002 06/01/2013

KENOSHA, RACINE, AND WALWORTH COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 35.10	18.58

 BRWI0006-002 06/01/2013

ADAMS, CLARK, FOREST, LANGLADE, LINCOLN, MARATHON, MENOMINEE,
 ONEIDA, PORTAGE, PRICE, TAYLOR, VILAS AND WOOD COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 32.14	16.56

 BRWI0007-002 06/01/2015

GREEN, LAFAYETTE, AND ROCK COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 32.90	17.01

 BRWI0008-002 06/01/2015

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 36.74	18.19

 BRWI0011-002 06/01/2015

CALUMET, FOND DU LAC, MANITOWOC, AND SHEBOYGAN COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 31.59	16.39

BRWI0019-002 06/01/2015BARRON, BUFFALO, BURNETT, CHIPPEWA, DUNN, EAU CLAIRE, PEPIN,
PIERCE, POLK, RUSK, ST. CROIX, SAWYER AND WASHBURN COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 31.36	16.51

BRWI0034-002 06/01/2015

COLUMBIA AND SAUK COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 32.86	17.22

CARP0087-001 07/01/2012BURNETT (W. of Hwy 48), PIERCE (W. of Hwy 29), POLK (W. of Hwys
35, 48 & 65), AND ST. CROIX (W. of Hwy 65) COUNTIES

	Rates	Fringes
Carpenter & Piledrivermen.....	\$ 33.34	16.73

CARP0252-002 07/02/2012ADAMS, BARRON, BAYFIELD (Eastern 2/3), BROWN, BUFFALO,
BURNETT (E. of Hwy 48), CALUMET, CHIPPEWA, CLARK, COLUMBIA,
CRAWFORD, DANE, DODGE, DOOR, DUNN, EAU CLAIRE, FLORENCE (except
area bordering Michigan State Line), FOND DU LAC, FOREST,
GRANT, GREEN, GREEN LAKE, IOWA, IRON, JACKSON, JEFFERSON,
JUNEAU, KEWAUNEE, LA CROSSE, LAFAYETTE, LANGLADE, LINCOLN,
MANITOWOC, MARATHON, MARINETTE (except N.E. corner), MARQUETTE,
MENOMINEE, MONROE, OCONTO, ONEIDA, OUTAGAMIE, PEPIN, PIERCE (E.
of Hwys 29 & 65), POLK (E. of Hwys 35, 48 & 65), PORTAGE,
PRICE, RICHLAND, ROCK, RUSK, SAUK, SAWYER, SHAWANO, SHEBOYGAN,
ST CROIX (E. of Hwy 65), TAYLOR, TREMPPEALEAU, VERNON, VILAS,
WALWORTH, WASHBURN, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD
COUNTIES

	Rates	Fringes
CARPENTER		
CARPENTER.....	\$ 30.48	15.80
MILLWRIGHT.....	\$ 32.11	15.80
PILEDRIVER.....	\$ 30.98	15.80

CARP0252-010 07/02/2012

ASHLAND COUNTY

	Rates	Fringes
Carpenters		
Carpenter.....	\$ 30.48	15.80
Millwright.....	\$ 32.11	15.80
Pile Driver.....	\$ 30.98	15.80

 CARP0264-003 06/01/2008

 KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WAUKESHA, AND WASHINGTON
 COUNTIES

	Rates	Fringes
CARPENTER.....	\$ 30.52	14.41

 * CARP0361-004 05/11/2015

BAYFIELD (West of Hwy 63) AND DOUGLAS COUNTIES

	Rates	Fringes
CARPENTER.....	\$ 34.11	17.80

 CARP2337-001 06/01/2008

ZONE A: MILWAUKEE, OZAUKEE, WAUKESHA AND WASHINGTON

ZONE B: KENOSHA & RACINE

	Rates	Fringes
PILEDRIVERMAN		
Zone A.....	\$ 27.25	19.46
Zone B.....	\$ 24.47	19.46

 ELEC0014-002 06/01/2015

 ASHLAND, BARRON, BAYFIELD, BUFFALO, BURNETT, CHIPPEWA, CLARK
 (except Maryville, Colby, Unity, Sherman, Fremont, Lynn &
 Sherwood), CRAWFORD, DUNN, EAU CLAIRE, GRANT, IRON, JACKSON, LA
 CROSSE, MONROE, PEPIN, PIERCE, POLK, PRICE, RICHLAND, RUSK, ST
 CROIX, SAWYER, TAYLOR, TREMPLEAU, VERNON, AND WASHBURN
 COUNTIES

	Rates	Fringes
Electricians:.....	\$ 31.21	18.92

 ELEC0014-007 06/01/2014

REMAINING COUNTIES

	Rates	Fringes
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Teledata System Installer

Installer/Technician.....\$ 22.50 12.72

Low voltage construction, installation, maintenance and removal of teledata facilities (voice, data, and video) including outside plant, telephone and data inside wire, interconnect, terminal equipment, central offices, PABX, fiber optic cable and equipment, micro waves, V-SAT, bypass, CATV, WAN (wide area networks), LAN (local area networks), and ISDN (integrated systems digital network).

 ELEC0127-002 06/01/2012

KENOSHA COUNTY

	Rates	Fringes
Electricians:.....	\$ 35.25	19.30

 ELEC0158-002 06/01/2015

BROWN, DOOR, KEWAUNEE, MANITOWOC (except Schleswig), MARINETTE (Wausuakee and area South thereof), OCONTO, MENOMINEE (East of a line 6 miles West of the West boundary of Oconto County), SHAWANO (Except Area North of Townships of Aniwa and Hutchins) COUNTIES

	Rates	Fringes
Electricians:.....	\$ 29.84	29.50% + 9.37

 ELEC0159-003 06/01/2015

COLUMBIA, DANE, DODGE (Area West of Hwy 26, except Chester and Emmet Townships), GREEN, LAKE (except Townships of Berlin, Seneca, and St. Marie), IOWA, MARQUETTE (except Townships of Neshkoka, Crystal Lake, Newton, and Springfield), and SAUK COUNTIES

	Rates	Fringes
Electricians:.....	\$ 35.75	19.87

 ELEC0219-004 06/01/2015

FLORENCE COUNTY (Townships of Aurora, Commonwealth, Fern, Florence and Homestead) AND MARINETTE COUNTY (Township of Niagara)

	Rates	Fringes
Electricians:		
Electrical contracts over		
\$180,000.....	\$ 31.16	18.34
Electrical contracts under		
\$180,000.....	\$ 28.96	18.26

 ELEC0242-005 06/01/2014

DOUGLAS COUNTY

	Rates	Fringes
Electricians:.....	\$ 32.54	24.07

 ELEC0388-002 06/01/2013

ADAMS, CLARK (Colby, Freemont, Lynn, Mayville, Sherman, Sherwood, Unity), FOREST, JUNEAU, LANGLADE, LINCOLN, MARATHON, MARINETTE (Beecher, Dunbar, Goodman & Pembine), MENOMINEE (Area West of a line 6 miles West of the West boundary of Oconto County), ONEIDA, PORTAGE, SHAWANO (Aniwa and Hutchins), VILAS AND WOOD COUNTIES

	Rates	Fringes
Electricians:.....	\$ 28.96	24.85% + 9.70

 ELEC0430-002 06/01/2015

RACINE COUNTY (Except Burlington Township)

	Rates	Fringes
Electricians:.....	\$ 34.98	19.89

 ELEC0494-005 06/01/2015

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Electricians:.....	\$ 35.13	23.09

 ELEC0494-006 06/01/2014

CALUMET (Township of New Holstein), DODGE (East of Hwy 26 including Chester Township), FOND DU LAC, MANITOWOC (Schleswig), and SHEBOYGAN COUNTIES

	Rates	Fringes
Electricians:.....	\$ 29.64	20.54

 ELEC0494-013 06/01/2015

DODGE (East of Hwy 26 including Chester Twp, excluding Emmet Twp), FOND DU LAC (Except Waupuin), MILWAUKEE, OZAUKEE, MANITOWOC (Schleswig), WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
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Sound & Communications

Installer.....	\$ 16.47	14.84
Technician.....	\$ 26.00	17.70

Installation, testing, maintenance, operation and servicing of all sound, intercom, telephone interconnect, closed circuit TV systems, radio systems, background music systems, language laboratories, electronic carillon, antenna distribution systems, clock and program systems and low-voltage systems such as visual nurse call, audio/visual nurse call systems, doctors entrance register systems. Includes all wire and cable carrying audio, visual, data, light and radio frequency signals. Includes the installation of conduit, wiremold, or raceways in existing structures that have been occupied for six months or more where required for the protection of the wire or cable, but does not mean a complete conduit or raceway system. work covered does not include the installation of conduit, wiremold or any raceways in any new construction, or the installation of power supply outlets by means of which external electric power is supplied to any of the foregoing equipment or products

 ELEC0577-003 06/01/2015

CALUMET (except Township of New Holstein), GREEN LAKE (N. part including Townships of Berlin, St Marie, and Seneca), MARQUETTE (N. part including Townships of Crystal Lake, Neshkoro, Newton, and Springfield), OUTAGAMIE, WAUPACA, WAUSHARA, AND WINNEBAGO COUNTIES

	Rates	Fringes
Electricians:.....	\$ 29.60	26.5%+9.15

 ELEC0890-003 06/01/2015

DODGE (Emmet Township only), GREEN, JEFFERSON, LAFAYETTE, RACINE (Burlington Township), ROCK AND WALWORTH COUNTIES

	Rates	Fringes
Electricians:.....	\$ 31.90	24.95% + \$10.46

 ELEC0953-001 07/01/2015

	Rates	Fringes
Line Construction:		
(1) Lineman.....	\$ 42.14	32% + 5.00
(2) Heavy Equipment Operator.....	\$ 40.03	32% + 5.00
(3) Equipment Operator.....	\$ 33.71	32% + 5.00
(4) Heavy Groundman Driver..	\$ 26.78	14.11
(5) Light Groundman Driver..	\$ 24.86	13.45
(6) Groundsman.....	\$ 23.18	32% + 5.00

 ENGI0139-005 06/01/2015

	Rates	Fringes
Power Equipment Operator		
Group 1.....	\$ 38.27	21.55
Group 2.....	\$ 37.77	21.55
Group 3.....	\$ 37.27	21.55
Group 4.....	\$ 37.01	21.55
Group 5.....	\$ 36.72	21.55
Group 6.....	\$ 30.82	21.55

HAZARDOUS WASTE PREMIUMS:

EPA Level "A" protection - \$3.00 per hour
EPA Level "B" protection - \$2.00 per hour
EPA Level "C" protection - \$1.00 per hour

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Cranes, tower cranes, and derricks with or without attachments with a lifting capacity of over 100 tons; or cranes, tower cranes, and derricks with boom, leads and/or jib lengths measuring 176 feet or longer.

GROUP 2: Cranes, tower cranes and derricks with or without attachments with a lifting capacity of 100 tons or less; or cranes, tower cranes, and derricks with boom, leads, and/or jibs lengths measuring 175 feet or under and Backhoes (excavators) weighing 130,000 lbs and over; caisson rigs; pile driver; dredge operator; dredge engineer; Boat Pilot.

GROUP 3: Mechanic or welder - Heavy duty equipment; cranes with a lifting capacity of 25 tons or under; concrete breaker (manual or remote); vibratory/sonic concrete breaker; concrete laser screed; concrete slipform paver; concrete batch plant operator; concrete pvt. spreader - heavy duty (rubber tired); concrete spreader & distributor; automatic subgrader (concrete); concrete grinder & planing machine; concrete slipform curb & gutter machine; slipform concrete placer; tube finisher; hydro blaster (10,000 psi & over); bridge paver; concrete conveyor system; concrete pump; Rotec type Conveyor; stabilizing mixer (self-propelled); shoulder widener; asphalt plant engineer; bituminous paver; bump cutter & grooving machine; milling machine; screed (bituminous paver); asphalt heater, planer & scarifier; Backhoes (excavators) weighing under 130,000 lbs; grader or motor patrol; tractor (scraper, dozer, pusher, loader); scraper - rubber tired (single or twin engine); endloader; hydraulic backhoe (tractor type); trenching machine; skid rigs; tractor, side boom (heavy); drilling or boring machine (mechanical heavy); roller over 5 tons; percussion or rotary drilling machine; air track; blaster; loading machine (conveyor); tugger; boatmen; winches & A-frames; post driver; material hoist.

GROUP 4: Greaser, roller steel (5 tons or less); roller (pneumatic tired) - self propelled; tractor (mounted or towed compactors & light equipment); shouldering machine; self-propelled chip spreader; concrete spreader; finishing machine; mechanical float; curing machine; power subgrader; joint sawer (multiple blade) belting machine; burlap

machine; texturing machine; tractor endloader (rubber tired) - light; jeep digger; forklift; mulcher; launch operator; fireman, environmental burner

GROUP 5: Air compressor; power pack; vibrator hammer and extractor; heavy equipment, leadman; tank car heaters; stump chipper; curb machine operator; Concrete proportioning plants; generators; mudjack operator; rock breaker; crusher or screening plant; screed (milling machine); automatic belt conveyor and surge bin; pug mill operator; Oiler, pump (over 3 inches); Drilling Machine Tender.

GROUP 6: Off-road material hauler with or without ejector.

 IRON0008-002 06/01/2014

BROWN, CALUMET, DOOR, FOND DU LAC, KEWAUNEE, MANITOWOC, MARINETTE, OCONTO, OUTAGAMI, SHAWANO, SHEBOYGAN, AND WINNEBAGO COUNTIES:

	Rates	Fringes
IRONWORKER.....	\$ 29.27	23.96

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day & Christmas Day.

 IRON0008-003 06/01/2015

KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WALWORTH (N.E. 2/3), WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 32.36	24.07

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day & Christmas Day.

 IRON0383-001 06/01/2015

ADAMS, COLUMBIA, CRAWFORD, DANE, DODGE, FLORENCE, FOREST, GRANT, GREENE, (Excluding S.E. tip), GREEN LAKE, IOWA, JEFFERSON, JUNEAU, LA CROSSE, LAFAYETTE, LANGLADE, MARATHON, MARQUETTE, MENOMINEE, MONROE, PORTAGE, RICHLAND, ROCK (Northern area, vicinity of Edgerton and Milton), SAUK, VERNON, WAUPACA, WAUSHARA, AND WOOD COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 32.85	21.84

 IRON0498-005 06/01/2008

GREEN (S.E. 1/3), ROCK (South of Edgerton and Milton), and
WALWORTH (S.W. 1/3) COUNTIES:

	Rates	Fringes
IRONWORKER.....	\$ 34.34	25.72

IRON0512-008 05/01/2015

BARRON, BUFFALO, CHIPPEWA, CLARK, DUNN, EAU CLAIRE, JACKSON,
PEPIN, PIERCE, POLK, RUSK, ST CROIX, TAYLOR, AND TREMPPEALEAU
COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 35.50	23.45

IRON0512-021 05/01/2015

ASHLAND, BAYFIELD, BURNETT, DOUGLAS, IRON, LINCOLN, ONEIDA,
PRICE, SAWYER, VILAS AND WASHBURN COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 31.04	23.45

LABO0113-002 06/01/2015

MILWAUKEE AND WAUKESHA COUNTIES

	Rates	Fringes
LABORER		
Group 1.....	\$ 27.51	19.35
Group 2.....	\$ 27.66	19.35
Group 3.....	\$ 27.86	19.35
Group 4.....	\$ 28.01	19.35
Group 5.....	\$ 28.16	19.35
Group 6.....	\$ 24.00	19.35

LABORERS CLASSIFICATIONS

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer;
Demolition and Wrecking Laborer; Guard Rail, Fence, and
Bridge Builder; Landscaper; Multiplate Culvert Assembler;
Stone Handler; Bituminous Worker (Shoveler, Loader, and
Utility Man); Batch Truck Dumper or Cement Handler;
Bituminous Worker (Dumper, Ironer, Smoother, and Tamper);
Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawyer and Filler
(Pavement); Vibrator or Tamper Operator (Mechanical Hand
Operated); Chain Saw Operator; Demolition Burning Torch
Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter

(Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster and Powderman

GROUP 6: Flagperson; traffic control person

LABO0113-003 06/01/2015

OZAUKEE AND WASHINGTON COUNTIES

	Rates	Fringes
LABORER		
Group 1.....	\$ 26.76	19.35
Group 2.....	\$ 26.86	19.35
Group 3.....	\$ 26.91	19.35
Group 4.....	\$ 27.11	19.35
Group 5.....	\$ 26.96	19.35
Group 6.....	\$ 23.85	19.35

LABORERS CLASSIFICATIONS

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous Worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawyer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated);

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster; powderman

GROUP 6: Flagperson and Traffic Control Person

LABO0113-011 06/01/2015

KENOSHA AND RACINE COUNTIES

	Rates	Fringes
LABORER		
Group 1.....	\$ 26.57	19.35
Group 2.....	\$ 26.72	19.35
Group 3.....	\$ 26.92	19.35
Group 4.....	\$ 26.89	19.35
Group 5.....	\$ 27.22	19.35
Group 6.....	\$ 23.71	19.35

LABORERS CLASSIFICATIONS:

GROUP 1: General laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawyer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator; Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster and Powderman

GROUP 6: Flagman; traffic control person

LABO0140-002 06/01/2015

ADAMS, ASHLAND, BARRON, BAYFIELD, BROWN, BUFFALO, BURNETT, CALUMET, CHIPPEWA, CLARK, COLUMBIA, CRAWFORD, DODGE, DOOR, DOUGLAS, DUNN, EAU CLAIRE, FLORENCE, FOND DU LAC, FOREST, GRANT, GREEN, GREEN LAKE, IRON, JACKSON, JUNEAU, IOWA, JEFFERSON, KEWAUNEE, LA CROSSE, LAFAYETTE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, MONROE, OCONTO, ONEIDA, OUTAGAMIE, PEPIN, PIERCE, POLK, PORTAGE, PRICE, RICHLAND, ROCK, RUSK, SAUK, SAWYER, SHAWANO, SHEBOYGAN, ST. CROIX, TAYLOR, TREMPPEALEAU, VERNON, VILLAS, WALWORTH, WASHBURN, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
LABORER		
Group 1.....	\$ 30.67	15.55
Group 2.....	\$ 30.77	15.55
Group 3.....	\$ 30.82	15.55
Group 4.....	\$ 31.02	15.55
Group 5.....	\$ 30.87	15.55
Group 6.....	\$ 27.30	15.55

LABORER CLASSIFICATIONS

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous Worker (Dumper, Ironer, Smoother and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawyer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator, Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster; powderman

GROUP 6: Flagperson; Traffic Control

LABO0464-003 06/01/2015

DANE COUNTY

	Rates	Fringes
LABORER		
Group 1.....	\$ 30.95	15.55
Group 2.....	\$ 31.05	15.55
Group 3.....	\$ 31.10	15.55
Group 4.....	\$ 31.30	15.55
Group 5.....	\$ 31.15	15.55
Group 6.....	\$ 27.30	15.55

LABORERS CLASSIFICATIONS:

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous Worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawyer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator; Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster; Powderman

GROUP 6: Flagperson and Traffic Control Person

PAIN0106-008 05/01/2014

ASHLAND, BAYFIELD, BURNETT, AND DOUGLAS COUNTIES

	Rates	Fringes
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Painters:

New:

Brush, Roller.....	\$ 28.81	15.27
Spray, Sandblast, Steel....	\$ 29.41	15.27

Repaint:

Brush, Roller.....	\$ 27.31	15.27
Spray, Sandblast, Steel....	\$ 27.91	15.27

PAIN0108-002 06/01/2015

RACINE COUNTY

	Rates	Fringes
--	-------	---------

Painters:

Brush, Roller.....	\$ 31.84	18.60
Spray & Sandblast.....	\$ 32.84	18.60

PAIN0259-002 05/01/2008BARRON, CHIPPEWA, DUNN, EAU CLAIRE, PEPIN, PIERCE, POLK, RUSK,
SAWYER, ST. CROIX, AND WASHBURN COUNTIES

	Rates	Fringes
--	-------	---------

PAINTER.....	\$ 24.11	12.15
--------------	----------	-------

PAIN0259-004 05/01/2015BUFFALO, CRAWFORD, JACKSON, LA CROSSE, MONROE, TREMPPEALEAU, AND
VERNON COUNTIES

	Rates	Fringes
--	-------	---------

PAINTER.....	\$ 22.03	12.45
--------------	----------	-------

PAIN0781-002 06/01/2013

JEFFERSON, MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
--	-------	---------

Painters:

Bridge.....	\$ 29.87	20.04
Brush.....	\$ 29.52	20.04
Spray & Sandblast.....	\$ 30.27	20.04

PAIN0802-002 06/01/2015COLUMBIA, DANE, DODGE, GRANT, GREEN, IOWA, LAFAYETTE, RICHLAND,
ROCK, AND SAUK COUNTIES

	Rates	Fringes
--	-------	---------

PAINTER		
Brush.....	\$ 26.70	17.65

PREMIUM PAY:

Structural Steel, Spray, Bridges = \$1.00 additional per hour.

 PAIN0802-003 06/01/2015

ADAMS, BROWN, CALUMET, CLARK, DOOR, FOND DU LAC, FOREST, GREEN LAKE, IRON, JUNEAU, KEWAUNEE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, OCONTO, ONEIDA, OUTAGAMIE, PORTAGE, PRICE, SHAWANO, SHEBOYGAN, TAYLOR, VILAS, WAUSHARA, WAUPACA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
PAINTER.....	\$ 23.74	11.72

 PAIN0934-001 06/01/2015

KENOSHA AND WALWORTH COUNTIES

	Rates	Fringes
Painters:		
Brush.....	\$ 31.84	18.60
Spray.....	\$ 32.84	18.60
Structural Steel.....	\$ 31.99	18.60

 PAIN1011-002 06/01/2015

FLORENCE COUNTY

	Rates	Fringes
Painters:.....	\$ 24.15	11.46

 PLAS0599-010 06/01/2012

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER		
Area 1.....	\$ 32.78	16.80
Area 2 (BAC).....	\$ 31.52	16.30
Area 3.....	\$ 31.37	16.85
Area 4.....	\$ 30.69	17.53
Area 5.....	\$ 32.09	16.13
Area 6.....	\$ 28.50	19.72

AREA DESCRIPTIONS

AREA 1: BAYFIELD, DOUGLAS, PRICE, SAWYER, AND WASHBURN COUNTIES

AREA 2: ADAMS, ASHLAND, BARRON, BROWN, BURNETT, CALUMET, CHIPPEWA, CLARK, COLUMBIA, DODGE, DOOR, DUNN, FLORENCE, FOND DU LAC, FOREST, GREEN LAKE, IRON, JEFFERSON, KEWAUNEE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, OCONTO, ONEIDA, OUTAGAMIE, POLK, PORTAGE, RUSK, ST CROIX, SAUK, SHAWANO, SHEBOYGAN, TAYLOR,

VILAS, WALWORTH, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

AREA 3: BUFFALO, CRAWFORD, EAU CLAIRE, JACKSON, JUNEAU, LA CROSSE MONROE, PEPIN, PIERCE, RICHLAND, TREMPPEALEAU, AND VERNON COUNTIES

AREA 4: MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

AREA 5: DANE, GRANT, GREEN, IOWA, LAFAYETTE, AND ROCK COUNTIES

AREA 6: KENOSHA AND RACINE COUNTIES

 TEAM0039-001 06/01/2014

	Rates	Fringes
TRUCK DRIVER		
1 & 2 Axles.....	\$ 25.18	18.31
3 or more Axles; Euclids Dumptor & Articulated, Truck Mechanic.....	\$ 25.38	18.31

WELL DRILLER.....	\$ 16.52	3.70

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

=====
 Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

 The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of

the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination

- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
 Wage and Hour Division
 U.S. Department of Labor
 200 Constitution Avenue, N.W.
 Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
 U.S. Department of Labor
 200 Constitution Avenue, N.W.
 Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
 U.S. Department of Labor
 200 Constitution Avenue, N.W.
 Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

=====

END OF GENERAL DECISION

OFFICIAL NOTICE NO. 84

Questions received via e-mail and the Answers (including attachments)

1. Paragraph B.1 – Non-woven (inner) fabric – states that the rolls shall be 8 ft wide for FES Lifts and 12-13 ft wide for surface treatment.
Paragraph B.2 – Woven (outer)Fabric - states that the rolls shall be 12-13 ft wide.

My question is why must the outer fabric for the FES Lifts be 12-13ft wide. This seems like there would be a lot of waste of the outer fabric. We can get a product that meets the specifications for both fabrics that are sewn together (on 1.5” centers)and it is only available in 8 ft wide rolls. Using this material would reduce costs – both in labor and material.

ANSWER: For the Outer Fabric, a minimum width of 10 feet is needed to meet the design requirement. The nearest fabric width provided by manufacturers that meets this minimum requirement is typically 12 to 13 feet. Therefore, the 12 to 13 foot fabric roll width requirement shall be met.

2. Can you please make available the following documents?
 - Summary of Lead Sampling and Analysis, Area 10-1, former Milwaukee Shops Property, November 12, 2007, by the Sigma Group, Inc.
 - Pre-Remedial Investigation Results and Wetland Permitting, Area 10-1 Lead Impacted Soil, Menomonee Valley Industrial Center, November 8, 2010, by The Sigma Group, Inc.

ANSWER: See Attached

November 12, 2007

Project Reference #8721

Mr. David Misky, CHMM
City of Milwaukee
809 North Broadway
Milwaukee, WI 53202

Re: Summary of Lead Sampling & Analysis
Area 10-1
Former Milwaukee Shops Property

Dear Mr. Misky:

The purpose of this addendum is to provide clarification of the lead impacted soil related supplemental soil sampling and remediation completed near Area 10-1 of the City of Milwaukee's Shops property (Shops) project.

BACKGROUND

The area of lead impacted soil identified as part of the 2000 Due Diligence Investigation and denoted by Milwaukee Transportation Partners (MTP) as Area 10-1 is located within the south central portion of the site's south east quadrant at and around groundwater monitoring wells PC297 and PC298. The surveyed locations of these monitoring wells are:

PC297
State Plan Coordinate System: Northing - 380677.68
Easting - 2546513.97
Ground surface elevation: 594.71 msl

PC298
State Plan Coordinate System: Northing - 380676.31
Easting - 2546506.97
Ground surface elevation: 594.83 msl

As part of the site wide remediation and development activities, supplemental soil sampling and remediation were completed within Area 10-1 in several phases. The following presents a chronology of the completed scope of work.

DUE DILIGENCE INVESTIGATION

During the due diligence investigation conducted at the former Milwaukee Road Shops property on behalf of the City of Milwaukee in 2001, concentrations of total lead greater than the ch. NR 720 standard of 500 mg/kg for an industrial facility were detected within shallow soil samples collected during the installation of

monitoring well PC287. Specifically, a concentration of 2,510 mg/kg total lead was detected within a soil sample collected at a depth of 2 to 4 feet bgs. Further analysis of this sample by the TCLP method determined that lead was identified at a concentration of 6.56 mg/l which exceeds the EPA 5 mg/l limit at which the soil is deemed characteristically hazardous.

As part of the due diligence investigation, three additional soil borings, (SB297A, SB297B(2001) and SB297C), were completed around groundwater monitoring wells PC298 and PC297 to further evaluate the extent of lead impacts. Soil samples collected during the November 29, 2001 sampling event detected total lead at concentrations ranging from 24.9 mg/kg to 1760 mg/kg. The locations of these soil borings are shown in *Figure 1*.

Specific details of the due diligence investigation are presented in the September 2002 report.

REMEDIAL INVESTIGATION

In July and August 2004 three supplemental soil borings, were completed within Area 10-1 [BA10-1A, BA10-1B, and SB297B(2004)] at the locations shown on the scaled drawing *Figure 1*. The supplemental soil sampling was conducted to: 1) confirm the presence of characteristically hazardous lead impacted soil, 2) to further define the limits of impacted soils so they could be appropriately addressed, and to 3) assist in evaluating the need to stabilize hazardous lead in soil as part of the remedial activities. A September 2004 memorandum outlining the sampling methodology and the soil management/remediation understanding between MTP and the WDNR is presented in *Appendix A*.

The three soil borings BA10-1A, BA10-1B and SB297B (2004) were completed to approximately 8 feet below the ground surface (bgs). A total of six soil samples (two from each soil boring) were collected and submitted to the project laboratory for total lead, TCLP lead, and SPLP lead analysis. The soil samples were analyzed using US EPA SW-846 Methods 6010, US EPA TCLP method, and EPA SPLP Method 1312, respectively.

Soil Sample Analytical Results

Total lead concentrations were detected in one out of six samples collected in area 10-1 in excess of the ch. NR 720 industrial RCLs and US EPA (Region IX) industrial land-use PRG for lead based on direct contact (*Table 1*). Of the samples submitted to the laboratory for TCLP analysis, no samples exhibited elevated concentrations of lead considered hazardous by characterization. The soil samples submitted for SPLP analysis ranged in concentration from less than detection to 0.21 mg/l.

Specific details of the remedial investigation activities are summarized in the April 3, 2006 *Summary of Lead Sampling & Analysis Areas 4, 10, and 17* letter report (Appendix B).

SOIL REMEDIATION

On September 29, 2004 approximately 1,500 cubic yards of lead impacted soil as defined through the due diligence and supplemental investigation activities was excavated and transported to the RAP designated Shops consolidation area. The soil excavation area shaped as a half circle area around groundwater monitoring well PC297 and having an approximately 50 foot radius as shown in Figure 1. The southern extent of the excavation was limited by the presence of a silt fence demarcating the noted high water mark as defined within the WDNR ch. 30 permitting process beyond which soil disturbance was not permitted. The resulting Area 10-1 excavation was filled with imported soil to the ground surface.

Two confirmation soil samples were collected from the excavation limits. One soil sample was collected at a depth of 4 feet bgs at the northeastern limit of the excavation (Area 10-1-NE/4.0') and a second was collected at a depth of 4 feet bgs at the southwest limit of the excavation (Area 10-1-SW/4.0'). The soil sample locations are shown on *Figure 1*.

Both of the soil samples were submitted to the project laboratory for total lead analysis. The analytical results indicated that residual total lead was detected at a concentration of 95 mg/kg at the northeastern extent of the excavation and 1,090 mg/kg remained at the southwest limit of the excavation.

RESIDUAL SOIL IMPACT INVESTIGATION

On October 21, 2004 an additional 3 soil samples were collected at a depth of four feet to the south and southwest of the excavation area, to further characterize the degree and extent of residual lead impacts within the soil near the southwestern limit of the excavation. The soil samples were noted as Area 10-1-SWA/4.0', Area 10-1-SWB/4.0', and Area 10-1-SWC/4.0'. The soil samples were laboratory analyzed for total lead. The results indicated that residual lead impacts ranging from 577 to 2560 mg/kg remained in place at a depth of four feet south of the site silt fence. The sampling event and results are detailed in the attached November 22, 2004 memorandum (*Appendix C*). The location of the three soil samples relative to the soil excavation area is shown in the MTP *Figure ES-2*.

Based on the post excavation soil sample data, soil impacted by lead at concentrations greater than the ch NR 720 industrial RCLs and US EPA (Region IX) industrial land-use PRG for lead based on direct contact is present at the southwestern and southern limits of Area 10-1.

If you have any questions or comments regarding the information and interpretations provided in this document, please call us at (414) 643-4200.

Sincerely,

SIGMA ENVIRONMENTAL SERVICES, INC.

A handwritten signature in black ink, appearing to read "Kristin Kurzka", followed by a horizontal line extending to the right.

Kristin Kurzka, P.E.
Senior Engineer

Enclosure

TABLE 1

Soil Quality Results

<p align="center">Table 1 Soil Quality Results Area of Concern 10-1 Milwaukee Shops Property Milwaukee, Wisconsin Project Reference #8721</p>												
Boring ID:	BA10-1A			BA10-1B			SB297B		NR 720 RCLs (Industrial)	USEPA PRG	RCRA Characteristic Standard	NR 140 ES
	7/15/2004	7/15/2004	7/15/2004	7/15/2004	7/15/2004	7/15/2004	8/19/2004					
Date Collected:												
Sample Depth (feet bgs):	2-4	4-6	2-4	2-4	4-6	2-4	2-4	2-4				
RCRA Metals												
Lead (ICP)	951	148	23	32	344	355			500	800	**	**
TCLP Lead	0.44	<0.10	<0.10	<0.10	0.39	NA			**	**	5	**
SPLP Lead	0.21	0.017	0.031	<0.0075	0.081	0.093			**	**	**	0.015
Notes:	<p>NA = Not Analyzed ** = No Standard Established NR 720 RCL = Chapter NR 720 Residual Contaminant Level for industrial property (direct contact) US EPA PRG = US EPA Preliminary Remediation Goal for industrial soil (direct contact) NR 140 ES = Chapter NR 140 Public Health Groundwater Quality Enforcement Standard All results expressed in milligrams per kilogram (mg/kg) or milligrams per liter (mg/L)- equivalent to parts per million (ppm) M = matrix interference Exceedances:</p>											
BOLD	= Concentration exceeds NR 720 RCL (metals)											
BOLD, UNDERLINE	= Concentration exceeds US EPA PRG (metals)											
BOLD, BOX	= Concentration exceeds RCRA Characteristically Hazardous (metals)											
BOLD, Italics	= SPLP lead concentration exceeds NR 140 groundwater quality ES											

Table 1
Soil Quality Results
Area of Concern 17
Milwaukee Shops Property
Milwaukee, Wisconsin
Project Reference #8721

Boring ID:	BA17-A		BA17-B		BA17-C		BA17-D		B-26A	NR 720 RCLs (Industrial)	USEPA PRG	RCRA Characteristic Standard	NR 140 ES
	7/15/2004 2-4	7/15/2004 6-8	7/15/2004 2-4	7/15/2004 6-8	7/15/2004 2-4	7/15/2004 6-8	7/15/2004 2-4	7/15/2004 6-8					
Date Collected:													
Sample Depth (feet bgs):													
RCRA Metals													
Lead (GP)	110	91	206	92	93	27	184	10	226	500	800		
TCLP Lead	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.14	**	**	**	**
SPLP Lead	0.015	<0.0075	<0.0075	<0.0075	0.026	<0.0075	0.041	<0.0075	<0.0075	**	**	**	0.015

Notes:
 NA = Not Analyzed
 ** = No Standard Established
 NR 720 RCL = Chapter NR 720 Residual Contaminant Level for industrial property (direct contact)
 US EPA PRG = US EPA Preliminary Remediation Goal for industrial soil (direct contact)
 NR 140 ES = Chapter NR 140 Public Health Groundwater Quality Enforcement Standard
 All results expressed in milligrams per kilogram (mg/kg) or milligrams per liter (mg/L) - equivalent to parts per million (ppm)
 M = matrix interference
 Exceedances:
BOLD = Concentration exceeds NR 720 RCL (metals)
BOLD, UNDERLINE = Concentration exceeds US EPA PRG (metals)
BOLD, BOX = Concentration exceeds RCRA Characteristically Hazardous (metals)
BOLD, Italics = SPLP lead concentration exceeds NR 140 groundwater quality ES

FIGURES



Figure 1

City of Milwaukee - Former CMC Shops
 Milwaukee, Wisconsin
 Project # 8760

www.thesigmagroup.com
 1300 West Canal Street
 Milwaukee, WI 53233
 414-643-4200

SIGMA
 Single Source Sound Solutions. GROUP


 Scale 1" = 75'

APPENDIX A

September 28, 2004 Memorandum

THE SIGMA GROUP

SIGMA ENVIRONMENTAL SERVICES, INC.

SIGMA DEVELOPMENT, INC.

SIGMA LEASING, INC.

1300 West Canal Street

Milwaukee, WI 53233

414-643-4200

FAX: 414-643-4210

www.thesigmagroup.com

MEMORANDUM

To: Cindi Cruciani, MTP

From: Kristin Kurzka

Date: September 28, 2004

RE: Lead Impacted Soil Management

Project Number: 8760

Dear Ms. Cruciani:

The purpose of this memorandum is to document our conversation on September 28, 2004 regarding the proper handling and management of lead impacted soil at the Shops Property. Specifically, we discussed the criteria used to determine when lead impacted soil would require stabilization prior to cutting it and placing it in the site's consolidation area.

Following the sampling plan prepared by MTP in April 2004, Sigma personnel conducted sampling to delineate and confirm the presence of lead impacted soil within areas of the site designated as Area 4, Area 10 and Area 17. The soil sampling was completed in July and August 2004.

Review of the analytical results indicates that lead impacted soil is present within each of the areas.

Recent soil sampling within Area 4 provided results with total concentrations ranging from 419 mg/kg to 1240 mg/kg, TCLP concentrations ranging from <0.10 to 6.6 mg/l and SPLP concentrations ranging from <0.0075 mg/l to 0.048 mg/l

Recent soil sampling within Area 10 provided results with total concentrations ranging from 23 mg/kg to 951 mg/kg, TCLP concentrations ranging from <0.10 mg/l to 0.44 mg/l and SPLP concentrations ranging from <0.0075 mg/l to 0.21 mg/l

Recent soil sampling within area 17 provided results with total concentrations ranging from 9.1 mg/kg to 713 mg/kg, TCLP concentrations ranging from <0.10 mg/l to 0.73 mg/l and SPLP concentrations ranging from <0.0075 mg/l to 0.041 mg/l.

Based on our conversation it is our understanding that areas of the site targeted for a cut as part of the site grading plan, where lead was present at concentrations which failed TCLP analysis, [as determined during the Due Diligence investigation] were to be evaluated using SPLP analysis. The RCRA TCLP characteristically hazardous standard of 5 mg/l would be the threshold value for the SPLP concentration to determine if the soil would require stabilization prior to excavation and placement in the consolidation area.

APPENDIX B

Laboratory Analytical Reports

April 3, 2006

Project Reference #8721

Mr. David Misky
City of Milwaukee
809 North Broadway
Milwaukee, WI 53202

~~RECEIVED~~
4/4/06

Re: Summary of Lead Sampling & Analysis
Areas 4, 10 and 17
Former Milwaukee Shops Property

FILE COPY

Dear Mr. Misky:

As part of site remedial activities completed during 2004 at the City of Milwaukee's Shops property (Shops), Sigma Environmental Services, Inc. (Sigma) conducted soil sampling for total lead, toxicity characteristic leaching procedure (TCLP) lead, and synthetic precipitation leaching procedure (SPLP) lead analysis within areas historically identified to have characteristically hazardous soil. The scope of work for sampling and analysis was proposed in documents submitted by Sigma on April 21 and August 16, 2004, and was intended to confirm the presence of characteristically hazardous lead impacted soil and if confirmed, to further define the limits of hazardous soils so they could be remediated in accordance with the Wisconsin Department of Natural Resources (WDNR) approved Remedial Action Plan (RAP) Addendum.

BACKGROUND

Three areas of soil with characteristically hazardous concentrations of lead were identified at the former Milwaukee Shops property. The areas were denoted by Milwaukee Transportation Partners (MTP) as Area 4-1, Area 10-1, and Area 17. The locations of each of these areas are shown in the MTP *Figure ES-2*.

As part of the site wide remediation and development activities, a total of 14 supplemental soil borings were completed within the three designated areas to further evaluate and confirm the extent of residual lead impacts. The soil analysis was also completed to assess the need for and design parameters associated with stabilization, excavation and consolidation of these soils, as necessary. The following presents the completed scope of work.

SOIL BORING SCOPE OF WORK

Six supplemental soil borings were completed within Area 4-1, three soil supplemental borings were completed in Area 10-1, and five supplemental soil borings were completed in Area 17. *Figures 1, 2 and 3* illustrate the locations of the soil borings completed during July and August 2004. In general, the soil borings were completed to a maximum depth of 8 feet. Twenty-five soil samples were collected from the fourteen soil borings for total lead: 20 for TCLP lead, and 24 for SPLP lead characterization. The soil samples were analyzed using US EPA



SW-846 Methods 6010, US EPA TCLP method, and EPA SPLP Method 1312, respectively.

Soil samples submitted for SPLP characterization were intended to assist in evaluating the need to stabilize hazardous lead in soil prior to excavating the impacted/stabilized soil and placing it in the site's RAP-defined Consolidation Area in the Northwest Quadrant. A memorandum outlining the sampling methodology and the soil management/remediation understanding between MTP and the WDNR is presented in *Appendix A*.

Soil Chemistry Results\Area 4-1

Total lead concentrations were detected within six out of 10 samples collected in Area 4-1 at concentrations greater than Chapter NR 720 industrial residual contaminant levels (RCLs) based on direct contact. Of those six samples, concentrations of total lead within three samples exceeded the US EPA (Region IX) industrial land-use preliminary remediation goal (PRG) for lead based on direct contact (*Table 1*).

Of the six soil samples submitted to the laboratory for TCLP analysis, one soil sample (BA4-1B\2-4') exhibited a concentration considered hazardous by characterization (6.6 mg/l for analyzed TCLP leachate). This sample was also analyzed for lead by the SPLP method. Under this scenario, soil sample BA4-1B\2-4' did not present leachable concentrations above the laboratory's level of quantification, and when compared to groundwater quality standards based on public health, would not pose a threat to the underlying groundwater quality (*Table 1*). Soil analytical results from the soil borings completed during July and August 2004 are summarized on *Table 1*, and laboratory analytical reports are included as *Appendix B*.

As a result of the SPLP lead analytical results, and in accordance with WDNR approved actions, lead stabilization of soil was not required. Therefore, approximately 400 cubic yards of soil impacted with lead in excess of the average Area 4-1 NR 720 industrial RCL was excavated and relocated to the Consolidation Area located in the northwest quadrant of the site. The resulting Area 4-1 excavation was filled with imported soil to the ground surface.

Soil Chemistry Results\Area 10-1

Total lead concentrations were detected in one out of six samples collected in area 10-1 in excess of Chapter NR 720 industrial RCLs and US EPA (Region IX) industrial land-use PRG for lead based on direct contact (*Table 1*). Of the samples submitted to the laboratory for TCLP analysis, no samples exhibited elevated concentrations considered hazardous by characterization.

Approximately 685 cubic yards of lead impacted soil was excavated from area 10-1 and relocated to the Consolidation Area located in the Northwest Quadrant. The resulting Area 10-1 excavation was filled with imported soil to the ground surface.

Soil Chemistry Results\Area 17

Detected concentrations of total lead within nine soil samples collected from Area 17 did not exceed either the NR 720 RCL or US EPA PRG based on direct contact (*Table 1*). Of the nine samples submitted to the laboratory for TCLP analysis, no samples exhibited concentrations considered hazardous by characterization.

Area 17 lies beneath the engineered on-site soil management area (Consolidation Area) located within the Northwest Quadrant. This area will be capped by a minimum of two feet of non-impacted soil as part of the site wide remediation.

If you have any questions or comments regarding the information and interpretations provided in this document, please call us at (414) 643-4200.

Sincerely,

SIGMA ENVIRONMENTAL SERVICES, INC.



Kristin Kurzka, P.E.
Senior Engineer

Enclosure

APPENDIX C

November 22, 2004 Memorandum

MAILED
8/3

1300 West Canal Street
Milwaukee, WI 53233
414-643-4200
FAX: 414-643-4210

FILE COPY

Project Reference #8721

August 3, 2006

Mr. David Misky
City of Milwaukee
809 North Broadway
Milwaukee, WI 53202

Re: Summary of Lead Sampling & Analysis - *Revised*
Areas 4, 10 and 17
Former Milwaukee Shops Property

Dear Mr. Misky:

As part of site remedial activities completed in 2004 at the City of Milwaukee's Shops property (Shops), Sigma Environmental Services, Inc. (Sigma) conducted soil sampling for total lead, toxicity characteristic leaching procedure (TCLP) lead, and synthetic precipitation leaching procedure (SPLP) lead analysis within areas historically identified to have characteristically hazardous soil. The scope of work for sampling and analysis was proposed in documents submitted by Sigma on April 21 and August 16, 2004, and was intended to confirm the presence of characteristically hazardous lead impacted soil and if confirmed, to further define the limits of hazardous soils so they could be remediated in accordance with the Wisconsin Department of Natural Resources (WDNR) approved Remedial Action Plan (RAP) Addendum.

BACKGROUND

Three areas of soil with characteristically hazardous concentrations of lead were identified at the former Milwaukee Shops property. The areas were denoted by Milwaukee Transportation Partners (MTP) as Area 4-1, Area 10-1, and Area 17. The locations of each of these areas are shown in the MTP *Figure ES-2*.

As part of the site wide remediation and development activities, a total of 14 supplemental soil borings were completed within the three designated areas to further evaluate and confirm the extent of residual lead impacts. The soil analysis was also completed to assess the need for and design parameters associated with stabilization, excavation and consolidation of these soils, as necessary. The following presents the completed scope of work.

SOIL BORING SCOPE OF WORK

Six supplemental soil borings were completed within Area 4-1, three soil supplemental borings were completed in Area 10-1, and five supplemental soil borings were completed in Area 17. *Figures 1, 2 and 3* illustrate the locations of the soil borings completed during July and August 2004. In general, the soil borings were completed to a maximum depth of 8 feet. Twenty-five soil samples were collected from the fourteen soil borings for total lead: 20 for TCLP lead, and 24 for SPLP lead characterization. The soil samples were analyzed using US EPA



SW-846 Methods 6010, US EPA TCLP method, and EPA SPLP Method 1312, respectively.

Soil samples submitted for SPLP characterization were intended to assist in evaluating the need to stabilize hazardous lead in soil prior to excavating the impacted/stabilized soil and placing it in the site's RAP-defined Consolidation Area in the Northwest Quadrant. A memorandum outlining the sampling methodology and the soil management/remediation understanding between MTP and the WDNR is presented in *Appendix A*.

Soil Chemistry Results\Area 4-1

Total lead concentrations were detected within six out of 10 samples collected in Area 4-1 at concentrations greater than Chapter NR 720 industrial residual contaminant levels (RCLs) based on direct contact. Of those six samples, concentrations of total lead within three samples exceeded the US EPA (Region IX) industrial land-use preliminary remediation goal (PRG) for lead based on direct contact (*Table 1*).

Of the six soil samples submitted to the laboratory for TCLP analysis, one soil sample (BA4-1B\2-4') exhibited a concentration considered hazardous by characterization (6.6 mg/l for analyzed TCLP leachate). This sample was also analyzed for lead by the SPLP method. Under this scenario, soil sample BA4-1B\2-4' did not present leachable concentrations above the laboratory's level of quantification, and when compared to groundwater quality standards based on public health, would not pose a threat to the underlying groundwater quality (*Table 1*). Soil analytical results from the soil borings completed during July and August 2004 are summarized on *Table 1*, and laboratory analytical reports are included as *Appendix B*.

As a result of the SPLP lead analytical results, and in accordance with WDNR approved actions, lead stabilization of soil was not required. Therefore, approximately 400 cubic yards of soil impacted with lead in excess of the average Area 4-1 NR 720 industrial RCL was excavated and relocated to the Consolidation Area located in the northwest quadrant of the site. The resulting Area 4-1 excavation was filled with imported soil to the ground surface.

Soil Chemistry Results\Area 10-1

Total lead concentrations were detected in one out of six samples collected in area 10-1 in excess of Chapter NR 720 industrial RCLs and US EPA (Region IX) industrial land-use PRG for lead based on direct contact (*Table 1*). Of the samples submitted to the laboratory for TCLP analysis, no samples exhibited elevated concentrations considered hazardous by characterization.

Soil Remediation\Area 10-1

On September 29, 2004 approximately 1,500 cubic yards of lead impacted soil was excavated and transported to the consolidation area. (The southern extent of the excavation was limited by the presence of a silt fence installed as part of the site storm water permit best management practices.) The area of soil excavation is shown in *Appendix C*. The resulting Area 10-1 excavation was filled with imported soil to the ground surface.

Two confirmation soil samples were collected from the excavation limits. One soil sample was collected at a depth of 4 feet bgs at the southeastern limit of the excavation and a second was collected at a depth of 4 feet bgs at the southwest limit of the excavation. Each of the soil samples was submitted to the project laboratory for total lead analysis. The analytical results indicated that residual total lead at a concentration of 95 mg/kg remained at the southeastern extent of the excavation and residual total lead at 1,090 mg/kg remained at the southwest limit of the excavation.

Additional Soil Sampling\Area 10-1

On October 21, 2004 an additional 3 soil samples were collected to the south and southwest of the excavation area, to further characterize the degree and extent of residual lead impacts within the soil near the southwestern limit of the excavation. Analytical results indicated that residual total lead impacts ranging from 577 to 2,560 mg/kg remained in place south of the site silt fence. The sampling activities, locations and results are detailed in the attached November 22, 2004 memorandum (*Appendix C*).

Soil Chemistry Results\Area 17

Detected concentrations of total lead within nine soil samples collected from Area 17 did not exceed either the NR 720 RCL or US EPA PRG based on direct contact (*Table 1*). Of the nine samples submitted to the laboratory for TCLP analysis, no samples exhibited concentrations considered hazardous by characterization.

Area 17 lies beneath the engineered on-site soil management area (Consolidation Area) located within the Northwest Quadrant. This area will be capped by a minimum of two feet of non-impacted soil as part of the site wide remediation.

City of Milwaukee
August 3, 2006
Page 4

If you have any questions or comments regarding the information and interpretations provided in this document, please call us at (414) 643-4200.

Sincerely,

SIGMA ENVIRONMENTAL SERVICES, INC.

A handwritten signature in black ink, appearing to read "Kristin Kurzka", with a long horizontal flourish extending to the right.

Kristin Kurzka, P.E.
Senior Engineer

Cc: Ms. Cindi Cruciani, MTP

Enclosures

FIGURES

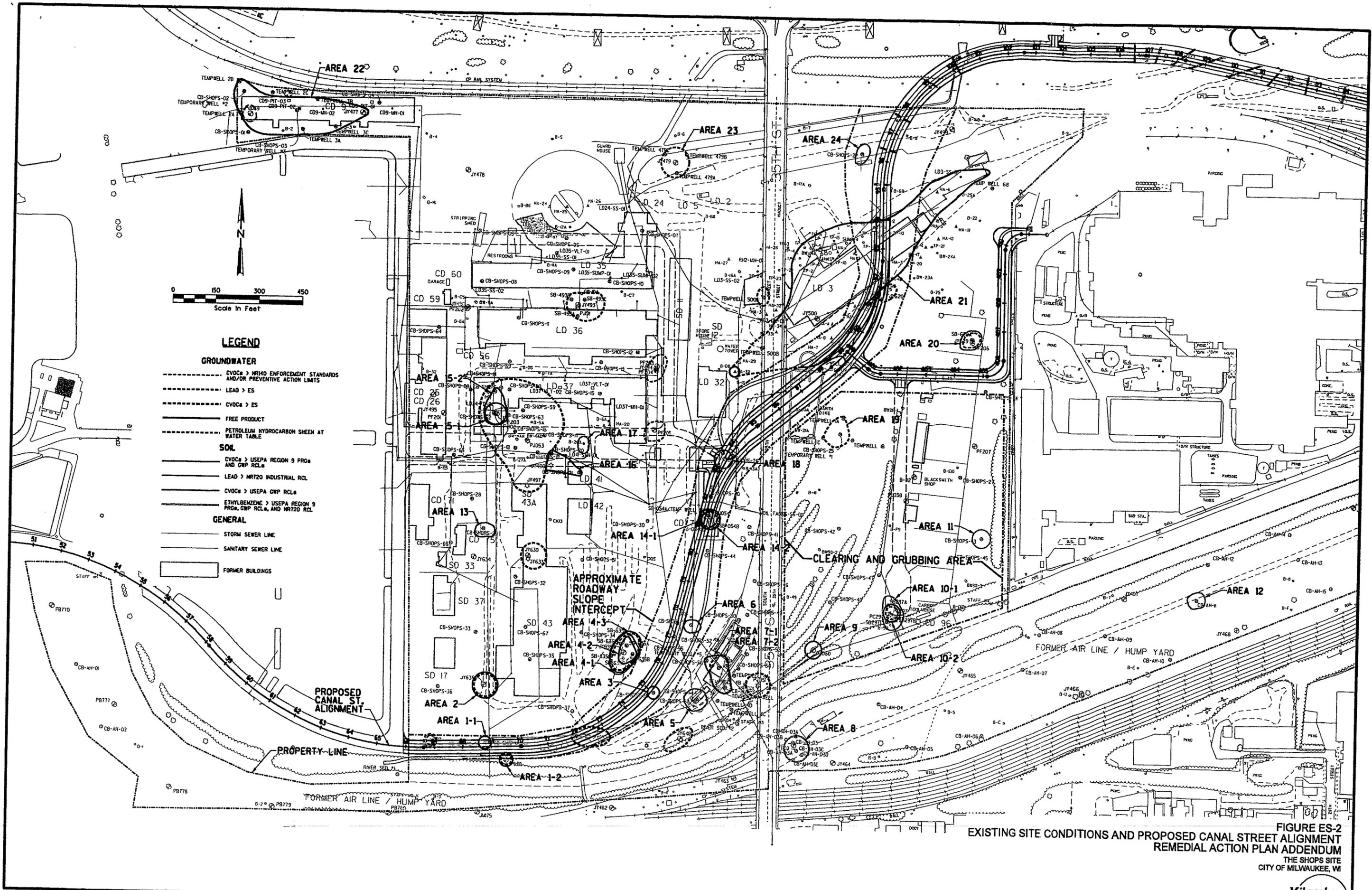
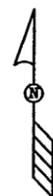
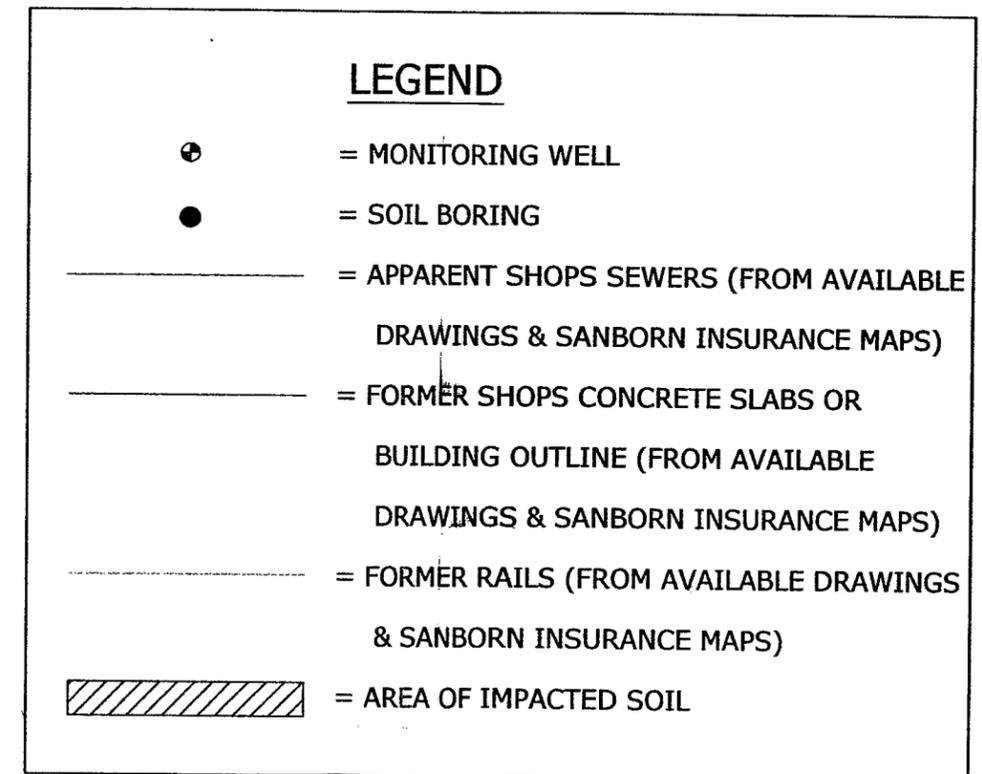
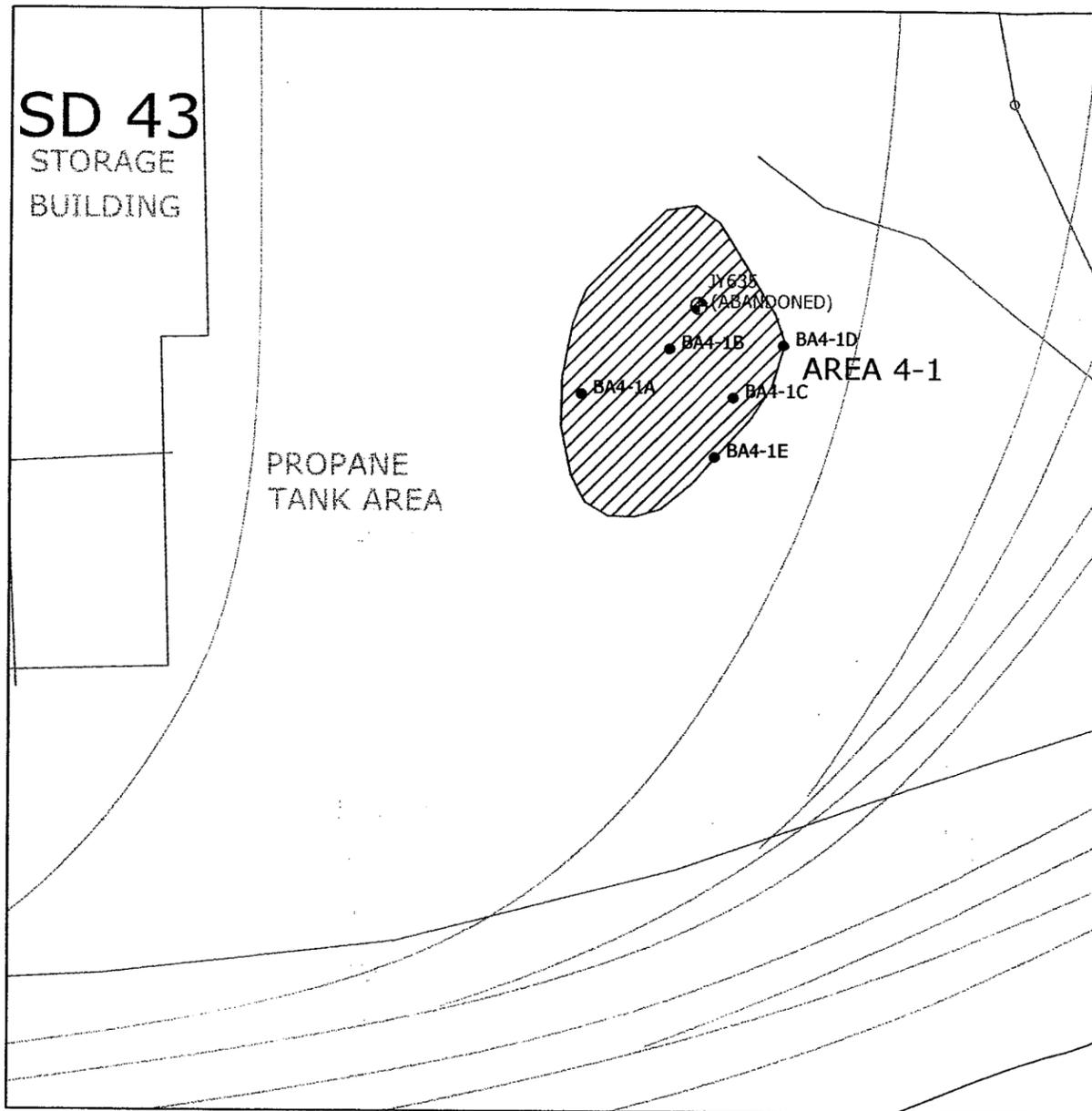
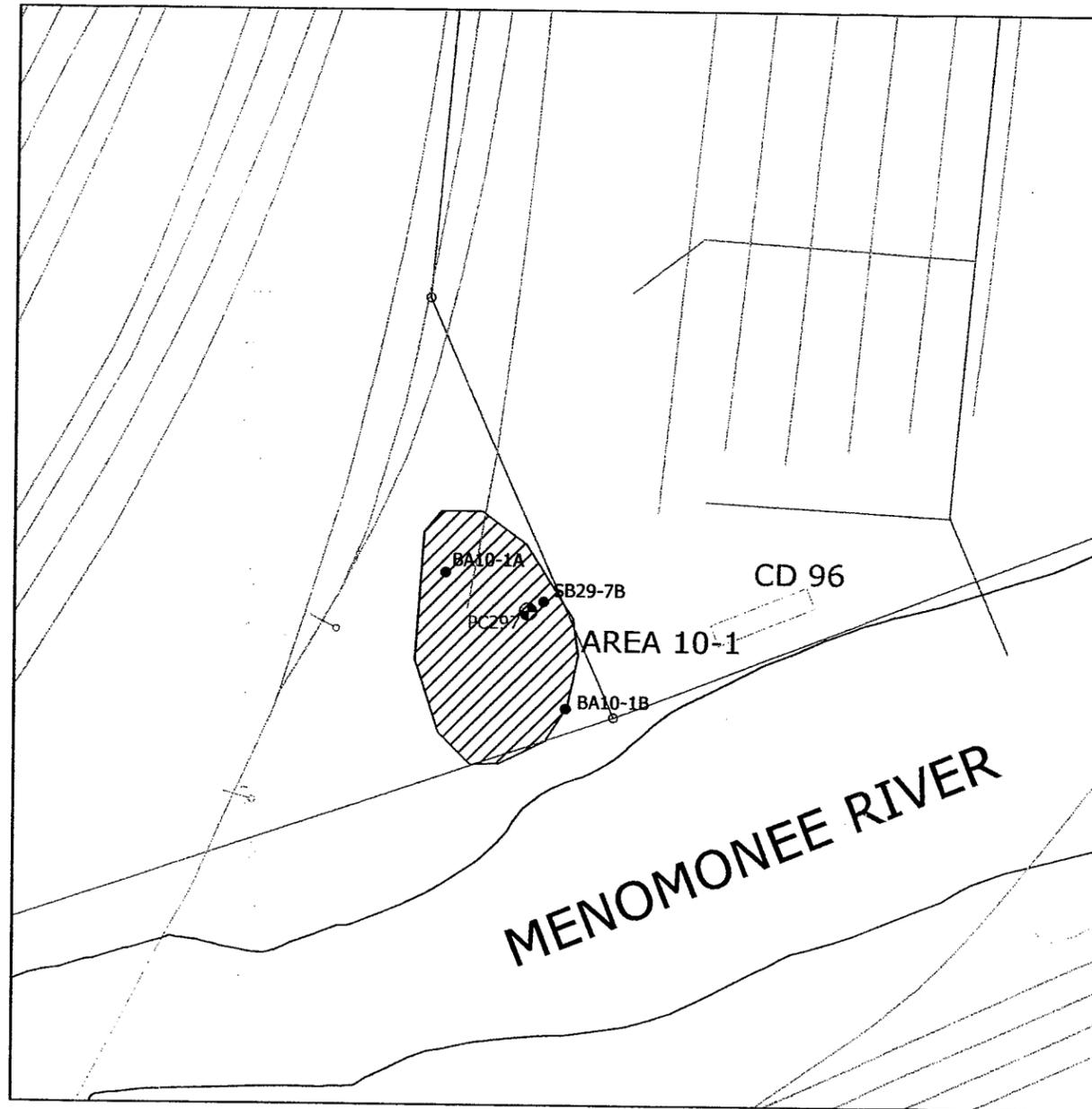


FIGURE ES-2
 EXISTING SITE CONDITIONS AND PROPOSED CANAL STREET ALIGNMENT
 REMEDIAL ACTION PLAN ADDENDUM
 THE SHOPS SITE
 CITY OF MILWAUKEE, WI



NOTE:
OVERLAY SURVEY BASED ON RADIO TOPOGRAPHY, WHILE
BASE DRAWING WAS CREATED FROM SANBORN INSURANCE
MAPS AND AVAILABLE ORIGINAL DRAWINGS.

 0' 75' 100'	CITY OF MILWAUKEE - MILWAUKEE SHOPS MILWAUKEE, WISCONSIN			
SCALE: 1" = 75'-0"	DATE: 03/17/06	DR. BY: DEC	DR.# 8721-001	
CONFIRMATION SOIL BORING LOCATION MAP FOR LEAD, AREA 4-1				FIGURE 1



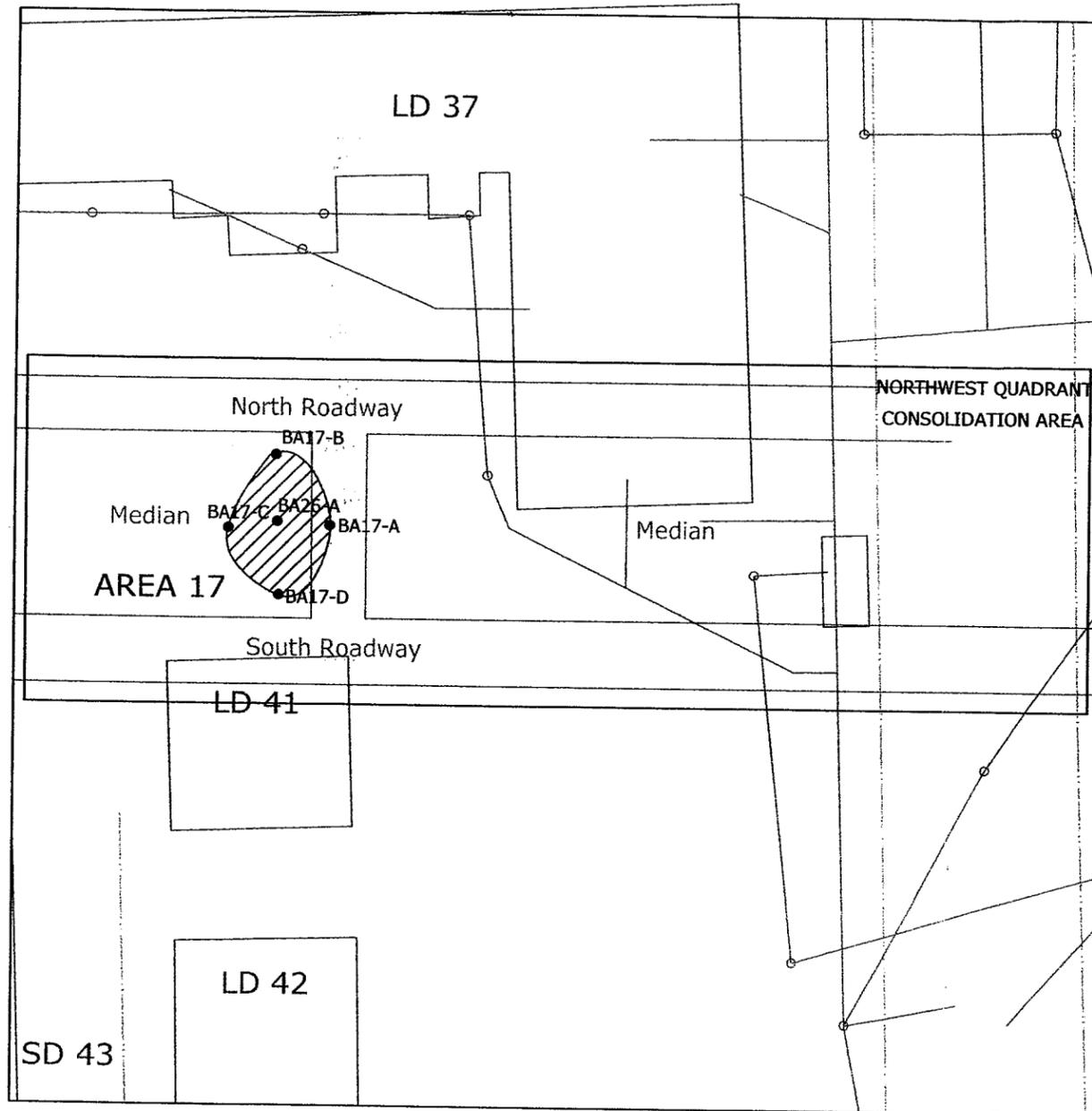
LEGEND

-  = MONITORING WELL
-  = SOIL BORING LOCATION
-  = APPARENT SHOPS SEWERS (FROM AVAILABLE DRAWINGS & SANBORN INSURANCE MAPS)
-  = APPARENT SHOPS BUILDINGS (FROM AVAILABLE DRAWINGS & SANBORN INSURANCE MAPS)
-  = FORMER SHOPS RAILS (FROM AVAILABLE DRAWINGS & SANBORN INSURANCE MAPS)
-  = AREA OF IMPACTED SOIL

NOTE:
 OVERLAY SURVEY BASED ON RADIO TOPOGRAPHY, WHILE
 BASE DRAWING WAS CREATED FROM SANBORN INSURANCE
 MAPS AND AVAILABLE ORIGINAL DRAWINGS.

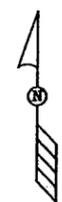


 SCALE: 1" = 75'-0"	CITY OF MILWAUKEE - MILWAUKEE SHOPS MILWAUKEE, WISCONSIN		
	DATE: 03/17/06	DR. BY: DEC	
CONFIRMATION SOIL BORING LOCATION MAP FOR LEAD, AREA 10			FIGURE 2



LEGEND

- = SOIL BORING
- = CONSOLIDATION AREA (SURVEYED)
- = APPARENT SHOPS BUILDINGS (FROM AVAILABLE DRAWINGS & SANBORN INSURANCE MAPS)
- = APPARENT SHOPS SEWERS (FROM AVAILABLE DRAWINGS & SANBORN INSURANCE MAPS)
- ▨ = AREA OF IMPACTED SOIL



NOTE:
 OVERLAY SURVEY BASED ON RADIO TOPOGRAPHY, WHILE
 BASE DRAWING WAS CREATED FROM SANBORN INSURANCE
 MAPS AND AVAILABLE ORIGINAL DRAWINGS.

 SCALE: 1" = 75'-0"	CITY OF MILWAUKEE - MILWAUKEE SHOPS MILWAUKEE, WISCONSIN			 ENVIRONMENTAL SERVICES INC.
	DATE: 3-17-06	DR. BY: DEC	DR.# 8721-001	
CONFIRMATION OF SOIL BORING LOCATION MAP FOR LEAD, AREA 17				FIGURE 3

TABLE 1

Soil Quality Results

Table 1
Soil Quality Results
Area of Concern 4-1
Milwaukee Shops Property
Milwaukee, Wisconsin
Project Reference #8721

Boring ID:	S-4A	BA4-1A		BA4-1B		BA4-1C		BA4-1D	BA4-1E	NR 720 RCLs (Industrial)	USEPA PRG	RCRA Characteristic Standard	NR 140 ES
		8/19/2004	7/15/2004	7/15/2004	7/15/2004	7/15/2004	8/19/2004						
Date Collected:	8/6/2004												
Sample Depth (feet bgs):	0.5-1.5	2-4	2-4	4-6	4-6	4-6	2-4	2-4	2-4				
RCRA Metals													
Lead (ICP)	713	524	1240	541	9.5	419	855	10	480	500	800	**	**
TCLP Lead	0.73	NA	6.6	1.3	<0.10	0.13	NA	<0.10	NA	**	**	**	**
SPLP Lead	NA	0.079	<0.0075	0.018	<0.0075	<0.0075	<0.0075	<0.0075	0.02	**	**	**	0.015

Notes:
 NA = Not Analyzed
 ** = No Standard Established
 NR 720 RCL = Chapter NR 720 Residual Contaminant Level for industrial property (direct contact)
 US EPA PRG = US EPA Preliminary Remediation Goal for industrial soil (direct contact)
 NR 140 ES = Chapter NR 140 Public Health Groundwater Quality Enforcement Standard
 All results expressed in milligrams per kilogram (mg/kg) or milligrams per liter (mg/L)- equivalent to parts per million (ppm)
 M = matrix interference
 Exceedances:
BOLD = Concentration exceeds NR 720 RCL (metals)
BOLD, UNDERLINE = Concentration exceeds US EPA PRG (metals)
BOLD, BOX = Concentration exceeds RCRA Characteristically Hazardous (metals)
BOLD, italics = SPLP lead concentration exceeds NR 140 groundwater quality ES

Table 1 Soil Quality Results Area of Concern 10-1 Milwaukee Shops Property Milwaukee, Wisconsin Project Reference #8721												
Boring ID:	BA10-1A			BA10-1B			SB297B		NR 720 RCLs (Industrial)	USEPA PRG	RCRA Characteristic Standard	NR 140 ES
	7/15/2004	7/15/2004	7/15/2004	7/15/2004	7/15/2004	7/15/2004	7/15/2004	8/19/2004				
Date Collected:	Units											
Sample Depth (feet bgs):	2-4	4-6	4-6	2-4	2-4	4-6	2-4	2-4	2-4			
RCRA Metals												
Lead (ICP)	951	148		23	32		344	355	500	800	**	**
TCLP Lead	0.44	<0.10		<0.10	<0.10		0.39	NA	**	**	**	**
SPLP Lead	0.21	0.017		0.031	<0.0075		0.081	0.093	**	**	**	0.015
Notes:	NA = Not Analyzed ** = No Standard Established NR 720 RCL = Chapter NR 720 Residual Contaminant Level for industrial property (direct contact) US EPA PRG = US EPA Preliminary Remediation Goal for industrial soil (direct contact) NR 140 ES = Chapter NR 140 Public Health Groundwater Quality Enforcement Standard All results expressed in milligrams per kilogram (mg/kg) or milligrams per liter (mg/L)- equivalent to parts per million (ppm) M = matrix interference Exceedances: BOLD = Concentration exceeds NR 720 RCL (metals) BOLD, UNDERLINE = Concentration exceeds US EPA PRG (metals) BOLD, BOX = Concentration exceeds RCRA Characteristically Hazardous (metals) BOLD, Italics = SPLP lead concentration exceeds NR 140 groundwater quality ES											

Table 1
Soil Quality Results
Area of Concern 17
Milwaukee Shops Property
Milwaukee, Wisconsin
Project Reference #8721

Boring ID:	BA17-A		BA17-B		BA17-C		BA17-D		B-26A 7/15/2004 2-4	NR 720 RCLs (Industrial)	USEPA PRG	RCRA Characteristic Standard	NR 140 ES
	7/15/2004 2-4	7/15/2004 6-8	7/15/2004 2-4	7/15/2004 6-8	7/15/2004 2-4	7/15/2004 6-8	7/15/2004 2-4	7/15/2004 6-8					
Date Collected:													
Sample Depth (feet bgs):													
Units													
RCRA Metals													
Lead (ICP)	110	9.1	206	9.2	93	27	184	10	226	500	800	**	**
TCLP Lead	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	**	**	5	**
SPLP Lead	0.015	<0.0075	<0.0075	<0.0075	0.028	<0.0075	0.041	<0.0075	<0.0075	**	**	**	0.015

Notes:
 NA = Not Analyzed
 ** = No Standard Established
 NR 720 RCL = Chapter NR 720 Residual Contaminant Level for industrial property (direct contact)
 US EPA PRG = US EPA Preliminary Remediation Goal for Industrial soil (direct contact)
 NR 140 ES = Chapter NR 140 Public Health Groundwater Quality Enforcement Standard
 All results expressed in milligrams per kilogram (mg/kg) or milligrams per liter (mg/L) - equivalent to parts per million (ppm)
 M = matrix interference

Exceedances:
BOLD = Concentration exceeds NR 720 RCL (metals)
BOLD, UNDERLINE = Concentration exceeds US EPA PRG (metals)
BOLD, BOX = Concentration exceeds RCRA Characteristically Hazardous (metals)
BOLD, Italics = SPLP lead concentration exceeds NR 140 groundwater quality ES

APPENDIX A

September 28, 2004 Memorandum

MEMORANDUM

To: Cindi Cruciani, MTP

From: Kristin Kurzka

Date: September 28, 2004

RE: Lead Impacted Soil Management

Project Number: 8760

Dear Ms. Cruciani:

The purpose of this memorandum is to document our conversation on September 28, 2004 regarding the proper handling and management of lead impacted soil at the Shops Property. Specifically, we discussed the criteria used to determine when lead impacted soil would require stabilization prior to cutting it and placing it in the site's consolidation area.

Following the sampling plan prepared by MTP in April 2004, Sigma personnel conducted sampling to delineate and confirm the presence of lead impacted soil within areas of the site designated as Area 4, Area 10 and Area 17. The soil sampling was completed in July and August 2004.

Review of the analytical results indicates that lead impacted soil is present within each of the areas.

Recent soil sampling within Area 4 provided results with total concentrations ranging from 419 mg/kg to 1240 mg/kg, TCLP concentrations ranging from <0.10 to 6.6 mg/l and SPLP concentrations ranging from <0.0075 mg/l to 0.048 mg/l

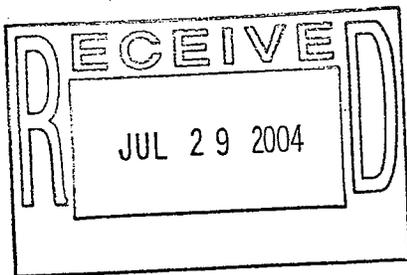
Recent soil sampling within Area 10 provided results with total concentrations ranging from 23 mg/kg to 951 mg/kg, TCLP concentrations ranging from <0.10 mg/l to 0.44 mg/l and SPLP concentrations ranging from <0.0075 mg/l to 0.21 mg/l

Recent soil sampling within area 17 provided results with total concentrations ranging from 9.1 mg/kg to 713 mg/kg, TCLP concentrations ranging from <0.10 mg/l to 0.73 mg/l and SPLP concentrations ranging from <0.0075 mg/l to 0.041 mg/l.

Based on our conversation it is our understanding that areas of the site targeted for a cut as part of the site grading plan, where lead was present at concentrations which failed TCLP analysis, [as determined during the Due Diligence investigation] were to be evaluated using SPLP analysis. The RCRA TCLP characteristically hazardous standard of 5 mg/l would be the threshold value for the SPLP concentration to determine if the soil would require stabilization prior to excavation and placement in the consolidation area.

APPENDIX B

Laboratory Analytical Reports



ANALYTICAL REPORT

Ms. Kristin Kurzka
SIGMA ENVIRONMENTAL SERV.
1300 West Canal Street
Milwaukee, WI 53233

07/28/2004

Job No: 04.07054

Page 1 of 21

The following samples were received by TestAmerica for analysis:

8721 CMC

Sample Number	Sample Description	Date Taken	Date Received
579493	BA 4-1B 2-4'		
579494	BA 4-1B 4-6'	07/15/2004	07/16/2004
579495	BA 4-1B 6-8'	07/15/2004	07/16/2004
579496	BA 17-C 2-4'	07/15/2004	07/16/2004
579497	BA 17-C 6-8'	07/15/2004	07/16/2004
579498	B-26A 2-4'	07/15/2004	07/16/2004
579499	BA 17-A 2-4'	07/15/2004	07/16/2004
579500	BA 17-A 6-8'	07/15/2004	07/16/2004
579501	BA 17-D 2-4'	07/15/2004	07/16/2004
579502	BA 17-D 6-8'	07/15/2004	07/16/2004
579503	BA 17-B 2-4'	07/15/2004	07/16/2004
579504	BA 17-B 6-8'	07/15/2004	07/16/2004
579505	SB297B 2-4'	07/15/2004	07/16/2004
579506	BA10-1A 2-4'	07/15/2004	07/16/2004
579507	BA10-1A 4-6'	07/15/2004	07/16/2004
579508	BA10-1B 2-4'	07/15/2004	07/16/2004
579509	BA10-1B 4-6'	07/15/2004	07/16/2004
579510	BA4-1C 4-6'	07/15/2004	07/16/2004
579511	BA4-1C 6-8'	07/15/2004	07/16/2004

Soil results reported
on a dry weight basis.

Karen R. Wenta
Inorganic Operations Manager

SIGMA ENVIRONMENTAL SERV.
Job No: 04.07054

07/28/2004
Page 2 of 21

KEY TO DATA FLAGS

The attached sample(s) may have a result flag shown on the report. The following are the result flag definitions:

A = Analyzed/extracted past hold time	B = Blank is contaminated
C = Standard outside of control limits	D = Diluted for analysis
E = TCLP extraction outside of method required temperature range	
F = Sample filtered in lab	G = Received past hold time
H = Late eluting hydrocarbons present	I = Improperly handled sample
J = Estimated concentration	L = Common lab solvent
M = Matrix interference	P = Improperly preserved sample
Q = Result confirmed via re-analysis	S = Sediment present
T = Does not match typical pattern	W = BOD re-set due to missed dilution
X = Unidentified compound(s) present	Z = Internal standard outside limits
* = See Case Narrative	

KEY TO ANALYST INITIALS

The attached sample(s) may have been analyzed by another certified laboratory. If a number appears in the Analyst Initials field, the following are the appropriate certifications (if the lab code does not appear below, that means that certification is not required for the work performed):

Lab Code	Certification Number
008	WDNR - 999766900
009	WDNR - 241293690
020	WDNR - 999447680
030	ILNELAC - 100230; WDNR - 998294430
060	ILNELAC - 100221; WDNR - 999447130
070	IA - 007; ILNELAC - 000668; MDH - 019-999-319; WDNR - 999917270
130	WDNR - 632021390
147	WDNR - 721026460
300	FLNELAC - 87358; IA - 131; MDH - 047-999-345; WDNR - 998020430
400	WDNR - 113133790
510	WDNR - 241249360
520	WDNR - 999518190; ILNELAC - 100439
700	WDNR - 113289110

TestAmerica Watertown Certifications: WI DNR - 128053530; IL NELAC - 100453; IA DNR - 294; MN DoH - 055-999-366; ND DoH R-046; AR DEQ - 88-0808

Unless sub-contracted (see above), volatiles analyses (including VOC, PVOC, GRO, BTEX and TPH Gasoline) performed by TestAmerica Watertown at 1101 Industrial Drive, Units 9&10. All other analyses performed at 602 Commerce Drive, Watertown WI 53094.

Results reported between the Method Detection Limit (MDL) and Limit of Quantitation (LOQ) are less certain than results at or above the LOQ.

For questions regarding this report, please contact Dan Milewsky or Warren Topel.

ANALYTICAL REPORT

Ms. Kristin Kurzka
SIGMA ENVIRONMENTAL SERV.
1300 West Canal Street
Milwaukee, WI 53233

07/28/2004
Job No: 04.07054
Sample No: 579493
Account No: 65300
Page 3 of 21

JOB DESCRIPTION: 8721 CMC
PROJECT DESCRIPTION: Soil Analysis
SAMPLE DESCRIPTION: BA 4-1B 2-4'
Milwaukee, WI
Rec'd on ice

Date/Time Taken: 07/15/2004 08:00

Date Received: 07/16/2004

Parameter	Results	Units	Reporting Limit	Method	Date		Prep/Run	
					Analyzed	Analyst	Batch	
Solids, Total	88.6	%	n/a	SW 5035	07/20/2004	ajs		5675
Lead, ICP	1,240	mg/kg	1.2	SW 6010B	07/22/2004	mmm	2773	1474
TCLP-Lead, AA	6.6	mg/L	0.10	SW 7420	07/22/2004	gaf	1854	505
SPLP - Lead, GFAA	<0.0075	mg/L	0.0075	SW 7421	07/23/2004	gaf	74	13
Prep, TCLP - 1311	E 10-30			SW 1311	07/20/2004	lak	1854	
Prep, SPLP - 1312	E 18-22			SW 1312	07/22/2004	lak	74	

ANALYTICAL REPORT

Ms. Kristin Kurzka
SIGMA ENVIRONMENTAL SERV.
1300 West Canal Street
Milwaukee, WI 53233

07/28/2004
Job No: 04.07054
Sample No: 579494
Account No: 65300
Page 4 of 21

JOB DESCRIPTION: 8721 CMC
PROJECT DESCRIPTION: Soil Analysis
SAMPLE DESCRIPTION: BA 4-1B 4-6'
Milwaukee, WI
Rec'd on ice

Date/Time Taken: 07/15/2004 08:00

Date Received: 07/16/2004

Parameter	Results	Units	Reporting	Method	Date	Prep/Run	
			Limit		Analyzed	Analyst	Batch
Solids, Total	85.0	%	n/a	SW 5035	07/20/2004	ajs	5675
Lead, ICP	541	mg/kg	1.2	SW 6010B	07/22/2004	mmm	2773 1474
TCLP-Lead, AA	1.3	mg/L	0.10	SW 7420	07/22/2004	gaf	1854 505
SPLP - Lead, GFAA	0.018	mg/L	0.0075	SW 7421	07/23/2004	gaf	74 13
Prep, TCLP - 1311	E 10-30			SW 1311	07/20/2004	lak	1854
Prep, SPLP - 1312	E 18-22			SW 1312	07/22/2004	lak	74

ANALYTICAL REPORT

Ms. Kristin Kurzka
SIGMA ENVIRONMENTAL SERV.
1300 West Canal Street
Milwaukee, WI 53233

07/28/2004
Job No: 04.07054
Sample No: 579495
Account No: 65300
Page 5 of 21

JOB DESCRIPTION: 8721 CMC
PROJECT DESCRIPTION: Soil Analysis
SAMPLE DESCRIPTION: BA 4-1B 6-8'
Milwaukee, WI
Rec'd on ice

Date/Time Taken: 07/15/2004 08:00

Date Received: 07/16/2004

Parameter	Results	Units	Reporting	Method	Date		Prep/Run	
			Limit		Analyzed	Analyst	Batch	
Solids, Total	77.8	%	n/a	SW 5035	07/20/2004	ajs	5675	
Lead, ICP	9.5	mg/kg	1.2	SW 6010B	07/22/2004	mmm	2773 1474	
TCLP-Lead, AA	<0.10	mg/L	0.10	SW 7420	07/22/2004	gaf	1854 505	
SPLP - Lead, GFAA	<0.0075	mg/L	0.0075	SW 7421	07/23/2004	gaf	74 13	
Prep, TCLP - 1311	E 10-30			SW 1311	07/20/2004	lak	1854	
Prep, SPLP - 1312	E 18-22			SW 1312	07/22/2004	lak	74	

ANALYTICAL REPORT

Ms. Kristin Kurzka
SIGMA ENVIRONMENTAL SERV.
1300 West Canal Street
Milwaukee, WI 53233

07/28/2004
Job No: 04.07054
Sample No: 579496
Account No: 65300
Page 6 of 21

JOB DESCRIPTION: 8721 CMC
PROJECT DESCRIPTION: Soil Analysis
SAMPLE DESCRIPTION: BA 17-C 2-4'
Milwaukee, WI
Rec'd on ice

Date/Time Taken: 07/15/2004 08:30

Date Received: 07/16/2004

Parameter	Results	Units	Reporting	Method	Date		Prep/Run	
			Limit		Analyzed	Analyst	Batch	
Solids, Total	84.6	%	n/a	SW 5035	07/20/2004	ajs	5675	
Lead, ICP	93	mg/kg	1.2	SW 6010B	07/22/2004	mmm	2773 1474	
TCLP-Lead, AA	<0.10	mg/L	0.10	SW 7420	07/22/2004	gaf	1854 505	
SPLP - Lead, GFAA	0.026	mg/L	0.0075	SW 7421	07/23/2004	gaf	74 13	
Prep, TCLP - 1311	E 10-30			SW 1311	07/20/2004	lak	1854	
Prep, SPLP - 1312	E 18-22			SW 1312	07/22/2004	lak	74	

ANALYTICAL REPORT

Ms. Kristin Kurzka
SIGMA ENVIRONMENTAL SERV.
1300 West Canal Street
Milwaukee, WI 53233

07/28/2004
Job No: 04.07054
Sample No: 579497
Account No: 65300
Page 7 of 21

JOB DESCRIPTION: 8721 CMC
PROJECT DESCRIPTION: Soil Analysis
SAMPLE DESCRIPTION: BA 17-C 6-8'
Milwaukee, WI
Rec'd on ice

Date/Time Taken: 07/15/2004 08:30

Date Received: 07/16/2004

Parameter	Results	Units	Reporting	Method	Date		Prep/Run	
			Limit		Analyzed	Analyst	Batch	
Solids, Total	77.4	%	n/a	SW 5035	07/20/2004	ajs	5675	
Lead, ICP	27	mg/kg	1.2	SW 6010B	07/22/2004	mmm	2773 1474	
TCLP-Lead, AA	<0.10	mg/L	0.10	SW 7420	07/22/2004	gaf	1854 505	
SPLP - Lead, GFAA	<0.0075	mg/L	0.0075	SW 7421	07/23/2004	gaf	74 13	
Prep, TCLP - 1311	E 10-30			SW 1311	07/20/2004	lak	1854	
Prep, SPLP - 1312	E 18-22			SW 1312	07/22/2004	lak	74	

ANALYTICAL REPORT

Ms. Kristin Kurzka
SIGMA ENVIRONMENTAL SERV.
1300 West Canal Street
Milwaukee, WI 53233

07/28/2004
Job No: 04.07054
Sample No: 579498
Account No: 65300
Page 8 of 21

JOB DESCRIPTION: 8721 CMC
PROJECT DESCRIPTION: Soil Analysis
SAMPLE DESCRIPTION: B-26A 2-4'
Milwaukee, WI
Rec'd on ice

Date/Time Taken: 07/15/2004 08:55

Date Received: 07/16/2004

Parameter	Results	Units	Reporting	Method	Date		Prep/Run
			Limit		Analyzed	Analyst	Batch
Solids, Total	79.6	%	n/a	SW 5035	07/20/2004	ajs	5676
Lead, ICP	226	mg/kg	1.2	SW 6010B	07/22/2004	mmm	2773 1474
TCLP-Lead, AA	0.14	mg/L	0.10	SW 7420	07/22/2004	gaf	1854 505
SPLP - Lead, GFAA	<0.0075	mg/L	0.0075	SW 7421	07/23/2004	gaf	74 13
Prep, TCLP - 1311	E 10-30			SW 1311	07/20/2004	lak	1854
Prep, SPLP - 1312	E 18-22			SW 1312	07/22/2004	lak	74

ANALYTICAL REPORT

Ms. Kristin Kurzka
SIGMA ENVIRONMENTAL SERV.
1300 West Canal Street
Milwaukee, WI 53233

07/28/2004
Job No: 04.07054
Sample No: 579499
Account No: 65300
Page 9 of 21

JOB DESCRIPTION: 8721 CMC
PROJECT DESCRIPTION: Soil Analysis
SAMPLE DESCRIPTION: BA 17-A 2-4'
Milwaukee, WI
Rec'd on ice

Date/Time Taken: 07/15/2004 09:10

Date Received: 07/16/2004

Parameter	Results	Units	Reporting Limit	Method	Date		Prep/Run Batch
					Analyzed	Analyst	
Solids, Total	83.3	%	n/a	SW 5035	07/20/2004	ajs	5676
Lead, ICP	110	mg/kg	1.2	SW 6010B	07/22/2004	mmm	2773 1474
TCLP-Lead, AA	<0.10	mg/L	0.10	SW 7420	07/22/2004	gaf	1855 505
SPLP - Lead, GFAA	0.015	mg/L	0.0075	SW 7421	07/23/2004	gaf	74 13
Prep: TCLP - 1311	E 10-30			SW 1311	07/20/2004	lak	1855
Prep: SPLP - 1312	E 18-22			SW 1312	07/22/2004	lak	74

ANALYTICAL REPORT

Ms. Kristin Kurzka
SIGMA ENVIRONMENTAL SERV.
1300 West Canal Street
Milwaukee, WI 53233

07/28/2004
Job No: 04.07054
Sample No: 579500
Account No: 65300
Page 10 of 21

JOB DESCRIPTION: 8721 CMC
PROJECT DESCRIPTION: Soil Analysis
SAMPLE DESCRIPTION: BA 17-A 6-8'
Milwaukee, WI
Rec'd on ice

Date/Time Taken: 07/15/2004 09:10

Date Received: 07/16/2004

Parameter	Results	Units	Reporting		Method	Date		Prep/Run	
			Limit			Analyzed	Analyst	Batch	
Solids, Total	79.4	%	n/a		SW 5035	07/20/2004	ajs		5676
Lead, ICP	9.1	mg/kg	1.2		SW 6010B	07/22/2004	mmm	2773	1474
TCLP-Lead, AA	<0.10	mg/L	0.10		SW 7420	07/22/2004	gaf	1855	505
SPLP - Lead, GFAA	<0.0075	mg/L	0.0075		SW 7421	07/23/2004	gaf	74	13
Prep, TCLP - 1311	E 10-30				SW 1311	07/20/2004	lak	1855	
Prep, SPLP - 1312	E 18-22				SW 1312	07/22/2004	lak	74	

ANALYTICAL REPORT

Ms. Kristin Kurzka
SIGMA ENVIRONMENTAL SERV.
1300 West Canal Street
Milwaukee, WI 53233

07/28/2004
Job No: 04.07054
Sample No: 579501
Account No: 65300
Page 11 of 21

JOB DESCRIPTION: 8721 CMC
PROJECT DESCRIPTION: Soil Analysis
SAMPLE DESCRIPTION: BA 17-D 2-4'
Milwaukee, WI
Rec'd on ice

Date/Time Taken: 07/15/2004 09:30

Date Received: 07/16/2004

Parameter	Results	Units	Reporting Limit	Method	Date		Prep/Run	
					Analyzed	Analyst	Batch	
Solids, Total	86.9	%	n/a	SW 5035	07/20/2004	ajs	5676	
Lead, ICP	184	mg/kg	1.2	SW 6010B	07/22/2004	mmm	2773 1474	
TCLP-Lead, AA	<0.10	mg/L	0.10	SW 7420	07/22/2004	gaf	1855 505	
SPLP - Lead, GFAA	0.041	mg/L	0.0075	SW 7421	07/27/2004	gaf	75 14	
Prep, TCLP - 1311	E 10-30			SW 1311	07/20/2004	lak	1855	
Prep, SPLP - 1312	E 18-22			SW 1312	07/22/2004	lak	75	

ANALYTICAL REPORT

Ms. Kristin Kurzka
SIGMA ENVIRONMENTAL SERV.
1300 West Canal Street
Milwaukee, WI 53233

07/28/2004
Job No: 04.07054
Sample No: 579502
Account No: 65300
Page 12 of 21

JOB DESCRIPTION: 8721 CMC
PROJECT DESCRIPTION: Soil Analysis
SAMPLE DESCRIPTION: BA 17-D 6-8'
Milwaukee, WI
Rec'd on ice

Date/Time Taken: 07/15/2004 09:30

Date Received: 07/16/2004

Parameter	Results	Units	Reporting	Method	Date		Prep/Run
			Limit		Analyzed	Analyst	Batch
Solids, Total	82.2	%	n/a	SW 5035	07/20/2004	ajs	5676
Lead, ICP	10	mg/kg	1.2	SW 6010B	07/22/2004	mmm	2773 1474
TCLP-Lead, AA	<0.10	mg/L	0.10	SW 7420	07/22/2004	gaf	1855 505
SPLP - Lead, GFAA	<0.0075	mg/L	0.0075	SW 7421	07/27/2004	gaf	75 14
Prep, TCLP - 1311	E 10-30			SW 1311	07/20/2004	lak	1855
Prep, SPLP - 1312	E 18-22			SW 1312	07/22/2004	lak	75

ANALYTICAL REPORT

Ms. Kristin Kurzka
SIGMA ENVIRONMENTAL SERV.
1300 West Canal Street
Milwaukee, WI 53233

07/28/2004
Job No: 04.07054
Sample No: 579503
Account No: 65300
Page 13 of 21

JOB DESCRIPTION: 8721 CMC
PROJECT DESCRIPTION: Soil Analysis
SAMPLE DESCRIPTION: BA 17-B 2-4'
Milwaukee, WI
Rec'd on ice

Date/Time Taken: 07/15/2004 09:55

Date Received: 07/16/2004

Parameter	Results	Units	Reporting	Method	Date		Prep/Run	
			Limit		Analyzed	Analyst	Batch	
Solids, Total	82.4	%	n/a	SW 5035	07/20/2004	ajs	5676	
Lead, ICP	206	mg/kg	1.2	SW 6010B	07/22/2004	mmm	2773 1474	
TCLP-Lead, AA	<0.10	mg/L	0.10	SW 7420	07/22/2004	gaf	1855 505	
SPLP - Lead, GFAA	<0.0075	mg/L	0.0075	SW 7421	07/27/2004	gaf	75 14	
Prep, TCLP - 1311	E 10-30			SW 1311	07/20/2004	lak	1855	
Prep, SPLP - 1312	E 18-22			SW 1312	07/22/2004	lak	75	

ANALYTICAL REPORT

Ms. Kristin Kurzka
SIGMA ENVIRONMENTAL SERV.
1300 West Canal Street
Milwaukee, WI 53233

07/28/2004
Job No: 04.07054
Sample No: 579504
Account No: 65300
Page 14 of 21

JOB DESCRIPTION: 8721 CMC
PROJECT DESCRIPTION: Soil Analysis
SAMPLE DESCRIPTION: BA 17-B 6-8'
Milwaukee, WI
Rec'd on ice

Date/Time Taken: 07/15/2004 09:55

Date Received: 07/16/2004

Parameter	Results	Units	Reporting		Method	Date		Prep/Run	
			Limit			Analyzed	Analyst	Batch	
Solids, Total	81.9	%	n/a		SW 5035	07/20/2004	ajs		5676
Lead, ICP	9.2	mg/kg	1.2		SW 6010B	07/22/2004	mmm	2773	1474
TCLP-Lead, AA	<0.10	mg/L	0.10		SW 7420	07/22/2004	gaf	1855	505
SPLP - Lead, GFAA	<0.0075	mg/L	0.0075		SW 7421	07/27/2004	gaf	75	14
Prep, TCLP - 1311	E 10-30				SW 1311	07/20/2004	lak	1855	
Prep, SPLP - 1312	E 18-22				SW 1312	07/22/2004	lak	75	

ANALYTICAL REPORT

Ms. Kristin Kurzka
SIGMA ENVIRONMENTAL SERV.
1300 West Canal Street
Milwaukee, WI 53233

07/28/2004
Job No: 04.07054
Sample No: 579505
Account No: 65300
Page 15 of 21

JOB DESCRIPTION: 8721 CMC
PROJECT DESCRIPTION: Soil Analysis
SAMPLE DESCRIPTION: SB297B 2-4'
Milwaukee, WI
Rec'd on ice

Date/Time Taken: 07/15/2004 10:55

Date Received: 07/16/2004

Parameter	Results	Units	Reporting	Method	Date		Prep/Run	
			Limit		Analyzed	Analyst	Batch	
Solids, Total	95.8	%	n/a	SW 5035	07/20/2004	ajs	5676	
Lead, ICP	344	mg/kg	1.2	SW 6010B	07/22/2004	mmm	2773 1474	
TCLP-Lead, AA	0.39	mg/L	0.10	SW 7420	07/22/2004	gaf	1855 505	
SPLP - Lead, GFAA	0.081	mg/L	0.0075	SW 7421	07/27/2004	gaf	75 14	
Prep, TCLP - 1311	E 10-30			SW 1311	07/20/2004	lak	1855	
Prep, SPLP - 1312	E 18-22			SW 1312	07/22/2004	lak	75	

ANALYTICAL REPORT

Ms. Kristin Kurzka
SIGMA ENVIRONMENTAL SERV.
1300 West Canal Street
Milwaukee, WI 53233

07/28/2004
Job No: 04.07054
Sample No: 579506
Account No: 65300
Page 16 of 21

JOB DESCRIPTION: 8721 CMC
PROJECT DESCRIPTION: Soil Analysis
SAMPLE DESCRIPTION: BA10-1A 2-4'
Milwaukee, WI
Rec'd on ice

Date/Time Taken: 07/15/2004 11:05

Date Received: 07/16/2004

Parameter	Results	Units	Reporting	Method	Date	Prep/Run	
			Limit		Analyzed	Analyst	Batch
Solids, Total	87.3	%	n/a	SW 5035	07/20/2004	ajs	5676
Lead, ICP	951	mg/kg	1.2	SW 6010B	07/22/2004	mmm	2773 1474
TCLP-Lead, AA	0.44	mg/L	0.10	SW 7420	07/22/2004	gaf	1855 505
SPLP - Lead, GFAA	0.21	mg/L	0.0075	SW 7421	07/27/2004	gaf	75 14
Prep, TCLP - 1311	E 10-30			SW 1311	07/20/2004	lak	1855
Prep, SPLP - 1312	E 18-22			SW 1312	07/22/2004	lak	75

ANALYTICAL REPORT

Ms. Kristin Kurzka
SIGMA ENVIRONMENTAL SERV.
1300 West Canal Street
Milwaukee, WI 53233

07/28/2004
Job No: 04.07054
Sample No: 579507
Account No: 65300
Page 17 of 21

JOB DESCRIPTION: 8721 CMC
PROJECT DESCRIPTION: Soil Analysis
SAMPLE DESCRIPTION: BA10-1A 4-6'
Milwaukee, WI
Rec'd on ice

Date/Time Taken: 07/15/2004 11:05

Date Received: 07/16/2004

Parameter	Results	Units	Reporting		Method	Date		Prep/Run	
			Limit			Analyzed	Analyst	Batch	
Solids, Total	81.0	%	n/a		SW 5035	07/20/2004	ajs		5676
Lead, ICP	148	mg/kg	1.2		SW 6010B	07/22/2004	mmm	2773	1474
TCLP-Lead, AA	<0.10	mg/L	0.10		SW 7420	07/22/2004	gaf	1856	505
SPLP - Lead, GFAA	0.017	mg/L	0.0075		SW 7421	07/27/2004	gaf	75	14
Prep, TCLP - 1311	E 19-22				SW 1311	07/21/2004	lak	1856	
Prep, SPLP - 1312	E 18-22				SW 1312	07/22/2004	lak	75	

ANALYTICAL REPORT

Ms. Kristin Kurzka
SIGMA ENVIRONMENTAL SERV.
1300 West Canal Street
Milwaukee, WI 53233

07/28/2004
Job No: 04.07054
Sample No: 579508
Account No: 65300
Page 18 of 21

JOB DESCRIPTION: 8721 CMC
PROJECT DESCRIPTION: Soil Analysis
SAMPLE DESCRIPTION: BA10-1B 2-4'
Milwaukee, WI
Rec'd on ice

Date/Time Taken: 07/15/2004 11:25

Date Received: 07/16/2004

Parameter	Results	Units	Reporting		Method	Date		Prep/Run	
			Limit			Analyzed	Analyst	Batch	
Solids, Total	81.2	%	n/a		SW 5035	07/20/2004	ajs		5676
Lead, ICP	23	mg/kg	1.2		SW 6010B	07/22/2004	mmm	2773	1474
TCLP-Lead, AA	<0.10	mg/L	0.10		SW 7420	07/22/2004	gaf	1857	505
SPLP - Lead, GFAA	0.031	mg/L	0.0075		SW 7421	07/27/2004	gaf	75	14
Prep, TCLP - 1311	E 19-22				SW 1311	07/21/2004	lak	1857	
Prep, SPLP - 1312	E 18-22				SW 1312	07/22/2004	lak	75	

ANALYTICAL REPORT

Ms. Kristin Kurzka
SIGMA ENVIRONMENTAL SERV.
1300 West Canal Street
Milwaukee, WI 53233

07/28/2004
Job No: 04.07054
Sample No: 579509
Account No: 65300
Page 19 of 21

JOB DESCRIPTION: 8721 CMC
PROJECT DESCRIPTION: Soil Analysis
SAMPLE DESCRIPTION: BA10-1B 4-6'
Milwaukee, WI
Rec'd on ice

Date/Time Taken: 07/15/2004 11:25

Date Received: 07/16/2004

Parameter	Results	Units	Reporting	Method	Date		Prep/Run	
			Limit		Analyzed	Analyst	Batch	
Solids, Total	87.3	%	n/a	SW 5035	07/20/2004	ajs	5676	
Lead, ICP	32	mg/kg	1.2	SW 6010B	07/22/2004	mmm	2773 1474	
TCLP-Lead, AA	<0.10	mg/L	0.10	SW 7420	07/22/2004	gaf	1857 505	
SPLP - Lead, GFAA	<0.0075	mg/L	0.0075	SW 7421	07/27/2004	gaf	76 14	
Prep, TCLP - 1311	E 19-22			SW 1311	07/21/2004	lak	1857	
Prep, SPLP - 1312	E 18-22			SW 1312	07/23/2004	lak	76	

ANALYTICAL REPORT

Ms. Kristin Kurzka
 SIGMA ENVIRONMENTAL SERV.
 1300 West Canal Street
 Milwaukee, WI 53233

07/28/2004
 Job No: 04.07054
 Sample No: 579510
 Account No: 65300
 Page 20 of 21

JOB DESCRIPTION: 8721 CMC
 PROJECT DESCRIPTION: Soil Analysis
 SAMPLE DESCRIPTION: BA4-1C 4-6'
 Milwaukee, WI
 Rec'd on ice

Date/Time Taken: 07/15/2004 12:20

Date Received: 07/16/2004

Parameter	Results	Units	Reporting		Method	Date		Prep/Run	
			Limit			Analyzed	Analyst	Batch	
Solids, Total	81.1	%	n/a		SW 5035	07/20/2004	ajs		5676
Lead, ICP	419	mg/kg	1.2		SW 6010B	07/22/2004	mmm	2773	1474
TCLP-Lead, AA	0.13	mg/L	0.10		SW 7420	07/22/2004	gaf	1857	505
SPLP - Lead, GFAA	<0.0075	mg/L	0.0075		SW 7421	07/27/2004	gaf	76	14
Prep, TCLP - 1311	E 19-22				SW 1311	07/21/2004	lak		1857
Prep, SPLP - 1312	E 18-22				SW 1312	07/23/2004	lak		76

ANALYTICAL REPORT

Ms. Kristin Kurzka
SIGMA ENVIRONMENTAL SERV.
1300 West Canal Street
Milwaukee, WI 53233

07/28/2004
Job No: 04.07054
Sample No: 579511
Account No: 65300
Page 21 of 21

JOB DESCRIPTION: 8721 CMC
PROJECT DESCRIPTION: Soil Analysis
SAMPLE DESCRIPTION: BA4-1C 6-8'
Milwaukee, WI
Rec'd on ice

Date/Time Taken: 07/15/2004 12:20

Date Received: 07/16/2004

Parameter	Results	Units	Reporting Limit	Method	Date		Prep/Run	
					Analyzed	Analyst	Batch	Batch
Solids, Total	82.0	%	n/a	SW 5035	07/20/2004	ajs	5676	
Lead, ICP	10	mg/kg	1.2	SW 6010B	07/22/2004	mmm	2773 1474	
TCLP-Lead, AA	<0.10	mg/L	0.10	SW 7420	07/22/2004	gaf	1857 505	
SPLP - Lead, GFAA	<0.0075	mg/L	0.0075	SW 7421	07/27/2004	gaf	76 14	
Prep, TCLP - 1311	E 19-22			SW 1311	07/21/2004	lak	1857	
Prep, SPLP - 1312	E 18-22			SW 1312	07/23/2004	lak	76	

TestAmerica

ANALYTICAL TESTING CORPORATION

Watertown Division
602 Commerce Drive
Watertown, WI 53094

Phone 920-261-1660 or 800-833-7036
Fax 920-261-8120

Client Name Sigma Client # 8721

Address: 1300 W Central St.

City/State/Zip Code: Milwaukee, WI

Project Manager: Kristin Kurzka

Telephone Number: 414/643-4127 Fax:

Sampler Name: (Print Name) Dave Bane

Sampler Signature: [Signature]

Project Name: CMC

Project #: 8721

Site/Location ID: Milwaukee State: WI

Report To: Kristin Kurzka

Invoice To: Sigma

Quote #: _____ PO#: _____

04 07054 10/2

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes? Compliance Monitoring

TAT Standard (R) Rush (surcharges may apply)	Date Needed:	Fax Results: Y N	SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix Preservation & # of Containers					Analyze For:	QC Deliverables	REMARKS
								SL - Sludge DW - Drinking Water	GW - Groundwater S - Soil/Solid	WW - Wastewater	Specfy Other	HNO ₃			
			BA 4-1B (2-4')	7/15/04	800	G									
			BA 4-1B (4-6')	7/15/04	800	G									
			BA 4-1B (6-8')	7/15/04	800	G									
			BA 17-C (2-4')	7/15/04	830	G									
			BA 17-C (6-8')	7/15/04	830	G									
			B-26A (2-4')	7/15/04	855	G									
			BA 17-A (2-4')	7/15/04	910	G									
			BA 17-A (6-8')	7/15/04	910	G									
			BA 17-D (2-4')	7/15/04	930	G									
			BA 17-D (6-8')	7/15/04	930	G									

Total Lead, TLP, Lead & SPLP Lead (Samples in Marked 1st Bags)

Special Instructions: (*) Touch Base w/ Kristin Kurzka

EPA Method 846-1312 (SPLP)

Relinquished By: [Signature] Date: 7/17/04 Time: 1400

Relinquished By: [Signature] Date: 7/16 Time: 1435

Relinquished By: _____ Date: _____ Time: _____

LABORATORY COMMENTS:
Init Lab Temp: 07°C
Rec Lab Temp: _____
Custody Seals: Y N N/A
Bottles Supplied by Test America: Y N N
Method of Shipment: TA

207/19/04

TestAmerica

ANALYTICAL TESTING CORPORATION

Watertown Division
602 Commerce Drive
Watertown, WI 53094

Phone 920-261-1660 or 800-833-7036
Fax 920-261-8120

Client Name: Signa Client #: 8721

Address: 1300 W. Canal St

City/State/Zip Code: Milwaukee WI

Project Manager: Kristin Kurzke

Telephone Number: 414/643-4127 Fax:

Sampler Name: (Print Name) Dave Bauer

Sampler Signature: [Signature]

Project Name: CMC

Project #: 8721

Site/Location ID: Milwaukee State: WI

Report To: Kristin Kurzke

Invoice To: Signa

Quote #: _____ PO#: _____

04, 07054 2 of 2

To assist us in using the proper analytical methods,
is this work being conducted for regulatory purposes?
Compliance Monitoring

TAT Standard (#) Rush (surcharges may apply)	Date Needed:	Fax Results: Y N	SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix Preservation & # of Containers					Analyze For	QC Deliverables	REMARKS
								SI - Sludge DW - Drinking Water	GW - Groundwater S - Soil/Solid	WW - Wastewater	Specify Other	HNO ₃			
			BA17-B (2-4')	7/15/04 955	G										
			BA17-B (6-8')	7/15/04 955	G										
			SB297B (2-4')	7/15/04 1055	G										
			BA10-1A (2-4')	7/15/04 1105	G										
			BA10-1A (4-6')	7/15/04 1105	G										
			BA10-1B (2-4')	7/15/04 1125	G										
			BA10-1B (4-6')	7/15/04 1125	G										
			BA4-1C (4-6')	7/15/04 1220	G										
			BA4-1C (6-8')	7/15/04 1220	G										

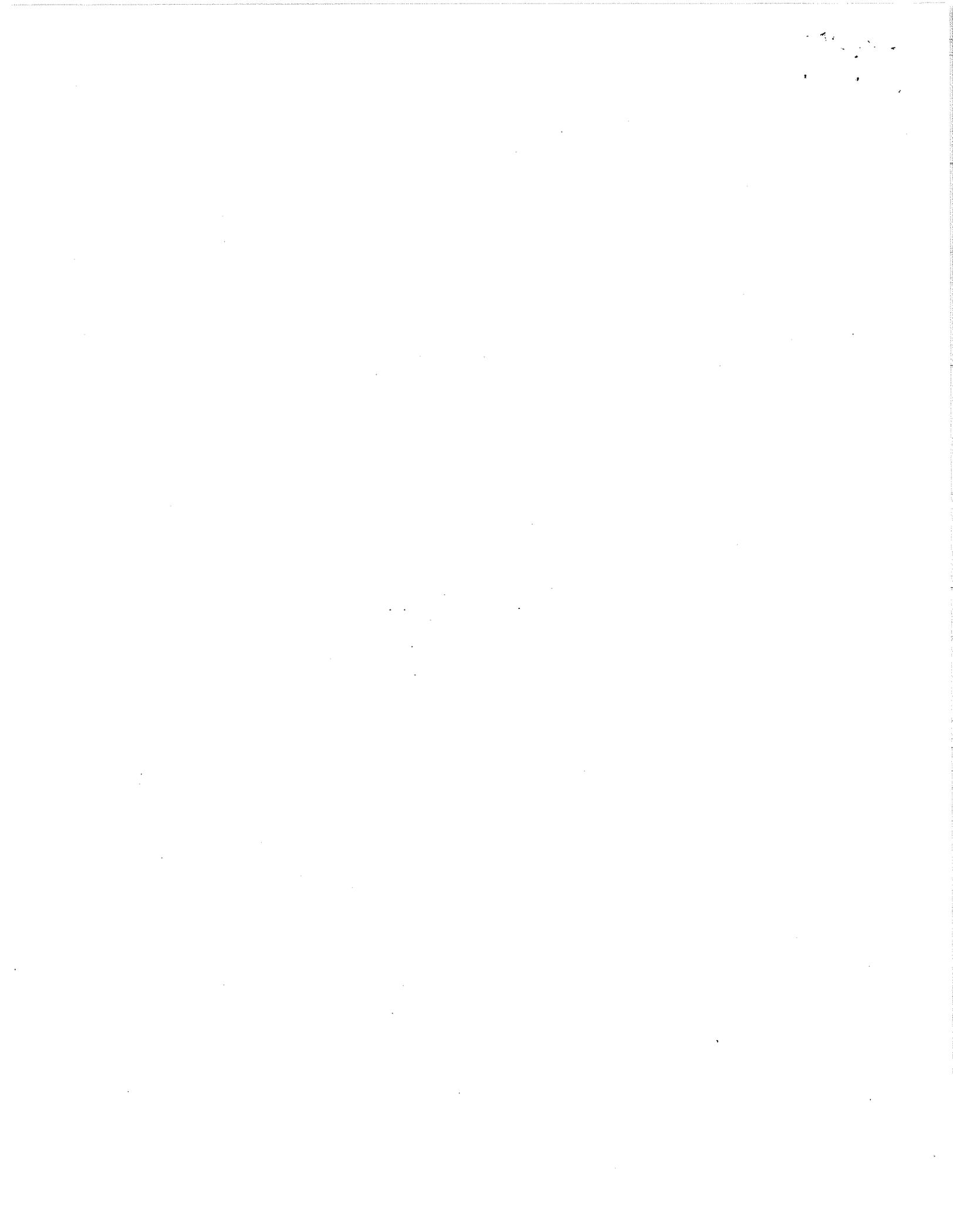
(Samples in Marked 1qt Bcgs)
Total Lead TEL
Lead SPLP Lead

LABORATORY COMMENTS:
Init Lab Temp: 07.1°C
Rec Lab Temp: _____
Custody Seals: Y N N/A
Bottles Supplied by Test America: Y N
Method of Shipment: TA

Special Instructions: (*) Touch base w/ Kristin Kurzke
EPA-846 Method 1312 (SPLP)

Relinquished By: <u>[Signature]</u>	Date: <u>7/15/04</u>	Time: <u>1400</u>	Received By: <u>[Signature]</u>	Date: <u>7/16/04</u>	Time: <u>1700</u>
Relinquished By: <u>[Signature]</u>	Date: <u>7/16</u>	Time: <u>1435</u>	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

127/19/04



APPENDIX C

November 22, 2004 Memorandum

MEMORANDUM

To: Dave Misky, City of Milwaukee

From: Kristin Kurzka

Date: November 22, 2004

RE: Shops Redevelopment – Areas 9 and 10 confirmation sampling

Project Number: 8760

Dear Mr. Misky:

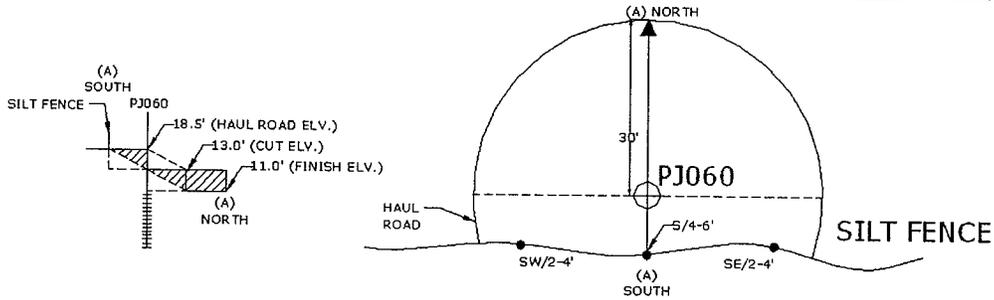
The purpose of this memorandum is to present the results of soil sampling completed at the limits of soil excavations completed within Areas 9 and 10 of the Shops site. The confirmation sampling was conducted to determine the concentration of specific constituents remaining at the limits of the planned cut areas. The data is presented as follows:

Area 9

Area 9 is defined within the Remedial Action Plan Addendum and Site Wide Demolition and Remediation Contract Documents as chlorinated volatile organic compound (CVOC) impacted soil located in the immediate vicinity of groundwater monitoring well PJ060. As specified in the RAP addendum this area was designated for a soil cut; consequently approximately 500 cubic yards of soil from this location was excavated and placed in the site's consolidation area. Upon completion of the soil excavation activities, three soil samples were collected from the south, southeast and southwest extent of the excavation to evaluate the presence of residual impacts in the direction of the Menomonee River and not within the area of site targeted for filling/capping.

Review of the laboratory analytical data indicate that relatively low level petroleum-related impacts are present within each of the soil samples. However, none of the detected constituents are at concentrations greater than ch. NR 720 residual contaminant levels (RCLs), ch. NR 746 Table 1 or Table 2 values or the WDNR Interim Guideline concentrations for polynuclear aromatic hydrocarbons (PAHs). In addition, no CVOC constituents were detected at concentrations greater than the laboratory method detection limit.

The analytical results are summarized in the attached table and the laboratory reports are attached. The relative locations of the soil samples are shown in the following diagram.

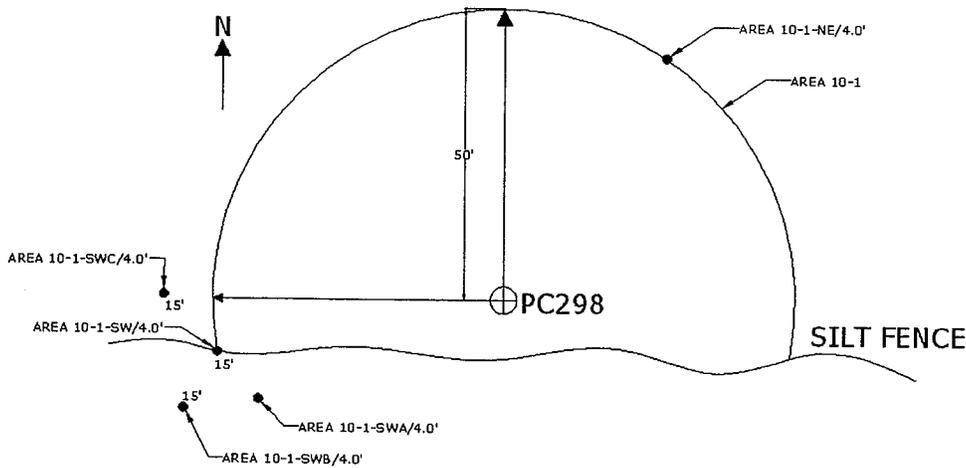


SECTION OF AREA 9

PLAN VIEW OF AREA 9

Area 10

Area 10 is defined within the Remedial Action Plan Addendum and Site Wide Demolition and Remediation Contract Documents as lead impacted soil located in the vicinity of groundwater monitoring well PC298. As specified in the RAP addendum this area was designated for a soil cut; consequently approximately 1,500 cubic yards of soil from this location was excavated and placed in the site's consolidation area. Upon completion of the soil excavation activities, three soil samples were collected to the southwest of the excavation area to evaluate the presence of residual impacts toward the Menomonee River bank.



AREA 10-1

Review of the laboratory analytical data indicate that elevated total lead impacts are present within two of the three soil samples. Total lead concentrations of 2,460 mg/kg and 577 mg/kg were detected within samples designated as SWA and SWB respectively. A 33 mg/kg concentration of lead was present within the soil sample designated as SWC. The relative locations of the soil samples are shown in the following diagram.

The total lead detected within the soil samples collected from SWA and SWB exceed the ch. NR 720 RCL of 500 mg/kg.

The analytical results are summarized in the attached table and the laboratory reports are attached.

TABLE
SOIL ANALYTICAL QUALITY RESULTS
CITY OF MILWAUKEE SHOPS REDEVELOPMENT
AREA 9
Project Reference #8760

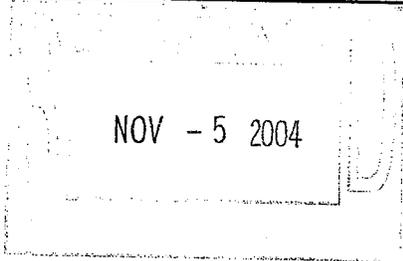
Parameter	Units	Area 9				NR 720 RCL	NR 746 Table 1	NR 746 Table 2	Interim RCL
		SE 2 - 4 10/21/04	S 4 - 6 10/21/04	SW 2 - 4 10/21/04	SW 2 - 4 10/21/04				
Detected VOCs									
Ethylbenzene	µg/kg	<32	36	<28	2,900	4,600	NS	NS	NS
Naphthalene	µg/kg	66	110	170	NS	2,700	NS	400 (gw)	NS
Toluene	µg/kg	43	124	<28	1,500	38,000	NS	NS	NS
1,2,4-Trimethylbenzene	µg/kg	<32	38	<28	NS	83,000	NS	NS	NS
Xylenes (Total)	µg/kg	66	135	<40	4,100	42,000	NS	NS	NS

- Notes:**
- Laboratory analyses performed by Test America.
 - mg/kg = milligrams per kilogram (equivalent to parts per million)
 - µg/kg = micrograms per kilogram (equivalent to parts per billion)
 - NA = not analyzed
 - NR 720 RCL = Wisconsin Administrative Code, Chapter NR 720 generic Residual Contaminant Level (industrial land use RCLs for RCRA metals).
 - NR 746 Table 1 = Wisconsin Administrative Code, Chapter NR 746, Table 1 soil screening level: Indicators of Residual Petroleum Products in Soil Pores.
 - NR 746 Table 2 = Wisconsin Administrative Code, Chapter NR 746, Table 2: Protection of Human Health from Direct Contact with Contaminated Soil.
 - Interim RCL = More stringent generic Residual Contaminant Level for protection of groundwater (gw) or direct contact (dc) pathway for non-industrial land use from WDNR Publication RR-519-97 "Soil Cleanup Levels for Polycyclic Aromatic Hydrocarbons (PAHs) Interim Guidance" (April 1997)
 - NS = no standard
 - Exceedances: **bold** = Concentration exceeds NR 720 RCL (VOCs) or Interim RCL (PAHs)
 box = Concentration exceeds NR 746 Values
 - All methanol blanks exhibited non-detectable concentrations of VOCs.

TABLE
SOIL ANALYTICAL QUALITY RESULTS
CITY OF MILWAUKEE SHOPS REDEVELOPMENT
AREA 9
Project Reference #8760

Sample Identification:	Area 9			NR 720 RCL	NR 746 Table 1	NR 746 Table 2	Interim RCL
	SE 2 - 4 10/21/04	S 4 - 6 10/21/04	SW 2 - 4 10/21/04				
Collection Date:	10/21/04	10/21/04	10/21/04				
Parameter	Units						
Detected VOCs							
Ethylbenzene	<32	36	<28	2,900	4,600	NS	NS
Naphthalene	66	110	170	NS	2,700	NS	400 (gw)
Toluene	43	124	<28	1,500	38,000	NS	NS
1,2,4-Trimethylbenzene	<32	38	<28	NS	83,000	NS	NS
Xylenes (Total)	66	135	<40	4,100	42,000	NS	NS

- Notes:**
- Laboratory analyses performed by Test America.
 - mg/kg = milligrams per kilogram (equivalent to parts per million)
 - µg/kg = micrograms per kilogram (equivalent to parts per billion)
 - NA = not analyzed
 - NR 720 RCL = Wisconsin Administrative Code, Chapter NR 720 generic Residual Contaminant Level (Industrial land use RCLs for RCRA metals).
 - NR 746 Table 1 = Wisconsin Administrative Code, Chapter NR 746, Table 1 soil screening level: Indicators of Residual Petroleum Products in Soil Pores.
 - NR 746 Table 2 = Wisconsin Administrative Code, Chapter NR 746, Table 2: Protection of Human Health from Direct Contact with Contaminated Soil.
 - Interim RCL = More stringent generic Residual Contaminant Level for protection of groundwater (gw) or direct contact (dc) pathway for non-industrial land use from WDNR Publication RR-519-97 "Soil Cleanup Levels for Polycyclic Aromatic Hydrocarbons (PAHs) Interim Guidance" (April 1997)
 - NS = no standard
 - Exceedances: **bold** = Concentration exceeds NR 720 RCL (metals, VOCs) or Interim RCL (PAHs)
 box = Concentration exceeds NR 746 Values
 - All methanol blanks exhibited non-detectable concentrations of VOCs.



ANALYTICAL REPORT

Ms. Kristin Kurzka
SIGMA ENVIRONMENTAL SERV.
1300 West Canal Street
Milwaukee, WI 53233

11/04/2004

Job No: 04.11114

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The following samples were received by TestAmerica for analysis:

8760 CMC

Sample Number	Sample Description	Date Taken	Date Received
593636	Area 9 SE 2-4'	10/21/2004	10/22/2004
593637	Area 9 S 4-6'	10/21/2004	10/22/2004
593638	Area 9 SW 2-4'	10/21/2004	10/22/2004
593639	Area 10-1 SWA-4.0'	10/21/2004	10/22/2004
593640	Area 10-1 SWB-4.0'	10/21/2004	10/22/2004
593641	Area 10-1 SWC-4.0'	10/21/2004	10/22/2004

Soil results reported
on a dry weight basis.

Brian DeJong
Organic Operations Manager

SIGMA ENVIRONMENTAL SERV.
Job No: 04.1111411/04/2004
Page 2 of 11

KEY TO DATA FLAGS

The attached sample(s) may have a result flag shown on the report. The following are the result flag definitions:

A = Analyzed/extracted past hold time	B = Blank is contaminated
C = Standard outside of control limits	D = Diluted for analysis
E = TCLP extraction outside of method required temperature range	G = Received past hold time
F = Sample filtered in lab	I = Improperly handled sample
H = Late eluting hydrocarbons present	L = Common lab solvent
J = Estimated concentration	P = Improperly preserved sample
M = Matrix interference	S = Sediment present
Q = Result confirmed via re-analysis	W = BOD re-set due to missed dilution
T = Does not match typical pattern	Z = Internal standard outside limits
X = Unidentified compound(s) present	
* = See Case Narrative	

KEY TO ANALYST INITIALS

The attached sample(s) may have been analyzed by another certified laboratory. If a number appears in the Analyst Initials field, the following are the appropriate certifications (if the lab code does not appear below, that means that certification is not required for the work performed):

Lab Code	Certification Number
008	WDNR - 999766900
009	WDNR - 241293690
020	WDNR - 999447680
030	ILNELAC - 100230; WDNR - 998294430
060	ILNELAC - 100221; WDNR - 999447130
070	IA - 007; ILNELAC - 000668; MDH - 019-999-319; WDNR - 999917270
090	ILNELAC 200006; WDNR - 399031270
130	WDNR - 632021390
147	WDNR - 721026460
300	FLNELAC - 87358; IA - 131; MDH - 047-999-345; WDNR - 998020430
400	WDNR - 113133790
510	WDNR - 241249360
520	WDNR - 999518190; ILNELAC - 100439
700	WDNR - 113289110

TestAmerica Watertown Certifications: WI DNR - 128053530; IL NELAC - 100453; IA DNR - 294; MN DoH - 055-999-366; ND DoH R-046; AR DEQ - 88-0808

Unless sub-contracted (see above), volatiles analyses (including VOC, PVOC, GRO, BTEX and TPH Gasoline) performed by TestAmerica Watertown at 1101 Industrial Drive, Units 9&10. All other analyses performed at 602 Commerce Drive, Watertown WI 53094.

Results reported between the Method Detection Limit (MDL) and Limit of Quantitation (LOQ) are less certain than results at or above the LOQ.

For questions regarding this report, please contact Dan Milewsky or Warren Topel.

ANALYTICAL REPORT

Ms. Kristin Kurzka
SIGMA ENVIRONMENTAL SERV.
1300 West Canal Street
Milwaukee, WI 53233

11/04/2004
Job No: 04.11114
Sample No: 593636
Account No: 65300
Page 3 of 11

JOB DESCRIPTION: 8760 CMC
PROJECT DESCRIPTION: Soil Analysis
SAMPLE DESCRIPTION: Area 9 SE 2-4'
Milwaukee, WI
Rec'd at 4 degrees C

Date/Time Taken: 10/21/2004 UNKNOWN Date Received: 10/22/2004

Parameter	Results	Units	Reporting		Date		Prep/Run
			Limit	Method	Analyzed	Analyst	
Solids, Total	88.2	%	n/a	SW 5035	10/28/2004	ajs	5840
VOC - METHANOL - 8260B							
Benzene	<32	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Bromobenzene	<32	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Bromochloromethane	<43	ug/kg	35	SW 8260B	10/29/2004	pju	3112
Bromodichloromethane	<32	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Bromoform	<32	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Bromomethane	<125	ug/kg	100	SW 8260B	10/29/2004	pju	3112
n-Butylbenzene	<32	ug/kg	25	SW 8260B	10/29/2004	pju	3112
sec-Butylbenzene	<32	ug/kg	25	SW 8260B	10/29/2004	pju	3112
tert-Butylbenzene	<32	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Carbon Tetrachloride	<32	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Chlorobenzene	<32	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Chlorodibromomethane	<32	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Chloroethane	<62	ug/kg	50	SW 8260B	10/29/2004	pju	3112
Chloroform	<32	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Chloromethane	<62	ug/kg	50	SW 8260B	10/29/2004	pju	3112
2-Chlorotoluene	<62	ug/kg	50	SW 8260B	10/29/2004	pju	3112
4-Chlorotoluene	<32	ug/kg	25	SW 8260B	10/29/2004	pju	3112
1,2-Dibromo-3-Chloropropane	<62	ug/kg	50	SW 8260B	10/29/2004	pju	3112
1,2-Dibromoethane (EDB)	<32	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Dibromomethane	<32	ug/kg	25	SW 8260B	10/29/2004	pju	3112
1,2-Dichlorobenzene	<32	ug/kg	25	SW 8260B	10/29/2004	pju	3112
1,3-Dichlorobenzene	<32	ug/kg	25	SW 8260B	10/29/2004	pju	3112
1,4-Dichlorobenzene	<32	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Dichlorodifluoromethane	<62	ug/kg	50	SW 8260B	10/29/2004	pju	3112
1,1-Dichloroethane	<32	ug/kg	25	SW 8260B	10/29/2004	pju	3112
1,2-Dichloroethane	<32	ug/kg	25	SW 8260B	10/29/2004	pju	3112
1,1-Dichloroethene	<32	ug/kg	25	SW 8260B	10/29/2004	pju	3112
cis-1,2-Dichloroethene	<32	ug/kg	25	SW 8260B	10/29/2004	pju	3112
trans-1,2-Dichloroethene	<32	ug/kg	25	SW 8260B	10/29/2004	pju	3112
1,2-Dichloropropane	<32	ug/kg	25	SW 8260B	10/29/2004	pju	3112
1,3-Dichloropropane	<32	ug/kg	25	SW 8260B	10/29/2004	pju	3112
2,2-Dichloropropane	<32	ug/kg	25	SW 8260B	10/29/2004	pju	3112
1,1-Dichloropropene	<32	ug/kg	25	SW 8260B	10/29/2004	pju	3112
cis-1,3-Dichloropropene	<32	ug/kg	25	SW 8260B	10/29/2004	pju	3112
trans-1,3-Dichloropropene	<32	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Di-isopropyl ether	<32	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Ethylbenzene	<32	ug/kg	25	SW 8260B	10/29/2004	pju	3112

ANALYTICAL REPORT

Ms. Kristin Kurzka
 SIGMA ENVIRONMENTAL SERV.
 1300 West Canal Street
 Milwaukee, WI 53233

11/04/2004
 Job No: 04.11114
 Sample No: 593636
 Account No: 65300
 Page 4 of 11

JOB DESCRIPTION: 8760 CMC
 PROJECT DESCRIPTION: Soil Analysis
 SAMPLE DESCRIPTION: Area 9 SE 2-4'
 Milwaukee, WI
 Rec'd at 4 degrees C

Date/Time Taken: 10/21/2004 UNKNOWN

Date Received: 10/22/2004

Parameter	Results	Units	Reporting		Date Analyzed	Prep/Run	
			Limit	Method		Analyst	Batch
Hexachlorobutadiene	<43	ug/kg	35	SW 8260B	10/29/2004	pju	3112
Isopropylbenzene	<32	ug/kg	25	SW 8260B	10/29/2004	pju	3112
p-Isopropyltoluene	<32	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Methylene Chloride	<62	ug/kg	50	SW 8260B	10/29/2004	pju	3112
Methyl-t-butyl ether	<32	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Naphthalene	66	ug/kg	25	SW 8260B	10/29/2004	pju	3112
n-Propylbenzene	<32	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Styrene	<32	ug/kg	25	SW 8260B	10/29/2004	pju	3112
1,1,1,2-Tetrachloroethane	<32	ug/kg	25	SW 8260B	10/29/2004	pju	3112
1,1,2,2-Tetrachloroethane	<32	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Tetrachloroethene	<32	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Toluene	43	ug/kg	25	SW 8260B	10/29/2004	pju	3112
1,2,3-Trichlorobenzene	<32	ug/kg	25	SW 8260B	10/29/2004	pju	3112
1,2,4-Trichlorobenzene	<32	ug/kg	25	SW 8260B	10/29/2004	pju	3112
1,1,1-Trichloroethane	<32	ug/kg	25	SW 8260B	10/29/2004	pju	3112
1,1,2-Trichloroethane	<43	ug/kg	35	SW 8260B	10/29/2004	pju	3112
Trichloroethene	<32	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Trichlorofluoromethane	<32	ug/kg	25	SW 8260B	10/29/2004	pju	3112
1,2,3-Trichloropropane	<125	ug/kg	100	SW 8260B	10/29/2004	pju	3112
1,2,4-Trimethylbenzene	<32	ug/kg	25	SW 8260B	10/29/2004	pju	3112
1,3,5-Trimethylbenzene	<32	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Vinyl Chloride	<43	ug/kg	35	SW 8260B	10/29/2004	pju	3112
Xylenes, Total	66	ug/kg	35	SW 8260B	10/29/2004	pju	3112
Surr: Dibromofluoromethane	97	%	82-112	SW 8260B	10/29/2004	pju	3112
Surr: Toluene-d8	101	%	91-106	SW 8260B	10/29/2004	pju	3112
Surr: Bromofluorobenzene	98	%	89-110	SW 8260B	10/29/2004	pju	3112

ANALYTICAL REPORT

Ms. Kristin Kurzka
SIGMA ENVIRONMENTAL SERV.
1300 West Canal Street
Milwaukee, WI 53233

11/04/2004
Job No: 04.11114
Sample No: 593637
Account No: 65300
Page 5 of 11

JOB DESCRIPTION: 8760 CMC
PROJECT DESCRIPTION: Soil Analysis
SAMPLE DESCRIPTION: Area 9 S 4-6'
Milwaukee, WI
Rec'd at 4 degrees C

Date/Time Taken: 10/21/2004 UNKNOWN Date Received: 10/22/2004

Parameter	Results	Units	Reporting		Date		Prep/Run
			Limit	Method	Analyzed	Analyst	Batch
Solids, Total	88.8	%	n/a	SW 5035	10/28/2004	ajs	5840
VOC - METHANOL - 8260B							
Benzene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Bromobenzene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Bromochloromethane	<39	ug/kg	35	SW 8260B	10/29/2004	pju	3112
Bromodichloromethane	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Bromoform	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Bromomethane	<113	ug/kg	100	SW 8260B	10/29/2004	pju	3112
n-Butylbenzene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
sec-Butylbenzene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
tert-Butylbenzene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Carbon Tetrachloride	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Chlorobenzene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Chlorodibromomethane	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Chloroethane	<56	ug/kg	50	SW 8260B	10/29/2004	pju	3112
Chloroform	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Chloromethane	<56	ug/kg	50	SW 8260B	10/29/2004	pju	3112
2-Chlorotoluene	<56	ug/kg	50	SW 8260B	10/29/2004	pju	3112
4-Chlorotoluene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
1,2-Dibromo-3-Chloropropane	<56	ug/kg	50	SW 8260B	10/29/2004	pju	3112
1,2-Dibromoethane (EDB)	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Dibromomethane	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
1,2-Dichlorobenzene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
1,3-Dichlorobenzene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
1,4-Dichlorobenzene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Dichlorodifluoromethane	<56	ug/kg	50	SW 8260B	10/29/2004	pju	3112
1,1-Dichloroethane	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
1,2-Dichloroethane	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
1,1-Dichloroethene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
cis-1,2-Dichloroethene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
trans-1,2-Dichloroethene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
1,2-Dichloropropane	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
1,3-Dichloropropane	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
2,2-Dichloropropane	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
1,1-Dichloropropene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
cis-1,3-Dichloropropene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
trans-1,3-Dichloropropene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Di-isopropyl ether	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Ethylbenzene	36	ug/kg	25	SW 8260B	10/29/2004	pju	3112

ANALYTICAL REPORT

Ms. Kristin Kurzka
SIGMA ENVIRONMENTAL SERV.
1300 West Canal Street
Milwaukee, WI 53233

11/04/2004
Job No: 04.11114
Sample No: 593637
Account No: 65300
Page 6 of 11

JOB DESCRIPTION: 8760 CMC
PROJECT DESCRIPTION: Soil Analysis
SAMPLE DESCRIPTION: Area 9 S 4-6'
Milwaukee, WI
Rec'd at 4 degrees C

Date/Time Taken: 10/21/2004 UNKNOWN Date Received: 10/22/2004

Parameter	Results	Units	Reporting		Date		Prep/Run	
			Limit	Method	Analyzed	Analyst	Batch	
Hexachlorobutadiene	<39	ug/kg	35	SW 8260B	10/29/2004	pju	3112	
Isopropylbenzene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112	
p-Isopropyltoluene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112	
Methylene Chloride	<56	ug/kg	50	SW 8260B	10/29/2004	pju	3112	
Methyl-t-butyl ether	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112	
Naphthalene	110	ug/kg	25	SW 8260B	10/29/2004	pju	3112	
n-Propylbenzene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112	
Styrene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112	
1,1,1,2-Tetrachloroethane	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112	
1,1,2,2-Tetrachloroethane	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112	
Tetrachloroethene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112	
Toluene	124	ug/kg	25	SW 8260B	10/29/2004	pju	3112	
1,2,3-Trichlorobenzene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112	
1,2,4-Trichlorobenzene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112	
1,1,1-Trichloroethane	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112	
1,1,2-Trichloroethane	<39	ug/kg	35	SW 8260B	10/29/2004	pju	3112	
Trichloroethene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112	
Trichlorofluoromethane	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112	
1,2,3-Trichloropropane	<113	ug/kg	100	SW 8260B	10/29/2004	pju	3112	
1,2,4-Trimethylbenzene	38	ug/kg	25	SW 8260B	10/29/2004	pju	3112	
1,3,5-Trimethylbenzene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112	
Vinyl Chloride	<39	ug/kg	35	SW 8260B	10/29/2004	pju	3112	
Xylenes, Total	135	ug/kg	35	SW 8260B	10/29/2004	pju	3112	
Surr: Dibromofluoromethane	97	%	82-112	SW 8260B	10/29/2004	pju	3112	
Surr: Toluene-d8	101	%	91-106	SW 8260B	10/29/2004	pju	3112	
Surr: Bromofluorobenzene	98	%	89-110	SW 8260B	10/29/2004	pju	3112	

ANALYTICAL REPORT

Ms. Kristin Kurzka
SIGMA ENVIRONMENTAL SERV.
1300 West Canal Street
Milwaukee, WI 53233

11/04/2004
Job No: 04.11114
Sample No: 593638
Account No: 65300
Page 7 of 11

JOB DESCRIPTION: 8760 CMC
PROJECT DESCRIPTION: Soil Analysis
SAMPLE DESCRIPTION: Area 9 SW 2-4'
Milwaukee, WI
Rec'd at 4 degrees C

Date/Time Taken: 10/21/2004 UNKNOWN Date Received: 10/22/2004

Parameter	Results	Units	Reporting		Date		Prep/Run
			Limit	Method	Analyzed	Analyst	Batch
Solids, Total	88.1	%	n/a	SW 5035	10/28/2004	ajs	5840
VOC - METHANOL - 8260B							
Benzene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Bromobenzene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Bromochloromethane	<40	ug/kg	35	SW 8260B	10/29/2004	pju	3112
Bromodichloromethane	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Bromoform	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Bromomethane	<114	ug/kg	100	SW 8260B	10/29/2004	pju	3112
n-Butylbenzene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
sec-Butylbenzene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
tert-Butylbenzene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Carbon Tetrachloride	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Chlorobenzene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Chlorodibromomethane	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Chloroethane	<57	ug/kg	50	SW 8260B	10/29/2004	pju	3112
Chloroform	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Chloromethane	<57	ug/kg	50	SW 8260B	10/29/2004	pju	3112
2-Chlorotoluene	<57	ug/kg	50	SW 8260B	10/29/2004	pju	3112
4-Chlorotoluene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
1,2-Dibromo-3-Chloropropane	<57	ug/kg	50	SW 8260B	10/29/2004	pju	3112
1,2-Dibromoethane (EDB)	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Dibromomethane	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
1,2-Dichlorobenzene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
1,3-Dichlorobenzene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
1,4-Dichlorobenzene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Dichlorodifluoromethane	<57	ug/kg	50	SW 8260B	10/29/2004	pju	3112
1,1-Dichloroethane	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
1,2-Dichloroethane	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
1,1-Dichloroethene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
cis-1,2-Dichloroethene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
trans-1,2-Dichloroethene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
1,2-Dichloropropane	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
1,3-Dichloropropane	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
2,2-Dichloropropane	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
1,1-Dichloropropene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
cis-1,3-Dichloropropene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
trans-1,3-Dichloropropene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Di-isopropyl ether	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Ethylbenzene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112

ANALYTICAL REPORT

Ms. Kristin Kurzka
SIGMA ENVIRONMENTAL SERV.
1300 West Canal Street
Milwaukee, WI 53233

11/04/2004
Job No: 04.11114
Sample No: 593638
Account No: 65300
Page 8 of 11

JOB DESCRIPTION: 8760 CMC
PROJECT DESCRIPTION: Soil Analysis
SAMPLE DESCRIPTION: Area 9 SW 2-4'
Milwaukee, WI
Rec'd at 4 degrees C

Date/Time Taken: 10/21/2004 UNKNOWN Date Received: 10/22/2004

Parameter	Results	Units	Reporting		Date Analyzed	Prep/Run	
			Limit	Method		Analyst	Batch
Hexachlorobutadiene	<40	ug/kg	35	SW 8260B	10/29/2004	pju	3112
Isopropylbenzene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
p-Isopropyltoluene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Methylene Chloride	<57	ug/kg	50	SW 8260B	10/29/2004	pju	3112
Methyl-t-butyl ether	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Naphthalene	170	ug/kg	25	SW 8260B	10/29/2004	pju	3112
n-Propylbenzene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Styrene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
1,1,1,2-Tetrachloroethane	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
1,1,2,2-Tetrachloroethane	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Tetrachloroethene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Toluene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
1,2,3-Trichlorobenzene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
1,2,4-Trichlorobenzene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
1,1,1-Trichloroethane	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
1,1,2-Trichloroethane	<40	ug/kg	35	SW 8260B	10/29/2004	pju	3112
Trichloroethene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Trichlorofluoromethane	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
1,2,3-Trichloropropane	<114	ug/kg	100	SW 8260B	10/29/2004	pju	3112
1,2,4-Trimethylbenzene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
1,3,5-Trimethylbenzene	<28	ug/kg	25	SW 8260B	10/29/2004	pju	3112
Vinyl Chloride	<40	ug/kg	35	SW 8260B	10/29/2004	pju	3112
Xylenes, Total	<40	ug/kg	35	SW 8260B	10/29/2004	pju	3112
Surr: Dibromofluoromethane	97	%	82-112	SW 8260B	10/29/2004	pju	3112
Surr: Toluene-d8	99	%	91-106	SW 8260B	10/29/2004	pju	3112
Surr: Bromofluorobenzene	100	%	89-110	SW 8260B	10/29/2004	pju	3112

ANALYTICAL REPORT

Ms. Kristin Kurzka
SIGMA ENVIRONMENTAL SERV.
1300 West Canal Street
Milwaukee, WI 53233

11/04/2004
Job No: 04.11114
Sample No: 593639
Account No: 65300
Page 9 of 11

JOB DESCRIPTION: 8760 CMC
PROJECT DESCRIPTION: Soil Analysis
SAMPLE DESCRIPTION: Area 10-1 SWA-4.0'
Milwaukee, WI
Rec'd at 4 degrees C

Date/Time Taken: 10/21/2004 UNKNOWN Date Received: 10/22/2004

Parameter	Results	Units	Reporting		Method	Date		Prep/Run	
			Limit			Analyzed	Analyst	Batch	
Solids, Total	90.6	%	n/a		SW 5035	10/28/2004	ajs		5840
Lead, AA	2,460	mg/kg	4.0		SW 7420	11/03/2004	gaf	2856	1460

ANALYTICAL REPORT

Ms. Kristin Kurzka
SIGMA ENVIRONMENTAL SERV.
1300 West Canal Street
Milwaukee, WI 53233

11/04/2004
Job No: 04.11114
Sample No: 593640
Account No: 65300
Page 10 of 11

JOB DESCRIPTION: 8760 CMC
PROJECT DESCRIPTION: Soil Analysis
SAMPLE DESCRIPTION: Area 10-1 SWB-4.0'
Milwaukee, WI
Rec'd at 4 degrees C

Date/Time Taken: 10/21/2004 UNKNOWN Date Received: 10/22/2004

Parameter	Results	Units	Reporting		Date		Prep/Run	
			Limit	Method	Analyzed	Analyst	Batch	
Solids, Total	91.9	%	n/a	SW 5035	10/28/2004	ajs	5840	
Lead, AA	577	mg/kg	4.0	SW 7420	11/03/2004	gaf	2856 1460	

ANALYTICAL REPORT

Ms. Kristin Kurzka
SIGMA ENVIRONMENTAL SERV.
1300 West Canal Street
Milwaukee, WI 53233

11/04/2004
Job No: 04.11114
Sample No: 593641
Account No: 65300
Page 11 of 11

JOB DESCRIPTION: 8760 CMC
PROJECT DESCRIPTION: Soil Analysis
SAMPLE DESCRIPTION: Area 10-1 SWC-4.0'
Milwaukee, WI
Rec'd at 4 degrees C

Date/Time Taken: 10/21/2004 UNKNOWN Date Received: 10/22/2004

Parameter	Results	Units	Reporting		Method	Date		Prep/Run	
			Limit			Analyzed	Analyst	Batch	
Solids, Total	96.3	%	n/a		SW 5035	10/28/2004	ajs		5840
Lead, AA	33	mg/kg	4.0		SW 7420	11/03/2004	gaf	2856	1460

November 8, 2010

Project Reference #12287

Mr. David Misky
City of Milwaukee
809 North Broadway
Milwaukee, WI 53202

RE.: Pre-Remedial Investigation Results and Wetland Permitting
Area 10-1 Lead Impacted Soil
Menomonee Valley Industrial Center

Dear Dave,

Sigma Environmental Services, Inc. (Sigma) has completed pre-remedial investigation of residual lead impacted soil at Area 10-1 located south of the Palermo property along the northern bank of the Milwaukee River in the Menomonee Valley (Figure 1). The Area 10-1 falls within the proposed route of a trail and riverbank restoration project the City is currently developing. A preliminary plan of the trail and the riverbank restoration project is included as Attachment 1.

The pre-remedial investigation was performed in accordance with the Sigma proposal dated July 7, 2010. The following sections summarize the investigation results and present the future activities to implement the soil remediation plan.

RESIDUAL SOIL IMPACT EVALUATION

In September 2004 a limited amount of Lead impacted soil from the northern portion of Area 10-1 (area within the Palermo property line) was remediated. Review of the post excavation soil sample data indicated the presence of residual lead impacted soil at concentrations greater than the ch NR 720 industrial RCLs and US EPA (Region IX) industrial land-use PRG for lead based on direct contact at the southwestern and southern limits of Area 10-1 excavation. At the request of the City, Sigma developed a soil boring investigation plan to further delineate the vertical and lateral extent of lead impacted soil south of the Palermo property line for purposes of developing and implementing appropriate soil remedial action.

Per the July 2010 proposal seven soil borings (HA-1 through HA-7) were installed using the Geoprobe® drilling method and continuous soil sampling was performed from the ground surface to a depth of six feet. Based on visual observation the top two

feet of material encountered during drilling is predominantly silty-clay soil considered to be the direct contact cap placed during the Valley site development. Black foundry material consisting of black coarse to fine sand occasionally mixed with foundry slag material and construction debris was encountered at depths between two and six feet. A total of 21 soil samples were collected and submitted to the project laboratory for analysis of total lead. Attached Figure 2 depicts the locations of the soil boring installed during the pre-remedial investigation as well as soil borings completed during 2004 soil remedial actions.

Based on the results of the laboratory soil analytical data an additional four soil borings were installed on July 26, 2010 and August 5, 2010 and ten soil samples were collected to further delineate the lead impacted soil. In addition, four soil samples were collected from soil boring locations HA-4 and HA-7 to further evaluate the vertical extent of the impact at these locations. A summary of the laboratory analytical results are included as Table 1. The table also includes the result of TCLP (Toxicity Characteristic Leaching Procedure) lead analysis performed on a composite of several soil samples with relatively high lead concentrations (>500 mg/Kg).

A review of the laboratory analytical data (Table 1) indicates soil lead concentrations range from <0.45 mg/Kg to 5,000 mg/Kg, with relatively high lead soil impact identified at two to eight feet below ground surface. With the exception of two locations (HA-4 and HA-9) soil samples collected from the remaining soil borings contained relatively low total lead concentrations (i.e., lead concentration less than NR 720 RCL for non-industrial level of 50 mg/Kg) near the surface (0-2 ft-bgs) and at depths below 8-ft.

Based on multi-phase soil boring investigations, the vertical and lateral extent of the lead impacted soil appears to have been delineated (Figure 2). Furthermore, as determined by the TCLP Lead analysis result (0.53 mg/L) the identified lead impacted soil can be managed and disposed off-site as solid waste.

REGULATORY APPROVAL

A portion of the identified lead impacted soil designated for remediation falls within a delineated wetland area (Figure 2). It is Sigma's understanding, based on recent discussions with WDNR (see attached e-mail from Ms. Rachel Saber, Water quality Division), that in accordance with Ch. NR 103 approval via permitting would be required by the WDNR and/or the Army Corps of Engineers to work within a delineated wetland. As such, an application for wetland permitting is necessary prior to the initiation of the remedial activities.

WETLAND PERMITTING

Sigma will coordinate preparation of the permit applications, including a pre-application meeting with the agencies, agency and project team coordination, and filing of the application(s). The application(s) would include the following:

- A letter of application that will outline background and purpose of project. The letter will also address the need for excavation/filling the wetland area.
- A description of proposed activities and timing, such as excavation, backfilling, methods and procedures for erosion control and construction sequencing. Sigma will prepare the site plans, grading and drainage plans, and erosion and sedimentation control plans that need to be submitted for the project with the permit application.
- A NR 103 alternatives analysis. This discussion will evaluate the purpose and need for the project, avoidance and minimization considerations, and description of the proposed wetland impacts. It will discuss, as required, alternative site choices, the "no excavation" option and several build out alternatives. City's riverbank restoration plan will serve as the base plan and the site plan alternatives for the NR 103 alternatives analysis will be prepared by Sigma including the narrative associated with discussing the alternatives.
- Preliminary discussion and evaluation of wetland functional values. This discussion will include observations related to the existing habitat and general functional value of the wetland and drainage system.
- Application forms including Form 3500-053, R1-09 and the necessary fee.

Please note that depending upon agency view about project impacts and jurisdiction, additional permitting may be required. Agency specialists have the discretion to request additional information, which could affect the review and approval timeline and costs. If needed, a follow up meeting could be offered with the Agencies to help expedite the permit processing turnaround time after submission is made. The timeframe for obtaining Water Quality Certification could take up to several months if wetland impacts are expected, especially if mitigation planning is required.

ESTIMATED COST AND SCHEDULE

The total estimated cost for the completion of the permitting application is \$8,500 which includes \$500 for the WDNR application fee. The following is a breakdown of the estimated cost:

WDNR Forms and Associated Exhibits	\$1,300
Project Narrative and Description	\$ 900
NR103 Analysis	\$3,000
Functions and Values Assessment	\$1,400
Meetings/ DNR Coordination	\$1,400
WDNR Permit Application Fee	<u>\$ 500</u>

Total Estimated Cost = \$8,500

Upon receipt of City's authorization to proceed Sigma will initiate the wetland permitting process. The scope of work as described above will be completed within a period of 4 weeks. Following receipt of the wetland permit Sigma will coordinate the soil remediation activities.

If you have any questions or need additional assistance, please call us at (414) 643-4200.

Sincerely,

SIGMA ENVIRONMENTAL SERVICES, INC.



Kristin Kurzka, P.E.
Senior Engineer



Mafizul Islam, P.E.
Senior Project Engineer

Enclosure

ATTACHMENTS

<p style="text-align: center;">TABLE 1 SOIL ANALYTICAL QUALITY RESULTS TOTAL LEAD AND TCLP-LEAD ANALYSIS AREA 10-1 MEMOMONEE VALLEY INDUSTRIAL CENTER MILWAUKEE, WI Project Reference #12287</p>											
Soil Boring Identification:	HA-1	HA-2	HA-3	HA-4	HA-5	HA-6	HA-7	HA-8	HA-9	HA-10	HA-11
Date Sampled:	7/9/2010	7/9/2010	7/9/2010	7/9/2010	7/9/2010	7/9/2010	7/9/2010	7/26/2010	7/26/2010	8/5/2010	8/12/2010
Sample Depth (ft)	(mg/Kg)										
0 - 2	16.6	8.7	12.2	305	47.9	11.6	24.7	19	340	-	-
2 - 4	7.81	10.2	10.6	2000	2060	185	246	330	750	880	34
4 - 6	37	50.3	167	3400	39.4	86	1817	5000	410	1300	39
6 - 8	-	-	-	680	-	-	2900	410	440	-	-
8 - 10	-	-	-	41	-	-	34	<0.45	350	-	-

Notes:
mg/kg
BOLD
BOX
NR 720 RCL
TCLP Lead: 0.53 mg/L

= milligrams per kilogram (equivalent to parts per million)
= detected concentration exceeds NR 720 RCL for non-industrial standards
= detected concentration exceeds NR 720 RCL for industrial standards
= Wisconsin Administrative Code, Chapter NR 720 generic Residual Contaminant Level (industrial and non-industrial land use RCLs for RCRA
= Toxicity Characteristic Leaching Procedure analysis was performed on a composite sample of soil samples with total lead concentration greater than 500 mg/Kg and collected from soil borings HA-4, HA-7, HA-8 and HA-9.

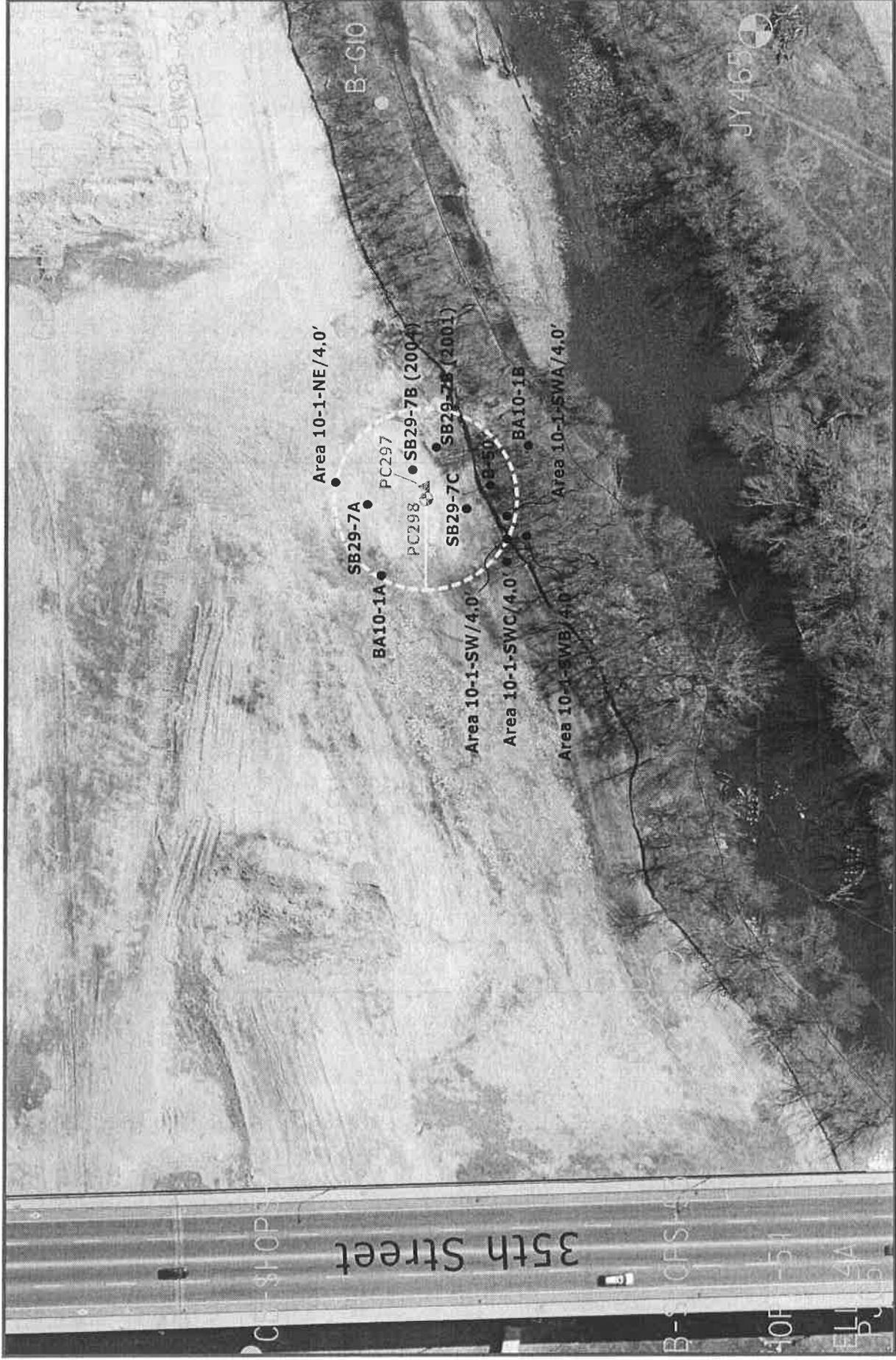


Figure 1

City of Milwaukee - Former CMC Shops
 Milwaukee, Wisconsin
 Project # 8760


THE SIGMA GROUP
 Single Source. Sound Solutions.

www.thesigmagroup.com
 1300 West Canal Street
 Milwaukee, WI 53233
 414-643-4200


 Scale 1" = 75'

**PRELIMINARY
 NOT FOR CONSTRUCTION**

**GRADING & DRAINAGE
 OVERALL PLAN**

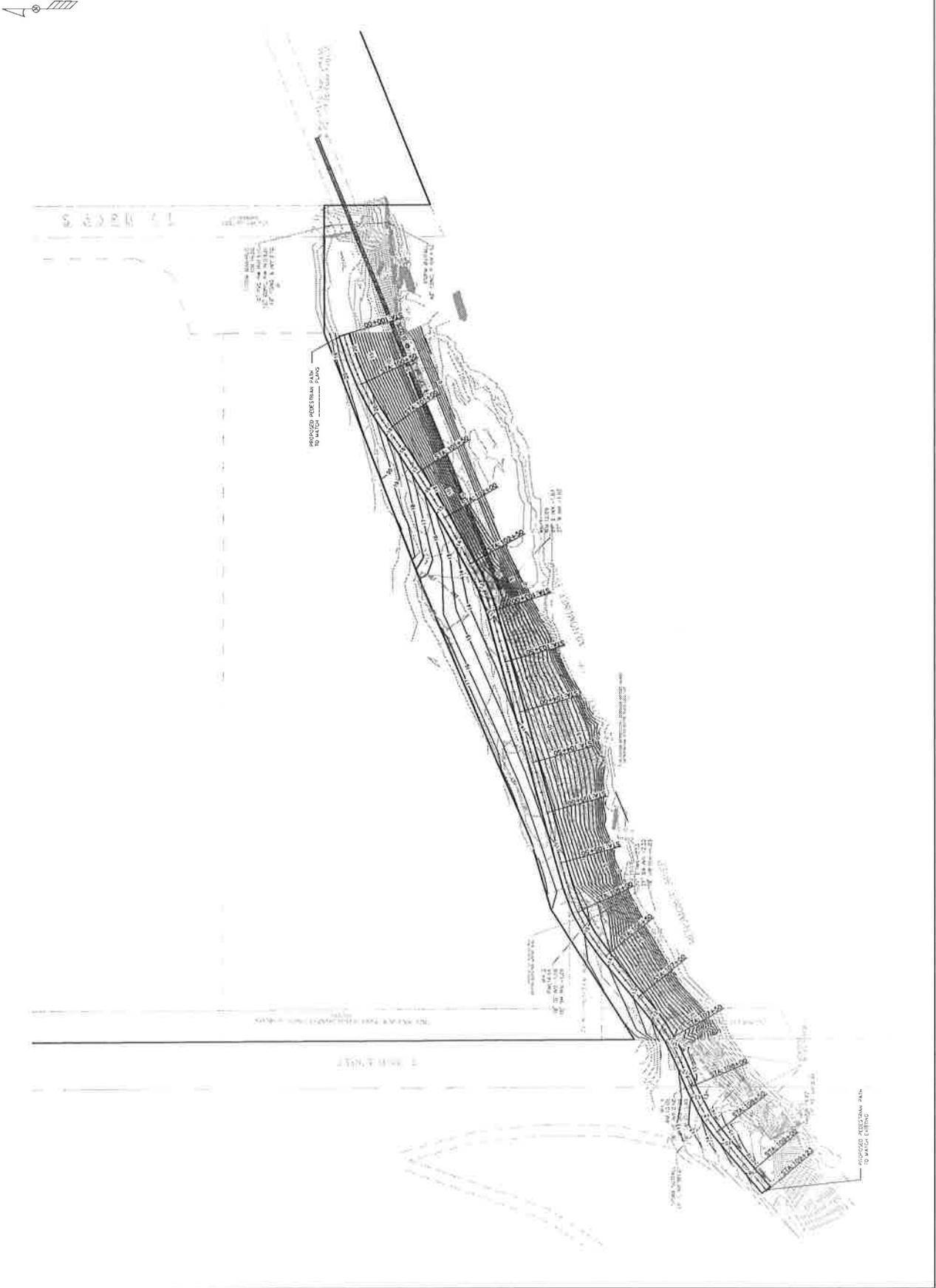
**MENOMONEE RIVER NORTH RIVERBANK RESTORATION PROJECT
 MILWAUKEE, WISCONSIN
 33RD COURT TO 35TH STREET**

NO. REVISION DATE BY



DRAWING NO.	11771-C100-A-02
DRAWN BY	ASH
DATE	9-09-10
PROJECT NO.	11771
CHECKED BY	ASH
APPROVED BY	ASH
SHEET NO.	

C 100



Mafizul Islam

From: Sabre, Rachel A - DNR
Sent: Wednesday, September 08, 2010 8:28 AM
To: Mafizul Islam
Cc: Adam Hammen; Kristin Kurzka
Subject: RE: Lead impacted soil remediation, Menomonee Valley Industrial Center (south of Palermo)
Attachments: Big4-Checklist.doc

Mafizul,

A permit would be required to remediate the soils within the wetland. However, if information is provided showing the proposed future plan an possible exposure risk, it should be able to make it through the process easily. If it is also shown to be completed with proper erosion control, construction sequence, material management and possible dewatering we may be able to issue a confirmation letter and not require a public notice.

I have attached the link to the application for water quality certification application (wetland impacts): http://dnr.wi.gov/waterways/shoreline_habitat/wetlands.html. I am also attaching a copy of the Big 4 checklist that will help answer questions we would have concerning the info I mentioned above that we would need to issue the confirmation letter.

Let me know if you have any more questions.

Rachel



Water Management Specialist
Department of Natural Resources
Milwaukee Service Center
2300 N Dr Martin Luther King Jr. Drive
Milwaukee, WI 53212

☎ Phone (414) 263-8601

☎ Fax (414) 263-8716

✉ email Rachel.Sabre@Wisconsin.gov

**Send applications to: Linda Van Pay, Waterway & Wetland Permit Intake Specialist
Department of Natural Resources 2984 Shawano Avenue Green Bay, WI 54313-6727**

web page: <http://dnr.wi.gov/waterways/>

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From: Mafizul Islam [<mailto:mislam@thesigmagroup.com>]
Sent: Wednesday, August 25, 2010 3:00 PM
To: Sabre, Rachel A - DNR
Cc: Adam Hammen; Kristin Kurzka
Subject: Lead impacted soil remediation, Menomonee Valley Industrial Center (south of Palermo)

Hi Rachel,

Per our discussions earlier this week attached please find a copy of the map depicting the proposed soil remediation area and the two wetland areas identified at the above-referenced location. Both soil borings HA-8 and HA-10 fall within the boundary of one of the wetlands identified. Based on soil sample data from these borings the near surface Lead impacts range from 300 to 600 ppm (2-4 feet) and 1000 to 5000 ppm at depth (6-8 feet). On behalf of the city, Sigma is proposing to remediate the lead impacted soil via excavation and off-site disposal. The excavation work will include removal of a portion of the wetland located on the eastern side of the proposed remediation area.

Could WDNR issue an exemption to remediate the soil contamination within the wetland by removal?
Or a permit is needed to implement the soil remediation work within the wetland?
Please let me know if you need any additional information.

Thank you.

Mafizul Islam, P.E.
Senior Project Engineer
The Sigma Group
1300 West Canal Street
Milwaukee, WI 53233
P: 414-643-4125
C: 414-588-7936
F: 414-643-4210

OFFICIAL NOTICE NO. 84
Questions received at the December 17, 2015 Walkthrough

1. Where are the manhole covers for the MMSD sewer?

ANSWER: The manhole covers are on Plan Sheets 004 Sheet 005. They are EX MH-1, EX MH-2, and EX MH-5.

2. For SPV.0060.09 Televising Sewer Line: How much of the sewer needs to be televised?

ANSWER: The sewer televising limits for both the pre and post construction inspections shall be from STA 12+45 40' RT, to STA. 22+34.69 30'RT.

3. Is there going to be a method for segregating out the concrete from the contaminated soil?

ANSWER: The Owner will not dictate means and methods. In regard to the potential of encountering concrete material during excavation, the Owner does not anticipate the need for any on site segregation of concrete from contaminated soil at this time. Any concrete material encountered during excavation is considered contaminated material per SPV.0195.01 and SPV.0195.02.

4. Compost Blanket vs. Compost Topsoil Amendment, what is the difference?

ANSWER: The Compost Blanket SPV 0180.02.C Construction is different than Compost Topsoil Amendment SPV 0180.04.C Construction.

5. It is understood that the top two feet of existing soil at the site is considered clean material for the purposes of constructing EC Details 2,3,4,5,6,7 shown on Sheets 033 and 034. If at some areas, the clean soil cap material is already in place at the proper depths to construct EC Details 2,3,4,5,6 & 7, will the clean soil that is already at the proper depth need to be excavated and then replaced back to the same depth that it was already at?

ANSWER: No.

6. Is the city sure there is enough top soil on the site? It appears that topsoil import will be necessary.

Topsoil import will be necessary and is covered under bid item 625.01 Topsoil. Under Section 625 of the State of Wisconsin Department of Transportation, Standard Specifications for Highway and Structure Construction, 2015 Edition, 625.5 Payment "Topsoil" includes "...full compensation for providing, excavating, loading, hauling and placing this material.."

7. Does the fence line of the Palermo's fence stay up?

ANSWER: Yes.

8. The bid quantities for the following items have been changed:

SPV.0180.01 Riverbank Stabilization Surface Fabric Treatment

SPV.0180.02 Compost Blanket

SPV.0180.04 Compost Topsoil Amendment

The Project Breakdown has been revised accordingly and is attached to this Addendum.

The Bid Response Form has been revised accordingly and is attached to this Addendum.

9. Can you please make available the following documents?

- Summary of Lead Sampling and Analysis, Area 10-1, former Milwaukee Shops Property, November 12, 2007, by the Sigma Group, Inc.
- Pre-Remedial Investigation Results and Wetland Permitting, Area 10-1 Lead Impacted Soil, Menomonee Valley Industrial Center, November 8, 2010, by The Sigma Group, Inc.

ANSWER: The requested documents are attached to this Addendum.

10. Special Provisions Section 43 – Riverbank Stabilization. Paragraph B.1 – Non-woven (inner) fabric – states that the rolls shall be 8 ft wide for FES Lifts and 12-13 ft wide for surface treatment. Paragraph B.2 – Woven (outer)Fabric - states that the rolls shall be 12-13 ft wide. Why must the outer fabric for the FES Lifts be 12-13ft wide? This seems like there would be a lot of waste of the outer fabric. We can get a product that meets the specifications for both fabrics that are sewn together (on 1.5” centers) and it is only available in 8 ft wide rolls. Using this material would reduce costs – both in labor and material.

ANSWER: See answer # 1 in E-mail Q & A

REVISED

BID RESPONSE FORM

Department of Public Works
Official Notice #84-1-2015

North Bank Trail
WisDOT Construction Proj ID 1693-38-72
Milwaukee, Wisconsin

ALL BIDS MUST BE TYPED OR PRINTED

UNIT PRICES:

201.0115	CLEARING	1.63 ACRES
(Bid in figures)	\$ _____	/ACRE
(Bid in words)	\$ _____	/ACRE
201.0215	GRUBBING	1.63 ACRES
(Bid in figures)	\$ _____	/ACRE
(Bid in words)	\$ _____	/ACRE
206.6000.S	TEMPORARY SHORING	372.00 S.F.
(Bid in figures)	\$ _____	/S.F.
(Bid in words)	\$ _____	/S.F.
213.0100	FINISHING ROADWAY (PROJECT) 01.1693-38-72	1.0 EACH
(Bid in figures)	\$ _____	/EACH
(Bid in words)	\$ _____	/EACH
305.0120	BASE AGGREGATE DENSE 1-1/4 – INCH	700.00 TON
(Bid in figures)	\$ _____	/TON
(Bid in words)	\$ _____	/TON
415.0060	CONCRETE PAVEMENT 6-INCH	334.00 SY
(Bid in figures)	\$ _____	/SY
(Bid in words)	\$ _____	/SY
465.0105	ASPHALTIC SURFACE	160.00 TON
(Bid in figures)	\$ _____	/TON
(Bid in words)	\$ _____	/TON

606.0100	RIPRAP LIGHT	36.75 CY
(Bid in figures)	\$ _____	/CY
(Bid in words)	\$ _____	/CY
612.0106	PIPE UNDERDRAIN 6-INCH	200.00 LF
(Bid in figures)	\$ _____	/LF
(Bid in words)	\$ _____	/LF
612.0206	PIPE UNDERDRAIN UNPERFORATED 6-INCH	73.00 LF
(Bid in figures)	\$ _____	/LF
(Bid in words)	\$ _____	/LF
612.0806	APRON ENDWALLS FOR UNDERDRAIN REINF CONC 6-INCH	2.00 EACH
(Bid in figures)	\$ _____	/EACH
(Bid in words)	\$ _____	/EACH
619.1000	MOBILIZATION	1.00 LS
(Bid in figures)	\$ _____	/LS
(Bid in words)	\$ _____	/LS
625.0100	TOPSOIL	1860.00 SY
(Bid in figures)	\$ _____	/SY
(Bid in words)	\$ _____	/SY
627.0200	MULCHING	676.00 SY
(Bid in figures)	\$ _____	/SY
(Bid in words)	\$ _____	/SY
628.1504	SILT FENCE	888.00 LF
(Bid in figures)	\$ _____	/LF
(Bid in words)	\$ _____	/LF

628.1520	SILT FENCE MAINTENANCE	1776.00 LF
(Bid in figures)	\$ _____	/LF
(Bid in words)	\$ _____	/LF
628.1905	MOBILIZATION EROSION CONTROL	4.00 EACH
(Bid in figures)	\$ _____	/EACH
(Bid in words)	\$ _____	/EACH
628.1910	MOBILIZATION EMERGENCY EROSION CONTROL	4.00 EACH
(Bid in figures)	\$ _____	/EACH
(Bid in words)	\$ _____	/EACH
628.2008	EROSION MAT URBAN CLASS I TYPE B	1185.00 SY
(Bid in figures)	\$ _____	/SY
(Bid in words)	\$ _____	/SY
628.6005	TURBIDITY BARRIERS	436.00 SY
(Bid in figures)	\$ _____	/SY
(Bid in words)	\$ _____	/SY
628.7015	INLET PROTECTION TYPE C	4.00 EACH
(Bid in figures)	\$ _____	/EACH
(Bid in words)	\$ _____	/EACH
628.7560	TRACKING PAD	1.00 EACH
(Bid in figures)	\$ _____	/EACH
(Bid in words)	\$ _____	/EACH
630.0200	SEEDING TEMPORARY	220.00 LB
(Bid in figures)	\$ _____	/LB
(Bid in words)	\$ _____	/LB

**632.0101 TREES (SPECIES, ROOT, SIZE) 01. POPULUS TREMULOIDES, CG, 1 GAL
91.00 EACH**

(Bid in figures) \$ _____ /EACH

(Bid in words) \$ _____ /EACH

**632.0101 TREES (SPECIES, ROOT, SIZE) 02. TILIA AMERICANA, B&B, 1.5 INCH
5.00 EACH**

(Bid in figures) \$ _____ /EACH

(Bid in words) \$ _____ /EACH

**632.0101 TREES (SPECIES, ROOT, SIZE) 03. ULMUS AMERICANA "VALLEY FORGE",
B&B, 1.5-INCH 9.00 EACH**

(Bid in figures) \$ _____ /EACH

(Bid in words) \$ _____ /EACH

**632.0101 TREES (SPECIES, ROOT, SIZE) 04. ULMUS AMERICANA "PRINCETON",
CG, 1.5-INCH 4.00 EACH**

(Bid in figures) \$ _____ /EACH

(Bid in words) \$ _____ /EACH

**632.0101 TREES (SPECIES, ROOT, SIZE) 05. CELTIS OCCIDENTALIS, B&B,
1.5-INCH 2.00 EACH**

(Bid in figures) \$ _____ /EACH

(Bid in words) \$ _____ /EACH

**632.0101 TREES (SPECIES, ROOT, SIZE) 06. CARYA OVATA, B&B, 1.5-INCH
1.00 EACH**

(Bid in figures) \$ _____ /EACH

(Bid in words) \$ _____ /EACH

**632.0101 TREES (SPECIES, ROOT, SIZE) 07. ACER SACCHARINUM, B&B 1.5-INCH
5.00 EACH**

(Bid in figures) \$ _____ /EACH

(Bid in words) \$ _____ /EACH

**632.0101 TREES (SPECIES, ROOT, SIZE) 08. QUERCUS MACROCARPA, B&B
1.5-INCH 3.00 EACH**

(Bid in figures) \$ _____ /EACH

(Bid in words) \$ _____ /EACH

**632.0101 TREES (SPECIES, ROOT, SIZE) 09.SALIX NIGRA, CG, 1.5-INCH
4.00 EACH**

(Bid in figures) \$ _____ /EACH

(Bid in words) \$ _____ /EACH

**632.0101 TREES (SPECIES, ROOT, SIZE) 10. CRATAEGUS CRUS-GALI, B&B, 5'
7.00 EACH**

(Bid in figures) \$ _____ /EACH

(Bid in words) \$ _____ /EACH

**632.0101 TREES (SPECIES, ROOT, SIZE) 11. LARIX LARCINIA, B&B, 20'
5.00 EACH**

(Bid in figures) \$ _____ /EACH

(Bid in words) \$ _____ /EACH

**632.0101 TREES (SPECIES, ROOT, SIZE) 12. LARIX LARCINIA, B&B, 8'
13.00 EACH**

(Bid in figures) \$ _____ /EACH

(Bid in words) \$ _____ /EACH

**632.0201 SHRUBS (SPECIES, ROOT, SIZE) 01. CORNUS STOLONIFERA, CG, 3 GAL.
33.00 EACH**

(Bid in figures) \$ _____ /EACH

(Bid in words) \$ _____ /EACH

**632.0201 SHRUBS (SPECIES, ROOT, SIZE) 02. SAMBUCUS CANADENSIS, CG, 3 GAL
51.00 EACH**

(Bid in figures) \$ _____ /EACH

(Bid in words) \$ _____ /EACH

**632.0201 SHRUBS (SPECIES, ROOT, SIZE) 03. PHYSOCARPUS OPULIFOLIUS, CG
3 GAL 26.00 EACH**

(Bid in figures) \$ _____ /EACH

(Bid in words) \$ _____ /EACH

**632.0201 SHRUBS (SPECIES, ROOT, SIZE) 04. RHUS TYPHINA, CG, 3 GAL.
21.00 EACH**

(Bid in figures) \$ _____ /EACH

(Bid in words) \$ _____ /EACH

632.0201 SHRUBS (SPECIES, ROOT, SIZE) 05. SPIRAEA ALBA, CG, 1 GAL
30.00 EACH
 (Bid in figures) \$ _____ /EACH
 (Bid in words) \$ _____ /EACH

632.0201 SHRUBS (SPECIES, ROOT, SIZE) 06. STAPHYLEA TRIFOLIATA, CG,
1 GAL**15.00 EACH**
 (Bid in figures) \$ _____ /EACH
 (Bid in words) \$ _____ /EACH

632.0201 SHRUBS (SPECIES, ROOT, SIZE) 07. CEPHALANTHUS OCCIDENTALIS, CG.
1 GAL**9.00 EACH**
 (Bid in figures) \$ _____ /EACH
 (Bid in words) \$ _____ /EACH

632.0201 SHRUBS (SPECIES, ROOT, SIZE) 08. PRUNUS VIRGINIANA, CG, 1 GAL.
19.00 EACH
 (Bid in figures) \$ _____ /EACH
 (Bid in words) \$ _____ /EACH

632.0201 SHRUBS (SPECIES, ROOT, SIZE) 09. CORNUS AMOMUM, CG, 1 GAL
30.00 EACH
 (Bid in figures) \$ _____ /EACH
 (Bid in words) \$ _____ /EACH

632.0201 SHRUBS (SPECIES, ROOT, SIZE) 10. CORYLUS AMERICANA, CG, 1 GAL
14.00 EACH
 (Bid in figures) \$ _____ /EACH
 (Bid in words) \$ _____ /EACH

632.0201 SHRUBS (SPECIES, ROOT, SIZE) 11. SAMBUCUS CANADENSIS, CG
1 GAL**25.00 EACH**
 (Bid in figures) \$ _____ /EACH
 (Bid in words) \$ _____ /EACH

632.9101 LANDSCAPE PLANTING SURV & CARE CYCLES**30.00 EACH**
 (Bid in figures) \$ _____ /EACH
 (Bid in words) \$ _____ /EACH

634.0410	POSTS WOOD 4X4 INCH X 10 FT.	6.0 EACH
(Bid in figures)	\$ _____	/EACH
(Bid in words)	\$ _____	/EACH
637.2210	SIGNS TYPE II REFLECTIVE H	19.25 SF
(Bid in figures)	\$ _____	/SF
(Bid in words)	\$ _____	/SF
642.5001	FIELD OFFICE TYPE B	1.00 EACH
(Bid in figures)	\$ _____	/EACH
(Bid in words)	\$ _____	/EACH
643.0100	TRAFFIC CONTROL (PROJECT) 01.1693-38-72	1.00 EACH
(Bid in figures)	\$ _____	/EACH
(Bid in words)	\$ _____	/EACH
643.0300	TRAFFIC CONTROL DRUMS	1500.00 DAY
(Bid in figures)	\$ _____	/DAY
(Bid in words)	\$ _____	/DAY
643.0410	TRAFFIC CONTROL BARRICADES TYPE II	150.00 DAY
(Bid in figures)	\$ _____	/DAY
(Bid in words)	\$ _____	/DAY
643.0420	TRAFFIC CONTROL BARRICADES TYPE III	500.00 DAY
(Bid in figures)	\$ _____	/DAY
(Bid in words)	\$ _____	/DAY
643.0900	TRAFFIC CONTROL SIGNS	800.00 DAY
(Bid in figures)	\$ _____	/DAY
(Bid in words)	\$ _____	/DAY
645.0111	GEOTEXTILE FABRIC TYPE DF SCHEDULE A (OVERLAND FLOW AREA)	188.00 SY
(Bid in figures)	\$ _____	/SY
(Bid in words)	\$ _____	/SY

645.0111	GEOTEXTILE FABRIC TYPE DF SCHEDULE A (UNDERDRAIN PIPING)	112.00 SY
(Bid in figures)	\$ _____	/SY
(Bid in words)	\$ _____	/SY
645.0130	GEOTEXTILE FABRIC TYPE R	425.00 SY
(Bid in figures)	\$ _____	/SY
(Bid in words)	\$ _____	/SY
646.0103	PAVEMENT MARKING EPOXY 4-INCH	375.00 LF
(Bid in figures)	\$ _____	/LF
(Bid in words)	\$ _____	/LF
646.0133	PAVEMENT MARKING EPOXY 12-INCH	15.00 LF
(Bid in figures)	\$ _____	/LF
(Bid in words)	\$ _____	/LF
650.4500	CONSTRUCTION STAKING SUBGRADE (C/L TRAILS)	1120.00 LF
(Bid in figures)	\$ _____	/LF
(Bid in words)	\$ _____	/LF
650.5000	CONSTRUCTION STAKING BASE (C/L TRAILS)	1120.00 LF
(Bid in figures)	\$ _____	/LF
(Bid in words)	\$ _____	/LF
650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT)	
	01. 1693-38-72	1.00 LS
(Bid in figures)	\$ _____	/LS
(Bid in words)	\$ _____	/LS
650.9920	CONSTRUCTION STAKING SLOPE STAKES (C/L TRAILS)	1120.00 LF
(Bid in figures)	\$ _____	/LF
(Bid in words)	\$ _____	/LF

SPV.0005	SPECIAL 01. ISLAND MANAGEMENT AREA	0.13 ACRE
(Bid in figures)	\$ _____	/ACRE
(Bid in words)	\$ _____	/ACRE
SPV.0035	SPECIAL 01. EXISTING ENVIRONMENTAL CAP MATERIAL	3787.00 CY
(Bid in figures)	\$ _____	/CY
(Bid in words)	\$ _____	/CY
SPV.0060	SPECIAL 01. BEEHIVE INLET FRAME AND GRATE 12-INCH	2.00 EACH
(Bid in figures)	\$ _____	/EACH
(Bid in words)	\$ _____	/EACH
SPV.0060	SPECIAL 02. PIPE UNDERDRAIN ACCESS TEE 12-INCH	2.00 EACH
(Bid in figures)	\$ _____	/EACH
(Bid in words)	\$ _____	/EACH
SPV.0060	SPECIAL 03. CLEANOUT 12-INCH	4.00 EACH
(Bid in figures)	\$ _____	/EACH
(Bid in words)	\$ _____	/EACH
SPV.0060	SPECIAL 04. TEMPORARY SEDIMENT BASIN	3.00 EACH
(Bid in figures)	\$ _____	/EACH
(Bid in words)	\$ _____	/EACH
SPV.0060	SPECIAL 05. ENHANCEMENT ZONE PLUGS FES LIFTS	1408.00 EACH
(Bid in figures)	\$ _____	/EACH
(Bid in words)	\$ _____	/EACH

SPV.0060 SPECIAL 06. ENHANCEMENT ZONE PLUGS TAMARACK WETLAND
700.00 EACH

(Bid in figures) \$ _____ /EACH

(Bid in words) \$ _____ /EACH

SPV.0060 SPECIAL 07. ENHANCEMENT ZONE PLUGS EMERGENT ZONES
2002.00 EACH

(Bid in figures) \$ _____ /EACH

(Bid in words) \$ _____ /EACH

SPV.0060 SPECIAL 08. TELEVISIONING SEWER LINE **2.00 EACH**

(Bid in figures) \$ _____ /EACH

(Bid in words) \$ _____ /EACH

SPV.0060 SPECIAL 09. SEEDING CARE CYCLES **30.00 EACH**

(Bid in figures) \$ _____ /EACH

(Bid in words) \$ _____ /EACH

SPV.0060 SPECIAL 10. ENHANCEMENT ZONE PLUGS CARE CYCLES
30.00 EACH

(Bid in figures) \$ _____ /EACH

(Bid in words) \$ _____ /EACH

SPV.0075 SPECIAL 01. PAVEMENT CLEANUP **20.00 HOURS**

(Bid in figures) \$ _____ /HOUR

(Bid in words) \$ _____ /HOUR

SPV.0085 SPECIAL 01. IMPROVED TURF TYPE TALL FESCUE SEED MIX
18.00 LB

(Bid in figures) \$ _____ /LB

(Bid in words) \$ _____ /LB

SPV.0085 SPECIAL 02. NURSE CROP SEED MIX **50.00 LB**

(Bid in figures) \$ _____ /LB

(Bid in words) \$ _____ /LB

SPV.0085	SPECIAL 03. PIONEER NATIVE SEED MIX	34.00 LB
(Bid in figures)	\$ _____	/LB
(Bid in words)	\$ _____	/LB
SPV.0085	SPECIAL 04. WET PRAIRIE NATIVE SEED MIX	6.00 LB
(Bid in figures)	\$ _____	/LB
(Bid in words)	\$ _____	/LB
SPV.0090	SPECIAL 01. SLOPE INTERRUPTION DEVICE 12-INCH	1000 LF
(Bid in figures)	\$ _____	/LF
(Bid in words)	\$ _____	/LF
SPV.0090	SPECIAL 02. RIVERBANK STABILIZATION FES LIFTS	5320.00 LF
(Bid in figures)	\$ _____	/LF
(Bid in words)	\$ _____	/LF
SPV.0165	SPECIAL 01. CONCRETE SHOULDER 6-INCH	750.00 SF
(Bid in figures)	\$ _____	/SF
(Bid in words)	\$ _____	/SF
SPV.0180	SPECIAL 01. RIVERBANK STABILIZATION SURFACE FABRIC TREATMENT	1490.00 SY
(Bid in figures)	\$ _____	/SY
(Bid in words)	\$ _____	/SY
SPV.0180	SPECIAL 02. COMPOST BLANKET	1860.00 SY
(Bid in figures)	\$ _____	/SY
(Bid in words)	\$ _____	/SY
SPV.0180	SPECIAL 03. TEMPORARY SLOPE STABILIZATION – PLASTIC SHEETING	2225.00 SY
(Bid in figures)	\$ _____	/SY
(Bid in words)	\$ _____	/SY

SPV.0180	SPECIAL 04. COMPOST TOPSOIL AMENDMENT	1860.00 SY
(Bid in figures)	\$ _____	/SY
(Bid in words)	\$ _____	/SY
SPV.0195	SPECIAL 01. CONTAMINATED MATERIAL	9529.00 TON
(Bid in figures)	\$ _____	/TON
(Bid in words)	\$ _____	/TON
SPV.0195	SPECIAL 02. LEAD CONTAMINATED MATERIAL	1800.00 TON
(Bid in figures)	\$ _____	/TON
(Bid in words)	\$ _____	/TON
SPV.0195	SPECIAL 03. CRUSHED AGGREGATE 3/8-INCH	80.00 TON
(Bid in figures)	\$ _____	/TON
(Bid in words)	\$ _____	/TON
SPV.0195	SPECIAL 04. LIMESTONE BLOCK OUTCROPPINGS	7.50 TON
(Bid in figures)	\$ _____	/TON
(Bid in words)	\$ _____	/TON
SPV.0195	SPECIAL 05. LIMESTONE SLAB OUTCROPPINGS	34.84 TON
(Bid in figures)	\$ _____	/TON
(Bid in words)	\$ _____	/TON
SPV.0195	SPECIAL 06. STONE – TYPE I	960.00 TON
(Bid in figures)	\$ _____	/TON
(Bid in words)	\$ _____	/TON
SPV.0195	SPECIAL 07. STONE – TYPE II	120.00 TON
(Bid in figures)	\$ _____	/TON
(Bid in words)	\$ _____	/TON
SPV.0195	SPECIAL 08. BASE AGGREGATE SIZE NO. 1	27.00 TON
(Bid in figures)	\$ _____	/TON
(Bid in words)	\$ _____	/TON

SPV.0195 SPECIAL 09. BASE AGGREGATE SIZE NO. 2 19.00 TON

(Bid in figures) \$ _____ /TON

(Bid in words) \$ _____ /TON

TOTAL ESTIMATE:

(Bid in figures) \$ _____

(Bid in words) \$ _____

REVISED

Project Breakdown Official Notice: 84-1-2015

Project **North Bank Trail**
Project I.D. **1693-30-72**

Item No.	Description	Quantity	Unit
<i>Base Bid – Quantities</i>			
201.0115	Clearing	1.63	Acres
201.0215	Grubbing	1.63	Acres
206.6000.S	Temporary Shoring	372.00	s.f.
213.0100	Finishing Roadway (Project) 01.1693-38-72	1.0	Each
305.0120	Base Aggregate Dense 1-1/4 – Inch	700.00	Ton
415.0060	Concrete Pavement 6-inch	334.00	SY
465.0105	Asphaltic Surface	160.00	Ton
606.0100	Riprap Light	36.75	CY
612.0106	Pipe Underdrain 6-inch	200.00	LF
612.0206	Pipe Underdrain Unperforated 6-inch	73.00	LF
612.0806	Apron Endwalls for Underdrain Reinforced Concrete (6-inch)	2.00	Each
619.1000	Mobilization	1.00	LS
625.0100	Topsoil	1860.00	SY
627.0200	Mulching	676.00	SY
628.1504	Silt Fence	888.00	LF
628.1520	Silt Fence Maintenance	1776.00	LF
628.1905	Mobilization Erosion Control	4.00	Each
628.1910	Mobilization Emergency Erosion Control	4.00	Each
628.2008	Erosion Mat Urban Class I Type B	1185.00	SY
628.6005	Turbidity Barriers	436.00	SY
628.7015	Inlet Protection Type C	4.00	Each
628.7560	Tracking Pad	1.00	Each
630.0200	Seeding Temporary	220.00	LB
632.0101	Trees (Species, Root, Size) 01. Populus Tremuloides, CG 1 Gal	91.00	Each
632.0101	Trees (Species, Root, Size) 02. Tilia Americana, B&B 1.5 Inch	5.00	Each
632.0101	Trees (Species, Root, Size) 03. Ulmus Americana "Valley Forge, B&B 1.5-Inch	9.00	Each
632.0101	Trees (Species, Root, Size) 04. Ulmus Americana "Princeton", CG, 1.5 Inch	4.00	Each
632.0101	Trees (Species, Root, Size) 05. Celtis Occidentalis, B&B, 1.5-Inch	2.00	Each
632.0101	Trees (Species, Root, Size) 06. Carya Ovata, B&B 1.5-Inch	1.0	Each
632.0101	Trees (Species, Root, Size) 07. Acer Saccharinum, B&B 1.5-Inch	5.0	Dach
632.0101	Trees (Species, Root, Size) 08. Quercus Macrocarpa, B&B 1.5-Inch	3.00	Each
632.0101	Trees (Species, Root, Size) 09. Salix Nigra, CG, 1.5-Inch	4.00	Each
632.0101	Trees (Species, Root, Size) 10. Crataegus Crus-Gali, B&B, 5'	7.00	Each

632.0101	Trees (Species, Root, Size) 11. Larix Laricina, B&B, 20'	5.00	Each
632.0101	Trees (Species, Root, Size) 12. Larix Laricina, B&B, 8'	13.00	Each
632.0201	Shrubs (Species, Root, Size) 01. Cornus Stolonifera, CG, 3 GAL	33.00	Each
632.0201	Shrubs (Species, Root, Size) 02. Sambucus Canadensis, CG, 3 GAL	51.00	Each
632.0201	Shrubs (Species, Root, Size) 03. Physocarpus Opulifolius, CG 3 GAL	26.00	Each
632.0201	Shrubs (Species, Root, Size) 04. Rhus Typhina, CG, 3 GAL	21.00	Each
632.0201	Shrubs (Species, Root, Size) 05. Spiraea Alba, CG, 1 GAL	30.00	Each
632.0201	Shrubs (Species, Root, Size) 06. Staphylea Trifoliata, CG, 1 GAL	15.00	Each
632.0201	Shrubs (Species, Root, Size) 07. Cephalanthus Occidentalis, CG, 1 GAL	9.00	Each
632.0201	Shrubs (Species, Root, Size) 08. Prunus Virginiana, CG, 1 GAL	19.00	Each
632.0201	Shrubs (Species, Root, Size) 09. Cornus Amomum, CG, 1 GAL	30.00	Each
632.0201	Shrubs (Species, Root, Size) 10. Corylus Americana, CG, 1 GAL	14.00	Each
632.0201	Shrubs (Species, Root, Size) 11. Sambucus Canadensis, CG, 1 GAL	25.00	Each
632.9101	Landscape Planting Surv & Care Cycles	30.00	Each
634.0410	Posts Wood 4x4 Inch x 10 Ft.	6.0	Each
637.2210	Signs Type II Reflective H	19.25	SF
642.5001	Field Office Type B	1.00	Each
643.0100	Traffic Control (Project) 01.1693-38-72	1.00	Each
643.0300	Traffic Control Drums	1500.00	Day
643.0410	Traffic Control Barricades Type II	150.00	Day
643.0420	Traffic Control Barricades Type III	500.00	Day
643.0900	Traffic Control Signs	800.00	Day
645.0111	Geotextile Fabric Type DF Schedule A (Overland Flow Area)	188.00	SY
645.0111	Geotextile Fabric Type DF Schedule A (Underdrain Piping)	112.00	SY
645.0130	Geotextile Fabric Type R	425.00	SY
646.0103	Pavement Marking Epoxy 4-Inch	375.00	LF
646.0133	Pavement Marking Epoxy 12-Inch	15.00	LF
650.4500	Construction Staking Subgrade (C/L Trails)	1120.00	LF
650.5000	Construction Staking Base (C/L Trails)	1120.00	LF
650.9910	Construction Staking Supplemental Control (Project) 01. 1693-38-72	1.00	LS
650.9920	Construction Staking Slope Stakes (C/L Trails)	1120.00	LF
SPV.0005	Special 01. Island Management Area	0.13	Acre
SPV.0035	Special 01. Existing Environmental Cap Material	3787.00	CY
SPV.0060	Special 01. Beehive Inlet Frame and Grate 12-Inch	2.00	Each
SPV.0060	Special 02. Pipe Underdrain Access Tee 12-Inch	2.00	Each
SPV.0060	Special 03. Cleanout 12-Inch	4.00	Each
SPV.0060	Special 04. Temporary Sediment Basin	3.00	Each
SPV.0060	Special 05. Enhancement Zone Plugs Fes Lifts	1408.00	Each
SPV.0060	Special 06. Enhancement Zone Plugs Tamarack Wetland	700.00	Each
SPV.0060	Special 07. Enhancement Zone Plugs Emergent Zones	2002.00	Each
SPV.0060	Special 08. Televising Sewer Line	2.00	Each
SPV.0060	Special 09. Seeding Care Cycles	30.00	Each

SPV.0060	Special 10. Enhancement Zone Plugs Care Cycles	30.00	Each
SPV.0075	Special 01. Pavement Cleanup	20.00	Hours
SPV.0085	Special 01. Improved Turf Type Tall Fescue Seed Mix	18.00	LB
SPV.0085	Special 02. Nurse Crop Seed Mix	50.00	LB
SPV.0085	Special 03. Pioneer Native Seed Mix	34.00	LB
SPV.0085	Special 04. Wet Prairie Native Seed Mix	6.00	LB
SPV.0090	Special 01. Slope Interruption Device 12-inch	1000	LF
SPV.0090	Special 02. Riverbank Stabilization Fes Lifts	5320.00	LF
SPV.0165	Special 01. Concrete Shoulder 6-Inch	750.00	SF
SPV.0180	Special 01. Riverbank Stabilization Surface Fabric Treatment	1490.00	SY
SPV.0180	Special 02. Compost Blanket	1860.00	SY
SPV.0180	Special 03. Temporary Slope Stabilization – Plastic Sheeting	2225.00	SY
SPV.0180	Special 04. Compost Topsoil Amendment	1860.00	SY
SPV.0195	Special 01. Contaminated Material	9529.00	Ton
SPV.0195	Special 02. Lead Contaminated Material	1800.00	Ton
SPV.0195	Special 03. Crushed Aggregate 3/8-Inch	80.00	Ton
SPV.0195	Special 04. Limestone Block Outcroppings	7.50	Ton
SPV.0195	Special 05. Limestone Slab Outcroppings	34.84	Ton
SPV.0195	Special 06. Stone – Type I	960.00	Ton
SPV.0195	Special 07. Stone – Type II	120.00	Ton
SPV.0195	Special 08. Base Aggregate Size No. 1	27.00	Ton
SPV.0195	Special 09 Base Aggregate Size No. 2	19.00	Ton