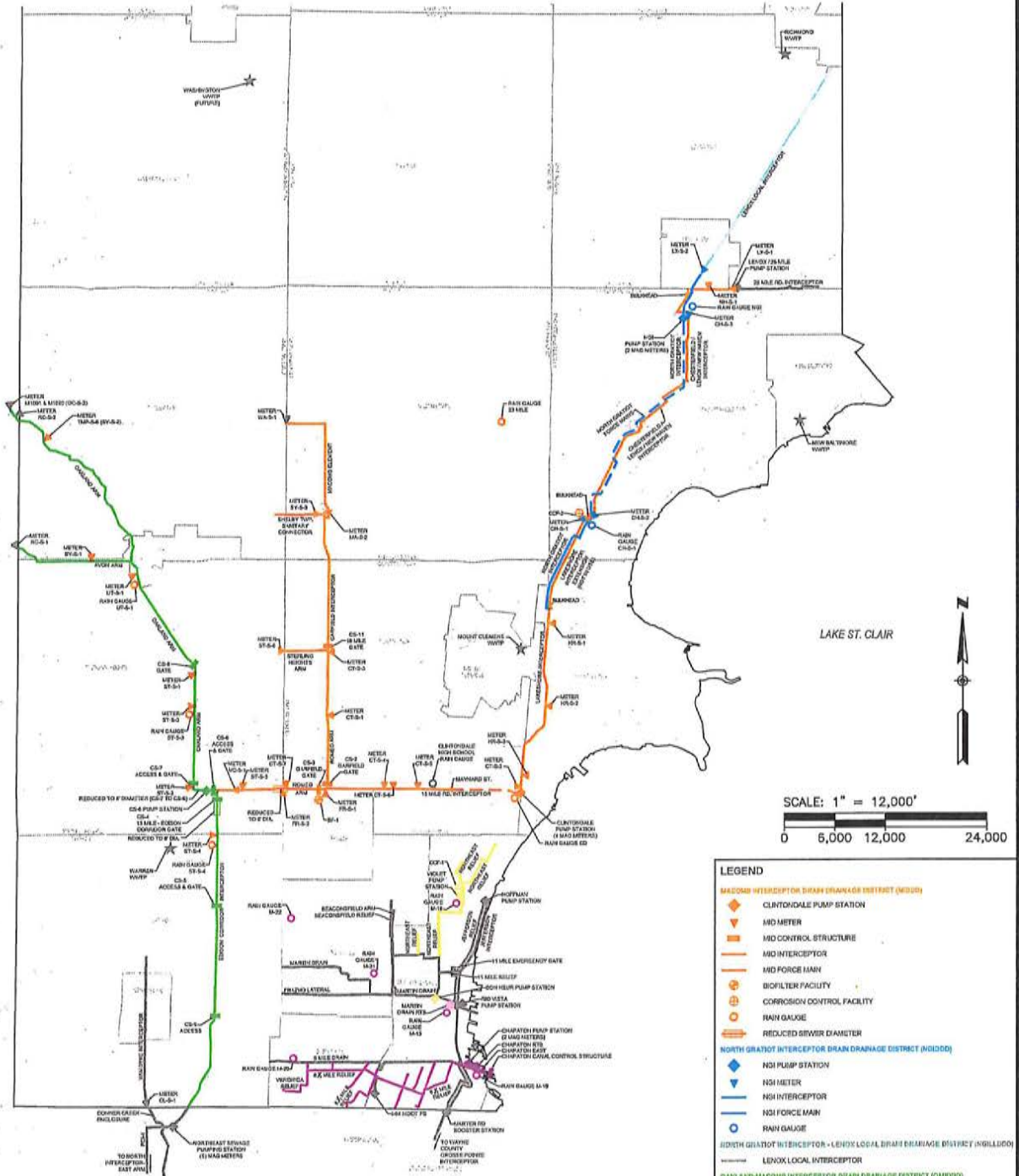


EIGHT AND ONE-HALF MILE RELIEF DRAIN
INTRA-COUNTY DRAINAGE BOARD
AUGUST 12, 2019
10:15 A.M.
AGENDA

	Page
1. Call of meeting to order and roll call	
2. Approval of Agenda for August 12, 2019	
3. Approval of Minutes for July 8, 2019	3
4. Public Participation	
5. Project Updates – Vince Astorino	
6. Eight and One-Half Mile Relief Drain (Chapaton) Proposed 2019/20 Budget – Brian Baker	5
Motion: To approve the 2019/20 Eight and One-Half Mile Relief Drain budget and revenue requirement for the fiscal year beginning October 1, 2019	
7. Consideration for approval of invoices (see attached)	22
8. Financial Report – Bruce Manning	99
9. Adjourn	

MACOMB COUNTY WASTEWATER SYSTEMS



- LEGEND**
- MACOMB INTERCEPTOR DRAIN DRAINAGE DISTRICT (MIDDD)**
 - ◆ CLINTONDALE PUMP STATION
 - ▼ MID METER
 - MID CONTROL STRUCTURE
 - MID INTERCEPTOR
 - MID FORCE MAIN
 - BIOFILTER FACILITY
 - CORROSION CONTROL FACILITY
 - RAIN GAUGE
 - REDUCED SEWER DIAMETER
 - NORTH GRAND INTERCEPTOR DRAIN DRAINAGE DISTRICT (NGIDD)**
 - ◆ NSI PUMP STATION
 - ▼ NSI METER
 - NSI INTERCEPTOR
 - NSI FORCE MAIN
 - RAIN GAUGE
 - NORTH GRAND INTERCEPTOR - LENOX LOCAL DRAIN DRAINAGE DISTRICT (NGLLDD)**
 - LENOX LOCAL INTERCEPTOR
 - OAKLAND-MACOMB INTERCEPTOR DRAIN DRAINAGE DISTRICT (OMIDD)**
 - ◆ CS4 PUMP STATION
 - ▼ OMD METER
 - OMD CONTROL STRUCTURE
 - OMD INTERCEPTOR
 - REDUCED SEWER DIAMETER
 - 8 1/2 MILE RELIEF DRAIN DRAINAGE DISTRICT**
 - ◆ CHAPATON WEST PUMP STATION
 - ◆ CHAPATON RETENTION TREATMENT BASIN
 - ◆ CHAPATON CANAL CONTROL GATE
 - 8 1/2 MILE INTERCEPTOR
 - RAIN GAUGE
 - MARY'S BASTARY DRAINAGE DISTRICT (MBDD)**
 - ◆ SEMCOWS PUMP STATION
 - ◆ CORROSION CONTROL FACILITY
 - SEMCOWS INTERCEPTOR
 - MARY'S BASTARY DRAINAGE DISTRICT (MBDD)**
 - ◆ MARY'S DRAIN RETENTION TREATMENT BASIN
 - OTHER SYSTEMS**
 - ◆ PUMP STATION
 - ▼ METER
 - ★ WWTP
 - INTERCEPTOR

Candice S. Miller
 MACOMB COUNTY PUBLIC WORKS COMMISSIONER



UPDATED: APRIL 2017

An adjourned meeting of the Intra-County Drainage Board for the **EIGHT AND ONE-HALF MILE RELIEF DRAIN** was held in the Office of the Macomb County Public Works Commissioner, 21777 Dunham, Clinton Township, Michigan, on July 8, 2019, at 10:38 A.M.

PRESENT: Brian Baker, Acting Chair
Bryan Santo, Member

ABSENT: Veronica Klinefelt, Member

ALSO PRESENT: Vince Astorino, Operations & Flow Manager, Dan Heaton, Communications Manager, Kellie Kource, Drain Account Specialist, Bruce Manning, Financial Manager, Jeff Bednar, P.E., Environmental Resources Manager, Stephen Downing, Construction & Maintenance Manager, Macomb County Public Works; Brett McDonald, SEMSD

The meeting was called to order by Acting Chair, Brian Baker. A motion was made by Mr. Santo, supported by Mr. Baker to approve the agenda as presented.

Adopted: YEAS: 2
NAYS: 0

Minutes of the meeting of June 10, 2019 were presented. A motion was made by Mr. Santo, supported by Mr. Baker to approve the minutes as presented.

Adopted: YEAS: 2
NAYS: 0

The meeting was opened to public participation, then closed, there being no comments from the public.

Mr. Astorino updated the board that the Canal Expansion Project design is progressing, and we have picked the layout that should get around 20 million gallons of storage. We are still incorporating the boat launch, however the location has not been finalized. Cost is currently coming in around \$23 million but that does include a 30% contingency.

A motion was made by Mr. Santo, supported by Mr. Baker to receive and file the project update given by Mr. Astorino.

Adopted: YEAS: 2
NAYS: 0

The Chair presented the invoices totaling \$25,672.86 to the board for review and approval.

A motion was made by Mr. Santo, supported by Mr. Baker to approve the invoices as presented.

Adopted: YEAS: 2
NAYS: 0

A motion to receive and file the financial report given by Mr. Manning was made by Mr. Santo and supported by Mr. Baker.

Adopted: YEAS: 2
NAYS: 0

There being no further business, it was moved by Mr. Santo, supported by Mr. Baker, that the meeting of the Eight and One-Half Mile Relief Drain Board be adjourned.

Adopted: YEAS: 2
NAYS: 0

The meeting was adjourned at 10:42 a.m.



Brian Baker, Acting Chair
Macomb County Public Works Commissioner

STATE OF MICHIGAN
COUNTY OF MACOMB

I certify that the foregoing is a true and correct copy of proceedings taking by the Intra-County Drainage Board for the Drainage District shown on the attached set of minutes, on July 8, 2019 the original of which is on file in the Public Works Commissioner's Office. Public notice of the meeting was given pursuant to Act No. 267, Public Acts of Michigan, 1975, including, in the case of a special or rescheduled meeting or a meeting secured for more than 36 hours, notice by posting at least 18 hours prior to the time set for the meeting.



Brian Baker, Acting Chair
Macomb County Public Works Commissioner

DATED: 7/8/19

8.5 Mile Relief Drain (Chapaton)
Proposed 2019/20 Budget
Effective October 1, 2019
Executive Summary

Attached is the proposed 2019/20 Chapaton budget for the fiscal year beginning October 1, 2019. The budget is scheduled to be adopted at the August 12, 2019 8.5 Mile Relief Drain Board meeting. The cities of Eastpointe and St. Clair Shores have both received a copy of the proposed budget.

In summary, the proposed Chapaton budget funds improved operations and maintenance of our aging assets and projects that will further reduce combine sewer overflows and improve water quality. While the budget is increasing as expected, it has come in slightly lower than the estimated amounts provided to the two communities in February 2019 and upon which their own budgets were established.

MCPWO has made further improvements to the budget by reformatting the document to match the MIDD budget format, as well as providing a history of actual expenditures and a detailed explanation of each budget change.

As discussed last year, assessments are increasing due to new NPDES permit requirements and needed maintenance and repairs identified by the SAW grant. The SAW grant identified \$25 million of capital improvement needs over the next 20 years. This budget funds next year's capital needs, establishes a plan to continue needed repairs into the future, and reduces CSO's.

With one-time projects from last year completed and several projects carried forward to next year, the budget increases by \$1.6 million, yet assessments need to increase by only \$381,500.

Next year's budget includes \$900,000 to replace the disinfection system which has reached the end of its useful life. An additional \$750,000 is budgeted for the design of the in-system storage project to provide an additional 10-15 million gallons of storage. \$500,000 is budgeted for the final phase of improvements to the command center, living quarters, and office space which are original to the building. \$200,000 is budgeted towards the partial design of a replacement HVAC system and \$75,000 for a study to reduce the amount of lake water used to flush the basin.

The budget fully funds the design costs for the basin expansion and in-system storage projects. As the \$30 million in construction on these projects begins next year, the financing costs are anticipated to come online in 2021. In anticipation of this debt, the budget includes \$2.4 million of one-time projects that will fall off, which will be more than enough to fund the projects' annual principal and interest costs.

8.5 MILE COMMUNITIES

TOTAL CHARGES

FY 2019 vs FY 2020

Cost Category		2018/2019 Charge	2019/2020 Charge	Difference	% Change	Page #
1)	8.5 Mile Relief O&M/Charge Required Revenue	3,898,266	4,279,768	381,502	9.8%	2,4
2)	Debt	381,861	388,986	7,125	1.9%	3
TOTAL		4,280,127	4,668,754	388,627	9.1%	

Communities	2018/2019 Charge	2019/2020 Charge	Difference	% Change
Eastpointe	2,325,590	2,536,740	211,150	9.1%
St. Clair Shores	1,075,539	1,173,198	97,659	9.1%
Michigan	686,396	748,722	62,326	9.1%
Macomb County	96,301	105,047	8,746	9.1%
Dept of Roads	96,301	105,047	8,746	9.1%
TOTAL	4,280,127	4,668,754	388,627	9.1%

**8.5 MILE DRAIN DRAINAGE DISTRICT
2019-2020 CHARGES
EFFECTIVE OCTOBER 1, 2019**

			Eastpointe	St. Clair Shores	Michigan	Macomb County	Dept of Roads	Total
8.5 MILE RELIEF CHARGES	Total Annual	Monthly	54.33%	25.13%	16.04%	2.25%	2.25%	100.00%
8.5 Mile Relief O&M	4,279,768	356,647	193,782	89,621	57,195	8,025	8,025	356,647
		O&M Total	2,325,387	1,075,451	686,340	96,295	96,295	4,279,768
		Debt Total ⁽¹⁾	211,353	97,747	62,381	8,752	8,752	388,986
		Grand Total	2,536,740	1,173,198	748,722	105,047	105,047	4,668,754

NOTE

1) The debt will be invoiced separate from the O&M. Generally it will be billed in February and August.

DEBT WORKSHEET

8.5 MILE RELIEF 2019-2020 DEBT WORKSHEET

Not part of O&M invoice. Debt will be invoiced separately every 6 months
 No paying agent fees because all SRF bonds

DEBT SERVICE	Principal	Interest	Total	Eastpointe	St. Clair Shores	Michigan	Macomb County	Dept of Roads	Total
SRF 5579-01	20,000	8,459	28,459	15,462	7,151	4,564	640	640	28,459
SRF 5460-01	20,000	7,000	27,000	14,670	6,785	4,330	608	608	27,000
SRF 5393-01	60,000	19,714	79,714	43,312	20,031	12,784	1,794	1,794	79,714
SRF 5306-01	195,000	58,813	253,813	137,908	63,780	40,704	5,711	5,711	253,813
TOTAL	295,000	93,986	388,986	211,353	97,747	62,381	8,752	8,752	388,986

NOTES

- 1) SEMCWWDS and Martin Sanitary are included on separate budget
- 2) No new debt in 19/20. Expected new debt in 20/21 for Canal Expansion and in-system storage

8.5 MILE RELIEF
Operations Maintenance
Budget to Actual

Description	Page #	Actual 2017/2018	Actual 4/30/2019	Projected 9/30/2019	Budget 2018/2019	Budget 2019/2020	Budget Change	% Change
EXPENSE								
Application/Permit Fee	5	6,000	3,000	3,000	3,000	3,000	0	0.0%
Dues, Training, Conf, Subs.	6	7,422	1,170	5,750	5,750	5,750	0	0.0%
Engineering	7	518,270	174,250	650,000	2,425,000	4,270,000	1,845,000	76.1%
New Equipment	8	156,978	138,928	131,500	161,500	23,500	(138,000)	-85.4%
Office Supplies	9	657	761	1,000	750	1,000	250	33.3%
Operating Supplies	10	71,525	31,391	62,225	82,750	74,600	(8,150)	-9.8%
Other Professional Svcs	11	29,375	30,820	44,400	47,920	46,800	(1,120)	-2.3%
Personnel Services	12	873,610	551,094	981,589	875,405	979,953	104,548	11.9%
Repair & Maintenance	13	204,800	159,419	373,209	1,551,615	1,298,500	(253,115)	-16.3%
Contrib to Reserves(Maint and SCADA)	13 & 14	259,215	288,240	288,240	288,240	288,240	0	0.0%
Scada System	14	41,488	58,284	76,973	161,048	214,814	53,766	33.4%
Utilities	15	308,137	84,660	274,784	284,148	273,125	(11,023)	-3.9%
Total Expense		2,477,477	1,522,014	2,892,669	5,887,126	7,479,282	1,592,156	27.0%
REVENUE								
Interest Earned	16	41,867	57,347	78,000	26,000	80,000	54,000	207.7%
Other Revenue	16	5,098	3,439	5,000	1,500	5,000	3,500	233.3%
Personnel Services	16	145,890	23,473	181,654	0	0	0	0.0%
8.5 O&M/Charge Required Revenue	16	2,804,507	3,898,266	3,898,266	3,898,266	4,279,768	381,502	9.8%
Carryforward	16	614,850	0	631,000	1,946,000	2,960,000	1,014,000	52.1%
Rental Fee	16	12,803	8,962	15,360	15,360	16,464	1,104	7.2%
Use of SCADA Reserve	16	0	0	0	0	138,050	138,050	100.0%
State Grants and SRF Bonds		0	0	0	0	0	0	0.0%
Total Revenue		3,625,015	3,991,487	4,809,280	5,887,126	7,479,282	1,592,156	27.0%

Reserve⁽¹⁾ 4,265,130 8,672,370 5,862,560

Additional Notes

1) Broken out as follows:

5 year maintenance of switchgear	38,000	0	0
9 Mile Dewatering Gate	5,000	0	0
Canal seawall sheeting	5,000	0	0
CHA-EB Chem Flow Meter-Gates (Pumps 4-5)	10,000	0	0
Design of Improvements (Now w/Disinfect Proj)	50,000	0	0
Disinfection Systems Improvement Study	120,000	0	0
Driveway grate	12,000	0	0
Electrical Upgrade Program	10,000	0	0
Flow Meter	150,000	0	0
HVAC Design (Inc. with RTB/PS Vent Design)	60,000	0	0
Instrumentation all buildings	30,000	0	0
Outfall Gate Reserve	7,000	0	0
Painting interior and garage facade	20,000	0	0
PS Exterior Wall Upgrades-Basin Kneewall	4,000	0	0
Switch gear (Label and maintenance)	45,000	0	0
Two Spare Rain Gauges	2,500	0	0
Sampling Pumps	2,500	0	0
Security Fence Structures- Gate Actuators	60,000	0	0
9 Mile & 8 1/2 Mile Rehab	0	75,000	0
Chapaton East Disinfection Sys Improvement	50,000	100,000	0
Scada Reserve	80,000	109,025	0
RTB/PS Ventilation Design	60,000	120,000	0
Chapaton Improvements-Office Space	0	250,000	0
In-System Storage Design (Gates on 8.5 Tunnel)	0	450,000	0
Capital Reserve	638,840	788,840	788,840
Basin Expansion Design	0	775,000	0
Pumping and screening improvements	1,250,000	1,150,000	0
PLC Replacements at Chapaton East	0	40,000	0
SRF Replacement Reserve	1,555,290	1,814,505	2,073,720
Expansion Reserve (From State)	0	3,000,000	3,000,000
	4,265,130	8,672,370	5,862,560

**FY 2019-2020
8.5 MILE RELIEF BUDGET DETAIL SHEET
EXPENDITURE REQUEST SHEET**

FUND:	0017	P/Y BUDGET:	\$3,000
ACTIVITY:	Application/Permit Fee	REQUEST:	\$3,000
		INC/(DEC.):	\$0

ACCOUNT EXPLANATION:

DESCRIPTION	19/20	18/19
1) Annual NPDES Permit	3,000	3,000

INCREASE/DECREASE EXPLANATION:

 50/50 split with Martin

FY 2019-2020
8.5 MILE RELIEF BUDGET DETAIL SHEET
EXPENDITURE REQUEST SHEET

FUND: 0017
ACTIVITY: Dues, Training, & Conf

P/Y BUDGET: \$5,750
REQUEST: \$5,750
INC/(DEC.): \$0

ACCOUNT EXPLANATION:

DESCRIPTION	19/20	18/19
1) Certification, Licenses, Training	3,000	3,000
2) Professional Dues and Subscriptions	250	250
3) NexGen Renewal	2,500	2,500
Total	5,750	5,750

INCREASE/DECREASE EXPLANATION:

- 1) Operators state certified for RTBs and annual confined space training.
-
- 3) Annual renewal for the asset management software. Cost is split with MIDDD,
SEMCWWDS and Martin, as well.
-
- 1-2) Split with Martin and SEMCWWDS.
-

FY 2019-2020
8.5 MILE RELIEF BUDGET DETAIL SHEET
EXPENDITURE REQUEST SHEET

Fund: 0017
Activity: Engineering

P/Y BUDGET: \$2,425,000
REQUEST: \$4,270,000
INC/(DEC.): \$1,845,000

ACCOUNT EXPLANATION:

Proj #	DESCRIPTION	19/20	18/19
	1) TRC Basin Equipment	0	100,000
	2) Basin Structural Integrity Study	0	60,000
	3) As needed Engineering	75,000	75,000
	4) Chapaton Improvements-Office Space(New Money)	500,000	0
	5) Disinfection system upgrade (Design and Construction)	900,000	0
	6) HVAC Design	200,000	0
	7) In System Storage-Design (Additional Funds)	750,000	0
	8) Flushing Study	75,000	0
	Total New Projects	2,500,000	235,000
	9) Disinfection System Improvement-Combine with #5	50,000	50,000
	10) RTB/PS Ventilation Design	120,000	120,000
	11) Disinfection System Improvement Study	0	60,000
	12) Basin Segmentation Study	0	60,000
	13) Design of Disinfection Improvements-Combine with #5	50,000	50,000
	14) Chapaton Improvements-Lab Relocation	250,000	250,000
	15) Basin Expansion Design	775,000	1,000,000
	16) In-System Storage Design(Gates on 8.5 Tunnel)	450,000	500,000
	17) 9 Mile & 8 1/2 Mile Rehab	75,000	100,000
	Total Carryover Projects	1,770,000	2,190,000
	TOTAL ALL PROJECTS	4,270,000	2,425,000

INCREASE/DECREASE EXPLANATION:

- 3) For unexpected engineering that may arise during the year. This will be bid out to assure we receive best price.
- 4) This is Phase 2 of 2. This entails the conference room, command center, living quarters, office space, and kitchen area.
- 5, 9 & 13) The current system has reached the end of its useful life. This for design and construction of the complete replacement of the system.
- 6) The HVAC system has reached the end of its useful life. A 2016 study shows over 2 million dollars worth of replacement required. This will be for the design of the replacement. Collection 1 of 2 for this task.
- 7) Additional funds for the design of in system storage. Currently only have enough money to get through the basis of design.
- 8) The flushing system has reached the end of its useful life. The current system is not efficient and costing the communities significantly more money in treating the lake water. Will look at ways to reduce the amount of lake water used to flush the basin.
- 10) On hold until completion of Basin Segmentation Study.
- 14) Relocation of lab to Chapaton East Building.
- 15) Add additional storage within the canal east of the current outfall gates at the Chapaton Retention Basin(RTB). A study was performed to evaluate different expansion options for the RTB and this design will further expand on the results from that work RTB and this design project will further expand on the results from that work.
- 16) Adds real time control structures within the 8 1/2 Mile Interceptor which will be used to provide additional storage capacity. A study was performed to evaluate different options for the Chapaton RTB and this design project will further expand results from that work.
- 17) Results of SAW grant found tunnel next to Chapaton is in need of repair. 4 and 5 ratings were found during inspection.

FY 2019-2020
8.5 MILE RELIEF BUDGET DETAIL SHEET
EXPENDITURE REQUEST SHEET

FUND: 0017
ACTIVITY: New Equipment

P/Y BUDGET: \$161,500
REQUEST: \$23,500
INC/(DEC.): (\$138,000)

ACCOUNT EXPLANATION:

DESCRIPTION	19/20	18/19
1) Flow Meter	0	150,000
2) Two Spare Rain Gauges	0	5,000
3) Sampling Pumps	0	2,500
4) New Pick Up Truck to replace 2009 GMC Sierra	19,500	0
5) Misc(lab equip, bldg instrumentation, etc)	4,000	4,000
Total	23,500	161,500

INCREASE/DECREASE EXPLANATION:

1-3) One time purchases.

4) Split with Martin and SEMCWWDS. Current vehicle has reached the end of its useful life and in need of replacement. This vehicle is high on miles (120,000) and starting to need significant repairs. Split with SEMCWWDS and Martin.

FY 2019-2020
8.5 MILE RELIEF BUDGET DETAIL SHEET
EXPENDITURE REQUEST SHEET

FUND: 0017
ACTIVITY: Office Supplies

P/Y BUDGET: \$750
REQUEST: \$1,000
INC/(DEC.): \$250

ACCOUNT EXPLANATION:

DESCRIPTION	19/20	18/19
Toner, pens, paper, posters computer supplies, etc	1,000	750

INCREASE/DECREASE EXPLANATION:

FY 2019-2020
8.5 MILE RELIEF BUDGET DETAIL SHEET
EXPENDITURE REQUEST SHEET

FUND: 0017
 ACTIVITY: Operating Supplies

P/Y BUDGET: \$82,750
 REQUEST: \$74,600
 INC/(DEC.): (\$8,150)

ACCOUNT EXPLANATION:

DESCRIPTION	19/20	18/19
1) Sodium hypochlorite	60,000	70,000
2) Personal protective equipment	2,000	2,000
3) Clothing for operations staff	1,000	400
4) Laboratory supplies required by NPDES permit	3,000	5,000
5) Equipment Rental	3,500	1,000
6) Postage	100	100
7) Fuel	3,000	2,250
8) Misc	2,000	2,000
Total	74,600	82,750

INCREASE/DECREASE EXPLANATION:

2 &3) Split with SEMCWWDS and Martin.

5) Bobcat rental will be used to assist with on-going cleaning activities after wet weather events at Chapaton. Planning on renting second piece of equipment twice a year to assist with the cleaning activities until flushing system can be evaluated for replacement.

**FY 2019-2020
8.5 MILE RELIEF BUDGET DETAIL SHEET
EXPENDITURE REQUEST SHEET**

FUND: 0017	P/Y BUDGET:	\$47,920
ACTIVITY Other Professional Svcs	REQUEST:	\$46,800
	INC/(DEC.):	(\$1,120)

ACCOUNT EXPLANATION:

DESCRIPTION	19/20	18/19
1) Contract Laboratory for Permit Overflow	12,000	12,000
2) Legal	1,500	1,500
3) Insurance-Liability	8,300	7,000
4) Insurance-Property	25,000	27,420
	46,800	47,920

INCREASE/DECREASE EXPLANATION:

3) Drainage Board approved liability insurance for the District.

4) Property insurance is covered under the county policy. The county in the past

 would pay for the insurance but now they invoice the various drainage districts

 for their portion.

**FY 2019-2020
8.5 MILE RELIEF BUDGET DETAIL SHEET
EXPENDITURE REQUEST SHEET**

FUND: 0017	P/Y BUDGET:	\$875,405
ACTIVITY: Personnel	REQUEST:	\$979,953
	INC/(DEC.):	\$104,548

ACCOUNT EXPLANATION:

DESCRIPTION	19/20	18/19
1) Pump Station Operators(6 FT operators and 2 PT)	426,744	416,115
2) Operations Manager	92,698	90,900
3) Assistant Operations Mgr	73,364	68,881
4) Pump Station Standby	9,000	9,750
5) Overtime	52,000	41,250
6) SCADA Manager Support	41,738	37,311
7) SCADA System Specialist (PT)	16,725	16,560
8) Engineering Support	135,856	91,860
9) GIS Asset Manager	25,618	0
10) Clerical Support	12,000	11,800
11) Accounting	7,000	6,600
12) Administrative	36,710	34,379
13) MIDDD Field Operator Reimbursement	50,500	50,000
Total	979,953	875,405

INCREASE/DECREASE EXPLANATION:

1-5) 75% of Chapaton staff is charged to 8.5 Mile Relief District. Remaining 25%
is split between SEMCWWDS(10%) and Martin(15%).

6-9) These positions will spend 37.5% of their time on 8.5 Mile Relief, 5% at SEMCWWDS,
and 7.5% at Martin. The remaining 50% is with MIDDD.

8) Three engineers performing 8.5 Mile duties. Previously it was only two.

9) New position to support Nexgen tasks for Wastewater. Cost split with MIDDD, Martin, SEMCWWDS.

10-11) 75% of support staff is charged to 8.5 Mile Relief District. Remaining 25%
is split between SEMCWWDS(10%) and Martin(15%).

12) Cross charge for administrative personnel. 5.25% is charged to 8.5 Mile, the remaining is
split between SEMCWWDS, Martin, MIDDD, and General.

13) Field Operators from the MIDDD provide training and other assistance
to the 8.5 Mile Drainage District.

**FY 2019-2020
8.5 MILE RELIEF BUDGET DETAIL SHEET
EXPENDITURE REQUEST SHEET**

FUND: 0017
ACTIVITY: Repair & Maintenance

P/Y BUDGET: 1,551,615
REQUEST: 1,298,500
INC/(DEC.): (\$253,115)

ACCOUNT EXPLANATION:

PROJECT #	DESCRIPTION	19/20	18/19
	Annual Items		
	1) Wet well vacator	55,000	16,000
	2) Repair and maintenance	85,000	78,000
	3) Lawn Mowing	8,500	6,615
	Total Annual Items	148,500	100,615
	New Projects		
	Total New Projects	0	0
	Carryover Projects		
	5) Switch gear(Label and maintenance)	0	45,000
	6) Painting interior and garage facade	0	20,000
	7) Instrumentation all buildings	0	30,000
	8) Canal seawall sheeting	0	5,000
	9) Driveway Gate	0	12,000
	10) Design and Construction Pumping and Screening Improvements	1,150,000	1,250,000
	11) CHA-EB Chem Flow Meter - Basin Gates (Pumps 4-5)	0	10,000
	12) Security Fence Structures Around Gate Actuators	0	60,000
	13) Electrical Upgrade Program	0	10,000
	14) Pump Station Exterior Wall Upgrades-Basin Kneewall	0	4,000
	15) 9 Mile Dewatering Gate	0	5,000
	Total Carryover Projects	1,150,000	1,451,000
	Grand Total	1,298,500	1,551,615

Reserve Replacement Reserve(SRF 5306,5393,5460)-From CTI study 259,215 259,215

INCREASE/DECREASE EXPLANATION:

- 1) Cost was higher than anticipated. Will be done on an annual basis.
-
- 3) Lawn mowing now contracted by third party.
-
- 6-9, 13-15) One time items.
-
- 10) The replacement of the bar screen rack in the wet-well where the 8.5 Mile Relief enters the station,
-
- and also the addition of a new flow pump. \$250,000 was collected in FY 2017 and \$1,000,000 in FY 2018.
-

FY 2019-2020
8.5 MILE RELIEF BUDGET DETAIL SHEET
EXPENDITURE REQUEST SHEET

FUND: 0017
ACTIVITY: SCADA

P/Y BUDGET: \$190,073
REQUEST: \$243,839
INC/(DEC.): \$53,766

ACCOUNT EXPLANATION:

ACCOUNT EXPLANATION:		19/20	18/19
	DESCRIPTION		
	1) Motor City-SCADA as needed	24,188	19,015
	2) UPS battery replacements	1,000	1,000
	3) Wonderware Software Support	5,479	5,089
	4) Sonicwall Support Renewals	0	2,370
	5) VMWare support renewal	0	4,450
	6) VEEAM support renewal	293	293
	7) Dell SANs and DR4100 renewal	0	9,865
	8) Dell servers and switch renewal	0	6,540
	9) Comcast Business Service	2,350	2,291
	10) Cell modem service (Sprint) 9 units	135	135
	11) Cell modem service (Verizon) 14 units	900	0
	12) Camera replacement program at Chapaton West	0	70,000
	13) Add redundant UPS for headend Network Server Racks	2,419	0
	14) SCADA Server Update (Reserves)	138,050	0
	Total Annual Projects	174,814	121,048
	15) PLC Replacements at Chapaton East	40,000	40,000
	Total Carryover Projects	40,000	40,000
	Grand Total-SCADA	214,814	161,048
<i>Reserve</i>	<i>Future costs of Server Upgrade - Life Cycle per year</i>	<i>29,025</i>	<i>29,025</i>

INCREASE/DECREASE EXPLANATION:

1) A server maintenance task was built into MIDD which is reflected out to all districts.

4,5,7,8) No renewals are needed this upcoming year.

11) Added remote flow metering site per the NPDES permit.

12) One Time Purchase.

13) Redundant UPS system for main SCADA servers. Costs split to all districts.

14) Starting to upgrade our physical servers as the life cycle of the existing is only 3-5 years.

We will be using the reserves that we have been collecting for this.

**FY 2019-2020
8.5 MILE RELIEF BUDGET DETAIL SHEET
EXPENDITURE REQUEST SHEET**

FUND:	0017	P/Y BUDGET:	\$284,148
ACTIVITY:	Utilities	REQUEST:	\$273,125
		INC/(DEC.):	(\$11,023)

ACCOUNT EXPLANATION:

DESCRIPTION	19/20	18/19
1) Electric Service	110,000	110,000
2) Consumers Energy	19,000	15,000
3) Water	23,000	22,000
4) Internet Provider	1,500	3,000
5) Waste Hauler	1,500	1,500
6) Weather Radar	2,200	2,000
7) Internal service cost	110,925	126,648
8) Telephone(Land & Cell)	5,000	4,000
Total	273,125	284,148

INCREASE/DECREASE EXPLANATION:

- 1-3) Budget is restated based on current usage.

- 4) Decreased due to staff negotiating a lower cable rate and some costs moving to SCADA.

- 6) Now split with MIDDD, SEMCWWDS, and Martin.

- 7) Now Split with Martin and SEMCWWDS.

Revenue Detail

Revenue	2019/2020 BUDGET	2018/2019 BUDGET
Interest Earned	80,000	26,000
Other Revenue	5,000	1,500
Personnel Services	0	0
Carryforward ⁽¹⁾	2,960,000	1,946,000
8.5 O&M/Charge Required Revenue	4,279,768	3,898,266
Rental Fee (Fishbone's)	16,464	15,360
Use of Scada Reserve	138,050	0
Grants and Bond Proceeds		
Total	7,479,282	5,887,126

NOTES

1) Remaining projects that were charged in prior years that should be completed in 19/20	
9 Mile & 8 1/2 Mile Rehab	75,000
Basin Expansion Design	775,000
Chapaton East Disinfection Sys Improvement	100,000
Chapaton Improvements-Office Space	250,000
In-System Storage Design(Gates on 8.5 Tunnel)	450,000
RTB/PS Ventilation Design	120,000
Pumping and screening improvements	1,150,000
PLC Replacements at Chapaton East	40,000
TOTAL	2,960,000

EIGHT AND ONE HALF MILE DRAIN RELIEF INVOICES 07/16/19 - 08/06/19

Funding Source	Apportionment	Manager	Vendor	Amount	Invoice Detail	Project Summary	Project Balance
8 1/2 Mile Relief	Chapter 20 State of MI - 16.04% County of Macomb - 2.25% Dept. of Roads - 2.25% Eastpointe - 54.33% St. Clair Shores - 25.13%	Astorino	City of St. Clair Shores Treasurer	\$ 7,317.25	Invoice #19-311	Water Bill - 03.15.19 - 06.13.19	
		Astorino	Colville Electric Co., LLC	\$ 655.45	Invoice #19-0320 - 05.19.19	Plugs for Cameras	
		Astorino	Colville Electric Co., LLC	\$ 1,581.17	Invoice #19-0321 - 05.19.19	Conduit/Wire for ISCO	
		Astorino	DTE Energy	\$ 9,987.23	Invoice #19-334 - 07.10.19	Monthly Electric - 06.10.19 - 07.09.19	
		Astorino	DTN, LLC	\$ 551.81	Invoice #5585160 - 07.19.19	Storm Sentry	
		Astorino	Fishbeck, Thompson, Carr & Huber, Inc	\$ 3,815.50	Invoice #384489 - 07.22.19	SRF Project Plan	\$ 11.18
		Astorino	Fishbeck, Thompson, Carr & Huber, Inc	\$ 2,091.45	Invoice #384601 - 07.22.19	As Needed Services Through 07.12.19	\$ 133,309.75
		Astorino	HESCO	\$ 1,652.62	Invoice #20191351 - 07.10.19	KPSI - Measurement Specialities	
		Astorino	JCI Jones Chemicals Inc.	\$ 7,099.96	Invoice #793961 - 07.11.19	Hypochlorite Solution - 7,865 gallons for	
		Downing	Kienbaum Hardy Viviano Pelton & Forrest PLC	\$ 1,102.50	Invoice #42453 - 07.08.19	Creation of Tetra Tech Contract	
		Astorino	Marino's Landscape	\$ 1,100.00	Invoice #7022 - 06.30.19	Lawn Care	\$ 4,950.00
		Astorino	Motor City Technologies	\$ 653.44	Invoice #92585 - 07.17.19	As Needed Electrical and Engineering Service - Chapaton	
		Astorino	RM Young Co. Inc.	\$ 1,004.32	Invoice #151626 - 06.04.19	Replacement Wind Gauge	
		Astorino	TestAmerica	\$ 560.00	Invoice #1900002849 - 07.16.19	Chapaton Rain Event Testing	
		Astorino	Wade Trim	\$ 81,989.55	Invoice #M2015339 - 07.30.19	Chapaton Canal Upgrades 06.22.19 - 07.24.19	\$ 616,346.55
		Astorino	Wade Trim	\$ 82,296.39	Invoice #M2015047 - 07.01.19	Chapaton Canal Upgrades 05.25.19 - 06.21.19	\$ 698,336.10
		Total				\$ 203,458.64	



ONESolution

ACCOUNTS PAYABLE CHECK REQUEST

PUBLIC WORKS DIVISION

1. PREPARED BY (Please Type)	2. PHONE #	3. DATE
Michelle Houvener	95966	7/3/19
4. SET ID		
VP19708MUA		
5. POST DATE		

PARENT RECORD INFORMATION			
6. VENDOR NAME (Check to be issued to)	8. ADDR CODE	9. Invoice No (MAX = 16 CHARACTERS)	10. Invoice Date
City of St. Clair Shores Treasurer	01	19-311	6/14/2019
			11. Invoice Amount
			7,317.25

CHILD RECORD DETAIL INFORMATION										
Line	General Ledger		Job Ledger		16. Work Order Number	17. Secondary Reference (MAX = 16 CHARACTERS)	18. Description (MAX = 30 CHARACTERS)	19. Amount	20. DIV	21. MISC
	12. Org Key	13. Object	14. Cost Center (CCNT)	15. Object						
A	8200017M	92103	CC0004	92103		8 1/2 MILE RELIEF	AC#23287-00, 3/15-6/13	\$ 7,317.25	GEN	
B										
C										
D										
E										
F										
G										

23. Total: \$ **7,317.25**

REV 06/2018

24. COMMENTS, INSTRUCTIONS OR ADDITIONAL NOTES:

25. Finance Officer:	<i>BHM</i>	30. Drain:	8 1/2 MILE RELIEF
26. Chief Deputy:		31. Project Balance:	N/A
27. Engineers:		32. Staff Date:	7/16/2019
28. Managers:	<i>UA</i>	33. Board Date:	8/12/2019
29. Coordinator:	<i>CK</i>	34. Select For Pay Date:	



St. Clair Shores Water Bill

ACCOUNT NUMBER 23287-00	SERVICE ADDRESS 23001 NINE MILE	SERVICE TYPE Government
-----------------------------------	---	-----------------------------------

PREVIOUS BALANCE	0.00
Water	2672.23
Sewer	3623.70
Customer Chg	342.00
Retention Basins O&M	0.49
Storm Water	678.83

PREVIOUS READ 1373 6655	CURRENT READ 1432 A 7160 A	CONSUMPTION 59 505	FROM: SERVICE PERIOD TO: 03/15/19 06/13/19 03/15/19 06/13/19	
DUE DATE 07/22/2019		PAY AFTER DUE DATE 7683.11	PAY BY DUE DATE 7317.25	

CURRENT BALANCE 7317.25

MONTHLY BUDGET

Temp-Return Service Requested

8266 1 AB 0.412 8266-8266-27



MACOMB COUNTY PUBLIC WORKS
21777 DUNHAM RD
CLINTON TWP MI 48036-1005

PLEASE RETAIN THIS UPPER PORTION FOR YOUR RECORDS.
YOUR CANCELLED CHECK IS YOUR RECEIPT.

Water rate: \$4.738/unit
Sewer rate: \$6.425/unit
Total rate: \$11.163
One unit = 748 gallons



27600 Jefferson Ave.
St. Clair Shores, MI 48081

FOR FURTHER INFORMATION PLEASE CALL:
BILLING INFORMATION - (586) 447-3317
SERVICE INFORMATION - (586) 445-5374
VISIT US ON THE WEB AT www.scsmi.org

To Pay by Credit Card or Electronic Check



Visit www.scsmi.org
Online Payments and Services
or call 1-855-414-9009 (credit card only)

Point and Pay LLC, the service provider, charges a fee for this service of:
3.00% for credit cards (\$1.50 minimum)
Electronic checks are provided as a FREE service.

IMPORTANT INFORMATION - SEE REVERSE SIDE

REMOVE DOCUMENT ALONG THIS PERFORATION
AND MAKE SURE RETURN ADDRESS APPEARS THROUGH WINDOW



St. Clair Shores Water Bill

Due Date	Pay After Due Date	PAY BY DUE DATE
07/22/2019	7683.11	7317.25

Service Address
23001 NINE MILE

City of St. Clair Shores
27600 Jefferson Ave
Saint Clair Shores MI 48081-2075

Account Number
23287-00





ONESolution

ACCOUNTS PAYABLE CHECK REQUEST

PUBLIC WORKS DIVISION

1. PREPARED BY (Please Type) Michelle Houvener	2. PHONE # 95966	3. DATE 7/12/19
4. SET ID VPI9715MA		
5. POST DATE		

PARENT RECORD INFORMATION				
6. VENDOR NAME (Check to be issued to) Colville Electric Co., LLC	7. VENDOR NUMBER V50164	8. ADDR CODE 01	9. Invoice No (MAX = 16 CHARACTERS) 19-0320	10. Invoice Date 5/19/2019
				11. Invoice Amount 655.45

CHILD RECORD DETAIL INFORMATION											
Line	General Ledger		Job Ledger		16. Work Order Number	17. Secondary Reference (MAX = 16 CHARACTERS)	18. Description (MAX = 30 CHARACTERS)	19. Amount	20. DIV	21. MISC	22. Sep CK
	12. Org Key	13. Object	14. Cost Center (CGNT)	15. Object							
A	8200017M	93002	CC0004	93002	WO18006	8 1/2 Mile Relief	4/17 Installed plugs for cameras	\$ 655.45	GEN		
B											
C											
D											
E											
F											
G											

23. Total: \$ **655.45**

REV 06/2018

24. COMMENTS, INSTRUCTIONS OR ADDITIONAL NOTES:

25. Finance Officer:		30. Drain:	8 1/2 Mile Relief
26. Chief Deputy:		31. Project Balance:	N/A
27. Engineers:		32. Staff Date:	7/16/2019
28. Managers:		33. Board Date:	8/12/2019
29. Coordinator:		34. Select For Pay Date:	

Colville Electric Co., LLC

23416 Gratiot Ave.
Eastpointe, MI 48021

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Invoice

Invoice #	19-0320
Due Date	Date
6/18/2019	5/19/2019

Bill To
Macomb County DPW 23001 Nine Mile Rd. St. Clair Shores, MI 48080

Job Location
Chapton Station

P.O. No.	Terms	Tech
	Net 30	JH

Date	Description	Quantity	Rate	Amount
4/17/19:	Installed plugs and feed to Scada cabinet for battery back ups. <i>Camera upgrade</i>			
	4' Square Box, 2-1/8' Deep	2	2.10	4.20
	4' Sq Raised 30A Round	2	3.50	7.00
	Grounding Pigtail, solid	2	0.7142	1.43
	3/4' EMT Conduit	20	1.1164	22.33
	3/4' EMT Steel Set Screw Connector	4	0.3147	1.26
	3/4' EMT Steel Set Screw Coupling	4	0.3444	1.38
	3/4' EMT One Hole Strap	2	0.1495	0.30
	3/4' EMT Unistrut Strap	2	1.4784	2.96
	7/8' Galvanized Unistrut, Slotted	3	2.59	7.77
	GE THQ130; 1 Pole, 30 Amp	2	9.25	18.50
	30 Amp, 125 Volt Twistlock Recepticle(NEMA L5-30)	2	21.48	42.96
	30 A 125 V 2P 3W Male Cord End(NEMA 5-30)	1	23.50	23.50
	10 THHN CU Blue	25	0.3749	9.37
	10 THHN CU Red	25	0.3749	9.37
	10 THHN CU White	50	0.3749	18.75
	10 THHN CU Green	25	0.3749	9.37
	Labor(@\$80/hr):JH	2.5	80.00	200.00
	Labor(@\$80/hr):JB	2.5	80.00	200.00
	Service Call Fee	1	75.00	75.00
			Total	\$655.45

*Past Due Invoices Are Subject To 1.5% Per Month Finance Charge.
If you have any questions, please call 586.774.9110*



Mark A. Hackel
County Executive

ONESolution

ACCOUNTS PAYABLE CHECK REQUEST

PUBLIC WORKS DIVISION

1. PREPARED BY (Please Type) Michelle Houvener	2. PHONE # 95966	3. DATE 7/12/19
4. SET ID VP1971SMA		
5. POST DATE		

PARENT RECORD INFORMATION				
6. VENDOR NAME (Check to be issued to) Colville Electric Co., LLC	7. VENDOR NUMBER V50164	8. ADDR CODE 01	9. Invoice No (MAX = 16 CHARACTERS) 19-0321	10. Invoice Date 5/19/2019
				11. Invoice Amount 1,581.17

CHILD RECORD DETAIL INFORMATION								
Line	General Ledger		16. Work Order Number	18. Description (MAX = 30 CHARACTERS)	19. Amount	20. DIV	21. MISC	22 Sep CK
	12. Org Key	13. Object	14. Cost Center (CCNT)					
A	8200017M	93002	CC0004	93002	8 1/2 Mile Relief	1,581.17	GEN	
B								
C								
D								
E								
F								
G								

REV 09/2018

23. Total: \$ 1,581.17

24. COMMENTS, INSTRUCTIONS OR ADDITIONAL NOTES:

25. Finance Officer: BTM

26. Chief Deputy: N/A

27. Engineers: 7/16/2019

28. Managers: 8/12/2019

29. Coordinator: BTM

30. Drain: 8 1/2 Mile Relief

31. Project Balance: N/A

32. Staff Date: 7/16/2019

33. Board Date: 8/12/2019

34. Select For Pay Date: BTM

Colville Electric Co., LLC

23416 Gratiot Ave.
Eastpointe, MI 48021

*Thanks to our Loyal Customers,
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Invoice

Invoice #	19-0321
Due Date	Date
6/18/2019	5/19/2019

Bill To
Macomb County DPW 23001 Nine Mile Rd. St. Clair Shores, MI 48080

Job Location
Chapton Station East Bid.

P.O. No.	Terms	Tech
	Net 30	JH

Date	Description	Quantity	Rate	Amount
4/17/19-	Installed conduit for sampler machine. new 1500 sampler			
4/22/19-	Pulled in wiring. Installed j-box and terminal strip. Landed wiring.			
	3/4' RMC Conduit	20	2.92	58.40
	3/4' RMC Unistrut Strap	2	1.26	2.52
	3/4" Meyers Hub	2	10.4051	20.81
	1-5/8' Galvanized Unistrut, Slotted	4	3.5493	14.20
	Unistrut 4 Hole Post Support	1	49.7512	49.75
	3/8" Springless Unistrut Nut	3	2.1168	6.35
	FD Iron Outlet box, One Gang, One 3/4" Hub	1	13.50	13.50
	FS/FD Cover, Single Duplex, FSK-1DR or eq	1	4.22	4.22
	3/4' Liquidtight Metallic Conduit 90 Deg Connector	1	5.6735	5.67
	3/4' Liquidtight Metallic Conduit 45 Deg Connector	1	4.36	4.36
	3/4' Liquidtight Metallic Conduit	2	2.63	5.26
	20 Amp, 125 Volt Spec Duplex (NEMA 5-20)	1	0.52	0.52
	Grounding Pigtail, solid	1	0.7142	0.71
	3/8x1" Zinc Bolt	7	0.13	0.91
	3/8" Fender Washer, 1.25 OD	10	0.19	1.90
	Nema 12 Enclosure, 10x10x8, Continuous Hinge Cover	1	142.60	142.60
	Allen-Bradley 1492-EAJ35 End Anchor, Used w/ Standard 35mm Din Rail	2	3.00	6.00
	Allen-Bradley 1492-J10 1492-J IEC Terminal Block, One-Circuit Feed-Through Block, 10 mm (# 22 AWG - # 8 AWG), Standard Feedthrough, Gray (Standard), Yellow/green terminal block	14	3.25	45.50
	DIN Rail	1	1.22	1.22
	1/2" Aluminum Cord Connector, 0.187-0.25 Cable Dia	1	1.65	1.65
	14 THHN CU Yellow	1	4.72	4.72
	14 THHN CU Yellow/Blue	200	0.22	44.00
	14 THHN CU Blue	80	0.22	17.60
	Belden 18/2 Shielded cable	240	0.22	52.80
	Labor(@\$80/hr):JH	80	0.95	76.00
		6.25	80.00	500.00
			Total	

**Past Due Invoices Are Subject To 1.5% Per Month Finance Charge.
If you have any questions, please call 586.774.9110**

Colville Electric Co., LLC

23416 Gratiot Ave.
Eastpointe, MI 48021

*Thanks to our Loyal Customers,
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Just a new address.*

Invoice

Invoice #	19-0321
Due Date	Date
6/18/2019	5/19/2019

Bill To
Macomb County DPW 23001 Nine Mile Rd. St. Clair Shores, MI 48080

Job Location
Chapton Station

P.O. No.	Terms	Tech
	Net 30	JH

Date	Description	Quantity	Rate	Amount
	Labor(@\$80/hr):AR	3.5	80.00	280.00
	Labor(@\$80/hr):	2.75	80.00	220.00
Total				\$1,581.17

*Past Due Invoices Are Subject To 1.5% Per Month Finance Charge.
If you have any questions, please call 586.774.9110*



Mark A. Hackel
County Executive

ONEsolution

ACCOUNTS PAYABLE CHECK REQUEST

PUBLIC WORKS DIVISION

1. PREPARED BY (Please Type) Michelle Houvener	2. PHONE # 95966	3. DATE 7/18/19
4. SET ID VP19718MUA		
5. POST DATE		

6. VENDOR NAME (Check to be issued to) DTE Energy		7. VENDOR NUMBER V01270	8. ADDR CODE 08	9. Invoice No (MAX = 16 CHARACTERS) 19-334	10. Invoice Date 7/10/2019	11. Invoice Amount \$ 9,987.23
---	--	-----------------------------------	---------------------------	--	--------------------------------------	--

General Ledger		Job Ledger		OPTIONAL			19. Amount	20. DIV	21. MISC	22. Sep CK
12. Org Key	13. Object	14. Cost Center (CCNT)	15. Object	16. Work Order Number	17. Secondary Reference (MAX = 16 CHARACTERS)	18. Description (MAX = 30 CHARACTERS)				
A	8200017M	92101	92101	WO18006	8 1/2 Mile Relief	Acct #9100-0005-3785, 6/10-7/9	\$ 9,987.23	GEN		
B										
C										
D										
E										
F										
G										

23. Total: \$ **9,987.23** REV 09/2018

24. COMMENTS, INSTRUCTIONS OR ADDITIONAL NOTES:

25. Finance Officer: *[Signature]* 30. Drain: 8 1/2 Mile Relief

26. Chief Deputy: *[Signature]* 31. Project Balance: N/A

27. Engineers: 32. Staff Date: 8/6/2019

28. Managers: *[Signature]* 33. Board Date: 8/12/2019

29. Coordinator: *[Signature]* 34. Select For Pay Date:



Payment Coupon

Account Number	910000053785
Due Date:	August 05, 2019
Total Due:	\$9,987.23

MACOMB COUNTY
MACOMB COUNTY DRAIN COMM
21777 DUNHAM RD
CLINTON TWP MI 48036-1005

Mail Payments to:
DTE Energy
P.O. Box 630795
Cincinnati OH 45263-0795

Please detach and return coupon with account number on check. Agencies are not authorized to accept payment of this bill.

Account Information

MACOMB COUNTY
MACOMB COUNTY DRAIN COMM
21777 DUNHAM RD
CLINTON TWP, MI 48036

Account Number 9100-0005-3785

DTE-Energy Federal ID No. 38-3217752

Programs you are enrolled in:

How to contact us:

Power Outage See Detail Charges
Billing Inquiry 1-734-397-4309

Please make any inquiry or complaint about this bill to DTE Energy before the Due Date.
DTE Energy is regulated by the Michigan Public Service Commission, Lansing, Michigan

Important Information

The 2020 Energy Optimization Self Direct Electric Program open enrollment period and submission of the Self Direct Plan is June 15, 2019 to July 15, 2019. For qualifications, go to [dteenergy.com/savenow](https://newlook.dteenergy.com/wps/wcm/connect/dte-web/home/save-energy/business/self+direct+options/electric). <https://newlook.dteenergy.com/wps/wcm/connect/dte-web/home/save-energy/business/self+direct+options/electric>



Detail Charges

For Service at: 23001 E 9 Mile Rd, St Clair Shores, MI 48082

Outage Contact Number: 1-313-235-1300

Invoice: 200101591109

Billing Period: 06/10/2019 through 07/09/2019

Days Billed: 30

Metering Information

Meter Number	Start Date	Start Read	Stop Date	Stop Read	Read Difference	Units Multiplier	Usage Used	Type
6321448	06/10	351.0A	07/09	357.9A	6.9	6,400.0000	44,160.0	P - In-V
6321448	06/10	443.4A	07/09	452.8A	9.4	6,400.0000	60,160.0	P - In-W
6321449	06/10	1.2A	07/09	1.2A	0.0	- 6400.000	0.0	P - Out-V
6321449	06/10	0.0A	07/09	0.0A	0.0	- 6400.000	0.0	P - Out-W
6321451	06/10	0.5A	07/09	0.5A	0.0	6,400.0000	0.0	P - In-V
6321451	06/10	0.5A	07/09	0.5A	0.0	6,400.0000	0.0	P - In-W
Total KVARH							44,160.00	
Total KWH							60,160.00	

Invoice: 200101591109 Service Name: Chapaton Pumping Station

Item: 7004376662 Cycle: 05

General Service Municipal Pumping-Net Metering Cat1

Billing Status Information

1	On-peak Billing Demand	1700	KW	ESTABLISHED	07/05/2019	19:00
3	65% High OP Bill Dmd June-Oct prec 11 mths	2246	KW	ESTABLISHED	10/01/2018	12:00
8	Highest Single Billing Demand	4485	KW	ESTABLISHED	07/06/2019	19:00
A	Current PV High Monthly Demand	4485	KW	ESTABLISHED	07/06/2019	19:00
B	50% of the Contract Capacity for PV	0	KW			
C	Primary Voltage Maximum Demand	4956	KW	ESTABLISHED	05/01/2019	04:30
	Contract Capacity for Location	6738	KW	ESTABLISHED	08/16/2016	05:00
	Power Factor (ratio) for all voltages	80	PCT			
	Total Number of days in the Billing Period	30	DAYS			
	Avg Kilowatthours Used Per Day This Period	2005	KWH			
	Avg Kilowatthours Used Per Day A Year Ago	1324	KWH			
	kWh percentage change from a year ago	51	PCT			
	Metered outflow	0	KWH			
	Net Delivery Billed (inflow)	60160	KWH			
	Net Inflow (In - Out)	60160	KWH			

Charges for 06/10/2019 through 07/09/2019

Power Supply Charges:

Power Supply Energy:						
Power Supply Capacity Charge	60,160	KWH	@ \$	0.0329700	Per Total KWH	1,983.48
Power Supply Non Capacity Charge	60,160	KWH	@ \$	0.0464000	Per Total KWH	2,791.42
Surcharges:						
Power Supply Cost Recovery Factor	60,160	KWH	@ \$	0.0041000	Per Total KWH	246.66
Sub Total:						5,021.56

Delivery Charges:

Service Charge						11.25
Distribution:						
Distribution Energy	60,160	KWH	@ \$	0.0386600	Per Total KWH	2,325.79
Surcharges:						
Nuclear Surcharge	60,160	KWH	@ \$	0.0008270	Per Total KWH	49.75
Energy Waste Reduction	2	MTR	@ \$	38.5100000		77.02
LIEAF Factor	2	MTR	@ \$	0.9300000		1.86
Sub Total:						2,465.67
Special Facilities Charge						2,500.00

Invoice Subtotal

Michigan State Sales Tax On Taxable Portion

9,987.23

0.00

Invoice Total

\$9,987.23

Summary Of Charges

Account Number 9100-0005-3785

Previous Balance as of 06/12/2019	7,598.24
Payment(s) and Credit(s)	- 7,598.24
Remaining Balance	\$0.00

Current Charges

Service Location	Item	Service Type	Rate	Bill Period	Amount
23001 E 9 Mile Rd	7004376662	General Service Municipal Pumping-Net Metering Cat1	EFCND3_WP	06/10 - 07/09/19	9,987.23
		Taxes			0.00
		Miscellaneous Charges			0.00
		Current Bill			\$9,987.23

Amount Due on or before Due Date of 08/05/2019 **\$9,987.23**

Your current charges are due on August 5, 2019. A 2% late payment charge will be applied if paid after the due date.





ONESolution

ACCOUNTS PAYABLE CHECK REQUEST

PUBLIC WORKS DIVISION

Mark A. Hackel
County Executive

1. PREPARED BY (Please Type) Michelle Houvener	2. PHONE # 95966	3. DATE 8/1/19
4. SET ID VP19802MA		
5. POST DATE		

6. VENDOR NAME (Check to be issued to) DTN, LLC	7. VENDOR NUMBER V43568	8. ADDR CODE 01	9. Invoice No (MAX = 16 CHARACTERS) 5585160	10. Invoice Date 7/19/2019	11. Invoice Amount \$ 1,471.50
---	-----------------------------------	---------------------------	---	--------------------------------------	--

General Ledger		Job Ledger		OPTIONAL			19. Amount	20. DIV	21. MISC	22 Sep CK
12. Org Key	13. Object	14. Cost Center (CCNT)	15. Object	16. Work Order Number	17. Secondary Reference (MAX = 16 CHARACTERS)	18. Description (MAX = 30 CHARACTERS)				
A	8200166M	92113	92113		MIDDD ✓	Acct#0322513, 8/15-11/14	\$ 735.75	GEN	MIDDD	
B	8200017M	92113	92113		8 1/2 Mile Relief ✓	Acct#0322513, 8/15-11/14	\$ 551.81	GEN		0
C	8200072M	92113			Martin	Acct#0322513, 8/15-11/14	\$ 110.36	GEN		0
D	8703018M	92113			SEMCWWDSD	Acct#0322513, 8/15-11/14	\$ 73.58	GEN		0
E	34									
F										
G										

23. Total: \$ **1,471.50** REV/09/2018

24. COMMENTS, INSTRUCTIONS OR ADDITIONAL NOTES:
Storm Sentry

25. Finance Officer:	<i>John</i>	30. Drain:	Multiple
26. Chief Deputy:	<i>John</i>	31. Project Balance:	N/A
27. Engineers:		32. Staff Date:	8/6/2019
28. Managers:	<i>UAS</i>	33. Board Date:	8/12/2019
29. Coordinator:	<i>KR</i>	34. Select For Pay Date:	



We hope you noticed we have a new brand and logo for DTN. We believe it is important for our visual identity and brand promise to truly reflect the Vision, Mission, and Values we introduced in 2017 and live by today.

Our vision is to be *the* independent, trusted source of insights to you, our customers, who feed, protect, and fuel the world. Our mission is to empower you with intelligent and actionable insights that exceed your expectations and enable your success on a daily basis. In short, when you prosper, DTN prospers.

We believe the degree symbol in our logo exemplifies the highest degree of precision and accuracy in which we work every day to provide you with our solution and services.

Customer Service

Billing Customer Service:

888-826-4282, weatherbilling@dtn.com

Technical Support:

800-485-4000

Postal Correspondence:

DTN
9110 W Dodge Rd Ste 100
Omaha, NE 68114-3334

Be sure to include your name, telephone number and DTN account number whenever you contact us.

Account No.	Invoice No.	Invoice Date
0322513	5585160	19-Jul-2019

BETZ, JOSEPH
MACOMB COUNTY OPW
21777 DUNHAM
CLINTON TOWNSHIP, MI 48036

New Charges	\$ 1,471.50
Late Fees	\$ 0.00
Total Due	\$ 1,471.50

Please send your payment 7-10 days before the due date to allow time for payment processing. To ensure proper payment posting, detach and return lower portion with your payment.

Pay My Bill

Online: Visit myaccount.dtn.com to submit payments or update your contact information 24 hours a day.

By Mail: Send your check and payment slip to the address on payment slip below.

By Phone: Call billing customer service at the number provided to pay by credit card or make changes to your account MONDAY THROUGH FRIDAY 7:00AM TO 5:00PM (CST).

Detach and return this payment slip with your check payable to DTN

TI190719.001-349-00000284



DTN, LLC
9110 W Dodge Rd Ste 100
Omaha, NE 68114-3334

#BWNCVKR
0322513

000175 000000284



BETZ, JOSEPH
MACOMB COUNTY OPW
21777 DUNHAM RD
CLINTON TOWNSHIP MI 48036-1005

Account No.	Invoice No.	Due Date
0322513	5585160	09-Aug-2019
	Amount Due	\$ 1,471.50
Payment enclosed		.



DTN, LLC
26385 NETWORK PLACE
CHICAGO, IL 60673-1263



2

1.000000000558516000000000003225138 00000147150

Account Status

New Invoice	Due Date	Balance	Total
5585160	09-Aug-2019	\$ 1,471.50	\$ 1,471.50
TOTAL DUE			\$ 1,471.50

New Charges

Detailed Charges

Customer: MACOMB COUNTY OPW, CLINTON TOWNSHIP, MI
 Account Number: 0322513 UserID: MACOMB
 Email: JOSEPH.BETZ@MACOMBGOV.ORG

Service Period
 08/15/19-11/14/19 WxSentry Trans Online-Platinum \$ 924.00
SUBTOTAL \$ 924.00

Customer: MACOMB COUNTY OPW, CLINTON TOWNSHIP, MI
 Account Number: 0322513 UserID: MACOMB2
 Email: JOSEPH.BETZ@MACOMBGOV.ORG

Service Period
 08/15/19-11/14/19 WxSentry Transp Online-Std \$ 115.50
SUBTOTAL \$ 115.50

Customer: MACOMB COUNTY OPW, CLINTON TOWNSHIP, MI
 Account Number: 0322513 UserID: MACOMB3
 Email: JOSEPH.BETZ@MACOMBGOV.ORG

Service Period
 08/15/19-11/14/19 WxSentry Transp Online-Std \$ 144.00
SUBTOTAL \$ 144.00

Customer: MACOMB COUNTY OPW, CLINTON TOWNSHIP, MI

Subject to DTN Terms and Conditions

Customer's acceptance and activation of the DTN goods or services constitutes express acceptance of the Terms and Conditions, a copy of which was provided to Customer upon inception of the service. Any other terms and conditions presented by the Customer, contrary to those provided DTN, do not apply. Canceling service will result in the billing for the duration of the then-current term under the DTN Subscription Agreement.

Services Provided By:
 DTN, LLC
 Omaha, NE 68114-3334
 Tax ID (EIN) - 20-5551424
 GST: 83187 6255 RT0001

PST
 QC: 1216123332
 SK: 2446102
 MB: 087446-1
 BC: PST-1000-7804

Payment Information

If payment is not received by the due date, late fees and/or collection charges may be assessed. Customer understands that DTN may reduce or disconnect services offered to Customer for non-payment of any charges due. Customer agrees that DTN may charge a reconnection fee in the event that service is disconnected for nonpayment. A \$25.00 USD fee will be assessed for all returned checks. For your convenience, DTN accepts the following credit cards: Master Card, VISA, Discover, and American Express.

TI190719.001-350-00000284

10 Years of Excellence!

For the 10th straight year, we have topped our competitors as the most accurate provider of precipitation and short-term temperature forecasts.

The study was done by ForecastWatch.com: the independent, leading analyst of forecast predictions and actual outcomes within the weather industry.

When your business relies on accurate weather information, you can trust that you are receiving the best possible information from us.

Electronic Payment Information:

Must reference DTN Account No. and Invoice No.

Banking Details: Remit in USD

DTN, LLC
 Account No.: 464642771
 (ACH) - ABA (Routing)#: 071000013
 (Wire) - ABA (Routing)#: 021000021
 SWIFT ID: CHASUS33

Bank Address:

(ACH) - JPMorgan Chase, Chicago, IL
 (Wire) - JPMorgan Chase, New York, NY

Account Number: 0322513 UserID: MACOMB4

Email: JOSEPH.BETZ@MACOMBGOV.ORG

Service Period

08/15/19-11/14/19 WxSentry Transp Online-Std \$ 144.00
SUBTOTAL \$ 144.00

Customer: MACOMB COUNTY OPW, CLINTON TOWNSHIP, MI

Account Number: 0322513 UserID: MACOMB5

Email: JOSEPH.BETZ@MACOMBGOV.ORG

Service Period

08/15/19-11/14/19 WxSentry Transp Online-Std \$ 144.00
SUBTOTAL \$ 144.00

Total New Charges \$ 1,471.50





Mark A. Hackel
County Executive

ONESolution

ACCOUNTS PAYABLE CHECK REQUEST

PUBLIC WORKS DIVISION

1. PREPARED BY (Please Type) Michelle Houvener	2. PHONE # 95966	3. DATE 8/1/19
4. SET ID NP19802MA		
5. POST DATE		

PARENT RECORD INFORMATION					
6. VENDOR NAME (Check to be issued to) FTCH	7. VENDOR NUMBER V44063	8. ADDR CODE 01	9. Invoice No (MAX = 16 CHARACTERS) 384489	10. Invoice Date 7/22/2019	11. Invoice Amount \$ 3,185.50

CHILD RECORD DETAIL INFORMATION										
Line	General Ledger		Job Ledger		OPTIONAL	20. DIV	19. Amount	21. MISC	22. Sep CK	
	12. Org Key	13. Object	14. Cost Center (CCNT)	15. Object	16. Work Order Number					17. Secondary Reference (MAX = 16 CHARACTERS)
A	8200017M	80138	CC0004	80138	WO18369	8 1/2 Mile Relief	Pjt #181748 through 7/22/19	\$ 3,185.50	GEN	
B										
C										
D										
E										
F										
G										

23. Total: \$ **3,185.50**

24. COMMENTS, INSTRUCTIONS OR ADDITIONAL NOTES:
8 1/2 Mile Relief SRF

25. Finance Officer: <i>btm</i>	30. Drain: 8 1/2 Mile Relief
26. Chief Deputy: <i>AG</i>	31. Project Balance: \$11.18
27. Engineers:	32. Staff Date: 8/6/2019
28. Managers: <i>WA</i>	33. Board Date: 8/12/2019
29. Coordinator: <i>KA</i>	34. Select For Pay Date:



Fishbeck, Thompson, Carr & Huber, Inc.
engineers | scientists | architects | constructors

Federal I.D. No. 38-1841857 | Incorporated

Payment Options

Remit Wire/ACH payments to Acct: 100094457 ABA: 072413829
Remit checks to: 1515 Arboretum Drive, SE | Grand Rapids, Michigan 49546

Attention: Mr Vincent Astorino
Macomb County Public Works Commissioner
21777 Dunham Road
Clinton Township, MI 48036
United States

Invoice : 384489
Invoice Date : 7/22/2019
Project : 181748
Project Name : Macomb Co PW/8 1/2 Drain SRF
Project Plan
Bill Term : 1

For Professional Services Rendered Through 7/12/2019

P.O. WO 18369

		<u>Billings</u>			
	<u>Fee</u>	<u>Available</u>	<u>To Date</u>	<u>Previous</u>	<u>Current</u>
A - MCPWO	26,700.00	3,196.68	26,688.82	23,503.32	3,185.50
<i>Rate Labor</i>		3,185.50			
			Current Billings		<u>3,185.50</u>
			Amount Due This Bill		<u>3,185.50</u>

**MACOMB COUNTY PUBLIC WORKS OFFICE
ENGINEERING INVOICE COVER SHEET**

WORK ORDER NUMBER	WO18369
PROJECT NUMBER	WWS-2019-005
PROJECT NAME	State Revolving Fund Project Plan
DRAINAGE DISTRICT	Eight and One-Half Mile Relief Drain Drainage District
CONSULTANT NAME	FTC&H
INVOICE DATE	7/16/2019
INVOICE START DATE	4/20/2019
INVOICE END DATE	7/12/2019
ORIGINAL CONTRACT AMOUNT	\$ 25,000.00
CHANGE ORDER TOTAL	\$ 1,700.00
Change Order No. 1	\$ 1,700.00
Change Order No. 2	
Change Order No. 3	
Change Order No. 4	
TOTAL REVISED CONTRACT AMOUNT	\$ 26,700.00
(includes all approved change orders only)	
TOTAL AMOUNT PREVIOUSLY INVOICED	\$ 23,503.32
TOTAL AMOUNT DUE THIS INVOICE	\$ 3,185.50
TOTAL BUDGET REMAINING	\$ 11.18
(Includes Total Revised Contract Amount Less Total Invoiced Previously and Total Invoiced Current)	



Mark A. Hackel
County Executive

ONESolution

ACCOUNTS PAYABLE CHECK REQUEST

PUBLIC WORKS DIVISION

1. PREPARED BY (Please Type)	2. PHONE #	3. DATE
Michelle Houvener	95966	8/1/19
4. SET ID		
5. POST DATE		

VP19802MA

6. VENDOR NAME (Check to be issued to)	7. VENDOR NUMBER	8. ADDR CODE	9. Invoice No (MAX = 16 CHARACTERS)	10. Invoice Date	11. Invoice Amount
FTCH	V44063	01	384601	7/22/2019	\$ 2,091.45

General Ledger		Job Ledger		OPTIONAL			21. MISC	22. Sep CK
12. Org Key	13. Object	14. Cost Center (CCNT)	15. Object	16. Work Order Number	17. Secondary Reference (MAX = 16 CHARACTERS)	18. Description (MAX = 30 CHARACTERS)	19. Amount	20. DIV
A	8200017M	80138	80138	WO19005	8 1/2 Mile Relief	Pjt #190051 through 7/12/19	\$ 2,091.45	GEN
B								
C								
D								
E								
F								
G								

23. Total: \$ 2,091.45

24. COMMENTS, INSTRUCTIONS OR ADDITIONAL NOTES:
As Needed Services through 7/12/19

25. Finance Officer:	<i>[Signature]</i>	30. Drain:	8 1/2 Mile Relief
26. Chief Deputy:	<i>[Signature]</i>	31. Project Balance:	\$133,309.75
27. Engineers:		32. Staff Date:	8/6/2019
28. Managers:	<i>[Signature]</i>	33. Board Date:	8/12/2019
29. Coordinator:	<i>[Signature]</i>	34. Select For Pay Date:	



Fishbeck, Thompson, Carr & Huber, Inc.
engineers | scientists | architects | constructors
Federal I.D. No. 38-1841857 | Incorporated

Payment Options

Remit Wire/ACH payments to Acct: 100094457 ABA: 072413829
Remit checks to: 1515 Arboretum Drive, SE | Grand Rapids, Michigan 49546

Attention: Mr Vincent Astorino
Macomb County Public Works Commissioner
21777 Dunham Road
Clinton Township, MI 48036
United States

Invoice : 384601
Invoice Date : 7/22/2019
Project : 190051
Project Name : Macomb Co PW/8.5 As-needed Engineering
Bill Term : 1

For Professional Services Rendered Through 7/12/2019

WO19005

	Fee	Available	Billings		
			To Date	Previous	Current
1 - Task 1 - Genral As Needed	40,400.00	40,400.00	0.00	0.00	0.00
1.A - 8.5 Relief Drain - Chapaton Structural Study	60,663.00	60,429.00	234.00	234.00	0.00
1.B - Task 1b - 9 Mile Pipe Repair	16,256.00	15,962.00	294.00	294.00	0.00
1.D - Task 1d - Office Improvements	25,000.00	9,393.20	15,684.30	15,606.80	77.50
<i>Rate Labor</i>		77.50			
1.E - Task 1e - Maps	7,500.00	7,117.00	383.00	383.00	0.00
1.G - Task 1g - Chapaton Survey	2,100.00	2,100.00	2,013.95	0.00	2,013.95
<i>Rate Labor</i>		1,937.00			
<i>Unit Rate Expense</i>		76.95			
			Current Billings		<u>2,091.45</u>
			Amount Due This Bill		<u>2,091.45</u>

1.D - Task 1d - Office Improvements

Rate Labor

<i>Class</i>	<i>Hours</i>	<i>Rate</i>	<i>Amount</i>
Senior Architect	0.50	155.0000	77.50
Total Rate Labor			77.50

1.G - Task 1g - Chapaton Survey

Rate Labor

<i>Class</i>	<i>Hours</i>	<i>Rate</i>	<i>Amount</i>
Senior Engineer	0.50	164.0000	82.00
Senior Surveyor	7.00	130.0000	910.00
Staff Technician	9.00	105.0000	945.00
Total Rate Labor			1,937.00

Unit Rate Expenses

<i>Account / Unit</i>	<i>Quantity</i>	<i>Rate</i>	<i>Amount</i>
Company Vehicle Use			
Mileage - Company Vehicle	81.00	0.9500	76.95
Total Unit Rate Expenses			76.95

Total Bill Task: 1.G - Task 1g - Chapaton Survey

2,013.95

Total Project: 190051 - Macomb Co PW/8.5 As-needed Engineering

2,091.45

**MACOMB COUNTY PUBLIC WORKS OFFICE
ENGINEERING INVOICE COVER SHEET**

WORK ORDER NUMBER	WO19005
PROJECT NUMBER	WWS-2019-001
PROJECT NAME	As-Needed General Engineering Services
DRAINAGE DISTRICT	Eight and One-Half Mile Relief Drain Drainage District
CONSULTANT NAME	FTC&H
INVOICE DATE	7/19/2019
INVOICE START DATE	6/15/2019
INVOICE END DATE	7/12/2019
ORIGINAL CONTRACT AMOUNT	\$ 151,919.00
CHANGE ORDER TOTAL	\$ -
Change Order No. 1	
Change Order No. 2	
Change Order No. 3	
Change Order No. 4	
TOTAL REVISED CONTRACT AMOUNT	\$ 151,919.00
(includes all approved change orders only)	
TOTAL AMOUNT PREVIOUSLY INVOICED	\$ 16,517.80
TOTAL AMOUNT DUE THIS INVOICE	\$ 2,091.45
TOTAL BUDGET REMAINING	\$ 133,309.75
(Includes Total Revised Contract Amount Less Total Invoiced Previously and Total Invoiced Current)	



ONESolution

ACCOUNTS PAYABLE CHECK REQUEST

PUBLIC WORKS DIVISION

Mark A. Hackel
County Executive

1. PREPARED BY (Please Type) Michelle Houvener	2. PHONE # 95966	3. DATE 8/1/19
4. SET ID VP19802MA		
5. POST DATE		

PARENT RECORD INFORMATION	
6. VENDOR NAME (Check to be issued to) HESCO	7. VENDOR NUMBER V66420
8. ADDR CODE 01	9. Invoice No (MAX = 16 CHARACTERS) 20191351
10. Invoice Date 7/10/2019	11. Invoice Amount \$ 1,652.62

CHILD RECORD DETAIL INFORMATION										
Line	General Ledger			Job Ledger			OPTIONAL			22. Sep CK
	12. Org Key	13. Object	14. Cost Center (CCNT)	15. Object	15. Work Order Number	17. Secondary Reference (MAX = 16 CHARACTERS)	18. Description (MAX = 30 CHARACTERS)	19. Amount	20. DIV	
A	8200017M	93002	CC0004	93002	WO18006	8 1/2 Mile Relief	PW000035; KPSI	\$ 1,644.50	GEN	
B	8200017M	72901	CC0004	72901	WO18006	8 1/2 Mile Relief	PW000035; KPSI	\$ 8.12	GEN	0
C										
D										
E										
F										
G										

23. Total: \$ **1,652.62** REV 09/2018

24. COMMENTS, INSTRUCTIONS OR ADDITIONAL NOTES:
KPSI-Measurement Specialties 7055 Submersible

25. Finance Officer:	<i>btm</i>	30. Drain:	8 1/2 Mile Relief
26. Chief Deputy:	<i>AP</i>	31. Project Balance:	N/A
27. Engineers:		32. Staff Date:	8/6/2019
28. Managers:	<i>ud</i>	33. Board Date:	8/12/2019
29. Coordinator:	<i>ll</i>	34. Select For Pay Date:	



Knowledgeable • Professional • Attentive • Likeable

28838 Van Dyke • Warren, MI 48093
 Phone: 586.978.7200 • Fax: 586.978.2200
 www.hesco-ml.com

Invoice

Date	Invoice #
7/10/2019	20191351

Bill To
Macomb County Public Works Commission Finance Department 21777 Dunham Rd Clinton Twp, MI 48036

Ship To
DPWK Public Works Office Chapaton Pump Station 23001 9 Mile Rd Saint Clair Shores, MI 48080

S.O. No.	P.O. No.	Terms	Rep	Hesco #
1013773	PW000035	Net 30	WRH	B2019752Q

Item	Description	Ordered	Invoiced	Rate	Amount
Misc Parts	KPSI/Measurement Specialties 705S Submersible	2	2	822.25	1,644.50
Freight	Shipping and Handling - PP&A	1	1	8.12	8.12

Subtotal	\$1,652.62
Sales Tax (6.0%)	\$0.00
Total	\$1,652.62
Payments/Credits	\$0.00
Balance Due	\$1,652.62



Mark A. Hackel
County Executive

ONESolution

ACCOUNTS PAYABLE CHECK REQUEST

PUBLIC WORKS DIVISION

1. PREPARED BY (Please Type)	2. PHONE #	3. DATE
Michelle Houvener	95966	7/12/19
4. SET ID		
5. POST DATE		

V P197ISMVA

PARENT RECORD INFORMATION			
6. VENDOR NAME (Check to be issued to)	7. VENDOR NUMBER	8. ADDR CODE	9. Invoice No (MAX = 16 CHARACTERS)
JCI JONES CHEMICALS INC	V65297	01	793961
			10. Invoice Date
			7/11/2019
			11. Invoice Amount
			\$ 7,099.96

CHILD RECORD DETAIL INFORMATION											
Line	General Ledger		Job Ledger		16. Work Order Number	17. Secondary Reference (MAX = 16 CHARACTERS)	18. Description (MAX = 30 CHARACTERS)	19. Amount	20. DIV	21. MISC	22. Sep CK
	12. Org Key	13. Object	14. Cost Center (CCNT)	15. Object							
A	8200017M	72650	CC0004	72650	WO18006	8 1/2 Mile Relief	Order #58 6159, 7/11/19	\$ 7,099.96	GEN		
B											
C											
D											
E											
F											
G											

23. Total: \$ 7,099.96

24. COMMENTS, INSTRUCTIONS OR ADDITIONAL NOTES:

25. Finance Officer: batm

26. Chief Deputy: N/A

27. Engineers: 7/16/2019

28. Managers: WJS

29. Coordinator: KC

30. Drain: 8 1/2 Mile Relief

31. Project Balance: N/A

32. Staff Date: 7/16/2019

33. Board Date: 8/12/2019

34. Select For Pay Date: _____



www.jcichemicals.com

INVOICE

Inv Date	Invoice #
07/11/2019	793961
Date Shipped	Order/BOL #
07/11/2019	586159

*** ORIGINAL ***
 JCI JONES CHEMICALS, INC..
 RIVERVIEW BRANCH LOCATION
 18000 PAYNE AVENUE
 RIVERVIEW , MI 48192
 Phone: (734) 283-0677
 Fax: (734) 283-0979
 email: cs@jci chem.com

Customer Number
 21543215

S MACOMB COUNTY
 O ATTN: ACCTS PAYABLE
 L 23001 9 MILE ROAD
 D Saint Clair Shores , MI 48080-
 T USA
 O

S ID #: 1
 H CHAPATON PUMPING STATION
 I 23001 NINE MILE RD
 P ST CLAIR SHORES , MI 48080-
 T USA
 O

Customer PO #		FOB Remark		Freight Terms		Sales ID
VERBAL-CHAPATON		Destination		Delivered		NORTH
Release #		Ship Via	Terms	Due Date	Discount Due Date	
		JCI	N 30	08/10/2019	8/10/2019	
Units	Package	Product Name	Total Quantity	Unit Price	Amount	
7,865.00	1 Gal Bulk	HYPOCHLORITE SOLUTION, SS150 1201-001 BULK (\$85 Stop Fee) (+ fsc)	7,865.0000/Gal	0.9000 /Gal	7,078.50	
General Remarks:		<> EMAIL INVOICE TO: michelle.houvener@macombgov.org <> OUTSIDE CARRIER: HAROLD MARCUS NET WEIGHT: 79 560 FSC				
		Fuel Surcharge			21.46	

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

Total: **7,099.96**

PLEASE PAY
THIS AMOUNT



Remit To: **JCI Jones Chemicals, Inc.**
MSC# 729
PO BOX 830674
Birmingham, AL 35283-0674 USA



Mark A. Hackel
County Executive

ONESolution

ACCOUNTS PAYABLE CHECK REQUEST

PUBLIC WORKS DIVISION

1. PREPARED BY (Please Type) Michelle Houvener	2. PHONE # 95966	3. DATE 7/8/19
4. SET ID VP19708MA		5. POST DATE

PARENT RECORD INFORMATION

6. VENDOR NAME (Check to be issued to) Klenbaum Hardy Viviano Pelton & Forrest PLC	7. VENDOR NUMBER V69063	8. ADDR CODE 01	9. Invoice No (MAX = 16 CHARACTERS) 42453	10. Invoice Date 7/8/2019	11. Invoice Amount \$ 1,102.50
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CHILD RECORD DETAIL INFORMATION

Line	General Ledger		Job Ledger		16. Work Order Number	17. Secondary Reference (MAX = 16 CHARACTERS)	18. Description (MAX = 30 CHARACTERS)	19. Amount	20. DIV	21. MISC	22. Sep CK
	12. Org Key	13. Object	14. Cost Center (CCNT)	15. Object							
A	8200017M	80139	CC0004	80139		8 1/2 Mile Relief	Re: 1245-008/June 2019	\$ 1,102.50	GEN		
B											
C											
D											
E											
F											
G											

REV 09/2018

23. Total: \$ 1,102.50

24. COMMENTS, INSTRUCTIONS OR ADDITIONAL NOTES:

25. Finance Officer:

26. Chief Deputy:

27. Engineers:

28. Managers:

29. Coordinator:

30. Drain: 8 1/2 Mile Relief

31. Project Balance: N/A

32. Staff Date: 7/16/2019

33. Board Date: 8/12/2019

34. Select For Pay Date:

Kienbaum Hardy Viviano Pelton & Forrest, PLC

Ste 400
 280 N Old Woodward Ave
 Birmingham MI 48009
 Phone No.: (248) 645-0000
 Fax: (248) 645-1385
 Federal Tax ID: 38-3347787

Statement as of 7/8/2019
 Statement no 42453

MCDPW

Macomb County Department of Public Works
 21777 Dunham Rd
 Clinton Twp MI 48036

1245-008 / 8.5 Mile

Professional Fees			Hours	Rate	Amount
06/11/2019	KMH	Review and analysis of Tetra Tech documentation for engineering services and construction administration contract; review and analysis of Tetra Tech's comments regarding contract language and develop forward strategy for responding to same.	1.50	225.00	337.50
06/12/2019	KMH	Draft engineering services and construction administration agreement with Tetra Tech; draft summary to client re: response to Tetra Tech's proposed revision of contract language; communications with client re: same.	1.60	225.00	360.00
06/14/2019	KMH	Review and analysis of Tetra Tech documents and research re: same; draft engineering services agreement for in-system storage devices project; telephone and detailed email communications with client re: same.	1.80	225.00	405.00
Sub-total Fees:					<u>\$1,102.50</u>

Rate Summary

Katie M. Hoffman	<u>4.90</u> hours at \$225.00/hr	1,102.50
Total hours:	4.90	

Total Current Billing: \$1,102.50

Total Now Due: \$1,102.50



Mark A. Hackel
County Executive

ONESolution

ACCOUNTS PAYABLE CHECK REQUEST

PUBLIC WORKS DIVISION

1. PREPARED BY (Please Type)	2. PHONE #	3. DATE
Michelle Houvener	95966	7/3/19
4. SET ID	5. POST DATE	
VPI9708MA		

PARENT RECORD INFORMATION			
6. VENDOR NAME (Check to be issued to)	7. VENDOR NUMBER	8. ADDR CODE	9. Invoice No (MAX = 16 CHARACTERS)
Marino's Landscape	V66876	01	7022
			10. Invoice Date
			6/30/2019
			11. Invoice Amount
			\$ 1,100.00

CHILD RECORD DETAIL INFORMATION				19. Amount	20. DIV	21. MISC	22. Sep CK				
Line	12. Org Key	13. Object	14. Job Ledger		16. Work Order Number	17. Secondary Reference (MAX = 16 CHARACTERS)	18. Description (MAX = 30 CHARACTERS)	19. Amount	20. DIV	21. MISC	22. Sep CK
			Cost Center (CCNT)	15. Object							
A	8200017M	92900	CC0004	92900	WD18006	8 1/2 Mile Relief	Lawn Care June 2019	\$ 1,100.00	GEN		
B											
C											
D											
E											
F											
G											

23. Total: \$ 1,100.00

24. COMMENTS, INSTRUCTIONS OR ADDITIONAL NOTES:

25. Finance Officer:	<i>Jam</i>	30. Drain:	8 1/2 Mile Relief
26. Chief Deputy:		31. Project Balance:	\$4,950.00
27. Engineers:		32. Staff Date:	7/16/2019
28. Managers:	<i>VA</i>	33. Board Date:	8/12/2019
29. Coordinator:	<i>KC</i>	34. Select For Pay Date:	

Marino's Landscape
 51879 Schoenherr Rd
 Shelby Twp, MI 48315
 586-803-3860



Macomb County Public Works Office
 21777 Dunham Rd.
 Clinton Twp, MI 48036

PO #
 Invoice # 7022
 Invoice Date 6/30/2019

Invoice Balance	1100.00
------------------------	----------------

Email: Lori@marinoslandscape.com
 Website: www.marinoslandscape.com

Date	Description	Qty	Price	Total
6/6/2019	Lawn Maintenance	1.00	275.00	275.00
6/13/2019	Lawn Maintenance	1.00	275.00	275.00
6/20/2019	Lawn Maintenance	1.00	275.00	275.00
6/27/2019	Lawn Maintenance	1.00	275.00	275.00

Terms Due on receipt
 For 23001 E. 9 Mile Rd. - Chapaon 8 1/2 Mile, St Clair
 Shores MI 48080

Subtotal 1100.00
 Sales Tax
 Invoice Total 1100.00

Invoice Balance	1100.00
------------------------	----------------

Client Name Macomb County Public Works Office
 For 23001 E. 9 Mile Rd. - Chapaon 8 1/2 Mile, St Clair Shores MI 48080
 Invoice # 7022
 Invoice Date 6/30/2019
 Invoice Balance 1100.00
 Amount Enclosed

PAYMENT STUB

Marino's Landscape
 51879 Schoenherr Rd
 Shelby Twp, MI 48315

Card #	
Exp. Date	
Signature	

Invoices are due by terms listed. A monthly Finance Charge of 1 1/2% will be added monthly to balance 30 days past due.
NEW FOR 2019 Client portal - make payments and more!
<http://marinoslandscape.manageandpaymyaccount.com>
 (If you do not have your login information contact our office)
 Thank you for choosing Marino's Landscape.

4950



ONESolution

ACCOUNTS PAYABLE CHECK REQUEST

PUBLIC WORKS DIVISION

Mark A. Hackel
County Executive

1. PREPARED BY (Please Type) Michelle Houvener	2. PHONE # 95966	3. DATE 7/18/19
4. SET ID VP19718MA		
5. POST DATE		

PARENT RECORD INFORMATION			
6. VENDOR NAME (Check to be issued to) Motor City Electric Technologies	7. VENDOR NUMBER V17465	8. ADDR CODE 02	9. Invoice No (MAX = 16 CHARACTERS) 92585
		10. Invoice Date 7/17/2019	11. Invoice Amount \$ 653.44

CHILD RECORD DETAIL INFORMATION												
Line	General Ledger		Job Ledger		15. Object	16. Work Order Number	17. Secondary Reference (MAX = 16 CHARACTERS)	18. Description (MAX = 30 CHARACTERS)	19. Amount	20. DIV	21. MISC	22. Sep CK
	12. Org Key	13. Object	14. Cost Center (CCNT)	15. Object								
A	8200017M	93002	CC0014	93002	93002	WO19059	8 1/2 Mile Relief	Job #919500, 6/26/19	\$	653.44	GEN	
B												
C												
D												
E												
F												
G												

23. Total: \$ **653.44**

REV 09/2018

24. COMMENTS, INSTRUCTIONS OR ADDITIONAL NOTES:

25. Finance Officer: *[Signature]*

26. Chief Deputy: *[Signature]*

27. Engineers: *[Signature]*

28. Managers: *[Signature]*

29. Coordinator: *[Signature]*

30. Drain: 8 1/2 Mile Relief

31. Project Balance: N/A

32. Staff Date: 8/6/2019

33. Board Date: 8/12/2019

34. Select For Pay Date: _____



MOTOR CITY ELECTRIC TECHNOLOGIES INC.
 AUTOMATION AND CONTROLS SOLUTIONS
 9440 GRINNELL
 DETROIT, MI 48213-1151
 PHONE (313) 921-5300 FAX (313) 921-5310
 AN EQUAL OPPORTUNITY EMPLOYER

INVOICE

Job Number	819500	Sub Job	0	Contract Number	001	Date Performed	6/26/2019	Application Date	7/17/2019	Application Number	92585
------------	--------	---------	---	-----------------	-----	----------------	-----------	------------------	-----------	--------------------	-------

Customer P.O. Number
 13030 MACOMB COUNTY PUBLIC WORKS
 21777 DUNHAM ROAD
 CLINTON TOWNSHIP, MI 48036

JOE BETZ

Item No	Description of Work	Contract Amount	Previous Billings	Current Amount	To Date Complete & Stored	Balance To Finish	Current Retainage
001	T&M	\$653.44	-	\$653.44	\$653.44	-	-
Totals:		\$653.44		\$653.44	\$653.44		
Less Retained:							
Invoice Total:				\$653.44			

AS NEEDED ELECTRICAL AND ENGINEERING SERVICE
 SEE ATTACHED INVOICE SUMMARY AND FIELD REPORT

100%: 8 1/2 / NO WO # = \$653.44

complete electrical construction

"We hereby certify that the articles and services covered by this invoice were produced and performed in compliance with all applicable requirements of Section 6, 7 and 12 of the Fair Labor Standards Act, as amended, and of regulations and orders of the United States Department of Labor issued under Section 14 thereof."



Invoice Summary

Macomb County Public Works

Motor City Electric Technologies Inc.
9440 Grinnell, Detroit, MI 48213-1151

Job No: 919500
Invoice No: 92585
Invoice Date: 7/17/2019

Invoice Detail

INVOICE DETAIL	ST HRS	OT HRS	DT HRS	COST	TAX	MARKUP	OH & P	INVOICE TOTAL
Labor	5.00			\$375.00		\$0.00	\$0.00	\$375.00
Material				\$242.12	\$0.00	\$36.32	\$36.32	\$278.44
Invoice Totals:	5.00			\$617.12		\$36.32	\$0.00	\$653.44

Invoice Detail by Field Report

6/26/2019 Chapaton E. Pump Station

Report Number: G190625-1116	ST HRS	OT HRS	DT HRS	COST	TAX	MARKUP	OH & P	REPORT TOTAL
Labor	5.00			\$375.00		\$0.00	\$0.00	\$375.00
Material				\$242.12	\$0.00	\$36.32	\$0.00	\$278.44
Report Totals:	5.00			\$617.12		\$36.32	\$0.00	\$653.44



9440 GRINNELL, DETROIT, MI 48213-1151

FIELD REPORT

MOTOR CITY ELECTRIC TECHNOLOGIES

REPORT NO: **G190625-111603**

CUSTOMER: Macomb County Public Works DATE: 6/26/2019 MCE JOB NO: 919500 SHEET OF
 LOCATION OF WORK: Chapaton E. Pump Station CUSTOMER ORDER NO:

WORK PERFORMED:

Demo'd old sub panel, installed new sub panel with micro 810 PLC and power supply. Rewired existing terminals to the new terminals. Checked motor positions and limits. Tested motor under new PLC design.

LABOR

LABOR CLASSIFICATION / NAME	STRAIGHT TIME			TIME AND ONE HALF			DOUBLE TIME			TOTAL
	HRS	RATE	COST	HRS	RATE	COST	HRS	RATE	COST	
									<i>Subtotal:</i>	\$375.00
Engineer-Controls/PLC/SCADA										
Wysocki, Adam	5.00	\$75.00	\$375.00		\$105.00	\$0.00		\$185.00	\$0.00	\$375.00
									TOTAL:	\$375.00

MATERIAL

QTY	DESCRIPTION	UNIT COST	U/M	EXTENDED COST	
1	Micro 810 PLC	\$90.25		\$90.25	
1	Remote LCD Screen	\$41.21		\$41.21	
1	240 VAC to 12 VDC Power Supply	\$67.64		\$67.64	
1	12" x 14" Sub Panel	\$12.37		\$12.37	
1	PLC Programming Adapter	\$30.65		\$30.65	
				TOTAL:	\$242.12

REPORT SUMMARY	ST HRS	OT HRS	DT HRS	COST	TAX	MARKUP	OH & P	REPORT TOTAL
Labor	5.00			\$375.00		\$0.00	\$0.00	\$375.00
Material				\$242.12	\$0.00	\$36.32	\$0.00	\$278.44
REPORT TOTALS:	5.00			\$617.12	\$0.00	\$36.32	\$0.00	\$653.44



FIELD REPORT

G 919500 190625 111603
 Job No YMMDD HHMMSS

MOTOR CITY ELECTRIC TECHNOLOGIES - (313) 921-5300/FAX (313) 923-5310

CUSTOMER: Macomb County Water DATE: June 26, 2019 JOB NO: 919500 SHEET 1 OF 2

LOCATION OF WORK: Chapton East Pump Station CUSTOMER ORDER NO: _____

WORK PERFORMED: Demo'd old sub panel. Installed new sup panel with micro810 plc and power supply. Rewired existing terminals to the new terminals. Checked motor positions and limits. Tested motor under new PLC design.
(BE AS DESCRIPTIVE AS POSSIBLE)

LABOR

	NAME	CLASSIFICATION	STRAIGHT TIME	TIME AND ONE HALF	DOUBLE TIME	SHIFT	COMMENTS
1	Adam Wysocki	ENGINEER	5.00			1	
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
TOTAL HOURS			5.00				

EQUIPMENT

	DESCRIPTION	QUANTITY	DESCRIPTION	QUANTITY	DESCRIPTION	QUANTITY
1	Service Truck	18		35		
2	Pick Up Truck	19		36		
3	Rolling Set Up	20		37		
4	Manlift Scissors to 25'	21		38		
5	Manlift Boom to 40'	22		39		
6		23		40		
7		24		41		
8		25		42		
9		26		43		
10		27		44		
11		28		45		
12		29		46		
13		30		47		
14		31		48		
15		32		49		
16		33		50		
17		34		51		



McNAUGHTON-McKAY
ELECTRIC COMPANY
 1357 East Lincoln Avenue
 Madison Heights, MI 48071
 (248) 399-7500
 FAX (248) 399-6828

ACKNOWLEDGEMENT

DOCUMENT: Order Acknowledgement

CUST.#: 20354

CUSTOMER FAX: (248) 824-3704

BILL TO:

MOTOR CITY ELEC TECH
 9440 GRINNELL ST
 DETROIT, MI 48213-1151

PURCHASE ORDER: 1006602-919500



ORDER #
16563532-00
PAGE#
1
ENTERED BY
sak
DATE ENTERED
05/31/19

SHIP TO:

MOTOR CITY ELEC TECH
 9440 GRINNELL ST
 DETROIT, MI 48213-1151

INSTRUCTIONS:		TERMS	
		2% 10 Net 30	
SHIP POINT	VIA	COD	SHIPPED
MADISON HEIGHTS BRANCH	OUR TRUCK		

UNLESS OTHERWISE NOTIFIED THIS ACKNOWLEDGMENT CONFIRMS ITEMS ORDERED.

LINE NO.	PRODUCT AND DESCRIPTION	QUANTITY ORDERED	EXPECTED SHIP DATE	QTY. U/M	UNIT PRICE	PRICE U/M	AMOUNT (NET)
1	ABZ2080LC1012DWD A-B 2080-LC10-12DWD MICRO810 12 I/O CNTRLLR Interchange Prod: 2080LC1012DWD PN-81109	1		EACH	90.25	E	90.25
2	ABZ2080LCD A-B 2080-LCD MICRO810 LCD DISPLAY WITH KEYPAD Interchange Prod: 2080LCD PN-81253	1		EACH	41.21	E	41.21
3	ABZ1606XLP15B A-B 1606-XLP15B 12-15V DC 15W POWER S Interchange Prod: 1606XLP15B	1		EACH	67.64	E	67.64
3	Lines Total	Qty Shipped Total	3		Total		199.10
					Invoice Total		199.10

Last Page

Date: 05/31/19 Time: 16:07 User: sak

The sale of products and services by Seller is subject to Seller's general terms and conditions of sale ("Seller's Terms") as attached to this document or as otherwise posted on Seller's website at <https://www.mc-mc.com/terms>. Seller objects to and rejects any terms or conditions that may appear on or are referenced in Customer's purchase order or other document that are in addition to or otherwise inconsistent with Seller's Terms. Customer's receipt or acceptance of delivery of any ordered item above will constitute its acceptance of Seller's Terms. The above link also includes Seller's Return Policy for customer reference.



McNAUGHTON-McKAY
ELECTRIC COMPANY
 1357 East Lincoln Avenue
 Madison Heights, MI 48071
 (248) 399-7500
 FAX (248) 399-6828

ACKNOWLEDGEMENT

DOCUMENT: Order Acknowledgement

CUST.#: 20354

CUSTOMER FAX: (248) 824-3704



BILL TO:

MOTOR CITY ELEC TECH
 9440 GRINNELL ST
 DETROIT, MI 48213-1151

PURCHASE ORDER: 1006735-919500

ORDER #
16607351-00
PAGE #
1
ENTERED BY
dwk2
DATE ENTERED
06/26/19

SHIP TO:

MOTOR CITY ELEC TECH
 9440 GRINNELL ST
 DETROIT, MI 48213-1151

INSTRUCTIONS:		TERMS	
		2x 10 Net 30	
SHIP POINT	VIA	COD	SHIPPED
MADISON HEIGHTS BRANCH	WILL CALL		

UNLESS OTHERWISE NOTIFIED THIS ACKNOWLEDGMENT CONFIRMS ITEMS ORDERED.

LINE NO.	PRODUCT AND DESCRIPTION	QUANTITY ORDERED	EXPECTED SHIP DATE	QTY. U/M	UNIT PRICE	PRICE U/M	AMOUNT (NET)
1	ABZ2080USBADAPTER A-B 2080-USBADAPTER MICRO810 USB ADAPTER Interchange Prod: 2080-USBADAPTER PN-81252	1	06/27/19	EACH	30.65	E	30.65
1	Lines Total	Qty Shipped Total	1		Total		30.65
					Invoice Total		30.65

Last Page Date: 06/26/19 Time: 09:05 User: dwk2

The sale of products and services by Seller is subject to Seller's general terms and conditions of sale ("Seller's Terms") as attached to this document or as otherwise posted on Seller's website at <https://www.mc-mc.com/terms>. Seller objects to and rejects any terms or conditions that may appear on or are referenced in Customer's purchase order or other document that are in addition to or otherwise inconsistent with Seller's Terms. Customer's receipt or acceptance of delivery of any ordered item above will constitute its acceptance of Seller's Terms. The above link also includes Seller's Return Policy for customer reference.

To: LORI O'DONNELL
From: Saginaw Control & Engineering
Re: Purchase Order Confirmation for MOTOR CITY ELECTRIC TECHNOLOGIES INC.
Date: 6/19/2019
Order #: 1241864
PO #: 1006684-919500
Terms: NET 30



Your Enclosure Source™

Thank you for your order!
 We have received and processed your Purchase Order Number: **1006684-919500**
 The terms that have been approved for this Purchase Order are: **NET 30**
 Please be aware that all dates refer to estimated shipping dates, not the estimated delivery date.
 Should you have any questions or concerns, please contact our office and refer to our Order # **1241864**

Shipping To: MOTOR CITY ELECTRIC TECHNOLOGIES INC.
 9440 GRINNELL ST
 DETROIT, MI 48213-1151

Item	Part Number	SCE Part Number	Description	Qty	Part Price	Sur-charge	Est Ship Date	Shipping Terms	Status
01	SCE-16P14	SCE-16P14	Subpanel, Flat	1	\$12.37	\$0.00	6/19/2019	Pre-Paid and Add	Catalog Part

Finish - SCE-05 White

The Paint Fee for this PO is: \$0.00

Applicable surcharges will be invoiced separately at the time of delivery.

Your Enclosure Source!

Mialie Szymanski

Phone: 330/995-9800

Fax: 330/995-9802

E-mail: aurora@saginawcontrol.com

Aurora Distribution Center

40 Aurora Industrial Parkway

Aurora, OH 44202-8086

Please review this order acknowledgement for your current pricing and ship dates.



Mark A. Hackel
County Executive

ONESolution

ACCOUNTS PAYABLE CHECK REQUEST

PUBLIC WORKS DIVISION

1. PREPARED BY (Please Type)	2. PHONE #	3. DATE
Michelle Houvener	95966	7/19/19
4. SET ID	5. POST DATE	
VP19722MA		

6. VENDOR NAME (Check to be issued to)		7. VENDOR NUMBER		8. ADDR CODE		9. Invoice No (MAX = 16 CHARACTERS)		10. Invoice Date		11. Invoice Amount	
RM Young Co Inc		V69945		01		151626		6/4/2019		\$ 1,004.32	

General Ledger				Job Ledger		OPTIONAL		CHILD RECORD DETAIL INFORMATION			
Line	12. Org Key	13. Object	14. Cost Center (CCNT)	15. Object	16. Work Order Number	17. Secondary Reference (MAX = 16 CHARACTERS)	18. Description (MAX = 30 CHARACTERS)	19. Amount	20. DIV	21. MISC	22. Sep CK
A	8200017M	97002	CC0004	97002	WO18006	8 1/2 Mile Relief	PW000032; Wind Sentry	\$ 1,004.32	GEN		
B											
C											
D											
E											
F											
G											

23. Total: \$ 1,004.32

REV 09/2018

24. COMMENTS, INSTRUCTIONS OR ADDITIONAL NOTES:

25. Finance Officer: _____

26. Chief Deputy: *MB*

27. Engineers: _____

28. Managers: *UA*

29. Coordinator: *VC*

30. Drain: 8 1/2 Mile Relief

31. Project Balance: N/A

32. Staff Date: 8/6/2019

33. Board Date: 8/12/2019

34. Select For Pay Date: _____



R. M. YOUNG COMPANY

2801 Aero Park Drive
Traverse City, Michigan 49686-9171 USA
TEL: (231) 946-3980 FAX: (231)
Employer Identification Number: 38-1737815

PAST DUE !!!

INVOICE

Number: 151626
Invoice Date: 4-Jun-19
Due Date: 4-Jul-19
Page: 1 of 1

BILL TO:

ACCOUNTS PAYABLE
VENDOR V69945
michelle.houvenier@macombgov.org;
10713
MACOMB COUNTY PUBLIC WORKS
21777 DUNHAM ROAD
CLINTON TOWNSHIP MI 48036

SHIP TO:

0001
MACOMB COUNTY PUBLIC WORKS
CHAPATON PUMP STATION
23001 9 MILE RD
SAINT CLAIR SHORES MI 48080

ORDER #	P.O. NUMBER	PKGS	WEIGHT	SHIP VIA	INVOICE TERMS
115660	PW000032	1	5.0 LBS	UPS GROUND	NET 30 DAYS
LINE	QTY	ITEM		UNIT PRICE	NET AMOUNT
1	1 EA	03002LP WIND SENTRY (MPH) 4-20 MA OUTPUT Serial Number: WS00017108		\$978.00	\$978.00

Returned goods will not be accepted without prior authorization. Pricing is exworks Traverse City, Michigan unless stated otherwise & includes applicable discounts.
Payments to be in U.S. funds drawn on a U.S. bank.

Materials and services covered by this invoice were produced in conformity with the Fair Labor Standards Act of 1938, as amended.

SUBTOTAL	\$978.00
FREIGHT	\$26.32
INVOICE TOTAL	\$1,004.32
U.S. FUNDS	



Mark A. Hackel
County Executive

ONESolution

ACCOUNTS PAYABLE CHECK REQUEST

PUBLIC WORKS DIVISION

1. PREPARED BY (Please Type)	2. PHONE #	3. DATE
Michelle Houvener	95966	7/17/19
4. SET ID		5. POST DATE
VP19718MA		

6. VENDOR NAME (Check to be issued to)		7. VENDOR NUMBER	8. ADDR CODE	9. Invoice No (MAX = 16 CHARACTERS)	10. Invoice Date	11. Invoice Amount
TestAmerica		V13987	02	1900002849	7/16/2019	\$ 560.00

General Ledger			Job Ledger		OPTIONAL			21. MISC		22. Sep CK	
Line	12. Org Key	13. Object	14. Cost Center (CCNT)	15. Object	16. Work Order Number	17. Secondary Reference (MAX = 16 CHARACTERS)	18. Description (MAX = 30 CHARACTERS)	19. Amount	20. DIV		
A	8200017M	80131	CC0004	80131	WO18006	8 1/2 Mile Relief	Client #1407288, Srvc. 7/16/19	\$ 560.00	GEN		
B											
C											
D											
E											
F											
G											

23. Total: \$ 560.00

24. COMMENTS, INSTRUCTIONS OR ADDITIONAL NOTES:

25. Finance Officer:	<i>BAM</i>	30. Drain:	8 1/2 Mile Relief
26. Chief Deputy:	<i>AB</i>	31. Project Balance:	N/A
27. Engineers:		32. Staff Date:	8/6/2019
28. Managers:	<i>VA</i>	33. Board Date:	8/12/2019
29. Coordinator:	<i>VA</i>	34. Select For Pay Date:	



**Environment Testing
TestAmerica**

Invoice/Credit No.	1900002849	Invoice Date	July 16, 2019
Terms	See Below	Federal Tax ID	23-2919996
Remit to	TestAmerica Laboratories, Inc. (dba Eurofins TestAmerica) PO BOX 204290, Dallas, TX 75320-4290		

Bill to:
Macomb County Public Works Office Attn: Accounts Payable 23001 9 Mile Rd St Clair Shores, MI 48080

Ship to:
Macomb County Public Works Office 23001 9 Mile Road St Clair Shores, MI 48080

P.O. Number	W.O. Number	Contract Number	Work Ordered by
Purchase Order not required			Pete Trombley
Job Description	Site Name	SDG Number	Invoice Contact
See below			Barb Delecke (accts payable)

Job No.	Job Description	Receipt Date	Quantity	Unit Price	Amount
	Method/Test Description				
J20219-1	Chapaton Rain Event	07/08/2019			
	5210 B-2011 - CBOD		8.00	20.00	160.00
	SM4500 P E-2011 - Phosphorus		8.00	18.75	150.00
	4500 NH3 C-2011 - Ammonia		8.00	11.25	90.00
	2540 D-2011 - Total Suspended Solids		8.00	7.50	60.00
	2540E-2011 - Volatile Suspended Solids		8.00	10.00	80.00
	Safe and Environmentally Responsible Waste Management (per sample)		8.00	2.50	20.00

Project Number	Client Number	Project Manager	Subtotal (USD)	\$560.00
19000006	1407288	Sue Schafer		
Latest Sample Receipt Date	Latest Report Date	Phone Number	Total (USD)	\$560.00
07/08/2019	07/16/2019	(810) 229-2763		

For proper credit, please include invoice number on all remittance.

Eurofins TestAmerica, Michigan - 10448 Citation Drive, Suite 200, Brighton, MI 48116

This invoice falls under Eurofins TestAmerica Standard T&C's of Net 30 Days unless superseded by another valid contract vehicle in place at the time these services were rendered.

TestAmerica

MSDS or Known Hazard Information Supplied by Client

Bottle stickers attached ELEMENT comment entered MSDS LCO scanned email sent E-63

Discrepancies Client ID Macomb Chapalm

Short Hold c630 Work Order # 196-20219

Rush 24hr 2day 3day 5day Other

Receipt evaluation performed by Initials AMY Date 7/8/15 Time 12:30

Cooler/Sample Receipt

AFTER HOURS select appropriate address
Place order with "place in form of receiving"
for date/time

Method of Shipment:

- Walk-In Client: TestAmerica Field Cooler
- Other Client 3rd Party Courier
- Fed Ex Tracking #
- UPS Tracking #
- Other

Shipping Container Type:

- Cooler(s) Box
- None Other
- Packing Materials:**
- Plastic Bags Foam
- Bubble Wrap Paper
- Packing Peanuts None
- Other

Custody Seals Intact:

- Yes No
- N/A (not used or required)

Cooling Materials:

- Ice (solid) Ice (Melted)
- Blue Ice None
- Other

Bacteriological Samples; Temp (°C) Corrected

Frozen
yes no

Received within 2 hours
yes no

Sample Flagged
yes no

Receipt Temperatures

Thermometer ID	Observed (°C)	Corrected (°C)	Temp. Sample	Received on same day	Acceptable?	Cooler ID	Note Affected Samples if temperature not acceptable
140252433			<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
140252476			<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
CP313207	5.6	5.4	<input type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		

* Receipt temperatures are considered acceptable if the samples are received on the same day they were collected & show signs that the cooling process has started. Temperature acceptance for most tests is 55 0°C, but not frozen. For additional information please refer to SOP DT-SCA-004 Sample Receipt and Login, Attachment 2 - Holding Times, Preservation and Container Requirements

Receipt Questions**	Y	N	n/a	"No" answers require additional comment
COC present & TA receipt signature, date, & time properly documented?	<input checked="" type="checkbox"/>			
Containers & labels in good condition? (ignoring not leaking appropriately filled, caps secure & attached)	<input checked="" type="checkbox"/>			
Appropriate containers used & adequate volume provided?	<input checked="" type="checkbox"/>			Preserved Bottles Checked with pH Strips* YES
Number of sample containers match COC?	<input checked="" type="checkbox"/>			
Samples received within hold time?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		c630's are past HT upon Receipt
Samples submitted for GRO and Volatiles analyses (3250, 624, 524) received without headspace?			<input checked="" type="checkbox"/>	
Was a Trip Blank received with VOA samples?			<input checked="" type="checkbox"/>	
Were the samples free of any questionable physical conformities? For example field duplicates or multiple bottles of the same sample do not significantly vary in appearance (color, proportion of solids, etc.)	<input checked="" type="checkbox"/>			
Were the COC bottle labels and all other items free of all other discrepancies or issues that would need to be addressed with the Project Manager and/or Client?	<input checked="" type="checkbox"/>			tests run as per project not checked off

** May not be applicable if samples are not for compliance testing

* Excludes FOG, Volatiles, TOC Vials

Client Contact Record

Contact via: Phone Email Other Person Contacted: _____ Date/Time: _____

Discussion/Resolution: Discrepancy a closure agreement is on record in the client project file

Ord not retain any bottles in MI after analyses set up

Any additional documentation and clarification from client must be noted in the narrative and/or scanned into the COC directory

Reviewed by PM Signature [Signature] Date 7/8/15



ONESolution

ACCOUNTS PAYABLE CHECK REQUEST

PUBLIC WORKS DIVISION

Mark A. Hackel
County Executive

1. PREPARED BY (Please Type) Michelle Houvener	2. PHONE # 95966	3. DATE 8/1/19
4. SET ID VP19802MA		5. POST DATE

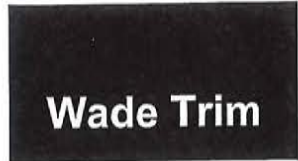
PARENT RECORD INFORMATION		
6. VENDOR NAME (Check to be issued to) Wade Trim	7. VENDOR NUMBER V09446	8. ADDR CODE 02
9. Invoice No (MAX = 16 CHARACTERS) M2015339	10. Invoice Date 7/30/2019	11. Invoice Amount \$ 81,989.55

General Ledger		Job Ledger		OPTIONAL		19. Amount	20. DIV	23. MISC	22. Sep CK
12. Org Key	13. Object	14. Cost Center (CCNT)	15. Object	16. Work Order Number	17. Secondary Reference (MAX = 16 CHARACTERS)				
A	8200017C	80138	80138	WO19004	8 1/2 Mile Relief	Pjt #MCW200501T, 6/22-7/26	81,989.55	GEN	
B									
C									
D									
E									
F									
G									

23. Total: \$ **81,989.55** REV 09/2018

24. COMMENTS, INSTRUCTIONS OR ADDITIONAL NOTES:
Chapaton RTB Canal Upgrades, 6/22-7/26

25. Finance Officer:	<i>btm</i>	30. Drain:	8 1/2 Mile Relief
26. Chief Deputy:	<i>AB</i>	31. Project Balance:	\$616,346.55 (Grant Balance: \$2,638,735.55)
27. Engineers:		32. Staff Date:	8/6/2019
28. Managers:	<i>JA</i>	33. Board Date:	8/12/2019
29. Coordinator:	<i>KL</i>	34. Select For Pay Date:	



Wade Trim
 25251 Northline Road • Taylor, MI 48180
 734.947.9700 • FAX: 734.947.1380 • www.wadetrim.com
 Federal ID 38-1802386

INVOICE

Terms: Net 30 Days
 1.5% Per Month After 30 Days
 18% Annual Rate

Macomb County Public Works
 21777 Dunham Road
 Clinton Township, MI 48036

Attention: Vince Astorino
 Operations and Flow Manager

Invoice Date : July 30, 2019
 Invoice # : M2015339
 Project # : MCW200501T

Remit payment to : Wade Trim
 P.O. Box 10
 Taylor, MI 48180

Re: Chapaton RTB Canal Upgrades

For Professional Services rendered from 6/22/2019 through 7/26/2019

** All subconsultant invoices marked up 5% **

Total Salaries	\$62,181.25
Total Expenses	\$19,808.30
Professional Services Rendered	<u>\$81,989.55</u>

Amount Due This Invoice	\$81,989.55
--------------------------------	--------------------

Statement	
Prior Invoices	\$279,274.90
This Invoice	\$81,989.55
Total Invoiced	\$361,264.45
Paid to Date	\$196,978.51
Amount Outstanding	\$164,285.94

Fee Summary	
Authorized Fee	\$977,611.00
Total Invoiced	\$361,264.45
Amount Remaining	\$616,346.55

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Terms: Net 30 Days
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 18% Annual Rate

Invoice Date : July 30, 2019
 Invoice # : M2015339
 Project # : MCW200501T

Phase: 100 -- Project Management
 Task: 1A1 -- Project Management

Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
Senior Professional	06/24/2019	2.00	\$215.00	\$430.00
	06/28/2019	1.00	\$215.00	\$215.00
	07/01/2019	2.00	\$215.00	\$430.00
	07/08/2019	1.00	\$215.00	\$215.00
	07/12/2019	1.00	\$215.00	\$215.00
	07/15/2019	1.00	\$215.00	\$215.00
	07/16/2019	0.25	\$215.00	\$53.75
	07/18/2019	2.00	\$215.00	\$430.00
			----- 10.25	

Total Rate Schedule Labor **\$2,203.75**

Total Task : 1A1 -- Project Management Labor : \$2,203.75
Expense : \$0.00

Task: 1A2 -- Project Management Support

Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
Engineer I	07/02/2019	1.00	\$100.00	\$100.00
	07/09/2019	1.00	\$100.00	\$100.00
	07/16/2019	1.00	\$100.00	\$100.00
	07/17/2019	1.50	\$100.00	\$150.00
	07/18/2019	1.00	\$100.00	\$100.00
	07/23/2019	3.00	\$100.00	\$300.00
	07/25/2019	3.00	\$100.00	\$300.00
	07/26/2019	2.00	\$100.00	\$200.00
	07/02/2019	2.00	\$100.00	\$200.00
			----- 15.50	
Project Aide II	07/08/2019	1.00	\$95.00	\$95.00
		----- 1.00		----- \$95.00

Total Rate Schedule Labor **\$1,645.00**

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Terms: Net 30 Days
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 18% Annual Rate

Invoice Date : July 30, 2019
 Invoice # : M2015339
 Project # : MCW200501T

Phase: 100 -- Project Management

Total Task : 1A2 -- Project Management Support

Labor : \$1,645.00
 Expense : \$0.00

Total Phase :	100 -- Project Management	Labor :	\$3,848.75
		Expense :	\$0.00

Phase: 200 -- Preliminary Design

Task: 2A2 -- Survey

Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
Principal	07/02/2019	1.00	\$230.00	\$230.00
		----- 1.00		----- \$230.00
Total Rate Schedule Labor				\$230.00

Total Task : 2A2 -- Survey

Labor : \$230.00
 Expense : \$0.00

Task: 2A4 -- Meetings

Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
Principal	07/02/2019	1.00	\$230.00	\$230.00
		----- 1.00		----- \$230.00
Professional LA III	07/02/2019	0.75	\$150.00	\$112.50
	07/03/2019	0.25	\$150.00	\$37.50
	07/08/2019	0.25	\$150.00	\$37.50
	07/09/2019	1.00	\$150.00	\$150.00
	07/10/2019	0.25	\$150.00	\$37.50
	07/11/2019	0.75	\$150.00	\$112.50
	07/12/2019	0.25	\$150.00	\$37.50
		----- 3.50		----- \$525.00
Senior Professional	06/28/2019	0.50	\$215.00	\$107.50
	07/02/2019	0.50	\$215.00	\$107.50



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Terms: Net 30 Days
 1.5% Per Month After 30 Days
 18% Annual Rate

Invoice Date : July 30, 2019
 Invoice # : M2015339
 Project # : MCW200501T

Phase: 200 -- Preliminary Design

Task: 2A4 -- Meetings

Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
		1.00		\$215.00

Total Rate Schedule Labor

\$970.00

Total Task : 2A4 -- Meetings

Labor : \$970.00
 Expense : \$0.00

Task: 2B1 -- Alt Analysis & Development

Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
Engineer IV				
	06/24/2019	7.50	\$150.00	\$1,125.00
	06/25/2019	6.00	\$150.00	\$900.00
	06/26/2019	1.00	\$150.00	\$150.00
	06/27/2019	2.00	\$150.00	\$300.00
	07/02/2019	3.00	\$150.00	\$450.00
	07/03/2019	3.00	\$150.00	\$450.00
	07/09/2019	4.00	\$150.00	\$600.00
	07/10/2019	2.00	\$150.00	\$300.00
	07/18/2019	3.00	\$150.00	\$450.00
		31.50		\$4,725.00

Principal

	06/27/2019	3.00	\$230.00	\$690.00
	06/28/2019	2.00	\$230.00	\$460.00
	07/01/2019	2.00	\$230.00	\$460.00
	07/02/2019	1.00	\$230.00	\$230.00
	07/08/2019	2.00	\$230.00	\$460.00
	07/09/2019	4.00	\$230.00	\$920.00
	07/10/2019	2.00	\$230.00	\$460.00
	07/11/2019	2.00	\$230.00	\$460.00
	07/12/2019	2.00	\$230.00	\$460.00
		20.00		\$4,600.00

Senior Professional

	07/18/2019	1.00	\$215.00	\$215.00
	07/19/2019	1.00	\$215.00	\$215.00
	06/28/2019	3.00	\$215.00	\$645.00
	07/01/2019	2.00	\$215.00	\$430.00

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Invoice Date : July 30, 2019
 Invoice # : M2015339
 Project # : MCW200501T

Phase: 200 -- Preliminary Design
 Task: 2B1 -- Alt Analysis & Development

Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
Senior Professional				
	07/03/2019	3.00	\$215.00	\$645.00
	06/24/2019	2.00	\$215.00	\$430.00
	06/27/2019	2.00	\$215.00	\$430.00
	07/01/2019	1.00	\$215.00	\$215.00
	07/03/2019	1.00	\$215.00	\$215.00
	07/15/2019	3.00	\$215.00	\$645.00
	07/16/2019	3.00	\$215.00	\$645.00
	07/17/2019	4.00	\$215.00	\$860.00
	07/18/2019	2.00	\$215.00	\$430.00
	07/19/2019	2.00	\$215.00	\$430.00
	06/25/2019	1.00	\$215.00	\$215.00
	07/02/2019	2.00	\$215.00	\$430.00
	07/03/2019	1.00	\$215.00	\$215.00
	07/09/2019	0.50	\$215.00	\$107.50
	07/16/2019	0.25	\$215.00	\$53.75
	07/17/2019	1.00	\$215.00	\$215.00
	07/18/2019	1.00	\$215.00	\$215.00
		----- 36.75		----- \$7,901.25

Total Rate Schedule Labor

\$17,226.25

Total Task : 2B1 -- Alt Analysis & Development

Labor : \$17,226.25
 Expense : \$0.00

Task: 2B2 -- Alt Engineer's Const Cost Estimate

Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
Principal				
	07/16/2019	1.00	\$230.00	\$230.00
	07/22/2019	1.00	\$230.00	\$230.00
	07/25/2019	1.00	\$230.00	\$230.00
		----- 3.00		----- \$690.00
Project Specialist III				
	07/10/2019	1.00	\$175.00	\$175.00
	07/11/2019	3.00	\$175.00	\$525.00
	07/23/2019	1.00	\$175.00	\$175.00

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Terms: Net 30 Days
 1.5% Per Month After 30 Days
 18% Annual Rate

Invoice Date : July 30, 2019
 Invoice # : M2015339
 Project # : MCW200501T

Phase: 200 -- Preliminary Design
 Task: 2B2 -- Alt Engineer's Const Cost Estimate

Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
		5.00		\$875.00

Total Rate Schedule Labor **\$1,565.00**

Total Task : 2B2 -- Alt Engineer's Const Cost Estimate Labor : \$1,565.00
Expense : \$0.00

Task: 2B4 -- Alt Final Report

Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
Principal	07/15/2019	1.00	\$230.00	\$230.00
	07/16/2019	1.00	\$230.00	\$230.00
	07/19/2019	2.00	\$230.00	\$460.00
		4.00		\$920.00

Total Rate Schedule Labor **\$920.00**

Total Task : 2B4 -- Alt Final Report Labor : \$920.00
Expense : \$0.00

Task: 2C2 -- Basis of Design Report

Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
Principal	06/27/2019	1.00	\$230.00	\$230.00
	06/28/2019	1.00	\$230.00	\$230.00
	07/02/2019	1.00	\$230.00	\$230.00
	07/08/2019	2.00	\$230.00	\$460.00
	07/23/2019	1.00	\$230.00	\$230.00
	07/24/2019	2.00	\$230.00	\$460.00
	07/25/2019	1.00	\$230.00	\$230.00
	07/26/2019	2.00	\$230.00	\$460.00
		11.00		\$2,530.00

Professional LA III 07/15/2019 0.25 \$150.00 \$37.50

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Terms: Net 30 Days
 1.5% Per Month After 30 Days
 18% Annual Rate

Invoice Date : July 30, 2019
 Invoice # : M2015339
 Project # : MCW200501T

Phase: 200 -- Preliminary Design
 Task: 2C2 -- Basis of Design Report

Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
Professional LA III	07/17/2019	1.00	\$150.00	\$150.00
	07/18/2019	0.25	\$150.00	\$37.50
	07/26/2019	0.75	\$150.00	\$112.50
		----- 2.25		----- \$337.50
Senior Professional	07/22/2019	2.00	\$215.00	\$430.00
	07/08/2019	2.00	\$215.00	\$430.00
	07/09/2019	3.00	\$215.00	\$645.00
	07/10/2019	2.00	\$215.00	\$430.00
	07/22/2019	2.00	\$215.00	\$430.00
	07/23/2019	2.00	\$215.00	\$430.00
	07/24/2019	2.00	\$215.00	\$430.00
	07/25/2019	3.00	\$215.00	\$645.00
	07/26/2019	3.00	\$215.00	\$645.00
		----- 21.00		----- \$4,515.00
Total Rate Schedule Labor				\$7,382.50
Total Task : 2C2 -- Basis of Design Report			Labor :	\$7,382.50
			Expense :	\$0.00

Task: 2D1 -- 30% Process

Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
LA Staff	07/22/2019	0.75	\$100.00	\$75.00
	07/23/2019	1.00	\$100.00	\$100.00
	07/25/2019	1.00	\$100.00	\$100.00
	07/25/2019	1.50	\$100.00	\$150.00
		----- 4.25		----- \$425.00
Principal	07/15/2019	1.00	\$230.00	\$230.00
	07/16/2019	1.00	\$230.00	\$230.00
	07/22/2019	1.00	\$230.00	\$230.00
	07/24/2019	1.00	\$230.00	\$230.00

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 18% Annual Rate

Invoice Date : July 30, 2019
 Invoice # : M2015339
 Project # : MCW200501T

Phase: 200 -- Preliminary Design
 Task: 2D1 -- 30% Process

Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
		4.00		\$920.00
Senior Professional	07/16/2019	4.00	\$215.00	\$860.00
	07/17/2019	4.00	\$215.00	\$860.00
		8.00		\$1,720.00
Total Rate Schedule Labor				\$3,065.00
Total Task : 2D1 -- 30% Process			Labor :	\$3,065.00
			Expense :	\$0.00

Task: 2D10 -- 30% Permit Assistance

Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
Principal	07/17/2019	1.00	\$230.00	\$230.00
	07/18/2019	1.00	\$230.00	\$230.00
	07/23/2019	1.00	\$230.00	\$230.00
	07/25/2019	1.00	\$230.00	\$230.00
	07/26/2019	1.00	\$230.00	\$230.00
	07/22/2019	2.00	\$230.00	\$460.00
	07/23/2019	1.00	\$230.00	\$230.00
	07/25/2019	2.00	\$230.00	\$460.00
	07/26/2019	4.00	\$230.00	\$920.00
		14.00		\$3,220.00
Total Rate Schedule Labor				\$3,220.00
Total Task : 2D10 -- 30% Permit Assistance			Labor :	\$3,220.00
			Expense :	\$0.00

Task: 2D13 -- 30% Engineer's Cost Estimate

Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
Project Specialist III	07/15/2019	2.00	\$175.00	\$350.00

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Invoice Date : July 30, 2019
 Invoice # : M2015339
 Project # : MCW200501T

Phase: 200 -- Preliminary Design

Task: 2D13 -- 30% Engineer's Cost Estimate

Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
Project Specialist III	07/17/2019	1.00	\$175.00	\$175.00
		----- 3.00		----- \$525.00
	Total Rate Schedule Labor			\$525.00
Total Task : 2D13 -- 30% Engineer's Cost Estimate			Labor :	\$525.00
			Expense :	\$0.00

Task: 2D14 -- 30% Meetings

Rate Schedule Labor

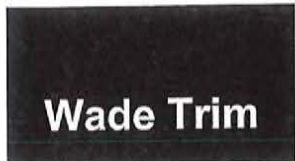
Class Name	Date	Hours	Rate	Amount
Principal	07/16/2019	2.00	\$230.00	\$460.00
	07/17/2019	1.00	\$230.00	\$230.00
	07/23/2019	1.00	\$230.00	\$230.00
	07/26/2019	4.00	\$230.00	\$920.00
		----- 8.00		----- \$1,840.00
Senior Professional	07/09/2019	0.50	\$215.00	\$107.50
	07/17/2019	1.50	\$215.00	\$322.50
	07/18/2019	0.25	\$215.00	\$53.75
		----- 2.25		----- \$483.75
Total Rate Schedule Labor			\$2,323.75	
Total Task : 2D14 -- 30% Meetings			Labor :	\$2,323.75
			Expense :	\$0.00

Task: 2D15 -- 30% General

Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
Engineer IV	07/11/2019	2.00	\$150.00	\$300.00
	07/12/2019	2.00	\$150.00	\$300.00

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 Invoice # : M2015339
 Project # : MCW200501T

Phase: 200 -- Preliminary Design
 Task: 2D15 -- 30% General

Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
Engineer IV	07/15/2019	2.00	\$150.00	\$300.00
	07/16/2019	1.00	\$150.00	\$150.00
	07/18/2019	1.00	\$150.00	\$150.00
	07/19/2019	1.00	\$150.00	\$150.00
	07/22/2019	1.00	\$150.00	\$150.00
	07/23/2019	0.50	\$150.00	\$75.00
	07/24/2019	1.00	\$150.00	\$150.00
	07/25/2019	2.00	\$150.00	\$300.00
	07/26/2019	3.00	\$150.00	\$450.00
		----- 16.50		----- \$2,475.00
Total Rate Schedule Labor				\$2,475.00
Total Task : 2D15 -- 30% General			Labor :	\$2,475.00
			Expense :	\$0.00

Task: 2D2 -- 30% Electrical & I&C

Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
CADD Technician I	07/26/2019	1.00	\$70.00	\$70.00
		----- 1.00		----- \$70.00
Total Rate Schedule Labor				\$70.00
Total Task : 2D2 -- 30% Electrical & I&C			Labor :	\$70.00
			Expense :	\$0.00

Task: 2D3 -- 30% Landscape/Green Infrastructure

Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
Principal	07/15/2019	1.00	\$230.00	\$230.00
	07/17/2019	2.00	\$230.00	\$460.00
	07/18/2019	1.00	\$230.00	\$230.00

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Terms: Net 30 Days
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Invoice Date : July 30, 2019
 Invoice # : M2015339
 Project # : MCW200501T

Phase: 200 -- Preliminary Design
 Task: 2D3 -- 30% Landscape/Green Infrastructure

Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
Principal	07/19/2019	1.00	\$230.00	\$230.00
	07/23/2019	1.00	\$230.00	\$230.00
	07/25/2019	1.00	\$230.00	\$230.00
		-----	7.00	
				\$1,610.00
Total Rate Schedule Labor				\$1,610.00
Total Task : 2D3 -- 30% Landscape/Green Infrastructure			Labor :	\$1,610.00
			Expense :	\$0.00

Task: 2D4 -- 30% Structural

Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
CADD Technician I	07/26/2019	1.00	\$70.00	\$70.00
		-----		-----
		1.00		\$70.00
Engineer IV	07/12/2019	1.00	\$150.00	\$150.00
	07/15/2019	2.50	\$150.00	\$375.00
	07/16/2019	4.00	\$150.00	\$600.00
	07/17/2019	3.00	\$150.00	\$450.00
	07/18/2019	3.00	\$150.00	\$450.00
	07/19/2019	5.00	\$150.00	\$750.00
	07/22/2019	6.00	\$150.00	\$900.00
	07/23/2019	5.50	\$150.00	\$825.00
	07/24/2019	6.00	\$150.00	\$900.00
	07/25/2019	4.00	\$150.00	\$600.00
	07/26/2019	2.00	\$150.00	\$300.00
	-----	42.00		-----
				\$6,300.00
Project Specialist II	07/12/2019	0.50	\$150.00	\$75.00
		-----		-----
		0.50		\$75.00
Senior Professional	07/22/2019	4.00	\$215.00	\$860.00

INVOICE

Wade Trim

Wade Trim
 25251 Northline Road • Taylor, MI 48180
 734.947.9700 • FAX: 734.947.1380 • www.wadetrim.com
 Federal ID 38-1802386

Terms: Net 30 Days
 1.5% Per Month After 30 Days
 18% Annual Rate

Invoice Date : July 30, 2019
 Invoice # : M2015339
 Project # : MCW200501T

Phase: 200 -- Preliminary Design

Task: 2D4 -- 30% Structural

Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
Senior Professional	07/25/2019	6.00	\$215.00	\$1,290.00
	07/26/2019	4.00	\$215.00	\$860.00
		----- 14.00		----- \$3,010.00
Total Rate Schedule Labor				\$9,455.00

Total Task : 2D4 -- 30% Structural

Labor : \$9,455.00
 Expense : \$0.00

Task: 2D5 -- 30% Mechanical

Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
CADD Technician I	07/26/2019	1.00	\$70.00	\$70.00
		----- 1.00		----- \$70.00
Engineer IV	07/19/2019	1.00	\$150.00	\$150.00
		----- 1.00		----- \$150.00
Total Rate Schedule Labor				\$220.00

Total Task : 2D5 -- 30% Mechanical

Labor : \$220.00
 Expense : \$0.00

Task: 2D6 -- 30% Civil / Site

Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
CADD Technician I	07/26/2019	5.00	\$70.00	\$350.00
		----- 5.00		----- \$350.00
Engineer IV	07/11/2019	6.00	\$150.00	\$900.00
	07/12/2019	5.00	\$150.00	\$750.00

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Terms: Net 30 Days
 1.5% Per Month After 30 Days
 18% Annual Rate

Invoice Date : July 30, 2019
 Invoice # : M2015339
 Project # : MCW200501T

Phase: 200 -- Preliminary Design

Task: 2D6 -- 30% Civil / Site

Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
Engineer IV				
	07/15/2019	3.00	\$150.00	\$450.00
	07/16/2019	1.00	\$150.00	\$150.00
	07/17/2019	1.00	\$150.00	\$150.00
	07/18/2019	1.00	\$150.00	\$150.00
	07/19/2019	1.00	\$150.00	\$150.00
	07/22/2019	0.50	\$150.00	\$75.00
	07/23/2019	2.00	\$150.00	\$300.00
	07/24/2019	1.00	\$150.00	\$150.00
	07/25/2019	2.00	\$150.00	\$300.00
	07/26/2019	3.00	\$150.00	\$450.00
		-----		-----
		26.50		\$3,975.00
Principal				
	07/10/2019	1.00	\$230.00	\$230.00
	07/11/2019	2.00	\$230.00	\$460.00
	07/12/2019	2.00	\$230.00	\$460.00
	07/23/2019	1.00	\$230.00	\$230.00
	07/25/2019	2.00	\$230.00	\$460.00
	07/26/2019	1.00	\$230.00	\$230.00
		-----		-----
		9.00		\$2,070.00
Professional Engineer I				
	07/26/2019	2.00	\$125.00	\$250.00
		-----		-----
		2.00		\$250.00
Total Rate Schedule Labor				\$6,645.00
Total Task : 2D6 -- 30% Civil / Site			Labor :	\$6,645.00
			Expense :	\$0.00

Task: 2D7 -- 30% QA / QC

Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
Senior Professional				
	07/18/2019	2.00	\$215.00	\$430.00
		-----		-----
		2.00		\$430.00

INVOICE



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Terms: Net 30 Days
 1.5% Per Month After 30 Days
 18% Annual Rate

Invoice Date : July 30, 2019
 Invoice # : M2015339
 Project # : MCW200501T

Phase: 200 -- Preliminary Design

Task: 2D7 -- 30% QA / QC

Total Rate Schedule Labor

\$430.00

Total Task : 2D7 -- 30% QA / QC

Labor : \$430.00
 Expense : \$0.00

Total Phase :	200 -- Preliminary Design	Labor :	\$58,332.50
		Expense :	\$0.00

Phase: 600 -- Subcontractors

Task: 6A2 -- NTH Consultants

Regular Expenses

Vendor Name	Doc Nbr	Date	Cost	Amount
Subconsultants				
	20016072	07/29/2019	\$18,865.05	\$19,808.30

				\$19,808.30
				\$19,808.30

Total Regular Expenses

\$19,808.30

Total Task : 6A2 -- NTH Consultants

Labor : \$0.00
 Expense : \$19,808.30

Total Phase :	600 -- Subcontractors	Labor :	\$0.00
		Expense :	\$19,808.30

MCW2005 01T Chapaton RTB Canal Upgrade:

Project management and coordination of design activities, staff and team meetings. Prepared monthly invoice and progress report. Performed laboratory testing on selected samples and commenced geotechnical data report. Site visits for existing sheeting for length measurements with MCPWO representatives. June 26, 2019, Commercial Diving on site to install angle iron extensions on Shore Club sheeting in preparation for sonic echo testing of sheeting length. July 12, 16 and 19 Dr. James Lynch and graduate assistant on site to obtain sonic echo measurements on Shore Club canal sheeting. Prepare Geotechnical Data Report for inclusion in BOD report. HGL analysis update workshop on July 17. Developed Option 2A drawings and estimate (boat ramp to the north). Revised hydraulic model of the existing Chapaton Canal and revised hydraulic models for proposed alternatives of canal geometry and control gate options. Developed hydraulic Basis of Design report. Meet with the ACOE and the EGLE representatives to document permitting requirements. Developed a permitting memorandum. Commenced and progressed development of project BOD and 30% drawing set and TOC development and updated engineer's estimate of construction.



NTH Consultants, Ltd.

Infrastructure Engineering and Environmental Services

INVOICE

Wade-Trim Associates, Inc.
25251 Northline
Taylor MI 48180

Invoice # : 619213
Project : 62190022
Invoice Group : **
Invoice Date : 07/23/2019

Attention: Accounts Payable

For Professional Services Rendered through: 7/19/2019

P.O./Ref #: Authorization per NTH/Wade Trim Standard Subconsultant Agreement dated February 28, 2019.

Engineering services related tot he expansion of the Chapaton Basin

Phase Name	Maximum Budget	Previous Billings	Current Charges	Remaining Budget
10 -- Project Management	28,890.00	9,189.51	860.00	18,840.49
20 -- Preliminary Design	99,060.00	52,231.52	18,005.05	28,823.43
30 -- Final Design	91,200.00	0.00	0.00	91,200.00
40 -- Bidding Assistance	9,360.00	0.00	0.00	9,360.00
Project Total	228,510.00	61,421.03	18,865.05	148,223.92

Amount Due This Invoice :

\$ 18,865.05

REMIT TO: NTH Consultants, Ltd. – 41780 Six Mile Road – Suite 200 – Northville MI – 48168-3459
Please include Project No. and Invoice No. on remittance.

TERMS: Due upon receipt. One percent (1%) interest per month charged on invoices over 30 days old.

Payment for all invoices is expected as per contract terms. All retainers are held and applied to final invoice for a project. Checks will be issued for any amounts collected as retainers that exceed the final invoice. Call 248-553-6300 with questions.



NTH Consultants, Ltd.

Infrastructure Engineering and Environmental Services

INVOICE

Project : 62190022 -- MCO - Chapaton RTB Canal Upgrades

Invoice # : 619213

Phase : 10 -- Project Management

<u>Rate Schedule Labor</u>	<u>Date</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
Senior Officer				
Roarty, Charles	06/24/2019	0.50	215.00	107.50
	06/25/2019	0.50	215.00	107.50
	06/26/2019	0.50	215.00	107.50
	07/02/2019	1.00	215.00	215.00
	07/09/2019	1.00	215.00	215.00
	07/17/2019	0.50	215.00	107.50
		<u>4.00</u>		<u>860.00</u>
Rate Schedule Labor				
Total Phase : 10 -- Project Management				
			Labor :	860.00
			Expense :	0.00

Phase : 20 -- Preliminary Design

<u>Rate Schedule Labor</u>	<u>Date</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
Cadd Operator				
Bryan, Stephen H.	07/09/2019	0.75 Overtime	85.00	63.75
	07/09/2019	1.50	85.00	127.50
	07/10/2019	2.50	85.00	212.50
	07/17/2019	2.00	85.00	170.00
	07/18/2019	0.50 Overtime	85.00	42.50
	07/19/2019	2.75	85.00	233.75
Project Professional				
Hassan, Samer	07/18/2019	4.00	120.00	480.00
	07/19/2019	4.00	120.00	480.00
Senior Officer				
Roarty, Charles	06/26/2019	2.50	215.00	537.50
	06/28/2019	1.00	215.00	215.00
	07/01/2019	3.00	215.00	645.00
	07/02/2019	1.00	215.00	215.00
	07/03/2019	1.00	215.00	215.00
	07/08/2019	1.50	215.00	322.50
	07/09/2019	2.00	215.00	430.00
	07/10/2019	1.50	215.00	322.50
	07/11/2019	1.00	215.00	215.00
	07/12/2019	6.50	215.00	1,397.50
	07/15/2019	0.50	215.00	107.50
	07/16/2019	2.00	215.00	430.00
	07/17/2019	1.00	215.00	215.00

REMIT TO: NTH Consultants, Ltd. - 41780 Six Mile Road - Suite 200 - Northville MI - 48168-3459
Please include Project No. and Invoice No. on remittance.

TERMS: Due upon receipt. One percent (1%) interest per month charged on invoices over 30 days old.

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Project : 62190022 -- MCO - Chapaton RTB Canal Upgrades

Invoice # : 619213

Phase : 20 -- Preliminary Design

<u>Rate Schedule Labor</u>	<u>Date</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
Senior Officer				
Roarty, Charles	07/18/2019	1.50	215.00	322.50
	07/19/2019	3.50	215.00	752.50
	07/19/2019	2.50	215.00	537.50
Senior Technician				
Stamper, Jeffrey	07/09/2019	2.00	90.00	180.00
Sr Staff Professional				
Warning, Kurt D.	06/26/2019	9.00	100.00	900.00
	07/12/2019	10.00	100.00	1,000.00
Word Processor				
McKiever, Marguerite A.	07/18/2019	0.50	65.00	32.50
Fabry, Lauren	07/18/2019	0.75	65.00	48.75
	07/19/2019	2.25	65.00	146.25
Rate Schedule Labor			74.50	10,997.50

<u>Regular Expenses</u>	<u>Date</u>	<u>Cost</u>	<u>Multiplier</u>	<u>Amount</u>
Subcontractors				
Commercial Diving & Marine Services	06/28/2019	5,747.03	1.15	6,609.08
Field Supplies				
National Ladder & Scaffold Co., Inc	07/19/2019	68.90	1.10	75.79
Regular Expenses				6,684.87

<u>Unit Pricing Expenses</u>	<u>Units</u>	<u>Rate</u>	<u>Amount</u>
Per Unit Expenses			
REIMBURSED MILEAGE	62.00 MILE(S) @	0.64	39.68
CADD Supplies	10.00 HOUR(S) @	6.00	60.00
COMPANY VEHICLE MILEAGE	223.00 MILE(S) @	1.00	223.00
Unit Pricing			322.68

Total Phase : 20 -- Preliminary Design

Labor : 10,997.50
Expense : 7,007.55

Total Project : 62190022 -- MCO - Chapaton RTB Canal Upgrades

18,865.05

REMIT TO: NTH Consultants, Ltd. – 41780 Six Mile Road – Suite 200 – Northville MI – 48168-3459
Please include Project No. and Invoice No. on remittance.

TERMS: Due upon receipt. One percent (1%) interest per month charged on invoices over 30 days old.

Payment for all invoices is expected as per contract terms. All retainers are held and applied to final invoice for a project. Checks will be issued for any amounts collected as retainers that exceed the final invoice. Call 248-553-6300 with questions.



ONESolution

ACCOUNTS PAYABLE CHECK REQUEST

PUBLIC WORKS DIVISION

Mark A. Hackel
County Executive

1. PREPARED BY (Please Type) Michelle Houvener	2. PHONE # 95966	3. DATE 7/2/19
4. SET ID VP19708MA		
5. POST DATE		

PARENT RECORD INFORMATION				
6. VENDOR NAME (Check to be issued to) Wade Trim	7. VENDOR NUMBER V09446	8. ADDR CODE 02	9. Invoice No (MAX = 16 CHARACTERS) M2015047	10. Invoice Date 7/1/2019
			11. Invoice Amount \$ 82,296.39	

CHILD RECORD DETAIL INFORMATION											
Line	General Ledger			Job Ledger			OPTIONAL			21. MISC	22 Sep CK
	12. Org Key	13. Object	14. Cost Center (CCNT)	15. Object	16. Work Order Number	17. Secondary Reference (MAX = 16 CHARACTERS)	18. Description (MAX = 30 CHARACTERS)	19. Amount	20. DIV		
A	8200017C	80138	CC0004	80138	WO19004	8 1/2 Mile Relief	Pjt #MWCW200501T, 5/25/19 - 6/21/19	\$ 82,296.39	GEN		
B											
C											
D											
E											
F											
G											

23. Total: \$ **82,296.39**

24. COMMENTS, INSTRUCTIONS OR ADDITIONAL NOTES:
Chapaton RTB Canal Upgrades, 5/25-6/21/19

25. Finance Officer:	<i>Adam</i>	30. Drain: 8 1/2 Mile Relief
26. Chief Deputy:		31. Project Balance: 698,336.10 (Grant Balance: \$2,720,725.10)
27. Engineers:		32. Staff Date: 7/16/2019
28. Managers:	<i>UA</i>	33. Board Date: 8/12/2019
29. Coordinator:	<i>YK</i>	34. Select For Pay Date:

0017C

W019004

INVOICE



Wade Trim
25251 Northline Road • Taylor, MI 48180
734.947.9700 • FAX: 734.947.1380 • www.wadetrिम.com
Federal ID 38-1802386

Terms: Net 30 Days
1.5% Per Month After 30 Days
18% Annual Rate

Macomb County Public Works
21777 Dunham Road
Clinton Township, MI 48036
Attention: Vince Astorino
Operations and Flow Manager

Invoice Date : July 1, 2019
Invoice # : M2015047
Project # : MCW200501T

Remit payment to : Wade Trim
P.O. Box 10
Taylor, MI 48180

Re: Chapaton RTB Canal Upgrades

For Professional Services rendered from 5/25/2019 through 6/21/2019

** All subconsultant invoices marked up 5% **

Total Salaries	\$57,816.25
Total Expenses	\$24,480.14
Professional Services Rendered	<u>\$82,296.39</u>

Amount Due This Invoice **\$82,296.39**

Statement	
Prior Invoices	\$196,978.51
This Invoice	\$82,296.39
Total Invoiced	\$279,274.90
Paid to Date	\$196,978.51
Amount Outstanding	\$82,296.39

Fee Summary	
Authorized Fee	\$977,611.00
Total Invoiced	\$279,274.90
Amount Remaining	\$698,336.10

Balance of MEDC Grant
\$2,720,725.10



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 Federal ID 38-1802386

INVOICE

Terms: Net 30 Days
 1.5% Per Month After 30 Days
 18% Annual Rate

Invoice Date : July 1, 2019
 Invoice # : M2015047
 Project # : MCW200501T

Phase: 100 -- Project Management
 Task: 1A1 -- Project Management

Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
Senior Professional	05/28/2019	3.00	\$215.00	\$645.00
	05/29/2019	3.50	\$215.00	\$752.50
	05/31/2019	2.50	\$215.00	\$537.50
	06/04/2019	2.00	\$215.00	\$430.00
	06/07/2019	2.00	\$215.00	\$430.00
	06/10/2019	1.00	\$215.00	\$215.00
	06/11/2019	2.00	\$215.00	\$430.00
	06/13/2019	0.50	\$215.00	\$107.50
	06/17/2019	1.00	\$215.00	\$215.00
	06/19/2019	0.50	\$215.00	\$107.50
			----- 18.00	

Total Rate Schedule Labor

\$3,870.00

Total Task : 1A1 -- Project Management

Labor : \$3,870.00
 Expense : \$0.00

Task: 1A2 -- Project Management Support

Rate Schedule Labor

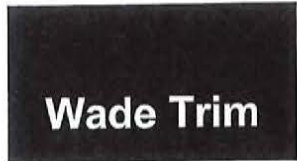
Class Name	Date	Hours	Rate	Amount
Engineer I	05/28/2019	8.00	\$100.00	\$800.00
	05/29/2019	4.00	\$100.00	\$400.00
	06/04/2019	1.50	\$100.00	\$150.00
	06/11/2019	1.50	\$100.00	\$150.00
	06/18/2019	4.50	\$100.00	\$450.00
	06/19/2019	4.00	\$100.00	\$400.00
	06/20/2019	5.50	\$100.00	\$550.00
			----- 29.00	

Professional Engineer IV

	05/29/2019	0.50	\$190.00	\$95.00
		----- 0.50		----- \$95.00

Total Rate Schedule Labor

\$2,995.00



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INVOICE

Terms: Net 30 Days
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 18% Annual Rate

Invoice Date : July 1, 2019
 Invoice # : M2015047
 Project # : MCW200501T

Phase: 100 -- Project Management

Total Task : 1A2 -- Project Management Support

Labor : \$2,995.00
 Expense : \$0.00

Task: 1EXP -- Project Management Expenses

Unit Pricing Expenses

Vendor / Employee Name	Doc Nbr	Date	Units	Rate	Amount
Employee Mileage					
	9894A9	05/29/2019	88.00	\$0.640	\$56.32
					----- 56.32
Total Unit Pricing					\$56.32

Total Task : 1EXP -- Project Management Expenses

Labor : \$0.00
 Expense : \$56.32

Total Phase : 100 -- Project Management	Labor : \$6,865.00
	Expense : \$56.32

Phase: 200 -- Preliminary Design

Task: 2A1 -- Rvw Existing Documents

Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
Project Aide II				
	06/10/2019	1.00	\$95.00	\$95.00
		----- 1.00		----- \$95.00
Total Rate Schedule Labor				\$95.00

Total Task : 2A1 -- Rvw Existing Documents

Labor : \$95.00
 Expense : \$0.00

Task: 2A2 -- Survey

Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
Senior Professional				
	06/12/2019	1.00	\$215.00	\$215.00
	06/14/2019	1.00	\$215.00	\$215.00

INVOICE

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Terms: Net 30 Days
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Invoice Date : July 1, 2019
 Invoice # : M2015047
 Project # : MCW200501T

Phase: 200 -- Preliminary Design

Task: 2A2 -- Survey

Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
		2.00		\$430.00

Total Rate Schedule Labor

\$430.00

Total Task : 2A2 -- Survey

Labor : \$430.00
 Expense : \$0.00

Task: 2A4 -- Meetings

Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
Professional LA III	06/20/2019	0.50	\$150.00	\$75.00
		0.50		\$75.00

Senior Professional

	05/28/2019	2.00	\$215.00	\$430.00
	05/29/2019	4.00	\$215.00	\$860.00
	06/19/2019	2.00	\$215.00	\$430.00
	06/17/2019	8.00	\$215.00	\$1,720.00
	06/19/2019	5.00	\$215.00	\$1,075.00
	06/11/2019	1.50	\$215.00	\$322.50
	06/18/2019	0.75	\$215.00	\$161.25
	06/19/2019	3.00	\$215.00	\$645.00
		26.25		\$5,643.75

Total Rate Schedule Labor

\$5,718.75

Total Task : 2A4 -- Meetings

Labor : \$5,718.75
 Expense : \$0.00

Task: 2B1 -- Alt Analysis & Development

Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
Engineer IV	05/28/2019	4.00	\$150.00	\$600.00
	06/05/2019	1.00	\$150.00	\$150.00
	06/06/2019	3.00	\$150.00	\$450.00

INVOICE



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Terms: Net 30 Days
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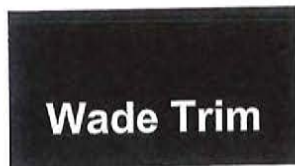
Invoice Date : July 1, 2019
 Invoice # : M2015047
 Project # : MCW200501T

Phase: 200 -- Preliminary Design
 Task: 2B1 -- Alt Analysis & Development

Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
Engineer IV				
	06/07/2019	8.00	\$150.00	\$1,200.00
	06/10/2019	6.50	\$150.00	\$975.00
	06/11/2019	6.50	\$150.00	\$975.00
	06/12/2019	3.50	\$150.00	\$525.00
	06/13/2019	3.00	\$150.00	\$450.00
	06/14/2019	3.00	\$150.00	\$450.00
	06/17/2019	1.00	\$150.00	\$150.00
	06/18/2019	6.00	\$150.00	\$900.00
	06/19/2019	5.00	\$150.00	\$750.00
	06/20/2019	4.00	\$150.00	\$600.00
	06/21/2019	6.00	\$150.00	\$900.00
		-----		-----
		60.50		\$9,075.00
Senior Professional				
	05/28/2019	6.00	\$215.00	\$1,290.00
	05/30/2019	2.00	\$215.00	\$430.00
	05/31/2019	2.00	\$215.00	\$430.00
	06/03/2019	3.00	\$215.00	\$645.00
	06/04/2019	3.00	\$215.00	\$645.00
	06/06/2019	2.00	\$215.00	\$430.00
	06/10/2019	1.00	\$215.00	\$215.00
	06/11/2019	2.00	\$215.00	\$430.00
	06/12/2019	2.00	\$215.00	\$430.00
	06/13/2019	2.00	\$215.00	\$430.00
	06/14/2019	2.00	\$215.00	\$430.00
	06/17/2019	4.00	\$215.00	\$860.00
	06/18/2019	3.00	\$215.00	\$645.00
	06/20/2019	1.00	\$215.00	\$215.00
	06/21/2019	2.00	\$215.00	\$430.00
	06/10/2019	4.00	\$215.00	\$860.00
	06/11/2019	2.00	\$215.00	\$430.00
	06/12/2019	4.00	\$215.00	\$860.00
	06/14/2019	3.00	\$215.00	\$645.00
	05/28/2019	2.00	\$215.00	\$430.00
	05/29/2019	4.00	\$215.00	\$860.00
	05/30/2019	2.00	\$215.00	\$430.00
	05/31/2019	4.00	\$215.00	\$860.00
	06/03/2019	4.00	\$215.00	\$860.00
	06/04/2019	2.00	\$215.00	\$430.00

INVOICE



Wade Trim
 25251 Northline Road • Taylor, MI 48180
 734.947.9700 • FAX: 734.947.1380 • www.wadetrim.com
 Federal ID 38-1802386

Terms: Net 30 Days
 1.5% Per Month After 30 Days
 18% Annual Rate

Invoice Date : July 1, 2019
 Invoice # : M2015047
 Project # : MCW200501T

Phase: 200 -- Preliminary Design
 Task: 2B1 -- Alt Analysis & Development

Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
Senior Professional	06/05/2019	1.00	\$215.00	\$215.00
	06/06/2019	2.00	\$215.00	\$430.00
	06/07/2019	4.00	\$215.00	\$860.00
	06/10/2019	4.00	\$215.00	\$860.00
	06/11/2019	4.00	\$215.00	\$860.00
	06/13/2019	2.00	\$215.00	\$430.00
	06/14/2019	3.00	\$215.00	\$645.00
	06/18/2019	2.00	\$215.00	\$430.00
	06/19/2019	4.00	\$215.00	\$860.00
	06/21/2019	2.00	\$215.00	\$430.00
			----- 96.00	

Total Rate Schedule Labor **\$29,715.00**

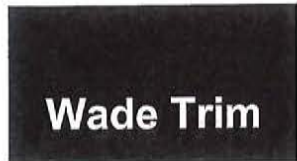
Total Task : 2B1 -- Alt Analysis & Development Labor : \$29,715.00
Expense : \$0.00

Task: 2B2 -- Alt Engineer's Const Cost Estimate

Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
Engineer IV	05/28/2019	4.00	\$150.00	\$600.00
	06/14/2019	5.00	\$150.00	\$750.00
	06/17/2019	3.00	\$150.00	\$450.00
	06/18/2019	2.00	\$150.00	\$300.00
			----- 14.00	
Senior Professional	06/17/2019	1.00	\$215.00	\$215.00
	06/18/2019	1.00	\$215.00	\$215.00
	06/03/2019	1.00	\$215.00	\$215.00
	06/14/2019	0.50	\$215.00	\$107.50
	06/17/2019	2.00	\$215.00	\$430.00
	06/18/2019	4.00	\$215.00	\$860.00
		----- 9.50		----- \$2,042.50

Total Rate Schedule Labor **\$4,142.50**



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INVOICE

Terms: Net 30 Days
 1.5% Per Month After 30 Days
 18% Annual Rate

Invoice Date : July 1, 2019
 Invoice # : M2015047
 Project # : MCW200501T

Phase: 200 -- Preliminary Design

Total Task : 2B2 -- Alt Engineer's Const Cost Estimate

Labor : \$4,142.50
 Expense : \$0.00

Task: 2B3 -- Alt Draft Report

Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
Senior Professional				
	06/04/2019	1.00	\$215.00	\$215.00
	06/06/2019	1.00	\$215.00	\$215.00
	06/10/2019	3.00	\$215.00	\$645.00
	06/11/2019	2.00	\$215.00	\$430.00
	06/12/2019	2.00	\$215.00	\$430.00
	06/14/2019	3.00	\$215.00	\$645.00
	06/17/2019	3.00	\$215.00	\$645.00
	06/18/2019	4.00	\$215.00	\$860.00
	06/19/2019	2.00	\$215.00	\$430.00
	06/20/2019	1.00	\$215.00	\$215.00
	06/12/2019	0.50	\$215.00	\$107.50
	06/17/2019	1.00	\$215.00	\$215.00
	06/18/2019	1.00	\$215.00	\$215.00
	06/19/2019	0.50	\$215.00	\$107.50

		25.00		\$5,375.00

Total Rate Schedule Labor **\$5,375.00**

Total Task : 2B3 -- Alt Draft Report

Labor : \$5,375.00
 Expense : \$0.00

Task: 2D4 -- 30% Structural

Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
Project Specialist II				
	05/28/2019	2.00	\$150.00	\$300.00
	05/29/2019	4.50	\$150.00	\$675.00
	05/30/2019	8.00	\$150.00	\$1,200.00
	05/31/2019	3.00	\$150.00	\$450.00
	06/03/2019	6.00	\$150.00	\$900.00
	06/04/2019	8.00	\$150.00	\$1,200.00
	06/05/2019	5.00	\$150.00	\$750.00

		36.50		\$5,475.00



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INVOICE

Terms: Net 30 Days
 1.5% Per Month After 30 Days
 18% Annual Rate

Invoice Date : July 1, 2019
 Invoice # : M2015047
 Project # : MCW200501T

Phase: 200 -- Preliminary Design

Task: 2D4 -- 30% Structural

Total Rate Schedule Labor **\$5,475.00**

Total Task : 2D4 -- 30% Structural Labor : \$5,475.00
Expense : \$0.00

Total Phase : 200 -- Preliminary Design	Labor :	\$50,951.25
	Expense :	\$0.00

Phase: 600 -- Subcontractors

Task: 6A1 -- Applied Science

Regular Expenses

Vendor Name	Doc Nbr	Date	Cost	Amount
Subconsultants				
	20015768	06/24/2019	\$13,830.50	\$14,522.03
	20015838	06/28/2019	\$9,430.28	\$9,901.79
				\$24,423.82
Total Regular Expenses				\$24,423.82

Total Task : 6A1 -- Applied Science Labor : \$0.00
Expense : \$24,423.82

Total Phase : 600 -- Subcontractors	Labor :	\$0.00
	Expense :	\$24,423.82

Chapaton RTB Canal Upgrade:

Project management and coordination of design activities, staff and team meetings. Prepared monthly invoice and progress report. Project Progress meeting with MCPWO on May 29, 2019. Performed laboratory testing on selected samples and commenced geotechnical data report. Site visit on June 3, 2019 to review condition of existing sheeting for length measurements with MCPWO representatives. Coordinate retention of Commercial Diving to perform underwater welding of test brackets along Shore Club Sheeting for geophysical testing. Revised the hydraulic model of the existing Chapaton Canal. Revised hydraulic models for proposed alternatives of canal geometry and control gate options. Developed hydraulic design criteria for hydraulic assessment of the proposed alternatives. Refined design drawings for alternative Options 1 and 3 and designed alternative Option 2. Developed engineer's opinion of construction cost for Options 1, 2 and 3. Design Alternative Workshop meeting with MCPWO staff on June 19, 2019. Prepared and submitted draft alternative technical report for MCPWO review. Expanded on alternative Option 2A concept, which moves boat launch closer to basin with an outlet on north side.



Applied Science, Inc.

300 River Place Suite 5400 Detroit, MI 48207
Phone: (313) 567-3990 Fax: (313) 567-3750
www.asi-detroit.com

June 24, 2019

Invoice #4 (ASI Inv. #7383)

John Arvai, P.E.
Wade Trim
25251 Northline Road
Taylor, Michigan 48180

RE: RTB Canal Upgrades
(ASI Job No. 1831)

Services provided from May 19, 2019 through June 15, 2019.

<u>Employee</u>	<u>Classification</u>	<u>Direct Labor Hrs.</u>	<u>Hourly Rate</u>	<u>Total</u>
John Michalski	Sr. Project Manager	23.0	\$ 155.00	\$ 3,565.00
Andy Wood	Project Engineer	2.0	\$ 115.00	\$ 230.00
Paul Szaga	Project Engineer	2.0	\$ 115.00	\$ 230.00
Doria Herold Jackson	CADD	10.5	\$ 96.00	\$ 1,008.00
Erika Campbell	Staff Engineer	103.5	\$ 85.00	\$ 8,797.50
Total this invoice:				\$ 13,830.50
Previous Amount Invoiced:				\$ 10,490.50
Total Invoiced To-Date:				\$ 24,321.00
Not To Exceed:				\$ 68,005.00
Amount Remaining:				\$ 43,684.00
Total Amount Due This Invoice:				<u>\$ 13,830.50</u>



Time by Project

5/19/2019 (Sun) - 6/15/2019 (Sat)

(Single Project)

	Hours	Date	Task	Type	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Approver	Status	Description
Macomb Co. Public Works:1831 Chapaton Canal & Gate														
Campbell, Erika	39.50	05/19/19	1831 Chapaton Canal & Gate:1-001 Proposal	Reg	0	6	10.50	6	7.50	9.50	0	CEC	06/03/19	
	30.50	05/26/19	1831 Chapaton Canal & Gate:1-001 Proposal	Reg	0	0	8.50	7.50	8	6.50	0	CEC	06/03/19	
	30.50	06/02/19	1831 Chapaton Canal & Gate:1-001 Proposal	Reg	0	7	8	8	7.50	0	0	CEC	06/17/19	
	3	06/09/19	1831 Chapaton Canal & Gate:1-001 Proposal	Reg	0	0	0	1	0	2	0	CEC	06/17/19	
Subtotal	103.50													
Herold-Jackson, Dorla A.														
	6	05/19/19	1831 Chapaton Canal & Gate:1-001 Proposal	Reg	0	0	0	0	2.50	3.50	0	CEC	06/03/19	
	4	05/26/19	1831 Chapaton Canal & Gate:1-001 Proposal	Reg	0	0	4	0	0	0	0	CEC	06/03/19	
	0.50	06/09/19	1831 Chapaton Canal & Gate:1-001 Proposal	Reg	0	0	0	0.50	0	0	0	CEC	06/17/19	
Subtotal	10.50													
Michalski, John R.														
	6	05/19/19	1831 Chapaton Canal & Gate:1-001 Proposal	Reg	0	1	1	1	2	1	0	CEC	06/03/19	
	7	05/26/19	1831 Chapaton Canal & Gate:1-001 Proposal	Reg	0	0	1	3	2	1	0	CEC	06/03/19	
	5	06/02/19	1831 Chapaton Canal & Gate:1-001 Proposal	Reg	0	1	1	3	0	0	0	CEC	06/17/19	
	5	06/09/19	1831 Chapaton Canal & Gate:1-001 Proposal	Reg	0	1	1	3	0	0	0	CEC	06/17/19	
Subtotal	23													
Sziaga, Paul J.														
	2	05/19/19	1831 Chapaton Canal & Gate:1-001 Proposal	Reg	0	0	0	0	0	2	0	CEC	06/03/19	Reviewed canal model for instabilities
Wood, Andrew J.														
	2	05/19/19	1831 Chapaton Canal & Gate:1-001 Proposal	Reg	0	0	2	0	0	0	0	CEC	06/03/19	Existing and proposed model development
Subtotal	141													
Total	141													

About v8.5 (r24712)



NTH Consultants, Ltd.
Infrastructure Engineering and
Environmental Services

INVOICE

Wade-Trim Associates, Inc.
25251 Northline
Taylor MI 48180

Invoice # : 618857
Project : 62190022
Invoice Group : **
Invoice Date : 06/21/2019

Attention: Accounts Payable

For Professional Services Rendered through: **6/24/2019**

P.O./Ref #: Authorization per NTH/Wade Trim Standard Subconsultant Agreement dated February 28, 2019.

Engineering services related tot he expansion of the Chapaton Basin

<u>Phase Name</u>	<u>Maximum Budget</u>	<u>Previous Billings</u>	<u>Current Charges</u>	<u>Remaining Budget</u>
10 -- Project Management	28,890.00	5,404.97	3,784.54	19,700.49
20 -- Preliminary Design	99,060.00	46,585.78	5,645.74	46,828.48
30 -- Final Design	91,200.00	0.00	0.00	91,200.00
40 -- Bidding Assistance	9,360.00	0.00	0.00	9,360.00
Project Total	228,510.00	51,990.75	9,430.28	167,088.97

Amount Due This Invoice : \$ 9,430.28

REMIT TO: NTH Consultants, Ltd. -- 41780 Six Mile Road -- Suite 200 -- Northville MI -- 48168-3459
Please include Project No. and Invoice No. on remittance.

TERMS: Due upon receipt. One percent (1%) interest per month charged on invoices over 30 days old.

Payment for all invoices is expected as per contract terms. All retainers are held and applied to final invoice for a project. Checks will be issued for any amounts collected as retainers that exceed the final invoice. Call 248-553-6300 with questions.



Project : 62190022 -- MCO - Chapaton RTB Canal Upgrades

Invoice # : 618857

Phase : 10 -- Project Management

Rate Schedule Labor	Date	Hours	Rate	Amount
Senior Officer				
Roarty, Charles	05/18/2019	1.00	215.00	215.00
	05/22/2019	3.50	215.00	752.50
	05/28/2019	1.00	215.00	215.00
	05/29/2019	4.00	215.00	860.00
	06/04/2019	1.00	215.00	215.00
	06/11/2019	1.00	215.00	215.00
	06/12/2019	0.50	215.00	107.50
	06/13/2019	2.00	215.00	430.00
	06/18/2019	2.00	215.00	430.00
	06/19/2019	1.00	215.00	215.00
	06/20/2019	0.50	215.00	107.50
Rate Schedule Labor		17.50		3,762.50

Unit Pricing Expenses	Units	Rate	Amount
Per Unit Expenses			
REIMBURSED MILEAGE	38.00 MILE(S) @	0.58	22.04
	Unit Pricing		22.04

Total Phase : 10 -- Project Management

Labor : 3,762.50
Expense : 22.04

Phase : 20 -- Preliminary Design

Rate Schedule Labor	Date	Hours	Rate	Amount
Project Professional				
Hassan, Samer	05/20/2019	2.00	120.00	240.00
Senior Officer				
Roarty, Charles	05/20/2019	1.00	215.00	215.00
	05/20/2019	3.00	215.00	645.00
	05/21/2019	0.50	215.00	107.50
	05/22/2019	0.50	215.00	107.50
	05/23/2019	0.50	215.00	107.50
	05/23/2019	1.50	215.00	322.50
	05/28/2019	6.00	215.00	1,290.00
	05/30/2019	0.50	215.00	107.50
	06/03/2019	0.50	215.00	107.50
	06/03/2019	3.50	215.00	752.50
	06/10/2019	1.00	215.00	215.00

REMIT TO: NTH Consultants, Ltd. - 41780 Six Mile Road - Suite 200 - Northville MI - 48168-3459
Please include Project No. and Invoice No. on remittance.

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NTH Consultants, Ltd.

Infrastructure Engineering and Environmental Services

INVOICE

Project : 62190022 -- MCO - Chapaton RTB Canal Upgrades

Invoice # : 618857

Phase : 20 -- Preliminary Design

Rate Schedule Labor	Date	Hours	Rate	Amount
Senior Officer				
Roarty, Charles	06/11/2019	1.00	215.00	215.00
	06/12/2019	4.50	215.00	967.50
	06/18/2019	1.00	215.00	215.00
Rate Schedule Labor		27.00		5,615.00

Unit Pricing Expenses	Units	Rate	Amount
Per Unit Expenses			
REIMBURSED MILEAGE	53.00 MILE(S) @	0.58	30.74
	Unit Pricing		30.74

Total Phase : 20 -- Preliminary Design

Labor : 5,615.00
Expense : 30.74

Total Project : 62190022 -- MCO - Chapaton RTB Canal Upgrades 9,430.28

REMIT TO: NTH Consultants, Ltd. - 41780 Six Mile Road - Suite 200 - Northville MI - 48168-3459
Please include Project No. and Invoice No. on remittance.

TERMS: Due upon receipt. One percent (1%) interest per month charged on invoices over 30 days old.

Payment for all invoices is expected as per contract terms. All retainers are held and applied to final invoice for a project. Checks will be issued for any amounts collected as retainers that exceed the final invoice. Call 248-553-6300 with questions.

Budget to Actual
8.5 Mile Relief
As of July 31, 2019 = 83%

DESCRIPTION	2019 FINAL BUDGET	ENCUMBERED	ACTUAL	REMAINING BUDGET	PCT UTILIZED
REVENUE ACCOUNTS					
Interest Earned	26,000		85,620	(59,620)	329.3%
Other Revenue	1,500		27,660	(26,160)	1844.0%
State Grant	-		3,000,000	(3,000,000)	100.0%
8.5 O&M/Charge Required Revenue	3,898,266		3,898,266	-	100.0%
PY Revenue-Fund Balance	1,946,000			1,946,000	0.0%
Rental Fee	15,360		14,266	1,094	92.9%
Total Revenue Accounts	5,887,126	-	7,025,812	(1,138,686)	119.3%
EXPENSE ACCOUNTS					
Application/Permit Fee	3,000		3,000	-	100.0%
Dues, Training, Conf, Subs.	5,750		12,555	(6,805)	218.3%
Engineering					
Chapaton East Disinfection System Improvement	50,000		17,937	32,063	35.9%
Disinfection Systems Improvement Study	120,000		74,279	45,721	61.9%
RTB/PS Ventilation Design	120,000			120,000	0.0%
Design of Improvements	50,000			50,000	0.0%
As Needed Engineering	75,000		42,258	32,742	56.3%
Chapaton Improvements-Office Space	250,000			250,000	0.0%
Phase 1 TRC Basin Equipment	100,000		990	99,010	1.0%
9 Mile & 8 1/2 Mile Rehab	100,000			100,000	0.0%
Basin Structural Integrity Study	60,000			60,000	0.0%
Basin Expansion Design	1,000,000		171,911	828,089	17.2%
In-System Storage Design(Gates on 8.5 Tunnel)	500,000			500,000	0.0%
New Equipment	161,500		62,299	99,201	38.6%
Office Supplies	750		508	242	67.7%
Operating Supplies	82,750		67,989	14,761	82.2%
Other Professional Svcs	47,920		36,859	11,061	76.9%
Personnel Services	875,405		589,397	286,008	67.3%
Repair & Maintenance	100,615		96,992	3,623	96.4%
Switch gear	45,000			45,000	0.0%
Painting interior and garage facade	20,000			20,000	0.0%
Instrumentation all buildings	30,000			30,000	0.0%
Canal seawall sheeting	5,000			5,000	0.0%
Driveway grate	12,000			12,000	0.0%
Pumping and screening improvements	1,250,000		61,854	1,188,146	4.9%
CHA-EB Chem Flow Meter - Basin Gates (Pumps 4-5)	10,000			10,000	0.0%
Security Fence Structures Around Gate Actuators	60,000			60,000	0.0%
Electrical Upgrade Program	10,000			10,000	0.0%
Pump Station Exterior Wall Upgrades-Basin Kneewall	4,000			4,000	0.0%
9 Mile Dewatering Gate	5,000			5,000	0.0%
SRF Replacement Reserve	259,215			259,215	0.0%
Scada System	190,073		165,377	24,696	87.0%
Utilities	284,148		87,803	196,345	30.9%
Total Expense Accounts	5,887,126	-	1,492,008	4,395,118	25.3%

	O&M Balance 9/30/2018	O&M	Total 7/31/2019
Cash - Operating	4,445,246	5,533,804	9,979,050
Accounts Receivable			0
Assets			0
Liabilities			0
Revenues		7,025,812	7,025,812
Expenditures		1,492,008	1,492,008
			0
Equity*	4,445,246		9,979,050

Detail of 2018 Equity*

5 year maintenance of switchgear	38,000	Instrumentation all buildings	30,000
9 Mile Dewatering Gate	5,000	Outfall Gate Reserve	7,000
Canal seawall sheeting	5,000	Painting interior and garage facade	20,000
CHA-EB Chem Flow Meter - Basin Gates (Pumps 4-5)	10,000	Pump Station Exterior-Basin Kneewall	4,000
Chapaton East disinfection system improvement	50,000	Pumping and screening improvements	1,250,000
Design of Improvements	50,000	RTB/PS Ventilation Design	60,000
Disinfection Systems Improvement Study	120,000	Sampling Pumps	2,500
Driveway grate	12,000	Scada Reserve	80,000
Electrical Upgrade Program	10,000	Security Fence Structures -Gate Act	80,000
Emergency Reserve	818,956	Spare Rain Gauge	2,500
Flow Meter	150,000	SRF Replacement Reserve	1,555,290
HVAC Design	60,000	Switch gear(Label and maintenance)	45,000