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engineering and environmental consultants

Bassett Creek WMO
7800 Golden Valley Road
Golden Valley, MN 55427

Page # 1
Invoice # 23270051-2015-8
Project # 23/27-0051
Client # 59
October 01, 2015

Invoice of Account with
BARR ENGINEERING COMPANY

For professional services during the period of
August 29, 2015 through September 25, 2015

ENGINEERING

TECHNICAL SERVICES

Communications with administrator; provide review checklist to Robbinsdale staff, per request; respond to Alternate Commissioner Goddard’s inquiry regarding BCWMC involvement in projects on/near old tunnel; internal discussion regarding Bassett Creek sedimentation study; internal communications and follow-up regarding watershed divide edge-matching with adjoining WMOs; respond to Minneapolis staff request for information regarding tunnel and provide map; communications with Crystal staff regarding site visit to proposed North Branch channel maintenance location; provide information regarding main stem project to Alternate Commissioner Goddard; and coordination regarding BCWMC schedule for main stem feasibility study.

Leonard J. Kremer, Principal Engineer/Scientist 1.3 hours @ \$185.00 per hour.....	\$ 240.50
Karen L. Chandler, Consultant/Advisor 12.3 hours @ \$160.00 per hour.....	\$ 1,968.00
Joshua R. Vosejpka, Engineer/Scientist/Specialist I 0.7 hours @ \$75.00 per hour	\$ 52.50
Technicians/Administrative	\$ 20.00
Expenses (Postage).....	\$ 0.98
<i>Subtotal, Technical Services</i>	\$ 2,281.98

MONTHLY MEETING PREPARATION

Communications/coordination with administrator regarding draft/final agenda and meeting packet for September 2015 meeting; review/edit draft August meeting minutes; prepare for September Commission meeting, including setting up and attending 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 September Commission meeting and upcoming meeting agenda items.

James P. Herbert, Principal Engineer/Scientist 5.5 hours @ \$175.00 per hour.....	\$ 962.50
Karen L. Chandler, Consultant/Advisor 13.1 hours @ \$160.00 per hour.....	\$ 2,096.00
Technicians/Administrative	\$ 492.00
Expenses (Webex).....	\$ 17.37
<i>Subtotal, Monthly Meeting Preparation.....</i>	<i>\$ 3,567.87</i>

TAC PREPARATION

Review agenda memo for September TAC meeting; assemble memo and materials for September TAC meeting packet, including set up and transfer of files to ftp site; communications with administrator and Minnetonka staff regarding September TAC meeting; prepare for September 8 TAC meeting; and review/edit administrator's draft September 8 TAC meeting notes and email to administrator.

Karen L. Chandler, Consultant/Advisor 6.5 hours @ \$160.00 per hour.....	\$ 1,040.00
<i>Subtotal, TAC Preparation</i>	<i>\$ 1,040.00</i>
<i>Subtotal Technical Services.....</i>	<i>\$ 6,889.85</i>

PLAT REVIEW

Crossroads Commons, 2nd Addition (2015-09)

Review revised project plans and prepare/send comments on revised plans to applicant; review re-revised plans; review MDNR permit application for project and communications with administrator; and prepare and send approval letter to city staff.

James P. Herbert, Principal Engineer Scientist 1.3 hours @ \$175.00 per hour.....	\$ 227.50
Candice M. Kantor, Engineer/Scientist/Specialist II 1.3 hours @ \$95.00 per hour	\$ 123.50
<i>Subtotal, Crossroads Commons, 2nd Addition</i>	<i>\$ 351.00</i>

Mini-Hops Gymnastics (2015-16)

Review revised project plans, and several communications/coordination with applicant and city staff.

James P. Herbert, Principal Engineer Scientist 3.3 hours @ \$175.00 per hour.....	\$ 577.50
Candice M. Kantor, Engineer/Scientist/Specialist II 2.0 hours @ \$95.00 per hour	\$ 190.00
<i>Subtotal, Mini Hops Gymnastics.....</i>	<i>\$ 767.50</i>

Liberty Crossing Development (2015-18)

Coordination regarding BCWMC requirements for project and project status.

James P. Herbert, Principal Engineer Scientist
3.5 hours @ \$175.00 per hour.....\$ 612.50
Candice M. Kantor, Engineer/Scientist/Specialist II
0.8 hours @ \$95.00 per hour\$ 76.00
Subtotal, Liberty Crossing Development.....\$ 688.50

Golden Villas (2015-20)

Review proprietary BMP information from applicant; review revised information; and communications with applicant.

Candice M. Kantor, Engineer/Scientist/Specialist II
1.4 hours @ \$95.00 per hour\$ 133.00
Subtotal, Golden Villas.....\$ 133.00

Hennepin County ACF Site Security Exp (2015-21)

Review grading, drainage and erosion control plans; prepare and send review/comment letter to city staff; review revised plans; communications with applicant regarding outstanding items; review updated plans; and prepare and send approval letter to city staff.

James P. Herbert, Principal Engineer Scientist
2.9 hours @ \$175.00 per hour.....\$ 507.50
Candice M. Kantor, Engineer/Scientist/Specialist II
5.0 hours @ \$95.00 per hour\$ 475.00
Subtotal, Hennepin County ACF Site Security Exp.....\$ 982.50

Fretham Twenty-Four 2nd Addition (2015-22)

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

James P. Herbert, Principal Engineer Scientist
1.2 hours @ \$175.00 per hour.....\$ 210.00
Candice M. Kantor, Engineer/Scientist/Specialist II
2.0 hours @ \$95.00 per hour\$ 190.00
Subtotal, Fretham Twenty-Four 2nd Addition.....\$ 400.00

Tennant Co. Site Improvements (2015-23)

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

James P. Herbert, Principal Engineer Scientist
2.0 hours @ \$175.00 per hour.....\$ 350.00
Candice M. Kantor, Engineer/Scientist/Specialist II
2.5 hours @ \$95.00 per hour\$ 237.50
Subtotal, Tennant Co. Site Improvements.....\$ 587.50

Ramada Conversion (2015-24)

Plat review set up and preliminary review.

James P. Herbert, Principal Engineer Scientist 0.5 hours @ \$175.00 per hour.....	\$ 87.50
Candice M. Kantor, Engineer/Scientist/Specialist II 0.5 hours @ \$95.00 per hour	\$ 47.50
Technicians/Administrative	\$ <u>25.50</u>
<i>Subtotal, Ramada Conversion.....</i>	<i>\$ 160.50</i>

Plymouth Creek Christian Church Add (2015-25)

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

Candice M. Kantor, Engineer/Scientist/Specialist II 2.7 hours @ \$95.00 per hour	\$ <u>256.50</u>
<i>Subtotal, Plymouth Creek Christian Church Add</i>	<i>\$ 256.50</i>

Sochacki Trail Paving (2015-26)

Review grading, drainage and erosion control plans; communications/coordination with city and TRPD staff; internal discussions regarding potential WCA issues, including wetland submittal requirements and potential permitting; prepare review memo and figure for September Commission meeting; and prepare and send review/comment letter to city staff.

James P. Herbert, Principal Engineer Scientist 7.0 hours @ \$175.00 per hour.....	\$ 1,225.00
Karen L. Chandler, Consultant/Advisor 0.5 hours @ \$160.00 per hour.....	\$ 80.00
Karen S. Wold, Engineer/Scientist/Specialist II 0.8 hours @ \$115.00 per hour.....	\$ 92.00
Candice M. Kantor, Engineer/Scientist/Specialist II 5.0 hours @ \$95.00 per hour	\$ 475.00
Technicians/Administrative	\$ <u>17.00</u>
<i>Subtotal, Sochacki Trail Paving.....</i>	<i>\$ 1,889.00</i>

Cornerstone Creek (2015-27)

Review grading, drainage and erosion control plans; prepare review memo and figure for September Commission meeting; communications with applicant; and prepare and send review/comment letter to city staff.

James P. Herbert, Principal Engineer Scientist 2.8 hours @ \$175.00 per hour.....	\$ 490.00
Karen L. Chandler, Consultant/Advisor 0.6 hours @ \$160.00 per hour.....	\$ 96.00

Candice M. Kantor, Engineer/Scientist/Specialist II 4.2 hours @ \$95.00 per hour	\$ 399.00
Technicians/Administrative	\$ <u>42.50</u>
<i>Subtotal, Cornerstone Creek.....</i>	<i>\$ 1,027.50</i>

2241 Legend Dr. (2015-28)

Preliminary site review with applicant's consultant; plat review set up; and preliminary review.

James P. Herbert, Principal Engineer Scientist 1.5 hours @ \$175.00 per hour.....	\$ 262.50
Candice M. Kantor, Engineer/Scientist/Specialist II 0.5 hours @ \$95.00 per hour	\$ 47.50
Technicians/Administrative	\$ <u>42.50</u>
<i>Subtotal, Dani Araya.....</i>	<i>\$ 352.50</i>

Proto Labs Parking Lot (2015-29)

Plat review set up and preliminary review.

James P. Herbert, Principal Engineer Scientist 0.5 hours @ \$175.00 per hour.....	\$ 87.50
Technicians/Administrative	\$ <u>42.50</u>
<i>Subtotal, Proto Labs Parking Lot</i>	<i>\$ 130.00</i>
<i>Subtotal Plat Review.....</i>	<i>\$ 7,726.00</i>

NON-FEE REVIEWS AND PRELIMINARY COMMUNICATIONS

PRELIMINARY COMMUNICATIONS

Communications with Medicine Lake staff and consultant regarding solar array project; compile and provide BCWMC HEC-2 flow information to Golden Valley's consultant for Douglas Drive creek crossing; coordination and communication with St. Louis Park staff regarding project at Texas Avenue and I-394; communications with Golden Valley Country Club staff regarding relocation of proposed bridge over Bassett Creek; communications with consultant regarding BCWMC requirements for New Hope redevelopment site; and call from developer's consultant regarding application and fee.

James P. Herbert, Principal Engineer/Scientist 1.5 hours @ \$175.00 per hour.....	\$ 262.50
Karen L. Chandler, Consultant/Advisor 1.0 hours @ \$160.00 per hour.....	\$ 160.00
Jennifer A. Koehler, Engineer/Scientist/Specialist II 0.4 hours @ \$120.00 per hour.....	\$ <u>48.00</u>
<i>Subtotal, Plat Review – Preliminary Communications</i>	<i>\$ 470.50</i>

NON-FEE REVIEWS

SW LRT

Communications with Minneapolis staff and administrator regarding proposed direct connection to the Bassett Creek tunnel; and internal meeting regarding existing drainage area to new tunnel

James P. Herbert, Principal Engineer Scientist 3.4 hours @ \$175.00 per hour.....	\$ 595.00
Karen L. Chandler, Consultant/Advisor 1.3 hours @ \$160.00 per hour.....	\$ 208.00
Jennifer A. Koehler, Engineer/Scientist/Specialist II 2.1 hours @ \$120.00 per hour.....	\$ 252.00
<i>Subtotal, SW LRT</i>	\$ 1,055.00
<i>Subtotal Non-Fee Reviews</i>	\$ 1,055.00
<i>Subtotal Non-Fee Review and Preliminary Communication</i>	\$ 1,525.50

COMMISSION AND TAC MEETINGS

Attend September 8 TAC meeting and September 17 Commission meeting.

Karen L. Chandler, Consultant/Advisor 7.0 hours @ \$160.00 per hour	\$ 1,120.00
<i>Subtotal, Commission and TAC Meetings</i>	\$ 1,120.00

SURVEYS & STUDIES

FLOOD CONTROL PROJECT REHAB AND RESPONSIBILITIES

Prepare memo to TAC regarding Flood Control Project responsibilities, funding and recommendations; communications with BCWMC counsel and administrator; scan and create PDFs of agreements; and prepare for and attend September 8 TAC meeting

Leonard J. Kremer, Principal Engineer/Scientist 8.0 hours @ \$185.00 per hour.....	\$ 1,480.00
James P. Herbert, Principal Engineer Scientist 11.5 hours @ \$175.00 per hour.....	\$ 2,012.50
Karen L. Chandler, Consultant/Advisor 10.1 hours @ \$160.00 per hour	\$ 1,616.00
Technicians/Administrative	\$ 90.00
Expenses (Mileage)	\$ 13.80
<i>Subtotal, Flood Contract Proj Rehab & Responsibilities</i>	\$ 5,212.30
<i>Subtotal, Surveys & Studies</i>	\$ 5,212.30

WATER QUALITY/MONITORING

Follow-up with MPCA and administrator on questions regarding bacteria TMDL implementation planning, MCES inflow and infiltration program, and monitoring recommendations; communications with administrator regarding water quality reporting; provide GIS data to Commission's website development consultant; Westwood Lake Monitoring: Prepare for and conduct September 9 water quality monitoring; QA/QC review of laboratory report and invoice; verify water quality data and enter data into EQUIS; Stream Biotic Index Monitoring: Prepare for biotic index monitoring, including updating databases with GPS data; and communications with administrator regarding change in location for Sweeney Lake branch biotic index monitoring station.

Henry M. Runke, Principal Engineer/Scientist 0.5 hours @ \$175.00 per hour.....	\$ 87.50
Gregory J. Wilson, Engineer/Scientist/Specialist III 4.1 hours @ \$150.00 per hour.....	\$ 615.00
Margaret R. Rattei, Engineer/Scientist/Specialist III 1.6 hours @ \$125.00 per hour.....	\$ 200.00
Sterling G. Williams, Engineer/Scientist/Specialist III 1.5 hours @ \$125.00 per hour.....	\$ 187.50
Brent A. Lindstrom, Engineer/Scientist/Specialist III 1.2 hours @ \$125.00 per hour.....	\$ 150.00
Technicians/Administrative	\$ 557.50
Expenses (Mileage/2WD vehicle/GPS/ canoe/filtration apparatus/WQ meter)	\$ 171.21
<i>Subtotal, Water Quality/Monitoring.....</i>	<i>\$ 1,968.71</i>

WATER QUANTITY

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

Technicians/Administrative	\$ 720.00
Expenses (Mileage/2WD vehicle).....	\$ 109.80
<i>Subtotal, Water Quantity</i>	<i>\$ 829.80</i>

TOTAL ENGINEERING\$ 25,272.16

SECRETARIAL SERVICES

SECRETARIAL SERVICES EXPENSES

Expenses for postage.

Expenses (Postage).....	\$ 62.81
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TOTAL SECRETARIAL SERVICES EXPENSES.....\$ 62.81

PLANNING

NEXT GENERATION PLAN

Complete final edits to plan document, including final revisions to Requirements Document, prepare draft credits page, and review/edit draft transmittal letter for approval at September Commission meeting; prepare for and attend September 17 Commission meeting; prepare final plan document for production, including minor edits; produce and distribute 21 hard copies (w/CDs) of plan document, produce 39 additional CDs of plan; and communications with administrator.

James P. Herbert, Principal Engineer/Scientist 2.5 hours @ \$175.00 per hour.....	\$ 437.50
Karen L. Chandler, Consultant/Advisor 6.5 hours @ \$160.00 per hour.....	\$ 1,040.00
Sterling G. Williams, Engineer/Scientist/Specialist III 32.4 hours @ \$125.00 per hour.....	\$ 4,050.00
Technicians/Administrative	\$ 1,596.00
Expenses (3-ring binder/B&W and color copies/ Tabs/postage/CD holders).....	\$ 806.07
<i>Subtotal, Next Generation Plan</i>	<i>\$ 7,929.57</i>
TOTAL PLANNING (Next Generation Plan)	\$ 7,929.57

PLANNING (Funded through Flood Control Project Long-term Maintenance Funds)

TOTAL PLANNING (Maintenance Funds).....	\$ 0.00
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ANNUAL REPORT

TOTAL ANNUAL REPORT.....	\$ 0.00
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PUBLIC COMMUNICATIONS

TOTAL PUBLIC COMMUNICATIONS	\$ 0.00
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WEBSITE

TOTAL WEBSITE.....	\$ 0.00
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WATERSHED OUTLET MONITORING PROGRAM (WOMP)

TOTAL WOMP.....	\$ 0.00
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CAPITAL IMPROVEMENT PROJECTS (Funded through tax levy)

CEDAR LAKE ROAD TO GOLDEN VALLEY ROAD, 2012 MAIN STEM

Communications with administrator regarding BWSR Clean Water Fund grant closeout and schedule.

Karen L. Chandler, Consultant/Advisor
0.6 hours @ \$160.00 per hour.....\$ 96.00
Subtotal, Cedar Lk Rd to Golden Valley Rd\$ 96.00

HONEYWELL POND EXPANSION (2016) (BC-4)

Review 50% design submittal from city's consultant; prepare 50% design review memo for September Commission meeting; prepare and send conditional approval letter to city staff regarding 50% plan set review; and communications with city's consultant.

Karen L. Chandler, Consultant/Advisor
3.6 hours @ \$160.00 per hour.....\$ 576.00
Jennifer A. Koehler, Engineer/Scientist/Specialist II
7.5 hours @ \$120.00 per hour.....\$ 900.00
Candice M. Kantor, Engineer/Scientist/Specialist II
0.5 hours @ \$95.00 per hour\$ 47.50
Subtotal, Honeywell Pond Expansion\$ 1,523.50

NORTHWOOD LAKE STORMWATER QUALITY IMPROVEMENTS PROJECTS (2016) (NL-1)

Review 50% design submittal from city's consultant; prepare 50% design review memo for September Commission meeting; prepare and send conditional approval letter to city staff regarding 50% plan set review; and communications with city's consultant.

James P. Herbert, Principal Engineer/Scientist
0.5 hours @ \$175.00 per hour.....\$ 87.50
Karen L. Chandler, Consultant/Advisor
6.4 hours @ \$160.00 per hour.....\$ 1,024.00
Jennifer A. Koehler, Engineer/Scientist/Specialist II
6.6 hours @ \$120.00 per hour.....\$ 792.00
Candice M. Kantor, Engineer/Scientist/Specialist II
1.0 hours @ \$95.00 per hour\$ 95.00
Subtotal, Northwood Lake Improvement Projects.....\$ 1,998.50

PLYMOUTH CREEK RESTORATION (2017 CR-P)

FEASIBILITY STUDY

Meeting with Plymouth city staff on September 2 to walk the project reach, discuss issues on the reach and identify key goals; complete initial data collection and geomorphic assessment of the reach, based on September 2 meeting with City staff and additional site visits during the week of September 7; reviewed background data, including XP-SWMM model and City of Plymouth design for culvert replacement within the reach; began developing initial concepts for reach stabilization;

completed field work for wetland delineation on September 22 and Phase I environmental assessment on September 16; communications with subcontractor to complete the cultural and historical assessment; and communications with Plymouth city staff and administrator.

Karen L. Chandler, Consultant/Advisor 0.5 hours @ \$160.00 per hour.....	\$ 80.00
Peter J. Hinck, Engineer/Scientist/Specialist II 26.6 hours @ \$120.00 per hour.....	\$ 3,192.00
Jeffrey D. Weiss, Engineer/Scientist/Specialist II 8.3 hours @ \$120.00 per hour.....	\$ 996.00
Shanna R. Braun, Engineer/Scientist/Specialist II 8.0 hours @ \$110.00 per hour.....	\$ 880.00
Adam J. Howard, Engineer/Scientist/Specialist II 14.5 hours @ \$95.00 per hour.....	\$ 1,377.50
Christian E. Frias, Engineer/Scientist/Specialist II 5.0 hours @ \$95.00 per hour	\$ 475.00
Michelle L. Waters, Engineer/Scientist/Specialist II 11.3 hours @ \$95.00 per hour.....	\$ 1,073.50
Christopher R. Ross, Engineer/Scientist/Specialist I 1.0 hours @ \$65.00 per hour	\$ 65.00
Brian K. Burgner, Engineer/Scientist/Specialist I 10.4 hours @ \$90.00 per hour.....	\$ 936.00
Technicians/Administrative	\$ 193.00
Expenses (Mileage)	\$ <u>40.25</u>
<i>Subtotal, Plymouth Creek Restoration</i>	<i>\$ 9,308.25</i>
TOTAL CAPITAL IMPROVEMENTS PROJECTS (Tax Levy)	\$ 12,926.25

CAPITAL IMPROVEMENT PROJECTS (Funded through Flood Control Project Long-term Maintenance Funds)
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TOTAL CAPITAL IMPROVEMENT PROJECTS (Maintenance Funds)	\$ 0.00
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TMDL WORK

TOTAL TMDL STUDIES	\$ 0.00
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XP-SWMM PHASE II

XP-SWMM PHASE II

Plymouth Creek Modeling & Medicine Lake Direct Modeling:

Communications with Plymouth city staff regarding data request, including email data request to Plymouth city staff; follow-up with Minnetonka city staff regarding data request; follow-up on modeling methodology in landlocked areas; compile SSURGO soils data; process and reclassify soils data Hydrologic Soil Groups (HSG); updates to subwatersheds; QA/QC of sample area of minor losses; review nodes/links network names and longest flowpaths; review issues in storm sewer dataset; calculate hydrologic parameters; calculate and review slopes; review SWMM network; calculate and review imperviousness and directly connected impervious; review minor losses and overflow elevations; establish procedures for datum corrections (convert remaining NGVD29 to NAVD88), and import into XP-SWMM/model creation; develop estimate for burning culverts into LiDAR; calculate watershed storage; compile landcover data; review data provided by cities, begin filling in information, and compile follow-up data requests; Flow Monitoring North Branch Bassett Creek; site visits to download data, check battery level/replace batteries, and replace desiccant; site visit to check level for a flow measurement/manual depth measurement; and checked on stream levels for potential flow measurement.

Timothy J. Anderson, Consultant/Advisor 1.6 hours @ \$155.00 per hour.....	\$ 248.00
Gregory J. Wilson, Engineer/Scientist/Specialist III 1.5 hours @ \$150.00 per hour.....	\$ 225.00
Jennifer A. Koehler, Engineer/Scientist/Specialist II 6.9 hours @ \$120.00 per hour.....	\$ 828.00
Greg D. Fransen, Engineer/Scientist/Specialist II 1.0 hours @ \$105.00 per hour.....	\$ 105.00
Christopher J. Bonick, Engineer/Scientist/Specialist II 7.5 hours @ \$115.00 per hour.....	\$ 862.50
Ross S. Mullen, Engineer/Scientist/Specialist I 59.3 hours @ \$85.00 per hour.....	\$ 5,040.50
Lulu Fang, Engineer/Scientist/Specialist I 103.7 hours @ \$75.00 per hour.....	\$ 7,777.50
Technicians/Administrative	\$ 786.00
Expenses (Mileage/2WD&4WD vehicle).....	\$ 149.80
<i>Subtotal, XP-SWMM Phase II.....</i>	<i>\$ 16,022.30</i>
TOTAL XP-SWMM PHASE II.....	\$ 16,022.30

SUMMARY TOTALS

Total Engineering	\$ 25,272.16
Total Secretarial Services Expenses	62.81
Total Planning (Next Generation Plan)	\$ 7,929.57
Total Planning (Maintenance Funds)	0.00
Total Annual Report/Website/Public Communications	\$ 0.00
Total WOMP	\$ 0.00
Total Capital Improvement Projects (Tax Levy)	\$ 12,926.25
Total Capital Improvement Projects (Maintenance Funds)	\$ 0.00
Total TMDL Work	\$ 0.00
Total XP-SWMM Phase II	\$ <u>16,022.30</u>
TOTAL PAYABLE	\$ 62,213.09

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



James P. Herbert