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engineering and environmental consultants



Mr. James Prom Bassett Creek Watershed Management Commission 7800 Golden Valley Road Golden Valley, MN 55427 Page # 1

Invoice # 23270051-2020-3

Project # 23/27-0051

Client # 59 May 8, 2020

Invoice of Account with BARR ENGINEERING COMPANY

For professional services during the period of March 28, 2020 through May 1, 2020

ENGINEERING

TECHNICAL SERVICES

MPCA MTD work group (costs shared with Elm Creek Watershed Management Commission): review correspondence from MPCA, prepare notes and send to MPCA, and prepare status memo for ECWMC and BCWMC; calculate and summarize 2019 project/plat review costs; 2021 budgeting: complete draft budget for technical services (including communications with MPRB staff regarding Wirth Lake aquatic plant survey) and provide to administrator, review and respond to administrator's questions regarding water quality budgets, develop budget reduction options and provide to administrator, communications with administrator and internal staff regarding past years' technical services budgets, in response to Budget Committee questions, and communications with TRPD staff regarding location and future use of Plymouth Creek monitoring station; revisit "essential work/workers" per new executive order, including review of executive order and CISA guidance, and communications with administrator and internal staff regarding potential additional essential work designations and safety protocols for fieldwork, and complete paperwork for additional essential services/workers; coordinate with administrator and internal staff regarding review and distribution of electronic plans and submittal during stay at home executive order, including prepare notice for application reviews to add to website; WebEx meeting with administrator and Minnetonka staff regarding coordination of BCWMC and city reviews of applications, wetland policies, and 2021 BCWMC budget; finish summary memo regarding January 15 Twin Cities Water Monitoring and Data Assessment Group (TC WaMoDaG) meeting and provide to administrator; respond to Golden Valley staff question regarding total phosphorus removal credit for reduced impervious area; Minneapolis ordinances: prepare for and attend April 21 virtual meeting with Minneapolis staff, consultant and administrator regarding Minneapolis ordinances, conference call with administrator and Shingle Creek WMC representative regarding Minneapolis ordinances, and communications with administrator, Minneapolis staff and Minneapolis consultant; update stream restoration locations on GIS CIP map; and communications with Minnetonka staff regarding ideas for regional stormwater treatment at Ridgedale Mall.

James P. Herbert, Principal Engineer/Scientist

17.1 hours @ \$200.00 per hour.....\$ 3,420.00

Karen L. Chandler, Principal Engineer/Scientist 50.6 hours @ \$180.00 per hour\$	9,108.00
Gregory J. Wilson, Engineer/Scientist/Specialist IV 0.5 hours @ \$170.00 per hour\$	85.00
Margaret R. Rattei, Engineer/Scientist/Specialist III 8.4 hours @ \$140.00 per hour\$	1,176.00
Christopher J. Bonick, Engineer/Scientist/Specialist III 1.8 hours @ \$130.00 per hour\$	234.00
Josh P. Phillips, Engineer/Scientist/Specialist II 1.6 hours @ \$105.00 per hour\$	168.00
Rachel C. Mitcavish, Engineer/Scientist/Specialist I 1.0 hours @ \$90.00 per hour\$	90.00
Technicians/Administrative\$_	226.00
Subtotal, Technical Services\$	14,507.00

MONTHLY MEETING PREPARATION

Communications/coordination with administrator and internal staff regarding draft/final agenda and meeting packet for April Commission meeting; review/edit draft March meeting minutes; communications with administrator regarding WebEx meeting; prepare for April Commission meeting, including pre-meeting conference call with administrator and Chair Prom, internal communications regarding meeting attendance, and review meeting packet; and communications with administrator and internal staff regarding follow-up items from April Commission meeting, and upcoming meeting agenda items.

Subtotal Technical Services\$	19.226.34
Subtotal, TAC Preparation\$	0.00
TAC PREPARATION	
Subtotal, Monthly Meeting Preparation\$	4,719.34
Expenses (WebEx)\$	64.84
Technicians/Administrative\$	514.50
Karen L. Chandler, Principal Engineer/Scientist 17.0 hours @ \$180.00 per hour\$	3,060.00
James P. Herbert, Principal Engineer/Scientist 5.4 hours @ \$200.00 per hour\$	1,080.00

PLAT REVIEW

Four Seasons Mall Redevelopment (2019-25)

Review grading, drainage and erosion control plans and submittals for erosion and sediment control, rate control and water quality; prepare memo for April Commission meeting; communications with administrator, applicant and city staff; and prepare and send comment letter to city staff.

James P. Herbert, Principal Engineer/Scientist 3.0 hours @ \$200.00 per hour\$	600.00
Karen L. Chandler, Principal Engineer/Scientist 0.5 hours @ \$180.00 per hour\$	90.00
Josh P. Phillips, Engineer/Scientist/Specialist II 4.2 hours @ \$105.00 per hour\$	441.00
Rachel R. Franczyk, Engineer/Scientist/Specialist I 1.2 hours @ \$80.00 per hour\$	96.00
Subtotal, Four Seasons Mall Redevelopment\$	1,227.00

Sweeney Lake Shores (PUD) (2020-05)

Review grading, drainage and erosion control plans and submittals for erosion and sediment control, rate control and water quality; prepare and send comment letter to city staff; and follow-up communications with applicant.

James P. Herbert, Principal Engineer/Scientist	
1.3 hours @ \$200.00 per hour	260.00
Josh P. Phillips, Engineer/Scientist/Specialist II	
4.2 hours @ \$105.00 per hour	441.00
Subtotal, Sweeney Lake Shores (PUD)	701.00

<u>Utility Reconstruction Kentucky-Jersey Avenue (2020-07)</u>

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

James P. Herbert, Principal Engineer/Scientist	
3.2 hours @ \$200.00 per hour\$	640.00
Josh P. Phillips, Engineer/Scientist/Specialist II	
0.8 hours @ \$105.00 per hour\$	84.00
Subtotal, Utility Reconstruction Kentucky-Jersey Ave\$	724.00

Ridgedale Mall Sears Redevelopment (2020-08)

Review grading, drainage and erosion control plans and submittals for erosion and sediment control, rate control, and alternative water quality BMP (MTD); 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 4.8 hours @ \$105.00 per hour	¢	504.00
Technicians/Administrative		100.00
Subtotal, Ridgedale Mall Sears Redevelopment		1,104.00
Sunset Hill Elementary Improvements (2020-09)	Ψ	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Review grading, drainage and erosion control plans and submittals for erosion and control, and water quality; prepare draft comment letter to city staff; and commun		
James P. Herbert, Principal Engineer/Scientist 1.9 hours @ \$200.00 per hour	\$	380.00
Josh P. Phillips, Engineer/Scientist/Specialist II 0.9 hours @ \$105.00 per hour	\$	94.50
Louise L. Heffernan, Engineer/Scientist/Specialist I 0.7 hours @ \$100.00 per hour	\$	70.00
Technicians/Administrative	\$	80.00
Expenses (Postage)	<u>\$</u>	1.60
Subtotal, Sunset Hill Elementary Improvements	\$	626.10
East Middle School Site Improvements (2020-10)		
Review grading, drainage and erosion control for erosion and sediment control; pulletter to city staff; and communications with applicant.	repare	draft comment
James P. Herbert, Principal Engineer/Scientist 1.7 hours @ \$200.00 per hour	\$	340.00
Josh P. Phillips, Engineer/Scientist/Specialist II 1.5 hours @ \$105.00 per hour	\$	157.50
Louise L. Heffernan, Engineer/Scientist/Specialist I 4.1 hours @ \$100.00 per hour	\$	410.00
Technicians/Administrative	\$	70.00
Subtotal, East Middle School Site Improvements	\$	977.50
Hollydale Substation Expansion (2020-11)		
Review grading, drainage and erosion control for erosion and sediment control; ar applicant.	nd con	nmunications with
James P. Herbert, Principal Engineer/Scientist 2.6 hours @ \$200.00 per hour	\$	520.00
Josh P. Phillips, Engineer/Scientist/Specialist II 0.9 hours @ \$105.00 per hour	\$	94.50
Technicians/Administrative	\$	90.00
Subtotal, Hollydale Substation Expansion	\$	704.50

New Hope 2020 Infrastructure Improvements (2020-12)

Review grading, drainage and erosion control for erosion and sediment control; and communications with city staff and applicant.

Subtotal Plat Review	\$ 6,633.60
Subtotal, New Hope 2020 Infrastructure Improvements	\$ 569.50
Technicians/Administrative	\$ 90.00
Josh P. Phillips, Engineer/Scientist/Specialist II 1.9 hours @ \$105.00 per hour	\$ 199.50
James P. Herbert, Principal Engineer/Scientist 1.4 hours @ \$200.00 per hour	\$ 280.00

PRELIMINARY COMMUNICATIONS AND NON-FEE REVIEWS

PRELIMINARY COMMUNICATIONS

Review MDNR permit applications submitted to BCWMC for review/comment, and provide comments to administrator/MDNR; communications with consultant regarding LGU wetland issues at Hollydale redevelopment in Plymouth; communications with Golden Valley staff regarding project with proposed MTD; communications with Plymouth staff and applicant regarding Hennepin County gravel bed project; communications with consultant regarding proposed project; communications with New Hope staff regarding 2020 infrastructure project; and Irving Avenue sanitary sewer project: provide modeled flow and WOMP station flow information to Minneapolis consultant, along with comments regarding proposed construction methods/diversion and potential contamination in the area, prepare for and attend April 29 conference call with Minneapolis staff, Minneapolis consultant, and administrator regarding 90% plans for project, including proposed installation process/techniques, route through Bryn Mawr Park, and BCWMC review process, and communications with administrator, Minneapolis staff, Minneapolis consultant and internal staff.

Subtotal Preliminary Communications and Non-Fee Reviews\$	3,026.00
Subtotal Non-Fee Reviews\$	0.00
NON-FEE REVIEWS	
Subtotal, Preliminary Communications\$	3,026.00
Josh P. Phillips, Engineer/Scientist/Specialist II 0.4 hours @ \$105.00 per hour\$_	42.00
Karen L. Chandler, Principal Engineer/Scientist 5.8 hours @ \$180.00 per hour\$	1,044.00
James P. Herbert, Principal Engineer/Scientist 9.7 hours @ \$200.00 per hour\$	1,940.00

COMMISSION AND TAC MEETINGS

Attend April 16 Commission meeting (via WebEx).

Karen L. Chandler, Principal Engineer/Scientist 2.8 hours @ \$180.00 per hour\$	504.00
Josh P. Phillips, Engineer/Scientist/Specialist II 1.3 hours @ \$105.00 per hour\$	136.50
Subtotal, Commission and TAC Meetings\$	640.50
SURVEYS & STUDIES	
Subtotal Surveys & Studies\$	0.00

WATER QUALITY/MONITORING

General Water Quality

Main Stem biotic index monitoring report: internal communications regarding needed revisions to biotic index report to address administrator's comments and next steps/schedule, prepare revised location map; and communications with administrator regarding map and project status.

Karen L. Chandler, Principal Engineer/Scientist	
5.4 hours @ \$180.00 per hour\$	972.00
Gregory J. Wilson, Engineer/Scientist/Specialist IV 0.5 hours @ \$170.00 per hour\$	85.00
Rachel C. Mitcavish, Engineer/Scientist/Specialist I 2.0 hours @ \$90.00 per hour\$	180.00
Subtotal, General Water Quality\$	1,237.00

<u>Sweeney – Twin Lake Monitoring</u>

Prepare for and perform April 21 ice-out monitoring; execute contract with subconsultant for 2020 plant surveys; order sample bottles and coordinate with laboratory.

Terry A. Olson, Engineer/Scientist/Specialist III 0.1 hours @ \$145.00 per hour\$	14.50
Margaret R. Rattei, Engineer/Scientist/Specialist III 4.6 hours @ \$140.00 per hour\$	644.00
Technicians/Administrative\$	1,132.50
Expenses (Mileage/2WD field vehicle/water quality meter/canoe/filtration apparatus/bottle sampler/turbidimeter/net)\$	263.58
Subtotal, Sweeney-Twin Lake Monitoring\$	2,054.58

Medicine Lake Monitoring

Courier expenses to send sample bottles to TRPD.

Expenses (Quicksilver Express Courier)	\$ n intern	36.13 36.13
Sweeney Branch Monitoring Year 1 Prepare for flow measurements, including set up remote login, coordination with mobilize equipment; measure water level and frost level on April 24 ("tape down	n intern	36 13
Prepare for flow measurements, including set up remote login, coordination with mobilize equipment; measure water level and frost level on April 24 ("tape down		50.75
mobilize equipment; measure water level and frost level on April 24 ("tape down		
Christopher J. Bonick, Engineer/Scientist/Specialist III 3.5 hours @ \$130.00 per hour	\$	455.00
Kallie B, Doeden, Engineer/Scientist/Specialist II 6.3 hours @ \$100.00 per hour	\$	630.00
Technicians/Administrative	\$	168.00
Expenses (Verizon Wireless/mileage/Sontek ADV)	<u>\$</u>	204.80
Subtotal, Sweeney Branch Monitoring Year 1	\$	1,457.80
Subtotal, Water Quality/Monitoring	\$	4,785.51
WATER QUANTITY		
Measure and review lake level elevations as part of lake-gauging program.		
Technicians/Administrative	\$	400.00
Expenses (Mileage/2WD vehicle)	<u>\$</u>	66.73
Subtotal, Water Quantity	\$	466.73
FLOOD CONTROL PROJECT ANNUAL INSPECTION & DOUBLE BOX CULVERT I	INSPEC	TION
Prepare draft report regarding double box culvert 2019 inspection, process inspection communications with Minneapolis staff and internal staff.		
James P. Herbert, Principal Engineer/Scientist 3.0 hours @ \$200.00 per hour	\$	600.00
Joseph A. Welna, Engineer/Scientist/Specialist III 31.0 hours @ \$145.00 per hour	\$	4,495.00
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31.0 hours @ \$145.00 per hour	\$ <u> </u>	·
31.0 hours @ \$145.00 per hour	\$ <u> </u>	272.00
31.0 hours @ \$145.00 per hour Colleen M. Long, Engineer/Scientist/Specialist I 3.2 hours @ \$85.00 per hour	\$ <u> </u>	272.00
31.0 hours @ \$145.00 per hour Colleen M. Long, Engineer/Scientist/Specialist I 3.2 hours @ \$85.00 per hour Subtotal, Flood Control Annual Proj Inspect&Dbl Box Culv DEEP TUNNEL INSPECTION	\$ <u> </u>	272.00
31.0 hours @ \$145.00 per hour Colleen M. Long, Engineer/Scientist/Specialist I 3.2 hours @ \$85.00 per hour Subtotal, Flood Control Annual Proj Inspect&Dbl Box Culv DEEP TUNNEL INSPECTION Follow-up communications with Corps of Engineers staff.	\$_ rert\$ \$_	272.00 5,367.00

MUNICIPAL PLAN REVIEWS

Subtotal, Municipal Plan Reviews.....\$ 0.00

TOTAL ENGINEERING \$ 40,245.68

ANNUAL REPORT

Prepare sections of 2019 Annual Report, as assigned by administrator, internal communications, and provide report to administrator.

TOTAL ANNUAL REPORT	\$ 1,000,00
Subtotal, Annual Report \$	1,000.00
Ross S. Mullen, Engineer/Scientist/Specialist II 0.2 hours @ \$120.00 per hour	\$ 24.00
Karen L. Chandler, Principal Engineer/Scientist 3.2 hours @ \$180.00 per hour	\$ 576.00
James P. Herbert, Principal Engineer/Scientist 2.0 hours @ \$200.00 per hour\$	\$ 400.00

WATERSHED OUTLET MONITORING PROGRAM (WOMP)

Set-up and test ArcGIS/Survey123 account; and attend online MCES WOMP Cooperator Forum.

Christopher J. Bonick, Engineer/Scientist/Specialist III
5.0 hours @ \$130.00 per hour......\$ 650.00

Subtotal, Watershed Outlet Monitoring Program\$ 650.00

TOTAL WOMP\$ 650.00

APM/AIS WORK

TOTAL APM/AIS WORK.....\$ 0.00

CAPITAL IMPROVEMENT PROJECTS (Funded through tax levy)

FOUR SEASONS AREA WQ PROJECT (NL-2)

90% CIP review: review "above-and-beyond" water quality treatment provided by proposed BMPs (filtration basin, underground filtration system, stormwater ponds, iron-enhanced sand filter bench, and wetland restoration), including review of plans and P8 model; prepare memo for April Commission meeting; respond to Commission attorney's property question; provide future engineering review and

construction observation costs to administrator; prepare and send comment letter to city staff; and communications with administrator, Commission attorney, city staff, and applicant.

Subtotal, Four Seasons Area WQ Project (NL-2)\$	7,319.00
Josh P. Phillips, Engineer/Scientist/Specialist II 28.2 hours @ \$105.00 per hour\$_	2,961.00
Gregory J. Wilson, Consultant/Advisor 3.4 hours @ \$170.00 per hour\$	578.00
Karen L. Chandler, Principal Engineer/Scientist 14.0 hours @ \$180.00 per hour\$	2,520.00
James P. Herbert, Principal Engineer/Scientist 6.3 hours @ \$200.00 per hour\$	1,260.00

MAIN STEM DREDGING PROJECT FEASIBILITY STUDY (2021) (BC-7)

Address comments from stakeholder review of draft feasibility study report, update report text and figures, and compile/submit report for Commission meeting packet; follow up communications with permitting agencies; prepare and submit presentation for April board meeting (presentation/discussion tabled until May meeting); printing expenses for public meeting boards; and project email updates.

Karen L. Chandler, Principal Engineer/Scientist 10.3 hours @ \$180.00 per hour	. \$	1,854.00
Peter J. Hinck, Engineer/Scientist/Specialist III 0.3 hours @ \$140.00 per hour	. \$	42.00
Patrick E. Brockamp, Engineer/Scientist/Specialist II 21.8 hours @ \$115.00 per hour	. \$	2,507.00
Brendan H. Dougherty, Engineer/Scientist/Specialist II 0.5 hours @ \$100.00 per hour	. \$	50.00
Tyler A. Olsen, Engineer/Scientist/Specialist II 0.3 hours @ \$95.00 per hour	. \$	28.50
Rebecca R. Eiden, Engineer/Scientist/Specialist II 1.5 hours @ \$95.00 per hour	. \$	142.50
Tyler A. Conley, Engineer/Scientist/Specialist I 3.0 hours @ \$85.00 per hour	. \$	255.00
Technicians/Administrative	\$	373.00
Expenses (Color plotter)	\$	60.00

Subtotal, Main Stem Dredging Project Feasibility Study.........\$ 5,312.00

MOUNT OLIVET STREAM STABILIZATION PROJECT (2021)(ML-20) AND PARKERS LAKE DRAINAGE IMPROVEMENT PROJECT (2021)(PL-7) FEASIBILITY STUDY

Mount Olivet Stream Stabilization Project Feasibility Study (2021)(ML-20)

Review and revise draft report based on comments from Plymouth staff and administrator, including updates to figures.

Kallie B, Doeden, Engineer/Scientist/Specialist II 6.2 hours @ \$100.00 per hour	\$ 620.00
Joshua R. Vosejpka, Engineer/Scientist/Specialist I 1.5 hours @ \$90.00 per hour	\$ 135.00
Subtotal, Mount Olivet Stream Stabilization Project Feas Study	\$ 755.00

Parkers Lake Drainage Improvement Project (2021)(PL-7)

Review and revise draft report based on comments from Plymouth staff and administrator, including updates to figures.

Subtotal, Mt. Olivet Stream Stabilization Project & Parkers Lake Drainage Improvement Project Feasibility Study\$	2,038.00
Subtotal, Parkers Lake Drainage Improvement Project Feas Study \$	1,283.00
Kallie B, Doeden, Engineer/Scientist/Specialist II 6.2 hours @ \$100.00 per hour\$_	620.00
Jennifer A. Koehler, Engineer/Scientist/Specialist III 4.2 hours @ \$145.00 per hour\$	609.00
Karen L. Chandler, Principal Engineer/Scientist 0.3 hours @ \$180.00 per hour\$	54.00

SWEENEY LAKE WATER QUALITY IMPROVEMENT PROJECT (2020) (SL-8)

Survey and Treat Curly-leaf Pondweed

Prepare for and perform temperature profile measurements and curly-leaf pondweed observations in Sweeney Lake in preparation for curly-leaf pondweed herbicide application (water temperature needs to be in a particular range) and summarize/graph temperature data; prepare and execute contract with aquatic plant survey subconsultant and communications with subconsultant regarding scheduling plant surveys, including spring pre-treatment plant survey; and complete permit application for herbicide treatment on MPARS and follow-up communications with MDNR staff.

Karen L. Chandler, Principal Engineer/Scientist 2.0 hours @ \$180.00 per hour\$	360.00
Gregory J. Wilson, Engineer/Scientist/Specialist IV 4.0 hours @ \$170.00 per hour\$	680.00
Margaret R. Rattei, Engineer/Scientist/Specialist III 11.6 @ \$140.00 per hour\$	1,624.00
Kevin D. Menken, Engineer/Scientist/Specialist II 8.7 hours @ \$120.00 per hour\$	1,044.00

	TOTAL TMDL WORK\$	0.00
TMD	DL WORK	
	TOTAL CAPITAL IMPROVEMENTS PROJECTS (Tax Levy)\$	25,453.41
	Subtotal, Sweeney Lake Water Quality Improvements\$	10,784.41
	Subtotal, Public Engagement\$	4,225.50
٦	Technicians/Administrative\$_	437.50
(Gregory J. Wilson, Engineer/Scientist/Specialist IV 15.4 hours @ \$170.00 per hour\$	2,618.00
ŀ	Karen L. Chandler, Principal Engineer/Scientist 6.5 hours @ \$180.00 per hour\$	1,170.00
Prep for o atter	ic Engagement are for and attend April 8 virtual open house (via WebEx), including prepare draft, spen house, attend April 6 practice WebEx session; download, cleanup, and provided and ance report to administrator; review/edit Q&A document from open house; and administrator, city staff, and internal staff.	e open house
	Subtotal, Engineer and Perform In-lake Alum Treatment\$	170.00
(Gregory J. Wilson, Engineer/Scientist/Specialist IV 1.0 hours @ \$170.00 per hour <u>\$</u>	170.00
_	neer and Perform In-lake Alum Treatment are for in-lake alum treatment.	
	Subtotal, Survey and Treat Curly-leaf Pondweed\$	6,388.91
E	Expenses (Mileage/2WD/4WD/AWD field vehicles/kayak) <u>\$</u>	<u>213.91</u>
٦	Technicians/Administrative\$	84.50
1	Nicolas P. Anderson, Engineer/Scientist/Specialist I 23.0 hours @ \$75.00 per hour\$	1,725.00
٦	Tyler A. Conley, Engineer/Scientist/Specialist I 4.5 hours @ \$85.00 per hour\$	382.50
E	2.5 hours @ \$110.00 per hour\$	275.00

IMPROVED FEMA FLOODPLAIN MODELING & MAPPING (MDNR)

IMPROVED FEMA FLOODPLAIN MODELING & MAPPING (MDNR)

Hydraulic Analysis

Communications with administrator regarding MDNR hydraulics review.

Ross S. Mullen, Engineer/Scientist/Specialist II 0.4 hours @ \$120.00 per hour	\$ 48.00
Karen L. Chandler, Principal Engineer/Scientist 0.4 hours @ \$180.00 per hour	\$ 72.00
Subtotal, Hydraulic Analysis	\$ 120.00
TOTAL IMPROVED FEMA FLOODPLAIN MODELING & MAPPING (MDNR)	\$ 120.00

SUMMARY TOTALS

Total Engineering\$	40,245.68
Total WOMP\$	650.00
Total Annual Report\$	1,000.00
Total APM/AIS Work\$	0.00
Total TMDL Work\$	0.00
Total Capital Improvement Projects (Tax Levy)\$	25,453.41
Total Improved FEMA Floodplain Modeling & Mapping (MDNR)\$	120.00
TOTAL PAYABLE\$	67.469.09

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

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