



Mr. Jim de Lambert
Bassett Creek Watershed Management Commission
7800 Golden Valley Road
Golden Valley, MN 55427

Page # 1
Invoice # 23270051-2016-6
Project # 23/27-0051
Client # 59
August 5, 2016

Invoice of Account with
BARR ENGINEERING COMPANY

For professional services during the period of
July 2, 2016 through July 29, 2016

ENGINEERING

TECHNICAL SERVICES

Communications with commissioner Carlson regarding Chateaux site and general coordination with the City of Medicine Lake for WCA and development reviews; communications with administrator regarding upcoming county board meeting; communications with Golden Valley staff regarding Chinese mystery snails; review DNR buffer map; communications with BWSR staff regarding eLINK accounts; communications with administrator regarding Metro Blooms grant application questions in eLINK and review grant application questions in eLINK; communications with administrator regarding budget; communications with administrator and Plymouth staff regarding Medicine Lake dam ownership and responsibilities, and review Flood Control Project O&M manual for Medicine Lake dam; and communications with administrator.

James P. Herbert, Principal Engineer/Scientist 1.3 hours @ \$180.00 per hour	\$ 234.00
Karen L. Chandler, Principal Engineer/Scientist 8.6 hours @ \$165.00 per hour	\$ 1,419.00
Jennifer A. Koehler, Engineer/Scientist/Specialist III 0.7 hours @ \$125.00 per hour	\$ <u>87.50</u>
<i>Subtotal, Technical Services</i>	\$ 1,740.50

MONTHLY MEETING PREPARATION

Communications/coordination with administrator regarding draft/final agenda and meeting packet for July 2016 meeting; review/edit draft June meeting minutes; finalize XP-SWMM status update memo for July Commission meeting and email to administrator; communications with administrator regarding XP-SWMM status memo; prepare for July Commission meeting, including set up and attend pre-meeting conference call with chair de Lambert and administrator to review meeting agenda; provide grant tracking information to administrator; and coordination and communications

with administrator and internal staff regarding follow-up tasks from June and July Commission meetings and upcoming meeting agenda items.

James P. Herbert, Principal Engineer/Scientist 6.3 hours @ \$180.00 per hour	\$ 1,134.00
Karen L. Chandler, Principal Engineer/Scientist 17.5 hours @ \$165.00 per hour	\$ 2,887.50
Technicians/Administrative.....	\$ 570.00
Expenses (Mileage)	\$ <u>11.88</u>
<i>Subtotal, Monthly Meeting Preparation.....</i>	<i>\$ 4,603.38</i>

TAC PREPARATION

Prepare draft memo from TAC regarding recommendations 1, 7, 8 for Flood Control Project and email to administrator; revise/final TAC memo per TAC and administrator comments; and communications with administrator.

Karen L. Chandler, Principal Engineer/Scientist 5.3 hours @ \$165.00 per hour	\$ <u>874.50</u>
<i>Subtotal, TAC Preparation.....</i>	<i>\$ 874.50</i>
<i>Subtotal Technical Services</i>	<i>\$ 7,218.38</i>

PLAT REVIEW

10th Ave-UP Rail Culvert Repair (2015-36)

Provide information to Golden Valley staff regarding equivalent pipe size for proposed pipe at crossing; and communications with Golden Valley staff.

Karen L. Chandler, Principal Engineer/Scientist 1.1 hours @ \$165.00 per hour	\$ 181.50
Jennifer A. Koehler, Engineer/Scientist/Specialist III 0.6 hours @ \$125.00 per hour	\$ <u>75.00</u>
<i>Subtotal, 10th Ave-UP Rail Culvert Repair.....</i>	<i>\$ 256.50</i>

Old Rockford Rd Overlay and Trail (2016-10)

Review revised grading, drainage and erosion control plans; and prepare and send final approval letter to city staff.

James P. Herbert, Principal Engineer/Scientist 1.5 hours @ \$180.00 per hour	\$ <u>270.00</u>
<i>Subtotal, Old Rockford Rd Overlay and Trail.....</i>	<i>\$ 270.00</i>

Armstrong High School Baseball Field Improvements (2016-11)

Review revised grading, drainage and erosion control plans.

James P. Herbert, Principal Engineer/Scientist 1.4 hours @ \$180.00 per hour	\$	<u>252.00</u>
<i>Subtotal, Armstrong HS Baseball Field Improvements.....</i>		<i>\$ 252.00</i>

Pilgrim Lane Elementary Additions (2016-12)

Review revised grading, drainage and erosion control plans, and communications with applicant.

James P. Herbert, Principal Engineer/Scientist 1.5 hours @ \$180.00 per hour	\$	270.00
Josh P. Phillips, Engineer/Scientist/Specialist I 8.7 hours @ \$70.00 per hour.....	\$	<u>609.00</u>
<i>Subtotal, Pilgrim Lane Elementary Additions.....</i>		<i>\$ 879.00</i>

1143 South Shore Drive-Medicine Lake WCA (2016-16)

Communications with legal counsel regarding Declaration of Restrictions and Covenants; follow up with applicant and internal staff regarding restoration plan, no-loss application, and Declaration of Restrictions and Covenants documentation; wetland documentation and communication with applicant's consultant; provide legal counsel's recommended Declaration of Restrictions and Covenants template and comments to applicant's consultant; review revised submittal; and email revised Declaration of Restrictions and Covenants to legal counsel for review.

Karen L. Chandler, Principal Engineer/Scientist 0.7 hours @ \$165.00 per hour	\$	115.50
Karen S. Wold, Engineer/Scientist/Specialist II 5.3 hours @ \$120.00 per hour	\$	<u>636.00</u>
<i>Subtotal, 1143 South Shore Dr-Med Lake WCA.....</i>		<i>\$ 751.50</i>

Beacon Academy (2016-18)

Review revised grading, drainage and erosion control plans.

James P. Herbert, Principal Engineer/Scientist 0.9 hours @ \$180.00 per hour	\$	162.00
Candice H. Kantor, Engineer/Scientist/Specialist II 1.3 hours @ \$100.00 per hour	\$	<u>130.00</u>
<i>Subtotal, Beacon Academy.....</i>		<i>\$ 292.00</i>

Cherrywood Pointe (2016-20)

Review grading, drainage and erosion control plans; and prepare and send approval/comment letter to city staff.

James P. Herbert, Principal Engineer/Scientist 1.8 hours @ \$180.00 per hour	\$ 324.00
Candice H. Kantor, Engineer/Scientist/Specialist II 7.2 hours @ \$100.00 per hour	\$ 720.00
Josh P. Phillips, Engineer/Scientist/Specialist I 3.4 hours @ \$70.00 per hour.....	\$ 238.00
<i>Subtotal, Cherrywood Pointe</i>	\$ 1,282.00

Daugherty 2860 Evergreen Lane (2016-23)

Review grading, drainage and erosion control plans; prepare review memo and map for July Commission meeting and provide to administrator; and prepare and send final approval letter to city staff.

James P. Herbert, Principal Engineer/Scientist 6.8 hours @ \$180.00 per hour	\$ 1,224.00
Karen L. Chandler, Principal Engineer/Scientist 0.2 hours @ \$165.00 per hour	\$ 33.00
Candice H. Kantor, Engineer/Scientist/Specialist II 0.9 hours @ \$100.00 per hour	\$ 90.00
<i>Subtotal, Daugherty 2860 Evergreen Lane</i>	\$ 1,347.00

Luther Support Center (2016-24)

Review grading, drainage and erosion control plans; communications with applicant; and prepare and send approval/comment letter to city staff.

James P. Herbert, Principal Engineer/Scientist 2.1 hours @ \$180.00 per hour	\$ 378.00
Candice H. Kantor, Engineer/Scientist/Specialist II 5.1 hours @ \$100.00 per hour	\$ 510.00
<i>Subtotal, Luther Support Center</i>	\$ 888.00

10715 S Shore Drive-Medicine Lake WCA (2016-25)

Review wetland delineation report, prepare Notice of Application and send to TEP, applicant, and agent; schedule a site review and follow-up communications; provide wetland type and classification information and BCWMC buffer requirements to city's consultant; reschedule site review; prepare and conduct wetland delineation site review; and communications with city's consultant regarding wetland delineation and city application of BCWMC buffer requirements.

James P. Herbert, Principal Engineer/Scientist 0.5 hours @ \$180.00 per hour	\$ 90.00
Karen L. Chandler, Principal Engineer/Scientist 0.8 hours @ \$165.00 per hour	\$ 132.00

Karen S. Wold, Engineer/Scientist/Specialist II 8.2 hours @ \$120.00 per hour	\$ 984.00
Technicians/Administrative.....	\$ 27.00
Expenses (Mileage)	<u>\$ 15.12</u>
<i>Subtotal, 10715 S Shore Drive-Medicine Lake WCA.....</i>	<i>\$ 1,248.12</i>

10715 S Shore Drive-Medicine Lake (2016-25)

Plat review set up.

Technicians/Administrative.....	<u>\$ 27.00</u>
<i>Subtotal, 10715 S Shore Drive-Medicine Lake</i>	<i>\$ 27.00</i>

226 Peninsula Road - WCA (2016-26)

WCA review set up; preliminary review and coordination with city and administrator.

James P. Herbert, Principal Engineer/Scientist 0.5 hours @ \$180.00 per hour	\$ 90.00
Technicians/Administrative.....	<u>\$ 46.00</u>
<i>Subtotal, 226 Peninsula Road - WCA.....</i>	<i>\$ 136.00</i>

226 Peninsula Road (2016-26)

Plat review set up and preliminary review.

Technicians/Administrative.....	<u>\$ 46.00</u>
<i>Subtotal, 226 Peninsula Road.....</i>	<i>\$ 46.00</i>

Brookview Community Center (2016-27)

Coordination with applicant and preliminary review.

James P. Herbert, Principal Engineer/Scientist 0.5 hours @ \$180.00 per hour	<u>\$ 90.00</u>
<i>Subtotal, Brookview Community Center.....</i>	<i>\$ 90.00</i>

Liberty Crossing Flood Mitigation (2016-28)

Coordination with city's consultant regarding review process.

James P. Herbert, Principal Engineer/Scientist 1.6 hours @ \$180.00 per hour	\$ 288.00
Karen L. Chandler, Principal Engineer/Scientist 0.4 hours @ \$165.00 per hour	\$ 66.00

Candice H. Kantor, Engineer/Scientist/Specialist II
0.3 hours @ \$100.00 per hour \$ 30.00
Subtotal, Liberty Crossing Flood Mitigation..... \$ 384.00

Subtotal Plat Review.....\$ 8,149.12

PRELIMINARY COMMUNICATIONS AND NON-FEE REVIEWS

PRELIMINARY COMMUNICATIONS

Communications with consultants regarding proposed projects and BCWMC requirements; coordination with administrator, applicant and commissioner Carlson regarding proposed project site; communications with consultant regarding TCF Bank site in Minnetonka; communications with consultant regarding Minneapolis site; address questions from MPRB about a new bridge in Wirth Park and prepare/send email to MPRB; communications with Xcel Energy regarding Aldrich substation site and location of Bassett Creek tunnel; communications with consultant regarding proposed sidewalk extension project in Golden Valley; and coordination regarding wetland issues.

James P. Herbert, Principal Engineer/Scientist
6.4 hours @ \$180.00 per hour \$ 1,152.00
Josh P. Phillips, Engineer/Scientist/Specialist I
0.3 hours @ \$70.00 per hour..... \$ 21.00
Subtotal, Plat Review – Preliminary Communications.....\$ 1,173.00

NON-FEE REVIEWS

BLUE LINE LRT WCA LGU ADMIN

Golden Valley

Distribute GIS file to Blue Line LRT consultant and communications regarding trail re-alignment.

Karen S. Wold, Engineer/Scientist/Specialist II
0.7 hours @ \$120.00 per hour (7/11/16, 7/28/16)..... \$ 84.00
Subtotal, Golden Valley..... \$ 84.00

Minneapolis

Distribute GIS file to Blue Line LRT consultant.

Karen S. Wold, Engineer/Scientist/Specialist II
0.2 hours @ \$120.00 per hour (7/11/16) \$ 24.00
Subtotal, Minneapolis..... \$ 24.00

Robbinsdale

Follow up with Blue Line LRT consultant regarding GIS data request, and distribute GIS file to Blue Line LRT consultant.

Karen S. Wold, Engineer/Scientist/Specialist II	
0.4 hours @ \$120.00 per hour (7/8/16, 7/11/16)	\$ 48.00
<i>Subtotal, Robbinsdale</i>	\$ 48.00
<i>Subtotal Blue Line LRT WCA LGU Admin</i>	\$ 156.00
<i>Subtotal Blue Line LRT/Bottineau Transitway & Blue Line LRT WCA LGU Admin</i>	\$ 156.00

SP 2772-104 TH 169 (2016-15A)

Coordination with city staff and administrator.

James P. Herbert, Principal Engineer/Scientist	
0.5 hours @ \$180.00 per hour	\$ 90.00
<i>Subtotal, SP 2772-104 TH 169</i>	\$ 90.00

SP 2772-105 TH 169 (2016-15B)

Coordination with city staff and administrator.

James P. Herbert, Principal Engineer/Scientist	
0.5 hours @ \$180.00 per hour	\$ 90.00
<i>Subtotal, SP 2772-105 TH 169</i>	\$ 90.00

***Subtotal Non-Fee Reviews*\$ 336.00**

***Subtotal Preliminary Communications and Non-Fee Reviews*\$ 1,509.00**

COMMISSION AND TAC MEETINGS

Attend July 21 Commission meeting.

Karen L. Chandler, Principal Engineer/Scientist	
3.3 hours @ \$165.00 per hour	\$ 544.50
Expenses (Mileage)	\$ 11.88

***Subtotal, Commission and TAC Meetings*.....\$ 556.38**

SURVEYS & STUDIES

APM/AIS TASK FORCE

Prepare draft questions for survey to learn what other organizations are doing regarding AIS and native plant management and send to administrator for review; prepare final list of questions per administrator comment; communications with administrator regarding August APM/AIS meeting; begin gathering information from other organizations; finalize AIS presentation and email to administrator.

Karen L. Chandler, Principal Engineer/Scientist	
2.1 hours @ \$165.00 per hour	\$ 346.50

Margaret R. Rattei, Engineer/Scientist/Specialist III 2.5 hours @ \$130.00 per hour	\$ 325.00
Sterling G. Williams, Engineer/Scientist/Specialist III 1.0 hours @ \$130.00 per hour	\$ <u>130.00</u>
<i>Subtotal, APM/AIS Task Force</i>	\$ 801.50
<i>Subtotal, Surveys & Studies</i>	\$ 801.50

WATER QUALITY/MONITORING

Review MPCA draft 2016 impaired waters list; internal communications and communications with administrator regarding DNR's upcoming new fish IBI and plant impairments for lakes, and preliminary lake fish IBI score for Medicine Lake; and communications with MPCA staff regarding TMDL requirements resulting from future fish IBI or plant IBI impairments. Northwood and Crane Lakes 2016 monitoring: prepare for and perform July monitoring and prepare for August monitoring of Northwood Lake; review July field water quality data from Northwood Lake; enter surface water quality and field data into Equis; review plant survey results for Crane Lake and Northwood Lake; review and file laboratory reports; and communications with laboratory regarding holding times for water quality samples.

Henry M. Runke, Principal Engineer/Scientist 2.0 hours @ \$175.00 per hour	\$ 350.00
Karen L. Chandler, Principal Engineer/Scientist 1.7 hours @ \$165.00 per hour	\$ 280.50
Margaret R. Rattei, Engineer/Scientist/Specialist III 1.9 hours @ \$130.00 per hour	\$ 247.00
Terri A. Olson, Engineer/Scientist/Specialist III 0.4 hours @ \$130.00 per hour	\$ 52.00
Kelly A. Wild, Engineer/Scientist/Specialist I 0.5 hours @ \$85.00 per hour	\$ 42.50
Technicians/Administrative.....	\$ 703.00
Expenses (Pace Analytical/Endangered Resource Services/Mileage/Canoe/2WD field vehicle/water quality meter).....	\$ <u>2,908.98</u>
<i>Subtotal, Water Quality/Monitoring</i>	\$ 4,583.98

WATER QUANTITY

Measure and review lake level elevations as part of the lake-gauging program.

Technicians/Administrative.....	\$ 738.00
Expenses (Mileage/2WD field vehicle)	\$ <u>107.24</u>
<i>Subtotal, Water Quantity</i>	\$ 845.24
TOTAL ENGINEERING	\$ 23,663.60

SECRETARIAL SERVICES

SECRETARIAL SERVICES EXPENSES

Expenses for postage.

Expenses (Postage) \$ 51.97

TOTAL SECRETARIAL SERVICES EXPENSES \$ 51.97

ANNUAL REPORT

TOTAL ANNUAL REPORT \$ 0.00

PUBLIC COMMUNICATIONS

TOTAL PUBLIC COMMUNICATIONS \$ 0.00

WEBSITE

WEBSITE

Update water quality data and water quality data plots for website.

Sterling G. Williams, Engineer/Scientist/Specialist III
8.0 hours @ \$130.00 per hour \$ 1,040.00

TOTAL WEBSITE \$ 1,040.00

WATERSHED OUTLET MONITORING PROGRAM (WOMP)

WATERSHED OUTLET MONITORING PROGRAM (WOMP)

Perform flow measurements at WOMP station, retrieve serial numbers from station equipment, and communications with MCES staff.

Christopher J. Bonick, Engineer/Scientist/Specialist II
5.0 hours @ \$120.00 per hour \$ 600.00

Expenses (Mileage/2WD field vehicle) \$ 37.42

Subtotal, Watershed Outlet Monitoring Program \$ 637.32

TOTAL WOMP \$ 637.42

DIGITIZE HISTORIC PAPER FILES

DIGITIZE HISTORIC PAPER FILES

Scan/digitize Flood Control Project construction plans.

Technicians/Administrative.....	\$	30.00
<i>Subtotal, Digitize Historic Paper Files</i>	\$	30.00
TOTAL DIGITIZE HISTORIC PAPER FILES.....	\$	30.00

CAPITAL IMPROVEMENT PROJECTS (Funded through tax levy)

MAIN STEM CHANNEL RESTORATION, CEDAR LK RD TO DUPONT, PLUS FRUEN MILL (2017CR-M)
 FEASIBILITY STUDY

Internal communications and communications with administrator regarding ERF grant application and Response Action Plan (RAP) schedule; submit request to Hennepin County for the Closeout of Assistance (COA) RAP funding; and communications with city staff and administrator regarding ERF process.

Daniel J. Fetter, Principal Engineer/Scientist 2.0 hours @ \$200.00 per hour	\$	400.00
Karen L. Chandler, Principal Engineer/Scientist 0.3 hours @ \$165.00 per hour	\$	49.50
Jennifer L. Brekken, Engineer/Scientist/Specialist III 1.3 hours @ \$140.00 per hour	\$	<u>182.00</u>
<i>Subtotal, Main Stem Channel Restoration, Cedar Lk Rd to Dupont, Plus Fruen Mill Feasibility Study.....</i>	<i>\$</i>	<i>631.50</i>

MAIN STEM RESTORATION, CEDAR LK RD TO DUPONT, PLUS FRUEN MILL (2017CR- M)

Prepare for and attend July 19 Hennepin County board/committee meeting; and internal communications regarding Response Action Plan (RAP) process/approvals and ERF grant application.

Karen L. Chandler, Principal Engineer/Scientist 0.6 hours @ \$165.00 per hour	\$	99.00
Daniel J. Fetter, Principal Engineer/Scientist 0.2 hours @ \$200.00 per hour	\$	40.00
Jeffrey D. Weiss, Engineer/Scientist/Specialist II 1.5 hours @ \$125.00 per hour	\$	<u>187.50</u>
<i>Subtotal, Main Stem Channel Restoration, Cedar Lk Rd to Dupont, Plus Fruen Mill.....</i>	<i>\$</i>	<i>326.50</i>

PLYMOUTH CREEK RESTORATION, ANNAPOLIS LN TO 2,500 FT UPSTREAM OF ANNAPOLIS LANE
 (2017CR-P)

Prepare for and attend July 19 Hennepin County board/committee meeting; and revise Clean Water Fund grant application, including adding needed technical information, communications with administrator and communications with Plymouth staff regarding information for application.

Karen L. Chandler, Principal Engineer/Scientist 7.5 hours @ \$165.00 per hour	\$	1,237.50
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Jeffrey D. Weiss, Engineer/Scientist/Specialist II 3.6 hours @ \$125.00 per hour	\$ 450.00
<i>Subtotal, Plymouth Creek Restoration, Annapolis Ln to 2,500 Ft Upstream of Annapolis Lane.....</i>	
	\$ 1,687.50

BASSETT CREEK PARK & WINNETKA PONDS DREDGING FEASIBILITY STUDY

Internal project kick-off meeting; gather information regarding Bassett Creek Park Pond; and coordinate with survey staff.

James P. Herbert, Principal Engineer/Scientist 0.5 hours @ \$180.00 per hour	\$ 90.00
Karen L. Chandler, Principal Engineer/Scientist 2.1 hours @ \$165.00 per hour	\$ 346.50
Candice H. Kantor, Engineer/Scientist/Specialist II 1.5 hours @ \$100.00 per hour	\$ 150.00
Technicians/Administrative.....	\$ 21.00
<i>Subtotal, Bassett Crk Pk & Winnetka Ponds Dredging Feasibility Study.....</i>	
	\$ 607.50

TOTAL CAPITAL IMPROVEMENTS PROJECTS (Tax Levy)\$ 3,253.00

TMDL WORK

TMDL IMPLEMENTATION REPORTING

Update P8 model.

Gregory J. Wilson, Consultant/Advisor 1.4 hours @ \$155.00 per hour	\$ 217.00
<i>Subtotal, TMDL Studies</i>	
	\$ 217.00

TOTAL TMDL STUDIES.....\$ 217.00

XP-SWMM PHASE II

XP-SWMM PHASE II

North Branch & Main Stem Modeling

Internal meeting regarding Wisconsin Avenue structure and calibration events; follow-up on data requests regarding SCADA and and Janalyn Pond pumping; develop XP-SWMM model update memo for July Commission meeting; QAQC of model; review storage; set up calibration spreadsheet; sensitivity analysis and update on status email; storage curve revisit; work on calibration; work on Wisconsin Avenue flow calculations; BCU and BCM QAQC checklist; BUE-094 check; label landlocked ponds; picking node and

links and LSP in North Minneapolis area; enter entrance and exit loss; process NEXRAD rainfall data; combine North Minneapolis subwatersheds; review North Minneapolis combined watersheds; extend raster data to North Minneapolis (elevation, impervious, soils, etc.); Target Field drainage check; check pipe information; review rainfall events; update report figures and other content including pervious depression storage and rainfall data; and check part A rainfall and updates for North Minneapolis features.

Jennifer A. Koehler, Engineer/Scientist/Specialist III 6.5 hours @ \$125.00 per hour	\$ 812.50
Greg D. Fransen, Engineer/Scientist/Specialist II 0.2 hours @ \$110.00 per hour	\$ 22.00
Josiah J. Hawley, Engineer/Scientist/Specialist I 0.5 hours @ \$90.00 per hour	\$ 45.00
Ross S. Mullen, Engineer/Scientist/Specialist I 38.6 hours @ \$90.00 per hour	\$ 3,474.00
Lulu Fang, Engineer/Scientist/Specialist I 65.7 hours @ \$75.00 per hour	\$ 4,927.50
<i>Subtotal, XP-SWMM Phase II.....</i>	<i>\$ 9,281.00</i>
TOTAL XP-SWMM PHASE II.....	\$ 9,281.00

SUMMARY TOTALS

Total Engineering	\$ 23,663.60
Total Secretarial Services Expenses	\$ 51.97
Total Annual Report/Website/Public Communications	\$ 1,040 .00
Total WOMP.....	\$ 637.42
Total Digitize Historic Paper Files.....	\$ 30.00
Total Capital Improvement Projects (Tax Levy).....	\$ 3,253.00
Total TMDL Work	\$ 217.00
Total XP-SWMM Phase II.....	\$ 9,281.00
TOTAL PAYABLE.....	\$ 38,173.99

Barr declares under the penalties of law that this account, claim or demand is just and that no part of it has been paid.

