



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

Page # 1  
Invoice # 23270051-2019-2  
Project # 23/27-0051  
Client # 59  
April 5, 2019

Invoice of Account with  
BARR ENGINEERING COMPANY

For professional services during the period of  
March 2, 2019 through March 29, 2019

**ENGINEERING**

TECHNICAL SERVICES

Provide 2012 memo regarding snowmelt runoff and flooding to administrator and Golden Valley staff; communications with local media, administrator, Golden Valley staff and internal staff regarding flooding potential in watershed, and internal communications regarding possible snowmelt modeling; provide Westwood Lake outlet survey information to St. Louis Park staff; communications with administrator regarding Bassett Creek flooding in Wirth Park and XP SWMM model results; communications with administrator, Crystal staff and internal staff regarding historical pumping from Memory Lane Pond system in Crystal/Shingle Creek to Bassett Creek and search BCWMC files to locate agreement/approval; 2020 budgeting; assess 2020 water quality monitoring needs, communications with administrator and internal staff regarding 2020 water quality monitoring (including Medicine Lake monitoring and AIS plant monitoring), communications with TRPD staff regarding providing cost estimate for Medicine Lake monitoring, and develop budget estimates for biotic index, Sweeney Lake and Twin Lake monitoring; provide email addresses to administrator for 50<sup>th</sup> anniversary event invitation; and communications with Medicine Lake consultant.

James P. Herbert, Principal Engineer/Scientist	
0.5 hours @ \$195.00 per hour .....	\$ 97.50
Karen L. Chandler, Principal Engineer/Scientist	
13.1 hours @ \$175.00 per hour .....	\$ 2,292.50
Margaret R. Rattei, Engineer/Scientist/Specialist III	
12.4 hours @ \$135.00 per hour .....	\$ 1,674.00
Ross S. Mullen, Engineer/Scientist/Specialist II	
0.5 hours @ \$110.00 per hour .....	\$ 55.00
<i>Subtotal, Technical Services .....</i>	<i>\$ 4,119.00</i>

### MONTHLY MEETING PREPARATION

Communications/coordination with administrator and internal staff regarding draft/final agenda and meeting packet for March Commission meeting; review/edit draft February meeting minutes; review/edit 2018 lake water quality presentation for March meeting and send to Laura for review; prepare for March Commission meeting, including pre-meeting conference call with Chair Prom and administrator, and review meeting packet; and communications with administrator and internal staff regarding follow-up items from March Commission meeting and upcoming meeting agenda items.

James P. Herbert, Principal Engineer/Scientist	
3.8 hours @ \$195.00 per hour .....	\$ 741.00
Karen L. Chandler, Principal Engineer/Scientist	
17.5 hours @ \$175.00 per hour .....	\$ 3,062.50
Technicians/Administrative.....	\$ 380.00
<i>Subtotal, Monthly Meeting Preparation.....</i>	<i>\$ 4,183.50</i>

### TAC PREPARATION

Prepare for March 8 TAC meeting; provide additional information regarding proposed Bassett Creek Park Pond dredging project for March 26 TAC meeting, including providing information from feasibility study, retrieving 2018 water quality data for North Branch Bassett Creek monitoring site and updating water quality analysis to respond to questions about water quality benefits, estimating remaining storage volume, and time to fill with sediment; and prepare for March 26 TAC meeting, including communications with administrator and Crystal staff.

James P. Herbert, Principal Engineer/Scientist	
1.0 hours @ \$195.00 per hour .....	\$ 195.00
Karen L. Chandler, Principal Engineer/Scientist	
7.0 hours @ \$175.00 per hour .....	\$ 1,225.00
Gregory J. Wilson, Consultant/Advisor	
3.9 hours @ \$165.00 per hour .....	\$ 643.50
Christopher J. Bonick, Engineer/Scientist/Specialist III	
2.0 hours @ \$125.00 per hour .....	\$ 250.00
Charles M. Hinds, Engineer/Scientist/Specialist II	
0.7 hours @ \$95.00 per hour .....	\$ 66.50
<i>Subtotal, TAC Preparation.....</i>	<i>\$ 2,380.00</i>
<b><i>Subtotal Technical Services .....</i></b>	<b><i>\$ 10,682.50</i></b>

### PLAT REVIEW

#### Ridgedale Active Adults Apartments (2018-16)

Review supporting materials for proposed alternative proprietary treatment filter; and meet with manufacturer.

James P. Herbert, Principal Engineer/Scientist	
0.5 hours @ \$195.00 per hour .....	\$ 97.50
Josh P. Phillips, Engineer/Scientist/Specialist II	
1.0 hours @ \$95.00 per hour .....	\$ 95.00
<i>Subtotal, Ridgedale Active Adults Apts .....</i>	<i>\$ 192.50</i>

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

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

James P. Herbert, Principal Engineer/Scientist	
1.3 hours @ \$195.00 per hour .....	\$ 253.50
Josh P. Phillips, Engineer/Scientist/Specialist II	
4.5 hours @ \$95.00 per hour .....	\$ 427.50
<i>Subtotal, Rockford Rd/I-494 Interchange .....</i>	<i>\$ 681.00</i>

Plymouth Medical Office Building (2018-32)

Review revised grading, drainage and erosion control plans; review revised water quality model; prepare and send approval letter to city staff; and communications with applicant.

James P. Herbert, Principal Engineer/Scientist	
1.0 hours @ \$195.00 per hour .....	\$ 195.00
Josh P. Phillips, Engineer/Scientist/Specialist II	
5.9 hours @ \$95.00 per hour .....	\$ 560.50
<i>Subtotal, Plymouth Medical Office Building .....</i>	<i>\$ 755.50</i>

RiverTree School Expansion (2019-01)

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

James P. Herbert, Principal Engineer/Scientist	
0.8 hours @ \$195.00 per hour .....	\$ 156.00
Josh P. Phillips, Engineer/Scientist/Specialist II	
2.9 hours @ \$95.00 per hour .....	\$ 275.50
<i>Subtotal, RiverTree School Expansion .....</i>	<i>\$ 431.50</i>

Golden Valley 2019 PMP (2019-02)

Review grading, drainage and erosion control plans; prepare review memo for March Commission meeting; prepare and send comment letter to city staff; review resubmittal; prepare and send approval letter to city staff; and communications with applicant.

James P. Herbert, Principal Engineer/Scientist	
2.3 hours @ \$195.00 per hour .....	\$ 448.50
Karen L. Chandler, Principal Engineer/Scientist	
0.9 hours @ \$175.00 per hour .....	\$ 157.50
Josh P. Phillips, Engineer/Scientist/Specialist II	
4.0 hours @ \$95.00 per hour .....	\$ 380.00

Edward M. Anderson, Engineer/Scientist/Specialist I  
1.5 hours @ \$85.00 per hour ..... \$ 127.50  
*Subtotal, Golden Valley 2019 PMP* ..... \$ 1,113.50

5005 Bassett Creek Drive Fence (2019-03)

Review plans; prepare draft review letter; and communications with applicant and city staff.

James P. Herbert, Principal Engineer/Scientist  
2.5 hours @ \$195.00 per hour ..... \$ 487.50  
Karen L. Chandler, Principal Engineer/Scientist  
0.3 hours @ \$175.00 per hour ..... \$ 52.50  
Josh P. Phillips, Engineer/Scientist/Specialist II  
3.2 hours @ \$95.00 per hour ..... \$ 304.00  
*Subtotal, 5005 Bassett Creek Dr Fence* ..... \$ 844.00

CenterPoint MBLSW Winnetka Avenue (2019-04)

Plat review set up; and review grading, drainage and erosion control plans.

James P. Herbert, Principal Engineer/Scientist  
1.0 hours @ \$195.00 per hour ..... \$ 195.00  
Josh P. Phillips, Engineer/Scientist/Specialist II  
1.6 hours @ \$95.00 per hour ..... \$ 152.00  
Technicians/Administrative..... \$ 66.50  
Expenses (Postage) ..... \$ 0.50  
*Subtotal, CenterPoint MBLSW Winnetka Ave*..... \$ 414.00

Candlelight Terrace St Reconstruction (2019-05)

Plat review set up; and review grading, drainage and erosion control plans.

James P. Herbert, Principal Engineer/Scientist  
0.4 hours @ \$195.00 per hour ..... \$ 78.00  
Josh P. Phillips, Engineer/Scientist/Specialist II  
3.1 hours @ \$95.00 per hour ..... \$ 294.50  
Technicians/Administrative..... \$ 47.50  
Expenses (Postage) ..... \$ 0.50  
*Subtotal, Candlelight Terrace St Reconstruction* ..... \$ 420.50

Marsh Run Apartments (2019-06)

Plat review set up; and review grading, drainage and erosion control plans.

Josh P. Phillips, Engineer/Scientist/Specialist II  
1.1 hours @ \$95.00 per hour ..... \$ 104.50

Technicians/Administrative.....	\$	47.50
Expenses (Postage) .....	\$	1.00
<i>Subtotal, Marsh Run Apartments.....</i>	<i>\$</i>	<i>153.00</i>

Sandburg Middle School Roof (2019-07)

Plat review set up and preliminary review.

James P. Herbert, Principal Engineer/Scientist 0.5 hours @ \$195.00 per hour .....	\$	97.50
Josh P. Phillips, Engineer/Scientist/Specialist II 0.3 hours @ \$95.00 per hour .....	\$	28.50
Technicians/Administrative.....	\$	47.50
<i>Subtotal, Sandburg Middle School Roof.....</i>	<i>\$</i>	<i>173.50</i>
<b><i>Subtotal Plat Review .....</i></b>	<b><i>\$</i></b>	<b><i>5,179.00</i></b>

PRELIMINARY COMMUNICATIONS AND NON-FEE REVIEWS

PRELIMINARY COMMUNICATIONS

Communications with Golden Valley and MPRB staff regarding Wirth Park cart path; and respond to floodplain elevation request for 3503 Douglas Drive North in Crystal.

James P. Herbert, Principal Engineer/Scientist 0.8 hours @ \$195.00 per hour .....	\$	156.00
Josh P. Phillips, Engineer/Scientist/Specialist II 0.2 hours @ \$95.00 per hour .....	\$	19.00
<b><i>Subtotal, Preliminary Communications.....</i></b>	<b><i>\$</i></b>	<b><i>175.00</i></b>

NON-FEE REVIEWS

Metropolitan Council SWLRT (2016-17)

Review revised drawings for three project segments and compare against 2016 submittal/approval; review grading, drainage and erosion control plans; review hydrologic and hydraulic models, watersheds, and connection to tunnel; meeting with SWLRT consultant; prepare review memo for March Commission meeting; review stormwater management plan reports; prepare and send approval letter to city staff; and communications with applicant.

James P. Herbert, Principal Engineer/Scientist 13.0 hours @ \$195.00 per hour .....	\$	2,535.00
Karen L. Chandler, Principal Engineer/Scientist 2.2 hours @ \$175.00 per hour .....	\$	385.00
Jennifer A. Koehler, Engineer/Scientist/Specialist III 3.5 hours @ \$140.00 per hour .....	\$	490.00

Josh P. Phillips, Engineer/Scientist/Specialist II	
24.0 hours @ \$95.00 per hour .....	\$ 2,280.00
<i>Subtotal, Metropolitan Council SWLRT .....</i>	<i>\$ 5,690.00</i>
<b>Subtotal Non-Fee Reviews .....</b>	<b>\$ 5,690.00</b>
<b>Subtotal Preliminary Communications and Non-Fee Reviews .....</b>	<b>\$ 5,865.00</b>

#### COMMISSION AND TAC MEETINGS

Attend March 8 TAC meeting, March 21 Commission meeting, and March 26 TAC meeting.

Karen L. Chandler, Principal Engineer/Scientist	
8.1 hours @ \$175.00 per hour .....	\$ 1,417.50
Margaret R. Rattei, Engineer/Scientist/Specialist III	
2.5 hours @ \$135.00 per hour .....	\$ 337.50
Expenses (Mileage) .....	\$ 32.48
<b>Subtotal, Commission and TAC Meetings .....</b>	<b>\$ 1,787.48</b>

#### SURVEYS & STUDIES

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

##### General Water Quality

Update Westwood and Parkers Lake reports, and provide final reports to administrator for March Commission meeting; prepare presentation of Parkers and Westwood Lake water quality results for March Commission meeting; communications with administrator and internal staff regarding chlorides; internal communications regarding potential coordination with/funding from MPCA for 2020 stream monitoring (through MPCA's Cycle II 2020-2021 water quality monitoring program); and review 2018 MPRB Wirth Lake water quality data.

Karen L. Chandler, Principal Engineer/Scientist	
0.3 hours @ \$175.00 per hour .....	\$ 52.50
Gregory J. Wilson, Consultant/Advisor	
0.5 hours @ \$165.00 per hour .....	\$ 82.50
Sterling 'Greg' Williams, Engineer/Scientist/Specialist III	
0.3 hours @ \$140.00 per hour .....	\$ 42.00
Margaret R. Rattei, Engineer/Scientist/Specialist III	
20.4 hours @ \$135.00 per hour .....	\$ 2,754.00
Technicians/Administrative .....	\$ 80.50
<b>Subtotal, General Water Quality .....</b>	<b>\$ 3,011.50</b>

Cavanaugh and Northwood Lakes Monitoring

Prepare for 2019 lake monitoring.

Technicians/Administrative.....	\$	27.00
<i>Subtotal, Cavanaugh and Northwood Lakes Monitoring .....</i>		<i>\$ 27.00</i>

North Branch Monitoring Year 2

Review and QA/QC of 2018 continuous flow data; and site visit to check on creek and station conditions.

Christopher J. Bonick, Engineer/Scientist/Specialist III		
3.5 hours @ \$125.00 per hour .....	\$	437.50
Expenses (Verizon Wireless/digital camera/mileage/2WD vehicle).....	\$	94.93
<i>Subtotal, North Branch Monitoring Year 2 .....</i>		<i>\$ 532.43</i>
<b><i>Subtotal, Water Quality/Monitoring.....</i></b>	<b>\$</b>	<b>3,570.93</b>

WATER QUANTITY

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

Technicians/Administrative.....	\$	400.00
Expenses (Mileage/2WD vehicle) .....	\$	119.48
<b><i>Subtotal, Water Quantity.....</i></b>	<b>\$</b>	<b>519.48</b>

MUNICIPAL PLAN REVIEWS

St. Louis Park Plan

Review revised draft SWMP and provide comments to city staff and consultant; review/approve final SWMP document; and communications with administrator, city staff and city consultant.

Karen L. Chandler, Principal Engineer/Scientist		
1.6 hours @ \$175.00 per hour .....	\$	280.00
Sterling 'Greg' Williams, Engineer/Scientist/Specialist III		
3.0 hours @ \$140.00 per hour .....	\$	420.00
<i>Subtotal, St. Louis Park Plan .....</i>		<i>\$ 700.00</i>
<b><i>Subtotal, Municipal Plan Reviews.....</i></b>	<b>\$</b>	<b>700.00</b>

XP-SWMM MODEL UPDATES-REVIEWS

<b><i>Subtotal, XP-SWMM Model Updates-Reviews.....</i></b>	<b>\$</b>	<b>0.00</b>
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<b>TOTAL ENGINEERING .....</b>	<b>\$</b>	<b>28,304.39</b>
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**WATERSHED OUTLET MONITORING PROGRAM (WOMP)**

**TOTAL WOMP .....\$ 0.00**

**APM/AIS WORK**

**TOTAL APM/AIS WORK.....\$ 0.00**

**ADMINISTRATIVE SERVICES**

**TOTAL ADMINISTRATIVE SERVICES.....\$ 0.00**

**ANNUAL REPORT**

Assign sections of annual report to internal staff.

Karen L. Chandler, Principal Engineer/Scientist

0.4 hours @ \$175.00 per hour .....\$ 70.00

**TOTAL ANNUAL REPORT .....\$ 70.00**

**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)

Expenses for carp survey subconsultant (Carp Solutions).

Expenses (Carp Solutions LLC) .....\$ 1,694.30

***Subtotal, Schaper Pond 2018 Monitoring and Reporting .....\$ 1,694.30***

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

Internal follow-up regarding February 28 open house; prepare draft feasibility report, including revised figures; provide draft report to Medicine Lake representatives and administrator for review; and begin edits to report per administrator's suggested revisions.

Karen L. Chandler, Principal Engineer/Scientist

9.4 hours @ \$175.00 per hour .....\$ 1,645.00



Jennifer A. Koehler, Engineer/Scientist/Specialist III 13.7 hours @ \$140.00 per hour.....	\$ 1,918.00
Karen S. Wold, Engineer/Scientist/Specialist III 0.3 hours @ \$130.00 per hour.....	\$ 39.00
Lulu Fang, Engineer/Scientist/Specialist II 5.2 hours @ \$95.00 per hour .....	\$ 494.00
Erin E. Feehily, Engineer/Scientist/Specialist I 0.7 hours @ \$85.00 per hour .....	\$ 59.50
Expenses (Color plotter) .....	\$ 60.00
<b>Subtotal, Jevne Park Stormwater Feasibility Study.....</b>	<b>\$ 4,215.50</b>

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

Review revised feasibility study; prepare and send review comments to city staff, city consultant; and administrator; communications with city's consultant regarding comments; review revised submittal; and prepare review memo regarding feasibility study for March Commission meeting.

James P. Herbert, Principal Engineer/Scientist 1.5 hours @ \$195.00 per hour .....	\$ 292.50
Karen L. Chandler, Principal Engineer/Scientist 10.2 hours @ \$175.00 per hour .....	\$ 1,785.00
Jennifer A. Koehler, Engineer/Scientist/Specialist III 1.5 hours @ \$140.00 per hour .....	\$ 210.00
Heather N. Hlavaty, Engineer/Scientist/Specialist II 11.8 hours @ \$100.00 per hour .....	\$ 1,180.00
<b>Subtotal, Crane Lake Improvement Project .....</b>	<b>\$ 3,467.50</b>

**TOTAL CAPITAL IMPROVEMENTS PROJECTS (Tax Levy) .....\$ 9,377.30**

<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)

Hydraulic analysis: complete project management and senior level reviews of XP-SWMM model and incorporate comments, complete the *Hydraulic Analysis* narrative, compile supporting documentation for hydraulic analysis (survey, record drawings, and other data sources), and compile model inputs requested by the MDNR as part of initial comments; and floodplain, floodway, and cross section shapefiles: internal kick-off meeting.

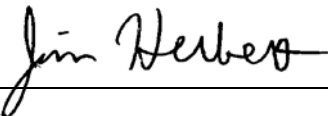
Karen L. Chandler, Principal Engineer/Scientist 4.9 hours @ \$175.00 per hour .....	\$ 857.50
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Michael B. McKinney, Engineer/Scientist/Specialist II	
0.3 hours @ \$105.00 per hour .....	\$ 31.50
Ross S. Mullen, Engineer/Scientist/Specialist II	
32.9 hours @ \$110.00 per hour .....	\$ 3,619.00
Katelyn Turpin-Nagel, Engineer/Scientist/Specialist II	
0.5 hours @ \$100.00 per hour .....	\$ 50.00
Lulu Fang, Engineer/Scientist/Specialist II	
0.8 hours @ \$95.00 per hour .....	\$ 76.00
Joshua R. Vosejpka, Engineer/Scientist/Specialist I	
0.3 hours @ \$85.00 per hour .....	\$ 25.50
Samantha A. Beck, Engineer/Scientist/Specialist I	
12.4 hours @ \$80.00 per hour .....	\$ 992.00
<i>Subtotal, Improved FEMA Floodplain Modeling &amp; Mapping</i>	
<i>(MDNR).....</i>	<i>\$ 5,651.50</i>
<b>TOTAL IMPROVED FEMA FLOODPLAIN MODELING &amp; MAPPING (MDNR).....</b>	<b>\$ 5,651.50</b>

<b>SUMMARY TOTALS</b>
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<b>Total Engineering .....</b>	<b>\$ 28,304.39</b>
<b>Total WOMP.....</b>	<b>\$ 0.00</b>
<b>Total APM/AIS Work.....</b>	<b>\$ 0.00</b>
<b>Total Administrative Services.....</b>	<b>\$ 0.00</b>
<b>Total Annual Report/Website/Public Communications .....</b>	<b>\$ 70.00</b>
<b>Total TMDL Work .....</b>	<b>\$ 0.00</b>
<b>Total Capital Improvement Projects (Tax Levy).....</b>	<b>\$ 9,377.30</b>
<b>Total Improved FEMA Floodplain Modeling &amp; Mapping (MDNR) .....</b>	<b>\$ 5,651.50</b>
<b>TOTAL PAYABLE.....</b>	<b>\$ 43,403.19</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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