Bassett Creek WMO 7800 Golden Valley Road Golden Valley, MN 55427 Page # 1 Invoice # 23270051-2012-12 Project # 23/27-0051 Client # 59 February 11, 2013

Invoice of Account with BARR ENGINEERING COMPANY

For professional services during the period of December 29, 2012 through February 1, 2013

ENGINEERING

TECHNICAL SERVICES

Calls/emails to or from the Commissioners, recording administrator, watershed communities, developers in the watershed, and interested citizens; coordination with recording administrator regarding post-meeting tasks; conference call with BWSR staff regarding 2013 grant applications and recommendations for future applications; reviewed 2012 developments and prepared email to Golden Valley for its MS4 permit; attended January 4 meeting with administrator to answer questions; coordination regarding CIP; revised watershed map; developed contacts list for administrator; call from counsel regarding 2012 and 2013 education budgets and budget carryovers; reviewed construction account details; call from Hennepin County staff.

Leonard J. Kremer, Principal Engineer/Scientist 0.5 hours @ \$160.00 per hour\$	80.00
James P. Herbert, Principal Engineer/Scientist 7.5 hours @ \$145.00 per hour\$	1,087.50
Karen L. Chandler, Engineer/Scientist/Specialist III 13.6 hours @ \$145.00 per hour\$	1,972.00
Amy R. Mikus, Engineer/Scientist/Specialist I 3.0 hours @ \$80.00 per hour\$	240.00
Joshua R. Vosejpka, Engineer/Scientist/Specialist I 8.7 hours @ \$65.00 per hour\$	565.50
Margaret A. Wright, Engineer/Scientist/Specialist I 7.3 hours @ \$65.00 per hour\$	474.50
Technicians/Administrative\$	312.50
Expenses (Cisco Webex/postage)	14.83
Subtotal, Technical Services\$	4,746.83

PRELIMINARY SITE REVIEW/CORRESPONDENCE

Telephone conversations regarding proposed developments; provided watershed hydraulic information, flood profiles and BCWMC development requirements to applicants; phone calls regarding review requirements; phone conversation with SEH regarding Linden yards site in

Minneapolis; phone call from Met Council regarding Golden Valley site; coordination with BKBM and Golden Valley staff regarding Mini Cooper site and preliminary review; coordination with BKBM and Golden Valley staff regarding Tiburon site and preliminary review; coordination regarding Eliot site in St. Louis Park; phone call from MFRA regarding requirements; internal meeting regarding Sweeney Lake TMDL requirements for proposed project in Sweeney Lake watershed; call from project engineer regarding SW LRT information request and call to administrator.

Leonard J. Kremer, Principal Engineer/Scientist 0.7 hours @ \$160.00 per hour\$	112.00
James P. Herbert, Principal Engineer/Scientist 7.7 hours @ \$145.00 per hour\$	1,116.50
Karen L. Chandler, Engineer/Scientist/Specialist III 0.8 hours @ \$145.00 per hour\$_	116.00
Subtotal, Preliminary Site Review/Correspondence\$	1,344.50

MONTHLY MEETING PREPARATION

Reviewed draft BCWMC meeting minutes, agenda and packet materials and discussed comments with recording administrator; communications with chair, administrator and recording administrator; internal meetings and coordination with administrator and recording administrator regarding agenda, to-do list and meeting packet for January 2013 meeting.

James P. Herbert, Principal Engineer/Scientist 13.2 hours @ \$145.00 per hour\$	1,914.00
Karen L. Chandler, Engineer/Scientist/Specialist III 12.5 hours @ \$145.00 per hour\$	1,812.50
John E. McCarthy, Engineer/Scientist/Specialist I 7.1 hours @ \$75.00 per hour\$_	532.50
Subtotal, Monthly Meeting Preparation\$	4,259.00

TAC MEETING PREPARATION

Coordination with administrator, recording administrator and TAC members regarding January 3, 2013 TAC meeting and preparation of TAC agenda and materials; preparation for TAC meeting and review of meeting packet; email draft memo to TAC for review; communications with Plymouth, Golden Valley and Robbinsdale city staff; prepare memo summarizing January 3 TAC meeting for January Commission meeting, including revised draft CIP, maps of CIP projects and mock-up for CIP budget document ("fact sheet").

Karen L. Chandler, Engineer/Scientist/Specialist III 21.0 hours @ \$145.00 per hour\$	3,045.00
Ross S. Mullen, Engineer/Scientist/Specialist I 0.4 hours @ \$65.00 per hour\$_	26.00
Subtotal, TAC Meeting Preparation\$	3,071.00
Subtotal Technical Services\$	13,421.33

PLAT REVIEW

Note: Projects in **Bold** have provided review fees to offset review costs. Projects not in Bold are either in a preliminary stage or do not require application fee.

Crossroad Commons - Senior Housing

Internal meeting; printed out final plans and filed.

John E. McCarthy, Engineer/Scientist/Specialist I	
0.3 hours @ \$75.00 per hour\$	22.50
Subtotal, Crossroad Commons - Senior Housing\$	22.50
Rational Energies	
Internal meeting; printed out final plans and filed.	
John E. McCarthy, Engineer/Scientist/Specialist I	15.00
0.2 hours @ \$75.00 per hour\$	15.00
Subtotal, Rational Energies\$	15.00
12955 Hwy 55 Parking Exp.	
Internal meeting; printed out final plans and filed.	
John E. McCarthy, Engineer/Scientist/Specialist I	
0.2 hours @ \$75.00 per hour\$	15.00
Subtotal, 12955 Hwy 55 Parking Exp\$	15.00
West Health Addition	
Internal meeting; printed out final plans and filed.	
John E. McCarthy, Engineer/Scientist/Specialist I	
0.2 hours @ \$75.00 per hour\$	15.00
Subtotal, West Health Addition\$	15.00
GV 2012 PMP	
Internal meeting; printed out final plans and filed.	
John E. McCarthy, Engineer/Scientist/Specialist I	
0.1 hours @ \$75.00 per hour\$	7.50
Subtotal, GV 2012 PMP\$	7.50
Robbinsdale 2011 St. Reconstruction	
Internal meeting; printed out final plans and filed.	
John E. McCarthy, Engineer/Scientist/Specialist I	

0.2 hours @ \$75.00 per hour\$______\$_________

Subtotal, Robbinsdale 2011 St. Reconstruction\$	15.00
Cornerstone Auto Resource	
Internal meeting; printed out final plans and filed.	
John E. McCarthy, Engineer/Scientist/Specialist I	
0.1 hours @ \$75.00 per hour\$	7.50
Subtotal, Cornerstone Auto Resource\$	7.50
Parade Parkway Reconstruction	
Internal meeting; printed out final plans and filed.	
John E. McCarthy, Engineer/Scientist/Specialist I	
0.2 hours @ \$75.00 per hour\$	15.00
Subtotal, Parade Parkway Reconstruction\$	15.00
228 Peninsula Road	
Internal meeting; printed out final plans and filed.	
John E. McCarthy, Engineer/Scientist/Specialist I	
0.1 hours @ \$75.00 per hour\$	7.50
Subtotal, 228 Peninsula Road\$	7.50
Ultimate Event Parking Expansion	
Internal meeting; printed out final plans and filed.	
John E. McCarthy, Engineer/Scientist/Specialist I 0.2 hours @ \$75.00 per hour\$	15.00
Subtotal, Ultimate Event Parking Exp\$	15.00
Kimberly Lane School	
Internal meeting; printed out final plans and filed.	
John E. McCarthy, Engineer/Scientist/Specialist I	
0.2 hours @ \$75.00 per hour\$	15.00
Subtotal, Kimberly Lane School\$	15.00
Sweeney Lake Boathouse	
Internal meeting; printed out final plans and filed.	
John E. McCarthy, Engineer/Scientist/Specialist I	
0.1 hours @ \$75.00 per hour\$	7.50
Subtotal, Sweeney Lake Boathouse\$	7.50

Parade	Stadium	Street Im	provements
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Internal meeting; printed out final plans and filed.

John E. McCarthy, Engineer/Scientist/Specialist I	
0.1 hours @ \$75.00 per hour\$	7.50
Subtotal, Parade Stadium Street Improvements\$	7.50

Lifestyle Commons II

Internal meeting; printed out final plans and filed.

John E. McCarthy, Engineer/Scientist/Specialist I	
0.2 hours @ \$75.00 per hour\$	15.00
Subtotal, Lifestyle Commons II	15.00

Boone Ave Convenience Center and Retail

Telephone conversations and emails with city staff and applicant; reviewed revised grading, drainage and erosion control plan; reviewed manufacturer's information regarding proposed BMP; prepared memorandum to the BCWMC; prepared letter of recommendation to City of Golden Valley.

James P. Herbert, Principal Engineer/Scientist 4.3 hours @ \$145.00 per hour\$	623.50
Karen L. Chandler, Engineer/Scientist/Specialist III 0.9 hours @ \$145.00 per hour\$	130.50
Rita W. Weaver, Engineer/Scientist/Specialist II 5.3 hours @ \$100.00 per hour\$_	530.00
Subtotal, Boone Ave Convenience Ctr and Retail\$	1,284.00

237 Peninsula Road

Internal meeting; printed out final plans and filed.

Rita W. Weaver, Engineer/Scientist/Specialist II	
0.2 hours @ \$100.00 per hour\$	20.00
Technicians/Administrative	15.00
Subtotal, 237 Peninsula Road\$	35.00

Turtle Lake Drainage Improvement

Telephone conversation with applicant; reviewed revised drawings; prepared letter of approval to the City of Plymouth and Mn/DNR.

James P. Herbert, Principal Engineer/Scientist	
1.5 hours @ \$145.00 per hour\$	217.50
Rita W. Weaver, Engineer/Scientist/Specialist II	
1.6 hours @ \$100.00 per hour\$	160.00

Technicians/Administrative	22.50
Subtotal, Turtle Lake Drainage Improvement\$	400.00

45th & Nathan Lane Drainage Improvement

Telephone conversation with applicant; reviewed revised drawings; prepared letter of approval to the City of Plymouth and Mn/DNR.

James P. Herbert, Principal Engineer/Scientist 2.1 hours @ \$145.00 per hour\$	304.50
Rita W. Weaver, Engineer/Scientist/Specialist II 1.6 hours @ \$100.00 per hour\$	160.00
Technicians/Administrative\$	22.50
Subtotal, 45 th & Nathan Lane Drainage Improvement\$	487.00

Sunset Hill Elementary 2013 Bldg Add'n and Renovation

Telephone conversations and emails with city staff and applicant; reviewed revised grading, drainage and erosion control plan; prepared letter of approval to City of Plymouth.

James P. Herbert, Principal Engineer/Scientist	
1.5 hours @ \$145.00 per hour\$	217.50
Rita W. Weaver, Engineer/Scientist/Specialist II	
0.3 hours @ \$100.00 per hour\$	30.00
Technicians/Administrative	45.00
Subtotal, Sunset Hill Elementary 2013 Bldg Add'n\$	292.50

Greenwood Elementary School

Telephone conversations and emails with city staff and applicant; reviewed revised grading, drainage and erosion control plan; prepared letter of approval to city of Plymouth.

James P. Herbert, Principal Engineer/Scientist	
2.8 hours @ \$145.00 per hour\$	406.00
Rita W. Weaver, Engineer/Scientist/Specialist II	
1.2 hours @ \$100.00 per hour\$	120.00
Technicians/Administrative	
Subtotal, Greenwood Elementary School\$	548.50

Golden Valley 2013 PMP

Telephone conversations and emails with city staff and applicant; reviewed grading, drainage and erosion control plan; prepared memorandum to BCWMC.

James P. Herbert, Principal Engineer/Scientist	
0.8 hours @ \$145.00 per hour\$	116.00

Rita W. Weaver, Engineer/Scientist/Specialist II			
2.6 hours @ \$100.00 per hour	\$	260.00	
Technicians/Administrative	<u>\$</u>	37.50	
Subtotal, Golden Valley 2013 PMP	\$	413.50	
I-GV-461 Relief Force Main			
Telephone conversations and emails with city staff and applicant; reviewed drawings and erosion control plan; prepared letter of recommendation to city of Golden Valley.			
James P. Herbert, Principal Engineer/Scientist 0.8 hours @ \$145.00 per hour	\$	116.00	
Rita W. Weaver, Engineer/Scientist/Specialist II 1.8 hours @ \$100.00 per hour	\$	180.00	
Technicians/Administrative	\$	37.50	
Subtotal, I-GV-461 Relief Force Main	\$	333.50	
Subtotal Plat Review	\$	3,974.00	
COMMISSION AND TAC MEETINGS			
Attended January 3 TAC meeting and January 17 Commission meeting.			
Karen L. Chandler, Engineer/Scientist/Specialist III 6.1 hours @ \$145.00 per hour	\$	884.50	
Subtotal, Commission Meetings	\$	884.50	
SURVEYS AND STUDIES – XP-SWMM Structure Updates			
XP-SWMM structure updates including modeling new structures and losses; redata and QAQC.	visin	g rating curv	
	•	g rating curv 1,900.00	
data and QAQC. Rita W. Weaver, Engineer/Scientist/Specialist II	\$		

WATER QUALITY MONITORING

Computation of HBI and ICI biotic index indicators; communications with MPCA staff regarding new MIBI biotic index; review of 2012 WOMP flow data; and preparation of report.

James P. Herbert, Principal Engineer/Scientist 1.5 hours @ \$145.00 per hour\$ Margaret R. Rattei, Engineer/Scientist/Specialist II	217.50
98.1 hours @ \$115.00 per hour\$	11,281.50
Christopher J. Bonick, Engineer/Scientist/Specialist II 0.5 hours @ \$105.00 per hour\$	52.50
John E. McCarthy, Engineer/Scientist/Specialist I 13.4 hours @ \$75.00 per hour\$	1,005.00
Technicians/Administrative\$_	60.00
Subtotal, Water Quality Monitoring\$	12,616.50
WATER QUANTITY	
Measured and reviewed lake level elevations as part of the lake-gauging program; data from city of Golden Valley staff; reviewed survey of Medicine Lake outlet str	
James P. Herbert, Principal Engineer/Scientist 0.5 hours @ \$145.00 per hour\$	72.50
Technicians/Administrative\$	552.50
Expenses (Mileage/2WD vehicle)	51.38
Subtotal, Water Quantity\$	676.38
FLOOD CONTROL PROJECT INSPECTION	
Coordination with City staff, prepared 2012 annual flood control structure inspecti recommendations to City staff and MnDOT.	on letters and
James P. Herbert, Principal Engineer/Scientist 8.5 hours @ \$145.00 per hour\$	1,232.50
Technicians/Administrative\$_	180.00
Subtotal, Watershed Inspection\$	1,412.50
TOTAL ENGINEERING\$	37,960.21

SECRETARIAL SERVICES

SECRETARIAL SERVICES EXPENSES

Administrative expenses requested by Amy Herbert including: copies, color copies for meeting packet; postage.

Expenses (B&W/color copies/postage)\$_	371.04
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TOTAL SECRETARIAL SERVICES EXPENSES\$ 371.04

PLANNING

WATERSHED-WIDE XP-SWMM MODEL

Review and debugging of watershed-wide XP-SWMM model; reviewed pipe losses, revised reaches based on Annapolis Lane and Scantion drawings; filled in depth for areas of negative slope and corrected negative flow areas; subdivided pipes with bends and added losses; revised storage curves; added precipitation to nodes; reviewed culvert in MnDOT data base; modified watershed areas; modified the 3rd Avenue model; prepared and performed preliminary model calibration to Wisconsin Ave.; processed precipitation from August 2010 and April 2011; QA/QC review.

Rita W. Weaver, Engineer/Scientist/Specialist II 1.3 hours @ \$100.00 per hour\$	130.00
John E. McCarthy, Engineer/Scientist/Specialist I 76.7 hours @ \$75.00 per hour\$	5,752.50
Ross S. Mullen, Engineer/Scientist/Specialist I 8.9 hours @ \$65.00 per hour\$	858.00
Margaret A. Wright, Engineer/Scientist/Specialist I 0.3 hours @ \$65.00 per hour\$	19.50
Expenses (Color plotter)\$	
Subtotal, Watershed-wide XP-SWMM Model\$	6,500.50

WATERSHED-WIDE P8 WATER QUALITY MODEL

Review and debugging of watershed-wide P8 water quality model; prepared figures and edited tables; reviewed P8 modeling results and internal meeting regarding P8 modeling calibration; compiled monitoring data; prepared methodology memorandum; preparation of report; final P8 model mapping and QA/QC review.

Gregory J. Wilson, Engineer/Scientist/Specialist III 9.7 hours @ \$140.00 per hour\$	1,358.00
Margaret R. Rattei, Engineer/Scientist/Specialist II	1,336.00
1.0 hours @ \$115.00 per hour\$	115.00
John E. McCarthy, Engineer/Scientist/Specialist I 23.2 hours @ \$75.00 per hour\$	1,740.00
Ross S. Mullen, Engineer/Scientist/Specialist I 5.5 hours @ \$65.00 per hour\$	357.50
Joshua R. Vosejpka, Engineer/Scientist/Specialist I	550 50
8.5 hours @ \$65.00 per hour\$_	552.50
Subtotal, Watershed-wide P8 Water Quality Model\$	4,123.00

NEXT GENERATION PLAN

General

Coordination with administrator and Linda Loomis; internal meetings regarding overall plan schedule and plan development; revised Next Generation Plan schedule/Gantt chart; prepared for and attended

January 7 Steering Committee meeting; provided files to Linda Loomis; revised plan schedule and tasks for BCWMC January meeting packet; reviewed draft meeting notes; attended January 24 meeting with administrator and Linda Loomis to further develop work scope and budget, and prepare for Steering Committee meeting; prepared for and attended January 28 Steering Committee meeting; internal meeting regarding scope for plan development.

Karen L. Chandler, Engineer/Scientist/Specialist III 15.8 hours @ \$145.00 per hour\$	2,291.00
Sterling G. Williams, Engineer/Scientist/Specialist II 8.7 hours @ \$95.00 per hour\$_	826.50
Subtotal, General\$	3,117.50
Gaps Analysis Internal meetings to review gaps analysis; prepared for and attended BCWMC wor Analysis.	kshop on Gaps
Leonard J. Kremer, Principal Engineer/Scientist 3.0 hours @ \$160.00 per hour\$	480.00
Karen L. Chandler, Engineer/Scientist/Specialist III 3.2 hours @ \$145.00 per hour\$	464.00
Sterling G. Williams, Engineer/Scientist/Specialist II 2.5 hours @ \$95.00 per hour\$_	237.50
Subtotal, Gaps Analysis\$	1,181.50
Subtotal, Next Generation Plan\$	4,299.00
TOTAL PLANNING\$	14,922.50
ANNUAL REPORT	
TOTAL ANNUAL REPORT\$	0.00
WEBSITE	
Format and publish rotating photos to website home page	
Technicians/Administrative\$	62.50
Subtotal, Website\$	62.50
TOTAL WEBSITE\$	62.50

WATERSHED OUTLET MONITORING PROGRAM (WOMP)

Reviewed 2012 discharge measurements and rating curve; setup and download files/folders for 2013 program.

Christopher J. Bonick, Engineer/Scientist/Specialist II 6.0 hours @ \$105.00 per hour\$	630.00
Rita W. Weaver, Engineer/Scientist/Specialist II	030100
8.3 hours @ \$100.00 per hour\$_	830.00
Subtotal, Watershed Outlet Monitoring Program\$	1,460.00
TOTAL WOMP\$	1,460.00

CAPITAL IMPROVEMENT PROJECTS (Funded through tax levy)

PLYMOUTH CREEK RESTORATION PROJECT (2010 CR)

Internal meetings regarding grant closeout requirements; reviewed and posted 2012 invoices to eLINK; tracked invoices for Final Financial Report; prepared interim and final financial reports, including submittal of final invoices and financial reports; reviewed/completed Final Financial Forms and sent to vice chair for signature as part of BWSR grant closeout process.

Karen L. Chandler, Engineer/Scientist/Specialist III	
2.4 hours @ \$145.00 per hour\$	348.00
Jeffrey D. Weiss, Engineer/Scientist/Specialist II	
1.8 hours @ \$100.00 per hour\$	180.00
Amy R. Mikus, Engineer/Scientist/Specialist I	
23.0 hours @ \$80.00 per hour\$_	1,840.00
Subtotal, Plymouth Creek Restoration Project\$	2,368.00

CRYSTAL-REGENT AVENUE (2010 CR)

Internal meetings regarding grant closeout requirements; reviewed and posted 2012 invoices to eLINK; tracked invoices for Final Financial Report; prepared interim and final financial reports, including submittal of final invoices and financial reports; reviewed/completed Final Financial Forms and sent to vice chair for signature as part of BWSR grant closeout process.

Karen L. Chandler, Engineer/Scientist/Specialist III 2.5 hours @ \$145.00 per hour\$	362.50
Jeffrey D. Weiss, Engineer/Scientist/Specialist II 1.8 hours @ \$100.00 per hour\$	180.00
Amy R. Mikus, Engineer/Scientist/Specialist I 23.0 hours @ \$80.00 per hour\$_	1,840.00
Subtotal, Crystal-Regent Avenue\$	2,382.50
NORTH BRANCH (2011CR-NB)	
Preliminary review of payment request.	
James P. Herbert, Principal Engineer/Scientist	

0.5 hours @ \$145.00 per hour

Subtotal, North Branch (2011CR-NB)\$

72.50

72.50

Internal meeting regarding BWSR grant reporting

Karen L. Chandler, Engineer/Scientist/Specialist III	
0.2 hours @ \$145.00 per hour\$_	29.00
Subtotal, Wirth Lake Outlet Modification\$	29.00

IRVING AVE (CONDUIT ENTR) TO GOLDEN VALLEY RD (2012 CR)

Phone conversation with design engineer regarding environmental issue along project reach, reviewed feasibility study; internal meeting regarding BWSR grant reporting, feasibility study and design engineer information request.

James P. Herbert, Principal Engineer/Scientist 1.5 hours @ \$145.00 per hour\$	217.50
Karen L. Chandler, Engineer/Scientist/Specialist III 1.2 hours @ \$145.00 per hour\$	174.00
Subtotal, Irving Avenue to Golden Valley Road\$	391.50

TWIN LAKE ALUM TREATMENT PROJECT (TW-2)

Coordination regarding Twin Lake feasibility study; review of historical documents; internal review of biomanipulation approach; development of cost estimates for the feasibility study including preparation of alum and aeration cost estimate spreadsheet; phone conversations with Solar Bee regarding aeration costs; reviewed fisheries management options and prepared cost estimate.

James P. Herbert, Principal Engineer/Scientist 0.5 hours @ \$145.00 per hour\$	72.50
Keith M. Pilgrim, Engineer/Scientist/Specialist III 3.1 hours @ \$125.00 per hour\$	387.50
Ronald M. Koth, Engineer/Scientist/Specialist II 2.8 hours @ \$110.00 per hour\$	308.00
Amy R. Mikus, Engineer/Scientist/Specialist I 9.5 hours @ \$80.00 per hour\$_	760.00
Subtotal, Twin Lake Alum Treatment Project (TW-2)\$	1,528.00
TOTAL CAPITAL IMP PROJECTS (Tax Levy)\$	6,771.50

CAPITAL IMPROVEMENT PROJECTS (Funded through Flood Control Project Long-term Maintenance Funds)

TOTAL CAPITAL IN	APROVEMENT PROJECTS	
(Maintenance Funds)	\$	0.00

TMDL STUDIES

TMDL IMPLEMENTATION\

Prepared TMDL implementation status update and reviewed MS4 permitting, reviewed Sweeney Lake watershed TMDL implementation plan; prepared memo for January BCWMC meeting regarding TMDL implementation tracking status.

Karen L. Chandler, Engineer/Scientist/Specialist III 2.1 hours @ \$145.00 per hour\$	304.50
Gregory J. Wilson, Engineer/Scientist/Specialist III 6.0 hours @ \$140.00 per hour\$_	840.00
Subtotal, TMDL Implementation\$	1,144.50
TOTAL TMDL STUDIES\$	1,144.50

SUMMARY TOTALS

Total Engineering\$	37,960.21
Total Secretarial Services Expenses\$	371.04
Total Planning\$	14,922.50
Total Annual Report/Website\$	62.50
Total WOMP\$	1,460.00
Total Capital Improvement Projects (Tax Levy)\$	6,771.50
Total Capital Improvement Projects (Maintenance Funds)\$	0.00
Total TMDL Studies	1,144.50
TOTAL PAYABLE\$	62,692.25

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

Leonard J. Kremer