

DEC 6 2010



Final  


## Supplemental Remedial Action Plan

**Bishop's Creek Community Development Corporation  
4759 North 32<sup>nd</sup> Street  
Milwaukee, Wisconsin**

FID No. 3410055770  
BRRTS No. 02-41-306192  
BRRTS No. 02-41-553373

**Prepared for:**

**Bishop's Creek Community Development Corporation  
Milwaukee, Wisconsin**

**October 29, 2010  
(Revised November 30, 2010)  
Project No. 1E-0912014**



**GILES**  
ENGINEERING ASSOCIATES, INC.



# GILES

ENGINEERING ASSOCIATES, INC.

GEOTECHNICAL, ENVIRONMENTAL & CONSTRUCTION MATERIALS CONSULTANTS

- Atlanta, GA
- Baltimore/Wash. DC
- Dallas, TX
- Los Angeles, CA
- Milwaukee, WI
- Orlando, FL

October 29, 2010  
(Revised: November 30, 2010)

Bishop's Creek Community Development Corporation  
3500 West Mother Daniels Way  
Milwaukee, Wisconsin

Attention: Mr. Daren Daniels

Subject: Supplemental Remedial Action Plan  
4759 North 32<sup>nd</sup> Street  
Milwaukee, Wisconsin  
FID No. 341055770  
BRRTS No. 02-41-306192  
BRRTS No. 02-41-553373  
Giles Project No. 1E-0912014


Dear Mr. Daniels:

In accordance with the Wisconsin Department of Natural Resources (WDNRs) request, we have prepared the following Remedial Action Plan and associated American Recovery and Reinvestment Act (ARRA) Grant Allocation for the above referenced property ("Site"). We appreciate the opportunity to be of service on this project. If there are additional questions regarding the information contained herein, or if we can be of any additional service, please contact the undersigned at your convenience.

Very truly yours,

GILES ENGINEERING ASSOCIATES, INC.

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

  
Thomas J. Bauman, P.G.  
Project Hydrogeologist

Distribution: Bishop's Creek Community Development Corporation  
Attn: Mr. Daren Daniels (3 bound copies; 1 PDF copy)  
Wisconsin Department of Natural Resources  
Attn: Mr. John Hnat (1 bound copy; 1 PDF copy)  
Ms. Melissa Enoch (1 bound copy; 1 PDF copy)  
Quarles & Brady, sc  
Attn: Mr. George J. Marek (1 bound copy; 1 PDF copy)



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4759 NORTH 32<sup>ND</sup> STREET  
MILWAUKEE, WISCONSIN  
PROJECT NO. 1E-0912014

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## SUPPLEMENTAL REMEDIAL ACTION PLAN

BISHOP'S CREEK COMMUNITY DEVELOPMENT CORPORATION  
4759 NORTH 32<sup>ND</sup> STREET  
MILWAUKEE, WISCONSIN  
PROJECT NO. 1E-0912014

### 1. INTRODUCTION

Giles Engineering Associates, Inc. (Giles) has prepared this *Supplemental Remedial Action Plan (Supplemental RAP)* on behalf of the Bishop's Creek Community Development Corporation (BC CDC), for the proposed remediation activities associated with rubble, debris, and sediment removal from Lincoln Creek, and the repair of the of the Lincoln Creek by-pass bank; the bank area was severely damaged during a storm event on July 22, 2010. The bank area is located at the BC CDC Brownfield property ("Site") located at 4759 North 32<sup>nd</sup> Street, in the City of Milwaukee, Milwaukee County, Wisconsin (Figure 1). It is Giles' understanding that the project activities are considered eligible for American Recovery and Reinvestment Act (ARRA) grant funding and we have provided a detail of anticipated costs in the subsequent sections of this RAP. The Grant funds will be administered through the Wisconsin Department of Natural Resources (WDNR) Brownfield Redevelopment Section.

This Supplemental RAP has been prepared in general accordance of Wisconsin Administrative Code (WAC), Ch. NR 724, and in partial fulfillment of the ARRA Grant requirements. The purpose of this RAP is to specify the manner in which the Lincoln Creek and the by-pass will be remediated/restored with the removal of debris resulting from the flooding, the beneficial recovery and reuse of undamaged keystone block debris (where applicable), the repair of the by-pass soil bank that is impacted with hazardous substances including documentation of the planned placement of pavements as caps and/or engineered barriers, and to demonstrate how the ARRA Grant funds for the Site will be allocated. In addition, this Supplemental RAP was prepared to address the concerns expressed by the WDNR in their letter Dated September 13, 2010. Important information regarding this document is included in Appendix A.

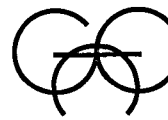
### 2. PREVIOUS STUDIES

Several environmental studies have been performed at the Site since 1998 to identify environmental concerns associated with the Site's former use. This Supplemental RAP has been prepared based on Giles review of the data, results, and findings of several studies performed at the Site including:

- Remedial Investigation Report (excerpts); Jay Jatkar, Inc. September 1998.
- Initial Phase I ESA Report; Kaiser Property (excerpts); HNTB Corporation; March 2000.







- Initial Phase II ESA Report; Kaiser Property; HNTB Corporation; April 2000.
- Summary of Preliminary Phase II Site Investigation Report (excerpts); Giles Engineering Associates, Inc.; June 2002.
- Work Plan for Exploratory Trenching (excerpts); Giles Engineering Associates, Inc.; October 2006.
- Emergency Response for Kaiser Property Oil Spill; Weston Solutions, Inc.; September 2002.
- NR 716 Work Plan (excerpts); Sigma Environmental Services; September 2002.
- Phase I Environmental Site Assessment Report; Former Greenebaum Tannery; Drake Environmental, Inc.; May 2004.
- Phase II Environmental Site Assessment Report Former Greenebaum Tannery; Drake Environmental, Inc.; June 2004.
- Initial Master Site Work Plan (excerpts); Former Greenebaum Tannery; Drake Environmental, Inc.; April 2005.
- LUST Site Investigation Work Plans for Buildings 16 & 17; Former Greenebaum Tannery; Drake Environmental, Inc.; March 2006.
- Building 10 Vat Site Investigation Report; Bishop's Creek Community Development Corporation; Giles Engineering Associates, Inc.; October 2006.
- Master Site Investigation Report Southern Area; Bishop's Creek Community Development Corporation; Drake Environmental, Inc.; March 2007.
- Tank Closure Assessment Documentation (excerpts); 550-gallon leaded gasoline and 1,000-gallon diesel USTs, Buildings 16 & 17; Former Greenebaum Tannery; Drake Environmental, Inc.; March 2009.
- Tank Closure Assessment Documentation (excerpts); 550-gallon leaded gasoline UST, Building 16; Former Greenebaum Tannery; Drake Environmental, Inc.; April 2009.
- Remedial Action Plan & ARRA Grant Cost Allocation; Bishop's Creek Community Development Corporation; Giles Engineering Associates, Inc; February 25, 2010.

Based on the documentation provided, the contaminants of concern identified at the Site property included diesel range organics (DRO), gasoline range organics (GRO), volatile organic compounds (VOCs), polynuclear aromatic hydrocarbons (PAHs), and Resource Recovery and Conservation Act (RCRA) metals (primarily lead, chromium, and arsenic). Several potential source areas were also identified at the Site including petroleum aboveground storage tanks and below ground storage tanks (ASTs and USTs), unlabeled barrels of chemicals, large vats associated with the former Site use as a tannery, and a railroad spur track. Additional details



associated with the Site history and usage are presented in document titled Remedial Action Plan & ARRA Grant Cost Allocation; Bishop's Creek Community Development Corporation (Giles, February 2010).

A storm event occurred on July 22 through 23, 2010, where 5 to 9 inches of rain fell on the greater Milwaukee Area; a reported 6 to 7 inches fell in the first two hours of the storm. The inundation of rain into the Lincoln Creek watershed caused the creek to rise 8 to 10 feet and divert through the overflow by-pass. The flowing water stripped the bank area of #6 stone and the geotextile indicator barrier for direct contact. Photographs of the gabion wall area before the storm and the damaged Lincoln Creek bank area after the storm are included in Appendix B.

A meeting was held on August 31, 2010 at the BC CDC with representatives of the WDNR, BC CDC, and Giles to review the storm damage to the Lincoln Creek bank area, to discuss interim compliance options, and long term repairs to the damaged bank area. Subsequent to the August 31, 2010 meeting, the WDNR Remediation and Redevelopment Section issued a letter dated September 13, 2010, requesting that the damaged cap/barrier be addressed to prevent direct contact and leaching/impact by storm water runoff. The WDNR requested that a plan be developed and submitted within 30 days to address the Departments concerns.

### **3. PROPERTY DESCRIPTION**

#### **Setting and Location**

The Site is located in a metropolitan setting within the City of Milwaukee's 30<sup>th</sup> Street Industrial Corridor Revitalization project and includes a mixture of residential, commercial, and industrial land use. The focus on the 30<sup>th</sup> Street Industrial Corridor Revitalization has been to address several vacant, underutilized, blighted Brownfield industrial sites within the corridor in an effort to attract growing companies requiring room to expand. The corridor also includes a rail line abutting the Site to the west, which traditionally provided industries with the ability to move raw materials and finished goods in and out of Milwaukee beginning in the late 19th century. West Hampton Avenue right of way abuts the Site to the North with a vacant parcel of land beyond the right of way, North 32<sup>nd</sup> street abuts the Site to the east, and Lincoln Creek and a mixture of manufacturing and residential properties abut the Site to the south.

The Site is comprised of approximately 5.17 acres of land and is located on the southwest corner of the intersection of West Hampton Avenue and North 32<sup>nd</sup> Street, in Milwaukee Wisconsin. A Site Location Map is included as Figure 1.

#### **Current Property Use**

"Lot 1" and "Lot 2" are located near the southeast region of the Site and are leased (Lot 1) and owned (Lot 2) by Bishop's Creek Family Housing, LLC (BCFH). Lot 2 was sold to BCFH for an affordable housing development. Construction activities for the BCFH apartment development



project on Lot 2 were initiated in the spring/summer of 2009. Lot "3" is irregular in shape and abuts Lots 1 and 2 to the west and north, respectively. Lot 3 is considered the current BC CDC redevelopment area.

Several of the Site buildings have been razed from 2004 to 2009, in preparation for the BC CDC redevelopment. Buildings that are currently remaining at the Site are incorporated in the redevelopment plan and include Building 1, located in the west central region of the Site, and Buildings 7 and 8 in the northeast Site region, and Building 13, in the northeast region. The ground surface of the BC CDC development area is currently covered with crushed aggregate from the demolition of the former buildings and provides a suitable sub-base for equipment and vehicular traffic entering and exiting the Site during construction.

#### **4. EXISTING ENVIRONMENTAL CONDITIONS**

BC CDC authorized Giles to collect twelve samples (S-13 through S-24) from the damaged bank area in September 2010 and submit six of the twelve samples (S-13, S-15, S-17, S-20, S-23, and S-24) for analysis of Polynuclear Aromatic Hydrocarbons (PAHs) by EPA Method 8310, Lead, and Arsenic by EPA Method 6010. This activity was funded by BC CDC in an effort to evaluate if environmental conditions in the near surface soil, exposed during the July 2010 flood required remedial action (i.e. establishment of a barrier system consisting of a geotextile indicator fabric and 12 to 24 inches of stone fill). Review of the soil sample results indicated the presence of PAHs at levels exceeding the Wisconsin Department of Natural Resources (WDNR) suggested generic Residual Cleanup Levels (RCLs) for the non-industrial direct contact pathway. In addition, arsenic exceeded the WDNR Ch NR 720 Table 2 RCL value in the six samples submitted; and lead exceeded the Ch NR 720 Table 2 RCL value in three of the six samples submitted. The damaged bank area sampling locations are shown on Figure 3. The soil analytical results are summarized in Table 1. Copies of the laboratory analytical report and chain custody documentation are included in Appendix C.

Based on the results of the recent soil sampling of the flood-damaged bank area, remedial efforts are required to re-establish the barrier system, in addition, to attain compliance with the WDNRs Water Management Section, the rubble, debris, and sediment deposited in the creek during the storm event requires permitted removal under Section 30.20(2), of the Wisconsin Statutes. The remedial efforts, project cost, and schedule are presented in the following sections.

#### **5. REMEDIAL ACTION PLAN**

The planned remedial action will include three main tasks including the rubble, debris, and sediment removal and creek by-pass gabion repair, the repair of the bank area, and the repair



of the parking lot and retaining wall area. The proposed repair areas are shown on Figure 4. The outlined remedial actions will return the flood damaged areas to regulatory compliance with the direct contact risk requirements. Beneficial reuse of the barrier system and retaining wall material/debris that is currently in the flow way of Lincoln Creek will also be considered if these materials are salvageable. Excavated sediment generated during these repairs that can not be reused on-Site during construction activities will be managed and disposed of in accordance with Wisconsin Administrative Code (WAC), Chapter NR 718. Soil/sediment samples will be collected for disposal characterization testing for the presence of volatile organic compounds (VOCs) by EPA Method 8260B, polynuclear aromatic hydrocarbons (PAHs) by EPA Method 8310, metals (arsenic, chromium, and lead) by EPA Method 6000/7000 Series, and polychlorinated biphenyls (PCBs) by EPA Method 8082. If off-Site disposal is required, soil will be transported by a licensed waste hauler, and disposed of at a WDNR approved, licensed facility; A Cap/Barrier Maintenance Plan will also be prepared for the areas affected by the repairs.

The planned remedial action is generally divided into eight tasks which include:

- Task 1) Supplemental RAP Preparation
- Task 2) Permitting and WDNR Communication
- Task 3) Creek Bottom Remediation
- Task 4) Bank Area Remediation
- Task 5) Retaining Wall & Parking Lot Repair
- Task 6) Remediation Oversight
- Task 7) Site Security
- Task 8) Environmental Consulting/Reporting

#### **Task 1: Supplemental RAP Preparation**

Under this task, Giles will to specify the manner in which the Lincoln Creek by-pass and water course will be restored with the remedial removal of rubble, debris, and sediment resulting from the flooding, the beneficial recovery and reuse of undamaged paver debris (where applicable), the repair of the by-pass soil bank that is impacted with hazardous substances with the planned placement of pavements as caps and/or engineered barriers, and to demonstrate how the ARRA Grant funds for the Site will be allocated. The Supplemental RAP document presented herein was also included in Task 1.

#### **Task 2: Permitting and WDNR Communication**

To comply with the requirements WDNR Ch NR 30.20(2) to enter the Lincoln Creek by-pass and water course for the removal of the barrier system debris and repair/replacement of the gabions damaged during the flooding, Giles has prepared an Application for Stream Dredging (WDNR Form 3500-53J) dated November 4, 2010, and a subsequent correspondence prepared





by Giles to the WDNR, dated November 30, 2010, to provide additional clarifications to the WDNRs questions. The permit application was approved on November 30, 2010.

### **Task 3: Creek Bottom Remediation**

Temporary sediment control measures (a turbidity barrier) will be placed along the debris and rubble in Lincoln Creek to limit the sediment loading/turbidity to the water course during the removal and repair activities, in accordance with the dredging permit requirements and conditions. The flood-damaged bank will be cut, graded, and a temporary access road will be constructed to permit the ingress/egress of excavation equipment and a single axle dump truck to enter the by-pass and creek. The temporary access road will be covered with #3 crushed stone. The excavation equipment and truck will travel across the area of damaged gabion baskets of the by-pass and track across the rubble/debris of Lincoln Creek. The removal of debris and keystone blocks and other debris will be performed using a backhoe with a "smooth bladed" bucket to avoid damage to the gabion baskets within Lincoln Creek. The debris and materials will be excavated and loaded into a dump truck for transport to the western portion of Lot 3, west of the parking lot area, and staged on geotextile fabric, tarps, or sheet plastic. Materials and keystone wall materials deemed reusable will be segregated for re-use. Unusable debris deemed exempt from chapter NR 500 regulation (asphalt, concrete piping, curb sections, riprap, and/or keystone pavers) may also be segregated (if practical) for recycling. Sediment and non-exempt material will be loaded and transported by a licensed waste hauler to a WDNR approved landfill. During the egress of the creek bottom, the gabion baskets beneath the debris will be inspected for potential repairs; in addition, the gabion baskets in the creek by-pass bottom, at the by-pass entrance to Lincoln Creek will be repaired and/or removed and replaced.

### **Task 4: Bank Area Remediation**

The first activity of this task will be the removal, backfilling, and reshaping of the temporary access road. Next the bank will be filled and graded to sub-grade and the protruding rebar rods of the remaining foundation along the by-pass will be cut and removed. The sub-grade fill will be graded and compacted, followed by the installation of a geotextile filter fabric and the placement of heavy rip rap (6 1/2-inch to 20-inch Stone) over the fabric. The rip rap will be grouted with cement seven to eight feet up the slope of the bank to provide additional stabilization. Copies of the proposed plans and specifications showing details regarding geotextile fabric and rip rap placement and grading are included in Appendix D.

### **Task 5: Retaining Wall and Parking Lot Repair**

It is understood that the damaged section of the keystone retaining wall will be disassembled, and reconstructed by Milwaukee Metropolitan Sewerage District (MMSD) using the existing keystone wall blocks and those retrieved from the Lincoln Creek (if salvageable); subsequent



backfilling behind the wall will also be performed under this task by MMSD to sub-grade.. Following the reconstruction of the retaining wall by MMSD, damaged curb and gutter and asphalt pavement of Lot 1 will be saw cut, removed, and replaced. A damaged storm sewer and engineered clean soil barrier in the surrounding landscape area will be repaired/replaced, and restored by BC CDC and its contractors.

#### **Task 6: Remediation Oversight**

Under this task, Giles and/or Genesis Construction Management will coordinate for daily in-field oversight and documentation of remediation and repair activities. Giles and/or Genesis Construction Management will prepare weekly project status updates to the WDNR with, waste manifests, and photo documentation showing the progress of the removal and repair activities, and daily weather and precipitation event inspections. Upon completion of the remedial action activities and placement of barrier materials, the documented volume of materials removed, photo documentation showing the placement and location recycled material on-Site for beneficial reuse (if applicable), and off-Site soil disposal documentation (waste manifests) will be assembled.

#### **Task 7: Site Security Monitoring**

Under this task, the undermined security fencing will be removed; the end post and crossbars will be reestablished and a new section of fencing will be stretched and hung.

#### **Task 8: Environmental Consulting/Reporting**

Under this task, Giles will assist BC CDC with the required ARRA Grant quarterly progress reporting for the remediation activities. In addition, Giles will prepare a Supplemental *Remedial Action Design and Documentation Report* which will include a description of the repair and replacement of the specified areas as engineered caps, and clean fill engineered barriers where landscaped areas exist (or approved alternative barrier designs); a Cap/Barrier Maintenance Plan will also be prepared and submitted with the *Remedial Action Design and Documentation Report* to document the routine maintenance and annual inspection of these features.

### **6. ARRA GRANT ALLOCATION**

Giles has prepared a Cost Summary for the ARRA Grant Allocation for each task presented in the RAP. The Cost Summary is included in Appendix E.



## 7. SCHEDULE

It is anticipated that the Site work including the management of the debris removal and remedial repairs will begin upon receipt of the dredging permit and grant funds approval in November 2010 and is anticipated to be completed by or before the First Quarter of 2011.

## 8. GENERAL COMMENTS

This report is an instrument of service prepared for the exclusive use of BC CDC and may not be reproduced or distributed without written authorization from Giles Engineering Associates, Inc., and BC CDC. The services described in this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, expressed or implied, is made. These services were performed consistent with our agreement with our client. This report is solely for the use and information of our client or as otherwise noted. Any unauthorized use of this report is strictly prohibited and we assume no liability for any such use.

This report has been prepared in order to aid in the evaluation of the Site located at 4759 North 32<sup>nd</sup> Street, in the City of Milwaukee, Milwaukee County, Wisconsin. The conclusions presented in this report are based in part on interpretation of data from discrete sampling locations that may not present actual conditions at non-sampled locations.

The conclusions in this report may rely on credibility of others, and, therefore, an alteration in documentation or verbal information obtained may result in the redirection of the conclusions presented in this report. The conclusions are also based on visual field observations performed within the property boundaries at this specific point in time and, therefore, do not include the potential for hazardous substance present within undocumented fills placed on the Site or adjacent properties. Opinions presented herein may be based on test results performed by others and, therefore, we are not responsible for variations in test results or inaccuracies resulting from laboratory testing provided by subcontracted testing laboratories.

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1E-0912014 (BC CDC Supplemental RAP Milwaukee WI)11-30-2010.doc/10envr/ktb



Usual & Customary Standardized Invoice

**GILES**

Vendor Name:

ENGINEERING ASSOCIATES, INC.  
Giles Engineering Associates

Commerce #: 53208251424

BRRT's #: 03-41-554451

Invoice #: 1E-0910009-000005

Site Name: Glenbrook Beverage Co. Former

Invoice Date: 10/31/2010

Site Address: 5434 W. State Street

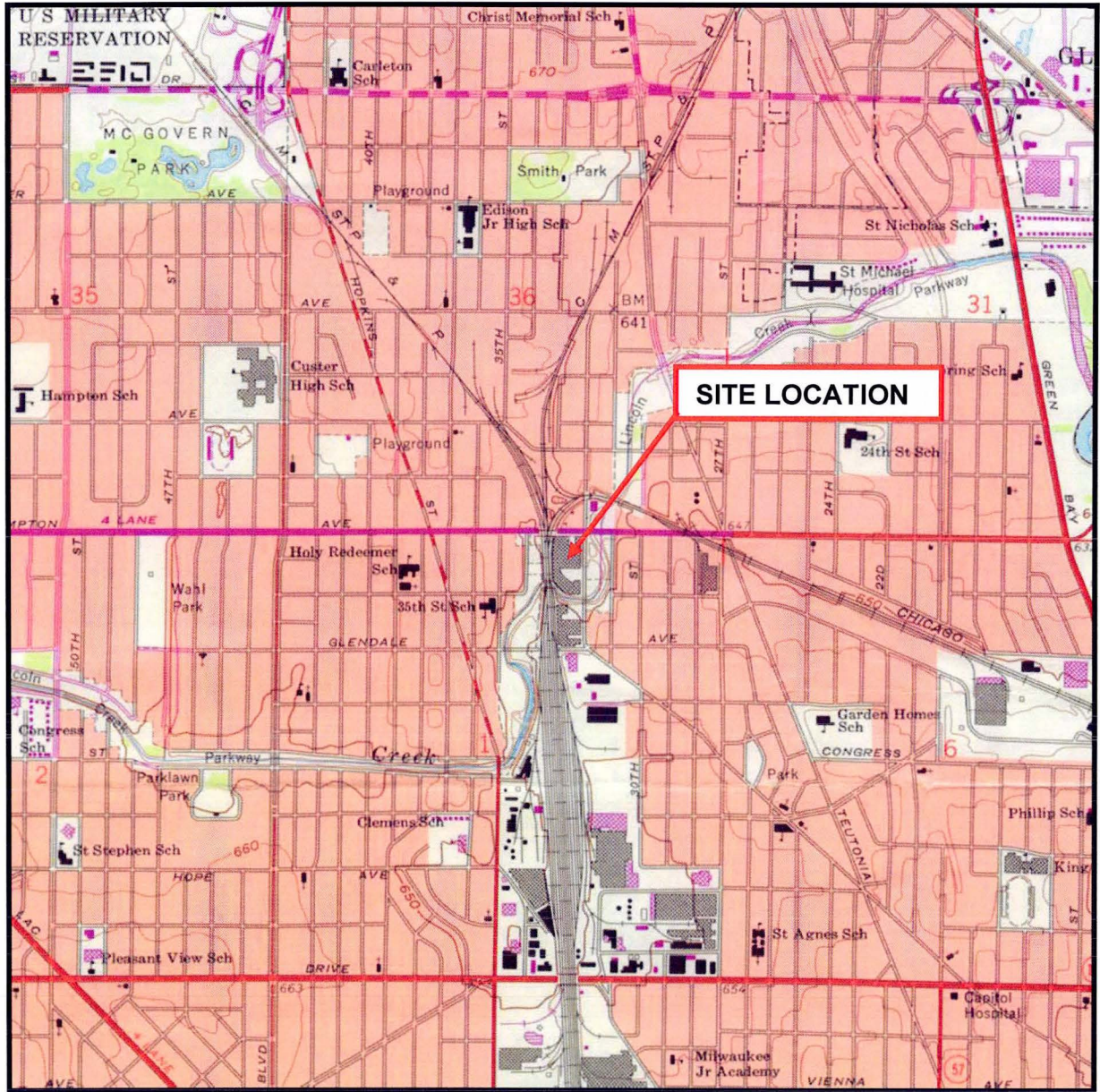
Check #: \_\_\_\_\_

Personal information you provide may be used for a secondary purposes [Privacy Law, s. 15.04 (1) (m), Stats.]

TASK CODE/ACTIVITY REFERENCE CODE	TASK DESCRIPTIONS/ACTIVITY REFERENCE CODE DESCRIPTION	UNIT	MAXIMUM REIMBURSEABLE UNIT COST	UNITS INVOICED	UNIT COST CLAIMED	AMOUNT CLAIMED
<b>5 CLOSURE REQUEST</b>						
CR05	Primary Closure Request	SUBMITTAL	\$1,969.50		\$ 400.00	\$ 200.00
CR15	GIS Packet Submittal (For Source Property only)	PACKET	\$483.20		\$ 483.20	\$ 483.20
<b>7 REGULATORY CORRESPONDENCE</b>						
RC05	Regulatory Correspondence	LETTER/STATUS UPDATE	\$122.80		\$ 122.80	\$ 122.80
<b>28 STANDARDIZED INVOICE</b>						
SI05	Standardized Invoice	INVOICE	\$16.80	1.00	\$ 16.80	\$ 16.80
<b>35 CAP MAINTENANCE PLAN</b>						
CMP05	Cap Maintenance Plan	PLAN	\$304.80		\$ 304.80	\$ 304.80
<b>TOTAL AMOUNT CLAIMED</b>						<b>\$ 1,127.60</b>



## **FIGURES**



Source: USGS Milwaukee, Wisconsin 7.5-Minute Series (topographic) Quadrangle Map (1958; photorevised in 1971)

Scale: 1:24,000  
 Contour Interval: 10 Feet



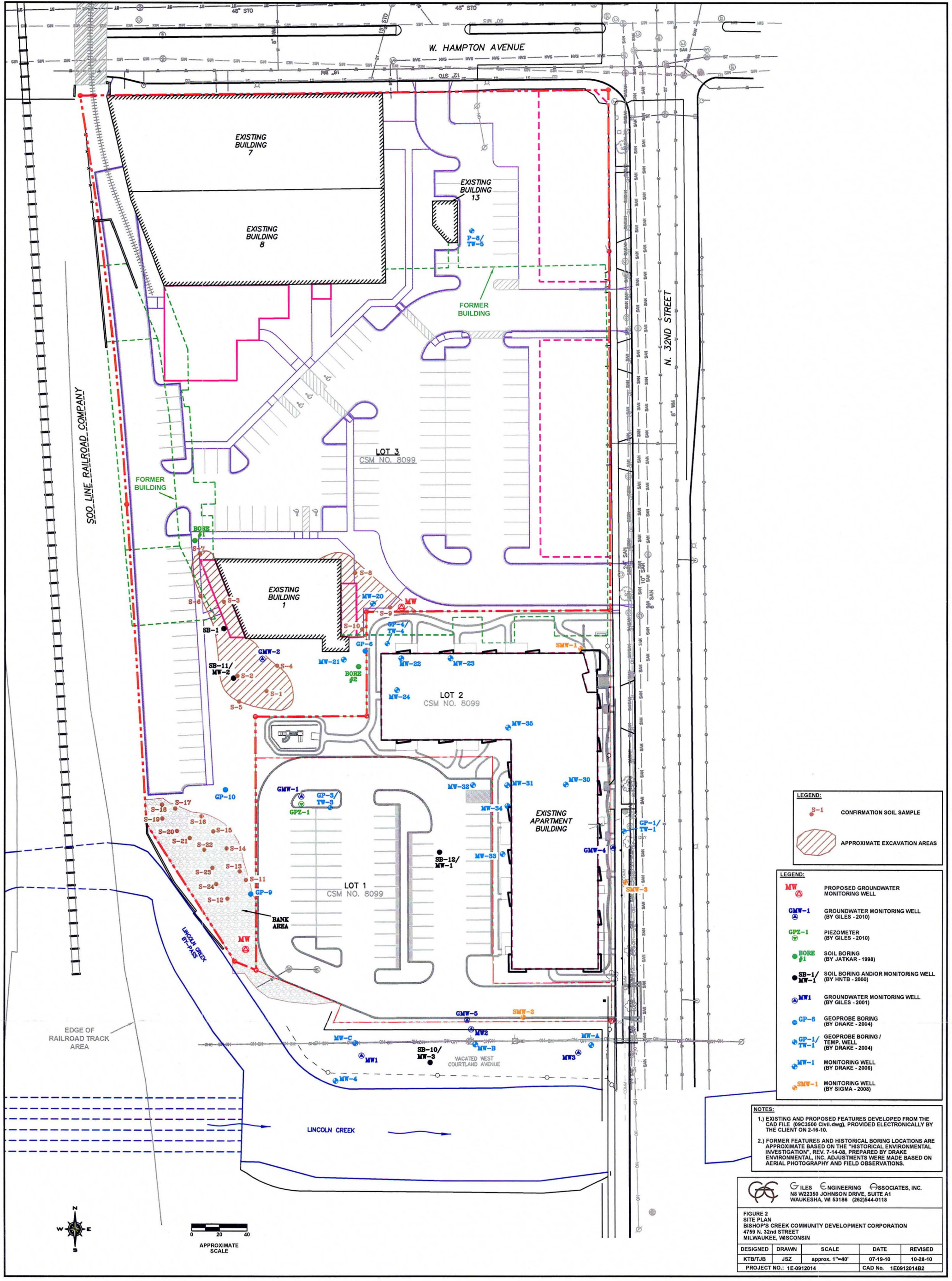
**FIGURE 1**  
**SITE LOCATION MAP**

**Bishop's Creek Community Development Corporation**  
**4759 North 32<sup>nd</sup> Street**  
**Milwaukee, Wisconsin**  
**Project No. 1E-0912014**



**GILES**  
 ENGINEERING ASSOCIATES, INC.





**LEGEND:**

- S-1 CONFIRMATION SOIL SAMPLE
- / / / APPROXIMATE EXCAVATION AREAS

**LEGEND:**

- ▲ MW PROPOSED GROUNDWATER MONITORING WELL
- ▲ GMW-1 GROUNDWATER MONITORING WELL (BY GILES - 2010)
- ▲ GPZ-1 PIEZOMETER (BY GILES - 2010)
- BORE #1 SOIL BORING (BY JATKAR - 1998)
- SB-1/MW-1 SOIL BORING AND/OR MONITORING WELL (BY HNTB - 2000)
- ▲ MW1 GROUNDWATER MONITORING WELL (BY GILES - 2001)
- GP-6 GEOPROBE BORING (BY DRAKE - 2004)
- GP-1/TW-1 GEOPROBE BORING / TEMP. WELL (BY DRAKE - 2004)
- MW-1 MONITORING WELL (BY DRAKE - 2006)
- SMW-1 MONITORING WELL (BY SIGMA - 2008)

**NOTES:**

- 1.) EXISTING AND PROPOSED FEATURES DEVELOPED FROM THE CAD FILE (09C3600 Civil.dwg), PROVIDED ELECTRONICALLY BY THE CLIENT ON 2-16-10.
- 2.) FORMER FEATURES AND HISTORICAL BORING LOCATIONS ARE APPROXIMATE BASED ON THE "HISTORICAL ENVIRONMENTAL INVESTIGATION", REV. 7-14-08, PREPARED BY DRAKE ENVIRONMENTAL, INC. ADJUSTMENTS WERE MADE BASED ON AERIAL PHOTOGRAPHY AND FIELD OBSERVATIONS.

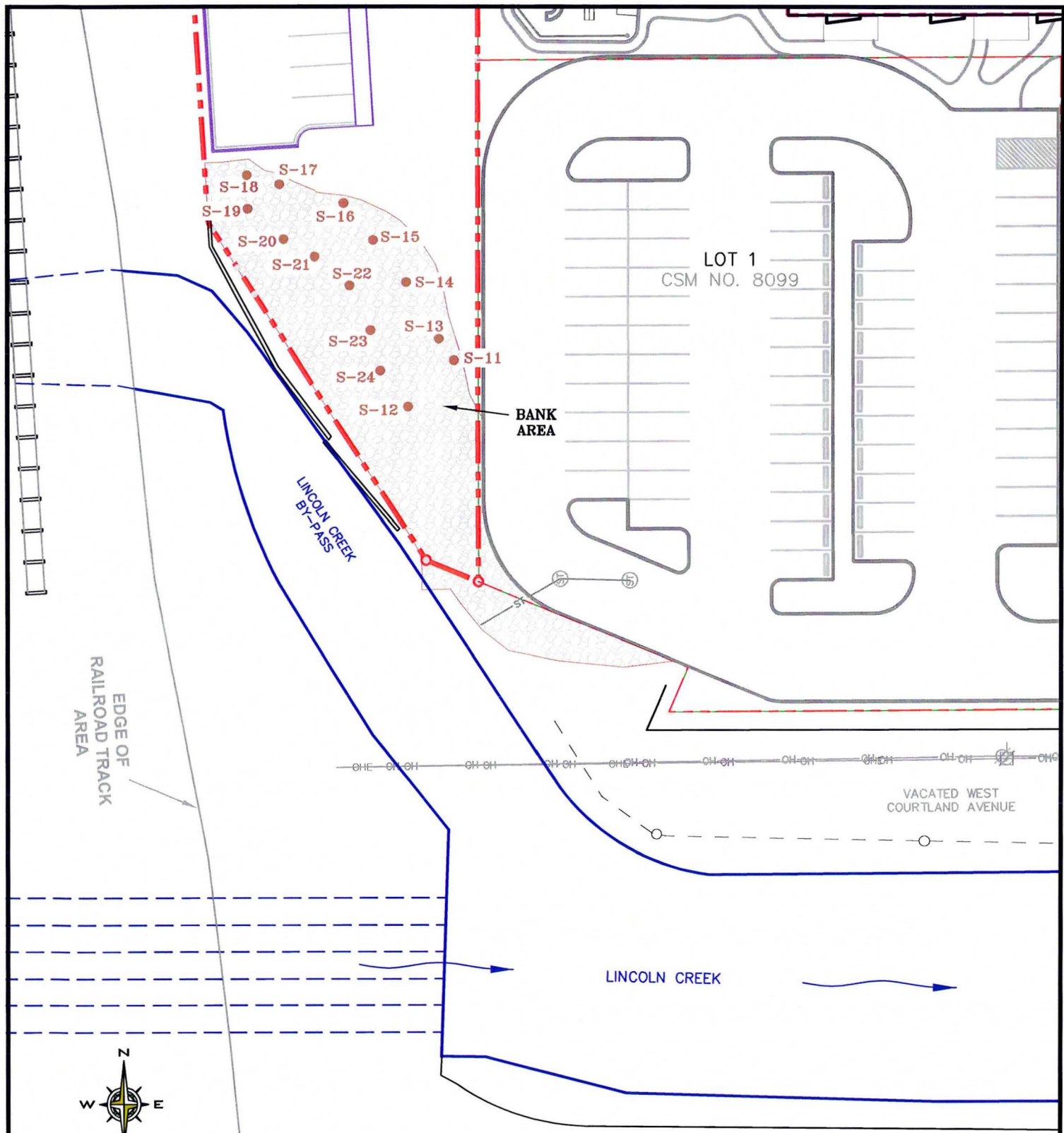
**GILES ENGINEERING ASSOCIATES, INC.**  
 88 W22350 JOHNSON DRIVE, SUITE A1  
 WAUKESHA, WI 53186 (262)544-0118

**FIGURE 2**  
**SITE PLAN**  
 BISHOP'S CREEK COMMUNITY DEVELOPMENT CORPORATION  
 4759 N. 32ND STREET  
 MILWAUKEE, WISCONSIN

DESIGNED	DRAWN	SCALE	DATE	REVISED
KTBT/JB	JSZ	approx. 1"=40'	07-19-10	10-28-10
PROJECT NO.: 1E-0912014			CAD No. 1E0912014B2	








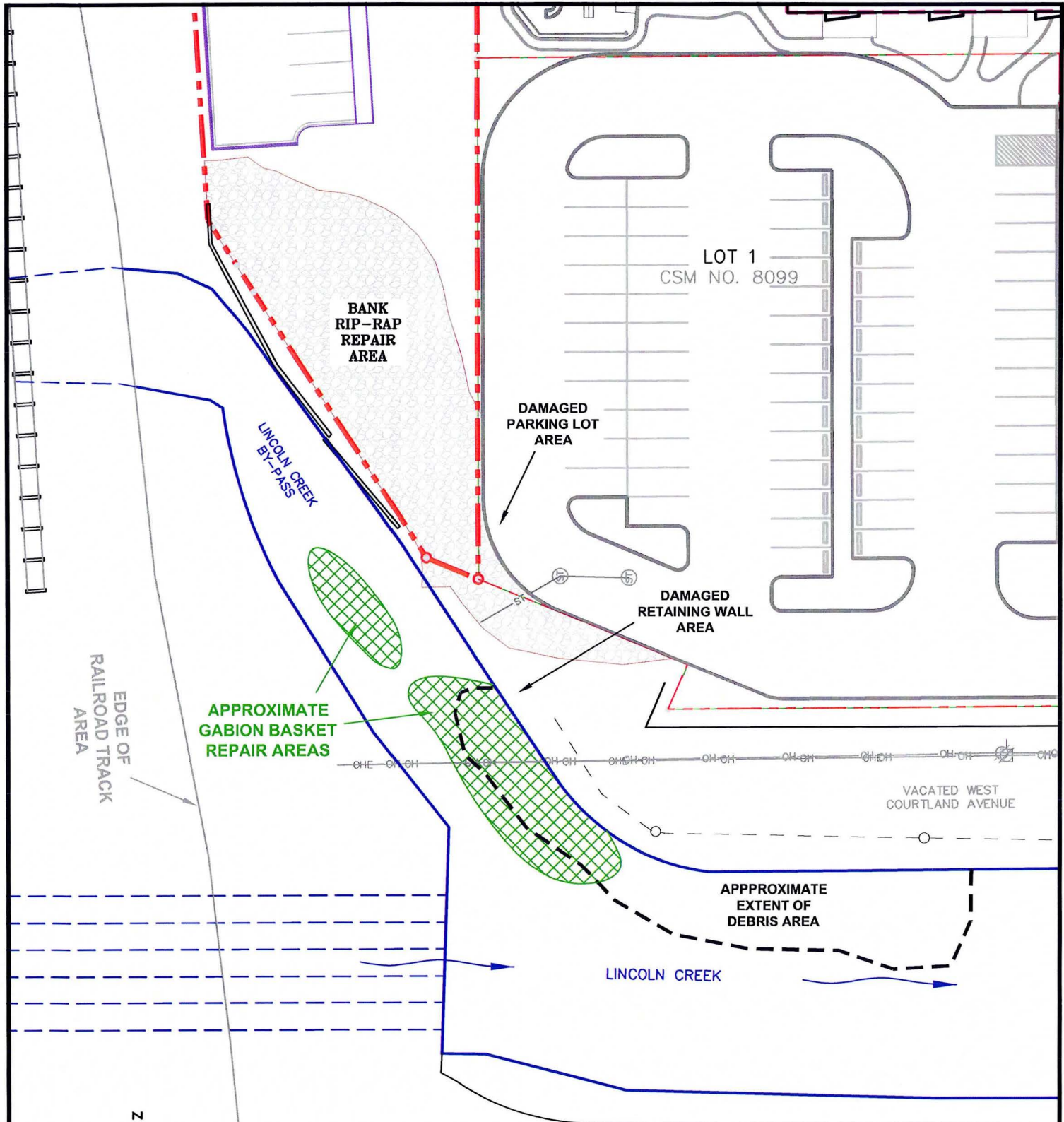

**GILES ENGINEERING ASSOCIATES, INC.**  
 N8 W22350 JOHNSON DRIVE, SUITE A1  
 WAUKESHA, WI 53186 (262)544-0118

**FIGURE 3**  
**SOIL SAMPLE LOCATIONS - FLOOD DAMAGED BANK AREA**  
**BISHOP'S CREEK COMMUNITY DEVELOPMENT CORPORATION**  
**4759 N. 32nd STREET**  
**MILWAUKEE, WISCONSIN**

DESIGNED	DRAWN	SCALE	DATE	REVISED
KTB/TJB	JSZ	approx. 1"=40'	10-28-10	--
PROJECT NO.: 1E-0912014			CAD No. 1E0912014I	

**LEGEND:**  
 **S-11** CONFIRMATION SOIL SAMPLE





LOT 1  
CSM NO. 8099

BANK  
RIP-RAP  
REPAIR  
AREA

DAMAGED  
PARKING LOT  
AREA

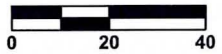
DAMAGED  
RETAINING WALL  
AREA

APPROXIMATE  
GABION BASKET  
REPAIR AREAS

VACATED WEST  
COURTLAND AVENUE

APPROXIMATE  
EXTENT OF  
DEBRIS AREA

LINCOLN CREEK



APPROXIMATE  
SCALE



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

**FIGURE 4  
REMEDATION/REPAIR AREAS  
BISHOP'S CREEK COMMUNITY DEVELOPMENT CORPORATION  
4759 N. 32nd STREET  
MILWAUKEE, WISCONSIN**

DESIGNED	DRAWN	SCALE	DATE	REVISED
KTB/TJB	JSZ	approx. 1"=40'	10-28-10	--
PROJECT NO.: 1E-0912014			CAD No. 1E0912014J	

## TABLES

**TABLE 1  
SOIL ANALYTICAL RESULTS  
(Arsenic, Lead & PAHs)**

Bishops Creek Community Development Corporation  
4759 N. 32nd Street  
Milwaukee, Wisconsin  
Project No. 1E-0912014

Analyte	Sample Location						NR 720.11 RCLs	Suggested Generic RCLs	
	S-13	S-15	S-17	S-20	S-23	S-24		Direct Contact, Non-Industrial Land Use	Direct Contact, Non-Industrial Pathway
Sample Date	9/20/10	9/20/10	9/10/20	9/20/10	9/10/20	9/10/20			
PID (HNU)	BDL	BDL	BDL	BDL	BDL	BDL			
Arsenic (mg/kg)	(15)	(7.2)	(52)	(20)	(7.6)	(12)	0.039	--	--
Lead (mg/kg)	(67)	42	(67)	(50)	13	11	50	--	--
<b>PAHs (ug/kg)</b>									
Acenaphthene	<830	<72	<300	<59	<59	<56	--	900,000	38,000
Acenaphthylene	<1,400	<120	<510	<100	<100	<95	--	18,000	700
Anthracene	440	140	90	84	17	8.4	--	5,000,000	3,000,000
Benzo (a) anthracene	(1,100)	(360)	(200)	(170)	21	(120)	--	88	17,000
Benzo (b) fluoranthene	(1,700)	(250)	(200)	(210)	45	29	--	88	360,000
Benzo (k) fluoranthene	610	190	100	97	36	<5.6	--	880	870,000
Benzo (a) pyrene	(1,400)	(460)	(290)	(200)	(37)	(16)	--	8.8	48,000
Benzo (g,h,i) perylene	1,100	380	270	190	51	37	--	1,800	6,800,000
Chrysene	1,500	510	350	270	14	43	--	8,800	37,000
Dibenz (a,h) anthracene	(760)	(440)	(190)	(200)	(420)	(350)	--	8.8	38,000
Fluoranthene	3,100	1,700	1,200	540	110	120	--	600,000	500,000
Fluorene	<170	98	89	110	<12	<11	--	600,000	100,000
Indeno (1,2,3-cd) pyrene	(980)	(240)	(180)	(110)	65	57	--	88	680,000
1-Methylnaphthalene	810	79	<180	110	<36	<34	--	1,100,000	23,000
2-Methylnaphthalene	<500	660	<180	500	<36	<34	--	600,000	20,000
Naphthalene	<500	240	<180	290	<36	<34	--	20,000	400
Phenanthrene	1,600	650	440	490	75	29	--	18,000	1,800
Pyrene	3,200	1,500	1,200	920	220	140	--	500,000	8,700,000

**NOTES:**

**PID:** Photoionization Detector

**PAHs:** Polynuclear Aromatic Hydrocarbons

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

**mg/kg:** Milligrams per kilogram; equivalent to parts per million (ppm)

**WDNR:** Wisconsin Department of Natural Resources

Results indicated in green/parenthesis exceed the NR 720 or WDNR suggested generic RCLs (Direct Contact, Non-Industrial Pathway/Land Use) for soils shallower than 4 feet

**APPENDIX A**

**Important Information About  
Your Geoenvironmental Report**



# Important Information About Your Geoenvironmental Report

Geoenvironmental studies are commissioned to gain information about environmental conditions on and beneath the surface of a site. The more comprehensive the study, the more reliable the assessment is likely to be. But remember: Any such assessment is to a greater or lesser extent based on professional opinions about conditions that cannot be seen or tested. Accordingly, no matter how many data are developed, risks created by unanticipated conditions will always remain. *Have realistic expectations.* Work with your geoenvironmental consultant to manage known and unknown risks. Part of that process should already have been accomplished, through the risk allocation provisions you and your geoenvironmental professional discussed and included in your contract's general terms and conditions. This document is intended to explain some of the concepts that may be included in your agreement, and to pass along information and suggestions to help you manage your risk.

## **Beware of Change; Keep Your Geoenvironmental Professional Advised**

The design of a geoenvironmental study considers a variety of factors that are subject to change. Changes can undermine the applicability of a report's findings, conclusions, and recommendations. *Advise your geoenvironmental professional about any changes you become aware of.* Geoenvironmental professionals cannot accept responsibility or liability for problems that occur because a report fails to consider conditions that did not exist when the study was designed. Ask your geoenvironmental professional about the types of changes you should be particularly alert to. Some of the most common include:

- modification of the proposed development or ownership group,
- sale or other property transfer,
- replacement of or additions to the financing entity,
- amendment of existing regulations or introduction of new ones, or
- changes in the use or condition of adjacent property.

Should you become aware of any change, *do not rely on a geoenvironmental report.* Advise your geoenvironmental professional immediately; follow the professional's advice.

## **Recognize the Impact of Time**

A geoenvironmental professional's findings, recommendations, and conclusions cannot remain valid indefinitely. The more time that passes, the more likely it is that important latent changes will occur. *Do not rely on a geoenvironmental report if too much time has elapsed since it was completed.* Ask your environmental professional to define "too much time." In the case of Phase I Environmental Site Assessments (ESAs), for example, more than 180 days after submission is generally considered "too much."

## **Prepare To Deal with Unanticipated Conditions**

The findings, recommendations, and conclusions of a Phase I ESA report typically are based on a review of historical information, interviews, a site "walkover," and other forms of noninvasive research. When site subsurface conditions are not sampled in any way, the risk of unanticipated conditions is higher than it would otherwise be.

While borings, installation of monitoring wells, and similar invasive test methods can help reduce the risk of unanticipated conditions, *do not overvalue the effectiveness of testing.* Testing provides information about actual conditions only at the precise locations where samples are taken, and only when they are taken. Your geoenvironmental professional has applied that specific information to develop a general opinion about environmental conditions. *Actual conditions in areas not sampled may differ (sometimes sharply) from those predicted in a report.* For example, a site may contain an unregistered underground storage tank that shows no surface trace of its existence. *Even conditions in areas that were tested can change,* sometimes suddenly, due to any number of events, not the least of which include occurrences at



adjacent sites. Recognize, too, that *even some conditions in tested areas may go undiscovered*, because the tests or analytical methods used were designed to detect only those conditions assumed to exist.

Manage your risks by retaining your geoenvironmental professional to work with you as the project proceeds. Establish a contingency fund or other means to enable your geoenvironmental professional to respond rapidly, in order to limit the impact of unforeseen conditions. And to help prevent any misunderstanding, identify those empowered to authorize changes and the administrative procedures that should be followed.

### **Do Not Permit Any Other Party To Rely on the Report**

Geoenvironmental professionals design their studies and prepare their reports to meet the specific needs of the clients who retain them, in light of the risk management methods that the client and geoenvironmental professional agree to, and the statutory, regulatory, or other requirements that apply. The study designed for a developer may differ sharply from one designed for a lender, insurer, public agency...or even another developer. *Unless the report specifically states otherwise, it was developed for you and only you.* Do not unilaterally permit any other party to rely on it. The report and the study underlying it may not be adequate for another party's needs, and you could be held liable for shortcomings your geoenvironmental professional was powerless to prevent or anticipate. Inform your geoenvironmental professional when you know or expect that someone else—a third-party—will want to use or rely on the report. *Do not permit third-party use or reliance until you first confer with the geoenvironmental professional who prepared the report.* Additional testing, analysis, or study may be required and, in any event, appropriate terms and conditions should be agreed to so both you and your geoenvironmental professional are protected from third-party risks. *Any party who relies on a geoenvironmental report without the express written permission of the professional who prepared it and the client for whom it was prepared may be solely liable for any problems that arise.*

### **Avoid Misinterpretation of the Report**

Design professionals and other parties may want to rely on the report in developing plans and specifications. They need to be advised, in writing, that their needs may not have been considered when the study's scope was developed, and, even if their needs were considered, they might misinterpret geoenvironmental findings, conclusions, and recommendations. *Commission your geoenvironmental professional to explain pertinent elements of the report to others who are permitted to rely on it, and to review any plans, specifications or other instruments of professional service that incorporate any of the report's findings, conclusions, or recommendations.* Your geoenvironmental professional has the best understanding of the issues involved, including the fundamental assumptions that underpinned the study's scope.

### **Give Contractors Access to the Report**

Reduce the risk of delays, claims, and disputes by giving contractors access to the full report, *providing that it is accompanied by a letter of transmittal that can protect you* by making it unquestionably clear that: 1) the study was not conducted and the report was not prepared for purposes of bid development, and 2) the findings, conclusions, and recommendations included in the report are based on a variety of opinions, inferences, and assumptions and are subject to interpretation. Use the letter to also advise contractors to consult with your geoenvironmental professional to obtain clarifications, interpretations, and guidance (a fee may be required for this service), and that—in any event—they should conduct additional studies to obtain the specific type and extent of information each prefers for preparing a bid or cost estimate. Providing access to the full report, with the appropriate caveats, helps prevent formation of adversarial attitudes and claims of concealed or differing conditions. If a contractor elects to ignore the warnings and advice in the letter of transmittal, it would do so at its own risk. Your geoenvironmental professional should be able to help you prepare an effective letter.

### **Do Not Separate Documentation from the Report**

Geoenvironmental reports often include supplemental documentation, such as maps and copies of regulatory files, permits, registrations, citations, and correspondence with regulatory agencies. If subsurface explorations were performed, the report may contain final boring logs and copies of laboratory data. If remediation activities occurred on site, the report may include: copies of daily field reports; waste manifests; and information about the disturbance of subsurface materials, the type and thickness of any fill placed on site, and fill placement practices, among other types of documentation. *Do not separate supplemental documentation from the report. Do not, and do not permit any other party to redraw or modify any of the supplemental documentation for incorporation into other professionals' instruments of service.*

### **Understand the Role of Standards**

Unless they are incorporated into statutes or regulations, standard practices and standard guides developed by the American Society for Testing and Materials (ASTM) and other recognized standards-developing organizations (SDOs) are little more than aspirational methods agreed to by a consensus of a committee. The committees that develop standards may not comprise those best-qualified to establish methods and, no matter what, no standard method can possibly consider the infinite client- and project-specific variables that fly in the face of the theoretical "standard conditions" to which standard practices and standard guides apply. In fact, these variables can be so pronounced that geoenvironmental professionals who comply with every directive of an ASTM or other standard procedure could run afoul of local custom and practice, thus violating the standard of care.



Accordingly, when geoenvironmental professionals indicate in their reports that they have performed a service "in general compliance" with one standard or another, it means they have applied professional judgement in creating and implementing a scope of service designed for the specific client and project involved, and which follows some of the general precepts laid out in the referenced standard. To the extent that a report indicates "general compliance" with a standard, you may wish to speak with your geoenvironmental professional to learn more about what was and was not done. *Do not assume a given standard was followed to the letter.* Research indicates that that seldom is the case.

### **Realize That Recommendations May Not Be Final**

The technical recommendations included in a geoenvironmental report are based on assumptions about actual conditions, and so are preliminary or tentative. *Final recommendations can be prepared only by observing actual conditions as they are exposed.* For that reason, you should retain the geoenvironmental professional of record to observe construction and/or remediation activities on site, to permit rapid response to unanticipated conditions. *The geoenvironmental professional who prepared the report cannot assume responsibility or liability for the report's recommendations if that professional is not retained to observe relevant site operations.*

### **Understand That Geotechnical Issues Have Not Been Addressed**

Unless geotechnical engineering was specifically included in the scope of professional service, a report is not likely to relate any findings, conclusions, or recommendations about the suitability of subsurface materials for construction purposes, especially when site remediation has been accomplished through the removal, replacement, encapsulation, or chemical treatment of on-site soils. The

equipment, techniques, and testing used by geotechnical engineers differ markedly from those used by geoenvironmental professionals; their education, training, and experience are also significantly different. If you plan to build on the subject site, but have not yet had a geotechnical engineering study conducted, your geoenvironmental professional should be able to provide guidance about the next steps you should take. The same firm may provide the services you need.

### **Read Responsibility Provisions Closely**

Geoenvironmental studies cannot be exact; they are based on professional judgement and opinion. Nonetheless, some clients, contractors, and others assume geoenvironmental reports are or certainly should be unerringly precise. Such assumptions have created unrealistic expectations that have led to wholly unwarranted claims and disputes. To help prevent such problems, geoenvironmental professionals have developed a number of report provisions and contract terms that explain who is responsible for what, and how risks are to be allocated. Some people mistake these for "exculpatory clauses," that is, provisions whose purpose is to transfer one party's rightful responsibilities and liabilities to someone else. Read the responsibility provisions included in a report and in the contract you and your geoenvironmental professional agreed to. *Responsibility provisions are not "boilerplate."* They are important.

### **Rely on Your Geoenvironmental Professional for Additional Assistance**

Membership in ASFE exposes geoenvironmental professionals to a wide array of risk management techniques that can be of genuine benefit for everyone involved with a geoenvironmental project. Confer with your ASFE-member geoenvironmental professional for more information.



8811 Colesville Road/Suite G106, Silver Spring, MD 20910  
Telephone: 301/565-2733 Facsimile: 301/589-2017  
e-mail: [info@asfe.org](mailto:info@asfe.org) [www.asfe.org](http://www.asfe.org)

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IIGR06055.0M

**APPENDIX B**

**Photographs of Flood Damage**





View of bank area looking west with of the former building footing walls before they were cut down.

**PHOTOGRAPH 01**

June 16, 2010

**Bishop's Creek Community Development Corporation**  
**4759 32<sup>nd</sup> Street**  
**Milwaukee, Wisconsin**  
**Project No. 1E-0912014**



**GILES**  
ENGINEERING ASSOCIATES, INC.





View of bank area looking west after flood damage and with former building footing walls cut down.

**PHOTOGRAPH 02**

August 23, 2010

**Bishop's Creek Community Development Corporation**  
4759 32<sup>nd</sup> Street  
Milwaukee, Wisconsin  
Project No. 1E-0912014



**GILES**  
ENGINEERING ASSOCIATES, INC.





View of bank area flood damage looking north.

**PHOTOGRAPH 03**

August 31, 2010

**Bishop's Creek Community Development Corporation**  
**4759 32<sup>nd</sup> Street**  
**Milwaukee, Wisconsin**  
**Project No. 1E-0912014**



**GILES**  
ENGINEERING ASSOCIATES, INC.





View of bank area looking west with temporary tarps placed to limit erosion and runoff.

**PHOTOGRAPH 04**  
October 22, 2010

**Bishop's Creek Community Development Corporation**  
4759 32<sup>nd</sup> Street  
Milwaukee, Wisconsin  
Project No. 1E-0912014



**GILES**  
ENGINEERING ASSOCIATES, INC.

**APPENDIX C**

**Bank Area Soil Sample Results & COC Documentation**

October 04, 2010

Client: GILES ENGINEERING - WISCONSIN  
N8 W22350 Johnson Road  
Waukesha, WI 53186

Work Order: WTI0695  
Project Name: 1E-0912014 Milwaukee, WI  
Project Number: 4763 North 32nd Street

Attn: Mr. Kevin Bugel

Date Received: 09/21/10

An executed copy of the chain of custody is also included as an addendum to this report.

If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-833-7036

SAMPLE IDENTIFICATION	LAB NUMBER	COLLECTION DATE AND TIME
DRAFT: S-13 SW Face	WTI0695-01	09/20/10
DRAFT: S-15 SW Face	WTI0695-02	09/20/10
DRAFT: S-17 SW Face	WTI0695-03	09/20/10
DRAFT: S-20 SW Face	WTI0695-04	09/20/10
DRAFT: S-23 SW Face	WTI0695-05	09/20/10
DRAFT: S-24 SW Face	WTI0695-06	09/20/10
DRAFT: S-14 SW Face	WTI0695-07	09/20/10
DRAFT: S-16 SW Face	WTI0695-08	09/20/10
DRAFT: S-18 SW Face	WTI0695-09	09/20/10
DRAFT: S-19 SW Face	WTI0695-10	09/20/10
DRAFT: S-21 SW Face	WTI0695-11	09/20/10
DRAFT: S-22 SW Face	WTI0695-12	09/20/10

Samples were received into laboratory on ice.

Wisconsin Certification Number: 128053530

The Chain(s) of Custody, 2 pages, are included and are an integral part of this report.

*Unless subcontracted, 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 the address shown in the heading of this report.*

Approved By:

---

**DRAFT REPORT**  
DRAFT REPORT  
DATA SUBJECT TO CHANGE



GILES ENGINEERING - WISCONSIN  
 N8 W22350 Johnson Road  
 Waukesha, WI 53186  
 Mr. Kevin Bugel

Work Order: WTI0695  
 Project: 1E-0912014 Milwaukee, WI  
 Project Number: 4763 North 32nd Street

Received: 09/21/10  
 Reported: 10/04/10 15:55

## ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	MRL	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
<b>Sample ID: WTI0695-01 (DRAFT: S-13 SW Face - Soil)</b>						<b>Sampled: 09/20/10</b>			
DRAFT: General Chemistry Parameters									
% Solids	90		%	NA	1	09/29/10 17:11	ler	1010785	SM 2540G
DRAFT: Metals									
Arsenic	15		mg/kg dry	2.8	1.0	10/01/10 13:53	mmm	1010549	SW 6010B
Lead	67		mg/kg dry	1.4	1.0	10/01/10 13:53	mmm	1010549	SW 6010B
DRAFT: PNAs by SW8310									
Acenaphthene	<830		ug/kg dry	830	14.9	09/30/10 16:37	CLJ	1010739	SW 8310
Acenaphthylene	<1400		ug/kg dry	1400	14.9	09/30/10 16:37	CLJ	1010739	SW 8310
Anthracene	440		ug/kg dry	83	14.9	09/30/10 16:37	CLJ	1010739	SW 8310
Benzo (a) anthracene	1100		ug/kg dry	83	14.9	09/30/10 16:37	CLJ	1010739	SW 8310
Benzo (b) fluoranthene	1700		ug/kg dry	83	14.9	09/30/10 16:37	CLJ	1010739	SW 8310
Benzo (k) fluoranthene	610		ug/kg dry	83	14.9	09/30/10 16:37	CLJ	1010739	SW 8310
Benzo (a) pyrene	1400		ug/kg dry	83	14.9	09/30/10 16:37	CLJ	1010739	SW 8310
Benzo (g,h,i) perylene	1100		ug/kg dry	83	14.9	09/30/10 16:37	CLJ	1010739	SW 8310
Chrysene	1500		ug/kg dry	83	14.9	09/30/10 16:37	CLJ	1010739	SW 8310
Dibenzo (a,h) anthracene	760		ug/kg dry	120	14.9	09/30/10 16:37	CLJ	1010739	SW 8310
Fluoranthene	3100		ug/kg dry	170	14.9	09/30/10 16:37	CLJ	1010739	SW 8310
Fluorene	<170		ug/kg dry	170	14.9	09/30/10 16:37	CLJ	1010739	SW 8310
Indeno (1,2,3-cd) pyrene	980		ug/kg dry	83	14.9	09/30/10 16:37	CLJ	1010739	SW 8310
1-Methylnaphthalene	810		ug/kg dry	500	14.9	09/30/10 16:37	CLJ	1010739	SW 8310
2-Methylnaphthalene	<500		ug/kg dry	500	14.9	09/30/10 16:37	CLJ	1010739	SW 8310
Naphthalene	<500		ug/kg dry	500	14.9	09/30/10 16:37	CLJ	1010739	SW 8310
Phenanthrene	1600		ug/kg dry	83	14.9	09/30/10 16:37	CLJ	1010739	SW 8310
Pyrene	3200		ug/kg dry	83	14.9	09/30/10 16:37	CLJ	1010739	SW 8310
Surr: 2-Fluorobiphenyl (61-128%)	113	%							
<b>Sample ID: WTI0695-02 (DRAFT: S-15 SW Face - Soil)</b>						<b>Sampled: 09/20/10</b>			
DRAFT: General Chemistry Parameters									
% Solids	86		%	NA	1	09/29/10 17:11	ler	1010785	SM 2540G
DRAFT: Metals									
Arsenic	7.2		mg/kg dry	2.8	1.0	10/01/10 13:57	mmm	1010549	SW 6010B
Lead	42		mg/kg dry	1.3	1.0	10/01/10 13:57	mmm	1010549	SW 6010B
DRAFT: PNAs by SW8310									
Acenaphthene	<72		ug/kg dry	72	1.2	09/30/10 16:17	CLJ	1010739	SW 8310
Acenaphthylene	<120		ug/kg dry	120	1.2	09/30/10 16:17	CLJ	1010739	SW 8310
Anthracene	140		ug/kg dry	7.2	1.2	09/30/10 16:17	CLJ	1010739	SW 8310
Benzo (a) anthracene	360		ug/kg dry	7.2	1.2	09/30/10 16:17	CLJ	1010739	SW 8310
Benzo (b) fluoranthene	250		ug/kg dry	7.2	1.2	09/30/10 16:17	CLJ	1010739	SW 8310
Benzo (k) fluoranthene	190		ug/kg dry	7.2	1.2	09/30/10 16:17	CLJ	1010739	SW 8310
Benzo (a) pyrene	460		ug/kg dry	7.2	1.2	09/30/10 16:17	CLJ	1010739	SW 8310
Benzo (g,h,i) perylene	380		ug/kg dry	7.2	1.2	09/30/10 16:17	CLJ	1010739	SW 8310
Chrysene	510		ug/kg dry	72	12.4	10/04/10 10:26	CLJ	1010739	SW 8310
Dibenzo (a,h) anthracene	440		ug/kg dry	11	1.2	09/30/10 16:17	CLJ	1010739	SW 8310
Fluoranthene	1700		ug/kg dry	140	12.4	10/04/10 10:26	CLJ	1010739	SW 8310
Fluorene	98		ug/kg dry	14	1.2	09/30/10 16:17	CLJ	1010739	SW 8310
Indeno (1,2,3-cd) pyrene	240		ug/kg dry	7.2	1.2	09/30/10 16:17	CLJ	1010739	SW 8310
1-Methylnaphthalene	79		ug/kg dry	43	1.2	09/30/10 16:17	CLJ	1010739	SW 8310
2-Methylnaphthalene	660		ug/kg dry	43	1.2	09/30/10 16:17	CLJ	1010739	SW 8310
Naphthalene	240		ug/kg dry	43	1.2	09/30/10 16:17	CLJ	1010739	SW 8310
Phenanthrene	650		ug/kg dry	72	12.4	10/04/10 10:26	CLJ	1010739	SW 8310

DRAFT REPORT  
 DRAFT REPORT  
 DATA SUBJECT TO CHANGE

GILES ENGINEERING - WISCONSIN  
 N8 W22350 Johnson Road  
 Waukesha, WI 53186  
 Mr. Kevin Bugel

Work Order: WT10695  
 Project: 1E-0912014 Milwaukee, WI  
 Project Number: 4763 North 32nd Street

Received: 09/21/10  
 Reported: 10/04/10 15:55

Analyte	Sample Result	Data Qualifiers	Units	MRL	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
<b>Sample ID: WT10695-02RE1 (DRAFT: S-15 SW Face - Soil) - cont.</b>						<b>Sampled: 09/20/10</b>			
DRAFT: PNAs by SW8310 - cont.									
<b>Pyrene</b>	<b>1500</b>		ug/kg dry	72	12.4	10/04/10 10:26	CLJ	10I0739	SW 8310
<i>Surr: 2-Fluorobiphenyl (61-128%)</i>	<i>26 %</i>	<i>ZX</i>							
<b>Sample ID: WT10695-03 (DRAFT: S-17 SW Face - Soil)</b>						<b>Sampled: 09/20/10</b>			
DRAFT: General Chemistry Parameters									
<b>% Solids</b>	<b>83</b>		%	NA	1	09/29/10 17:11	ler	10I0785	SM 2540G
DRAFT: Metals									
<b>Arsenic</b>	<b>52</b>		mg/kg dry	2.9	1.0	10/01/10 14:01	mmm	10I0549	SW 6010B
<b>Lead</b>	<b>67</b>		mg/kg dry	1.4	1.0	10/01/10 14:01	mmm	10I0549	SW 6010B
DRAFT: PNAs by SW8310									
Acenaphthene	<300		ug/kg dry	300	5	09/30/10 15:06	CLJ	10I0739	SW 8310
Acenaphthylene	<510		ug/kg dry	510	5	09/30/10 15:06	CLJ	10I0739	SW 8310
<b>Anthracene</b>	<b>90</b>		ug/kg dry	30	5	09/30/10 15:06	CLJ	10I0739	SW 8310
<b>Benzo (a) anthracene</b>	<b>200</b>		ug/kg dry	30	5	09/30/10 15:06	CLJ	10I0739	SW 8310
<b>Benzo (b) fluoranthene</b>	<b>200</b>		ug/kg dry	30	5	09/30/10 15:06	CLJ	10I0739	SW 8310
<b>Benzo (k) fluoranthene</b>	<b>100</b>		ug/kg dry	30	5	09/30/10 15:06	CLJ	10I0739	SW 8310
<b>Benzo (a) pyrene</b>	<b>290</b>		ug/kg dry	30	5	09/30/10 15:06	CLJ	10I0739	SW 8310
<b>Benzo (g,h,i) perylene</b>	<b>270</b>		ug/kg dry	30	5	09/30/10 15:06	CLJ	10I0739	SW 8310
<b>Chrysene</b>	<b>350</b>		ug/kg dry	30	5	09/30/10 15:06	CLJ	10I0739	SW 8310
<b>Dibenzo (a,h) anthracene</b>	<b>190</b>		ug/kg dry	45	5	09/30/10 15:06	CLJ	10I0739	SW 8310
<b>Fluoranthene</b>	<b>1200</b>		ug/kg dry	60	5	09/30/10 15:06	CLJ	10I0739	SW 8310
<b>Fluorene</b>	<b>89</b>		ug/kg dry	60	5	09/30/10 15:06	CLJ	10I0739	SW 8310
<b>Indeno (1,2,3-cd) pyrene</b>	<b>180</b>		ug/kg dry	30	5	09/30/10 15:06	CLJ	10I0739	SW 8310
1-Methylnaphthalene	<180		ug/kg dry	180	5	09/30/10 15:06	CLJ	10I0739	SW 8310
2-Methylnaphthalene	<180		ug/kg dry	180	5	09/30/10 15:06	CLJ	10I0739	SW 8310
Naphthalene	<180		ug/kg dry	180	5	09/30/10 15:06	CLJ	10I0739	SW 8310
<b>Phenanthrene</b>	<b>440</b>		ug/kg dry	30	5	09/30/10 15:06	CLJ	10I0739	SW 8310
<b>Pyrene</b>	<b>1200</b>		ug/kg dry	30	5	09/30/10 15:06	CLJ	10I0739	SW 8310
<i>Surr: 2-Fluorobiphenyl (61-128%)</i>	<i>0.00 %</i>	<i>Z3</i>							

GILES ENGINEERING - WISCONSIN  
 N8 W22350 Johnson Road  
 Waukesha, WI 53186  
 Mr. Kevin Bugel

Work Order: WTI0695  
 Project: 1E-0912014 Milwaukee, WI  
 Project Number: 4763 North 32nd Street

Received: 09/21/10  
 Reported: 10/04/10 15:55

Analyte	Sample Result	Data Qualifiers	Units	MRL	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
<b>Sample ID: WTI0695-04 (DRAFT: S-20 SW Face - Soil)</b>					<b>Sampled: 09/20/10</b>				
DRAFT: General Chemistry Parameters									
% Solids	84		%	NA	1	09/29/10 17:11	ler	10I0785	SM 2540G
DRAFT: Metals									
Arsenic	20		mg/kg dry	2.9	1.0	10/01/10 14:05	mmm	10I0621	SW 6010B
Lead	50		mg/kg dry	1.4	1.0	10/01/10 14:05	mmm	10I0621	SW 6010B
DRAFT: PNAs by SW8310									
Acenaphthene	<59		ug/kg dry	59	1.0	09/30/10 16:57	CLJ	10I0739	SW 8310
Acenaphthylene	<100		ug/kg dry	100	1.0	09/30/10 16:57	CLJ	10I0739	SW 8310
Anthracene	84		ug/kg dry	5.9	1.0	09/30/10 16:57	CLJ	10I0739	SW 8310
Benzo (a) anthracene	170		ug/kg dry	5.9	1.0	09/30/10 16:57	CLJ	10I0739	SW 8310
Benzo (b) fluoranthene	210		ug/kg dry	5.9	1.0	09/30/10 16:57	CLJ	10I0739	SW 8310
Benzo (k) fluoranthene	97		ug/kg dry	5.9	1.0	09/30/10 16:57	CLJ	10I0739	SW 8310
Benzo (a) pyrene	200		ug/kg dry	5.9	1.0	09/30/10 16:57	CLJ	10I0739	SW 8310
Benzo (g,h,i) perylene	190		ug/kg dry	5.9	1.0	09/30/10 16:57	CLJ	10I0739	SW 8310
Chrysene	270		ug/kg dry	5.9	1.0	09/30/10 16:57	CLJ	10I0739	SW 8310
Dibenzo (a,h) anthracene	200		ug/kg dry	8.9	1.0	09/30/10 16:57	CLJ	10I0739	SW 8310
Fluoranthene	540		ug/kg dry	12	1.0	09/30/10 16:57	CLJ	10I0739	SW 8310
Fluorene	110		ug/kg dry	12	1.0	09/30/10 16:57	CLJ	10I0739	SW 8310
Indeno (1,2,3-cd) pyrene	110		ug/kg dry	5.9	1.0	09/30/10 16:57	CLJ	10I0739	SW 8310
1-Methylnaphthalene	110		ug/kg dry	36	1.0	09/30/10 16:57	CLJ	10I0739	SW 8310
2-Methylnaphthalene	500		ug/kg dry	36	1.0	09/30/10 16:57	CLJ	10I0739	SW 8310
Naphthalene	290		ug/kg dry	36	1.0	09/30/10 16:57	CLJ	10I0739	SW 8310
Phenanthrene	490		ug/kg dry	59	9.9	10/04/10 13:13	CLJ	10I0739	SW 8310
Pyrene	920		ug/kg dry	59	9.9	10/04/10 13:13	CLJ	10I0739	SW 8310
Surr: 2-Fluorobiphenyl (61-128%)	157 %		Z5						
<b>Sample ID: WTI0695-05 (DRAFT: S-23 SW Face - Soil)</b>					<b>Sampled: 09/20/10</b>				
DRAFT: General Chemistry Parameters									
% Solids	84		%	NA	1	09/29/10 17:11	ler	10I0785	SM 2540G
DRAFT: Metals									
Arsenic	7.6		mg/kg dry	2.9	1.0	10/01/10 14:09	mmm	10I0621	SW 6010B
Lead	13		mg/kg dry	1.4	1.0	10/01/10 14:09	mmm	10I0621	SW 6010B
DRAFT: PNAs by SW8310									
Acenaphthene	<59		ug/kg dry	59	1	09/30/10 17:17	CLJ	10I0739	SW 8310
Acenaphthylene	<100		ug/kg dry	100	1	09/30/10 17:17	CLJ	10I0739	SW 8310
Anthracene	17		ug/kg dry	5.9	1	09/30/10 17:17	CLJ	10I0739	SW 8310
Benzo (a) anthracene	21		ug/kg dry	5.9	1	09/30/10 17:17	CLJ	10I0739	SW 8310
Benzo (b) fluoranthene	45		ug/kg dry	5.9	1	09/30/10 17:17	CLJ	10I0739	SW 8310
Benzo (k) fluoranthene	36		ug/kg dry	5.9	1	09/30/10 17:17	CLJ	10I0739	SW 8310
Benzo (a) pyrene	37		ug/kg dry	5.9	1	09/30/10 17:17	CLJ	10I0739	SW 8310
Benzo (g,h,i) perylene	51		ug/kg dry	5.9	1	09/30/10 17:17	CLJ	10I0739	SW 8310
Chrysene	14		ug/kg dry	5.9	1	09/30/10 17:17	CLJ	10I0739	SW 8310
Dibenzo (a,h) anthracene	420		ug/kg dry	8.9	1	09/30/10 17:17	CLJ	10I0739	SW 8310
Fluoranthene	110		ug/kg dry	12	1	09/30/10 17:17	CLJ	10I0739	SW 8310
Fluorene	<12		ug/kg dry	12	1	09/30/10 17:17	CLJ	10I0739	SW 8310
Indeno (1,2,3-cd) pyrene	65		ug/kg dry	5.9	1	09/30/10 17:17	CLJ	10I0739	SW 8310
1-Methylnaphthalene	<36		ug/kg dry	36	1	09/30/10 17:17	CLJ	10I0739	SW 8310
2-Methylnaphthalene	<36		ug/kg dry	36	1	09/30/10 17:17	CLJ	10I0739	SW 8310
Naphthalene	<36		ug/kg dry	36	1	09/30/10 17:17	CLJ	10I0739	SW 8310
Phenanthrene	75		ug/kg dry	5.9	1	09/30/10 17:17	CLJ	10I0739	SW 8310
Pyrene	220		ug/kg dry	5.9	1	09/30/10 17:17	CLJ	10I0739	SW 8310
Surr: 2-Fluorobiphenyl (61-128%)	137 %		Z5						

**DRAFT REPORT**  
 DRAFT REPORT  
 DATA SUBJECT TO CHANGE



GILES ENGINEERING - WISCONSIN  
 N8 W22350 Johnson Road  
 Waukesha, WI 53186  
 Mr. Kevin Bugel

Work Order: WTI0695  
 Project: 1E-0912014 Milwaukee, WI  
 Project Number: 4763 North 32nd Street

Received: 09/21/10  
 Reported: 10/04/10 15:55

Analyte	Sample Result	Data Qualifiers	Units	MRL	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
<b>Sample ID: WTI0695-06 (DRAFT: S-24 SW Face - Soil)</b>						<b>Sampled: 09/20/10</b>			
DRAFT: General Chemistry Parameters									
% Solids	89		%	NA	1	09/29/10 17:11	ler	10I0785	SM 2540G
DRAFT: Metals									
Arsenic	12		mg/kg dry	2.8	1.0	10/01/10 14:13	mmm	10I0621	SW 6010B
Lead	11		mg/kg dry	1.3	1.0	10/01/10 14:13	mmm	10I0621	SW 6010B
DRAFT: PNAs by SW8310									
Acenaphthene	<56		ug/kg dry	56	1	09/30/10 14:43	CLJ	10I0739	SW 8310
Acenaphthylene	<95		ug/kg dry	95	1	09/30/10 14:43	CLJ	10I0739	SW 8310
Anthracene	8.4		ug/kg dry	5.6	1	09/30/10 14:43	CLJ	10I0739	SW 8310
Benzo (a) anthracene	120		ug/kg dry	5.6	1	09/30/10 14:43	CLJ	10I0739	SW 8310
Benzo (b) fluoranthene	29		ug/kg dry	5.6	1	09/30/10 14:43	CLJ	10I0739	SW 8310
Benzo (k) fluoranthene	<5.6		ug/kg dry	5.6	1	09/30/10 14:43	CLJ	10I0739	SW 8310
Benzo (a) pyrene	16		ug/kg dry	5.6	1	09/30/10 14:43	CLJ	10I0739	SW 8310
Benzo (g,h,i) perylene	37		ug/kg dry	5.6	1	09/30/10 14:43	CLJ	10I0739	SW 8310
Chrysene	43		ug/kg dry	5.6	1	09/30/10 14:43	CLJ	10I0739	SW 8310
Dibenzo (a,h) anthracene	350		ug/kg dry	8.4	1	09/30/10 14:43	CLJ	10I0739	SW 8310
Fluoranthene	120		ug/kg dry	11	1	09/30/10 14:43	CLJ	10I0739	SW 8310
Fluorene	<11		ug/kg dry	11	1	09/30/10 14:43	CLJ	10I0739	SW 8310
Indeno (1,2,3-cd) pyrene	57		ug/kg dry	5.6	1	09/30/10 14:43	CLJ	10I0739	SW 8310
1-Methylnaphthalene	<34		ug/kg dry	34	1	09/30/10 14:43	CLJ	10I0739	SW 8310
2-Methylnaphthalene	<34		ug/kg dry	34	1	09/30/10 14:43	CLJ	10I0739	SW 8310
Naphthalene	<34		ug/kg dry	34	1	09/30/10 14:43	CLJ	10I0739	SW 8310
Phenanthrene	29		ug/kg dry	5.6	1	09/30/10 14:43	CLJ	10I0739	SW 8310
Pyrene	140		ug/kg dry	5.6	1	09/30/10 14:43	CLJ	10I0739	SW 8310
Surr: 2-Fluorobiphenyl (61-128%)	103		%						

GILES ENGINEERING - WISCONSIN  
N8 W22350 Johnson Road  
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Mr. Kevin Bugel

Work Order: WTI0695  
Project: 1E-0912014 Milwaukee, WI  
Project Number: 4763 North 32nd Street

Received: 09/21/10  
Reported: 10/04/10 15:55

### SAMPLE EXTRACTION DATA

Parameter	Batch	Lab Number	Wt/Vol Extracted	Extracted Vol	Date	Analyst	Extraction Method
DRAFT: PNAs by SW8310							
SW 8310	1010739	WTI0695-01	10	3	09/28/10 14:28	BKM	SW 3546
SW 8310	1010739	WTI0695-02	10	3	09/28/10 14:28	BKM	SW 3546
SW 8310	1010739	WTI0695-03	10	2	09/28/10 14:28	BKM	SW 3546
SW 8310	1010739	WTI0695-04	10	2	09/28/10 14:28	BKM	SW 3546
SW 8310	1010739	WTI0695-05	10	2	09/28/10 14:28	BKM	SW 3546
SW 8310	1010739	WTI0695-06	10	2	09/28/10 14:28	BKM	SW 3546

GILES ENGINEERING - WISCONSIN  
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 Project Number: 4763 North 32nd Street

Received: 09/21/10  
 Reported: 10/04/10 15:55

### LABORATORY BLANK QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD	RPD Limit	Q
<b>DRAFT: Metals</b>														
Arsenic	1010549			mg/kg wet	N/A	2.5	<2.5							
Lead	1010549			mg/kg wet	N/A	1.2	<1.2							
Arsenic	1010621			mg/kg wet	N/A	2.5	<2.5							
Lead	1010621			mg/kg wet	N/A	1.2	<1.2							

GILES ENGINEERING - WISCONSIN  
N8 W22350 Johnson Road  
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Project Number: 4763 North 32nd Street

Received: 09/21/10  
Reported: 10/04/10 15:55

### LABORATORY DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	% REC	Dup %REC	% REC Limits	RPD RPD	RPD Limit	Q
<b>DRAFT: General Chemistry Parameters</b>													
<b>QC Source Sample: WTI0694-01</b>													
% Solids	10I0785	99.7		%	N/A	N/A	99.8				0	20	

GILES ENGINEERING - WISCONSIN  
N8 W22350 Johnson Road  
Waukesha, WI 53186  
Mr. Kevin Bugel

Work Order: WTI0695  
Project: 1E-0912014 Milwaukee, WI  
Project Number: 4763 North 32nd Street

Received: 09/21/10  
Reported: 10/04/10 15:55

### LCS/LCS DUPLICATE QC DATA

Analyte	Seq/	Source	Spike	Units	MDL	MRL	Result	Dup	%	Dup	% REC	RPD	Limit	Q
	Batch	Result	Level					Result	REC	%REC	Limits			
<b>DRAFT: Metals</b>														
Arsenic	1010549		100	mg/kg wet	N/A	2.5	90.0		90		85-115			
Lead	1010549		100	mg/kg wet	N/A	1.2	95.1		95		85-115			

GILES ENGINEERING - WISCONSIN  
N8 W22350 Johnson Road  
Waukesha, WI 53186  
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Work Order: WTI0695  
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Project Number: 4763 North 32nd Street

Received: 09/21/10  
Reported: 10/04/10 15:55

## CERTIFICATION SUMMARY

### TestAmerica Watertown

Method	Matrix	Nelac	Wisconsin
SM 2540G	Solid/Soil	X	X
SW 6010B	Solid/Soil	X	X
SW 8310	Solid/Soil	X	X



GILES ENGINEERING - WISCONSIN  
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Project Number: 4763 North 32nd Street

Received: 09/21/10  
Reported: 10/04/10 15:55

### DATA QUALIFIERS AND DEFINITIONS

- Z3** The sample required a dilution due to the nature of the sample matrix. Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.
- Z5** Due to sample matrix effects, the surrogate recovery was outside acceptance limits. Secondary surrogate recovery was within the acceptance limits.
- ZX** Due to sample matrix effects, the surrogate recovery was outside the acceptance limits.

### ADDITIONAL COMMENTS

Results are reported on a wet weight basis unless otherwise noted.





### Cooler Receipt Log

Work Order(s): WTID695 Client Name/Project: Olus # of Coolers: \_\_\_\_\_

1. How did samples arrive?  Fed-Ex  UPS  TestAmerica  Client  Dunham  Speedy  \_\_\_\_\_

Date/time cooler was opened: 9/20/10 1:30 By: Mark Brats TEMP. \_\_\_\_\_

2. Were custody seals intact, signed and dated correctly?.....  Intact  Broken  N/A

3. Were samples on ice?.....  Yes  No

4. Does this Project require quick turn around analysis?.....  No  Yes

5. Are there any short hold time tests? (48hrs or less) .....  No  Yes

Past Hold?.....  No  Yes

48 hours or less	7 days
Coliform Bacteria ..... 8/30 hours	Aqueous Organic Prep
Chlorine/Hex Cr ..... 24 hours	TS
BOD	TDS
Nitrate/Nitrite.....(DW is 14 days)	TSS
Sulfite	Sulfide
Orthophosphate	Volatile Solids
Surfactants (MBAS)	

6. Ops Mgr, PM or Analyst informed of short hold?.....Who \_\_\_\_\_ When \_\_\_\_\_

7. Other than short hold test , were any samples within 2 days of their hold date .....  No  Yes

Or past their expiration of hold time .....  No  Yes

8. Is the date and time of collection recorded? Date .....  Yes  No

Time.....  Yes  No

9. Were all sample containers listed on the COC received and intact? .....  Yes  No

10. Do sample containers received and COC match?.....  Yes  No

11. Are dissolved parameters field filtered or being filtered in the lab?.....  Field  Lab  N/A

12. Are sample volumes adequate and preservatives correct for test requested? Vol.....  Yes  No

Pres....  Yes  No

13. Do VOC samples have air bubbles >6mm?.....  No  Yes  N/A

14. Is an aqueous Trip Blank included?.....  Yes  No  N/A

15. Are any samples on hold? .....  No  Yes

16. Are there samples to be subcontracted? .....  No  Yes

17. Is a Methanol Trip Blank included?.....  Yes  No  N/A

18. How were VOC soils received?  Methanol  Sodium Bisulfate  Packed Jar  Encore  Other  Water (see options\*)

\*  Within 48hrs of sampling  Past 48hrs of sampling  Frozen  Not Frozen

If any changes are made to this Work Order after Login, or if comments must be made regarding this cooler, explain them below:

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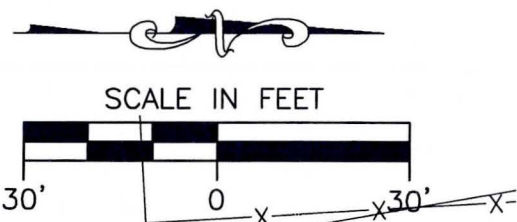


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## **APPENDIX D**

### **Proposed Bank Area Repair Plans & Specifications**





WISDOT HEAVY DUTY  
RIPRAP W/ TYPE HR  
GEOTEXTILE FABRIC

WISDOT GROUDED  
HEAVY DUTY RIPRAP  
W/ TYPE HR  
GEOTEXTILE FABRIC

EXISTING RETAINING  
WALL FOUNDATION

LINCOLN CREEK 8.00'

SILT FENCE

GRADES THIS AREA TO MATCH  
PROPOSED DESIGN GRADES FOR  
BISHOPS CREEK PHASE I AS DESIGNED  
BY GRAEF. NOTIFY ENGINEER  
IMMEDIATLY OF ANY CONFLICTS

*Thomas A. Gilman*  
 THOMAS A. GILMAN  
 E-27568  
 Mukwonago, Wis.  
 PROFESSIONAL ENGINEER

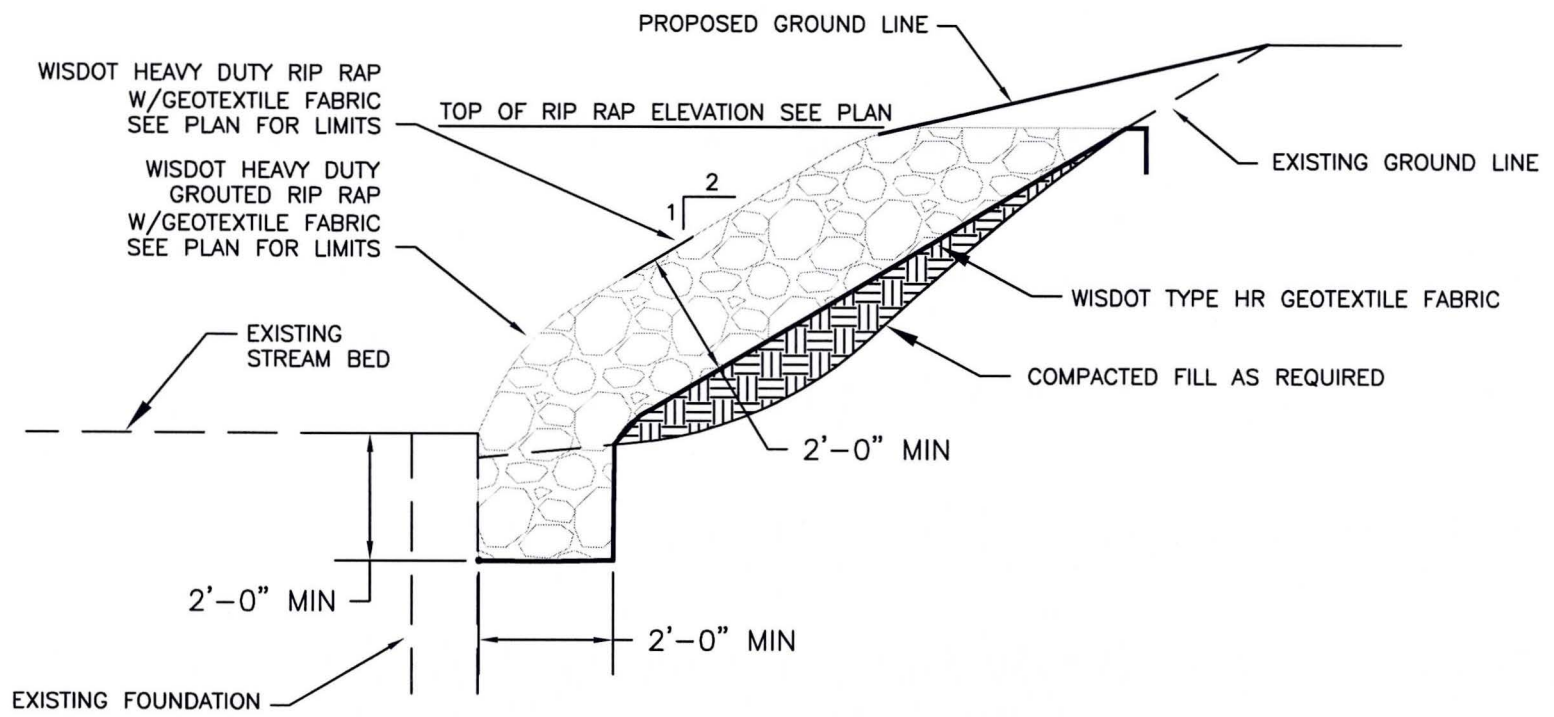
SHEET NUMBER  
**C-2.1**  
 JSD PROJECT NUMBER  
 09 3500  
 SCALE  
 1" = 30'

SHEET TITLE  
**RIP RAP REPAIR  
 AT LINCOLN CREEK**

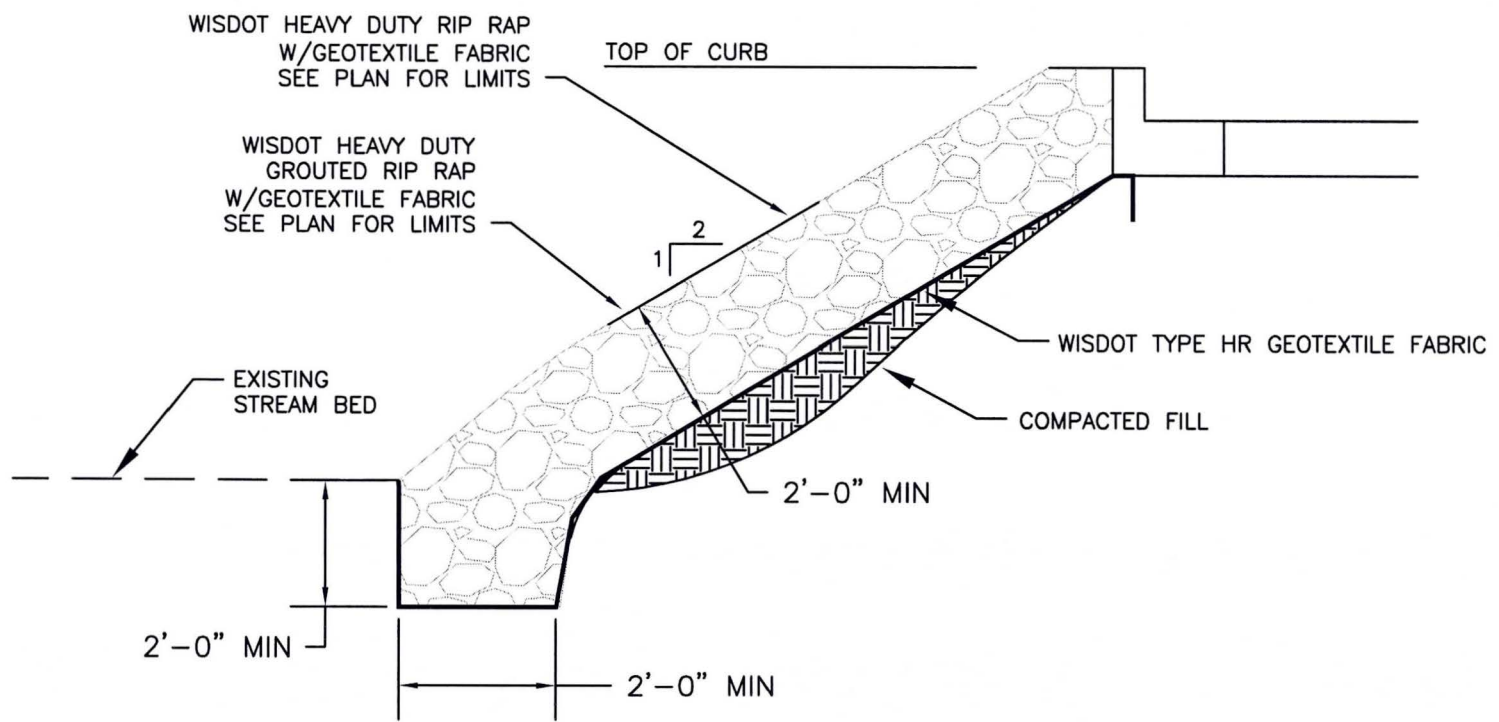
PROJECT  
**BISHOPS CREEK**

ITEM	DATE
Design: TAG	9-7-10
Drawn: TAG	12-01-10
Approved:	

**JSD** • Engineers • Surveyors  
 JSD Engineering & Design, Inc.  
 CIVIL SITE ENGINEERING  
 SURVEYING & MAPPING  
 TRANSPORTATION ENGINEERING  
 CONSTRUCTION MANAGEMENT  
 MILWAUKEE REGIONAL OFFICE  
 N22 W22831 Nancy Court Suite 3  
 Mukwonago, Wisconsin 53186  
 (262) 513-0666



SECTION A-A



SECTION B-B



File: J:\USD Projects\09C3500 Bishops Creek\dwg\Rip Rap Details.dwg Layout: 11x17port User: tgigenbach Plotted: Dec 01, 2010 - 3:44pm



**TABLE 1**  
**SUPPLEMENTAL RAP ARRA GRANT ALLOCATION**  
**BISHOP'S CREEK CDC - SUPPLEMENTAL REMEDIAL ACTION**  
**4759 32ND STREET; MILWAUKEE, WI**

Phase No.	Description	CONSULTANT FEES			SUBCONTRACTOR FEES	Budget
		Labor	Expenses	Equipment		
TASK 01:	SUPPLEMENTAL RAP PREPARATION	\$3,530	\$0	\$0	\$750	\$4,280
TASK 02:	PERMITTING & WDNR COMMUNICATION	\$1,695	\$0	\$0	\$500	\$2,195
TASK 03:	CREEK BOTTOM REMEDIATION	\$2,935	\$115	\$230	\$86,915	\$90,195
TASK 04:	BANK AREA REMEDIATION	\$2,935	\$75	\$110	\$45,215	\$48,335
TASK 05:	RETAINING WALL & PARKING LOT REPAIR	\$685	\$30	\$40	\$7,615	\$8,370
TASK 06:	REMEDICATION OVERSIGHT (SEE 3, 4, & 5)	\$0	\$0	\$0	\$0	\$0
TASK 07:	SITE SECURITY	\$925	\$400	\$0	\$3,500	\$4,825
TASK 08:	ENVIRONMENTAL CONSULTING & REPORTING	\$6,300	\$0	\$0	\$0	\$6,300
<b>Fee Estimate</b>		<b>\$19,005</b>	<b>\$620</b>	<b>\$380</b>	<b>\$144,495</b>	<b>\$164,500</b>

**TABLE 1  
 SUPPLEMENTAL RAP ARRA GRANT ALLOCATION  
 BISHOP'S CREEK CDC - SUPPLEMENTAL REMEDIAL ACTION  
 4759 32ND STREET; MILWAUKEE, WI**

SUBCONTRACTOR FEES DETAIL		SUBCONTRACTOR FEES	Budget
<b>TASK 01:</b>	<b>SUPPLEMENTAL RAP PREPARATION</b>	<b>\$750</b>	<b>\$750</b>
	WDNR Report Review Fees	\$750	
<b>TASK 02:</b>	<b>PERMITTING &amp; WDNR COMMUNICATION</b>	<b>\$500</b>	<b>\$500</b>
	WDNR Permit Review Fees	\$0	
<b>TASK 03:</b>	<b>CREEK BOTTOM REMEDIATION</b>	<b>\$86,915</b>	<b>\$86,915</b>
	Excavation Subcontractor Costs	\$86,915	
<b>TASK 04:</b>	<b>BANK AREA REMEDIATION</b>	<b>\$45,215</b>	<b>\$45,215</b>
	Excavation Subcontractor Costs	\$45,215	
<b>TASK 05:</b>	<b>RETAINING WALL &amp; PARKING LOT REPAIR</b>	<b>\$7,615</b>	<b>\$7,615</b>
	Excavation Subcontractor Costs	\$7,615	
<b>TASK 06:</b>	<b>REMEDATION OVERSIGHT (SEE 3, 4, &amp; 5)</b>	<b>\$0</b>	<b>\$0</b>
<b>TASK 07:</b>	<b>SITE SECURITY</b>	<b>\$3,500</b>	<b>\$3,500</b>
	Repair Fence	\$3,500	
<b>TASK 08:</b>	<b>ENVIRONMENTAL CONSULTING &amp; REPORTING</b>	<b>\$0</b>	<b>\$0</b>
<b>TOTALS:</b>			<b>\$144,495</b>



**BUDGET WORKSHEET**

PROJECT NAME: BISHOP'S CREEK CDC - SUPPLEMENTAL REMEDIAL ACTION

CITY, STATE: 4759 32ND STREET; MILWAUKEE, WI

PROJECT NO: 1E-0912014

<b>TASK 01: SUPPLEMENTAL RAP PREPARATION</b>		<b>\$4,280.00</b>		
<b>GILES LABOR</b>	<b>Units</b>	<b>Unit Rate</b>	<b>Quantity</b>	<b>Price</b>
REGIONAL MANAGER	hr.	\$120.00		\$0.00
DIVISION MANAGER	hr.	\$120.00	24	\$2,880.00
SENIOR PM	hr.	\$110.00		\$0.00
PROJECT PM II	hr.	\$100.00		\$0.00
PROJECT PM I	hr.	\$95.00		\$0.00
STAFF ENV SCIENTIST I / II	hr.	\$85.00	4	\$340.00
STAFF GEOLOGIST II / I	hr.	\$75.00		\$0.00
ENV SPECIALIST I / II	hr.	\$65.00		\$0.00
CAD OPERATOR	hr.	\$55.00	4	\$220.00
WORD-PROCESSING	hr.	\$45.00	2	\$90.00
<b>GILES LABOR COST TOTAL</b>				<b>\$3,530.00</b>

<b>MISCELLANEOUS SUBCONTRACTOR 02 COSTS</b>	<b>Units</b>	<b>Unit Rate</b>	<b>Quantity</b>	<b>Price</b>
WDNR Review Fees				
WDNR Report Review Fees	LS	\$750.00	1	\$750.00
WDNR Cost Markup		0.00%	\$750.00	\$0.00
<b>MISCELLANEOUS SUBCONTRACTOR 02 COST TOTAL</b>				<b>\$750.00</b>

**BUDGET WORKSHEET**

PROJECT NAME: BISHOP'S CREEK CDC - SUPPLEMENTAL REMEDIAL ACTION  
CITY, STATE: 4759 32ND STREET; MILWAUKEE, WI  
PROJECT NO: 1E-0912014

<b>TASK 02: PERMITTING &amp; WDNR COMMUNICATION</b>		<b>\$2,195.00</b>		
<b>GILES LABOR</b>	<b>Units</b>	<b>Unit Rate</b>	<b>Quantity</b>	<b>Price</b>
REGIONAL MANAGER	hr.	\$120.00		\$0.00
DIVISION MANAGER	hr.	\$120.00	10	\$1,200.00
SENIOR PM	hr.	\$110.00		\$0.00
PROJECT PM II	hr.	\$100.00		\$0.00
PROJECT PM I	hr.	\$95.00		\$0.00
STAFF ENV SCIENTIST I / II	hr.	\$85.00	4	\$340.00
STAFF GEOLOGIST II / I	hr.	\$75.00		\$0.00
ENV SPECIALIST I / II	hr.	\$65.00		\$0.00
CAD OPERATOR	hr.	\$55.00	2	\$110.00
WORD-PROCESSING	hr.	\$45.00	1	\$45.00
<b>GILES LABOR COST TOTAL</b>				<b>\$1,695.00</b>

<b>MISCELLANEOUS SUBCONTRACTOR 02 COSTS</b>	<b>Units</b>	<b>Unit Rate</b>	<b>Quantity</b>	<b>Price</b>
WDNR Review Fees				
WDNR Report Review Fees	LS	\$500.00	1	\$500.00
<b>MISCELLANEOUS SUBCONTRACTOR 02 COST TOTAL</b>				<b>\$500.00</b>

**BUDGET WORKSHEET**

PROJECT NAME: BISHOP'S CREEK CDC - SUPPLEMENTAL REMEDIAL ACTION  
 CITY, STATE: 4759 32ND STREET; MILWAUKEE, WI  
 PROJECT NO: 1E-0912014

<b>TASK 03: CREEK BOTTOM REMEDIATION</b>		<b>\$90,195.00</b>		
<b>GILES LABOR</b>	<b>Units</b>	<b>Unit Rate</b>	<b>Quantity</b>	<b>Price</b>
REGIONAL MANAGER	hr.	\$120.00		\$0.00
DIVISION MANAGER	hr.	\$120.00	10	\$1,200.00
SENIOR PM	hr.	\$110.00		\$0.00
PROJECT PM II	hr.	\$100.00		\$0.00
PROJECT PM I	hr.	\$95.00		\$0.00
STAFF ENV SCIENTIST I / II	hr.	\$85.00		\$0.00
STAFF GEOLOGIST II / I	hr.	\$75.00		\$0.00
ENV SPECIALIST I / II	hr.	\$65.00	25	\$1,625.00
CAD OPERATOR	hr.	\$55.00	2	\$110.00
WORD-PROCESSING	hr.	\$45.00		\$0.00
<b>GILES LABOR COST TOTAL</b>				<b>\$2,935.00</b>

<b>GILES EMPLOYEE EXPENSES</b>	<b>Units</b>	<b>Unit Rate</b>	<b>Quantity</b>	<b>Price</b>
Mileage-Personal Vehicle	mi.	\$0.40	100	\$40.00
Mileage-Giles Vehicle	mi.	\$0.60	125	\$75.00
Other Misc. Employee Expenses	LS	\$100		\$0.00
<b>GILES EMPLOYEE EXPENSES COST TOTAL</b>				<b>\$115.00</b>

<b>GILES EQUIPMENT</b>	<b>Units</b>	<b>Unit Rate</b>	<b>Quantity</b>	<b>Price</b>
Survey Equipment	day	\$40	2	\$80.00
PID	day	\$75	2	\$150.00
<b>GILES EQUIPMENT COST TOTAL</b>				<b>\$230.00</b>

<b>EXCAVATION SUBCONTRACTOR COSTS</b>	<b>Units</b>	<b>Unit Rate</b>	<b>Quantity</b>	<b>Price</b>
<b>BB Service</b>				
Stone Access Road Construction	LS	\$5,010.00	1	\$5,010.00
Fill & Grade Creek Bottom (Remove/Repair Gabion Baskets	LS	\$5,910.00	1	\$5,910.00
Excavate & Haul Debris from Creek Bottom to Parking Lot	LS	\$12,270.00	1	\$12,270.00
Load, Haul, Dispose of Non Exempt Debris	LS	\$12,455.00	1	\$12,455.00
Repair Creek Bottom (Install Fabric w/10" Concrete/Place Rip Rap in crete	LS	\$48,410.00	1	\$48,410.00
Remove Temporary Road & Fill/balance the Bank	LS	\$2,860.00	1	\$2,860.00
<b>EXCAVATION SUBCONTRACTOR COST TOTAL</b>				<b>\$86,915.00</b>



**BUDGET WORKSHEET**

PROJECT NAME: BISHOP'S CREEK CDC - SUPPLEMENTAL REMEDIAL ACTION  
 CITY, STATE: 4759 32ND STREET; MILWAUKEE, WI  
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<b>TASK 04: BANK AREA REMEDIATION</b>		<b>\$48,335.00</b>		
<b>GILES LABOR</b>				
	<b>Units</b>	<b>Unit Rate</b>	<b>Quantity</b>	<b>Price</b>
REGIONAL MANAGER	hr.	\$120.00		\$0.00
DIVISION MANAGER	hr.	\$120.00	10	\$1,200.00
SENIOR PM	hr.	\$110.00		\$0.00
PROJECT PM II	hr.	\$100.00		\$0.00
PROJECT PM I	hr.	\$95.00		\$0.00
STAFF ENV SCIENTIST I / II	hr.	\$85.00		\$0.00
STAFF GEOLOGIST II / I	hr.	\$75.00		\$0.00
ENV SPECIALIST I / II	hr.	\$65.00	25	\$1,625.00
CAD OPERATOR	hr.	\$55.00	2	\$110.00
WORD-PROCESSING	hr.	\$45.00		\$0.00
<b>GILES LABOR COST TOTAL</b>				<b>\$2,935.00</b>

<b>GILES EMPLOYEE EXPENSES</b>				
	<b>Units</b>	<b>Unit Rate</b>	<b>Quantity</b>	<b>Price</b>
Mileage-Giles Vehicle	mi.	\$0.60	125	\$75.00
<b>GILES EMPLOYEE EXPENSES COST TOTAL</b>				<b>\$75.00</b>

<b>GILES EQUIPMENT</b>				
	<b>Units</b>	<b>Unit Rate</b>	<b>Quantity</b>	<b>Price</b>
Survey Equipment	day	\$35	1	\$35.00
PID	day	\$75	1	\$75.00
<b>GILES EQUIPMENT COST TOTAL</b>				<b>\$110.00</b>

<b>EXCAVATION SUBCONTRACTOR COSTS</b>				
	<b>Units</b>	<b>Unit Rate</b>	<b>Quantity</b>	<b>Price</b>
<b>BB Service</b>				
Finish Grade Subgrade	LS	\$8,375.00	1	\$8,375.00
Install Filter Fabric & Heavy Rip Rap	LS	\$36,840.00	1	\$36,840.00
<b>EXCAVATION SUBCONTRACTOR COST TOTAL</b>				<b>\$45,215.00</b>

**BUDGET WORKSHEET**

PROJECT NAME: BISHOP'S CREEK CDC - SUPPLEMENTAL REMEDIAL ACTION  
 CITY, STATE: 4759 32ND STREET; MILWAUKEE, WI  
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<b>TASK 05: RETAINING WALL &amp; PARKING LOT REPAIR</b>		<b>\$8,370.00</b>		
<b>GILES LABOR</b>	<b>Units</b>	<b>Unit Rate</b>	<b>Quantity</b>	<b>Price</b>
REGIONAL MANAGER	hr.	\$120.00		\$0.00
DIVISION MANAGER	hr.	\$120.00	2	\$240.00
SENIOR PM	hr.	\$110.00		\$0.00
PROJECT PM II	hr.	\$100.00		\$0.00
PROJECT PM I	hr.	\$95.00		\$0.00
STAFF ENV SCIENTIST I / II	hr.	\$85.00		\$0.00
STAFF GEOLOGIST II / I	hr.	\$75.00		\$0.00
ENV SPECIALIST I / II	hr.	\$65.00	6	\$390.00
CAD OPERATOR	hr.	\$55.00	1	\$55.00
WORD-PROCESSING	hr.	\$45.00		\$0.00
<b>GILES LABOR COST TOTAL</b>				<b>\$685.00</b>

<b>GILES EMPLOYEE EXPENSES</b>	<b>Units</b>	<b>Unit Rate</b>	<b>Quantity</b>	<b>Price</b>
Mileage-Personal Vehicle	mi.	\$0.40		\$0.00
Mileage-Giles Vehicle	mi.	\$0.60	50	\$30.00
Rental Car	day	\$65		\$0.00
Hotel/Per Diem	LS	\$100		\$0.00
Airfare	LS	\$500		\$0.00
Shipping	LS	\$100		\$0.00
Other Misc. Employee Expenses	LS	\$100		\$0.00
<b>GILES EMPLOYEE EXPENSES COST TOTAL</b>				<b>\$30.00</b>

<b>GILES EQUIPMENT</b>	<b>Units</b>	<b>Unit Rate</b>	<b>Quantity</b>	<b>Price</b>
Survey Equipment	day	\$40	1	\$40.00
<b>GILES EQUIPMENT COST TOTAL</b>				<b>\$40.00</b>

<b>EXCAVATION SUBCONTRACTOR COSTS</b>	<b>Units</b>	<b>Unit Rate</b>	<b>Quantity</b>	<b>Price</b>
<b>BB Service</b>				
Cut & Remove Damaged Section of Asphalt paving & fix curb/gutter	LS	\$5,350.00	1	\$5,350.00
Replace washed out storm sewer w/new concrete piping	LS	\$2,265.00	1	\$2,265.00
<b>EXCAVATION SUBCONTRACTOR COST TOTAL</b>				<b>\$7,615.00</b>

**BUDGET WORKSHEET**

PROJECT NAME: BISHOP'S CREEK CDC - SUPPLEMENTAL REMEDIAL ACTION  
CITY, STATE: 4759 32ND STREET; MILWAUKEE, WI  
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<b>TASK 06:</b>		<b>REMEDATION OVERSIGHT (SEE 3, 4, &amp; 5)</b>		<b>\$0.00</b>	
<b>GILES LABOR</b>	<b>Units</b>	<b>Unit Rate</b>	<b>Quantity</b>	<b>Price</b>	
REGIONAL MANAGER	hr.	\$120.00		\$0.00	
DIVISION MANAGER	hr.	\$120.00		\$0.00	
SENIOR PM	hr.	\$110.00		\$0.00	
PROJECT PM II	hr.	\$100.00		\$0.00	
PROJECT PM I	hr.	\$95.00		\$0.00	
STAFF ENV SCIENTIST I / II	hr.	\$85.00		\$0.00	
STAFF GEOLOGIST II / I	hr.	\$75.00		\$0.00	
ENV SPECIALIST I / II	hr.	\$65.00		\$0.00	
CAD OPERATOR	hr.	\$55.00		\$0.00	
WORD-PROCESSING	hr.	\$45.00		\$0.00	
<b>GILES LABOR COST TOTAL</b>				<b>\$0.00</b>	



**BUDGET WORKSHEET**

PROJECT NAME: BISHOP'S CREEK CDC - SUPPLEMENTAL REMEDIAL ACTION

CITY, STATE: 4759 32ND STREET; MILWAUKEE, WI

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<b>TASK 07: SITE SECURITY</b>		<b>\$4,825.00</b>		
<b>GILES LABOR</b>	<b>Units</b>	<b>Unit Rate</b>	<b>Quantity</b>	<b>Price</b>
REGIONAL MANAGER	hr.	\$120.00		\$0.00
DIVISION MANAGER	hr.	\$120.00	5	\$600.00
SENIOR PM	hr.	\$110.00		\$0.00
PROJECT PM II	hr.	\$100.00		\$0.00
PROJECT PM I	hr.	\$95.00		\$0.00
STAFF ENV SCIENTIST I / II	hr.	\$85.00		\$0.00
STAFF GEOLOGIST II / I	hr.	\$75.00		\$0.00
ENV SPECIALIST I / II	hr.	\$65.00	5	\$325.00
CAD OPERATOR	hr.	\$55.00		\$0.00
WORD-PROCESSING	hr.	\$45.00		\$0.00
<b>GILES LABOR COST TOTAL</b>				<b>\$925.00</b>
<b>GILES EMPLOYEE EXPENSES</b>	<b>Units</b>	<b>Unit Rate</b>	<b>Quantity</b>	<b>Price</b>
Mileage-Personal Vehicle	mi.	\$0.40	50	\$20.00
Mileage-Giles Vehicle	mi.	\$0.60	50	\$30.00
Tarps	LS	\$350	1	\$350.00
<b>GILES EMPLOYEE EXPENSES COST TOTAL</b>				<b>\$400.00</b>
<b>EXCAVATION SUBCONTRACTOR COSTS</b>	<b>Units</b>	<b>Unit Rate</b>	<b>Quantity</b>	<b>Price</b>
BB Service				
Fencing Repair	LS	\$3,500.00	1	\$3,500.00
<b>EXCAVATION SUBCONTRACTOR COST TOTAL</b>				<b>\$3,500.00</b>

**BUDGET WORKSHEET**

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CITY, STATE: 4759 32ND STREET; MILWAUKEE, WI  
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<b>TASK 08:</b>		<b>ENVIRONMENTAL CONSULTING &amp; REPORTING</b>		<b>\$6,300.00</b>	
<b>GILES LABOR</b>		<b>Units</b>	<b>Unit Rate</b>	<b>Quantity</b>	<b>Price</b>
REGIONAL MANAGER	hr.	\$120.00			\$0.00
DIVISION MANAGER	hr.	\$120.00		36	\$4,320.00
SENIOR PM	hr.	\$110.00			\$0.00
PROJECT PM II	hr.	\$100.00			\$0.00
PROJECT PM I	hr.	\$95.00			\$0.00
STAFF ENV SCIENTIST I / II	hr.	\$85.00		16	\$1,360.00
STAFF GEOLOGIST II / I	hr.	\$75.00			\$0.00
ENV SPECIALIST I / II	hr.	\$65.00			\$0.00
CAD OPERATOR	hr.	\$55.00		8	\$440.00
WORD-PROCESSING	hr.	\$45.00		4	\$180.00
<b>GILES LABOR COST TOTAL</b>					<b>\$6,300.00</b>