



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

Page # 1
Invoice # 23270051-2017-1
Project # 23/27-0051
Client # 59
April 07, 2017

Invoice of Account with
BARR ENGINEERING COMPANY

For professional services during the period of
February 25, 2017 through March 31, 2017

ENGINEERING

TECHNICAL SERVICES

Attend March 1 meeting with administrator (following meeting with Agora consultant); update budget table for 2017 fiscal year; communications with Crystal staff; look into MPARS permit; communications with Chair de Lambert regarding sediment sampling; communications with MDNR staff regarding XP-SWMM model and MDNR FEMA funding request; distribution of Phase 2 model to consultant per Plymouth request; communications with administrator regarding Crystal code review; communications with St. Louis Park staff regarding pond flood elevation; prepare estimated budgets and explanatory notes for 2018 engineering items including new stream water quality monitoring program (including communications with TRPD staff), every-10-year Flood Control Project tunnel inspection, development reviews and review fee revenue (including development review budgets, actual costs, and current review fees), and routine water quality monitoring program (biotic index monitoring, and monitoring of Parkers Lake and Westwood Lake), in response to administrator's request; internal staff meetings regarding 2018 budgeting; provide 2018 budget estimates and explanatory/supplemental information to administrator, in preparation for March 27 budget committee meeting; follow-up communications with administrator regarding 2018 budget items, including revisions to budgets; prepare for March 27 budget committee meeting (attendance requested by Chair de Lambert and administrator); follow-up regarding Budget Committee questions; communications with St. Louis Park staff regarding pond flood elevation; and communications with administrator regarding plan amendments.

James P. Herbert, Principal Engineer/Scientist	
6.7 hours @ \$190.00 per hour	\$ 1,273.00
Karen L. Chandler, Principal Engineer/Scientist	
33.2 hours @ \$170.00 per hour	\$ 5,644.00
Sterling G. Williams, Engineer/Scientist/Specialist III	
4.5 hours @ \$130.00 per hour	\$ 585.00
Margaret R. Rattei, Engineer/Scientist/Specialist III	
7.1 hours @ \$130.00 per hour	\$ 923.00
Jennifer A. Koehler, Engineer/Scientist/Specialist III	
0.4 hours @ \$130.00 per hour	\$ 52.00

Christopher J. Bonick, Engineer/Scientist/Specialist II	
2.5 hours @ \$120.00 per hour	\$ 300.00
Joseph A. Welna, Engineer/Scientist/Specialist II	
3.5 hours @ \$115.00 per hour	\$ 402.50
Technicians/Administrative.....	\$ <u>7.50</u>
<i>Subtotal, Technical Services.....</i>	<i>\$ 9,187.00</i>

MONTHLY MEETING PREPARATION

Communications/coordination with administrator regarding draft/final agenda and meeting packet for March Commission meeting; review/edit draft February meeting minutes; prepare memo for March Commission meeting regarding recommendations (potential cost cap) and responses to TAC concerns for MIDS on linear projects, including background information memo regarding other WMO/WD requirements; prepare for March Commission meeting, including pre-meeting conference call with chair de Lambert and administrator to review meeting agenda; provide grant tracking information to administrator; and coordination and communications with administrator and internal staff regarding follow-up tasks from March Commission meeting and upcoming Commission meeting agenda items.

James P. Herbert, Principal Engineer/Scientist	
8.0 hours @ \$190.00 per hour	\$ 1,520.00
Karen L. Chandler, Principal Engineer/Scientist	
29.3 hours @ \$170.00 per hour	\$ 4,981.00
Gregory J. Wilson, Consultant/Advisor	
0.3 hours @ \$155.00 per hour	\$ 46.50
Candice M. Kantor, Engineer/Scientist/Specialist II	
13.3 hours @ \$105.00 per hour	\$ 1,396.50
Josh P. Phillips, Engineer/Scientist/Specialist I	
1.0 hours @ \$75.00 per hour	\$ 75.00
Technicians/Administrative.....	\$ <u>522.50</u>
<i>Subtotal, Monthly Meeting Preparation.....</i>	<i>\$ 8,541.50</i>

TAC PREPARATION

Communications with Crystal staff regarding March 2 agenda; and review/edit TAC memo for March Commission meeting; internal meeting about MIDS for linear projects analysis and analysis of alternative triggers for MIDS on linear projects; memo for May TAC meeting.

Karen L. Chandler, Principal Engineer/Scientist	
2.4 hours @ \$170.00 per hour	\$ 408.00
Candice M. Kantor, Engineer/Scientist/Specialist II	
1.0 hours @ \$105.00 per hour	\$ 105.00

Josh P. Phillips, Engineer/Scientist/Specialist I	
0.8 hours @ \$75.00 per hour	\$ 60.00
<i>Subtotal, TAC Preparation.....</i>	<i>\$ 573.00</i>
<i>Subtotal Technical Services</i>	<i>\$ 18,301.50</i>

PLAT REVIEW

10th Ave-UP Rail Culvert Repairs (2015-36)

Communications with consultant and city regarding application and submittal.

James P. Herbert, Principal Engineer/Scientist	
0.5 hours @ \$190.00 per hour	\$ 95.00
<i>Subtotal, 10th Ave-UP Rail Culvert Repairs</i>	<i>\$ 95.00</i>

CSAH 24 Reconstruction Project (2016-32)

Review resubmittal; and coordinate with applicant.

James P. Herbert, Principal Engineer/Scientist	
0.8 hours @ \$190.00 per hour	\$ 152.00
Josh P. Phillips, Engineer/Scientist/Specialist I	
0.9 hours @ \$75.00 per hour	\$ 67.50
<i>Subtotal, CSAH 24 Reconstruction Project</i>	<i>\$ 219.50</i>

Northwood N. Infrastructure Improvements (2016-38)

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

James P. Herbert, Principal Engineer/Scientist	
1.2 hours @ \$190.00 per hour	\$ 228.00
Josh P. Phillips, Engineer/Scientist/Specialist I	
4.2 hours @ \$75.00 per hour	\$ 315.00
<i>Subtotal, Northwood N. Infrastructure Improvements</i>	<i>\$ 543.00</i>

French Regional Park Street Improvements (2016-39)

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

James P. Herbert, Principal Engineer/Scientist	
1.0 hours @ \$190.00 per hour	\$ 190.00
Josh P. Phillips, Engineer/Scientist/Specialist I	
0.5 hours @ \$75.00 per hour	\$ 37.50
<i>Subtotal, French Regional Park Street Improvements</i>	<i>\$ 227.50</i>

Agora Development (2017-01)

Prepare for and attend March 1 meeting with developer's consultant and administrator regarding BCWMC review comments; communications with developer's consultant regarding NWL on Northwood Lake; communications with administrator and internal staff; and communications with developer's consultant regarding potential use of modular wetland BMP on development site, review of BMP information, and follow-up communications.

James P. Herbert, Principal Engineer/Scientist	
2.3 hours @ \$190.00 per hour	\$ 437.00
Karen L. Chandler, Principal Engineer/Scientist	
4.9 hours @ \$170.00 per hour	\$ 833.00
Josh P. Phillips, Engineer/Scientist/Specialist I	
5.3 hours @ \$75.00 per hour	\$ 397.50
<i>Subtotal, Agora Development</i>	<i>\$ 1,667.50</i>

Golden Valley 2017 PMP (2017-02)

Review grading, drainage and erosion control plans; prepare review memo for March Commission meeting (including variance request) and provide to administrator, including information from 2016 PMP submittal/variance approval; coordinate with applicant; and prepare and send approval/comment letter to city staff.

James P. Herbert, Principal Engineer/Scientist	
2.5 hours @ \$190.00 per hour	\$ 475.00
Karen L. Chandler, Principal Engineer/Scientist	
2.6 hours @ \$170.00 per hour	\$ 442.00
Josh P. Phillips, Engineer/Scientist/Specialist I	
10.1 hours @ \$75.00 per hour	\$ 757.50
<i>Subtotal, Golden Valley 2017 PMP</i>	<i>\$ 1,674.50</i>

CenterPoint Energy MBLC Replacement (2017-03)

Review grading, drainage and erosion control plans; prepare review memo for March Commission meeting and provide to administrator; attend conference call with applicant; review XP-SWMM model and provide flow and velocity data to applicant; prepare and send comment letter to city staff; review resubmittal; prepare and send approval letter to city staff.

James P. Herbert, Principal Engineer/Scientist	
6.3 hours @ \$190.00 per hour	\$ 1,197.00
Karen L. Chandler, Principal Engineer/Scientist	
2.6 hours @ \$170.00 per hour	\$ 442.00
Jennifer A. Koehler, Engineer/Scientist/Specialist III	
0.8 hours @ \$130.00 per hour	\$ 104.00

Jeffrey D. Weiss, Engineer/Scientist/Specialist III	
0.5 hours @ \$125.00 per hour	\$ 62.50
Candice M. Kantor, Engineer/Scientist/Specialist II	
1.0 hours @ \$105.00 per hour	\$ 105.00
Josh P. Phillips, Engineer/Scientist/Specialist I	
13.8 hours @ \$75.00 per hour	\$ 1,035.00
Technicians/Administrative.....	\$ 45.00
Expenses (Postage)	\$ 0.46
<i>Subtotal, CenterPoint Energy MBLC Replacement</i>	<i>\$ 2,990.96</i>

Dakota Growers Pasta Rail Exp (2017-04)

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

James P. Herbert, Principal Engineer/Scientist	
0.6 hours @ \$190.00 per hour	\$ 114.00
Candice M. Kantor, Engineer/Scientist/Specialist II	
1.0 hours @ \$105.00 per hour	\$ 105.00
Josh P. Phillips, Engineer/Scientist/Specialist I	
11.0 hours @ \$75.00 per hour	\$ 825.00
Technicians/Administrative.....	\$ 153.00
Expenses (Postage)	\$ 0.46
<i>Subtotal, Dakota Growers Pasta Rail Exp.....</i>	<i>\$ 1,197.46</i>

Daikin Addition and Parking Lot (2017-05)

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

James P. Herbert, Principal Engineer/Scientist	
1.0 hours @ \$190.00 per hour	\$ 190.00
Candice M. Kantor, Engineer/Scientist/Specialist II	
1.0 hours @ \$105.00 per hour	\$ 105.00
Josh P. Phillips, Engineer/Scientist/Specialist I	
5.4 hours @ \$75.00 per hour	\$ 405.00
Technicians/Administrative.....	\$ 45.00
Expenses (Postage)	\$ 0.46
<i>Subtotal, Daikin Addition and Parking Lot</i>	<i>\$ 745.46</i>

Ridgedale Ctr OPD Phase 3 (2017-06)

Plat review set up and preliminary review.

Josh P. Phillips, Engineer/Scientist/Specialist I 0.8 hours @ \$75.00 per hour.....	\$ 60.00
Technicians/Administrative.....	\$ 54.00
Expenses (Postage)	\$ 0.46
<i>Subtotal, Ridgedale Ctr OPD Phase 3</i>	<i>\$ 114.46</i>

212 James Avenue North (2017-07)

Plat review set up.

Technicians/Administrative.....	\$ 45.00
Expenses (Postage)	\$ 0.46
<i>Subtotal, 212 James Avenue North.....</i>	<i>\$ 45.46</i>

Subtotal Plat Review.....\$ 9,520.80

PRELIMINARY COMMUNICATIONS AND NON-FEE REVIEWS

PRELIMINARY COMMUNICATIONS

Preliminary communications with developers' consultants regarding BNSF bridge project and Alina project in Golden Valley, Ryerson Steel project in Plymouth, and CenterPoint Energy project in New Hope; and communications with Golden Valley staff.

James P. Herbert, Principal Engineer/Scientist 3.0 hours @ \$190.00 per hour	\$ 570.00
Karen L. Chandler, Principal Engineer/Scientist 0.5 hours @ \$170.00 per hour	\$ 85.00
Josh P. Phillips, Engineer/Scientist/Specialist I 0.6 hours @ \$75.00 per hour.....	\$ 45.00
Subtotal, Plat Review – Preliminary Communications.....	\$ 700.00

NON-FEE REVIEWS

BLUE LINE LRT

Prepare for and attend meeting with Blue Line LRT consultant, administrator, and Minneapolis staff regarding Bassett Creek floodplain issues and application/review process.

James P. Herbert, Principal Engineer/Scientist 0.5 hours @ \$190.00 per hour	\$ 95.00
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Karen L. Chandler, Principal Engineer/Scientist	
3.0 hours @ \$170.00 per hour	\$ 510.00
Expenses (Mileage)	\$ 5.89
<i>Subtotal, Blue Line LRT.....</i>	<i>\$ 610.89</i>

BLUE LINE LRT WCA LGU ADMIN

Golden Valley

Project coordination.

Karen S. Wold, Engineer/Scientist/Specialist II	
0.1 hours @ \$120.00 per hour	\$ 12.00
<i>Subtotal, Golden Valley.....</i>	<i>\$ 12.00</i>

Robbinsdale

Project coordination.

Karen S. Wold, Engineer/Scientist/Specialist II	
0.1 hours @ \$120.00 per hour	\$ 12.00
<i>Subtotal, Robbinsdale.....</i>	<i>\$ 12.00</i>
<i>Subtotal Blue Line LRT WCA LGU Admin.....</i>	<i>\$ 24.00</i>
<i>Subtotal Blue Line LRT & Blue Line LRT WCA LGU Admin.....</i>	<i>\$ 634.89</i>

Subtotal Non-Fee Reviews\$ 634.89

Subtotal Preliminary Communications and Non-Fee Reviews\$ 1,334.89

COMMISSION AND TAC MEETINGS

Attend March 2 TAC meeting, March 16 Commission meeting, and March 27 Budget Committee meeting (per Chair de Lambert and administrator request).

Karen L. Chandler, Principal Engineer/Scientist	
9.2 hours @ \$170.00 per hour	\$ 1,564.00
<i>Subtotal, Commission and TAC Meetings.....</i>	<i>\$ 1,564.00</i>

SURVEYS & STUDIES

Subtotal, Surveys & Studies\$ 0.00

WATER QUALITY/MONITORING

Sweeney Lake Aeration Study

Plan for and coordinate with internal staff regarding mid-May Sweeney Lake water quality and sediment monitoring.

Gregory J. Wilson, Consultant/Advisor	
4.3 hours @ \$155.00 per hour	\$ 666.50

Terri A. Olson, Engineer/Scientist/Specialist III	
0.2 hours @ \$130.00 per hour	\$ 26.00
Technicians/Administrative.....	\$ 108.00
<i>Subtotal, Sweeney Lake Aeration Study.....</i>	<i>\$ 800.50</i>

General Water Quality Requests

Provide final water quality reports to administrator, communications with administrator, plant survey subconsultant and researcher regarding bearded stonewort information request; and provide Crane Lake and Westwood Lake plant survey data to researcher for bearded stonewort publication.

Karen L. Chandler, Principal Engineer/Scientist	
0.8 hours @ \$170.00 per hour	\$ 136.00
Margaret R. Rattei, Engineer/Scientist/Specialist III	
0.6 hours @ \$130.00 per hour	\$ 78.00
Technicians/Administrative.....	\$ 63.00
<i>Subtotal, General Water Quality Requests.....</i>	<i>\$ 277.00</i>

Chloride Source Assessment:

Download and organize chloride data from MCES lab website, obtain WOMP station conductivity data for 2017; organize data in Excel spreadsheets; and obtain stage data from WOMP station/review.

Christopher J. Bonick, Engineer/Scientist/Specialist II	
2.3 hours @ \$120.00 per hour	\$ 276.00
<i>Subtotal, Chloride Source Assessment.....</i>	<i>\$ 276.00</i>

Water Quality Data Request

Communications with administrator regarding response to consultant's water quality data request.

Karen L. Chandler, Principal Engineer/Scientist	
0.6 hours @ \$170.00 per hour	\$ 102.00
<i>Subtotal, Water Quality Data Request.....</i>	<i>\$ 102.00</i>
<i>Subtotal, Water Quality/Monitoring.....</i>	<i>\$ 1,455.50</i>

WATER QUANTITY

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

Technicians/Administrative.....	\$ 738.00
Expenses (Mileage/2WD field vehicle)	\$ 106.72
<i>Subtotal, Water Quantity.....</i>	<i>\$ 844.72</i>
TOTAL ENGINEERING	\$ 33,021.41

SECRETARIAL SERVICES

TOTAL SECRETARIAL SERVICES EXPENSES.....\$ 0.00

ANNUAL REPORT

TOTAL ANNUAL REPORT\$ 0.00

PUBLIC COMMUNICATIONS

TOTAL PUBLIC COMMUNICATIONS\$ 0.00

WEBSITE

TOTAL WEBSITE\$ 0.00

WATERSHED OUTLET MONITORING PROGRAM (WOMP)

WATERSHED OUTLET MONITORING PROGRAM (WOMP)

Prepare for 2017 flow measurements; perform flow measurement at WOMP station, and obtain zero datum elevation for WOMP station.

Christopher J. Bonick, Engineer/Scientist/Specialist II	
4.0 hours @ \$120.00 per hour	\$ 480.00
Expenses (Mileage/2WD field vehicle)	\$ 36.77
<i>Subtotal, Watershed Outlet Monitoring Program</i>	<i>\$ 516.77</i>
TOTAL WOMP	\$ 516.77

CAPITAL IMPROVEMENT PROJECTS (Funded through tax levy)

FOUR SEASONS MALL AREA WATER QUALITY PROJECT (NL-2)

Clip XP-SWMM Phase 2 model for Agora development; and review Highway 169 culvert invert information.

Ross S. Mullen, Engineer/Scientist/Specialist I	
1.0 hours @ \$95.00 per hour	\$ 95.00
<i>Subtotal, Four Seasons Mall Area Water Quality Project (NL-2).....</i>	<i>\$ 95.00</i>

NORTHWOOD LAKE IMPROVEMENT PROJECTS (2016)(NL-1)

BWSR Clean Water Fund grant administration: interim BWSR CWF grant report with payment request; provide financial report to administrator for signature.

Jennifer A. Koehler, Engineer/Scientist/Specialist III
1.2 hours @ \$130.00 per hour \$ 156.00
Subtotal, Northwood Lake Improvement Projects \$ 156.00

PLYMOUTH CREEK RESTORATION, ANNAPOLIS LN TO 2,500 FT UPSTREAM OF ANNAPOLIS LN (2017 CR-P)

BWSR Clean Water Fund grant administration: provide draft grant agreements to administrator; and revise grant agreement revisions and provide to Laura.

Jennifer A. Koehler, Engineer/Scientist/Specialist III
0.9 hours @ \$130.00 per hour \$ 117.00
*Subtotal, Plymouth Crk Restoration Annapolis Ln to 2,500 ft.
Upstream of Annapolis* \$ 117.00

MAIN STEM CHANNEL RESTORATION, CEDAR LK RD TO DUPONT, PLUS FRUEN MILL (2017CR-M)

Review Hennepin County Environmental Response Fund grant agreement and Communications with Hennepin County staff and administrator regarding grant agreement.

Jennifer L. Brekken, Engineer/Scientist/Specialist III
1.0 hours @ \$145.00 per hour \$ 145.00
*Subtotal, Main Stem Channel Restoration, Cedar Lk Rd to Dupont,
Plus Fruen Mill* \$ 145.00

BASSETT CREEK PARK & WINNETKA PONDS DREDGING FEASIBILITY STUDY

Prepare final sediment characterization memos for inclusion in the feasibility study report; call from Commissioner Mueller regarding study status; perform P8 model runs estimate water quality benefits of each alternative and compare to existing conditions; prepare draft feasibility report, compile into PDF, and provide to Commissioner Mueller, administrator and Crystal city staff for review; review administrator comments on report; review sediment accumulation rates (historical vs. P8 model results) and revise/re-run P8 model with revised rates; set up, prepare for, and attend additional meeting (March 22) with Commissioner Mueller, administrator and Crystal city staff regarding project alternatives, phosphorus removals, and costs; review literature regarding sediment resuspension and apply findings to Winnetka Pond and Bassett Creek Park Pond; look into additional options for Bassett Creek Park Pond, including a forebay only option, flood control option, and stream restoration option; and numerous communications with Commissioner Mueller, administrator and Crystal city staff regarding construction cost estimates, life span/annualized costs, and implementation options for Bassett Creek Park Pond.

Daniel J. Fetter, Principal Engineer/Scientist
0.7 hours @ \$200.00 per hour \$ 140.00
James P. Herbert, Principal Engineer/Scientist
4.5 hours @ \$190.00 per hour \$ 855.00
Karen L. Chandler, Principal Engineer/Scientist
27.0 hours @ \$170.00 per hour \$ 4,590.00

Gregory J. Wilson, Consultant/Advisor	
21.4 hours @ \$155.00 per hour	\$ 3,317.00
Kevin D. Menken, Engineer/Scientist/Specialist II	
1.5 hours @ \$110.00 per hour	\$ 165.00
Candice H. Kantor, Engineer/Scientist/Specialist II	
27.2 hours @ \$105.00 per hour	\$ 2,856.00
Charles M. Hinds, Engineer/Scientist/Specialist I	
1.1 hours @ \$80.00 per hour	\$ 88.00
Joshua R. Vosejpka, Engineer/Scientist/Specialist I	
1.0 hours @ \$80.00 per hour	\$ 80.00
Technicians/Administrative.....	\$ <u>135.00</u>
<i>Subtotal, Bassett Creek Park & Winnetka Ponds Dredging</i>	
<i>Feasibility Study.....</i>	<i>\$ 12,226.00</i>

SCHAPER POND EFFECTIVENESS MONITORING (SL-3)

Plan for and coordinate with internal staff regarding monitoring set-up.

Karen L. Chandler, Principal Engineer/Scientist	
0.3 hours @ \$170.00 per hour	\$ 51.00
Gregory J. Wilson, Consultant/Advisor	
4.5 hours @ \$155.00 per hour	\$ 697.50
Christopher J. Bonick, Engineer/Scientist/Specialist II	
1.5 hours @ \$120.00 per hour	\$ <u>180.00</u>
<i>Subtotal, Schaper Pond Effectiveness Monitoring</i>	<i>\$ 928.50</i>

TOTAL CAPITAL IMPROVEMENTS PROJECTS (Tax Levy)\$ 13,667.50

TMDL WORK

TMDL IMPLEMENTATION REPORTING

Prepare P8 model updates for North Branch watershed.

Gregory J. Wilson, Consultant/Advisor	
2.5 hours @ \$155.00 per hour	\$ <u>387.50</u>
<i>Subtotal, TMDL Implementation Reporting</i>	<i>\$ 387.50</i>
TOTAL TMDL WORK.....	\$ 387.50

XP-SWMM PHASE II

XP-SWMM PHASE II

Follow-up with TAC and administrator regarding TAC comments; creating inundation maps of only the trunk system; respond to Crystal, Minnetonka and Plymouth questions, create nodes/links in model for New Hope staff; check Northwood Lake outlet; encrypt model; send meeting appointments to city staff; packet; and hold individual meetings with Crystal, Golden Valley, Medicine Lake, Minnetonka, New Hope, and Plymouth city staff and representatives.

Karen L. Chandler, Principal Engineer/Scientist	
1.8 hours @ \$170.00 per hour	\$ 306.00
Jennifer A. Koehler, Engineer/Scientist/Specialist III	
22.8 hours @ \$130.00 per hour	\$ 2,964.00
Ross S. Mullen, Engineer/Scientist/Specialist I	
4.6 hours @ \$95.00 per hour	\$ 437.00
Lulu Fang, Engineer/Scientist/Specialist I	
0.6 hours @ \$80.00 per hour	\$ 48.00
Subtotal, XP-SWMM Phase II	\$ 3,755.00
TOTAL XP-SWMM PHASE II	\$ 3,755.00

SUMMARY TOTALS

Total Engineering	\$ 33,021.41
Total Secretarial Services Expenses	\$ 0.00
Total Annual Report/Website/Public Communications	\$ 0.00
Total WOMP	\$ 516.77
Total Capital Improvement Projects (Tax Levy)	\$ 13,667.50
Total TMDL Work	\$ 387.50
Total XP-SWMM Phase II	\$ 3,755.00
TOTAL PAYABLE	\$ 51,348.18

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

