



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

Page # 1
Invoice # 23270051-2020-12
Project # 23/27-0051
Client # 59
January 8, 2021

Invoice of Account with
BARR ENGINEERING COMPANY

For professional services during the period of
November 28, 2020 through December 25, 2020

ENGINEERING

TECHNICAL SERVICES

Follow-up on Minneapolis ordinance meeting, including review documents and communications with administrator; communications with administrator, Plymouth staff and internal regarding potential Medicine Lake automatic water level logger; review status of MPCA manufactured treatment devices initiative; review and file final conflict of interest document; communications with Crystal staff, New Hope staff, administrator and internal staff regarding Louisiana Avenue culvert replacement on North Branch in Crystal and impacts to Flood Control Project; prepare for and attend December 11 meeting with MDNR staff, TRPD staff, administrator, Chair Prom, Commissioner Carlson, Alternate Commissioner Holter, and Plymouth staff regarding Medicine Lake water quality, AIS issues, and next steps (2021 and beyond), and follow-up with internal staff; communications with administrator and internal staff regarding submittal of EQUIS water quality data to MPCA; review 2021 budgets; review staff evaluation comments; and communications with administrator regarding Medicine Lake resident question about open water on Medicine Lake.

James P. Herbert, Principal Engineer/Scientist 3.2 hours @ \$200.00 per hour.....	\$ 640.00
Karen L. Chandler, Principal Engineer/Scientist 11.7 hours @ \$180.00 per hour	\$ 2,106.00
Margaret R. Rattei, Engineer/Scientist/Specialist III 6.2 hours @ \$140.00 per hour.....	\$ 868.00
Josh P. Phillips, Engineer/Scientist/Specialist II 0.1 hours @ \$105.00 per hour	\$ 10.50
Technicians/Administrative	\$ 107.50
<i>Subtotal, Technical Services</i>	\$ 3,732.00

MONTHLY MEETING PREPARATION

Communications/coordination with administrator and internal staff regarding draft/final agenda and meeting packet for December meeting; review/edit draft November meeting minutes; prepare for December Commission meeting, including pre-meeting conference call with administrator and Chair Prom, coordination with internal staff regarding meeting attendance, and communications with Commissioner Welch, administrator, internal staff, and applicant regarding Commissioner Welch's comments regarding Currie Commons project; 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 5.5 hours @ \$200.00 per hour	\$ 1,100.00
Karen L. Chandler, Principal Engineer/Scientist 17.0 hours @ \$180.00 per hour.....	\$ 3,060.00
Technicians/Administrative	\$ 940.50
<i>Subtotal, Monthly Meeting Preparation</i>	<i>\$ 5,100.50</i>
<i>Subtotal, Technical Services.....</i>	<i>\$ 8,832.50</i>

PLAT REVIEW

Currie Commons (2020-28)

Review submittal for floodplain, erosion and sediment control, rate control and water quality; prepare memo for December Commission meeting and provide to administrator; prepare and send comment letter to city staff; and communications with applicant, administrator and Commission attorney.

James P. Herbert, Principal Engineer/Scientist 7.0 hours @ \$200.00 per hour	\$ 1,400.00
Karen L. Chandler, Principal Engineer/Scientist 0.7 hours @ \$180.00 per hour.....	\$ 126.00
Josh P. Phillips, Engineer/Scientist/Specialist II 22.1 hours @ \$105.00 per hour.....	\$ 2,320.50
Technicians/Administrative	\$ 45.00
<i>Subtotal, Currie Commons (2020-28).....</i>	<i>\$ 3,891.50</i>

Harbor Ln Drainage Impr (2020-29)

Coordination and communications with city staff; and follow-up regarding application fee payment.

James P. Herbert, Principal Engineer/Scientist 0.5 hours @ \$200.00 per hour	\$ 100.00
Josh P. Phillips, Engineer/Scientist/Specialist II 0.4 hours @ \$105.00 per hour	\$ 42.00
Technicians/Administrative	\$ 20.00
<i>Subtotal, Harbor Ln Drainage Impr (2020-29).....</i>	<i>\$ 162.00</i>

New Home - 10406 South Shore Dr (2020-30)

Review resubmittal for floodplain; prepare memo for December Commission meeting and provide to administrator; and prepare and send approval letter to city staff.

James P. Herbert, Principal Engineer/Scientist 3.0 hours @ \$200.00 per hour	\$ 600.00
Karen L. Chandler, Principal Engineer/Scientist 0.2 hours @ \$180.00 per hour	\$ 36.00
Josh P. Phillips, Engineer/Scientist/Specialist II 4.2 hours @ \$105.00 per hour	\$ 441.00
Technicians/Administrative	\$ <u>45.00</u>
<i>Subtotal, New Home - 10406 South Shore Dr (2020-30)</i>	<i>\$ 1,122.00</i>

2021 LTFM Sandburg Middle School (2020-31)

Review submittal for erosion and sediment control, rate control and water quality; prepare and send comment letter to city staff; and communications with applicant.

James P. Herbert, Principal Engineer/Scientist 2.0 hours @ \$200.00 per hour	\$ 400.00
Josh P. Phillips, Engineer/Scientist/Specialist II 6.0 hours @ \$105.00 per hour	\$ 630.00
Technicians/Administrative	\$ 100.00
Expenses (postage)	\$ <u>.50</u>
<i>Subtotal, 2021 LTFM Sandburg Middle School (2020-31)</i>	<i>\$ 1,130.50</i>

Irving Ave Sanitary Sewer Replacement Diversion Plan (2020-16A)

Review submittal regarding diversion and dewatering plan; provide comments to city and applicant; review resubmittal; and prepare and send approval letter to city staff.

James P. Herbert, Principal Engineer/Scientist 7.6 hours @ \$200.00 per hour	\$ 1,520.00
Josh P. Phillips, Engineer/Scientist/Specialist II 0.1 hours @ \$105.00 per hour	\$ 10.50
Technicians/Administrative	\$ 133.00
Expenses (postage)	\$ <u>.50</u>
<i>Subtotal, Irving Ave Sanitary Sewer Replacement Diversion Plan (2020-16A)</i>	<i>\$ 1,664.00</i>

4710 Killarney Dr. Shore Impr. (2020-32)

Preliminary review of plans for work in the Sweeney Lake floodplain.

Josh P. Phillips, Engineer/Scientist/Specialist II 1.0 hours @ \$105.00 per hour	\$ 105.00
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Technicians/Administrative	\$	83.00
Expenses (postage)	\$	<u>.50</u>
<i>Subtotal, 2238 4710 Killarney Dr. Shore Impr. (2020-32)</i>	\$	188.50
Subtotal Plat Review	\$	8,158.50

PRELIMINARY COMMUNICATIONS AND NON-FEE REVIEWS

PRELIMINARY COMMUNICATIONS

Preliminary site review and communications with Plymouth staff regarding 2995 Lawndale project application (does not require BCWMC review because project was found to be outside the BCWMC jurisdictional floodplain), and follow-up with Plymouth staff, including providing figure of BCWMC floodplain jurisdiction; and communications with Minneapolis staff, administrator, and developer's consultant regarding the proposed Lupe development.

James P. Herbert, Principal Engineer/Scientist 2.1 hours @ \$200.00 per hour	\$	420.00
Josh P. Phillips, Engineer/Scientist/Specialist II 1.3 hours @ \$105.00 per hour	\$	<u>136.50</u>
<i>Subtotal, Preliminary Communications.....</i>	\$	556.50

NON-FEE REVIEWS

<i>Subtotal Non-Fee Reviews.....</i>	\$	0.00
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Subtotal Preliminary Communications and Non-Fee Reviews	\$	556.50
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COMMISSION AND TAC MEETINGS

Attend December 17 Commission meeting (virtual).

James P. Herbert, Principal Engineer/Scientist 2.0 hours @ \$200.00 per hour	\$	400.00
Karen L. Chandler, Principal Engineer/Scientist 2.7 hours @ \$180.00 per hour	\$	<u>486.00</u>
Subtotal, Commission and TAC Meetings.....	\$	868.00

SURVEYS & STUDIES

Medicine Lake Staff Gage

Prepare for and perform level loop survey of Medicine Lake weir, including benchmark elevation verification; and communications with internal staff.

James P. Herbert, Principal Engineer/Scientist 0.5 hours @ \$200.00 per hour	\$	100.00
Technicians/Administrative	\$	1,397.00
Expenses (survey set/2WD vehicle/mileage)	\$	<u>96.68</u>
<i>Subtotal, Medicine Lake Staff Gage</i>	\$	1,593.68
Subtotal Surveys & Studies.....	\$	1,593.68

WATER QUALITY/MONITORING

Sweeney – Twin Lake Monitoring

Organize Sweeney and Twin Lakes field data for data summary; load Pace lab reports to EQUIS for submittal to MPCA; and communications with internal staff regarding submittal to MPCA.

Karen L. Chandler, Principal Engineer/Scientist 1.0 hours @ \$180.00 per hour	\$	180.00
Margaret R. Rattei, Engineer/Scientist/Specialist III 2.0 hours @ \$140.00 per hour	\$	280.00
Technicians/Administrative	\$	<u>398.00</u>
<i>Subtotal, Sweeney-Twin Lake Monitoring.....</i>	<i>\$</i>	<i>858.00</i>

Medicine Lake Monitoring

Prepare 2010-2020 zooplankton data summary; and provide phytoplankton and zooplankton data summary to administrator.

Karen L. Chandler, Principal Engineer/Scientist 0.7 hours @ \$180.00 per hour	\$	126.00
Margaret R. Rattei, Engineer/Scientist/Specialist III 1.4 hours @ \$140.00 per hour	\$	<u>196.00</u>
<i>Subtotal, Medicine Lake Monitoring.....</i>	<i>\$</i>	<i>322.00</i>

Sweeney Branch Monitoring Year 1

Collect November 30 grab sample; prepare for and collect December 22 grab sample; drop off stream samples at lab; install conduit for conductivity/temperature sensor; winterize monitoring station and partial equipment removal; download and review data; review MCEs lab invoice; check battery data; internal communications regarding submittal of data to MPCA; and MCEs lab charges for analysis of samples.

Chris Bonick, Engineer/Scientist/Specialist III 14.0 hours @ \$130.00 per hour	\$	1,820.00
Kallie Doeden, Engineer/Scientist/Specialist II 0.5 hours @ \$100.00 per hour	\$	50.00
Technicians/Administrative	\$	400.00
Expenses (Verizon Wireless/mileage/2WD vehicle/meter/ice).....	\$	243.50
Subconsultant (Met Council Environmental Services).....	\$	<u>848.00</u>
<i>Subtotal, Sweeney Branch Monitoring Year 1.....</i>	<i>\$</i>	<i>3,361.50</i>
<i>Subtotal, Water Quality/Monitoring.....</i>	<i>\$</i>	<i>4,541.50</i>

WATER QUANTITY

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

Technicians/Administrative	\$	400.00
Expenses (mileage/2WD vehicle).....	\$	<u>65.00</u>
Subtotal, Water Quantity.....	\$	465.00

ANNUAL FLOOD CONTROL PROJECT INSPECTIONS

Flood Control Project Inspection-Annual

Prepare inspection report memo and update project photos.

Patrick Brockamp, Engineer/Scientist/Specialist II 2.1 hours @ \$115.00 per hour.....	\$	241.50
Josh P. Phillips, Engineer/Scientist/Specialist II 0.1 hours @ \$105.00 per hour	\$	<u>10.50</u>
<i>Subtotal, Flood Control Project Inspection-Annual.....</i>	<i>\$</i>	<i>252.00</i>

Deep Tunnel Inspection

Communications, meetings and coordination with Minneapolis staff, U.S. Army Corps of Engineers staff, and MPRB staff regarding inspection preparation and drawdown; setup/program iPads for tunnel inspection database; process inspection data, export data to spreadsheet and review stationing data; prepare inspection report; and charges from Armstrong Crane and Rigging (access subcontractor).

James P. Herbert, Principal Engineer/Scientist 3.3 hours @ \$200.00 per hour.....	\$	660.00
Tyler Fincher, Engineer/Scientist/Specialist II 10.0 hours @ \$115.00 per hour	\$	1,150.00
Aaron Mielke, Engineer/Scientist/Specialist III 6.4 hours @ \$145.00 per hour.....	\$	928.00
Joe Welna, Engineer/Scientist/Specialist III 3.0 hours @ \$145.00 per hour	\$	435.00
Subconsultant (Armstrong Crane & Rigging Corp).....	\$	<u>1,909.09</u>
<i>Subtotal, Deep Tunnel Inspection</i>	<i>\$</i>	<i>5,082.09</i>
Subtotal, Annual Flood Control Project Inspections	\$	5,334.09

REVIEW MUNICIPAL PLANS

Subtotal, Review Municipal Plans.....	\$	0.00
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TOTAL ENGINEERING \$ **30,349.77**

ANNUAL REPORT

TOTAL ANNUAL REPORT \$ **0.00**

WATERSHED OUTLET MONITORING PROGRAM (WOMP)

TOTAL WOMP \$ **0.00**

APM/AIS WORK

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

CAPITAL IMPROVEMENT PROJECTS (Funded through tax levy)

Four Seasons Area WQ Project (NL-2)

Review applicant's construction phasing plan to determine if phase 1 construction of water quality treatment practices will meet the BCWMC CIP project requirements; and communications with applicant.

James P. Herbert, Principal Engineer/Scientist
 3.3 hours @ \$200.00 per hour.....\$ 660.00

Josh P. Phillips, Engineer/Scientist/Specialist II
 5.4 hours @ \$105.00 per hour\$ 567.00

Subtotal, Four Seasons Area WQ Project (NL-2).....\$ 1,227.00

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

Review and edit Commission attorney's draft memorandum of understanding; and communications with administrator, Commission attorney and internal staff.

Karen L. Chandler, Principal Engineer/Scientist
 1.5 hours @ \$180.00 per hour.....\$ 270.00

Subtotal, Bryn Mawr Meadows WQ Imp Project (2020) (BC-5)...\$ 270.00

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

Engineer and Perform In-lake Alum Treatment

Project management and budget review.

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

Subtotal, Engineer and Perform In-lake Alum Treatment.....\$ 170.00

Carp Control Options Design-Permit-Implement

Communications with Carp Solutions regarding reporting.

Gregory J. Wilson, Engineer/Scientist/Specialist IV
 0.5 hours @ \$170.00 per hour\$ 85.00

Subtotal, Carp Control Options Design-Permit-Implement.....\$ 85.00

Subtotal, Sweeney Lake Water Quality Improvement Project (2020) (SL-8)\$ 255.00

DeCola Ponds - SEA School/Wildwood Park Flood Storage Project Feasibility Study (2022) (BC-2, 3, 8, 10)

Prepare for and attend November 30 kick-off meeting with administrator and Golden Valley staff, December 10 kick-off meeting with SEA School staff, Golden Valley staff and administrator, and December 16 agency stakeholder meeting with MPCA, USACE, and Golden Valley staff, and administrator, including

preparing agendas, presentations, and meeting notes; follow up with USACE regarding jurisdictional determination request and review jurisdictional determination form; communications with Golden Valley staff and internal staff regarding future soil borings; prepare for and attend December 15 meeting with Golden Valley staff and administrator regarding public input process, schedule and deliverables; develop design concept plans, run water quality and H&H models for concepts, and attend December 17 meeting with Golden Valley staff to discuss concept plans; internal meeting to review Golden Valley comments on concept plans; and draft wetland section of feasibility report.

Karen L. Chandler, Principal Engineer/Scientist 10.7 hours @ \$180.00 per hour.....	\$ 1,926.00
Jennifer Koehler, Engineer/Scientist/Specialist III 22.1 hours @ \$145.00 per hour.....	\$ 3,204.50
Katelyn Turpin-Nagel, Engineer/Scientist/Specialist II 16.2 hours @ \$110.00 per hour.....	\$ 1,782.00
Tyler Conley, Engineer/Scientist/Specialist I 3.0 hours @ \$ 85.00 per hour	\$ 255.00
Erin Feehily, Engineer/Scientist/Specialist I 8.0 hours @ \$ 90.00 per hour	\$ 720.00
Subtotal, DeCola Ponds - SEA School/Wildwood Park Flood Storage Project Feasibility Study (2022) (BC-2, 3, 8, 10)	
	7,887.50

Medley Park Stormwater Treatment Facility Feasibility Study (2022) (ML-12)

Communications with internal staff regarding field investigations reporting; edit existing conditions XPSWMM and P8 models; run flood mitigation volume XPSWMM model tests; Medley Park site visit; prepare concept design layouts; prepare for and attend December 16 meeting with administrator and City of Golden Valley staff to review concept design layouts; and draft wetland section of feasibility report.

Karen L. Chandler, Principal Engineer/Scientist 2.9 hours @ \$180.00 per hour	\$ 522.00
Kurt Leuthold, Principal Engineer/Scientist 6.9 hours @ \$190.00 per hour	\$ 1,311.00
Jennifer Koehler, Engineer/Scientist/Specialist III 3.4 hours @ \$145.00 per hour	\$ 493.00
Katelyn Turpin-Nagel, Engineer/Scientist/Specialist II 30.3 hours @ \$110.00 per hour.....	\$ 3,333.00
Tyler Olsen, Engineer/Scientist/Specialist II 14.3 hours @ \$110.00 per hour.....	\$ 1,358.50
Tyler Conley, Engineer/Scientist/Specialist I 2.0 hours @ \$ 85.00 per hour	\$ 170.00
Expenses (mileage).....	\$ 13.80
Subtotal, Medley Park Stormwater Treatment Facility Feasibility Study (2022)(ML-12)	
	7,201.30

TOTAL CAPITAL IMPROVEMENTS PROJECTS (Tax Levy)\$ 16,840.80

TMDL WORK

TOTAL TMDL WORK\$ 0.00

IMPROVED FEMA FLOODPLAIN MODELING & MAPPING (MDNR)

IMPROVED FEMA FLOODPLAIN MODELING & MAPPING (MDNR)

Floodplain, Floodway, Cross-Section Shapefiles

Provide final FEMA and GIS floodplain mapping deliverables to MDNR staff; communications with MDNR staff regarding meetings with cities about Zone A/AE modifications/classification; communications with MDNR staff, administrator and internal staff regarding municipal management of upstream storage areas and scheduling meeting.

Karen L. Chandler, Principal Engineer/Scientist
 1.3 hours @ \$180.00 per hour\$ 234.00

Jennifer A. Koehler, Engineer/Scientist/Specialist III
 7.4 hours @ \$145.00 per hour\$ 1,073.00

Subtotal, Floodplain, Floodway, Cross-Section Shapefiles\$ 1,307.00

TOTAL IMPROVED FEMA FLOODPLAIN MODELING & MAPPING (MDNR).....\$ 1,307.00

SUMMARY TOTALS

Total Engineering\$ 30,349.77

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).....\$ 16,840.80

Total Improved FEMA Floodplain Modeling & Mapping (MDNR)\$ 1,307.00

TOTAL PAYABLE.....\$ 48,497.57

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

Jim Herbes