



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

Page # 1  
Invoice # 23270051-2018-11  
Project # 23/27-0051  
Client # 59  
December 28, 2018

Invoice of Account with  
BARR ENGINEERING COMPANY

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

**ENGINEERING**

TECHNICAL SERVICES

Communications with administrator regarding project email updates and EAW reviews; communications with internal staff regarding status/schedule of local water management plan reviews; review 2018 BCWMC budget status; and communications with administrator and internal staff regarding stream water quality and biotic index monitoring reporting.

Karen L. Chandler, Principal Engineer/Scientist 5.1 hours @ \$175.00 per hour .....	\$	892.50
Technicians/Administrative.....	\$	15.00
<i>Subtotal, Technical Services.....</i>	<i>\$</i>	<i>907.50</i>

MONTHLY MEETING PREPARATION

Communications/coordination with administrator and internal staff regarding draft/final agenda and meeting packet for December Commission meeting; review/edit draft November meeting minutes; prepare for December Commission meeting, including pre-meeting conference call with Chair de Lambert and administrator, preparing engineering communications and reviewing meeting packet; and communications with administrator and internal staff regarding follow-up items from December Commission meeting and upcoming meeting agenda items.

James P. Herbert, Principal Engineer/Scientist 2.8 hours @ \$190.00 per hour .....	\$	532.00
Karen L. Chandler, Principal Engineer/Scientist 19.6 hours @ \$175.00 per hour .....	\$	3,430.00
Josh P. Phillips, Engineer/Scientist/Specialist I 0.1 hours @ \$85.00 per hour .....	\$	8.50
Technicians/Administrative.....	\$	938.00
<i>Subtotal, Monthly Meeting Preparation.....</i>	<i>\$</i>	<i>4,908.50</i>

CIP PRIORITIZATION PROCESS

Prepare for and attend December 5 CIP Prioritization Committee meeting; review administrator's December 5 CIP Prioritization Committee meeting notes; edit draft scoring matrix; develop ideas for engaging member city staff regarding redevelopment opportunities; and communications with administrator.

Karen L. Chandler, Principal Engineer/Scientist 4.8 hours @ \$175.00 per hour .....	\$ 840.00
Sterling 'Greg' Williams, Engineer/Scientist/Specialist III 4.0 hours @ \$135.00 per hour .....	\$ 540.00
<i>Subtotal, CIP Prioritization Process</i> .....	\$ 1,380.00
<b><i>Subtotal Technical Services</i></b> .....	<b>\$ 7,196.00</b>

PLAT REVIEW

Ridgedale Active Adults Apartments (2018-16)

Project close-out filing.

Josh P. Phillips, Engineer/Scientist/Specialist I 0.1 hours @ \$85.00 per hour .....	\$ 8.50
<i>Subtotal, Ridgedale Active Adults Apartments</i> .....	\$ 8.50

Sanitary and SS Rehab 15<sup>th</sup> Ave and TH 55 (2018-22)

Project close-out filing.

Josh P. Phillips, Engineer/Scientist/Specialist I 0.1 hours @ \$85.00 per hour .....	\$ 8.50
<i>Subtotal, Sanitary and SS Rehab 15<sup>th</sup> Ave and TH 55</i> .....	\$ 8.50

Starbucks Building Shell and Future Apartment Bldg (2018-25)

Project close-out filing.

Josh P. Phillips, Engineer/Scientist/Specialist I 0.5 hours @ \$85.00 per hour .....	\$ 42.50
<i>Subtotal, Starbucks Bldg Shell and Future Apartment</i> .....	\$ 42.50

Neighborhood Drainage Improvements (2018-27)

Project close-out filing.

Josh P. Phillips, Engineer/Scientist/Specialist I 0.4 hours @ \$85.00 per hour .....	\$ 34.00
<i>Subtotal, Neighborhood Drainage Improvements</i> .....	\$ 34.00

Ridgedale Executive Apartments (2018-28)

Project close-out filing.

Josh P. Phillips, Engineer/Scientist/Specialist I 0.6 hours @ \$85.00 per hour.....	\$ 51.00
<i>Subtotal, Ridgedale Executive Apartments.....</i>	<i>\$ 51.00</i>

Starbucks Annapolis Lane Plymouth (2018-29)

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

James P. Herbert, Principal Engineer/Scientist 1.0 hours @ \$190.00 per hour.....	\$ 190.00
Josh P. Phillips, Engineer/Scientist/Specialist I 1.9 hours @ \$85.00 per hour.....	\$ 161.50
<i>Subtotal, Starbucks Annapolis Lane Plymouth.....</i>	<i>\$ 351.50</i>

Winpark Dr Infrastructure Improvements (2018-30)

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

James P. Herbert, Principal Engineer/Scientist 1.0 hours @ \$190.00 per hour.....	\$ 190.00
Josh P. Phillips, Engineer/Scientist/Specialist I 1.9 hours @ \$85.00 per hour.....	\$ 161.50
Technicians/Administrative.....	\$ 47.50
Expenses (Postage).....	\$ 0.47
<i>Subtotal, Winpark Dr Infrastructure Improvements.....</i>	<i>\$ 399.47</i>

**Subtotal Plat Review.....\$ 895.47**

PRELIMINARY COMMUNICATIONS AND NON-FEE REVIEWS

PRELIMINARY COMMUNICATIONS

Communications with Golden Valley staff and administrator regarding emergency streambank repair work on Bassett Creek; review MDNR appropriations permits and provide comments to administrator; communications with consultant regarding CR81 bridge project and jurisdictional boundary; and communications with administrator regarding Minnetonka Comprehensive Plan amendment.

James P. Herbert, Principal Engineer/Scientist 2.9 hours @ \$190.00 per hour.....	\$ 551.00
Karen L. Chandler, Principal Engineer/Scientist 1.5 hours @ \$175.00 per hour.....	\$ 262.50
Josh P. Phillips, Engineer/Scientist/Specialist I 1.1 hours @ \$85.00 per hour.....	\$ 93.50
<b>Subtotal, Preliminary Communications.....</b>	<b>\$ 907.00</b>

NON-FEE REVIEWS

Wellington Development/Bassett Creek Valley

Communications with Minneapolis staff and internal staff regarding city and BCWMC XP SWMM model results and use of models for floodplain study of lower Bassett Creek Valley.

Karen L. Chandler, Principal Engineer/Scientist 0.9 hours @ \$175.00 per hour .....	\$	157.50
Ross S. Mullen, Engineer/Scientist/Specialist II 0.9 hours @ \$100.00 per hour .....	\$	90.00
<i>Subtotal, Wellington Dev./B. Cr. Valley .....</i>	\$	247.50
<b>Subtotal Non-Fee Reviews .....</b>	<b>\$</b>	<b>247.50</b>
<b>Subtotal Preliminary Communications and Non-Fee Reviews .....</b>	<b>\$</b>	<b>1,154.50</b>

COMMISSION AND TAC MEETINGS

Attend December 20 Commission meeting.

Karen L. Chandler, Principal Engineer/Scientist 2.5 hours @ \$175.00 per hour .....	\$	437.50
<b>Subtotal, Commission and TAC Meetings .....</b>	<b>\$</b>	<b>437.50</b>

SURVEYS & STUDIES

<b>Subtotal Surveys &amp; Studies .....</b>	<b>\$</b>	<b>0.00</b>
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WATER QUALITY/MONITORING

Routine Lake Monitoring – Parkers and Westwood Lakes

Download data for Parkers and Westwood Lakes, prepare historical data summary, and compute 2018 summer averages and graphs for total phosphorus, chlorophyll a, and Secchi disc; communications with internal staff regarding trend analysis and lake water quality summary; develop isopleths; communications with TRPD staff regarding dissolved oxygen data; compute and graph plant IBIs for Parkers and Westwood Lakes; begin preparing Westwood Lake report; and upload water quality data into EQulS.

Margaret R. Rattei, Engineer/Scientist/Specialist III 37.6 hours @ \$135.00 per hour .....	\$	5,076.00
Erin M. Dietrich, Engineer/Scientist/Specialist III 0.3 hours @ \$145.00 per hour .....	\$	43.50
Richard A. Phelps, Engineer/Scientist/Specialist II 2.8 hours @ \$105.00 per hour .....	\$	294.00
Technicians/Administrative.....	\$	765.50
<i>Subtotal, Routine Lake Monitoring – Parkers and Westwood .....</i>	<i>\$</i>	<i>6,179.00</i>

Stream Water Quality/Quantity Monitoring - North Branch

Collect storm event samples and composite samples; collect grab sample; deliver samples to MCES lab; and phone and MCES lab charges.

Christopher J. Bonick, Engineer/Scientist/Specialist III		
1.0 hours @ \$125.00 per hour .....	\$	125.00
Heather N. Hlavaty, Engineer/Scientist/Specialist II		
2.2 hours @ \$95.00 per hour .....	\$	209.00
Sean Campbell, Engineer/Scientist/Specialist I		
3.9 hours @ \$80.00 per hour .....	\$	312.00
Expenses (Verizon Wireless/MCES) .....	\$	<u>1,629.52</u>
<i>Subtotal, North Branch Stream Water Quality/Quantity Monitor...</i>	\$	<i>2,275.52</i>

Biotic Index Monitoring

Summarize 2018 invertebrate data; compute HBI and ICI for 2018 invertebrate data; communications with MCES staff regarding availability of flow, water quality, and macroinvertebrate data from Bassett Creek WOMP station at Irving Ave.; communications with administrator regarding report format and schedule; and subconsultant charges for macroinvertebrate identification.

Margaret R. Rattei, Engineer/Scientist/Specialist III		
2.5 hours @ \$135.00 per hour .....	\$	337.50
Technicians/Administrative.....	\$	414.00
Expenses (Dean C. Hansen) .....	\$	<u>1,150.00</u>
<i>Subtotal, Biotic Index Monitoring.....</i>	\$	<i>1,901.50</i>
<b><i>Subtotal, Water Quality/Monitoring.....</i></b>	<b>\$</b>	<b><i>10,356.02</i></b>

WATER QUANTITY

***Subtotal, Water Quantity.....\$ 0.00***

FLOOD CONTROL PROJECT INSPECTION+DEEP TUNNEL

Prepare annual flood control project inspection report; compare current year and previous year's inspection results; begin preparing inspection letters to cities; communications with Golden Valley staff; internal communications regarding FCP inspection protocols; continue coordination with U.S. Army Corps of Engineers staff and internal staff regarding late February/early March deep tunnel inspection; and communications with subcontractors regarding tunnel inspection.

James P. Herbert, Principal Engineer/Scientist		
10.6 hours @ \$190.00 per hour .....	\$	2,014.00
Karen L. Chandler, Principal Engineer/Scientist		
3.8 hours @ \$175.00 per hour .....	\$	665.00
Joseph A. Welna, Engineer/Scientist/Specialist III		
2.5 hours @ \$125.00 per hour .....	\$	312.50
Josh P. Phillips, Engineer/Scientist/Specialist I		
21.5 hours @ \$85.00 per hour.....	\$	<u>1,827.50</u>
<b><i>Subtotal, Flood Control Proj Inspect+Deep Tunnel.....</i></b>	<b>\$</b>	<b><i>4,819.00</i></b>

MUNICIPAL PLAN REVIEWS

St. Louis Park SWMP Review

Complete review of SWMP document; send comments to St. Louis Park staff; review and incorporate Metropolitan Council comments into BCMWC comments; send revised comments to St. Louis Park staff; and communications with St. Louis Park staff regarding plan revision status.

Karen L. Chandler, Principal Engineer/Scientist  
4.9 hours @ \$175.00 per hour ..... \$ 857.50  
*Subtotal, St. Louis Park Plan* ..... \$ 857.50

Crystal LSWMP Review

Review and incorporate Metropolitan Council comments into BCMWC comments; send revised comments to Crystal staff; review revised LWMP; communications with Crystal staff regarding comments and needed revisions; review final LSWMP; and communications with Crystal staff and administrator.

Karen L. Chandler, Principal Engineer/Scientist  
6.2 hours @ \$175.00 per hour ..... \$ 1,085.00  
*Subtotal, Crystal LSWMP* ..... \$ 1,085.00

Medicine Lake LSWMP Review

Review LSWMP document; prepare and send comments to Medicine Lake consultant; and internal communications.

Karen L. Chandler, Principal Engineer/Scientist  
0.4 hours @ \$175.00 per hour ..... \$ 70.00  
Sterling 'Greg' Williams, Engineer/Scientist/Specialist III  
6.0 hours @ \$135.00 per hour ..... \$ 810.00  
*Subtotal, Medicine Lake LSWMP* ..... \$ 880.00

Plymouth SWMP Review

Review responses to comments; and communications with Plymouth staff regarding SWMP status.

Karen L. Chandler, Principal Engineer/Scientist  
1.5 hours @ \$175.00 per hour ..... \$ 262.50  
Sterling 'Greg' Williams, Engineer/Scientist/Specialist III  
0.5 hours @ \$135.00 per hour ..... \$ 67.50  
*Subtotal, Plymouth LSWMP* ..... \$ 330.00

Robbinsdale SWMP Review

Review SWMP document; communications with Robbinsdale staff regarding comments; prepare and send comments to city staff; and review Metropolitan Council review letter.

Karen L. Chandler, Principal Engineer/Scientist  
8.2 hours @ \$175.00 per hour ..... \$ 1,435.00

Ross S. Mullen, Engineer/Scientist/Specialist II 0.5 hours @ \$100.00 per hour .....	\$	50.00
Josh P. Phillips, Engineer/Scientist/Specialist I 0.6 hours @ \$85.00 per hour .....	\$	51.00
<i>Subtotal, Robbinsdale LSWMP .....</i>	\$	1,536.00
<b>Subtotal, Municipal Plan Reviews .....</b>	<b>\$</b>	<b>4,688.50</b>

XP-SWMM MODEL UPDATES-REVIEWS

<b>Subtotal, XP-SWMM Model Updates-Reviews .....</b>	<b>\$</b>	<b>0.00</b>
<b>TOTAL ENGINEERING .....</b>	<b>\$</b>	<b>29,546.99</b>

<b>WATERSHED OUTLET MONITORING PROGRAM (WOMP)</b>
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WATERSHED OUTLET MONITORING PROGRAM (WOMP)

Conduct flow measurement at WOMP station; download and send data to MCES staff; and communications with MCES staff.

Christopher J. Bonick, Engineer/Scientist/Specialist III 4.8 hours @ \$125.00 per hour .....	\$	600.00
Expenses (Mileage, 2WD Field Vehicle/Sontek ADV) .....	\$	104.45
<i>Subtotal, Watershed Outlet Monitoring Program .....</i>	\$	704.45
<b>TOTAL WOMP .....</b>	<b>\$</b>	<b>704.45</b>

<b>APM/AIS WORK</b>
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Develop and provide cost estimate for point intercept plant surveys for use in Hennepin County AIS grant application; and communications with administrator.

Margaret R. Rattei, Engineer/Scientist/Specialist III 1.4 hours @ \$135.00 per hour .....	\$	189.00
<i>Subtotal, APM/AIS Work .....</i>	\$	189.00
<b>TOTAL APM/AIS WORK .....</b>	<b>\$</b>	<b>189.00</b>

<b>ADMINISTRATIVE SERVICES</b>
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<b>TOTAL ADMINISTRATIVE SERVICES .....</b>	<b>\$</b>	<b>0.00</b>
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**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)**

SCHAPER POND 2018 MONITORING AND REPORTING (SL-3)

Build and install 2 PIT antenna systems on the upstream and downstream locations of Schaper Pond; perform one-month standard checkup of PIT antenna systems; check data; and equipment rental charges and travel expenses.

Expenses (Carp Solutions).....\$ 4,616.50

***Subtotal, Schaper Pond 2018 Monitoring and Reporting.....\$ 4,616.50***

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

Perform QA/QC on P8 water quality model results; re-run P8 model; review/edit final feasibility report and provide to administrator for review; and communications with administrator and MPRB staff.

Kurt A. Leuthold, Principal Engineer/Scientist  
 0.7 hours @ \$180.00 per hour .....\$ 126.00

Karen L. Chandler, Principal Engineer/Scientist  
 1.1 hours @ \$175.00 per hour .....\$ 192.50

Janna M. Kieffer, Principal Engineer/Scientist  
 0.5 hours @ \$160.00 per hour .....\$ 80.00

Jennifer A. Koehler, Engineer/Scientist/Specialist III  
 1.6 hours @ \$140.00 per hour .....\$ 224.00

Michelle A. Kimble, Engineer/Scientist/Specialist III  
 3.5 hours @ \$130.00 per hour .....\$ 455.00

Josh P. Phillips, Engineer/Scientist/Specialist I  
 9.9 hours @ \$85.00 per hour .....\$ 841.50

***Subtotal, Bryn Mawr Meadows Feasibility Study.....\$ 1,919.00***



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

Perform additional edits to BCWMC sign.

Karen L. Chandler, Principal Engineer/Scientist 0.2 hours @ \$175.00 per hour .....	\$	35.00
Michelle A. Kimble, Engineer/Scientist/Specialist III 0.5 hours @ \$130.00 per hour .....	\$	65.00
Karen C. Kaul, Contracted 4.8 hours @ \$85.00 per hour .....	\$	<u>408.00</u>
<b>Subtotal, Westwood Lake WQ Improvement Project .....</b>	<b>\$</b>	<b>508.00</b>

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

Prepare for and attend December 17 concept review meeting with Medicine Lake representatives and administrator; perform MnRAM assessments of wetlands; develop concept grading; compile proposed storage summaries for concepts; and develop existing conditions P8 model.

Karen L. Chandler, Principal Engineer/Scientist 3.9 hours @ \$175.00 per hour .....	\$	682.50
Jennifer A. Koehler, Engineer/Scientist/Specialist III 9.3 hours @ \$140.00 per hour .....	\$	1,302.00
Brian K. Burgner, Engineer/Scientist/Specialist II 9.5 hours @ \$100.00 per hour .....	\$	950.00
Lulu Fang, Engineer/Scientist/Specialist I 6.2 hours @ \$90.00 per hour .....	\$	558.00
Technicians/Administrative.....	\$	585.00
Expenses (WebEx Communications) .....	\$	<u>60.86</u>
<b>Subtotal, Jevne Park Stormwater Feasibility Study.....</b>	<b>\$</b>	<b>4,138.36</b>

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

Communications with MnDOT staff regarding Penn Pond and unnamed pond under I-394; and WebEx charges from November 7 meeting.

Michelle A. Kimble, Engineer/Scientist/Specialist III 0.5 hours @ \$130.00 per hour .....	\$	65.00
Expenses (WebEx Communications) .....	\$	<u>16.34</u>
<b>Subtotal, Bryn Mawr Meadows WQ Improvement Project.....</b>	<b>\$</b>	<b>81.34</b>

JEVNE PARK STORMWATER IMPROVEMENT PROJECT (2020) (ML-21)

Perform WCA LGU tasks on behalf of the City of Medicine Lake, including preparing and submitting WCA Notice of Decision for wetland boundary and type approval.

Karen S. Wold, Engineer/Scientist/Specialist III  
 2.6 hours @ \$125.00 per hour ..... \$ 325.00  
**Subtotal, Jevne Park Stormwater Improvement Project.....\$ 325.00**

**TOTAL CAPITAL IMPROVEMENTS PROJECTS (Tax Levy) .....\$ 11,588.20**

<b>TMDL WORK</b>
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**TOTAL TMDL WORK .....\$ 0.00**

<b>IMPROVED FEMA FLOODPLAIN MODELING &amp; MAPPING (MDNR)</b>
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IMPROVED FEMA FLOODPLAIN MODELING & MAPPING (MDNR)

Continue reviewing the survey data from the MDNR; update the XP-SWMM model with survey data from the MDNR; and perform additional out-of-scope work surveying the storm sewer in Crystal, under 36th Avenue between Winnetka Pond and Louisiana Avenue.

Karen L. Chandler, Principal Engineer/Scientist  
 0.2 hours @ \$175.00 per hour ..... \$ 35.00

Ross S. Mullen, Engineer/Scientist/Specialist II  
 2.9 hours @ \$100.00 per hour ..... \$ 290.00

Samantha A. Beck, Engineer/Scientist/Specialist I  
 20.5 hours @ \$70.00 per hour ..... \$ 1,435.00

Technicians/Administrative..... \$ 2,655.00

Expenses (Mileage) ..... \$ 74.90


*Subtotal, Improved FEMA Floodplain Modeling & Mapping  
 (MDNR)..... \$ 4,489.90*

**TOTAL IMPROVED FEMA FLOODPLAIN MODELING &  
 MAPPING (MDNR).....\$ 4,489.90**

<b>SUMMARY TOTALS</b>
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<b>Total Engineering .....</b>	<b>\$ 29,546.99</b>
<b>Total WOMP.....</b>	<b>\$ 704.45</b>
<b>Total APM/AIS Work.....</b>	<b>\$ 189.00</b>
<b>Total Administrative Services.....</b>	<b>\$ 0.00</b>
<b>Total Annual Report/Website/Public Communications .....</b>	<b>\$ 0.00</b>
<b>Total TMDL Work .....</b>	<b>\$ 0.00</b>
<b>Total Capital Improvement Projects (Tax Levy).....</b>	<b>\$ 11,588.20</b>
<b>Total Improved FEMA Floodplain Modeling &amp; Mapping (MDNR).....</b>	<b>\$ <u>4,489.90</u></b>
<b>TOTAL PAYABLE.....</b>	<b>\$ 46,518.54</b>

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

  
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