



resourceful. naturally.
engineering and environmental consultants

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

Page # 1
Invoice # 23270051-2020-5
Project # 23/27-0051
Client # 59
July 2, 2020

Invoice of Account with
BARR ENGINEERING COMPANY

For professional services during the period of
May 30, 2020 through June 26, 2020

ENGINEERING

TECHNICAL SERVICES

Communications with administrator and internal staff regarding BCWMC project website; internal communications regarding project review status; communications with administrator regarding Golden Valley study; internal communications regarding BCWMC flood control funding policies; prepare for and attend June 10 MTD meeting organized by MPCA, prepare meeting notes, and answer poll (costs shared with Elm Creek WMC); locate and provide Flood Control Project Roles and Responsibilities documents to Commission attorney; communications with Golden Valley staff regarding drawdown of Mississippi River pool and impacts to flood elevations; internal communications regarding future upcoming CIP projects; and miscellaneous communications with administrator.

James P. Herbert, Principal Engineer/Scientist 1.7 hours @ \$200.00 per hour.....	\$ 340.00
Karen L. Chandler, Principal Engineer/Scientist 6.7 hours @ \$180.00 per hour.....	\$ 1,206.00
Jennifer A. Koehler, Engineer/Scientist/Specialist III 1.0 hours @ \$145.00 per hour.....	\$ 145.00
Josh P. Phillips, Engineer/Scientist/Specialist II 0.7 hours @ \$105.00 per hour.....	\$ 73.50
<i>Subtotal, Technical Services.....</i>	<i>\$ 1,764.50</i>

MONTHLY MEETING PREPARATION

Communications/coordination with administrator and internal staff regarding draft/final agenda and meeting packet for June Commission meeting; review/edit draft May meeting minutes; prepare double box culvert cover memo and presentation, and upload report and memo to project website for administrator to download for June Commission meeting; prepare for June Commission meeting, including pre-meeting conference call with administrator and Chair Prom, internal communications

regarding Engineer communications and June meeting attendance, and review meeting packet; and communications with administrator and internal staff regarding follow-up items from June Commission meeting, and upcoming meeting agenda items.

James P. Herbert, Principal Engineer/Scientist 16.3 hours @ \$200.00 per hour.....	\$ 3,260.00
Karen L. Chandler, Principal Engineer/Scientist 25.3 hours @ \$180.00 per hour.....	\$ 4,554.00
Colleen M. Long, Engineer/Scientist/Specialist I 1.0 hours @ \$85.00 per hour	\$ 85.00
Technicians/Administrative.....	\$ 556.50
<i>Subtotal, Monthly Meeting Preparation.....</i>	<i>\$ 8,455.50</i>

TAC PREPARATION

Subtotal, TAC Preparation..... \$ 0.00

Subtotal Technical Services \$ 10,220.00

PLAT REVIEW

Four Seasons Mall Redevelopment (2019-25)

Review resubmittal.

Josh P. Phillips, Engineer/Scientist/Specialist II 0.4 hours @ \$105.00 per hour.....	\$ 42.00
<i>Subtotal, Four Seasons Mall Redevelopment.....</i>	<i>\$ 42.00</i>

Sweeney Lake Shores (PUD) (2020-05)

Review resubmittal for erosion; provide additional comments to applicant; and communications with applicant and city staff.

James P. Herbert, Principal Engineer/Scientist 1.0 hours @ \$200.00 per hour.....	\$ 200.00
Josh P. Phillips, Engineer/Scientist/Specialist II 0.7 hours @ \$105.00 per hour.....	\$ 73.50
<i>Subtotal, Sweeney Lake Shores (PUD).....</i>	<i>\$ 273.50</i>

Ridgedale Mall Sears Redevelopment (2020-08)

Send approval letter to city staff.

James P. Herbert, Principal Engineer/Scientist 0.5 hours @ \$200.00 per hour.....	\$ 100.00
<i>Subtotal, Ridgedale Mall Sears Redevelopment.....</i>	<i>\$ 100.00</i>

Sunset Hill Elementary Improvements (2020-09)

Prepare and send approval letter to city staff; and communications with applicant.

James P. Herbert, Principal Engineer/Scientist 1.0 hours @ \$200.00 per hour.....	\$ 200.00
<i>Subtotal, Sunset Hill Elementary Improvements.....</i>	<i>\$ 200.00</i>

West Broadway Ave Bridge Reconstruction (2020-13)

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

James P. Herbert, Principal Engineer/Scientist 3.1 hours @ \$200.00 per hour.....	\$ 620.00
Karen L. Chandler, Principal Engineer/Scientist 0.7 hours @ \$180.00 per hour.....	\$ 126.00
Josh P. Phillips, Engineer/Scientist/Specialist II 7.7 hours @ \$105.00 per hour.....	\$ 808.50
Edward M. Anderson, Engineer/Scientist/Specialist I 2.2 hours @ \$90.00 per hour.....	\$ 198.00
<i>Subtotal, West Broadway Ave Bridge Reconstruction.....</i>	<i>\$ 1,752.50</i>

Hennepin County Gravelbed Concrete Paving (2020-14)

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

James P. Herbert, Principal Engineer/Scientist 2.8 hours @ \$200.00 per hour.....	\$ 560.00
Josh P. Phillips, Engineer/Scientist/Specialist II 3.1 hours @ \$105.00 per hour.....	\$ 325.50
Technicians/Administrative.....	\$ 10.00
<i>Subtotal, Hennepin County Gravelbed Concrete Paving.....</i>	<i>\$ 895.50</i>

Plymouth Creek Center Renovation (2020-15)

Review grading, drainage and erosion control plans and submittals for erosion and sediment control, rate control, and water quality; and prepare and send comment letter to city staff.

James P. Herbert, Principal Engineer/Scientist 0.7 hours @ \$200.00 per hour.....	\$ 140.00
Josh P. Phillips, Engineer/Scientist/Specialist II 5.1 hours @ \$105.00 per hour.....	\$ 535.50
<i>Subtotal, Plymouth Creek Center Renovation.....</i>	<i>\$ 675.50</i>

Irving Avenue Sanitary Sewer Replacement (2020-16)

Review plans and submittal for sanitary sewer replacement crossing Bassett Creek, including review of variance request for cover over pipe, soil contamination issues, diversion and dewatering plans, work in the floodplain, including impact of bridge removal, and stream restoration measures; provide modeled stream velocity information to applicant; prepare review memo for June Commission meeting; review comments from Commissioner Welch; prepare and send comment letter to city staff; and communications with administrator, applicant, city staff, and internal staff.

James P. Herbert, Principal Engineer/Scientist 19.9 hours @ \$200.00 per hour.....	\$	3,980.00
Karen L. Chandler, Principal Engineer/Scientist 11.3 hours @ \$180.00 per hour.....	\$	2,034.00
Peter J. Hinck, Engineer/Scientist/Specialist III 1.2 hours @ \$140.00 per hour.....	\$	168.00
Josh P. Phillips, Engineer/Scientist/Specialist II 8.6 hours @ \$105.00 per hour.....	\$	903.00
Edward M. Anderson, Engineer/Scientist/Specialist I 0.7 hours @ \$90.00 per hour.....	\$	63.00
Samantha A. Beck, Engineer/Scientist/Specialist I 2.0 hours @ \$90.00 per hour.....	\$	<u>180.00</u>
<i>Subtotal, Irving Avenue Sanitary Sewer Replacement.....</i>	<i>\$</i>	<i>7,328.00</i>

Bassett Creek Park North Playground (2020-17)

Plat review set-up; preliminary review of plans; and check floodplain elevations in vicinity.

James P. Herbert, Principal Engineer/Scientist 2.0 hours @ \$200.00 per hour.....	\$	400.00
Josh P. Phillips, Engineer/Scientist/Specialist II 1.0 hours @ \$105.00 per hour.....	\$	105.00
Technicians/Administrative.....	\$	<u>130.00</u>
<i>Subtotal, Bassett Creek Park North Playground.....</i>	<i>\$</i>	<i>635.00</i>

Angelo Drive Shoreline Repair (2020-18)

Plat review set-up; preliminary review of plans; and communications with applicant and city staff.

James P. Herbert, Principal Engineer/Scientist 1.0 hours @ \$200.00 per hour.....	\$	200.00
Josh P. Phillips, Engineer/Scientist/Specialist II 0.1 hours @ \$105.00 per hour.....	\$	10.50
Technicians/Administrative.....	\$	<u>81.50</u>
<i>Subtotal, Angelo Drive Shoreline Repair.....</i>	<i>\$</i>	<i>292.00</i>

Subtotal Plat Review.....\$ 12,194.00

PRELIMINARY COMMUNICATIONS AND NON-FEE REVIEWS

PRELIMINARY COMMUNICATIONS

Communications with Plymouth staff regarding proposed shoreline project on Medicine Lake and 100-year flood level; and communications with resident in response to BCWMC website inquiry forwarded by administrator

James P. Herbert, Principal Engineer/Scientist 0.8 hours @ \$200.00 per hour.....	\$ 160.00
Karen L. Chandler, Principal Engineer/Scientist 0.8 hours @ \$180.00 per hour.....	\$ 144.00
Josh P. Phillips, Engineer/Scientist/Specialist II 0.9 hours @ \$105.00 per hour.....	\$ 94.50
Subtotal, Preliminary Communications.....	\$ 398.50

NON-FEE REVIEWS

Subtotal Non-Fee Reviews	\$ 0.00
Subtotal Preliminary Communications and Non-Fee Reviews	\$ 398.50

COMMISSION AND TAC MEETINGS

Attend June 18 Commission meeting (virtual).

James P. Herbert, Principal Engineer/Scientist 2.3 hours @ \$200.00 per hour.....	\$ 460.00
Karen L. Chandler, Principal Engineer/Scientist 2.3 hours @ \$180.00 per hour.....	\$ 414.00
Subtotal, Commission and TAC Meetings.....	\$ 874.00

SURVEYS & STUDIES

Subtotal Surveys & Studies	\$ 0.00
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WATER QUALITY/MONITORING

General Water Quality

Main Stem biotic index report: prepare final updates to draft and send final document to administrator; North Branch biotic index and water quality monitoring report: enter 2018 – 2019 water quality data into EQulS, prepare/edit internal draft of report, provide draft report to administrator for review, revise report per administrator review, send final document to administrator, and communications with administrator and internal staff; and update water quality figures for BCWMC website.

Karen L. Chandler, Principal Engineer/Scientist 7.4 hours @ \$180.00 per hour	\$	1,332.00
Sterling 'Greg' Williams, Engineer/Scientist/Specialist III 4.0 hours @ \$145.00 per hour	\$	580.00
Kelly A. Wild, Engineer/Scientist/Specialist II 0.3 hours @ \$100.00 per hour	\$	30.00
Lea J. Davidson, Engineer/Scientist/Specialist I 1.7 hours @ \$70.00 per hour	\$	119.00
Technicians/Administrative.....	\$	<u>1,712.00</u>
<i>Subtotal, General Water Quality</i>	\$	<i>3,773.00</i>

Sweeney – Twin Lake Monitoring

Communications with administrator and internal staff regarding Sweeney Lake algae bloom and recommended next steps; communications with laboratory regarding toxin screening; prepare for and perform June 15 Sweeney and Twin Lake monitoring, including collection of samples from Sweeney Lake algae bloom; prepare and send algae samples to laboratory for toxin screening analysis; communications with administrator and internal staff regarding Sweeney Lake resident concern about muck on north side of Sweeney Lake; and laboratory charges for analysis of water quality samples.

Karen L. Chandler, Principal Engineer/Scientist 1.4 hours @ \$180.00 per hour	\$	252.00
Terry A. Olson, Engineer/Scientist/Specialist III 0.4 hours @ \$145.00 per hour	\$	58.00
Margaret R. Rattei, Engineer/Scientist/Specialist III 2.1 @ \$140.00 per hour	\$	294.00
Technicians/Administrative.....	\$	959.00
Expenses (Pace Analytical/FedEx/mileage/2WD vehicle/canoe/WQ meter/bottle sampler).....	\$	<u>947.74</u>
<i>Subtotal, Sweeney-Twin Lake Monitoring</i>	\$	<i>2,510.74</i>

Sweeney Branch Monitoring Year 1

Collect June 8, June 9, June 18, and June 19 composite storm samples; process data; install conductivity/temperature sensor; review and approve MCES laboratory invoice; collect June 25 grab sample; and MCES laboratory charges.

Christopher J. Bonick, Engineer/Scientist/Specialist III 7.5 hours @ \$130.00 per hour	\$	975.00
Heather N. Hlavaty, Engineer/Scientist/Specialist II 4.1 hours @ \$110.00 per hour	\$	451.00
Kallie B, Doeden, Engineer/Scientist/Specialist II 0.1 hours @ \$100.00 per hour	\$	10.00

Technicians/Administrative.....	\$	553.00
Expenses (MCES/Verizon Wireless/mileage/2WD vehicle/Sontek ADV).....	\$	<u>481.75</u>
<i>Subtotal, Sweeney Branch Monitoring Year 1</i>	<i>\$</i>	<i>2,470.75</i>
<i>Subtotal, Water Quality/Monitoring.....</i>	<i>\$</i>	<i>8,754.49</i>

WATER QUANTITY

<i>Subtotal, Water Quantity.....</i>	<i>\$</i>	<i>0.00</i>
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FLOOD CONTROL PROJECT ANNUAL INSPECTION & DOUBLE BOX CULVERT INSPECTION

Double box culvert 2019 inspection: review/edit/final inspection report.

James P. Herbert, Principal Engineer/Scientist 2.7 hours @ \$200.00 per hour	\$	540.00
Joseph A. Welna, Engineer/Scientist/Specialist III 1.0 hours @ \$145.00 per hour	\$	<u>145.00</u>
<i>Subtotal, Flood Control Annual Proj Inspect&Dbl Box Culvert\$</i>	<i>\$</i>	<i>685.00</i>

DEEP TUNNEL INSPECTION

Preliminary planning for fall inspection, including communications with Corps of Engineers staff, administrator and internal staff; review Corps of Engineers' EAW and public notice; and communications with administrator.

James P. Herbert, Principal Engineer/Scientist 5.5 hours @ \$200.00 per hour	\$	<u>1,100.00</u>
<i>Subtotal, Deep Tunnel Inspection.....</i>	<i>\$</i>	<i>1,100.00</i>

MUNICIPAL PLAN REVIEWS

<i>Subtotal, Municipal Plan Reviews</i>	<i>\$</i>	<i>0.00</i>
TOTAL ENGINEERING	\$	34,225.99

ANNUAL REPORT

TOTAL ANNUAL REPORT	\$	0.00
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WATERSHED OUTLET MONITORING PROGRAM (WOMP)

TOTAL WOMP	\$	0.00
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APM/AIS WORK

TOTAL APM/AIS WORK.....	\$	0.00
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CAPITAL IMPROVEMENT PROJECTS (Funded through tax levy)

MAIN STEM DREDGING PROJECT FEASIBILITY STUDY (2021) (BC-7)

Prepare final feasibility report, create pdf and provide to administrator to upload to BCWMC website; and communications with administrator and internal staff.

Karen L. Chandler, Principal Engineer/Scientist 0.7 hours @ \$180.00 per hour.....	\$	126.00
Patrick E. Brockamp, Engineer/Scientist/Specialist II 2.8 hours @ \$115.00 per hour.....	\$	322.00
Technicians/Administrative.....	\$	<u>303.50</u>
Subtotal, Main Stem Dredging Project Feasibility Study.....	\$	751.50

MOUNT OLIVET STREAM STABILIZATION PROJECT (2021)(ML-20) AND PARKERS LAKE DRAINAGE IMPROVEMENT PROJECT (2021)(PL-7) FEASIBILITY STUDY

Mount Olivet Stream Stabilization Project Feasibility Study (2021)(ML-20)

Estimate future BCWMC 50%/90% plan review costs and provide to administrator.

Karen L. Chandler, Principal Engineer/Scientist 0.9 hours @ \$180.00 per hour.....	\$	<u>162.00</u>
<i>Subtotal, Mount Olivet Stream Stabilization Project Feas Study.....</i>	<i>\$</i>	<i>162.00</i>

Parkers Lake Drainage Improvement Project (2021)(PL-7)

Prepare final feasibility report, create pdf and provide to administrator to upload to BCWMC website; and estimate future BCWMC 50%/90% plan review costs and provide to administrator

Karen L. Chandler, Principal Engineer/Scientist 1.1 hours @ \$180.00 per hour.....	\$	198.00
Jennifer A. Koehler, Engineer/Scientist/Specialist III 1.8 hours @ \$145.00 per hour.....	\$	<u>261.00</u>
<i>Subtotal, Parkers Lake Drainage Improvement Project Feas Study</i>	<i>\$</i>	<i>459.00</i>
Subtotal, Mt. Olivet Stream Stabilization Project & Parkers Lake Drainage Improvement Project Feasibility Study.....	\$	621.00

SWEENEY LAKE WATER QUALITY IMPROVEMENT PROJECT (2020) (SL-8)

Survey and Treat Curly-leaf Pondweed

Communications with administrator and internal staff regarding whether herbicide treatment caused algae bloom on Sweeney Lake; and review herbicide subcontractor (PLM) invoice.

Karen L. Chandler, Principal Engineer/Scientist 0.6 hours @ \$180.00 per hour.....	\$	108.00
Gregory J. Wilson, Engineer/Scientist/Specialist IV 3.0 hours @ \$170.00 per hour.....	\$	510.00

Margaret R. Rattei, Engineer/Scientist/Specialist III
 0.6 @ \$140.00 per hour..... \$ 84.00

Subtotal, Survey and Treat Curly-leaf Pondweed..... \$ 702.00

Survey/Treat Curly-leaf Pondweed – Herbicide Treatment Subcontractor

Subcontractor (PLM) charges for herbicide treatment.

Expenses (PLM Lake and Land Management)..... \$ 784.07

*Subtotal, Survey/Treat Curly-leaf Pondweed – Herbicide
 Treatment Subcontractor..... \$ 784.07*

Carp Control Options Design-Permit-Implement

Oversight and coordination of carp survey and carp removal efforts, and communications with administrator, Golden Valley staff, subcontractor and internal staff regarding lake access.

Karen L. Chandler, Principal Engineer/Scientist
 0.7 hours @ \$180.00 per hour..... \$ 126.00

Gregory J. Wilson, Engineer/Scientist/Specialist IV
 12.5 hours @ \$170.00 per hour..... \$ 2,125.00

Expenses (Mileage) \$ 25.88

Subtotal, Carp Control Options Dsgn-Permit-Implement..... \$ 2,276.88

Carp Control Options Design-Permit-Implement (Carp Solutions Only)

Subcontractor (Carp Solutions) charges for carp survey and carp removal efforts, including electrofishing and marking carp caught in Sweeney Lake and Schaper Pond, installing the PIT antenna in the pipe between Schaper Pond and Sweeney Lake, installing box netting in Sweeney Lake, and completing the first round of carp removal activities.

Expenses (Carp Solutions)..... \$ 2,300.00

*Subtotal, Carp Control Options Dsgn-Permit-Implement
 (Carp Solutions Only) \$ 2,300.00*

Subtotal, Sweeney Lake Water Quality Improvements.....\$ 6,062.95

TOTAL CAPITAL IMPROVEMENTS PROJECTS (Tax Levy)\$ 7,435.45

TMDL WORK

TOTAL TMDL WORK.....\$ 0.00

IMPROVED FEMA FLOODPLAIN MODELING & MAPPING (MDNR)

IMPROVED FEMA FLOODPLAIN MODELING & MAPPING (MDNR)

Hydraulic Analysis

Revise model in response to MDNR comments and run 500 year event; review responses from Plymouth city staff regarding structure elevations; and internal communications.

Karen L. Chandler, Principal Engineer/Scientist 0.5 hours @ \$180.00 per hour	\$	90.00
Jennifer A. Koehler, Engineer/Scientist/Specialist III 1.3 hours @ \$145.00 per hour	\$	188.50
Ross S. Mullen, Engineer/Scientist/Specialist II 1.3 hours @ \$120.00 per hour	\$	156.00
Michael B. McKinney, Engineer/Scientist/Specialist II 1.1 hours @ \$115.00 per hour	\$	<u>126.50</u>
<i>Subtotal, Hydraulic Analysis</i>	\$	561.00
TOTAL IMPROVED FEMA FLOODPLAIN MODELING & MAPPING (MDNR)	\$	561.00

SUMMARY TOTALS

Total Engineering	\$	34,225.99
Total WOMP	\$	0.00
Total Annual Report	\$	0.00
Total APM/AIS Work	\$	0.00
Total TMDL Work	\$	0.00
Total Capital Improvement Projects (Tax Levy)	\$	7,435.45
Total Improved FEMA Floodplain Modeling & Mapping (MDNR)	\$	<u>561.00</u>
TOTAL PAYABLE	\$	42,222.44

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

