



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

Page # 1
Invoice # 23270051-2018-8
Project # 23/27-0051
Client # 59
October 5, 2018

Invoice of Account with
BARR ENGINEERING COMPANY

For professional services during the period of
September 1, 2018 through September 28, 2018

ENGINEERING

TECHNICAL SERVICES

Communications with Medicine Lake consultant regarding ordinances; coordination with Minneapolis and MPRB staff regarding erosion control issue; attend September 13 BWSR watershed-based funding WMO focus group meeting (on behalf of administrator) and review/edit meeting summary; communications with Crystal staff, Golden Valley staff and administrator regarding flooding from September 20 storm; communications with administrator and Golden Valley staff regarding Wirth Lake outlet operation; follow-up on Commission direction regarding new water quality treatment ideas for linear projects; and prepare draft responses to MPCA's questions regarding infiltration BMPS in the watershed.

James P. Herbert, Principal Engineer/Scientist	
1.4 hours @ \$190.00 per hour	\$ 266.00
Karen L. Chandler, Principal Engineer/Scientist	
13.2 hours @ \$175.00 per hour	\$ 2,310.00
Josh P. Phillips, Engineer/Scientist/Specialist I	
0.4 hours @ \$85.00 per hour	\$ 34.00
Technicians/Administrative	\$ 26.50
Expenses (Mileage)	\$ 4.91
<i>Subtotal, Technical Services</i>	<i>\$ 2,641.41</i>

MONTHLY MEETING PREPARATION

Communications/coordination with administrator and internal staff regarding draft/final agenda and meeting packet for September Commission meeting; review/edit draft August meeting minutes; prepare for September Commission meeting, including pre-meeting conference call with Chair de Lambert and administrator, prepare table and memo for September meeting summarizing/analyzing water quality treatment for linear projects, compile Bassett Creek pollutant loading estimates for linear projects analysis, communications with administrator and Plymouth staff regarding water quality treatment provided on linear projects, prepare memo for September meeting and communications

with Carp Solutions and administrator regarding additional Schaper Pond carp monitoring, and preparing engineer communications; and communications with administrator and internal staff regarding follow-up items from September Commission meeting and upcoming meeting agenda items.

James P. Herbert, Principal Engineer/Scientist	
3.5 hours @ \$190.00 per hour	\$ 665.00
Karen L. Chandler, Principal Engineer/Scientist	
29.8 hours @ \$175.00 per hour	\$ 5,215.00
Gregory J. Wilson, Consultant/Advisor	
6.5 hours @ \$160.00 per hour	\$ 1,040.00
Josh P. Phillips, Engineer/Scientist/Specialist I	
9.7 hours @ \$85.00 per hour	\$ 824.50
Technicians/Administrative.....	\$ 550.00
<i>Subtotal, Monthly Meeting Preparation.....</i>	<i>\$ 8,294.50</i>

WCA LGU Administration

Review proposed project in St. Louis Park and communications regarding wetland issues.

James P. Herbert, Principal Engineer/Scientist	
0.4 hours @ \$190.00 per hour	\$ 76.00
<i>Subtotal, WCA LGU Administration</i>	<i>\$ 76.00</i>

CIP PRIORITIZATION PROCESS

Review notes from July 31 committee meeting to discern next steps.

Karen L. Chandler, Principal Engineer/Scientist	
1.0 hours @ \$175.00 per hour	\$ 175.00
<i>Subtotal, CIP Prioritization Process.....</i>	<i>\$ 175.00</i>

Subtotal Technical Services ***\$ 11,186.91***

PLAT REVIEW

Ridgedale Corner Shops (2018-16)

Communications with applicant's consultant regarding water quality treatment.

James P. Herbert, Principal Engineer/Scientist	
0.5 hours @ \$190.00 per hour	\$ 95.00
<i>Subtotal, Ridgedale Corner Shops</i>	<i>\$ 95.00</i>

Ridgedale Active Adults Apartments (2018-23)

Communications with applicant regarding potential change to stormwater management system.

Josh P. Phillips, Engineer/Scientist/Specialist I	
0.3 hours @ \$85.00 per hour.....	\$ 25.50
<i>Subtotal, Ridgedale Active Adults Apartments.....</i>	<i>\$ 25.50</i>

Westwood Hills Nature Center (2018-23)

Review revised submittal.

Josh P. Phillips, Engineer/Scientist/Specialist I	
0.2 hours @ \$85.00 per hour.....	\$ 17.00
Technicians/Administrative.....	\$ 19.00
<i>Subtotal, Westwood Hills Nature Center.....</i>	<i>\$ 36.00</i>

Retail Building and Apartment Building (2018-25)

Plat review set up and initial review.

Josh P. Phillips, Engineer/Scientist/Specialist I	
0.2 hours @ \$85.00 per hour.....	\$ 17.00
Technicians/Administrative.....	\$ 47.50
Expenses (Postage)	\$ 0.47
<i>Subtotal, Retail Building and Apartment Building.....</i>	<i>\$ 64.97</i>
<i>Subtotal Plat Review</i>	<i>\$ 221.47</i>

PRELIMINARY COMMUNICATIONS AND NON-FEE REVIEWS

PRELIMINARY COMMUNICATIONS

Review drawings and communications with MPRB staff regarding BCWMC requirements; communications with Golden Valley staff regarding project and BCWMC requirements; preliminary review and communications with Medicine Lake resident regarding floodplain and wetland impacts for proposed driveway expansion; and provide requested information to Golden Valley staff regarding 100-year floodplain elevation at project location.

James P. Herbert, Principal Engineer/Scientist	
1.2 hours @ \$190.00 per hour	\$ 228.00
Josh P. Phillips, Engineer/Scientist/Specialist I	
3.9 hours @ \$85.00 per hour.....	\$ 331.50
<i>Subtotal, Preliminary Communications.....</i>	<i>\$ 559.50</i>

NON-FEE REVIEWS

Blue Line LRT

Review grading, drainage and erosion control plans for forcemain relocation and floodplain mitigation; review additional floodplain mitigation information; communications with applicant; prepare review

memo for September Commission meeting; prepare and send approval letter to Golden Valley and Minneapolis staff.

James P. Herbert, Principal Engineer/Scientist		
5.0 hours @ \$190.00 per hour	\$	950.00
Karen L. Chandler, Principal Engineer/Scientist		
3.4 hours @ \$175.00 per hour	\$	595.00
Josh P. Phillips, Engineer/Scientist/Specialist I		
14.7 hours @ \$85.00 per hour.....	\$	1,249.50
Edward M. Anderson, Engineer/Scientist/Specialist I		
1.2 hours @ \$85.00 per hour.....	\$	102.00
<i>Subtotal, Blue Line LRT.....</i>	<i>\$</i>	<i>2,896.50</i>
Subtotal Non-Fee Reviews	\$	2,896.50
Subtotal Preliminary Communications and Non-Fee Reviews	\$	3,456.00

COMMISSION AND TAC MEETINGS

Attend September 20 Commission meeting.

Karen L. Chandler, Principal Engineer/Scientist		
3.8 hours @ \$175.00 per hour	\$	665.00
Gregory J. Wilson, Consultant/Advisor		
3.0 hours @ \$160.00 per hour	\$	480.00
Expenses (Mileage)	\$	16.35
Subtotal, Commission and TAC Meetings.....	\$	1,161.35

SURVEYS & STUDIES

Subtotal Surveys & Studies.....	\$	0.00
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WATER QUALITY/MONITORING

Routine Lake Monitoring - Parkers and Westwood Lakes

Prepare and analyze phytoplankton sample and zooplankton samples collected from Parkers Lake and Westwood Lake; coordinate sending and return of monitoring equipment; review lab reports, revised lab reports and lab invoices; and communications with lab.

Margaret R. Rattei, Engineer/Scientist/Specialist III		
25.7 hours @ \$135.00 per hour	\$	3,469.50
Erin M. Dietrich, Engineer/Scientist/Specialist III		
0.8 hours @ \$145.00 per hour	\$	116.00
Terri A. Olson, Engineer/Scientist/Specialist III		
0.7 hours @ \$135.00 per hour	\$	94.50

Technicians/Administrative.....	\$	237.00
Expenses (Mileage/Quicksilver Express Courier/Pace Analytical).....	\$	634.14
<i>Subtotal, Routine Lake Monitoring – Parkers and Westwood</i>	<i>\$</i>	<i>4,551.14</i>

Stream Water Quality/Quantity Monitoring - North Branch

Collect storm event samples and composite samples; collect grab sample; set sampling stations; download and review data; deliver samples to MCES lab; measure and calculate benchmark elevation; and MCES lab charges.

Christopher J. Bonick, Engineer/Scientist/Specialist III 9.0 hours @ \$125.00 per hour	\$	1,125.00
Heather N. Hlavaty, Engineer/Scientist/Specialist II 1.2 hours @ \$95.00 per hour	\$	114.00
Sean Campbell, Engineer/Scientist/Specialist I 3.4 hours @ \$80.00 per hour	\$	272.00
Technicians/Administrative.....	\$	81.00
Expenses (Verizon Wireless/Mileage/MCES/Turbidimeter/Conductivity Meter)	\$	828.30
<i>Subtotal, North Branch Stream Water Quality/Quantity Monitor...</i>	<i>\$</i>	<i>2,420.30</i>

Biotic Index Monitoring

Prepare for October macroinvertebrate monitoring.

Technicians/Administrative.....	\$	81.00
<i>Subtotal, Biotic Index Monitoring</i>	<i>\$</i>	<i>81.00</i>
<i>Subtotal, Water Quality/Monitoring.....</i>	<i>\$</i>	<i>7,052.44</i>

WATER QUANTITY

<i>Subtotal, Water Quantity.....</i>	<i>\$</i>	<i>0.00</i>
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FLOOD CONTROL PROJECT INSPECTION+DEEP TUNNEL

Coordinate with administrator, internal staff and U.S. Army Corps of Engineers staff regarding deep tunnel portion of 2018 flood control project inspection work; and prepare and send letter to COE requesting river pool drawdown for tunnel inspection.

James P. Herbert, Principal Engineer/Scientist 3.7 hours @ \$190.00 per hour	\$	703.00
Karen L. Chandler, Principal Engineer/Scientist 2.5 hours @ \$175.00 per hour	\$	437.50

Expenses (Postage)\$ 0.47

Subtotal, Flood Control Proj Inspect+Deep Tunnel.....\$ 1,140.97

MUNICIPAL PLAN REVIEWS

New Hope LSWMP Review

Review New Hope local surface water management plan (LSWMP); prepare and send comments to New Hope consultant; and communications with administrator.

Karen L. Chandler, Principal Engineer/Scientist
3.1 hours @ \$175.00 per hour\$ 542.50

Sterling 'Greg' Williams, Engineer/Scientist/Specialist III
13.0 hours @ \$135.00 per hour.....\$ 1,755.00

Subtotal, New Hope LSWMP\$ 2,297.50

Medicine Lake LSWMP Review

Communications with Medicine Lake consultant regarding BCWMC's LSWMP requirements and review.

Karen L. Chandler, Principal Engineer/Scientist
0.5 hours @ \$175.00 per hour\$ 87.50

Subtotal, Medicine Lake LSWMP\$ 87.50

Plymouth SWMP Review

Download Plymouth SWMP for review; and internal communications.

Karen L. Chandler, Principal Engineer/Scientist
0.6 hours @ \$175.00 per hour\$ 105.00

Subtotal, Medicine Lake LSWMP\$ 105.00

Subtotal, Municipal Plan Reviews\$ 2,490.00

XP-SWMM MODEL UPDATES-REVIEWS

Subtotal, XP-SWMM Model Updates-Reviews.....\$ 0.00

TOTAL ENGINEERING\$ 26,709.14

WATERSHED OUTLET MONITORING PROGRAM (WOMP)

TOTAL WOMP\$ 0.00

APM/AIS WORK

Communications with administrator regarding additional zebra mussels found in Medicine Lake; communications with administrator and internal staff regarding AIS concerns about Loppet/Red Bull urban portage event, including flood levels of Sweeney and Bassett Creek, and providing recommendations to prevent AIS spread during event; and review MDNR information regarding AIS inspection and decontamination.

Karen L. Chandler, Principal Engineer/Scientist	
3.9 hours @ \$170.00 per hour	\$ 682.50
Margaret R. Rattei, Engineer/Scientist/Specialist III	
1.0 hours @ \$135.00 per hour	\$ 135.00
<i>Subtotal, APM/AIS Work</i>	<i>\$ 817.50</i>
TOTAL APM/AIS WORK.....	\$ 817.50

ADMINISTRATIVE SERVICES

TOTAL ADMINISTRATIVE SERVICES.....	\$ 0.00
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ANNUAL REPORT

TOTAL ANNUAL REPORT	\$ 0.00
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WEBSITE

TOTAL WEBSITE	\$ 0.00
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PUBLIC COMMUNICATIONS

TOTAL PUBLIC COMMUNICATIONS	\$ 0.00
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CAPITAL IMPROVEMENT PROJECTS (Funded through tax levy)

SCHAPER POND 2018 MONITORING AND REPORTING (SL-3)

Communications with Carp Solutions regarding potential and approved changes to fall survey; prepare and execute change order with Carp Solutions; and communications with Golden Valley staff regarding equipment installation locations.

Karen L. Chandler, Principal Engineer/Scientist	
1.0 hours @ \$175.00 per hour	\$ 175.00
Gregory J. Wilson, Consultant/Advisor	
17.5 hours @ \$160.00 per hour	\$ 2,800.00
Heather N. Hlavaty, Engineer/Scientist/Specialist I	
0.8 hours @ \$95.00 per hour	\$ 76.00

Expenses (Pace Analytical/Quicksilver Express) \$ 424.69
Subtotal, Schaper Pond 2018 Monitoring and Reporting\$ 3,475.69

BRYN MAWR MEADOWS WATER QUALITY IMPROVEMENT PROJECT FEASIBILITY STUDY (2019) (BC-5)

Communications with Minneapolis and MPRB staff; review and revise design concepts based on MPRB master plan preferred option; prepare GIS maps; develop P8 water quality model; and begin draft feasibility report.

Kurt A. Leuthold, Principal Engineer/Scientist
6.9 hours @ \$180.00 per hour \$ 1,242.00
Michelle A. Kimble, Engineer/Scientist/Specialist III
27.1 hours @ \$130.00 per hour \$ 3,523.00
Josh P. Phillips, Engineer/Scientist/Specialist I
11.0 hours @ \$85.00 per hour \$ 935.00
Subtotal, Bryn Mawr Meadows Feasibility Study\$ 5,700.00

WESTWOOD LAKE WATER QUALITY IMPROVEMENT PROJECT (2019) (WST-2)

Attend September 7 Education Committee meeting regarding BCWMC sign; internal kick-off meeting on signage design; develop layout and icons for signage; finalize draft for internal review; and revise sign per review comments..

Karen L. Chandler, Principal Engineer/Scientist
0.2 hours @ \$170.00 per hour \$ 35.00
Michelle A. Kimble, Engineer/Scientist/Specialist III
9.9 hours @ \$130.00 per hour \$ 1,287.00
Karen C. Kaul, Contracted
20.5 hours @ \$85.00 per hour \$ 1,742.50
Subtotal, Westwood Lake WQ Feasibility Study\$ 3,064.50

JEVNE PARK STORMWATER MANAGEMENT FEASIBILITY STUDY (2020) (ML-21)

Communications with Medicine Lake consultant regarding sanitary sewer information; review draft letter to residents; compile resident responses regarding survey and wetland delineation; complete MPCA leak site information request form; review and summarize MPCA environmental documents; prepare survey and wetland delineation requests; prepare for and perform wetland delineations, including creating maps and uploading to Avenza; communications with Medicine Lake representatives and internal staff regarding impact of large rainfall on wetland delineation; internal meeting to prepare for survey; perform Gopher State One Call for site in preparation for survey; coordinate threatened and endangered species and cultural resource review; and communications with administrator and internal staff.

Karen L. Chandler, Principal Engineer/Scientist
1.4 hours @ \$175.00 per hour \$ 245.00
Jennifer A. Koehler, Engineer/Scientist/Specialist III
7.1 hours @ \$140.00 per hour \$ 994.00

Jennifer L. Brekken, Engineer/Scientist/Specialist III	
3.1 hours @ \$150.00 per hour	\$ 465.00
Brian K. Burgner, Engineer/Scientist/Specialist II	
12.5 hours @ \$100.00 per hour	\$ 1,250.00
James J. Lind, Engineer/Scientist/Specialist II	
0.4 hours @ \$105.00 per hour	\$ 42.00
Mack M. Wyatt, Engineer/Scientist/Specialist I	
1.1 hours @ \$70.00 per hour	\$ 77.00
Emily M. Cook, Engineer/Scientist/Specialist I	
3.0 hours @ \$90.00 per hour	\$ 270.00
Technicians/Administrative.....	\$ 287.00
Expenses (Mileage/GPS System/Digital Camera/Split Tube Soil Probe).....	\$ 131.08
Subtotal, Jevne Park Stormwater Feasibility Study	\$ 3,761.08

CRANE LAKE IMPROVEMENT PROJECT (2020) (CL-3)

Review draft feasibility study and prepare comments; prepare review memo regarding draft feasibility study for September Commission meeting; and communications with administrator, Minnetonka staff and internal staff regarding feasibility study review.

Karen L. Chandler, Principal Engineer/Scientist	
6.8 hours @ \$175.00 per hour	\$ 1,190.00
Gregory J. Wilson, Consultant/Advisor	
0.5 hours @ \$160.00 per hour	\$ 80.00
Jennifer A. Koehler, Engineer/Scientist/Specialist III	
11.8 hours @ \$140.00 per hour	\$ 1,652.00
Josh P. Phillips, Engineer/Scientist/Specialist I	
12.0 hours @ \$85.00 per hour	\$ 1,020.00
Subtotal, Crane Lake Improvement Project	\$ 3,942.00

TOTAL CAPITAL IMPROVEMENTS PROJECTS (Tax Levy)\$ 19,943.27

TMDL WORK

TOTAL TMDL WORK.....\$ 0.00

IMPROVED FEMA FLOODPLAIN MODELING & MAPPING (MDNR)

IMPROVED FEMA FLOODPLAIN MODELING & MAPPING (MDNR)

Internal meeting and communications to kick-off the hydraulic analysis work; review the survey data collected by the MDNR; and communications with MDNR staff about additional survey needs.

Ross S. Mullen, Engineer/Scientist/Specialist II	
7.1 hours @ \$100.00 per hour	\$ 710.00
Samantha A. Beck, Engineer/Scientist/Specialist I	
7.8 hours @ \$70.00 per hour	\$ 546.00
Lulu Fang, Engineer/Scientist/Specialist I	
2.4 hours @ \$90.00 per hour	\$ <u>216.00</u>
<i>Subtotal, Improved FEMA Floodplain Modeling & Mapping</i>	
<i>(MDNR).....</i>	<i>\$ 1,472.00</i>
 TOTAL IMPROVED FEMA FLOODPLAIN MODELING & MAPPING (MDNR).....	
	\$ 1,472.00

SUMMARY TOTALS

Total Engineering	\$ 26,709.14
Total WOMP	\$ 0.00
Total APM/AIS Work	\$ 817.50
Total Administrative Services	\$ 0.00
Total Annual Report/Website/Public Communications	\$ 0.00
Total TMDL Work	\$ 0.00
Total Capital Improvement Projects (Tax Levy)	\$ 19,943.27
Total Improved FEMA Floodplain Modeling & Mapping (MDNR)	\$ <u>1,472.00</u>
 TOTAL PAYABLE.....	 \$ 48,941.91

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


