Mr. Jim Prom Bassett Creek Watershed Management Commission 7800 Golden Valley Road Golden Valley, MN 55427 Page # 1

Invoice # 23270051-2019-3

Project # 23/27-0051

Client # 59 May 3, 2019

Invoice of Account with BARR ENGINEERING COMPANY

For professional services during the period of March 30, 2019 through April 26, 2019

ENGINEERING

TECHNICAL SERVICES

Summarize to-date costs for plat/project reviews; prepare summary of number of 2018 BCWMC plat/project reviews and provide to Golden Valley staff for their MS4 permit; coordinate with administrator regarding check from TRPD and send check to deputy treasurer; prepare for and attend April 8 meeting with Hennepin County and Golden Valley staff regarding resiliency issues and extreme flooding; prepare for and attend April 15 meeting with administrator, Minneapolis staff and consultant regarding Minneapolis ordinances, and follow-up from meeting; prepare draft 2020 budget estimates and provide to administrator, communications with administrator regarding questions and direction from Budget Committee on draft 2020 water quality monitoring budget, provide administrator with recommended revisions to 2020 water quality monitoring budget; and communications with administrator regarding Governor's Executive Order and snowmelt modeling, hybrid milfoil seminar, project email updates, potential water quality monitoring workshop, old tunnel information, future meeting with Hennepin County Commissioner Fernando, and invoicing development review applicants for review fees over \$5,000.

James P. Herbert, Principal Engineer/Scientist 9.2 hours @ \$195.00 per hour\$	1,794.00
Karen L. Chandler, Principal Engineer/Scientist 33.5 hours @ \$175.00 per hour\$	5,862.50
Gregory J. Wilson, Consultant/Advisor 1.7 hours @ \$165.00 per hour\$	280.50
Sterling 'Greg' Williams, Engineer/Scientist/Specialist III 1.5 hours @ \$140.00 per hour\$	210.00
Margaret R. Rattei, Engineer/Scientist/Specialist III 1.9 hours @ \$135.00 per hour\$	256.50

Josh P. Phillips, Engineer/Scientist/Specialist II	
1.0 hours @ \$95.00 per hour\$	95.00
Technicians/Administrative\$	202.00
Expenses (Postage)\$	0.50
Subtotal, Technical Services\$	8,701.00

MONTHLY MEETING PREPARATION

Communications/coordination with administrator and internal staff regarding draft/final agenda and meeting packet for April Commission meeting; review/edit draft March meeting minutes; prepare review memo for April meeting regarding proprietary BMPs and provide to administrator; prepare for April 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 April Commission meeting and upcoming meeting agenda items.

James P. Herbert, Principal Engineer/Scientist 8.1 hours @ \$195.00 per hour\$	1,579.50
Karen L. Chandler, Principal Engineer/Scientist 14.3 hours @ \$175.00 per hour\$	2,502.50
Josh P. Phillips, Engineer/Scientist/Specialist II 5.3 hours @ \$95.00 per hour\$	503.50
Technicians/Administrative\$_	450.00
Subtotal, Monthly Meeting Preparation\$	5,035.50

TAC PREPARATION

Review/edit administrator's draft TAC memo for April Commission meeting; and prepare for upcoming TAC meeting regarding testing guidance for proprietary stormwater treatment devices.

James P. Herbert, Principal Engineer/Scientist 0.5 hours @ \$195.00 per hour	\$	97.50
Karen L. Chandler, Principal Engineer/Scientist 0.5 hours @ \$175.00 per hour	\$	87.50
Josh P. Phillips, Engineer/Scientist/Specialist II 1.9 hours @ \$95.00 per hour	\$_	180.50
Subtotal, TAC Preparation	\$	365.50
Subtotal Technical Services	\$	14.102.00

PLAT REVIEW

Ridgedale Active Adults Apartments (2018-16)

Review supporting materials for proposed alternative proprietary treatment filter; and communications with City, administrator, applicant and manufacturer.

James P. Herbert, Principal Engineer/Scientist	
1.5 hours @ \$195.00 per hour\$	292.50

Karen L. Chandler, Principal Engineer/Scientist 0.3 hours @ \$175.00 per hour	. \$	52.50
Janna M. Kieffer, Principal Engineer/Scientist 0.8 hours @ \$165.00 per hour	. \$	132.00
Josh P. Phillips, Engineer/Scientist/Specialist II 18.3 hours @ \$95.00 per hour	. \$	<u>1,738.50</u>
Subtotal, Ridgedale Active Adults Apts	\$	2,215.50
RiverTree School Expansion (2019-01)		
Review revised grading, drainage and erosion control plans; and prepare and send staff.	approv	al letter to city
James P. Herbert, Principal Engineer/Scientist 0.5 hours @ \$195.00 per hour	. \$	97.50
Josh P. Phillips, Engineer/Scientist/Specialist II 0.9 hours @ \$95.00 per hour	. \$	85.50
Technicians/Administrative	. \$	9.50
Subtotal, RiverTree School Expansion	\$	192.50
5005 Bassett Creek Drive Fence (2019-03)		
Prepare and send final review letter to city staff; and communications with city staff		
James P. Herbert, Principal Engineer/Scientist 2.1 hours @ \$195.00 per hour	. \$	409.50
Josh P. Phillips, Engineer/Scientist/Specialist II 0.3 hours @ \$95.00 per hour	. \$	<u> 28.50</u>
Subtotal, 5005 Bassett Creek Dr Fence	\$	438.00
CenterPoint MBLSW Winnetka Avenue (2019-04)		
Review grading, drainage and erosion control plans; communications with city s send approval letter to Golden Valley and St. Louis Park staff.	taff; a	nd prepare and
James P. Herbert, Principal Engineer/Scientist 2.2 hours @ \$195.00 per hour	. \$	429.00
Josh P. Phillips, Engineer/Scientist/Specialist II 1.5 hours @ \$95.00 per hour	. \$	<u> 142.50</u>
Subtotal, CenterPoint MBLSW Winnetka Ave	\$	571.50
Candlelight Terrace St Reconstruction (2019-05)		
Review grading, drainage and erosion control plans; and prepare and send apprestaff.	oval le	etter to city
James P. Herbert, Principal Engineer/Scientist 1.3 hours @ \$195.00 per hour	. \$	253.50

Josh P. Phillips, Engineer/Scientist/Specialist II	
0.7 hours @ \$95.00 per hour\$	66.50
Subtotal, Candlelight Terrace St Reconstruction\$	320.00

Marsh Run Apartments (2019-06)

Review grading, drainage and erosion control plans; review proprietary stormwater treatment device; prepare review memo for April Commission meeting; prepare and send comment letter to city staff; and communications with administrator, city staff and internal staff regarding monitoring requirement.

James P. Herbert, Principal Engineer/Scientist 5.0 hours @ \$195.00 per hour	. \$	975.00
Karen L. Chandler, Principal Engineer/Scientist 3.9 hours @ \$175.00 per hour	. \$	682.50
Josh P. Phillips, Engineer/Scientist/Specialist II 11.7 hours @ \$95.00 per hour	. \$	1,111.50
Edward M. Anderson, Engineer/Scientist/Specialist I 0.5 hours @ \$85.00 per hour	. \$	42.50
Subtotal, Marsh Run Apartments	\$	2,811.50

Sandburg Middle School Roof (2019-07)

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

James P. Herbert, Principal Engineer/Scientist 1.9 hours @ \$195.00 per hour	\$ 370.50
Josh P. Phillips, Engineer/Scientist/Specialist II 0.7 hours @ \$95.00 per hour	\$ 66.50
Subtotal, Sandburg Middle School Roof	

Capri Theater Addition (2019-08)

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

James P. Herbert, Principal Engineer/Scientist	
1.5 hours @ \$195.00 per hour	\$ 292.50
Josh P. Phillips, Engineer/Scientist/Specialist II	
3.0 hours @ \$95.00 per hour	\$ 285.00
Technicians/Administrative	\$ 47.50
Expenses (Postage)	\$ 0.50
Subtotal, Capri Theater Addition	\$ 625.50

Wayzata E. Middle School Addition (2019-09)

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

James P. Herbert, Principal Engineer/Scientist 1.0 hours @ \$195.00 per hour	\$ 195.00
Josh P. Phillips, Engineer/Scientist/Specialist II 3.2 hours @ \$95.00 per hour	\$ 304.00
Technicians/Administrative	\$ 47.50
Expenses (Postage)	\$ 0.50
Subtotal, Wayzata E. Middle School Addition	\$ 547.00

Ridgedale Drive Improvements (2019-10)

Review grading, drainage and erosion control plans; prepare and send preliminary comments to applicant; and communications with applicant.

James P. Herbert, Principal Engineer/Scientist 1.5 hours @ \$195.00 per hour	. \$	292.50
Josh P. Phillips, Engineer/Scientist/Specialist II 8.5 hours @ \$95.00 per hour	. \$	807.50
Edward M. Anderson, Engineer/Scientist/Specialist I 1.0 hours @ \$85.00 per hour	. \$	85.00
Technicians/Administrative	. \$	57.00
Expenses (Postage)	. \$	0.50
Subtotal, Ridgedale Drive Improvements	. \$	1,242.50
olden Hills Parking (2019-11)		

Golden Hills Parking (2019-11)

Plat review set up and preliminary review.

James P. Herbert, Principal Engineer/Scientist	
0.5 hours @ \$195.00 per hour\$	97.50
Technicians/Administrative\$	47.50
Subtotal, Golden Hills Parking\$	145.00
Subtotal Plat Review	9.546.00

PRELIMINARY COMMUNICATIONS AND NON-FEE REVIEWS

PRELIMINARY COMMUNICATIONS

Communications with Golden Valley and MPRB staff regarding Wirth Park cart path project; communications with property owner and Golden Valley staff regarding proposed streambank restoration project; review MDNR permit applications on behalf of BCWMC; communications with Golden Valley staff regarding Dresden Lane, review historical data from Dresden Lane, scan and send to Golden Valley staff; and communications with consultant, internal staff, and Minneapolis staff regarding OHW and flood elevation on @glenwood site.

James P. Herbert, Principal Engineer/Scientist 3.5 hours @ \$195.00 per hour	\$	682.50
Karen L. Chandler, Principal Engineer/Scientist 2.2 hours @ \$175.00 per hour	\$	385.00
Ross S. Mullen, Engineer/Scientist/Specialist II 0.2 hours @ \$110.00 per hour	\$	22.00
Josh P. Phillips, Engineer/Scientist/Specialist II 1.1 hours @ \$95.00 per hour	\$	104.50
Technicians/Administrative	\$_	6.50
Subtotal, Preliminary Communications	\$	1,200.50
NON-FEE REVIEWS		
Metropolitan Council SWLRT (2016-17)		
Send approval letter to MnDOT, notifying them of approval conditions.		
James P. Herbert, Principal Engineer/Scientist 0.8 hours @ \$195.00 per hour	\$	156.00
Karen L. Chandler, Principal Engineer/Scientist 0.5 hours @ \$175.00 per hour	\$	87.50
Subtotal, Metropolitan Council SWLRT	\$	243.50
Subtotal Non-Fee Reviews	\$	243.50
Subtotal Preliminary Communications and Non-Fee Reviews	\$	1,444.00
COMMISSION AND TAC MEETINGS		
Attend April 18 Commission meeting		
Karen L. Chandler, Principal Engineer/Scientist 3.4 hours @ \$175.00 per hour	\$	595.00
Subtotal, Commission and TAC Meetings	\$	595.00

SURVEYS & STUDIES

BCWMC 50th Anniversary

CIP content for anniversary booklet: review existing GIS information; retrieve information regarding older CIP projects, including project location, water quality treatment (summarizing P8 results), and grants and provide to administrator; and communications with administrator and Mark Seeley regarding speaking at 50th anniversary event.

Karen L. Chandler, Principal Engineer/Scientist 13.8 hours @ \$175.00 per hour\$	2,415.00
Gregory J. Wilson, Consultant/Advisor	
1.0 hours @ \$165.00 per hour\$	165.00

Subtotal Surveys & Studies\$	2,677.46
Subtotal, BCWMC 50 th Anniversary\$	2,677.46
Expenses (Mileage/photo reproduction) <u>\$</u>	73.46
Rachel C. Mitcavish, Engineer/Scientist/Specialist I 0.3 hours @ \$80.00 per hour\$	24.00
Dealed C. Mitaviale Francisco (Caiantist (Consciolist)	

WATER QUALITY/MONITORING

General Water Quality

Prepare monitoring request form for MPCA Cycle II 2020-2021 monitoring and send to administrator to submit to MPCA; communications with administrator regarding potential future Medicine Lake alum treatment; develop Nine Element planning components of 319 grant for Sweeney Lake, and coordination with administrator regarding 319 grant work plan for Sweeney Lake; and attend April 15 conference call with New York Botanical Gardens staff, MDNR staff and administrator to discuss bearded stonewort in Westwood Lake, and follow up communications with MDNR staff.

Karen L. Chandler, Principal Engineer/Scientist 5.6 hours @ \$175.00 per hour\$	980.00
Gregory J. Wilson, Consultant/Advisor 9.5 hours @ \$165.00 per hour\$	1,567.50
Margaret R. Rattei, Engineer/Scientist/Specialist III 1.4 hours @ \$135.00 per hour\$_	189.00
Subtotal, General Water Quality\$	2,736.50

Cavanaugh and Northwood Lakes Monitoring

Prepare for and conduct ice-out lake monitoring, including arrange for access to Cavanaugh Lake; prepare for future lake monitoring; and review laboratory data.

Henry M. Runke, Principal Engineer/Scientist 0.2 hours @ \$175.00 per hour\$	35.00
Terri A. Olson, Engineer/Scientist/Specialist III 0.1 hours @ \$140.00 per hour\$	14.00
Technicians/Administrative\$	876.00
Expenses (WQ meter/filtration apparatus/canoe/mileage/2WD vehicle)\$	175.28
Subtotal, Cavanaugh and Northwood Lakes Monitoring\$	1,100.28

North Branch Monitoring Year 2

Re-install equipment at monitoring site; start up station and prepare for sampling; order new conductivity/temperature sensor; set station for rain event sampling; collect storm samples; and download and review data.

Christopher J. Bonick, Engineer/Scientist/Specialist III	
16.5 hours @ \$125.00 per hour\$	2,062.50

Heather N. Hlavaty, Engineer/Scientist/Specialist II	đ	220.00
2.3 hours @ \$100.00 per hour Technicians/Administrative		230.00 36.00
Expenses (Verizon Wireless/conductivity meter/mileage/2WD vehicle)		199.14
Subtotal, North Branch Monitoring Year 2		2,527.64
2018 Biotic Index Monitoring	⊅	2,327.04
Perform and review trend analyses for Bassett Creek Main Stem HBI and ICI; revisions at North Branch Bassett Creek; analyze biotic index data and prepare graph report.		•
Karen L. Chandler, Principal Engineer/Scientist 1.9 hours @ \$175.00 per hour	\$	332.50
Margaret R. Rattei, Engineer/Scientist/Specialist III 34.0 hours @ \$135.00 per hour	\$	4,590.00
Christopher J. Bonick, Engineer/Scientist/Specialist III 2.0 hours @ \$125.00 per hour	\$	250.00
Joshua R. Vosejpka, Engineer/Scientist/Specialist I 0.5 hours @ \$85.00 per hour	\$_	42.50
Subtotal, Biotic Index Monitoring	\$	5,215.00
Subtotal, Water Quality/Monitoring	\$	11,579.42
WATER QUANTITY		
Review benchmark data; and internal meeting regarding process for confirming benchmark elevations for lake levels.	g/re-	establishing
James P. Herbert, Principal Engineer/Scientist 1.5 hours @ \$195.00 per hour	\$	292.50
Karen L. Chandler, Principal Engineer/Scientist 1.5 hours @ \$175.00 per hour	\$	262.50
Technicians/Administrative	\$_	100.00
Subtotal, Water Quantity	\$	655.00
2018 FLOOD CONTROL PROJECT INSPECTIONS-DEEP TUNNEL INSPECTION		
Communications with administrator.		
James P. Herbert, Principal Engineer/Scientist 0.5 hours @ \$195.00 per hour	\$_	<u>97.50</u>
Subtotal, 2018 Flood Control Proj Inspection-Deep Tunnel	\$	97.50
MUNICIPAL PLAN REVIEWS		
Subtotal, Municipal Plan Reviews	\$	0.00

XP-SWMM MODEL UPDATES-REVIEWS Subtotal, XP-SWMM Model Updates-Reviews\$	0.00
Subtotut, XF-SWFII-1 Flouet Opuates-Nevtews	0.00
TOTAL ENGINEERING\$	40,696.38
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	
Review/revise assigned sections of 2018 annual report, including create table of 20 plat/project reviews, and provide to administrator.)18 BCWMC
·	018 BCWMC 585.00
plat/project reviews, and provide to administrator. James P. Herbert, Principal Engineer/Scientist	
plat/project reviews, and provide to administrator. James P. Herbert, Principal Engineer/Scientist 3.0 hours @ \$195.00 per hour\$ Karen L. Chandler, Principal Engineer/Scientist	585.00
plat/project reviews, and provide to administrator. James P. Herbert, Principal Engineer/Scientist 3.0 hours @ \$195.00 per hour\$ Karen L. Chandler, Principal Engineer/Scientist 1.6 hours @ \$175.00 per hour\$ Gregory J. Wilson, Consultant/Advisor	585.00 280.00
plat/project reviews, and provide to administrator. James P. Herbert, Principal Engineer/Scientist 3.0 hours @ \$195.00 per hour	585.00 280.00 165.00 11.00
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plat/project reviews, and provide to administrator. James P. Herbert, Principal Engineer/Scientist 3.0 hours @ \$195.00 per hour	585.00 280.00 165.00 11.00 152.00

CAPITAL IMPROVEMENT PROJECTS (Funded through tax levy)

SCHAPER POND 2018 MONITORING AND REPORTING (SL-3)

Communications with Carp Solutions regarding PIT tag monitoring.

Gregory J. Wilson, Consultant/Advisor

0.5 hours @ \$165.00 per hour\$_	82.50
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Subtotal, Schaper Pond 2018 Monitoring and Reporting.......\$ 82.50

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

Prepare draft feasibility study, including new Appendix C, compile PDFs, and provide to administrator for April Commission meeting packet; prepare draft presentation for April Commission meeting and revise per administrator review/comment; and prepare final feasibility study report, compile PDFS, and provide to administrator.

Subtotal, Jevne Park Stormwater Feasibility Study\$	3,556.50
Technicians/Administrative\$_	90.00
Rachel C. Mitcavish, Engineer/Scientist/Specialist I 1.9 hours @ \$80.00 per hour\$	152.00
Lulu Fang, Engineer/Scientist/Specialist II 4.6 hours @ \$95.00 per hour\$	437.00
Shanna R. Braun, Engineer/Scientist/Specialist III 2.0 hours @ \$135.00 per hour\$	270.00
Karen L. Chandler, Principal Engineer/Scientist 14.9 hours @ \$175.00 per hour\$	2,607.50

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

Begin review of 90% plans; and communications with city staff, city consultant, administrator and internal staff regarding review.

Karen L. Chandler, Principal Engineer/Scientist	
1.5 hours @ \$175.00 per hour\$	262.50
Heather N. Hlavaty, Engineer/Scientist/Specialist II 0.5 hours @ \$100.00 per hour\$	50.00
Josh P. Phillips, Engineer/Scientist/Specialist II	
6.1 hours @ \$95.00 per hour\$	579.50
Subtotal, Crane Lake Improvement Project\$	892.00

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

Set up, prepare for and hold conference call with MnDOT staff and administrator regarding MnDOT assurances with respect to Penn Pond; follow-up communications with administrator; and communications with Hennepin County staff regarding grant program.

Karen L. Chandler, Principal Engineer/Scientist 0.3 hours @ \$175.00 per hour	TOTAL TMDL WORK\$	0.00
1.5 hours @ \$185.00 per hour	IDL WORK	
1.5 hours @ \$185.00 per hour	TOTAL CAPITAL IMPROVEMENTS PROJECTS (Tax Levy)\$	5,418.00
1.5 hours @ \$185.00 per hour	Subtotal, Bryn Mawr Meadows Water Quality Imp Project\$	887.00
1.5 hours @ \$185.00 per hour	Technicians/Administrative\$_	38.00
1.5 hours @ \$185.00 per hour	·	472.50
1.5 hours @ \$185.00 per hour	· · · · · · · · · · · · · · · · · · ·	46.50
·		52.50
	·	277.50

IMPROVED FEMA FLOODPLAIN MODELING & MAPPING (MDNR)

IMPROVED FEMA FLOODPLAIN MODELING & MAPPING (MDNR)

Hydraulic Analysis

Resolve senior level internal QA/QC comments on draft Hydraulic Submittal; and submit the draft Hydraulic Submittal to MDNR staff.

Ross S. Mullen, Engineer/Scientist/Specialist II 3.9 hours @ \$110.00 per hour	\$ 429.00
Subtotal, Hydraulic Analysis	\$ 429.00
Floodplain, Floodway, and Cross section Shapefiles Develop floodplain, floodway, and cross section data and inputs.	
Ross S. Mullen, Engineer/Scientist/Specialist II 0.8 hours @ \$110.00 per hour	\$ 88.00
Samantha A. Beck, Engineer/Scientist/Specialist I 19.3 hours @ \$80.00 per hour	\$ 1,544.00
Subtotal, Floodplain, Floodway, Cross Sections Data-Inputs	\$ 1,632.00
TOTAL IMPROVED FEMA FLOODPLAIN MODELING & MAPPING (MDNR)	\$ 2,061.00

SUMMARY TOTALS

Total Engineering\$	40,696.38
Total WOMP\$	0.00
Total APM/AIS Work\$	0.00
Total Administrative Services\$	0.00
Total Annual Report/Website/Public Communications\$	1,193.00
Total TMDL Work\$	0.00
Total Capital Improvement Projects (Tax Levy)\$	5,418.00
Total Improved FEMA Floodplain Modeling & Mapping (MDNR)\$	2,061.00
TOTAL PAYARIF	49 368 38

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

Jin Herber