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engineering and environmental consultants

Mr. Jim de Lambert
Bassett Creek Watershed Management Commission
7800 Golden Valley Road
Golden Valley, MN 55427

Page # 1
Invoice # 23270051-2018-4
Project # 23/27-0051
Client # 59
June 8, 2018

Invoice of Account with
BARR ENGINEERING COMPANY

For professional services during the period of
April 28, 2018 through June 1, 2018

ENGINEERING

TECHNICAL SERVICES

Communications with administrator regarding riprap repair along shoreline of Medicine Lake; communications with administrator and internal staff regarding staff gage; provide Phase 2 XP-SWMM model to Minneapolis consultant; communications with administrator regarding 2019 levy and project review costs; review information and attend Hennepin County's May 16th watershed-based funding convene meeting; communications with administrator regarding BCWMC 50th anniversary ideas; communications with Minneapolis staff regarding review/variance fees; communications with Plymouth staff regarding Phase 2 XPSWMM modeling request for neighborhood drainage issue and provide model to city staff; communications with TRPD staff regarding subwatershed request; communications with St. Louis Park staff regarding Phase 2 XPSWMM questions; compile list of local waterbody names for FEMA, in response to data request from MDNR staff, and communications with administrator and internal staff regarding data request; communications with administrator regarding Hennepin County levy meeting; communications with administrator regarding easement acquisition costs and CIP; and review 5-year CIP and next steps/schedule.

James P. Herbert, Principal Engineer/Scientist 0.8 hours @ \$190.00 per hour	\$ 152.00
Karen L. Chandler, Principal Engineer/Scientist 20.5 hours @ \$175.00 per hour	\$ 3,587.50
Jennifer A. Koehler, Engineer/Scientist/Specialist III 1.2 hours @ \$140.00 per hour	\$ 168.00
Ross S. Mullen, Engineer/Scientist/Specialist II 0.6 hours @ \$100.00 per hour	\$ 60.00
Lulu Fang, Engineer/Scientist/Specialist I 1.4 hours @ \$90.00 per hour	\$ 126.00
Josh P. Phillips, Engineer/Scientist/Specialist I 4.0 hours @ \$85.00 per hour	\$ 340.00

Technicians/Administrative.....	\$	90.00
Expenses (Mileage)	\$	<u>19.08</u>
<i>Subtotal, Technical Services</i>	\$	4,542.58

MONTHLY MEETING PREPARATION

Communications/coordination with administrator regarding draft/final agenda and meeting packet for May Commission meeting; review/edit draft April meeting minutes; prepare memo regarding Schaper Pond effectiveness monitoring results for May Commission meeting packet; meeting with administrator to discuss Schaper presentation; prepare Schaper presentation for May Commission meeting; prepare for May Commission meeting, including setting up and attending pre-meeting conference call with Chair de Lambert and administrator, and coordination 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 4.4 hours @ \$190.00 per hour	\$	836.00
Karen L. Chandler, Principal Engineer/Scientist 27.7 hours @ \$175.00 per hour	\$	4,847.50
Gregory J. Wilson, Consultant/Advisor 19.3 hours @ \$160.00 per hour.....	\$	3,088.00
Joshua R. Vosejka, Engineer/Scientist/Specialist I 1.5 hours @ \$80.00 per hour	\$	120.00
Josh P. Phillips, Engineer/Scientist/Specialist I 0.1 hours @ \$85.00 per hour	\$	8.50
Technicians/Administrative.....	\$	<u>490.00</u>
<i>Subtotal, Monthly Meeting Preparation</i>	\$	9,390.00

CIP PRIORITIZATION PROCESS

Communications with administrator and internal staff, including May 30th meeting with administrator regarding June committee meeting agenda and materials; follow-up from meeting with administrator; and prepare draft GIS maps showing gatekeeper criteria and other information.

Karen L. Chandler, Principal Engineer/Scientist 2.9 hours @ \$175.00 per hour	\$	507.50
Gregory J. Wilson, Consultant/Advisor 0.5 hours @ \$160.00 per hour	\$	80.00
Sterling 'Greg' Williams, Engineer/Scientist/Specialist III 2.0 hours @ \$135.00 per hour	\$	270.00
Joshua R. Vosejka, Engineer/Scientist/Specialist I 2.5 hours @ \$80.00 per hour	\$	<u>200.00</u>
<i>Subtotal, CIP Prioritization Process</i>	\$	1,057.50

Subtotal Technical Services \$ 14,990.08

PLAT REVIEW

Agora (2017-01)

Project closeout and filing.

Josh P. Phillips, Engineer/Scientist/Specialist I 0.3 hours @ \$85.00 per hour	\$	25.50
Technicians/Administrative.....	\$	<u>22.50</u>
<i>Subtotal, Agora</i>	\$	<i>48.00</i>

212 James Avenue North (2017-07)

Communications with administrator and city staff regarding BCWMC review of project.

James P. Herbert, Principal Engineer/Scientist 0.5 hours @ \$190.00 per hour	\$	<u>95.00</u>
<i>Subtotal, 212 James Avenue North.....</i>	\$	<i>95.00</i>

Minneapolis Impound Lot Facility Improvements (2017-37)

Review resubmittals and variance request regarding temporary fill in floodplain, including review of XP-SWMM and MIDS modeling; prepare draft review memo and map and provide to administrator for review; revise/final memo per administrator's comments and provide to administrator for May Commission meeting; review Commission legal counsel's draft resolution; prepare updated figure/map for May Commission meeting; and prepare and send comment/approval letter to city staff.

James P. Herbert, Principal Engineer/Scientist 5.2 hours @ \$190.00 per hour	\$	988.00
Karen L. Chandler, Principal Engineer/Scientist 4.3 hours @ \$175.00 per hour	\$	752.50
Heather N. Hlavaty, Engineer/Scientist/Specialist II 0.9 hours @ \$95.00 per hour	\$	85.50
Josh P. Phillips, Engineer/Scientist/Specialist I 16.8 hours @ \$85.00 per hour	\$	1,428.00
Technicians/Administrative.....	\$	76.00
Expenses (Postage)	\$	<u>0.47</u>
<i>Subtotal, Mpls Impound Lot Facility Improvements.....</i>	\$	<i>3,330.47</i>

Buhler Food App Centre Addition (2018-03)

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

James P. Herbert, Principal Engineer/Scientist 0.5 hours @ \$190.00 per hour	\$ 95.00
Josh P. Phillips, Engineer/Scientist/Specialist I 1.6 hours @ \$85.00 per hour	\$ 136.00
Technicians/Administrative.....	\$ <u>7.50</u>
<i>Subtotal, Buhler Food App Centre Addition.....</i>	<i>\$ 238.50</i>

Golden Valley 2018 PMP (2018-04)

Review resubmittal; and prepare and send approval letter to city staff.

James P. Herbert, Principal Engineer/Scientist 0.7 hours @ \$190.00 per hour	\$ 133.00
Josh P. Phillips, Engineer/Scientist/Specialist I 2.5 hours @ \$85.00 per hour.....	\$ <u>212.50</u>
<i>Subtotal, Golden Valley 2018 PMP.....</i>	<i>\$ 345.50</i>

CenterPoint Energy 2018 MBLC (2018-09)

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

James P. Herbert, Principal Engineer/Scientist 0.8 hours @ \$190.00 per hour	\$ <u>152.00</u>
<i>Subtotal, CenterPoint Energy 2018 MBLC.....</i>	<i>\$ 152.00</i>

Islamic Community Center (2018-10)

Review revised grading, drainage and erosion control plans; prepare draft approval letter to city staff and project closeout/filing.

James P. Herbert, Principal Engineer/Scientist 1.0 hours @ \$190.00 per hour	\$ 190.00
Josh P. Phillips, Engineer/Scientist/Specialist I 0.6 hours @ \$85.00 per hour.....	\$ <u>51.00</u>
<i>Subtotal, Islamic Community Center.....</i>	<i>\$ 241.00</i>

Boone Avenue North Mill (2018-11)

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

James P. Herbert, Principal Engineer/Scientist 0.5 hours @ \$190.00 per hour	\$ 95.00
Josh P. Phillips, Engineer/Scientist/Specialist I 2.9 hours @ \$85.00 per hour.....	\$ 246.50

Technicians/Administrative.....	\$	47.50
Expenses (Postage)	\$	<u>0.47</u>
<i>Subtotal, Boone Avenue North Mill.....</i>	<i>\$</i>	<i>389.47</i>

Bassett Creek Park Playground (2018-12)

Review grading, drainage and erosion control plans, including XP-SWMM modeling; communications with city and MPRB staff; prepare memo for May Commission meeting and provide to administrator; and prepare and send approval letter to city staff.

James P. Herbert, Principal Engineer/Scientist 2.2 hours @ \$190.00 per hour.....	\$	418.00
Karen L. Chandler, Principal Engineer/Scientist 0.6 hours @ \$175.00 per hour	\$	105.00
Heather N. Hlavaty, Engineer/Scientist/Specialist II 0.5 hours @ \$95.00 per hour.....	\$	47.50
Josh P. Phillips, Engineer/Scientist/Specialist I 9.3 hours @ \$85.00 per hour.....	\$	790.50
Technicians/Administrative.....	\$	<u>76.00</u>
<i>Subtotal, Bassett Creek Park Playground.....</i>	<i>\$</i>	<i>1,437.00</i>

Vicksburg Business Center Parking (2018-13)

Plat review setup and initial review.

James P. Herbert, Principal Engineer/Scientist 0.3 hours @ \$190.00 per hour	\$	57.00
Josh P. Phillips, Engineer/Scientist/Specialist I 0.3 hours @ \$85.00 per hour.....	\$	25.50
Technicians/Administrative.....	\$	66.50
Expenses (Postage)	\$	<u>0.47</u>
<i>Subtotal, Vicksburg Business Center Parking.....</i>	<i>\$</i>	<i>149.47</i>

Meadowbrook Elementary NW Addition (2018-14)

Plat review setup and initial review.

James P. Herbert, Principal Engineer/Scientist 0.3 hours @ \$190.00 per hour	\$	57.00
Technicians/Administrative.....	\$	<u>47.50</u>
<i>Subtotal, Meadowbrook Elementary NW Addition.....</i>	<i>\$</i>	<i>104.50</i>

TH 55 West Improvements (2018-15)

Plat review setup and initial review.

James P. Herbert, Principal Engineer/Scientist 0.3 hours @ \$190.00 per hour	\$	57.00
Technicians/Administrative.....	\$	47.50
Expenses (Postage)	\$	<u>1.21</u>
<i>Subtotal, TH 55 West Improvements</i>	<i>\$</i>	<i>105.71</i>

Ridgedale Active Adults Apartments (2018-16)

Plat review setup and initial review.

James P. Herbert, Principal Engineer/Scientist 0.8 hours @ \$190.00 per hour	\$	152.00
Josh P. Phillips, Engineer/Scientist/Specialist I 0.1 hours @ \$85.00 per hour.....	\$	8.50
Technicians/Administrative.....	\$	<u>47.50</u>
<i>Subtotal, Ridgedale Active Adults Apartments.....</i>	<i>\$</i>	<i>208.00</i>

Mister Car Wash Parking Reconfiguration (2018-17)

Plat review setup and initial review.

James P. Herbert, Principal Engineer/Scientist 0.6 hours @ \$190.00 per hour	\$	114.00
Josh P. Phillips, Engineer/Scientist/Specialist I 0.1 hours @ \$85.00 per hour.....	\$	8.50
Technicians/Administrative.....	\$	57.00
Expenses (Postage)	\$	<u>0.47</u>
<i>Subtotal, Mister Car Wash Parking Reconfiguration</i>	<i>\$</i>	<i>179.47</i>

MBLC Golden Valley Road (2018-18)

Plat review setup and initial review.

James P. Herbert, Principal Engineer/Scientist 0.3 hours @ \$190.00 per hour	\$	57.00
Technicians/Administrative.....	\$	47.50
Expenses (Postage)	\$	<u>1.21</u>
<i>Subtotal, MBLC Golden Valley Road.....</i>	<i>\$</i>	<i>105.71</i>

Subtotal Plat Review.....\$ 7,130.30

PRELIMINARY COMMUNICATIONS AND NON-FEE REVIEWS

PRELIMINARY COMMUNICATIONS

Review TRPD wetland plan and MDNR permit application, coordinate with administrator and send "no comment" email regarding project to MDNR; communications with developer's consultant regarding future development review at 7500 Olson Memorial Highway; provide preliminary comments for Plymouth Creek Commons project; communications with Minneapolis staff, administrator, and city consultants to set up meeting regarding Bassett Creek Valley study; and review MDNR permits 2018-1445, 2018-1946, 2018-1947 and 2016-2076.

James P. Herbert, Principal Engineer/Scientist 4.4 hours @ \$190.00 per hour	\$	836.00
Karen L. Chandler, Principal Engineer/Scientist 1.3 hours @ \$175.00 per hour	\$	227.50
Josh P. Phillips, Engineer/Scientist/Specialist I 0.3 hours @ \$85.00 per hour.....	\$	<u>25.50</u>
<i>Subtotal, Preliminary Communications.....</i>	\$	<i>1,089.00</i>

NON-FEE REVIEWS

BLUE LINE LRT

Prepare for and attend May 18th meeting with Blue Line LRT consultants and administrator regarding floodplain mitigation; review draft minutes from May 18 meeting; and provide Phase 2 XP-SWMM model to Blue Line LRT consultant.

James P. Herbert, Principal Engineer/Scientist 3.8 hours @ \$190.00 per hour	\$	722.00
Karen L. Chandler, Principal Engineer/Scientist 4.8 hours @ \$175.00 per hour	\$	840.00
Jennifer A. Koehler, Engineer/Scientist/Specialist III 0.9 hours @ \$140.00 per hour	\$	126.00
Expenses (Mileage)	\$	<u>5.45</u>
<i>Subtotal, Blue Line LRT.....</i>	\$	<i>1,693.45</i>

BLUE LINE LRT WCA LGU ADMIN

Golden Valley

Download and review revised supplement #4 wetland application; communications with agencies and applicant's agent; issue 60-day extension; prepare TEP Findings Report; review revised wetland application; prepare TEP Findings Report and send to TEP for signatures; and communications with TEP.

Karen S. Wold, Engineer/Scientist/Specialist III 3.9 hours @ \$125.00 per hour	\$	<u>487.50</u>
<i>Subtotal, Golden Valley.....</i>	\$	<i>487.50</i>

Minneapolis

Download and review revised supplement #4 wetland application; communications with agencies and applicant's agent; issue 60-day extension; prepare TEP Findings Report; review revised wetland application; prepare TEP Findings Report and send to TEP for signatures; and communications with TEP.

Karen S. Wold, Engineer/Scientist/Specialist III
3.9 hours @ \$125.00 per hour \$ 487.50
Subtotal, Minneapolis \$ 487.50

Robbinsdale

Download and review revised supplement #4 wetland application; communications with agencies and applicant's agent; issue 60-day extension; prepare TEP Findings Report; review revised wetland application; prepare TEP Findings Report and send to TEP for signatures; and communications with TEP.

Karen S. Wold, Engineer/Scientist/Specialist III
3.9 hours @ \$125.00 per hour \$ 487.50
Subtotal, Robbinsdale \$ 487.50
Subtotal Blue Line LRT WCA LGU Admin \$ 1,462.50
Subtotal Blue Line LRT & Blue Line LRT WCA LGU Admin \$ 3,155.95

***Subtotal Non-Fee Reviews* \$ 3,155.95**

***Subtotal Preliminary Communications and Non-Fee Reviews* \$ 4,244.95**

COMMISSION AND TAC MEETINGS

Attend May 17 Commission meeting.

Karen L. Chandler, Principal Engineer/Scientist
4.0 hours @ \$175.00 per hour \$ 700.00
Gregory J. Wilson, Consultant/Advisor
1.8 hours @ \$160.00 per hour \$ 288.00
Expenses (Mileage) \$ 24.53

***Subtotal, Commission and TAC Meetings* \$ 1,012.53**

SURVEYS & STUDIES

***Subtotal Surveys & Studies* \$ 0.00**

WATER QUALITY/MONITORING

Sweeney Lake Aeration Study

Calibrate three-dimensional lake water quality model for phosphorus and phytoplankton; analyze historical water quality monitoring and modeling data for flow/TP loading patterns; communications with administrator, Golden Valley staff, and internal staff regarding project schedule and to set up meeting with city staff, administrator, MDNR and Sweeney Lake Association representatives; and internal meeting to discuss preliminary modeling results.

Karen L. Chandler, Principal Engineer/Scientist 0.5 hours @ \$175.00 per hour	\$	87.50
Gregory J. Wilson, Consultant/Advisor 10.5 hours @ \$160.00 per hour	\$	1,680.00
Keith M. Pilgrim, Consultant/Advisor 30.5 hours @ \$160.00 per hour	\$	<u>4,880.00</u>
<i>Subtotal, Sweeney Lake Aeration Study.....</i>	<i>\$</i>	<i>6,647.50</i>

General Water Quality Tasks

Prepare for and attend May 10th meeting with MPCA staff and administrator regarding MPCA TMDL monitoring plans, including provide map of monitoring locations, and follow-up coordination regarding MPCA monitoring priorities; and communications with administrator and MAISRC staff regarding Medicine Lake zebra mussels.

Karen L. Chandler, Principal Engineer/Scientist 0.9 hours @ \$175.00 per hour	\$	157.50
Gregory J. Wilson, Consultant/Advisor 3.0 hours @ \$160.00 per hour	\$	480.00
Margaret R. Rattei, Engineer/Scientist/Specialist III 0.6 hours @ \$135.00 per hour	\$	<u>81.00</u>
<i>Subtotal, General Water Quality Tasks.....</i>	<i>\$</i>	<i>718.50</i>

Routine Lake Monitoring - Parkers and Westwood Lakes

Prepare for and conduct May 7 sampling and training day for Westwood Nature Center staff at Westwood Lake, including equipment preparation and communications with nature center and internal staff; and communications with laboratory and internal staff regarding sample analysis.

Karen L. Chandler, Principal Engineer/Scientist 0.3 hours @ \$175.00 per hour	\$	52.50
Margaret R. Rattei, Engineer/Scientist/Specialist III 3.4 hours @ \$135.00 per hour	\$	459.00
Terri A. Olson, Engineer/Scientist/Specialist III 0.2 hours @ \$135.00 per hour	\$	27.00

Technicians/Administrative.....	\$	624.00
Expenses (Quicksilver Express/2WD vehicle/mileage WQ meter)	\$	<u>205.11</u>
<i>Subtotal, Routine Lake Monitoring – Parkers/Westwood</i>	\$	<i>1,367.61</i>

Stream Water Quality/Quantity Monitoring - North Branch

Bench test, program, and install monitoring equipment at North Branch Bassett Creek monitoring site; perform flow measurements; develop rating curve; collect water quality grab sample; set tape down location; setup lab account at MCES; create sample submission forms and labels; equipment mobilization; sample delivery to MCES lab; and download and review monitoring data.

Christopher J. Bonick, Engineer/Scientist/Specialist III 26.5 hours @ \$125.00 per hour	\$	3,312.50
Heather N. Hlavaty, Engineer/Scientist/Specialist II 11.9 hours @ \$95.00 per hour	\$	1,130.50
Sean Campbell, Engineer/Scientist/Specialist I 1.8 hours @ \$80.00 per hour.....	\$	144.00
Technicians/Administrative.....	\$	351.00
Expenses (Verizon Wireless/2WD vehicle/mileage).....	\$	<u>315.78</u>
<i>Subtotal, North Branch Stream Water Quality/Quantity Monitor... \$</i>		<i>5,253.78</i>
<i>Subtotal, Water Quality/Monitoring.....</i>	\$	<i>13,987.39</i>

WATER QUANTITY

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

Technicians/Administrative.....	\$	760.00
Expenses (Mileage/2WD Field)	\$	<u>114.14</u>
<i>Subtotal, Water Quantity.....</i>	\$	<i>874.14</i>

FLOOD CONTROL PROJECT INSPECTION+DEEP TUNNEL

Coordinate with administrator, Commission legal counsel, Corps of Engineers staff and internal staff regarding 2018 tunnel inspection and potential BCWMC tunnel tour; review Flood Control Project O&M manual; and provide O&M manual to Corps of Engineers staff.

James P. Herbert, Principal Engineer/Scientist 9.6 hours @ \$190.00 per hour	\$	1,824.00
Karen L. Chandler, Principal Engineer/Scientist 0.4 hours @ \$175.00 per hour	\$	70.00
Technicians/Administrative.....	\$	<u>47.50</u>
<i>Subtotal, Flood Control Proj Inspect+Deep Tunnel.....</i>	\$	<i>1,941.50</i>

MUNICIPAL PLAN REVIEWS

Minneapolis WRMP Review

Review submittal letter; communications with administrator and Minneapolis staff; review city responses to preliminary comments; preliminary review of plan document; and communications with administrator and internal staff regarding review schedule.

Karen L. Chandler, Principal Engineer/Scientist	
2.3 hours @ \$175.00 per hour	\$ 402.50
<i>Subtotal, Minneapolis WRMP Review</i>	<i>\$ 402.50</i>

St. Louis Park Plan

Review St. Louis Park ordinances and BCWMC local plan/ordinance requirements; and communications with administrator, St. Louis Park staff and city consultant regarding BCWMC requirements for official controls/ordinances.

Karen L. Chandler, Principal Engineer/Scientist	
1.1 hours @ \$175.00 per hour	\$ 192.50
Sterling 'Greg' Williams, Engineer/Scientist/Specialist III	
1.0 hours @ \$135.00 per hour	\$ 135.00
<i>Subtotal, St. Louis Park Plan</i>	<i>\$ 327.50</i>
<i>Subtotal, Municipal Plan Reviews</i>	<i>\$ 730.00</i>

XP-SWMM MODEL UPDATES-REVIEWS

Follow-up with Minneapolis, Plymouth and internal staff regarding model update requests and responses; and update/run XP-SWMM model.

Jennifer A. Koehler, Engineer/Scientist/Specialist III	
1.0 hours @ \$140.00 per hour	\$ 140.00
Ross S. Mullen, Engineer/Scientist/Specialist II	
1.2 hours @ \$100.00 per hour	\$ 120.00
Lulu Fang, Engineer/Scientist/Specialist I	
11.2 hours @ \$90.00 per hour	\$ 1,008.00
<i>Subtotal, XP-SWMM Model Updates-Reviews</i>	<i>\$ 1,268.00</i>

TOTAL ENGINEERING \$ **46,178.89**

ANNUAL REPORT

Complete edits to portions of 2017 annual report, and provide to administrator.

Karen L. Chandler, Principal Engineer/Scientist	
0.5 hours @ \$175.00 per hour	\$ 87.50

Gregory J. Wilson, Consultant/Advisor
 1.0 hours @ \$160.00 per hour \$ 160.00

TOTAL ANNUAL REPORT\$ 247.50

PUBLIC COMMUNICATIONS

TOTAL PUBLIC COMMUNICATIONS\$ 0.00

WEBSITE

TOTAL WEBSITE\$ 0.00

WATERSHED OUTLET MONITORING PROGRAM (WOMP)

WATERSHED OUTLET MONITORING PROGRAM (WOMP)

Conduct flow measurement at WOMP station, and send data to MCES staff.

Christopher J. Bonick, Engineer/Scientist/Specialist III
 3.8 hours @ \$125.00 per hour \$ 475.00

Expenses (Mileage, 2WD Field Vehicle)..... \$ 47.53

Subtotal, Watershed Outlet Monitoring Program \$ 522.53

TOTAL WOMP\$ 522.53

CAPITAL IMPROVEMENT PROJECTS (Funded through tax levy)

DECOLA PONDS B&C IMPROVEMENT PROJECT FEASIBILITY STUDY (2019) (BC-2, BC-3, BC-8)

Review and incorporate administrator's and Golden Valley staff's comments on draft feasibility study report into final report; finalize feasibility report for final submission to Commission; and develop presentation for and attend May 17th Commission meeting.

Karen L. Chandler, Principal Engineer/Scientist
 1.4 hours @ \$175.00 per hour \$ 245.00

Jennifer A. Koehler, Engineer/Scientist/Specialist III
 18.2 hours @ \$140.00 per hour..... \$ 2,548.00

Katelyn Turpin-Nagel, Engineer/Scientist/Specialist II
 9.4 hours @ \$95.00 per hour \$ 893.00

Subtotal, DeCola Ponds B&C Feasibility Study\$ 3,686.00

WESTWOOD LAKE WATER QUALITY IMPROVEMENT PROJECT FEASIBILITY STUDY

Communications with architects regarding current design; communications with St. Louis Park staff; internal communications regarding project schedule and design concepts; prepare concepts for heated

concrete paving and building water reuse; revise feasibility report based on Commission comments at April meeting; prepare final feasibility report; attend and present final report at May 17th Commission meeting; and follow up after meeting to communicate with architect and project team.

Kurt A. Leuthold, Principal Engineer/Scientist 2.9 hours @ \$180.00 per hour	\$ 522.00
Karen L. Chandler, Principal Engineer/Scientist 3.5 hours @ \$175.00 per hour	\$ 612.50
Brigham R. Erickson, Engineer/Scientist/Specialist III 1.0 hours @ \$140.00 per hour	\$ 140.00
Jennifer A. Koehler, Engineer/Scientist/Specialist III 0.3 hours @ \$140.00 per hour	\$ 42.00
Michelle A. Kimble, Engineer/Scientist/Specialist III 48.2 hours @ \$130.00 per hour	\$ 6,266.00
Josh P. Phillips, Engineer/Scientist/Specialist I 3.4 hours @ \$85.00 per hour	\$ 289.00
Subtotal, Westwood Lake WQ Feasibility Study	\$ 7,871.50

BRYN MAWR MEADOWS WATER QUALITY IMPROVEMENT PROJECT FEASIBILITY STUDY (2019) (BC-5)

Prepare and review geotechnical report; internal team communications regarding concepts; and communications with MPRB staff.

Karen L. Chandler, Principal Engineer/Scientist 0.2 hours @ \$175.00 per hour	\$ 35.00
Robert H. Osburn, Principal Engineer/Scientist 2.6 hours @ \$175.00 per hour	\$ 455.00
Michelle A. Kimble, Engineer/Scientist/Specialist III 5.5 hours @ \$130.00 per hour	\$ 715.00
Benjamin R. Borree, Engineer/Scientist/Specialist III 5.2 hours @ \$125.00 per hour	\$ 650.00
Expenses (STS Enterprises LLC).....	\$ 3,250.50
Subtotal, Bryn Mawr Meadows Feasibility Study	\$ 5,105.50

SCHAPER POND EFFECTIVENESS MONITORING (SL-3)

Complete monitoring data compilation and analysis; summarize monitoring data results; and conference call with administrator and city staff to discuss results.

Gregory J. Wilson, Consultant/Advisor 4.9 hours @ \$160.00 per hour	\$ 784.00
Heather N. Hlavaty, Engineer/Scientist/Specialist I 3.4 hours @ \$90.00 per hour	\$ 306.00
Subtotal, Schaper Pond Effectiveness Monitoring	\$ 1,090.00

SCHAPER POND 2018 MONITORING AND REPORTING (SL-3)

Plan/prepare for water quality monitoring, including ordering sample bottles and calibrating equipment; prepare for and perform bathymetric survey; download survey data and create draft bathymetric map.

Gregory J. Wilson, Consultant/Advisor		
5.3 hours @ \$160.00 per hour	\$	848.00
Terri A. Olson, Engineer/Scientist/Specialist III		
0.3 hours @ \$135.00 per hour	\$	40.50
Heather N. Hlavaty, Engineer/Scientist/Specialist I		
1.0 hours @ \$90.00 per hour	\$	95.00
Technicians/Administrative.....	\$	2,026.50
Expenses (Mileage/2WD vehicle/RTK GPS Survey)	\$	<u>349.52</u>
<i>Subtotal, Schaper Pond 2018 Monitoring and Reporting.....</i>	\$	<i>3,359.52</i>

TOTAL CAPITAL IMPROVEMENTS PROJECTS (Tax Levy)\$ 21,112.52

TMDL WORK

TOTAL TMDL WORK\$ 0.00

IMPROVED FEMA FLOODPLAIN MODELING & MAPPING (MDNR)

IMPROVED FEMA FLOODPLAIN MODELING & MAPPING (MDNR)

Set up the XP SWMM model for the 0.2%, 2%, 4%, and 10%-annual-chance-events; capture water (track and model overflows) for the 0.2%-annual-chance-event; re-run the calibration events to check for impacts to hydrology from recent project; and communications with MDNR staff regarding required QA/QC documentation.

Ross S. Mullen, Engineer/Scientist/Specialist II		
3.1 hours @ \$100.00 per hour	\$	310.00
Lulu Fang, Engineer/Scientist/Specialist I		
10.5 hours @ \$90.00 per hour	\$	945.00
Technicians/Administrative.....	\$	<u>27.00</u>
<i>Subtotal, Improved FEMA Floodplain Modeling & Mapping</i>		
<i>(MDNR).....</i>	\$	<i>1,282.00</i>

TOTAL IMPROVED FEMA FLOODPLAIN MODELING & MAPPING (MDNR).....\$ 1,282.00

SUMMARY TOTALS

Total Engineering	\$ 46,178.89
Total Annual Report/Website/Public Communications	\$ 247.50
Total WOMP.....	\$ 522.53
Total TMDL Work	\$ 0.00
Total Capital Improvement Projects (Tax Levy).....	\$ 21,112.52
Total Improved FEMA Floodplain Modeling & Mapping (MDNR).....	\$ <u>1,282.00</u>

TOTAL PAYABLE.....\$ 69,343.44

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


