



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

Page # 1
Invoice # 23270051-2018-12
Project # 23/27-0051
Client # 59
February 8, 2019

Invoice of Account with
BARR ENGINEERING COMPANY

For professional services during the period of
December 29, 2018 through January 31, 2019

ENGINEERING

TECHNICAL SERVICES

Obtain information from internal staff and Metropolitan Council regarding monitoring protocol changes to WOMP program and internal communications regarding impact of protocol changes on the quality of the data collected; communications with internal staff and administrator regarding availability and reporting of stream monitoring data; communications with administrator regarding TAC meeting date and status of local plan reviews; prepare for and attend January 16 meeting/planning event with Minneapolis staff, city consultant, and administrator regarding Minneapolis Surface Water Management Plan coordination and city stormwater regulations; communications with administrator, attorney and internal staff regarding Ridgedale project and public data request; review MPCA's proposed Cycle II water 2020-2021 quality program monitoring, internal meeting to discuss the monitoring and February 4 MPCA meeting; review MPCA 319 grant eligibility for Sweeney Lake projects, communications with administrator and internal staff regarding 319 grant for Sweeney Lake projects, prepare and submit questions to MPCA regarding 319 grant funding for Sweeney Lake projects, communications with administrator regarding MPCA responses to questions, and provide information to administrator regarding potential project costs, in preparation for February 4 TAC meeting discussion; internal meeting to discuss SAFL stormwater pond research; communications with Hennepin County staff and internal staff regarding Hennepin County pictometry users; project filing (review/sort old recording secretary files); and set up 2019 tasks/budgets.

James P. Herbert, Principal Engineer/Scientist 6.3 hours @ \$195.00 per hour	\$ 1,228.50
Henry M. Runke, Principal Engineer/Scientist 0.5 hours @ \$175.00 per hour	\$ 87.50
Karen L. Chandler, Principal Engineer/Scientist 22.2 hours @ \$175.00 per hour	\$ 3,885.00
Gregory J. Wilson, Consultant/Advisor 6.6 hours @ \$165.00 per hour	\$ 1,089.00
Christopher J. Bonick, Engineer/Scientist/Specialist III 2.0 hours @ \$125.00 per hour	\$ 250.00

Ross S. Mullen, Engineer/Scientist/Specialist II 0.5 hours @ \$110.00 per hour	\$	55.00
Josh P. Phillips, Engineer/Scientist/Specialist II 4.6 hours @ \$95.00 per hour	\$	437.00
Expenses (Postage/mileage).....	\$	<u>16.71</u>
<i>Subtotal, Technical Services.....</i>	\$	<i>7,048.71</i>

MONTHLY MEETING PREPARATION

Communications/coordination with administrator and internal staff regarding draft/final agenda and meeting packet for January Commission meeting; review/edit draft December meeting minutes; prepare memo for January Commission meeting regarding tunnel inspection, potential tour, and additional inspection/tour costs; prepare for January Commission meeting, including pre-meeting conference call with Chair de Lambert and administrator, review Bryn Mawr presentation and review meeting packet; and communications with administrator and internal staff regarding follow-up items from January Commission meeting and upcoming meeting agenda items.

James P. Herbert, Principal Engineer/Scientist 15.7 hours @ \$195.00 per hour.....	\$	3,061.50
Karen L. Chandler, Principal Engineer/Scientist 15.6 hours @ \$175.00 per hour	\$	2,730.00
Technicians/Administrative.....	\$	<u>400.00</u>
<i>Subtotal, Monthly Meeting Preparation.....</i>	\$	<i>6,191.50</i>

WCA LGU Administration

Prepare WCA 2018 annual report and submit to BWSR.

Karen L. Chandler, Principal Engineer/Scientist 0.2 hours @ \$175.00 per hour	\$	35.00
Karen S. Wold, Engineer/Scientist/Specialist III 2.1 hours @ \$130.00 per hour	\$	<u>273.00</u>
<i>Subtotal, WCA LGU Administration</i>	\$	<i>308.00</i>

TAC PREPARATION

Review/edit administrator's agenda memo for February 4 TAC meeting, and communications with administrator.

Karen L. Chandler, Principal Engineer/Scientist 0.7 hours @ \$175.00 per hour	\$	<u>122.50</u>
<i>Subtotal, TAC Preparation.....</i>	\$	<i>122.50</i>

CIP PRIORITIZATION PROCESS

Review/edit matrix and CIP project scoring, including review of CIP project information; review/edit draft agenda for January 9 meeting; prepare for and attend January 9 CIP Prioritization Committee meeting; and communications with administrator.

Karen L. Chandler, Principal Engineer/Scientist 7.1 hours @ \$175.00 per hour	\$ 1,242.50
Sterling 'Greg' Williams, Engineer/Scientist/Specialist III 2.5 hours @ \$140.00 per hour	\$ 350.00
<i>Subtotal, CIP Prioritization Process.....</i>	<i>\$ 1,592.50</i>
Subtotal Technical Services	\$ 15,263.21

PLAT REVIEW

SWLRT (2016-17)

Communications with administrator, SWLRT consultant, and Metropolitan Council staff regarding project status.

James P. Herbert, Principal Engineer/Scientist 1.3 hours @ \$195.00 per hour	\$ 253.50
<i>Subtotal, SWLRT.....</i>	<i>\$ 253.50</i>

Starbucks Annapolis Lane Plymouth (2018-29)

Review revised grading, drainage and erosion control plans; prepare and send approval letter to city staff; communications with applicant; and project close-out filing.

James P. Herbert, Principal Engineer/Scientist 1.0 hours @ \$195.00 per hour	\$ 195.00
Josh P. Phillips, Engineer/Scientist/Specialist II 1.1 hours @ \$95.00 per hour	\$ 104.50
<i>Subtotal, Starbucks Annapolis Lane Plymouth.....</i>	<i>\$ 299.50</i>

Winpark Dr Infrastructure Improvements (2018-30)

Project close-out filing.

Josh P. Phillips, Engineer/Scientist/Specialist II 0.2 hours @ \$95.00 per hour	\$ 19.00
<i>Subtotal, Winpark Dr Infrastructure Improvements.....</i>	<i>\$ 19.00</i>

Rockford Rd/I-494 Interchange (2018-31)

Review submittal, including grading, drainage and erosion control plans, H&H model, and water quality model; prepare draft review memo for February Commission meeting; and communications with applicant.

James P. Herbert, Principal Engineer/Scientist 0.3 hours @ \$195.00 per hour	\$ 58.50
Ross S. Mullen, Engineer/Scientist/Specialist II 0.7 hours @ \$110.00 per hour	\$ 77.00
Michael B. McKinney, Engineer/Scientist/Specialist II 1.7 hours @ \$105.00 per hour	\$ 178.50

Josh P. Phillips, Engineer/Scientist/Specialist II 27.9 hours @ \$95.00 per hour	\$	2,650.50
Edward M. Anderson, Engineer/Scientist/Specialist I 1.8 hours @ \$85.00 per hour	\$	153.00
Technicians/Administrative.....	\$	57.00
Expenses (Color plotter)	\$	<u>10.00</u>
<i>Subtotal, Rockford Rd/I-494 Interchange</i>	<i>\$</i>	<i>3,184.50</i>

Plymouth Medical Office Building (2018-32)

Plat review set up, preliminary review and coordination with applicant.

James P. Herbert, Principal Engineer/Scientist 1.0 hours @ \$195.00 per hour	\$	195.00
Technicians/Administrative.....	\$	47.50
Expenses (Postage)	\$	<u>.50</u>
<i>Subtotal, Plymouth Medical Office Building</i>	<i>\$</i>	<i>243.00</i>

Subtotal Plat Review.....\$ 3,999.50

PRELIMINARY COMMUNICATIONS AND NON-FEE REVIEWS

PRELIMINARY COMMUNICATIONS

Communications with Crystal and internal staff regarding BCWMC floodplain information, review triggers and requirements for proposed redevelopment at 3501 Douglas Drive.

Karen L. Chandler, Principal Engineer/Scientist 1.5 hours @ \$175.00 per hour	\$	262.50
Ross S. Mullen, Engineer/Scientist/Specialist II 0.9 hours @ \$110.00 per hour	\$	99.00
Josh P. Phillips, Engineer/Scientist/Specialist II 0.1 hours @ \$95.00 per hour	\$	<u>9.50</u>
Subtotal, Preliminary Communications.....	\$	371.00

NON-FEE REVIEWS

Bassett Creek Valley study

Review draft Bassett Creek Valley floodplain study scope; communications with administrator and Minneapolis staff; attend January 28 meeting (via conference call) with Minneapolis staff, Minneapolis consultant, and MWMO staff regarding floodplain study scope, schedule and budget; and follow-up communications with administrator, MWMO staff, and internal staff.

James P. Herbert, Principal Engineer/Scientist 1.0 hours @ \$195.00 per hour	\$	195.00
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Karen L. Chandler, Principal Engineer/Scientist 4.3 hours @ \$175.00 per hour	\$ 752.50
<i>Subtotal, Wellington Dev./B. Cr. Valley</i>	\$ 947.50
Subtotal Non-Fee Reviews	\$ 947.50
Subtotal Preliminary Communications and Non-Fee Reviews	\$ 1,318.50

COMMISSION AND TAC MEETINGS

Attend January 17 Commission meeting.

James P. Herbert, Principal Engineer/Scientist 3.0 hours @ \$195.00 per hour	\$ 585.00
Karen L. Chandler, Principal Engineer/Scientist 2.8 hours @ \$175.00 per hour	\$ 490.00
Michelle A. Kimble, Engineer/Scientist/Specialist III 2.5 hours @ \$135.00 per hour	\$ 337.50
Expenses (Mileage)	\$ 12.76
Subtotal, Commission and TAC Meetings	\$ 1,425.26

SURVEYS & STUDIES

Subtotal Surveys & Studies	\$ 0.00
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WATER QUALITY/MONITORING

Routine Lake Monitoring – Parkers and Westwood Lakes

Upload and verify Three Rivers Park District water quality data for Parkers Lake; communications with Metropolitan Council staff regarding Parkers and Westwood Lakes preliminary CAMP data and review preliminary CAMP data; update 2018 data summary, graph, and trend analyses input files to incorporate 2018 CAMP data; perform trend analyses on total phosphorus, chlorophyll a, and Secchi disc data for Parkers and Westwood Lakes; develop isopleths for Parkers and Westwood Lakes; communications with Plymouth staff regarding Parkers Lake monitoring; and prepare Parkers and Westwood Lake reports and email to administrator for review.

Evan G. Christianson, Consultant/Advisor 1.2 hours @ \$155.00 per hour	\$ 186.00
Christopher J. Bonick, Engineer/Scientist/Specialist III 4.5 hours @ \$125.00 per hour	\$ 562.50
Sterling 'Greg' Williams, Engineer/Scientist/Specialist III 1.0 hours @ \$140.00 per hour	\$ 140.00
Margaret R. Rattei, Engineer/Scientist/Specialist III 13.0 hours @ \$135.00 per hour	\$ 1,755.00
Erin M. Dietrich, Engineer/Scientist/Specialist III 1.7 hours @ \$145.00 per hour	\$ 246.50

Richard A. Phelps, Engineer/Scientist/Specialist II 0.3 hours @ \$110.00 per hour	\$	33.00
Joshua R. Vosejpka, Engineer/Scientist/Specialist I 1.0 hours @ \$85.00 per hour	\$	85.00
Technicians/Administrative.....	\$	<u>2,192.50</u>
<i>Subtotal, Routine Lake Monitoring – Parkers and Westwood</i>	<i>\$</i>	<i>5,200.50</i>

Biotic Index Monitoring

Summarize invertebrate data; calculate and summarize HBIs and ICIs; perform trend analyses on the HBIs and ICIs; internal communications regarding flow/water quality data and biotic index reporting; communications with Metropolitan Council staff regarding WOMP station data; prepare data summary for M-IBI computations, including looking up Taxonomic Serial Numbers for all taxa; communications with MPCA staff, and follow-up revisions to 2018 invertebrate data summary for M-IBI computations; and develop habitat summaries and summarize habitat data.

Margaret R. Rattei, Engineer/Scientist/Specialist III 23.0 hours @ \$135.00 per hour	\$	3,105.00
Christopher J. Bonick, Engineer/Scientist/Specialist III 3.5hours @ \$125.00 per hour	\$	437.50
Technicians/Administrative.....	\$	<u>450.00</u>
<i>Subtotal, Biotic Index Monitoring</i>	<i>\$</i>	<i>3,992.50</i>
<i>Subtotal, Water Quality/Monitoring.....</i>	<i>\$</i>	<i>9,193.00</i>

WATER QUANTITY

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

Technicians/Administrative.....	\$	450.00
Expenses (Mileage/2WD Field)	\$	<u>59.74</u>
<i>Subtotal, Water Quantity.....</i>	<i>\$</i>	<i>509.74</i>

FLOOD CONTROL PROJECT INSPECTION+DEEP TUNNEL

Prepare and send annual flood control project inspection letters to the cities, Minnesota Department of Transportation, and U.S. Army Corps of Engineers (Corps); continue coordination with Corps staff, administrator, city staff, and internal staff regarding late February deep tunnel inspection, including tunnel inspection frequency; communications with administrator and BCWMC legal counsel regarding liability waiver for potential tour; review barge issue; review drawdown; develop tunnel inspection safety plan; create tunnel figure; and communications and contracting with tunnel inspection safety subcontractors.

James P. Herbert, Principal Engineer/Scientist 15.7 hours @ \$195.00 per hour	\$	3,061.50
Karen L. Chandler, Principal Engineer/Scientist 1.3 hours @ \$175.00 per hour	\$	227.50

Joseph A. Welna, Engineer/Scientist/Specialist III 3.0 hours @ \$135.00 per hour	\$ 405.00
Tyler W. Fincher, Engineer/Scientist/Specialist II 8.0 hours @ \$105.00 per hour	\$ 840.00
Josh P. Phillips, Engineer/Scientist/Specialist II 15.0 hours @ \$95.00 per hour	\$ 1,425.00
Joshua R. Vosejka, Engineer/Scientist/Specialist I 2.0 hours @ \$85.00 per hour	\$ 170.00
Subtotal, Flood Control Project Inspection+Deep Tunnel	\$ 6,129.00

MUNICIPAL PLAN REVIEWS

Medicine Lake LSWMP Review

Communications with Medicine Lake consultant regarding responses to comments and LSWMP document revisions.

Karen L. Chandler, Principal Engineer/Scientist 0.5 hours @ \$175.00 per hour	\$ 87.50
Sterling 'Greg' Williams, Engineer/Scientist/Specialist III 1.0 hours @ \$140.00 per hour	\$ 140.00
<i>Subtotal, Medicine Lake LSWMP</i>	<i>\$ 227.50</i>
Subtotal, Municipal Plan Reviews	\$ 227.50

XP-SWMM MODEL UPDATES-REVIEWS

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

TOTAL ENGINEERING \$ 38,065.71

WATERSHED OUTLET MONITORING PROGRAM (WOMP)

TOTAL WOMP \$ 0.00

APM/AIS WORK

Perform AIS suitability/vulnerability analyses for Parkers and Westwood Lakes.

Margaret R. Rattei, Engineer/Scientist/Specialist III 20.7 hours @ \$135.00 per hour	\$ 2,794.50
<i>Subtotal, APM/AIS Work</i>	<i>\$ 2,794.50</i>
TOTAL APM/AIS WORK.....	\$ 2,794.50

ADMINISTRATIVE SERVICES

TOTAL ADMINISTRATIVE SERVICES.....\$ 0.00

ANNUAL REPORT

TOTAL ANNUAL REPORT\$ 0.00

WEBSITE

TOTAL WEBSITE.....\$ 0.00

PUBLIC COMMUNICATIONS

TOTAL PUBLIC COMMUNICATIONS\$ 0.00

CAPITAL IMPROVEMENT PROJECTS (Funded through tax levy)

WINNETKA POND E. DREDGING (2018) (BCP-2)

Prepare for and attend/participate in January 23 local cable news interview at Winnetka Pond.

Karen L. Chandler, Principal Engineer/Scientist
 1.7 hours @ \$175.00 per hour \$ 297.50
Subtotal, Winnetka Pond E. Dredging\$ 297.50

SCHAPER POND 2018 MONITORING AND REPORTING (SL-3)

Communications with Carp Solutions regarding invoicing, preliminary PIT tag results and arrangements with Golden Valley staff to access antenna loggers; and upload/verify laboratory report.

Gregory J. Wilson, Consultant/Advisor
 2.0 hours @ \$165.00 per hour \$ 330.00
 Erin M. Dietrich, Engineer/Scientist/Specialist III
 0.4 hours @ \$145.00 per hour \$ 58.00
 Technicians/Administrative..... \$ 24.00
 Expenses (Carp Solutions)..... \$ 3,042.90
Subtotal, Schaper Pond 2018 Monitoring and Reporting.....\$ 3,454.90

BRYN MAWR MEADOWS WATER QUALITY IMPROVEMENT PROJECT FEASIBILITY STUDY (2020) (BC-5)

Prepare final feasibility report and revise presentation for January 17 Commission meeting and provide to administrator; and communications with administrator and internal staff.

Kurt A. Leuthold, Principal Engineer/Scientist
 0.4 hours @ \$185.00 per hour \$ 74.00

Michelle A. Kimble, Engineer/Scientist/Specialist III
 2.4 hours @ \$135.00 per hour \$ 324.00
Subtotal, Bryn Mawr Meadows Feasibility Study.....\$ 398.00

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

Develop presentation for February 4 Medicine Lake City Council Meeting; revise concept grading plans based on meeting with Medicine Lake representatives; develop and evaluate concepts, including performing XP-SWMM and P8 modeling; develop cost estimate and O & M costs for concepts; and develop graphical figures for each concept for use in presentations, report, and public meetings.

Karen L. Chandler, Principal Engineer/Scientist
 0.8 hours @ \$175.00 per hour \$ 140.00
 Jennifer A. Koehler, Engineer/Scientist/Specialist III
 14.2 hours @ \$140.00 per hour \$ 1,988.00
 Lulu Fang, Engineer/Scientist/Specialist II
 17.6 hours @ \$95.00 per hour \$ 1,672.00
 Edward M. Anderson, Engineer/Scientist/Specialist I
 0.3 hours @ \$85.00 per hour \$ 25.50
 Erin E. Feehily, Engineer/Scientist/Specialist I
 14.8 hours @ \$85.00 per hour \$ 1,258.00
 Technicians/Administrative..... \$ 225.00
Subtotal, Jevne Park Stormwater Feasibility Study.....\$ 5,308.50

TOTAL CAPITAL IMPROVEMENTS PROJECTS (Tax Levy)\$ 9,458.90

TMDL WORK

TOTAL TMDL WORK.....\$ 0.00

IMPROVED FEMA FLOODPLAIN MODELING & MAPPING (MDNR)

IMPROVED FEMA FLOODPLAIN MODELING & MAPPING (MDNR)

Finish updating the XP-SWMM model with survey data from the MDNR; prepare floodway model inputs for Plymouth Creek and North Branch Bassett Creek; and prepare draft Hydraulics Analysis Narrative to be included with the submittal of the Hydraulic Analysis XP-SWMM model.

Karen L. Chandler, Principal Engineer/Scientist
 0.9 hours @ \$175.00 per hour \$ 157.50
 Ross S. Mullen, Engineer/Scientist/Specialist II
 28.3 hours @ \$110.00 per hour \$ 3,113.00
 Samantha A. Beck, Engineer/Scientist/Specialist I
 83.2 hours @ \$80.00 per hour \$ 6,656.00

Technicians/Administrative.....	\$	<u>36.00</u>
<i>Subtotal, Improved FEMA Floodplain Modeling & Mapping (MDNR).....</i>		
	\$	9,962.50
TOTAL IMPROVED FEMA FLOODPLAIN MODELING & MAPPING (MDNR).....	\$	9,962.50

SUMMARY TOTALS

Total Engineering	\$	38,065.71
Total WOMP.....	\$	0.00
Total APM/AIS Work.....	\$	2,794.50
Total Administrative Services.....	\$	0.00
Total Annual Report/Website/Public Communications	\$	0.00
Total TMDL Work	\$	0.00
Total Capital Improvement Projects (Tax Levy).....	\$	9,458.90
Total Improved FEMA Floodplain Modeling & Mapping (MDNR).....	\$	<u>9,962.50</u>
TOTAL PAYABLE.....	\$	60,281.61

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


