



resourceful. naturally.
engineering and environmental consultants

Ms. Catherin Cesnik
Bassett Creek Watershed Management Commission
7800 Golden Valley Road
Golden Valley, MN 55427

Page # 1
Invoice # 23270051-2021-01
Project # 23/27-0051
Client # 59
March 5, 2021

Invoice of Account with
BARR ENGINEERING COMPANY

For professional services during the period of
January 30, 2021 through February 26, 2021

ENGINEERING

TECHNICAL SERVICES

Internal communications regarding 2021 budget and tasks; edit revised Requirements document for February Commission meeting, and compile and provide final/approved version to administrator for posting to website; communications with Medicine Lake consultant, administrator and internal staff regarding meeting with MPCA about city's MS4 permit and BCWMC requirements; communications with Minneapolis staff, administrator and internal staff regarding green stormwater infrastructure training meeting; coordination with administrator and BWSR staff regarding PRAP meeting; communications with administrator and internal staff regarding proposed project at Jevne Park in Medicine Lake; review Minneapolis stormwater ordinance; and review MPCA communication about MTDs.

James P. Herbert, Principal Engineer/Scientist		
5.3 hours @ \$200.00 per hour.....	\$	1,060.00
Karen L. Chandler, Principal Engineer/Scientist		
7.1 hours @ \$185.00 per hour.....	\$	1,313.50
Josh P. Phillips, Engineer/Scientist/Specialist II		
2.4 hours @ \$115.00 per hour.....	\$	267.00
Technicians/Administrative.....	\$	1,091.50
<i>Subtotal, Technical Services.....</i>	<i>\$</i>	<i>3,741.00</i>

MONTHLY MEETING PREPARATION

Communications/coordination with administrator and internal staff regarding draft/final agenda and meeting packet for February meeting; review/edit draft January meeting minutes; prepare for February Commission meeting, including review meeting packet, pre-meeting conference call with administrator, review 2020 FY year-end budget status/engineering charges and review 2021 monitoring tasks; and communications with administrator and internal staff regarding follow-up items from February Commission meeting and upcoming meeting agenda items.

James P. Herbert, Principal Engineer/Scientist 2.0 hours @ \$200.00 per hour	\$ 400.00
Karen L. Chandler, Principal Engineer/Scientist 15.4 hours @ \$185.00 per hour	\$ <u>2,849.00</u>
<i>Subtotal, Monthly Meeting Preparation</i>	\$ 3,249.00

WCA LGU ADMINISTRATION

Edit and submit Wetland Conservation Act (WCA) 2020 annual reporting form.

Karen L. Chandler, Principal Engineer/Scientist 0.2 hours @ \$185.00 per hour	\$ 37.00
Karen S. Wold, Engineer/Scientist/Specialist III 0.1 hours @ \$140.00 per hour	\$ <u>14.00</u>
<i>Subtotal, WCA LGU Administration</i>	\$ 51.00

TAC PREPARATION

Prepare for February 4 TAC meeting, including review of proposed CIP projects and communications with administrator; and coordination regarding March TAC meeting.

Karen L. Chandler, Principal Engineer/Scientist 1.5 hours @ \$185.00 per hour	\$ <u>277.50</u>
<i>Subtotal, TAC Preparation</i>	\$ 277.50
<i>Subtotal, Technical Services</i>	\$ <u>\$7,318.50</u>

PLAT REVIEW

Van Heest Retaining Wall (2020-26)

Communications with applicant and city staff regarding retaining wall project; review revised plan to construct wall at residential property in Golden Valley; and prepare final review comments to city of Golden Valley.

James P. Herbert, Principal Engineer/Scientist 1.4 hours @ \$200.00 per hour	\$ 280.00
Josh P. Phillips, Engineer/Scientist/Specialist II 2.7 hours @ \$115.00 per hour	\$ <u>310.50</u>
<i>Subtotal, Van Heest Retaining Wall (2020-26)</i>	\$ 590.50

Currie Commons (2020-28)

Communications (conference call) with administrator and city staff regarding BCWMC comments and requirements.

James P. Herbert, Principal Engineer/Scientist 1.0 hours @ \$200.00 per hour	\$ 200.00
Josh P. Phillips, Engineer/Scientist/Specialist II 1.2 hours @ \$115.00 per hour	\$ <u>138.00</u>
<i>Subtotal, Currie Commons (2020-28)</i>	\$ 338.00

2021 LTFM Sandburg Middle Sch (2020-31)

Communications with applicant and city staff; and review revised project drawings.

James P. Herbert, Principal Engineer/Scientist 0.9 hours @ \$200.00 per hour	\$	180.00
Josh P. Phillips, Engineer/Scientist/Specialist II 0.5 hours @ \$115.00 per hour	\$	<u>57.50</u>
<i>Subtotal, 2021 LTFM Sandburg Middle Sch (2020-31)</i>	\$	237.50

Irving Ave SS Replace Diversion(2020-16A)

Communications with applicant and city staff regarding location of cross vanes in Bassett Creek.

James P. Herbert, Principal Engineer/Scientist 0.7 hours @ \$200.00 per hour	\$	140.00
<i>Subtotal, Irving Ave SS Replace Diversion(2020-16A)</i>	\$	140.00

Plymouth Fire Station 2 Reconstr. (2020-33)

Communications with city staff; review grading drainage and erosion control plans; review rate control and water quality details; prepare letter of recommendation to city of Plymouth and review revised grading drainage and erosion control plans.

James P. Herbert, Principal Engineer/Scientist 4.1 hours @ \$200.00 per hour	\$	820.00
Josh P. Phillips, Engineer/Scientist/Specialist II 5.5 hours @ \$115.00 per hour	\$	<u>632.50</u>
<i>Subtotal, Plymouth Fire Station 2 Reconstr. (2020-33)</i>	\$	1,452.50

Leef Townhomes (2021-01)

Communications with applicant and city staff; review grading drainage and erosion control plans; and prepare letter to city of Minneapolis.

James P. Herbert, Principal Engineer/Scientist 1.5 hours @ \$200.00 per hour	\$	300.00
Josh P. Phillips, Engineer/Scientist/Specialist II 2.8 hours @ \$115.00 per hour	\$	322.00
Technicians/Administrative	\$	<u>63.00</u>
<i>Subtotal, Leef Townhomes (2021-01)</i>	\$	685.00

1830 Magnolia Ln Pond Maintenance (2021-02)

Communications with city staff; review grading drainage and erosion control plans; review flood elevations at pond; and prepare approval letter to city of Plymouth.

James P. Herbert, Principal Engineer/Scientist 2.0 hours @ \$200.00 per hour	\$	400.00
Lulu Fang, Engineer/Scientist/Specialist II 0.5 hours @ \$115.00 per hour	\$	57.50

Josh P. Phillips, Engineer/Scientist/Specialist II 3.5 hours @ \$115.00 per hour	\$ 402.50
Technicians/Administrative.....	\$ <u>63.00</u>
<i>Subtotal, 1830 Magnolia Ln Pond Maintenance (2021-02).....</i>	<i>\$ 923.00</i>

Ridgemount Ave Improvements (2021-03)

Communications with applicant; and preliminary review of grading drainage and erosion control plans for linear project.

James P. Herbert, Principal Engineer/Scientist 0.5 hours @ \$200.00 per hour	\$ 100.00
Josh P. Phillips, Engineer/Scientist/Specialist II 1.9 hours @ \$115.00 per hour	\$ 218.50
Technicians/Administrative.....	\$ <u>73.50</u>
<i>Subtotal, Ridgemount Ave Improvements (2021-03).....</i>	<i>\$ 392.00</i>

Louisiana Ave Culvert Replacement (2021-04)

Communications with consultant and city staff; and preliminary review of new North Branch culvert crossing in Crystal.

James P. Herbert, Principal Engineer/Scientist 0.5 hours @ \$200.00 per hour	\$ 100.00
Josh P. Phillips, Engineer/Scientist/Specialist II 0.6 hours @ \$115.00 per hour	\$ 69.00
Technicians/Administrative.....	\$ <u>63.00</u>
<i>Subtotal, Louisiana Ave Culvert Replacement (2021-04).....</i>	<i>\$ 232.00</i>

Subtotal Plat Review.....\$ 4,990.50

PRELIMINARY COMMUNICATIONS AND NON-FEE REVIEWS

PRELIMINARY COMMUNICATIONS

Communications with Golden Valley staff regarding emergency repairs along Bassett Creek due to an exposed sanitary sewer structure; coordination with administrator regarding meeting with city of Plymouth and DNR to review a bridge to a Medicine Lake island; review MDNR appropriation permit application 2020-3457 and provide comments to administrator; review MDNR appropriation permit application 2020-3459 and provide comments to administrator; coordination with administrator and city of Minneapolis regarding temporary intermittent construction dewatering as part of SWLRT project and discharge to the Bassett Creek tunnel, reviewed site map, permit and XPSWMM model for flows to Bassett Creek tunnel; phone call from consultant regarding requirements for project in Plymouth and referred consultant to Plymouth staff; determine floodplain elevation for 5000 Glenwood Avenue; coordination with administrator regarding floodplain at 1289 Castle Court; and preliminary review and correspondence with city of Golden Valley for 750 Boone Avenue.

James P. Herbert, Principal Engineer/Scientist 8.0 hours @ \$200.00 per hour	\$ 1,600.00
---	-------------

Jennifer Koehler, Engineer/Scientist/Specialist IV 1.5 hours @ \$155.00 per hour	\$ 232.50
Lulu Fang, Engineer/Scientist/Specialist II 0.5 hours @ \$115.00 per hour	\$ 57.50
Josh P. Phillips, Engineer/Scientist/Specialist II 1.8 hours @ \$115.00 per hour	<u>\$ 207.00</u>
<i>Subtotal, Preliminary Communications</i>	<i>\$ 2,097.00</i>

NON-FEE REVIEWS

<i>Subtotal Non-Fee Reviews</i>	<i>\$ 0.00</i>
---------------------------------------	----------------

Subtotal Preliminary Communications and Non-Fee Reviews.....\$ 2,097.00

COMMISSION AND TAC MEETINGS

Attend February 4 TAC meeting (virtual) and February 18 Commission meeting (virtual).

Karen L. Chandler, Principal Engineer/Scientist 4.7 hours @ \$185.00 per hour	\$ 869.50
Gregory J. Wilson, Engineer/Scientist/Specialist IV 3.0 hours @ \$175.00 per hour	<u>\$ 525.00</u>
<i>Subtotal, Commission and TAC Meetings</i>	<i>\$ 1,394.50</i>

SURVEYS & STUDIES

Medicine Lake Staff Gage

Obtain supplies for new staff gage and prepare new staff gage for installation.

Technicians/Administrative.....	\$ 169.50
Expenses (hardware).....	<u>\$ 9.35</u>
<i>Subtotal, Medicine Lake Staff Gage</i>	<i>\$ 178.85</i>
<i>Subtotal Surveys & Studies</i>	<i>\$ 178.85</i>

WATER QUALITY/MONITORING

General Water Quality

<i>Subtotal, General Water Quality</i>	<i>\$ 0.00</i>
--	----------------

Sweeney – Twin Lake 2020 Monitoring Report

Internal communications regarding 2020 water quality monitoring reporting and AIS parameters; prepare to collect AIS parameters; and prepare GIS figures of Sweeney and Twin Lakes.

Karen L. Chandler, Principal Engineer/Scientist 0.6 hours @ \$185.00 per hour	\$ 111.00
Terri Olson, Engineer/Scientist/Specialist III 0.1 hours @ \$150.00 per hour	\$ 15.00
Margaret R. Rattei, Engineer/Scientist/Specialist III 1.0 hours @ \$145.00 per hour	\$ 145.00

Kelly Wild, Engineer/Scientist/Specialist II 0.5 hours @ \$105.00 per hour	\$ 52.50
Technicians/Administrative.....	\$ <u>72.00</u>
<i>Subtotal, Sweeney-Twin Lake 2020 Monitoring Report</i>	<i>\$ 395.50</i>

Sweeney Branch Monitoring Year 2

Perform maintenance at the Sweeney Branch stream monitoring station, including addressing modem connection issues; prepare for 2021 monitoring; prepare for and collect February 26 snowmelt water quality (chloride) grab sample; and provide 2020 Sweeney Lake Branch chloride data to administrator.

Karen L. Chandler, Principal Engineer/Scientist 0.6 hours @ \$185.00 per hour.....	\$ 111.00
Margaret R. Rattei, Engineer/Scientist/Specialist III 0.4 hours @ \$145.00 per hour	\$ 58.00
Chris Bonick, Engineer/Scientist/Specialist III 12.0 hours @ \$135.00 per hour.....	\$ 1,620.00
Kallie Doeden, Engineer/Scientist/Specialist II 3.9 hours @ \$110.00 per hour	\$ 429.00
Expenses (Verizon Wireless/mileage/vehicle)	\$ <u>227.32</u>
<i>Subtotal, Sweeney Branch Monitoring Year 2</i>	<i>\$ 2,445.32</i>

Parkers Lake 2021 Monitoring

Prepare for 2021 lake monitoring.

Terri Olson, Engineer/Scientist/Specialist III 0.2 hours @ \$150.00 per hour	\$ 30.00
Technicians/Administrative.....	\$ <u>81.00</u>
<i>Subtotal, Parkers Lake 2021 Monitoring.....</i>	<i>\$ 111.00</i>

Westwood Lake 2021 Monitoring

Prepare for 2021 lake monitoring, including revising work scope memo for Westwood Nature Center staff (monitoring instructions).

Terri Olson, Engineer/Scientist/Specialist III 0.2 hours @ \$150.00 per hour	\$ 30.00
Margaret R. Rattei, Engineer/Scientist/Specialist III 1.0 hours @ \$145.00 per hour	\$ 145.00
Technicians/Administrative.....	\$ <u>117.00</u>
<i>Subtotal, Westwood Lake 2021 Monitoring.....</i>	<i>\$ 292.00</i>

Crane Lake 2021 Monitoring

Prepare for 2021 lake monitoring, including clearing access path to lake.

Terri Olson, Engineer/Scientist/Specialist III 0.1 hours @ \$150.00 per hour	\$	15.00
Margaret R. Rattei, Engineer/Scientist/Specialist III 0.1 hours @ \$145.00 per hour	\$	14.50
Technicians/Administrative.....	\$	<u>225.00</u>
<i>Subtotal, Crane Lake 2021 Monitoring</i>	\$	254.50
Subtotal, Water Quality/Monitoring.....	\$	3,498.32

WATER QUANTITY

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

Technicians/Administrative.....	\$	472.50
Expenses (mileage/vehicle).....	\$	<u>73.00</u>
Subtotal, Water Quantity	\$	545.50

ANNUAL FLOOD CONTROL PROJECT INSPECTIONS

Flood Control Project Inspection-Annual

Communications with Plymouth staff regarding inspection letters and recommendations.

Josh P. Phillips, Engineer/Scientist/Specialist II 0.5 hours @ \$115.00 per hour.....	\$	<u>57.50</u>
<i>Subtotal, Flood Control Project Inspection-Annual.....</i>	\$	57.50
Subtotal, Annual Flood Control Project Inspections	\$	57.50

REVIEW MUNICIPAL PLANS

Subtotal, Review Municipal Plans.....	\$	0.00
--	-----------	-------------

TOTAL ENGINEERING.....\$ 20,080.67

ANNUAL REPORT

Annual Report

Prepare 2020 plat review table for annual report.

James P. Herbert, Principal Engineer/Scientist 0.3 hours @ \$200.00 per hour	\$	60.00
Josh P. Phillips, Engineer/Scientist/Specialist II 1.1 hours @ \$115.00 per hour	\$	126.50
Technicians/Administrative.....	\$	<u>189.00</u>
<i>Subtotal, Annual Report.....</i>	\$	375.50

TOTAL ANNUAL REPORT\$ 375.50

WATERSHED OUTLET MONITORING PROGRAM (WOMP)

WOMP Rating Curve

Communications with internal staff regarding 2021 measurements at new flow monitoring location.

Chris Bonick, Engineer/Scientist/Specialist III	
0.5 hours @ \$135.00 per hour.....	\$ 67.50
Subtotal, WOMP Rating Curve.....	\$ 67.50
TOTAL WOMP	\$ 67.50

APM/AIS WORK

TOTAL APM/AIS WORK	\$ 0.00
---------------------------------	----------------

CAPITAL IMPROVEMENT PROJECTS (Funded through tax levy)

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

Communications with administrator and internal staff regarding project schedule.

Karen L. Chandler, Principal Engineer/Scientist	
0.3 hours @ \$185.00 per hour.....	\$ 55.50
Michelle Kimble, Engineer/Scientist/Specialist IV	
0.5 hours @ \$155.00 per hour.....	\$ 77.50
Subtotal, Bryn Mawr Meadows WQ Imp Project (2020) (BC-5)...	\$ 133.00

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

Carp Control Options Design-Permit-Implement

Communications with Carp Solutions regarding final reporting on results of 2020 carp control efforts and recommendations for implementation; finalize/send memorandum to report on carp control results and recommendations; communications with BCWMC and city of Golden Valley staff to plan for Commission meeting and discuss carp control alternatives, including February 3 2021 virtual meeting; prepared and send presentation materials for February Commission meeting.

Karen L. Chandler, Principal Engineer/Scientist	
5.8 hours @ \$185.00 per hour.....	\$ 1,073.00
Gregory J. Wilson, Engineer/Scientist/Specialist IV	
31.1 hours @ \$175.00 per hour.....	\$ 5,442.50
<i>Subtotal, Carp Control Options Design-Permit-Implement.....</i>	<i>\$ 6,515.50</i>
Subtotal, Sweeney Lake Water Quality Improvement Project (2020) (SL-8)	\$ 6,515.50

DECOLA PONDS - SEA SCHOOL/WILDWOOD PARK FLOOD STORAGE PROJECT FEASIBILITY STUDY (2022) (BC-2, 3, 8, 10)

Follow up with USACE; develop graphics; update concepts based on feedback from City staff and administrator; update P8 model and summarize results; develop and review cost estimates; prepare impact summaries; quantify significant trees per Golden Valley staff; develop draft story board narrative; and develop draft presentation slides for public meeting.

Karen L. Chandler, Principal Engineer/Scientist	
1.5 hours @ \$185.00 per hour.....	\$ 277.50

Kurt Leuthold, Principal Engineer/Scientist 2.0 hours @ \$190.00 per hour.....	\$ 380.00
Tyler Conley, Engineer/Scientist/Specialist II 0.2 hours @ \$100.00 per hour.....	\$ 20.00
Erin Feehily, Engineer/Scientist/Specialist II 15.5 hours @ \$100.00 per hour.....	\$ 1,550.00
Jennifer Koehler, Engineer/Scientist/Specialist IV 12.1 hours @ \$155.00 per hour.....	\$ 1,875.50
Katelyn Turpin-Nagel, Engineer/Scientist/Specialist II 22.5 hours @ \$120.00 per hour.....	\$ 2,700.00
Technicians/Administrative.....	\$ 115.00

**Subtotal, DeCola Ponds - SEA School/Wildwood Park Flood
 Storage Project Feasibility Study (2022) (BC-2, 3, 8, 10).....\$ 6,918.00**

MEDLEY PARK STORMWATER TREATMENT FACILITY FEASIBILITY STUDY (2022) (ML-12)

Develop grading plans for concept design; develop proposed conditions XPSWMM and p8 models; prepare concept design cost estimates; prepare boards and scripts for public engagement event #2; meeting with administrator Golden Valley staff regarding public engagement event #2; and prepare draft feasibility report.

Karen L. Chandler, Principal Engineer/Scientist 4.0 hours @ \$185.00 per hour.....	\$ 740.00
Tyler Conley, Engineer/Scientist/Specialist II 0.5 hours @ \$100.00 per hour.....	\$ 50.00
Erin Feehily, Engineer/Scientist/Specialist II 18.4 hours @ \$100.00 per hour.....	\$ 1,840.00
Jennifer Koehler, Engineer/Scientist/Specialist IV 0.7 hours @ \$155.00 per hour.....	\$ 108.50
Kurt Leuthold, Principal Engineer/Scientist 3.2 hours @ \$200.00 per hour.....	\$ 640.00
Brent Lindstrom, Engineer/Scientist/Specialist III 0.8 hours @ \$135.00 per hour.....	\$ 108.00
Tyler Olsen, Engineer/Scientist/Specialist II 44.9 hours @ \$105.00 per hour.....	\$ 4,714.50
Keith Pilgrim, Engineer/Scientist/Specialist IV 1.0 hours @ \$170.00 per hour.....	\$ 170.00
Katelyn Turpin-Nagel, Engineer/Scientist/Specialist II 31.0 hours @ \$120.00 per hour.....	\$ 3,720.00
Technicians/Administrative.....	\$ 55.00

**Subtotal, Medley Park Stormwater Treatment Facility
 Feasibility Study (2022)(ML-12)\$ 12,146.00**

Schaper Pond Carp Management (SL-3)

Internal discussions regarding next steps for Schaper Pond/Sweeney Lake carp control; and virtual meeting with administrator regarding carp control options and next steps.

Karen L. Chandler, Principal Engineer/Scientist 2.5 hours @ \$185.00 per hour.....	\$	462.50
Gregory J. Wilson, Engineer/Scientist/Specialist IV 5.6 hours @ \$175.00 per hour.....	\$	<u>980.00</u>
Subtotal, Schaper Pond Carp Management (SL-3).....	\$	1,442.50

Main Stem Lagoon Dredging Project (2021) (BC-7)

Project setup; and internal meeting regarding project permitting.

Karen L. Chandler, Principal Engineer/Scientist 0.4 hours @ \$185.00 per hour.....	\$	74.00
Tyler Conley, Engineer/Scientist/Specialist II 1.5 hours @ \$100.00 per hour.....	\$	150.00
Patrick Brockamp, Engineer/Scientist/Specialist III 2.3 hours @ \$100.00 per hour.....	\$	<u>287.50</u>
Subtotal, Main Stem Lagoon Dredging Project (2021)(BC-7).....	\$	511.50

TOTAL CAPITAL IMPROVEMENTS PROJECTS (Tax Levy)\$ 27,666.50

TMDL WORK

TOTAL TMDL WORK.....\$ 0.00

IMPROVED FEMA FLOODPLAIN MODELING & MAPPING (MDNR)

IMPROVED FEMA FLOODPLAIN MODELING & MAPPING (MDNR)

Develop Depth Grids

Submit final SFHA mapping with naming updates; develop and review preliminary floodway mapping; attend February 4, 2021 BCWMC TAC meeting regarding upstream storage areas; develop upstream storage inundation mapping; and respond to questions from Crystal staff.

Jennifer A. Koehler, Engineer/Scientist/Specialist IV 11.8 hours @ \$155.00 per hour.....	\$	1,829.00
Joshua Vosejka, Engineer/Scientist/Specialist II 11.0 hours @ \$100.00 per hour.....	\$	<u>1,100.00</u>
Subtotal, Develop Depth Grids.....	\$	2,929.00

Flood Risk Review Meetings & Work Maps

Attend February 24, 2021 flood risk review meeting with MDNR staff, administrator, and TAC representatives.

Karen L. Chandler, Principal Engineer/Scientist 2.0 hours @ \$185.00 per hour	\$ 370.00
Jennifer A. Koehler, Engineer/Scientist/Specialist IV 2.2 hours @ \$155.00 per hour	\$ 341.00
<i>Subtotal, Flood Risk Review Meetings & Work Maps.....</i>	<i>\$ 711.00</i>
TOTAL IMPROVED FEMA FLOODPLAIN MODELING & MAPPING (MDNR)	\$ 3,640.00

SUMMARY TOTALS

Total Engineering.....	\$ 20,080.67
Total WOMP	\$ 67.50
Total Annual Report.....	\$ 375.50
Total APM/AIS Work.....	\$ 0.00
Total TMDL Work.....	\$ 0.00
Total Capital Improvement Projects (Tax Levy)	\$ 27,666.50
Total Improved FEMA Floodplain Modeling & Mapping (MDNR)	\$ 3,640.00
TOTAL PAYABLE	\$ 51,830.17

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


