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engineering and environmental consultants

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

Page # 1  
Invoice # 23270051-2021-04  
Project # 23/27-0051  
Client # 59  
June 4, 2021

Invoice of Account with  
BARR ENGINEERING COMPANY

For professional services during the period of  
May 1, 2021 through May 28, 2021

**1000—ENGINEERING & MONITORING**

**1010—Technical Services**

Technical Services

Prepare for and attend May 5 annual coordination meeting with St. Louis Park staff and administrator; finalize/respond to administrator's questions regarding Engineering items in draft 2022 budget, including partnering with the City of Plymouth and TRPD on Plymouth Creek monitoring, and XPSWMM model updates (including potential process for updating and adopting the FEMA XPSWMM model); communications with administrator regarding EQulS data upload to MPCA, City of Minneapolis NPDES MS4 Stormwater Management Program review, new alternate commissioners, and Hennepin County MESONET meeting; prepare for and attend May 18 virtual meeting with MDNR staff and administrator regarding FEMA model status, and Commission revision/adoption of model, and follow-up communications with MDNR staff regarding floodway model; review new MPCA Soil Reference Values information summary; and communications with administrator, May 24 virtual meeting with administrator and Plymouth staff regarding Beacon Heights feasibility study approach, and follow-up with administrator, city staff and internal staff.

James P. Herbert, Principal Engineer/Scientist 0.5 hours @ \$200.00 per hour .....	\$ 100.00
Karen L. Chandler, Principal Engineer/Scientist 17.6 hours @ \$185.00 per hour .....	\$ 3,256.00
Jennifer Koehler, Engineer/Scientist/Specialist IV 4.7 hours @ \$155.00 per hour .....	\$ 728.50
Chris Bonick, Engineer/Scientist/Specialist III 5.5 hours @ \$135.00 per hour .....	\$ 742.50
<i>Subtotal, Technical Services .....</i>	<i>\$ 4,827.00</i>

Monthly Meeting Preparation

Communications/coordination with administrator and internal staff regarding draft/final agenda and meeting packet for May meeting; review/edit draft April meeting minutes; prepare for May

Commission meeting, including review meeting packet, pre-meeting conference call with Chair Cesnik and administrator, and internal communications regarding meeting attendance/presentations; and communications with administrator and internal staff regarding follow-up items from May Commission meeting and upcoming meeting agenda items.

James P. Herbert, Principal Engineer/Scientist 2.9 hours @ \$200.00 per hour.....	\$ 580.00
Karen L. Chandler, Principal Engineer/Scientist 16.1 hours @ \$185.00 per hour .....	\$ 2,978.50
Technicians/Administrative .....	\$ <u>680.00</u>
<i>Subtotal, Monthly Meeting Preparation .....</i>	<i>\$ 4,238.50</i>

WCA LGU Administration

Review BWSR's draft WCA PRAP report and communications with administrator.

Karen S. Wold, Engineer/Scientist/Specialist III 0.8 hours @ \$140.00 per hour .....	\$ <u>112.00</u>
<i>Subtotal, WCA LGU Administration.....</i>	<i>\$ 112.00</i>
<b>Subtotal 1010—Technical Services.....</b>	<b>\$ 9,177.50</b>

**1020—Development/Project Reviews**

Boone Ave Animal Hospital (2021-06)

Review submittal for floodplain, shoreline, and erosion and sediment control; communications with applicant; review resubmittal; prepare review memo for May Commission meeting and provide to administrator; and prepare and send approval letter to city staff.

James P. Herbert, Principal Engineer/Scientist 2.3 hours @ \$200.00 per hour .....	\$ 460.00
Karen L. Chandler, Principal Engineer/Scientist 0.8 hours @ \$185.00 per hour .....	\$ 148.00
Josh P. Phillips, Engineer/Scientist/Specialist II 5.5 hours @ \$115.00 per hour .....	\$ 632.50
Edward Anderson, Engineer/Scientist/Specialist II 0.2 hours @ \$95.00 per hour .....	\$ 19.00
Technicians/Administrative .....	\$ <u>85.50</u>
<i>Subtotal, Boone Ave Animal Hospital (2021-06).....</i>	<i>\$ 1,259.50</i>

Meadowbrook ES Parking Lot Improvements (2021-09)

Review grading, drainage and erosion control plans; communications with applicant; and prepare draft comments.

James P. Herbert, Principal Engineer/Scientist 1.6 hours @ \$200.00 per hour .....	\$ 320.00
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Josh P. Phillips, Engineer/Scientist/Specialist II  
1.2 hours @ \$115.00 per hour ..... \$ 138.00  
*Subtotal, Meadowbrook ES Parking Lot Improvements (2021-09) ..... \$ 458.00*

Hollydale Residential Development (2021-10)

Preliminary review of grading, drainage and erosion control plans; confirm floodplain elevation; and communications with applicant.

James P. Herbert, Principal Engineer/Scientist  
2.5 hours @ \$200.00 per hour ..... \$ 500.00  
Josh P. Phillips, Engineer/Scientist/Specialist II  
0.9 hours @ \$115.00 per hour ..... \$ 103.50  
Lulu Fang, Engineer/Scientist/Specialist II  
0.2 hours @ \$115.00 per hour ..... \$ 23.00  
Technicians/Administrative ..... \$ 110.00  
*Subtotal, Hollydale Residential Development (2021-10) ..... \$ 736.50*

Plymouth Creek Parking Lot Reconstruction (2021-11)

Preliminary review of grading, drainage and erosion control plans, including floodplain review.

James P. Herbert, Principal Engineer/Scientist  
0.2 hours @ \$200.00 per hour ..... \$ 40.00  
Josh P. Phillips, Engineer/Scientist/Specialist II  
1.2 hours @ \$115.00 per hour ..... \$ 138.00  
Technicians/Administrative ..... \$ 73.50  
*Subtotal, Plymouth Creek Parking Lot Reconstruction (2021-11) ..... \$ 251.50*

Taco Bell, Minnetonka (2021-12)

Preliminary review of grading, drainage and erosion control plans; and communications with applicant.

James P. Herbert, Principal Engineer/Scientist  
1.5 hours @ \$200.00 per hour ..... \$ 300.00  
Technicians/Administrative ..... \$ 52.50  
*Subtotal, Taco Bell, Minnetonka (2021-12) ..... \$ 352.50*

Carousel Auto Parking Expansion (2021-13)

Preliminary review of grading, drainage and erosion control plans.

James P. Herbert, Principal Engineer/Scientist  
1.5 hours @ \$200.00 per hour ..... \$ 300.00  
Technicians/Administrative ..... \$ 115.50  
*Subtotal, Carousel Auto Parking Expansion (2021-13) ..... \$ 415.50*

**Subtotal, 1020—Development/Project Reviews ..... \$ 3,473.50**

**1030—Non-Fee and Preliminary Reviews**

Preliminary Reviews

Provide XPSWMM model results information for proposed bridge project at Courage Kenny site in Golden Valley; preliminary review of Academy of Whole Learning in Golden Valley, provide floodplain information to Golden Valley staff, and communications with internal staff and Golden Valley staff regarding XPSWMM modeling for site; communications with Plymouth staff and developer’s consultant regarding BCWMC XPSWMM model and provide XPSMM model to consultant for Plymouth development site; obtain floodplain elevation for 5825 St. Croix Ave, and communications with Golden Valley staff regarding the floodplain; communications and virtual meeting with MnDOT staff regarding expected Bassett Creek flows for bridge repair flow diversions in Plymouth and Golden Valley, and follow-up communications with administrator, Plymouth staff, and Golden Valley staff; communications with Plymouth staff and potential applicant regarding submittal for landscape project; communications with administrator and internal staff regarding Golden Valley Comprehensive Plan amendment for golf course land use change; and review MDNR permit application 2021-1871 and provide email to administrator (no response required).

James P. Herbert, Principal Engineer/Scientist 10.9 hours @ \$200.00 per hour .....	\$	2,180.00
Karen L. Chandler, Principal Engineer/Scientist 3.7 hours @ \$185.00 per hour .....	\$	684.50
Jennifer Koehler, Engineer/Scientist/Specialist IV 2.7 hours @ \$155.00 per hour .....	\$	418.50
Josh P. Phillips, Engineer/Scientist/Specialist II 2.4 hours @ \$115.00 per hour .....	\$	276.00
Lulu Fang, Engineer/Scientist/Specialist II 0.5 hours @ \$115.00 per hour .....	\$	<u>57.50</u>
<i>Subtotal, Preliminary Reviews</i> .....	\$	<b>3,616.50</b>

Non-Fee Reviews

*Subtotal Non-Fee Reviews*..... \$ 0.00

**Subtotal, 1030— Non-Fee and Preliminary Reviews .....\$ 3,616.50**

**1040—Commission and TAC Meetings**

Attend May 20 Commission meeting (virtual).

Karen L. Chandler, Principal Engineer/Scientist 3.6 hours @ \$185.00 per hour .....	\$	666.00
Josh P. Phillips, Engineer/Scientist/Specialist II 0.4 hours @ \$115.00 per hour .....	\$	<u>46.00</u>
<b>Subtotal, 1040—Commission and TAC Meetings</b> .....	<b>\$</b>	<b>712.00</b>

**1050—Surveys and Studies**

**Subtotal, 1050—Surveys and Studies .....\$ 0.00**

**1060—Water Quality/Monitoring**

General Water Quality

Lost Lake blue green algae bloom: communications with administrator and internal staff regarding bloom and potential follow-up, initial microscopic assessment of lake sample, prepare and analyze lake sample, prepare data summary table, graphs and report on results and provide to administrator and internal staff, courier charges for delivering a phytoplankton sample bottle to Lost Lake resident and for delivering the Lost Lake phytoplankton sample to Barr, communications with Lost Lake resident to answer questions about results and follow-up communications with administrator and internal staff, communications with administrator and internal staff regarding introduction of game fish by residents; and share NMCWD summary regarding WHO guidelines for blue green algae with administrator; internal communications regarding submitting 2015-2020 data to MPCA EQUIS database; and add 2020 water quality data to water quality graphs on BCWMC website.

Karen L. Chandler, Principal Engineer/Scientist 2.6 hours @ \$185.00 per hour .....	\$	481.00
Margaret R. Rattei, Engineer/Scientist/Specialist III 6.6 hours @ \$145.00 per hour .....	\$	957.00
Greg Williams, Engineer/Scientist/Specialist III 4.0 hours @ \$150.00 per hour .....	\$	600.00
Expenses (Courier) .....	\$	<u>48.14</u>
<i>Subtotal, General Water Quality .....</i>	\$	<i>2,086.14</i>

Sweeney-Twin Lake 2020 Monitoring Report

Prepare draft Sweeney Lake water quality monitoring report and begin draft Twin Lake water quality monitoring report, including preparing report maps, review/edit Twin and Sweeney Lake maps, complete Sweeney Lake AIS Suitability Analyses, finalize graphs, and prepare report text.

Karen L. Chandler, Principal Engineer/Scientist 0.7 hours @ \$185.00 per hour .....	\$	129.50
Margaret R. Rattei, Engineer/Scientist/Specialist III 29.9 hours @ \$145.00 per hour .....	\$	4,335.50
Kelly Wild, Engineer/Scientist/Specialist II 0.8 hours @ \$105.00 per hour .....	\$	84.00
Technicians/Administrative .....	\$	<u>1,131.00</u>
<i>Subtotal, Sweeney-Twin Lake 2020 Monitoring Report .....</i>	\$	<i>5,680.00</i>

Medicine Lake 2020 Monitoring Report

Prepare draft Medicine Lake water quality monitoring report, including preparing report map, communications with TRPD staff regarding data for report, and summarizing data for report.

Karen L. Chandler, Principal Engineer/Scientist 0.3 hours @ \$185.00 per hour .....	\$	55.50
Margaret R. Rattei, Engineer/Scientist/Specialist III 8.3 hours @ \$145.00 per hour .....	\$	<u>1,203.50</u>
<i>Subtotal, Medicine Lake 2020 Monitoring Report .....</i>	\$	<i>1,259.00</i>

Sweeney Branch Monitoring Year 2

Perform equipment maintenance, including troubleshooting modem connection problems and site visit to reset and test modem; set station for storm event sampling; collect grab sample on May 24 and deliver sample to lab; download data and mobilize equipment for pH and DO monitoring; calibrate YSI meter; communications with staff; field planning; data analyses; collect May 27 storm sample; acid wash sample bottles; vehicle rental and mileage expenses from monitoring events; Verizon wireless charges; and site visit to evaluate the 2022 Plymouth Creek monitoring location.

Chris Bonick, Engineer/Scientist/Specialist III 9.5 hours @ \$135.00 per hour .....	\$	1,282.50
Margaret R. Rattei, Engineer/Scientist/Specialist III 0.5 hours @ \$145.00 per hour .....	\$	72.50
Kallie Doeden, Engineer/Scientist/Specialist II 12.4 hours @ \$110.00 per hour.....	\$	1,364.00
Technicians/Administrative.....	\$	351.50
Expenses (Verizon/mileage/vehicle/ice/Conductivity Meter/Turbidimeter).....	\$	<u>234.28</u>
<i>Subtotal, Sweeney Branch Monitoring Year 2.....</i>	<i>\$</i>	<i>3,304.78</i>

Parkers Lake 2021 Monitoring

Internal communications regarding Parkers Lake monitoring.

Margaret R. Rattei, Engineer/Scientist/Specialist III 0.5 hours @ \$145.00 per hour .....	\$	<u>72.50</u>
<i>Subtotal, Parkers Lake 2021 Monitoring.....</i>	<i>\$</i>	<i>72.50</i>

Westwood Lake 2021 Monitoring

Prepare and execute subconsultant contract with ERS for aquatic plant surveys on Westwood Lake; internal communications regarding laboratory holding times/other lab matters, final 2021 lake monitoring schedule, and lab report datalink from April sample event; post lab report and lab invoice from April monitoring in database; and file lab report, lab invoice, data email and EQUIS EDD from the April monitoring in electronic folders.

Karen L. Chandler, Principal Engineer/Scientist 0.7 hours @ \$185.00 per hour .....	\$	129.50
Terri Olson, Engineer/Scientist/Specialist III 0.5 hours @ \$150.00 per hour .....	\$	75.00
Margaret R. Rattei, Engineer/Scientist/Specialist III 2.0 hours @ \$145.00 per hour .....	\$	290.00
Technicians/Administrative .....	\$	<u>82.00</u>
<i>Subtotal, Westwood Lake 2021 Monitoring.....</i>	<i>\$</i>	<i>576.50</i>

Crane Lake 2021 Monitoring

Prepare and execute subconsultant contract with ERS for aquatic plant surveys on Crane Lake; internal communications regarding laboratory holding times/other lab matters, final 2021 lake monitoring

schedule, and lab report datalink from April sample event; post lab report and lab invoice from April monitoring in database; and file lab report, lab invoice, data email and EQUIS EDD from the April monitoring in electronic folders.

Karen L. Chandler, Principal Engineer/Scientist 0.7 hours @ \$185.00 per hour .....	\$	129.50
Terri Olson, Engineer/Scientist/Specialist III 0.5 hours @ \$150.00 per hour .....	\$	75.00
Margaret R. Rattei, Engineer/Scientist/Specialist III 2.0 hours @ \$145.00 per hour .....	\$	290.00
Technicians/Administrative .....	\$	90.00
<i>Subtotal, Crane Lake 2021 Monitoring</i> .....	\$	584.50
<b>Subtotal, 1060—Water Quality/Monitoring</b> .....	<b>\$</b>	<b>13,563.42</b>

**1070—Water Quantity**

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

Technicians/Administrative .....	\$	420.00
Expenses (mileage/vehicle) .....	\$	73.00
<b>Subtotal, 1070—Water Quantity</b> .....	<b>\$</b>	<b>493.00</b>

**1080—Annual Flood Control Project Inspections**

<b>Subtotal, 1080—Annual Flood Control Project Inspections</b> .....	<b>\$</b>	<b>0.00</b>
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**1090—Municipal Plan Review**

<b>Subtotal, 1090—Municipal Plan Review</b> .....	<b>\$</b>	<b>0.00</b>
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**1100—Watershed Outlet Monitoring Program**

WOMP Rating Curve

Perform Bassett Creek flow measurement; and review new Survey 123 form.

Chris Bonick, Engineer/Scientist/Specialist III 5.0 hours @ \$135.00 per hour .....	\$	675.00
Expenses (vehicle/mileage/Sontek ADV) .....	\$	128.44
<b>Subtotal, 1100—Watershed Outlet Monitoring Program</b> .....	<b>\$</b>	<b>803.44</b>

**1110—Annual XP-SWMM Model Updates/Reviews**

<b>Subtotal, 1110— Annual XP-SWMM Model Updates/Reviews</b> .....	<b>\$</b>	<b>0.00</b>
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**1120—TMDL Implementation Reporting**

<b>SUBTOTAL, 1120—TMDL Implementation Reporting</b> .....	<b>\$</b>	<b>0.00</b>
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<b>SUBTOTAL, 1000—ENGINEERING &amp; MONITORING</b> .....	<b>\$</b>	<b>31,839.36</b>
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**4000—OUTREACH & EDUCATION**

**4010—Publications/Annual Report**

<b>Subtotal, 4010—Publications/Annual Report .....</b>	<b>\$ 0.00</b>
<b>SUBTOTAL, 4000—OUTREACH &amp; EDUCATION .....</b>	<b>\$ 0.00</b>

**CAPITAL IMPROVEMENT PROJECTS**

Mt Olivet Stream Restoration (2021) (ML-20)

Prepare for and attend May 4 meeting with Plymouth staff, consultant and administrator regarding draft 60% design plans; communications with consultant and internal staff regarding 60% submittal review; and begin review of 60% design plans submittal.

Karen L. Chandler, Principal Engineer/Scientist 1.8 hours @ \$185.00 per hour.....	\$ 333.00
Peter Hinck, Engineer/Scientist/Specialist III 1.7 hours @ \$145.00 per hour.....	\$ 246.50
<b>Subtotal, Mt Olivet Stream Rest (2021) (ML-20) .....</b>	<b>\$ 579.50</b>

Parkers Lk Stream Restoration (2021) (PL-7)

Prepare for and attend May 4 meeting with Plymouth staff, consultant and administrator regarding draft 60% design plans; communications with consultant and internal staff regarding 60% submittal review; and begin review of 60% design plans submittal.

Karen L. Chandler, Principal Engineer/Scientist 1.9 hours @ \$185.00 per hour.....	\$ 351.50
Peter Hinck, Engineer/Scientist/Specialist III 1.7 hours @ \$145.00 per hour.....	\$ 246.50
<b>Subtotal, Parkers Lk Stream Restoration (2021) (PL-7) .....</b>	<b>\$ 598.00</b>

Sweeney Lake Water Quality Improvement Project-MPCA reimbursable (2020)(SL-8)

Budget planning and follow-up.

Gregory J. Wilson, Engineer/Scientist/Specialist IV 0.5 hours @ \$175.00 per hour.....	\$ 87.50
<b>Subtotal, Sweeney Lake Water Quality Improvement Project- MPCA reimbursable (2020)(SL-8) .....</b>	<b>\$ 87.50</b>

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

Attend meeting with administrator and Golden Valley staff regarding reimbursement of city staff time; review/address comments on draft report; compile draft report for May Commission meeting; prepare presentation of draft feasibility study and present at May Commission meeting; and revise draft report based on comments from commissioners.

Karen L. Chandler, Principal Engineer/Scientist 0.3 hours @ \$185.00 per hour.....	\$ 55.50
Jennifer Koehler, Engineer/Scientist/Specialist IV 8.2 hours @ \$155.00 per hour.....	\$ 1,271.00



Katelyn Turpin-Nagel, Engineer/Scientist/Specialist II  
 10.1 hours @ \$120.00 per hour ..... \$ 1,212.00

**Subtotal, DeCola Ponds - SEA School/Wildwood Park Flood  
 Storage Project Feasibility Study (2022) (BC-2, 3, 8, 10) .....\$ 2,538.50**

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

Review and edit draft feasibility report; prepare presentation of draft feasibility study and present at May Commission meeting; and internal meetings to discuss commissioner comments, potential filtration options, and edits required for final feasibility report/presentation.

Karen L. Chandler, Principal Engineer/Scientist  
 2.6 hours @ \$185.00 per hour ..... \$ 481.00

Kurt Leuthold, Principal Engineer/Scientist  
 3.1 hours @ \$200.00 per hour ..... \$ 620.00

Jennifer Koehler, Engineer/Scientist/Specialist IV  
 1.5 hours @ \$155.00 per hour ..... \$ 232.50

Tyler Conley, Engineer/Scientist/Specialist II  
 0.5 hours @ \$100.00 per hour ..... \$ 50.00

Tyler Olsen, Engineer/Scientist/Specialist II  
 4.8 hours @ \$105.00 per hour ..... \$ 504.00

Katelyn Turpin-Nagel, Engineer/Scientist/Specialist II  
 17.6 hours @ \$120.00 per hour ..... \$ 2,112.00

**Subtotal, Medley Park Stormwater Treatment Facility  
 Feasibility Study (2022)(ML-12) .....\$ 3,999.50**

**SUBTOTAL CAPITAL IMPROVEMENTS PROJECTS.....\$ 7,803.00**

**INVOICE SUMMARY**

<b>ACCOUNTING CODE</b>	<b>BUDGET LINE ITEM</b>	<b>INVOICE AMOUNT</b>
<b>1000</b>	<b>ENGINEERING &amp; MONITORING</b>	
1010	Technical Services	\$ 9,177.50
1020	Development/Project Reviews	\$ 3,473.50
1030	Non-fee and Preliminary Reviews	\$ 3,616.50
1040	Commission and TAC Meetings	\$ 712.00
1050	Surveys and Studies	\$ -
1060	Water Quality/Monitoring	\$ 13,563.42
1070	Water Quantity	\$ 493.00
1080	Annual Flood Control Project Inspections	\$ -
1090	Municipal Plan Review	\$ -
1100	Watershed Outlet Monitoring Program	\$ 803.44
1110	Annual XP-SWMM Model Updates/Reviews	\$ -
1120	TMDL Implementation Reporting	\$ -
<b>1000</b>	<b>SUBTOTAL ENGINEERING &amp; MONITORING</b>	<b>\$ 31,839.36</b>
<b>4000</b>	<b>OUTREACH &amp; EDUCATION</b>	
4010	Publications/Annual Report	\$ -
<b>4000</b>	<b>SUBTOTAL OUTREACH &amp; EDUCATION</b>	<b>\$ -</b>
--	<b>SUBTOTAL CAPITAL IMPROVEMENT PROJECTS</b>	<b>\$ 7,803.00</b>
<b>TOTAL PAYABLE</b>		<b>\$ 39,642.36</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.

*Jim Herber*