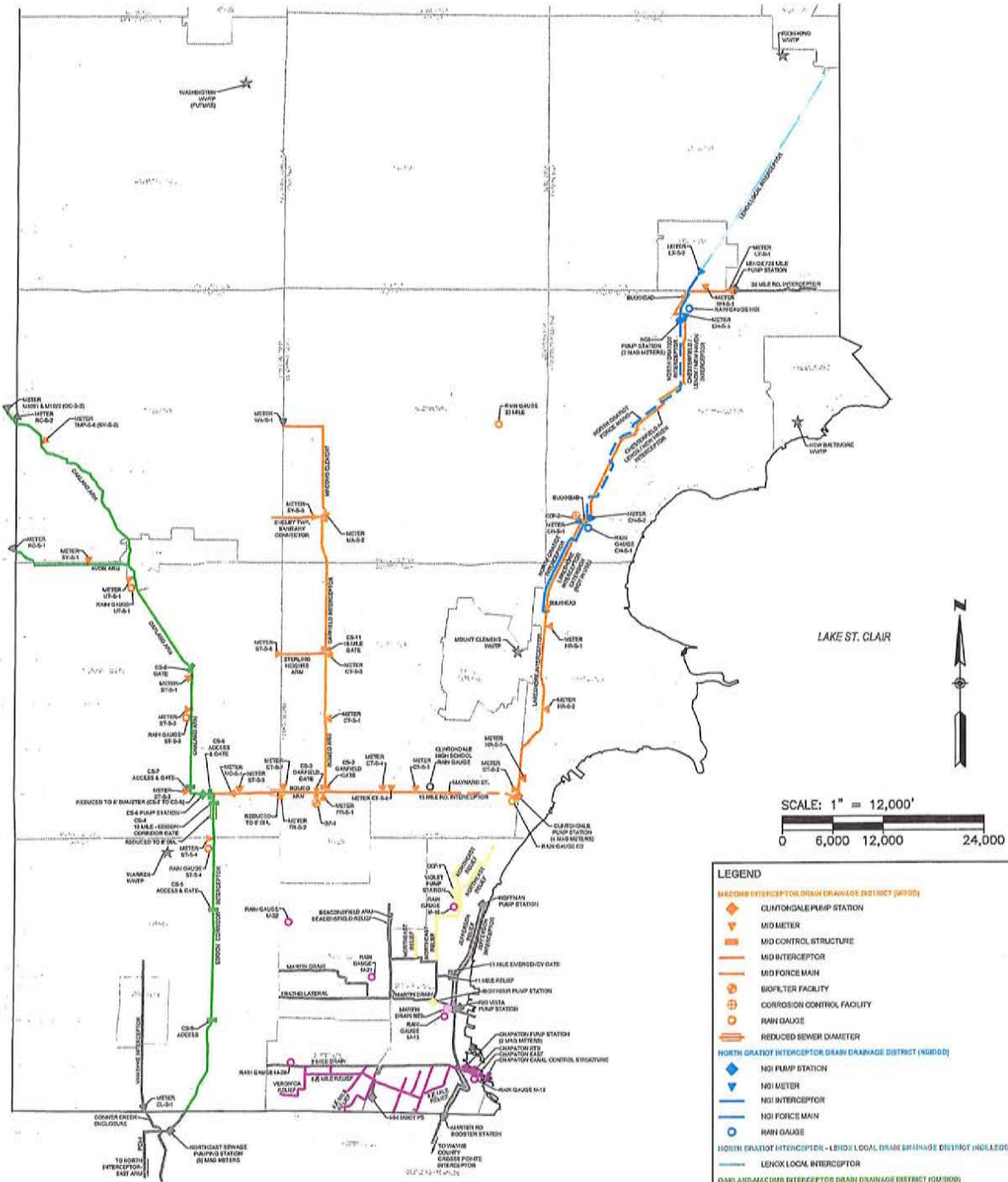


EIGHT AND ONE-HALF MILE RELIEF DRAIN  
INTRA-COUNTY DRAINAGE BOARD  
OCTOBER 21, 2019  
10:00 A.M.  
AGENDA

	Page
1. Call of meeting to order and roll call	
2. Approval of Agenda for October 21, 2019	
3. Approval of Minutes for September 9, 2019	3
4. Public Participation	
5. Project Updates – Vince Astorino	
6. Chapaton RTB Canal Upgrades Change Order #1 Recommendation – Vince Astorino	6
Motion: To approve change order #1 to Wade Trim in the amount of \$75,000 to evaluate options for replacement of the current flushing system	
8. Consideration for approval of invoices (see attached)	11
9. Financial Report – Bruce Manning	105
10. Adjourn	

# MACOMB COUNTY WASTEWATER SYSTEMS



- LEGEND**
- MACOMB INTERCEPTOR DRAIN DRAINAGE DISTRICT (MIDD)
    - ◆ CLINTONDALE PUMP STATION
    - ▼ MID METER
    - ▭ MID CONTROL STRUCTURE
    - MID INTERCEPTOR
    - MID FORCE MAIN
    - BIO-FILTER FACILITY
    - CORROSION CONTROL FACILITY
    - RAIN GAUGE
    - ▭ REDUCED SEWER DIAMETER
  - NORTH GRATIOT INTERCEPTOR DRAIN DRAINAGE DISTRICT (NGIDD)
    - ◆ NGI PUMP STATION
    - ▼ NGI METER
    - ▭ NGI INTERCEPTOR
    - NGI FORCE MAIN
    - RAIN GAUGE
  - NORTH GRATIOT INTERCEPTOR - LENOX LOCAL DRAIN DRAINAGE DISTRICT (NGLLDD)
    - LENOX LOCAL INTERCEPTOR
  - OAKLAND-MACOMB INTERCEPTOR DRAIN DRAINAGE DISTRICT (OMIDD)
    - ◆ CS-6 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
  - 8 1/2 MILE RELIEF DRAIN DRAINAGE DISTRICT (8 1/2 MRDD)
    - ◆ BEACONYS PUMP STATION
    - ▭ CORROSION CONTROL FACILITY
    - BEACONYS INTERCEPTOR
  - MARTIN SANITARY OVERSEEN DRAINAGE DISTRICT (MSDD)
    - ◆ MARTIN DRAIN RETENTION TREATMENT BASIN
  - OTHER SYSTEMS
    - ◆ PUMP STATION
    - ▼ METER
    - ☆ WWP
    - INTERCEPTOR

**Candice S. Miller**  
 MACOMB COUNTY PUBLIC WORKS COMMISSIONER



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 September 9, 2019, at 10:08 A.M.

PRESENT: Candice S. Miller, Chair  
Bryan Santo, Member  
Veronica Klinefelt, Member

ALSO PRESENT: Andrey Duzyj, Robert Leonetti, Robert Mijac, Macomb County Board of Commissioners; Vince Astorino, Operations & Flow Manager, Brian Baker, Chief Deputy, Jeff Bednar, P.E., Environmental Resources Manager, Daryl Gapshes, P.E., Plan Review Manager, Bruce Manning, Financial Manager, Tom Stockel, Construction Engineer, Madison Tanghe, Senior Secretary, Macomb County Public Works

The meeting was called to order by the Chair, Candice Miller. A motion was made by Mr. Santo, supported by Ms. Klinefelt to approve the agenda as presented.

Adopted: YEAS: 3  
NAYS: 0

Minutes of the meeting of August 12, 2019 were presented. A motion was made by Mr. Santo, supported by Ms. Klinefelt to approve the minutes as presented.

Adopted: YEAS: 3  
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 pump and screening project will go out to bid by the end of September. The canal expansion project is continuing.

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

Adopted: YEAS: 3  
NAYS: 0

Mr. Astorino informed the board on the Real-Time Total Residual Chlorine (TRC) Monitoring Phase 2 Update and Recommendation. One pump has been installed and we are asking the board for approval to purchase the remaining 3 pumps and necessary electrical work.

Mr. Astorino informed the board there has been a pilot study this past year using a Real-Time Total Residual Chlorine (TRC) Monitoring device. During a flood event, crew workers grab samples of the water and test the chlorine levels making sure they are not too high or too low. This is a very labor intensive process. The new device performs all the work, is tied into the SCADA system so that the operator can see that data which is updated every 10 minutes, so that chemicals can be adjusted immediately. There is currently only one device. We are asking the board to approve the purchase of the remaining 3 pumps and electrical work.



A motion was made by Ms. Klinefelt, supported by Mr. Santo to approve the Hamlett Environmental Technologies quote for three SWAN units at a not to exceed amount of \$20,048 and the Colville Electric quote for the required electrical work at a not to exceed amount of \$33,260.

Adopted: YEAS: 3  
NAYS: 0

Mr. Astorino shared the design for the Chapaton Laboratory Relocation & Second Floor Operational Improvements. The living quarters and laboratory are located on the second floor at Chapaton and are original to the 1968 building. There are 14 employees who report every day to this 24 hour facility and is the central location for all alarms. The first design is to move the laboratory to the east building to be near the disinfection area and where the crew pull samples. Next would be to move the SCADA control room on the first floor into where the laboratory used to be. A larger conference room for training, updating the living quarters for operators, updating the kitchen, and adding more office space for the operators are also included in the improvements.

A motion was made by Ms. Klinefelt, supported by Mr. Santo to approve the proposal from Fishbeck, Thompson, Carr & Huber (FTC&H) for the design of Chapaton operational improvement project in the not to exceed amount of \$86,000.

Adopted: YEAS: 3  
NAYS: 0

The Chair presented the invoices totaling \$589,220.97 to the board for review and approval.

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

Adopted: YEAS: 3  
NAYS: 0

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

Adopted: YEAS: 3  
NAYS: 0

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

Adopted: YEAS: 3  
NAYS: 0

The meeting was adjourned at 10:33 a.m.

  
\_\_\_\_\_  
Candice S. Miller, 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 September 9, 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.

  
\_\_\_\_\_  
Candice S. Miller, Chair  
Macomb County Public Works Commissioner

DATED: 9/9/19



**Candice S. Miller**  
Public Works Commissioner  
Macomb County

To: 8 ½ Mile Relief Drain Drainage District Board Members

CC: File

From: Vincent Astorino, Operations & Flow Manager

Date: October 10, 2019

Subject: Chapaton RTB Canal Upgrades Change Order #1 Recommendation

The Macomb County Public Works Office (MCPWO) has been working with the consulting firm Wade Trim for design of the Chapaton Canal Expansion project. While going through the design process our office has identified a way to improve the basin flushing sequence which is used after every wet weather event.

The current method for flushing the Chapaton retention basin consists of filling the existing canal with lake water and then using that water to supply our flushing pumps which clean the basin. This process takes approximately 13 hours and uses approximately 8 million gallons of water. This equates out to on average 233.25 million gallons of lake water per year that is being sent to GLWA for treatment and is costing the residents of Eastpointe, St. Clair Shores, and Roseville on average \$634,350 out of their average total \$23,058,048. As part of the current design we are implementing a new system that will install a small pipe directly to the lake which will eliminate the need to fill the canal to feed the current flushing system and reduce the water usage by approximately 3 million gallons every event. By implementing this change MCPWO will have the ability to lower average annual costs by \$236,574.

Within our 10-year CIP, we have identified that the current flushing is a top 5 priority for replacement to continue fulfilling our permit requirements to clean the basin after rain events. This system was installed in 1978 and has surpassed the end of its useful life. In the 19/20 budget, MCPWO included a study of the flushing system to provide options and budgetary costs for replacement of the system. Since this is tied to the changes we are currently designing we feel it is necessary to look at the complete system now to reduce the risk of designing something that will not work with the long term plans of that system. Wade Trim is highly qualified to perform this task as they have designed and implemented flushing systems for basins all over this region along with other states.

I recommend awarding change order #1 to Wade Trim in the amount of \$75,000 to evaluate options for replacement of the current flushing system. This will not change the length of the schedule for their current design work as this study will be done concurrently.



Wade Trim Associates, Inc.  
25251 Northline Road • Taylor, MI 48180  
734.947.9700 • www.wadetrim.com

October 9, 2019

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

Attention: Mr. Vince Astorino

Re: Flushing System Study Proposal  
Chapaton RTB Canal – 8½ Mile Relief Drain Drainage District  
Contract WWS-2019-002

Dear Mr. Astorino:

As per your request, Wade Trim has prepared a proposal to conduct a Flushing System Study as part of the Chapaton RTB Upgrades project. The purpose of the study is to evaluate the existing retention basin flushing system and identify any potential upgrades or modifications that may enhance system performance or minimize operation and maintenance requirements. The evaluation will include examination of any new technologies for system flushing that may be applicable to upgrade or retrofit the existing flushing system.

The following is our understanding of the scope and budget estimate for the services you have requested based on our discussions:

### **Scope of Services**

#### Task 1: Existing System Evaluation

Wade Trim will perform an evaluation of the existing Chapaton RTB Canal Flushing System. This will include holding a meeting(s) with the operators to gain an understanding on system performance, required effort from the operators, and system related costs. For this task, there is an understanding that a condition assessment previously performed for the flushing system components as part of the Asset Management Project will be provided by Macomb County Public Works Office (MCPWO).

#### Task 2: Alternatives Analysis

Wade Trim will perform an analysis of alternatives for the flushing of the Chapaton RTB Canal based on the currently applicable technologies for flushing and existing facility retrofit constraints. Up to three alternatives will be developed and evaluated with their anticipated performance compared to the current operation performance, operator effort, and current costs. Data from the selected alternatives and current system will be provided in a side-by-side table showing the comparison between all categories.



Task 3: Summary Report

The results of the existing system performance and alternative evaluations will be summarized in a Technical Memorandum to document the study findings. The Technical Memorandum will identify recommendations and costs for a recommended improvement alternative based on review and discussion with MCPWO staff.

**Schedule**

The schedule for the Flushing System Study will be in accordance with the original Chapaton RTB Canal Upgrades schedule. The Flushing Study portion of the project is anticipated to be completed and submitted to 8½ Mile Relief Drain Drainage District by December 20, 2019.

**Price Proposal**

Wade Trim proposes to complete the above services in accordance with the terms of our existing WWS-2019-002 Chapaton RTB Canal Upgrades contract on a time and materials basis for a budget amount of \$75,000.00. An estimated manhour and cost breakdown for this work is attached. We propose to use design staff on the project that are already familiar with the Chapaton facility based on our previous and ongoing project activities at the site. If additional effort is requested or required over the established budget amount, we will notify you in advance for authorization before proceeding with the work.

If you have any questions, please do not hesitate to call or email.

Very truly yours,

Wade Trim Associates, Inc.



John Arvai, PE

JA:ka  
MCW 2005-01T  
Flushing System Study Prop Ltr 10-9-19.docx  
Enclosure



**Price Proposal**

PROPOSAL NO.: MCPWO WWS-2019-002

CHAPATON RTB CANAL UPGRADES

SUBMITTED TO: 8 1/2 Mile Relief Drain Drainage District

**CHAPATON RTB FLUSHING SYSTEM STUDY**

PROJECT PHASE/TASKS DESCRIPTION	PM - Sr. Professional	Principal	Sr. Professional	Prof. Engineer V	Prof. Engineer II	Project Specialist III	CADD Technician IV	Engineer I	Project Admin	Labor	OCC/Expense	Task Pricing Totals
<b>TASK 1 - SYSTEM EVALUATION</b>												
Meetings	34	4	8	8	4	4	2	4			200	6,770
Data and Document Review	22	4	4	4	2	2		2				4,300
<b>TASK 2 - ALTERNATIVES ANALYSIS</b>												
Alternatives Evaluation and Selection	158	8	24	20	12	30	8	16	40		100	25,480
Alternatives Comparison	112	4	16	16	4	4	8	8	40			17,200
<b>TASK 3 - Summary Report</b>												
QA/QC	2		2							480		480
Draft TM Submittal	82	4	16	20	8	8	8	16	2		150	14,320
Final TM Submittal	38	2	8	1	6	6	2	8	1		150	6,500
<b>Sub - Totals</b>	<b>448</b>	<b>26</b>	<b>78</b>	<b>69</b>	<b>40</b>	<b>72</b>	<b>34</b>	<b>110</b>	<b>3</b>	<b>0</b>	<b>800</b>	<b>75,000</b>
<b>Sub Rate</b>	\$ 215	\$ 230	\$ 215	\$ 205	\$ 145	\$ 175	\$ 100	\$ 100	\$ 65	\$ -	\$ -	\$ -
<b>TOTAL</b>	\$ 5,690	\$ 17,940	\$ 14,635	\$ 8,200	\$ 10,440	\$ 2,800	\$ 3,400	\$ 11,000	\$ 195	\$ -	\$ -	\$ 75,000

Date of Issuance: 10/21/19  
Owner: 8 1/2 Mile Relief Drain  
Drainage District  
Engineer: Wade Trim

Effective Date: 10/22/19  
Owner's Contract No.: WWS-2019-002  
Engineer Contract No.: MCW200501T  
Contract Name: Chapaton Canal Upgrades

The Contract is modified as follows upon execution of this Change Order:

Provide the additional services as described in the attached proposals dated October 9, 2019 for the not-to-exceed amount of \$75,000.

The original Contract Sum was:	<u>\$ 977,611.00</u>
The net change from previously approved Change Orders No. to No.:	<u>\$ 0</u>
The Contract Sum prior to this Change Order:	<u>\$ 977,611.00</u>
The Contract Sum prior to this Change Order will be increased by:	<u>\$ 75,000.00</u>
The new Contract Sum, including this Change Order, will be:	<u>\$ 1,052,611.00</u>
The Contract Time will be unchanged by:	0 (days)

The date of Substantial Completion as of the date of this Change Order, therefore, is: N/A

ACCEPTED:

ACCEPTED:

By: \_\_\_\_\_  
Owner (Authorized Signature)

By: \_\_\_\_\_  
Engineer (Authorized Signature)

Title \_\_\_\_\_  
Date \_\_\_\_\_

Title \_\_\_\_\_  
Date \_\_\_\_\_



EIGHT AND ONE HALF MILE RELIEF DRAIN 9/17/19 - 10/15/19

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	CDW Government	\$ 2,238.76	Invoice #TSX5310 - 09.04.19	Smart UPS	
		Astorino	City of St. Clair Shores Treasurer	\$ 2,337.64	Invoice #19-447 - 09.30.19	Water Bill - 06.13.19 - 09.15.19	
		Astorino	DTE Energy	\$ 7,075.59	Invoice #19-419 - 09.09.19	Monthly Electric - 08.09.19 - 09.09.19	
		Astorino	Fishbeck, Thompson, Cair & Huber	\$ 28,774.23	Invoice #385812 - 09.16.19	Basin Structural Integrity - As Needed	\$ 94,907.02
		Astorino	Grainger	\$ 742.02	Invoice #9295022173 - 09.05.19	30 - Socket Plug; 12 - Blank Stock	
		Astorino	Hamlett Environmental Technologies	\$ 19,537.00	Invoice #215042 - 09.12.19	SWAN Units	
		Astorino	HESCO	\$ 906.56	Invoice #20191508 - 09.25.19	KPSL-Measurements Specialties 27 Pressure	
		Astorino	Home Depot	\$ 534.03	Invoice #4112602 - 08.27.19	Miscellaneous Equipment	
		Astorino	Home Depot	\$ 538.00	Invoice #6662407 - 09.30.19	Battery and Accessories	
		Astorino	JCI Jones Chemicals	\$ 4,095.76	Invoice #801413 - 09.25.19	Hypochlorite Solution - 4,257 gallons	
		Astorino	Kennedy Industries	\$ 2,200.00	Invoice #613371 - 09.19.19	Chapaton Preventative Maintenance - Pumps	
		Astorino	Kienbaum, Hardy, Viviano, Pelton & Forrest	\$ 697.50	Invoice #43094 - 09.30.19	Legal Services - Chapaton	
		Astorino	Macomb County Treasurer	\$ 36,072.50	Invoice #AR190762 - 09.13.19	County Motorola Radio Replacement	
		Astorino	The Macomb Group, Inc.	\$ 9,593.70	Invoice #5722083 - 09.24.19	Chapaton - TRC Equipment	
		Astorino	The Macomb Group, Inc.	\$ 1,203.60	Invoice #5724507 - 09.26.19	Chapaton Chlorine Line Repair	
		Astorino	Marino's Landscape	\$ 1,100.00	Invoice #8242 - 09.30.19	Lawn Care September 2019	\$ 1,375.00
		Astorino	Marino's Landscape	\$ 1,375.00	Invoice #7757 - 08.31.19	Lawn Maintenance	\$ 2,475.00
		Astorino	NEXGEN	\$ 2,625.00	Invoice #2231 - 07.01.19	License Maintenance & Support	
		Astorino	Premier Safety	\$ 1,391.81	Invoice #04166347 - 09.26.19	Calibration Kits - Gas Detectors	\$ 465,860.50
		Astorino	Tetra Tech, Inc.	\$ 9,346.50	Invoice #51486824 - 09.12.19	In-System Storage Devices	\$ 448,379.22
		Astorino	Wade Trim	\$ 89,256.89	Invoice #M2015870 - 09.24.19	Chapaton R/TB Canal Upgrades	\$ 537,636.11
		Astorino	Wade Trim	\$ 78,710.44	Invoice #M2015602 - 08.28.19	Chapaton Canal Upgrades 7.27.19 - 8.23.19	
					<b>Total</b>	\$ 300,352.53	



Mark A. Hackel  
County Executive

# ONESolution

ACCOUNTS PAYABLE CHECK REQUEST

## PUBLIC WORKS DIVISION

1. PREPARED BY (Please Type) <b>Michelle Houvener</b>	2. PHONE # <b>95966</b>	3. DATE <b>9/10/19</b>
4. SET ID <b>VP19911MA</b>		
5. POST DATE		

<b>PARENT RECORD INFORMATION</b>	
6. VENDOR NAME (Check to be issued to) <b>CDW GOVERNMENT</b>	11. Invoice Amount <b>5,970.02</b>
7. VENDOR NUMBER <b>V00821</b>	10. Invoice Date <b>9/4/2019</b>
8. ADDR CODE <b>02</b>	19. Amount <b>\$</b>
9. Invoice No (MAX = 16 CHARACTERS) <b>TSX5310</b>	

CHILD RECORD DETAIL INFORMATION										
Line	General Ledger		Job Ledger		16. Work Order Number	OPTIONAL		19. Amount	20. DIV	21. MISC
	12. Org Key	13. Object	14. Cost Center (CCNT)	15. Object		17. Secondary Reference (MAX = 16 CHARACTERS)	18. Description (MAX = 30 CHARACTERS)			
A	8200166M	97002	CC0014	97002	WO19016	MIDDD	Cust #10022053, APC Smart UPS	\$ 2,567.11	GEN	MIDDD
B	8200166M	97002	CC0014	97002		MIDDD (OMID)	Cust #10022053, APC Smart UPS	\$ 417.90	GEN	
C	8200017M	97002	CC0014	97002		8 1/2 Mile Relief	Cust #10022053, APC Smart UPS	\$ 2,238.76	GEN	
D	8200072M	97002	CC0014	97002		Martin	Cust #10022053, APC Smart UPS	\$ 447.75	GEN	
E	8703018M	97002	CC0014	97002	WO18218	SEMCWWDS (BH)	Cust #10022053, APC Smart UPS	\$ 149.25	GEN	
F	8703018M	97002	CC0014	97002	WO18219	SEMCWWDS (V)	Cust #10022053, APC Smart UPS	\$ 149.25	GEN	
G										

REV 09/2018

23. Total: \$ **5,970.02**

24. COMMENTS, INSTRUCTIONS OR ADDITIONAL NOTES:

25. Finance Officer: <u>BHM</u>	30. Drain: <u>Multiple</u>
26. Chief Deputy: <u>AB</u>	31. Project Balance: <u>N/A</u>
27. Engineers:	32. Staff Date: <u>9/17/2019</u>
28. Managers: <u>VA</u>	33. Board Date: <u>10/21/2019</u>
29. Coordinator: <u>VB</u>	34. Select For Pay Date:



REMIT PAYMENT TO: \_\_\_\_\_

**INVOICE**

ACH INFORMATION:  
 THE NORTHERN TRUST  
 50 SOUTH LASALLE STREET  
 CHICAGO, IL 60675

E-mail Remittance To: gachremittance@cdw.com  
 ROUTING NO.: 071000152  
 ACCOUNT NAME: CDW GOVERNMENT  
 ACCOUNT NO.: 91057



**CDW Government**  
 75 Remittance Drive, Suite 1515  
 Chicago, IL 60675-1515



RETURN SERVICE REQUESTED

INVOICE NUMBER	INVOICE DATE	CUSTOMER NUMBER
TSX5310	09/04/19	10022053
<b>SUBTOTAL</b>	<b>SHIPPING</b>	<b>SALES TAX</b>
\$5,970.02	\$0.00	\$0.00
<b>DUE DATE</b>		<b>AMOUNT DUE</b>
10/04/19		<b>\$5,970.02</b>

504 1 MB 0.428 E0164 I0254 D5240309722 S2 P6715574 0002:0002



MACOMB COUNTY PUBLIC WORKS COMMISSI  
 ACCOUNTS PAYABLE  
 21777 DUNHAM RD  
 CLINTON TOWNSHIP MI 48036-1005



CDW Government  
 75 Remittance Drive  
 Suite 1515  
 Chicago, IL 60675-1515

**PLEASE RETURN THIS PORTION WITH YOUR PAYMENT**

INVOICE DATE	INVOICE NUMBER	PAYMENT TERMS			DUE DATE	
09/04/19	TSX5310	Net 30 Days			10/04/19	
ORDER DATE	SHIP VIA	PURCHASE ORDER NUMBER			CUSTOMER NUMBER	
09/03/19	UPS Ground (1- 2 day)	SEE BRENT OR JOE			10022053	
ITEM NUMBER	DESCRIPTION	QTY ORD	QTY SHIP	QTY B/O	UNIT PRICE	TOTAL
4252182	APC SMART-UPS SRT 3000VA RM 120V Manufacturer Part Number: SRT3000RMXLA-NC Serial No: SAS1925292507 Serial No: SAS1925292508  <i>W019016</i>	2	2	0	2,985.01	5,970.0

**GO GREEN!**

CDW is happy to announce that paperless billing is now available! If you would like to start receiving your invoices as an emailed PDF, please email CDW at [paperlessbilling@cdw.com](mailto:paperlessbilling@cdw.com). Please include your Customer number or an Invoice number in your email for faster processing.

**REDUCE PROCESSING COSTS AND ELIMINATE THE HASSLE OF PAPER CHECKS!**

Begin transmitting your payments electronically via ACH using CDW's bank and remittance information located at the top of the attached payment coupon. Email [credit@cdw.com](mailto:credit@cdw.com) with any questions.

ACCOUNT MANAGER	SHIPPING ADDRESS:	SUBTOTAL	\$5,970.0
DAVE ENGMARK 312-705-8110 davieng@cdwg.com	MACOMB COUNTY PUBLIC WORKS COMMISSI ACCOUNTS PAYABLE 21777 DUNHAM RD CLINTON TOWNSHIP MI 48036	SHIPPING	\$0.0
SALES ORDER NUMBER		SALES TAX	\$0.0
KWBZ015		<b>AMOUNT DUE</b>	<b>\$5,970.0</b>

Cage Code Number 1KH72  
 DUNS Number 02-615-7235

**HAVE QUESTIONS ABOUT YOUR ACCOUNT?**  
 PLEASE EMAIL US AT [credit@cdw.com](mailto:credit@cdw.com)

VISIT US ON THE INTERNET AT [www.cdwg.com](http://www.cdwg.com)



ISO 9001 and ISO 14001 Certified  
 CDW GOVERNMENT FEIN 36-4230110





# ONESolution

ACCOUNTS PAYABLE CHECK REQUEST  
PUBLIC WORKS DIVISION

Mark A. Hackel  
County Executive

1. PREPARED BY (Please Type) <b>Michelle Houvener</b>	2. PHONE # <b>95966</b>	3. DATE <b>9/30/19</b>
4. SET ID <b>19191009MUA</b>		
5. POST DATE		

<b>PARENT RECORD INFORMATION</b>			
6. VENDOR NAME (Check to be issued to) City of St. Clair Shores Treasurer	7. VENDOR NUMBER V00928	8. ADDR CODE 01	9. Invoice No (MAX = 16 CHARACTERS) 19-447
			10. Invoice Date 9/30/2019
			11. Invoice Amount \$ 2,337.64

CHILD RECORD DETAIL INFORMATION				20. DIV	21. MISC		
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
A	8200017M	92103	92103		8 1/2 MILE RELIEF	AC#23287-00, 6/13-9/15	\$ 2,337.64
B							
C							
D							
E							
F							
G							

23. Total: \$ **2,337.64**

24. COMMENTS, INSTRUCTIONS OR ADDITIONAL NOTES:

25. Finance Officer: <i>[Signature]</i>	30. Drain: <b>8 1/2 MILE RELIEF</b>
26. Chief Deputy: <i>[Signature]</i>	31. Project Balance: <b>N/A</b>
27. Engineers:	32. Staff Date: <b>10/15/2019</b>
28. Managers: <i>[Signature]</i>	33. Board Date: <b>10/21/2019</b>
29. Coordinator: <i>[Signature]</i>	34. Select For Pay Date:



# St. Clair Shores Water Bill

**ACCOUNT NUMBER**

23287-00

**SERVICE ADDRESS**

23001 NINE MILE

**SERVICE TYPE**

Government

**PREVIOUS READ**

1432  
7160

**CURRENT READ**

1469 A  
7290 A

**CONSUMPTION**

37  
130

**FROM: SERVICE PERIOD TO:**

06/13/19 09/15/19  
06/13/19 09/15/19

**DUE DATE**

10/21/2019

**PAY AFTER DUE DATE**

2454.52

**PAY BY DUE DATE**

2337.64

PREVIOUS BALANCE

0.00

Water

867.23

Sewer

1111.72

Customer Chg

358.20

Retention Basins O&M

0.49

**CURRENT BALANCE**

2337.64

**MONTHLY BUDGET**

19.447

Temp-Return Service Requested

8295 1 AB 0.412

8295-8295-27

9.30

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: \$5.193/unit

Sewer rate: \$6.657/unit

Total rate: \$11.85

One unit = 748 gallons



City of  
St. Clair  
Shores

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](http://www.scsmi.org)

To Pay by Credit Card or Electronic Check



Visit [www.scsmi.org](http://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**

10/21/2019

**Pay After Due Date**

2454.52

**PAY BY DUE DATE**

2337.64

**Service Address**

23001 NINE MILE

City of St. Clair Shores

27600 Jefferson Ave

Saint Clair Shores MI 48081-2075

**Account Number**

23287-00







Mark A. Hackel  
County Executive

# ONESolution

ACCOUNTS PAYABLE CHECK REQUEST

## PUBLIC WORKS DIVISION

1. PREPARED BY (Please Type) <b>Michelle Houvener</b>	2. PHONE # <b>95966</b>	3. DATE <b>9/16/19</b>
4. SET ID <b>VP19917MUA</b>		
5. POST DATE		

PARENT RECORD INFORMATION			
6. VENDOR NAME (Check to be Issued to) <b>DTE Energy</b>	7. VENDOR NUMBER <b>V01270</b>	8. ADDR CODE <b>08</b>	9. Invoice No (MAX = 16 CHARACTERS) <b>19-419</b>
		10. Invoice Date <b>9/9/2019</b>	11. Invoice Amount <b>\$ 7,075.59</b>

CHILD RECORD DETAIL INFORMATION				19. Amount	20. DIV	21. MISC	22. Sep CK				
Line	12. Org Key	13. Object	14. Job Ledger 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	92101	CC0004	92101	WO18006	8 1/2 Mile Relief	Acct #9100-0005-3785, 8/9-9/9	\$ 7,075.59	GEN		
B											
C											
D											
E											
F											
G											

23. Total: \$ **7,075.59** REV 09/2018

24. COMMENTS, INSTRUCTIONS OR ADDITIONAL NOTES:

25. Finance Officer:	<i>bitm</i>	30. Drain:	8 1/2 Mile Relief
26. Chief Deputy:	<i>js</i>	31. Project Balance:	N/A
27. Engineers:		32. Staff Date:	10/1/2019
28. Managers:	<i>UP</i>	33. Board Date:	10/21/2019
29. Coordinator:	<i>MB</i>	34. Select For Pay Date:	



910000053785

00000707559 B



**Payment Coupon**

\_\_\_\_\_

<b>Account Number</b>	<b>910000053785</b>
<b>Due Date:</b>	<b>October 03, 2019</b>
<b>Total Due:</b>	<b>\$7,075.59</b>

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**

19.419

\_\_\_\_\_

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

<b>Account Number</b>	<b>9100-0005-3785</b>
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DTE-Energy Federal ID No.	38-3217752
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**Programs you are enrolled in:**

SolarCurrents Program

**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**

\_\_\_\_\_

For the average Michigan residential customer, renewable energy is estimated to avoid \$3.08 per month of new coal-fired generation costs.



# Detail Charges

For Service at: 23001 E 9 Mile Rd, St Clair Shores, MI 48082  
 Invoice: 200001757275

Outage Contact Number: 1-313-235-1300  
 Billing Period: 08/09/2019 through 09/09/2019  
 Days Billed: 32

## Metering Information

Meter Number	Start Date	Start Read	Stop Date	Stop Read	Read Difference	Units Multiplier	Usage Used	Type
6321448	08/09	363.0A	09/09	368.2A	5.2	6,400.0000	33,280.0	P - In-V
6321448	08/09	457.9A	09/09	463.6A	5.7	6,400.0000	36,480.0	P - In-W
6321449	08/09	1.2A	09/09	1.2A	0.0	- 6400.000	0.0	P - Out-V
6321449	08/09	0.0A	09/09	0.0A	0.0	- 6400.000	0.0	P - Out-W
6321451	08/09	0.5A	09/09	0.5A	0.0	6,400.0000	0.0	P - In-V
6321451	08/09	0.5A	09/09	0.5A	0.0	6,400.0000	0.0	P - In-W
<b>Total KVARH</b>							<b>33,280.00</b>	
<b>Total KWH</b>							<b>36,480.00</b>	

Invoice: 200001757275 Service Name: Chapaton Pumping Station  
 Item: 7004376662 Cycle: 05

General Service Municipal Pumping-Net Metering Cat1

## Billing Status Information

1	On-peak Billing Demand	236	KW	ESTABLISHED	09/04/2019	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	840	KW	ESTABLISHED	08/20/2019	22:00
A	Current PV High Monthly Demand	840	KW	ESTABLISHED	08/20/2019	22:00
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	73	PCT			
	Total Number of days in the Billing Period	32	DAYS			
	Avg Kilowatthours Used Per Day This Period	1140	KWH			
	Avg Kilowatthours Used Per Day A Year Ago	1067	KWH			
	kWh percentage change from a year ago	7	PCT			
	Metered outflow	0	KWH			
	Net Delivery Billed (inflow)	36480	KWH			
	Net Inflow (In - Out)	36480	KWH			

## Charges for 08/09/2019 through 09/09/2019

### Power Supply Charges:

Power Supply Energy:						
Power Supply Capacity Charge	36,480	KWH	@ \$	0.0329700	Per Total KWH	1,202.75
Power Supply Non Capacity Charge	36,480	KWH	@ \$	0.0464000	Per Total KWH	1,692.67
Surcharges:						
Power Supply Cost Recovery Factor	36,480	KWH	@ \$	0.0041000	Per Total KWH	149.57
<b>Sub Total:</b>						<b>3,044.99</b>

### Delivery Charges:

Service Charge						11.25
Distribution:						
Distribution Energy	36,480	KWH	@ \$	0.0386600	Per Total KWH	1,410.32
Surcharges:						
Nuclear Surcharge	36,480	KWH	@ \$	0.0008270	Per Total KWH	30.17
Energy Waste Reduction	2	MTR	@ \$	38.5100000		77.02
LIEAF Factor	2	MTR	@ \$	0.9200000		1.84
<b>Sub Total:</b>						<b>1,530.60</b>
Special Facilities Charge						2,500.00

### Invoice Subtotal

7,075.59

Michigan State Sales Tax On Taxable Portion

0.00

### Invoice Total

\$7,075.59

# Summary Of Charges

**Account Number 9100-0005-3785**

Previous Balance as of 08/15/2019	6,602.77
Payment(s) and Credit(s)	- 6,602.77
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	08/09 - 09/09/19	7,075.59
		Taxes			0.00
		Miscellaneous Charges			0.00
		<b>Current Bill</b>			<b>\$7,075.59</b>

**Amount Due on or before Due Date of 10/03/2019** **\$7,075.59**

Your current charges are due on October 3, 2019. A 2% late payment charge will be applied if paid after the due date.





Mark A. Hackel  
County Executive

# ONESolution

ACCOUNTS PAYABLE CHECK REQUEST

## PUBLIC WORKS DIVISION

1. PREPARED BY (Please Type) <b>Michelle Houvener</b>	2. PHONE # <b>95966</b>	3. DATE <b>9/20/19</b>
4. SET ID <b>VR19924NA</b>		5. POST DATE

6. VENDOR NAME (Check to be issued to) <b>FTCH</b>	7. VENDOR NUMBER <b>V44063</b>	8. ADDR CODE <b>01</b>	9. Invoice No (MAX = 16 CHARACTERS) <b>385812</b>	10. Invoice Date <b>9/16/2019</b>	11. Invoice Amount <b>\$ 28,774.23</b>
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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)				
A	8200017M	80138	80138	WO19005	8 1/2 Mile Relief	\$ 28,774.23	GEN		
B									
C									
D									
E									
F									
G									

23. Total: \$ **28,774.23** REV 09/20/18

24. COMMENTS, INSTRUCTIONS OR ADDITIONAL NOTES:  
**As Needed Services through 9/6/19**

---

25. Finance Officer: *MM*      30. Drain: **8 1/2 Mile Relief**

26. Chief Deputy: *JP*      31. Project Balance: **\$94,907.02**

27. Engineers:      32. Staff Date: **10/1/2019**

28. Managers: *MS*      33. Board Date: **10/21/2019**

29. Coordinator: *MS*      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 Arborëtum 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 :** 385812  
**Invoice Date :** 9/16/2019  
**Project :** 190051  
**Project Name :** Macomb Co PW/8.5 As-needed  
 Engineering  
**Bill Term :** 1

**For Professional Services Rendered Through 9/6/2019**

WO19005

	Fee	Available	Billings		
			To Date	Previous	Current
1 - Task 1 - Genral As Needed	23,195.00	23,195.00	0.00	0.00	0.00
1.A - Task 1a - Chapaton Structural Study	60,663.00	60,429.00	23,642.86	234.00	23,408.86
<i>Rate Labor</i>	164.00				
<i>Expensës</i>	23,244.86				
1.B - Task 1b - 9 Mile Pipe Repair	16,256.00	14,650.00	6,173.37	1,606.00	4,567.37
<i>Rate Labor</i>	246.00				
<i>Expenses</i>	4,321.37				
1.C - Task 1c - In-System Storage As-Needed	5,250.00	5,250.00	0.00	0.00	0.00
1.D - Task 1d - Office Improvements	25,000.00	6,424.10	19,373.90	18,575.90	798.00
<i>Rate Labor</i>	798.00				
1.E - Task 1e - Maps	7,500.00	5,828.00	1,672.00	1,672.00	0.00
1.F - Task 1f - Chapaton Sampling Plan	4,200.00	134.40	4,065.60	4,065.60	0.00
1.G - Task 1g - Chapaton Survey	2,100.00	15.75	2,084.25	2,084.25	0.00
1.H - Task 1h - Chapaton Bar Screen Hydraulic Isolation	4,725.00	4,725.00	0.00	0.00	0.00
1.I - Task 1i - Chapaton Environmental Study	3,030.00	3,030.00	0.00	0.00	0.00
				<b>Current Billings</b>	<b>28,774.23</b>
				<b>Amount Due This Bill</b>	<b>28,774.23</b>

**1.A - Task 1a - Chapaton Structural Study**

**Rate Labor**

<i>Class</i>	<i>Hours</i>	<i>Rate</i>	<i>Amount</i>
Senior Engineer	1.00	164.0000	164.00
<b>Total Rate Labor</b>			<b>164.00</b>

**Expenses**

<i>Account / Vendor</i>	<i>Cost</i>	<i>Multiplier</i>	<i>Amount</i>
<b>Subconsultant</b>			
Anderson Eckstein & Westrick Inc	10,395.00	1.05	10,914.75
NTH Consultants Ltd	11,742.96	1.05	12,330.11
<b>Total Subconsultant</b>	22,137.96		23,244.86
<b>Total Expenses</b>			<b>23,244.86</b>

**Total Bill Task: 1.A - Task 1a - Chapaton Structural Study**

**23,408.86**

**1.B - Task 1b - 9 Mile Pipe Repair**

**Rate Labor**

<i>Class</i>	<i>Hours</i>	<i>Rate</i>	<i>Amount</i>
Senior Engineer	1.50	164.0000	246.00
<b>Total Rate Labor</b>			<b>246.00</b>

**Expenses**

<i>Account / Vendor</i>	<i>Cost</i>	<i>Multiplier</i>	<i>Amount</i>
<b>Subconsultant</b>			
NTH Consultants Ltd	4,115.59	1.05	4,321.37
<b>Total Expenses</b>			<b>4,321.37</b>

**Total Bill Task: 1.B - Task 1b - 9 Mile Pipe Repair**

**4,567.37**

**1.D - Task 1d - Office Improvements**

**Rate Labor**

<i>Class</i>	<i>Hours</i>	<i>Rate</i>	<i>Amount</i>
Senior Architect	4.00	155.0000	620.00
Staff Architect	2.00	89.0000	178.00
<b>Total Rate Labor</b>			<b>798.00</b>

**Total Bill Task: 1.D - Task 1d - Office Improvements**

**798.00**

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

**28,774.23**

**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**                        Fishbeck

**INVOICE DATE**                            9/12/2019

**INVOICE START DATE**                      8/10/2019

**INVOICE END DATE**                        9/6/2019

<b>ORIGINAL CONTRACT AMOUNT</b>	\$	<b>151,919.00</b>
<b>CHANGE ORDER TOTAL</b>	\$	-
Change Order No. 1		
Change Order No. 2		
Change Order No. 3		
Change Order No. 4		
<b>TOTAL REVISED CONTRACT AMOUNT</b>	\$	<b>151,919.00</b>
(includes all approved change orders only)		
<b>TOTAL AMOUNT PREVIOUSLY INVOICED</b>	\$	<b>28,237.75</b>
<b>TOTAL AMOUNT DUE THIS INVOICE</b>	\$	<b>28,774.23</b>
<b>TOTAL BUDGET REMAINING</b>	\$	<b>94,907.02</b>
(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) <b>Michelle Houvener</b>	2. PHONE # <b>95966</b>	3. DATE <b>9/13/19</b>
4. SET ID		5. POST DATE

<b>PARENT RECORD INFORMATION</b>	
6. VENDOR NAME (Check to be issued to) <b>Grainger</b>	7. VENDOR NUMBER <b>V01909</b>
8. ADDR CODE <b>04</b>	9. Invoice No (MAX = 16 CHARACTERS) <b>9295022173</b>
10. Invoice Date <b>9/5/2019</b>	11. Invoice Amount <b>\$ 742.02</b>

<b>CHILD RECORD/DETAIL INFORMATION</b>									
12. Org Key	13. Object	14. Job Ledger 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
A	8200017M	97002	97002	WO19081	8 1/2 Mile Relief	Ac#803170893, Sockets/Blank Stock	\$ 742.02	GEN	
B									
C									
D									
E									
F									
G									

REV 09/2018

23. Total: \$ **742.02**

24. COMMENTS, INSTRUCTIONS OR ADDITIONAL NOTES:

25. Finance Officer:	<i>DWM</i>	30. Drain:	8 1/2 Mile Relief
26. Chief Deputy:	<i>AS</i>	31. Project Balance:	N/A
27. Engineers:		32. Staff Date:	10/1/2019
28. Managers:	<i>UA</i>	33. Board Date:	10/21/2019
29. Coordinator:	<i>UX</i>	34. Select For Pay Date:	

# GRAINGER

25940 GROESBECK HWY.  
WARREN, MI 48089-4144  
www.grainger.com

## ORIGINAL INVOICE

GRAINGER ACCOUNT NUMBER 803170893  
INVOICE NUMBER 9295022173  
INVOICE DATE 09/17/2019  
DUE DATE 10/17/2019  
AMOUNT DUE 742.02

PO NUMBER: WO19081  
CALLER: BOB BUGAMELLI  
CUSTOMER PHONE: (586) 772-3434  
ORDER NUMBER: 1362158247  
INCO TERMS: FOB ORIGIN

BILL TO  
MDG2019 00001567 1 AB 0412

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



Pay invoices online at:  
[www.grainger.com/invoicing](http://www.grainger.com/invoicing)  
Sign up for paperless invoicing at:  
[www.grainger.com/paperlessinvoicing](http://www.grainger.com/paperlessinvoicing)

**THANK YOU!**

FEI NUMBER 36-1150280

FOR ANY QUESTIONS ABOUT THIS INVOICE OR ACCOUNT **CALL 1-800-472-4643**

PO LINE #	ITEM #	DESCRIPTION	QUANTITY	UNIT PRICE	TOTAL
		The following items were for: MACOMB COUNTY PUBLIC WORKS 23001 E 9 MILE RD SAINT CLAIR SHORES MI 48080-1576			
	4WPK6	HEX SOCKET PLUG,SZ 3/4",L 5/8" MANUFACTURER # 4WPK6	30	5.93	177.90
	4YUA3	BLANK STOCK,RECT,304SS,1/4 TX2 IN X 6 FT MANUFACTURER # 4YUA3 Delivery# 6445385473 Date: 09/17/2019 Carrier: UPS GROUND No. of pkgs: 3 Wt: 125.70 Trk#: 1Z5673R20312901882 1Z5673R20312902112 1Z5673R20312902121 SHIPPED FROM: DC MINOOKA, IL - 005 701 GRAINGER WAY MINOOKA IL 60447-9998	12	47.01	564.12
<b>INVOICE SUB TOTAL</b>					<b>742.02</b>

THIS PURCHASE IS GOVERNED EXCLUSIVELY BY GRAINGER'S TERMS OF SALE, INCLUDING: (i) DISPUTE RESOLUTION REMEDIES, AND (ii) CERTAIN WARRANTY AND DAMAGES LIMITATIONS AND DISCLAIMERS IN EFFECT AT THE TIME OF THE ORDER, WHICH ARE INCORPORATED BY REFERENCE HEREIN. GRAINGER'S TERMS OF SALE ARE AVAILABLE AT WWW.GRAINGER.COM. PRODUCT RETURN INSTRUCTIONS ARE AVAILABLE AT WWW.GRAINGER.COM/RETURNS.

These items are sold for domestic consumption. If exported, purchaser assumes full responsibility for compliance with US export controls. Diversion contrary to US law prohibited.

**PAY THIS INVOICE; NO STATEMENT WILL BE SENT. PAYMENT TERMS NET 30 DAYS IN U.S. DOLLARS.**

**AMOUNT DUE 742.02**

**PLEASE DETACH THIS PORTION AND RETURN WITH YOUR PAYMENT.**

BILL TO:  
MACOMB COUNTY PUBLIC WORKS  
21777 DUNHAM RD  
CLINTON TOWNSHIP, MI 48036-1005

REMIT TO:  
GRAINGER  
DEPT. 803198225  
PALATINE, IL 60038-0001

803198225929502217310000742021000000010000000100000019101791

X

ACCOUNT NUMBER  
803170893

DATE  
09/17/2019

INVOICE NUMBER  
9295022173

AMOUNT DUE  
742.02





Mark A. Hackel  
County Executive

# ONESolution

ACCOUNTS PAYABLE CHECK REQUEST

## PUBLIC WORKS DIVISION

1. PREPARED BY (Please Type) <b>Michelle Houvener</b>	2. PHONE # <b>95966</b>	3. DATE <b>9/26/19</b>
4. SET ID <b>VE19927MA</b>		5. POST DATE

6. VENDOR NAME (Check to be issued to) <b>Hamlett Environmental Technologies</b>		7. VENDOR NUMBER <b>V71338</b>	8. ADDR CODE <b>01</b>	9. Invoice No (MAX = 16 CHARACTERS) <b>215042</b>	10. Invoice Date <b>9/12/2019</b>	11. Invoice Amount <b>\$ 19,537.00</b>
---	--	-----------------------------------	---------------------------	--	--------------------------------------	---

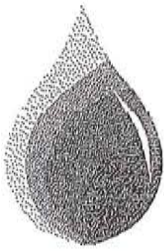
General Ledger			Job Ledger			OPTIONAL			20. DIV	21. MISC	22. Sep CK
12. Org Key	13. Object	14. Cost Center (CCNT)	15. Object	16. Work Order Number	17. Secondary Reference (MAX = 16 CHARACTERS)	18. Description (MAX = 30 CHARACTERS)	19. Amount				
A	8200017M	97002	97002	WO18006	8 1/2 Mile Relief	SWAN UNITS	\$ 19,248.00	GEN			
B	8200017M	72901	72901	WO18006	8 1/2 Mile Relief	Shipping/Handling	\$ 289.00	GEN		0	
C											
D											
E											
F											
G											

23. Total: \$ 19,537.00

24. COMMENTS, INSTRUCTIONS OR ADDITIONAL NOTES:  
**\*PW000048**

25. Finance Officer: <i>BHM</i>	30. Drain: 8 1/2 Mile Relief
26. Chief Deputy: <i>AS</i>	31. Project Balance: N/A
27. Engineers:	32. Staff Date: 10/1/2019
28. Managers: <i>JA</i>	33. Board Date: 10/21/2019
29. Coordinator: <i>VB</i>	34. Select For Pay Date:





# Hamlett Environmental Technologies

## Invoice

Date	Invoice #
9/12/2019	215042

Bill To
Macomb County Public Works Finance Department 21777 Dunham Road Clinton Township, MI 40036

905 Gulley Road  
Howell, MI 48843  
Office (517) 545-2500  
Fax (517) 545-3231

S.O. No.	P.O. No.	Terms	Due Date	Rep	Ship Date	Project
IN-US19-2648	PW000048	Net 30	10/12/2019	JW	9/12/2019	Chapaton Pump Station

Description	Qty	Rate	Amount
A-25.441.600.0 Analyzer AMI Codes-II TC AMI transmitter/controller in aluminum case on mounting panel with fotometer and flow cell for determination of total chlorine. Power supply 100-240 VAC,50/60 Hz or 24 VDC	3	5,000.00	15,000.00
A-85.410.120 Reagent Set Oxycon Online DPD, 8, Sets	1	420.00	420.00
A85.419.200 Reagent Set Oxycon Online KI, 8 Sets	1	255.00	255.00
A-81.420.020 AMI Option Profibus-, Modbus Interface PCB Amicom RS485 with M12x1 socket and wiring	3	460.00	1,380.00
A-87.127.020 Option pH for AMI Codes. Electronic print for transmitter AMI Codes, pH combined gel electrode and temperature sensor, incl. cables, overflow tube.	3	685.00	2,055.00
A-85.119.010 pH-Calibration set (1x pH 7, 1x pH 9, each 40 ml)	3	46.00	138.00

THANK YOU FOR YOUR BUSINESS

Page 27

Sales Tax (6.0%)
Total



# Hamlett Environmental Technologies

## Invoice

Date	Invoice #
9/12/2019	215042

Bill To
Macomb County Public Works Finance Department 21777 Dunham Road Clinton Township, MI 40036

905 Gulley Road  
 Howell, MI 48843  
 Office (517) 545-2500  
 Fax (517) 545-3231

S.O. No.	P.O. No.	Terms	Due Date	Rep	Ship Date	Project
IN-US19-2648	PW000048	Net 30	10/12/2019	JW	9/12/2019	Chapaton Pump Station

Description	Qty	Rate	Amount
Freight and Insurance Costs  UPS TRACKING 1ZA154F50351918620 1ZA154F50350346035 1ZA154F50350383245 1ZA154F50350074258	1	289.00	289.00

THANK YOU FOR YOUR BUSINESS  Page 2/3	Sales Tax (6.0%)	\$0.00
	<b>Total</b>	<b>\$19,537.00</b>



# ONESolution

ACCOUNTS PAYABLE CHECK REQUEST

## PUBLIC WORKS DIVISION

Mark A. Hackel  
County Executive

1. PREPARED BY (Please Type) <b>Michelle Houvener</b>	2. PHONE # <b>95966</b>	3. DATE <b>9/26/19</b>
4. SET ID <b>VPI9927MA</b>		5. POST DATE

6. VENDOR NAME (Check to be issued to) <b>HESCO</b>	7. VENDOR NUMBER <b>V66420</b>	8. ADDR CODE <b>0A</b>	9. Invoice No (MAX = 16 CHARACTERS) <b>20191508</b>	10. Invoice Date <b>9/25/2019</b>	11. Invoice Amount <b>\$ 906.56</b>
--	-----------------------------------	---------------------------	--	--------------------------------------	--

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	8200017M	97002	CC0004	97002	WO18006	8 1/2 Mile Relief	S.O. No. 1013810; KPSI	\$ 900.00	GEN		
B	8200017M	72901	CC0004	72901	WO18006	8 1/2 Mile Relief	S.O. No. 1013810; KPSI	\$ 6.56	GEN		0
C											
D											
E											
F											
G											

23. Total: \$ **906.56** REV 09/2018

24. COMMENTS, INSTRUCTIONS OR ADDITIONAL NOTES:  
**KPSI-Measurement Specialties 27 Pressure Transducer**

25. Finance Officer: <u>btm</u>	30. Drain: <b>8 1/2 Mile Relief</b>
26. Chief Deputy: <u>bs</u>	31. Project Balance: <b>N/A</b>
27. Engineers: <u>ujb</u>	32. Staff Date: <b>10/1/2019</b>
28. Managers: <u>ujb</u>	33. Board Date: <b>10/21/2019</b>
29. Coordinator: <u>ujb</u>	34. Select For Pay Date:



W018006

# HESCO

*Knowledgeable • Professional • Attentive • Likeable*

23905 Freeway Park • Farmington Hills, MI 48335  
 Phone: 586.978.7200 • Fax: 586.978.2200  
 www.hesco-mi.com

## Invoice

Date	Invoice #
9/25/2019	20191508

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

Ship To
Macomb County Public Works 21777 Dunham Rd Clinton Twp, MI 48036 Attn: Vince Astorino

S.O. No.	P.O. No.	Terms	Rep	Hesco #	
1013810	Signed 190826	Net 30	WRH	B2019826Q	
Item	Description	Ordered	Invoiced	Rate	Amount
Misc Parts	KPSI/Measurement Specialties 27 Pressure Transducer PN:27S1421A021.670000.000A30050A Series: 27 Series Range: 0-21.670 PSIG(0-50 ft w.c.) Accuracy: 0.25% FSO Pressure Connection: 1/4" - 18 NPT Male Fitting Electrical Connection: Strain Relief Cable with Flying Leads Cable Length: 50 FT PVC Cable Label: PSI	2	2	450.00	900.00
Freight	Shipping and Handling	1	1	6.56	6.56
				<b>Subtotal</b>	\$906.56
				<b>Sales Tax (6.0%)</b>	\$0.00
				<b>Total</b>	\$906.56
				<b>Payments/Credits</b>	\$0.00
				<b>Balance Due</b>	\$906.56



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	8/29/19
4. SET ID	5. POST DATE	
VP19830MA		

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
Home Depot		V02220	25	4112602	8/27/2019	\$ 534.03

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	72613	72613	WO18006	8 1/2 Mile Relief	6035322501599843, 4112602	\$ 534.03	GEN	
B									
C									
D									
E									
F									
G									

23. Total: \$ 534.03

24. COMMENTS, INSTRUCTIONS OR ADDITIONAL NOTES:

25. Finance Officer: blm 30. Drain: 8 1/2 Mile Relief

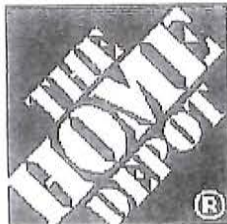
26. Chief Deputy: \_\_\_\_\_ 31. Project Balance: N/A

27. Engineers: \_\_\_\_\_ 32. Staff Date: 9/17/2019

28. Managers: JA 33. Board Date: 10/21/2019

29. Coordinator: JA 34. Select For Pay Date: \_\_\_\_\_

CHAPATON



More saving.  
More doing.<sup>SM</sup>

20500 13 MILE RD  
ROSEVILLE MI 48066 586-415-9620

2707 00011 52396 08/27/19 11:33 AM  
CASHIER MARIA

084305355546 HOMER BUCKET <A>		
5GAL HOMER BUCKET		
5@3.25		16.25N
078693273629 5-OUT CONV <A>		
OUTDOOR OUTLET ADAPTER CONVERTER		
2@14.97		29.94N
032886997365 YJ 2' 12/3 3 <A>		
YELLOW JACKET 12/3 HEAVY-DUTY SJTW		
2@10.98		21.96N
032886997372 YJ 25' 12/3 <A>		
YELLOW JACKET 25 FT. 12/3 SJTW PREMI		
2@29.97		59.94N
029892011833 YJ 50' 12/3 <A>		
YELLOW JACKET 50 FT. 12/3 SJTW PREM		
2@53.97		107.94N
044882400398 100 FT CORD <A>		
10/3 100' RIDGID EXTENSION CORD		
2@149.00		298.00N

SUBTOTAL 534.03  
SALES TAX 0.00

TAX EXEMPT  
TOTAL \$534.03  
XXXXXXXXXXXX9843 HOME DEPOT 534.03  
AUTH CODE 027804/4112602 TA

MACOMB COUNTY PUBLIC WORKS  
SCHMEISER SHAWN

PRO XTRA MEMBER STATEMENT

PRO XTRA ###-###-6742 SUMMARY  
THIS RECEIPT PO/JOB NAME: CHAPATON

PRO XTRA SPEND THIS VISIT: \$534.03  
2019 PRO XTRA SPEND 08/26: \$43,536.64

This purchase qualifies for FUEL DISCOUNTS and 60 DAYS TO PAY on The Home Depot Commercial Credit Card. Ask an Associate to learn more or go to [homedepot.com/financeoptions](http://homedepot.com/financeoptions).



2707 11 52396 08/27/2019 6455

RETURN POLICY DEFINITIONS		
POLICY ID	DAYS	POLICY EXPIRES ON
A	11	365 08/26/2020

\*\*\*\*\*  
DID WE NAIL IT?

Take a short survey for a chance TO WIN  
A \$5,000 HOME DEPOT GIFT CARD

Opine en español

[www.homedepot.com/survey](http://www.homedepot.com/survey)

User ID: 32 107788 105092  
PASSWORD: 19427 105081





# ONESolution

ACCOUNTS PAYABLE CHECK REQUEST

## PUBLIC WORKS DIVISION

1. PREPARED BY (Please Type) <b>Michelle Houvener</b>	2. PHONE # <b>95966</b>	3. DATE <b>9/30/19</b>
4. SET ID <b>VP191010MA</b>		
5. POST DATE		

6. VENDOR NAME (Check to be issued to) <b>Home Dépot</b>	7. VENDOR NUMBER <b>V02220</b>	8. ADDR CODE <b>25</b>	9. Invoice No (MAX = 16 CHARACTERS) <b>6662407</b>	10. Invoice Date <b>9/30/2019</b>	11. Invoice Amount <b>\$ 538.00</b>
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General Ledger		Job Ledger		OPTIONAL		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	16. Work Order Number	17. Secondary Reference (MAX = 16 CHARACTERS)					
A	8200017M	72603	72603	WC18006	8 1/2 Mile Relief	6035 3225 0159 9843, 6662407	\$ 538.00	GEN		
B										
C										
D										
E										
F										
G										

23. Total: \$ **538.00**

REV 09/2018

24. COMMENTS, INSTRUCTIONS OR ADDITIONAL NOTES:

25. Finance Officer:	<i>blm</i>	30. Drain:	8 1/2 Mile Relief
26. Chief Deputy:	<i>CS</i>	31. Project Balance:	N/A
27. Engineers:		32. Staff Date:	10/15/2019
28. Managers:	<i>UB</i>	33. Board Date:	10/21/2019
29. Coordinator:	<i>blm</i>	34. Select For Pay Date:	



Commercial Account



Remit payment and make checks payable to:  
HOME DEPOT CREDIT SERVICES  
DEPT. 32 - 2501599843  
PO BOX 78047  
PHOENIX, AZ 85062-8047

# INVOICE DETAIL

BILL TO:  
Acct: 6035 3225 0159 9843  
MACOMB COUNTY PUBLIC  
WORKS

<b>Amount Due:</b>	<b>Trans Date:</b>	<b>DUE DATE:</b>	<b>Invoice #:</b> 3511713
\$29.92	09/17/19	10/18/19	
<b>PO: NGI</b>		<b>Store: 2734, CHESTERFIELD, MI</b>	

PRODUCT	SKU #	QUANTITY	UNIT PRICE	TOTAL PRICE
HUSKY 7PC HEX NUT SCREWDRIVER SET	00002799980000100007	1.0000 EA	\$15.97	\$15.97
1/4 NPT X 1/4 I/M COUPLER KIT, 4PC	00006037260002800006	1.0000 EA	\$7.98	\$7.98
HDX CRBN WIRE BRUSH SFTGRP 4X16 ROW	10015949150003700009	1.0000 EA	\$5.97	\$5.97

Purchased by: GELLE NICK  
Customer #: 00029

<b>SUBTOTAL</b>	\$29.92
<b>TAX</b>	\$0.00
<b>TOTAL</b>	\$29.92

BILL TO:  
Acct: 6035 3225 0159 9843  
MACOMB COUNTY PUBLIC  
WORKS

<b>Amount Due:</b>	<b>Trans Date:</b>	<b>DUE DATE:</b>	<b>Invoice #:</b> 92125
\$10.98	09/20/19	10/18/19	
<b>PO: CPS</b>		<b>Store: 2707, ROSEVILLE, MI</b>	

PRODUCT	SKU #	QUANTITY	UNIT PRICE	TOTAL PRICE
ASSORTED O-RING KIT 200PK	00006781850000700002	1.0000 EA	\$10.98	\$10.98

Purchased by: GELLE NICK  
Customer #: 00029

<b>SUBTOTAL</b>	\$10.98
<b>TAX</b>	\$0.00
<b>TOTAL</b>	\$10.98

BILL TO:  
Acct: 6035 3225 0159 9843  
MACOMB COUNTY PUBLIC  
WORKS

<b>Amount Due:</b>	<b>Trans Date:</b>	<b>DUE DATE:</b>	<b>Invoice #:</b> 6616851
\$53.94	09/24/19	10/18/19	
<b>PO: CPS</b>		<b>Store: 2707, ROSEVILLE, MI</b>	

PRODUCT	SKU #	QUANTITY	UNIT PRICE	TOTAL PRICE
DIABLO 5X .040X7/8 MTL CUTOFF 10PK	10010823030000700004	1.0000 EA	\$23.97	\$23.97
DIABLO 4.5" .04 CUTOFF DISC 15PK	10024758670000700004	1.0000 EA	\$29.97	\$29.97

Purchased by: GELLE NICK  
Customer #: 00029

<b>SUBTOTAL</b>	\$53.94
<b>TAX</b>	\$0.00
<b>TOTAL</b>	\$53.94

BILL TO:  
Acct: 6035 3225 0159 9843  
MACOMB COUNTY PUBLIC  
WORKS

<b>Amount Due:</b>	<b>Trans Date:</b>	<b>DUE DATE:</b>	<b>Invoice #:</b> 6662407
\$538.00	09/24/19	10/18/19	
<b>PO: CAPATONRTB</b>		<b>Store: 8119, HOMEDEPOT.COM, 1-800-430-3376</b>	

PRODUCT	SKU #	QUANTITY	UNIT PRICE	TOTAL PRICE
36-VOLT LITHIUM-ION BATTERY B 36/5.2	10024302610000900017	2.0000 EA	\$269.00	\$538.00

Purchased by: MACOMB COUNTY PUBLIC WORK  
Customer #: 00032  
Customer Agreement #: W939607289

<b>SUBTOTAL</b>	\$538.00
<b>TAX</b>	\$0.00
<b>TOTAL</b>	\$538.00





# ONESolution

ACCOUNTS PAYABLE CHECK REQUEST

## PUBLIC WORKS DIVISION

Mark A. Hackel  
County Executive

1. PREPARED BY (Please Type) <b>Michelle Houvener</b>	2. PHONE # <b>95966</b>	3. DATE <b>9/27/19</b>
4. SET ID <b>VP19927MUA</b>		
5. POST DATE		

6. VENDOR NAME (Check to be issued to) <b>JCI JONES CHEMICALS INC</b>	7. VENDOR NUMBER <b>V65297</b>	8. ADDR CODE <b>01</b>	9. Invoice No (MAX = 16 CHARACTERS) <b>801413</b>	10. Invoice Date <b>9/25/2019</b>	11. Invoice Amount <b>\$ 4,095.76</b>
--	-----------------------------------	---------------------------	--	--------------------------------------	--

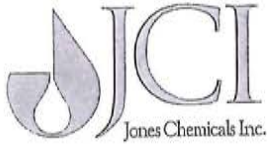
PARENT RECORD INFORMATION				CHILD RECORD DETAIL INFORMATION						
General Ledger		Job Ledger		OPTIONAL						
12. Org Key	13. Object	14. Cost Center (CCNT)	15. Object	16. Work Order Number	17. Secondary Reference (MAX = 16 CHARACTERS)	18. Description (MAX = 30 CHARACTERS)	19. Amount	20. DIV	21. MISC	22. Sep CK
A	8200017M	72650	72650	WO18006	8 1/2 Mile Relief	Order #589098, 9/25/19	\$ 4,095.76	GEN		
B										
C										
D										
E										
F										
G										

23. Total: \$ **4,095.76**

24. COMMENTS, INSTRUCTIONS OR ADDITIONAL NOTES:

25. Finance Officer:	<i>JHM</i>
26. Chief Deputy:	<i>AS</i>
27. Engineers:	
28. Managers:	<i>UB</i>
29. Coordinator:	<i>AS</i>
30. Drain:	8 1/2 Mile Relief
31. Project Balance:	N/A
32. Staff Date:	100/1/19
33. Board Date:	10/21/2019
34. Select For Pay Date:	





www.jcichemicals.com

**INVOICE**

Inv Date	Invoice #
09/25/2019	801413
Date Shipped	Order/BOL #
09/25/2019	592252

\*\*\* 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 PETE TROMBLEY		Destination	Delivered		NORTH
Release #	Ship Via	Terms	Due Date	Discount Due Date	
	JCI	N 30	10/25/2019	10/25/2019	
Units	Package	Product Name	Total Quantity	Unit Price	Amount
4,527.00	Gal Bulk	HYPOCHLORITE SOLUTION, SS150 1201-001 BULK (\$85 Stop Fee) (+ fsc)	4,527.0000/Gal	0.9000 /Gal	4,074.30
General Remarks:		<> EMAIL INVOICE TO: michelle.houvener@macombgov.org <> NET WEIGHT: 45.680 FSC			
		Fuel Surcharge			21.46

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

Total: **4,095.76**

PLEASE PAY  
THIS AMOUNT



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

\*JCI Welcomes payments via ACH, EFT and WIRE\*



# ONESolution

ACCOUNTS PAYABLE CHECK REQUEST

## PUBLIC WORKS DIVISION

Mark A. Hackel  
County Executive

1. PREPARED BY (Please Type) <b>Michelle Houvener</b>	2. PHONE # <b>95966</b>	3. DATE <b>9/23/19</b>
4. SET ID <b>VP19924MA</b>		
5. POST DATE		

<b>PARENT RECORD INFORMATION</b>	
6. VENDOR NAME (Check to be issued to) <b>Kennedy Industries</b>	7. VENDOR NUMBER <b>V11826</b>
8. ADDR CODE <b>04</b>	9. Invoice No (MAX = 16 CHARACTERS) <b>613371</b>
10. Invoice Date <b>9/19/2019</b>	11. Invoice Amount <b>2,200.00</b>

General Ledger		Job Ledger		OPTIONAL		CHILD RECORD/DETAIL INFORMATION	
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
A	8200017M	93001	93001	WO18006	8 1/2 Mile Relief	Job #0094920, 9/18/19	\$ 2,200.00
B							
C							
D							
E							
F							
G							

23. Total: \$ **2,200.00**

REV 09/2018

24. COMMENTS, INSTRUCTIONS OR ADDITIONAL NOTES:

25. Finance Officer: <u><i>Bhr</i></u>	30. Drain: <b>8 1/2 Mile Relief</b>
26. Chief Deputy: <u><i>AS</i></u>	31. Project Balance: <b>N/A</b>
27. Engineers: <u><i>NG</i></u>	32. Staff Date: <b>10/1/2019</b>
28. Managers: <u><i>NG</i></u>	33. Board Date: <b>10/21/2019</b>
29. Coordinator: <u><i>NG</i></u>	34. Select For Pay Date:



**KENNEDY**  
INDUSTRIES

INNOVATE  
SOLVE  
MONITOR  
REPAIR



INVOICE		
DATE	NUMBER	PAGE
9/19/2019	613371	1 of 1

B MAC152  
I MACOMB COUNTY PUBLIC WORKS  
L 21777 DUNHAM RD.  
L CLINTON TWP, MI 48036  
T  
O

S CHAPATAN STATION  
H 9 MILE & JEFFERSON  
I ST. CLAIR, SHORE, MI  
P  
T  
O

ATTENTION:  
PETE TROMBLEY                      586-772-3425                      pete.trombley@macombgov.org

CUSTOMER REF/PO #	JOB #	JOB TITLE	SLP	SHIPPING TYPE
18- 9330	0094920	CHAPATON STATION, ANNUAL MAINTENANCE, FIELD SERVICE	KES/LAA	FIELD SERVICE

QUANTITY		PART NO.	DESCRIPTION	UNIT PRICE	EXTENDED
B/O	Ship				
0.00	1.00	MAC152CHAPATON	CHAPATON STATION PUMP STATION PREVENTATIVE MAINTENANCE COMPLETED ON 09/18/19. PLEASE SEE THE ATTACHED MAINTENANCE REPORT.	\$2,200.00	\$2,200.00

REMIT TO:  
KENNEDY INDUSTRIES, INC.  
P.O. BOX 930079  
WIXOM, MI 48393

<small>This invoice is subject to and incorporates by reference Kennedy Industries, Inc.'s ("Kennedy") Terms &amp; Conditions (Rev'd 4/2019) and Customer Warranty available at <a href="http://www.kennedyind.com">www.kennedyind.com</a> which will be provided by email upon written request. Buyer expressly agrees to the provisions set forth in the Terms &amp; Conditions and Customer Warranty posted on Kennedy's website.</small>  <b>*TERMS OF PAYMENT ARE NET 30 DAYS FROM DATE OF INVOICE</b> <b>*A 7% PER ANNUM SERVICE CHARGE SHALL BE APPLIED TO ANY BALANCE</b> <b>*CREDIT CARD PAYMENTS ARE SUBJECT TO AN ADDITIONAL 3% CHARGE</b>	SUBTOTAL:	\$ 2,200.00
	TAX:	\$ 0.00
	TOTAL:	\$ 2,200.00





**KENNEDY**  
INDUSTRIES

INNOVATE  
SOLVE  
MONITOR  
REPAIR

**PUMP STATION  
MAINTENANCE REPORT**

TECH 1: S.ELLIS  
TECH 2: G.PHIPPS  
OSS/ISS: KES/LAA  
DATE: 09/18/19  
TIME: 0800  
SO#: 094920

OWNER: MACOMB COUNTY  
ADDRESS: 9 MILE AND JEFFERSON, ST CLAIR SHORES  
STATION: CHAPATAN STATION  
CONTACT: PETE TROMBLEY  
PHONE: 586-772-3425  
FULL INSPECTION  ELECTRICAL CHECKS

STATION INFORMATION:  
  
NOTES:

**ELECTRICAL CHECK POINTS**

LEVEL CONTROLS OTHER CLEANED & INSPECTED N/A ALARM @ INDICATOR LIGHTS GOOD  
TELEMETRY OTHER TELEMETRY CHECK GOOD PHASE THREE PHASE  
VFD PHASE CONVERSION N/A IN LINE STARTER Y W/ SOFT STARTS

VOLTS:  
PUMP#1: L1L2 490 L2L3 489 L1L3 488 MEG CHECK +1000 FLS CHECKED   
PUMP#2: L1L2 489 L2L3 487 L1L3 490 MEG CHECK 200 FLS CHECKED   
PUMP#3: L1L2 486 L2L3 483 L1L3 484 MEG CHECK 300 FLS CHECKED   
PUMP#4: L1L2 N/A L2L3 N/A L1L3 N/A MEG CHECK N/A FLS CHECKED

AMP: FLA P1: N/A P-2/3: 166 IF MEG CHECK > 20 COMPLETE OHM CHECK  
PUMP#1: L1 25.1 L2 24.8 L3 24.9 OHM CHECK 1.1 1.1 1.1  
PUMP#2: L1 150.8 L2 148.1 L3 141.3 OHM CHECK 0.2 0.2 0.2  
PUMP#3: L1 141.3 L2 140.9 L3 141.1 OHM CHECK 0.2 0.2 0.2  
PUMP#4: L1 N/A L2 N/A L3 N/A OHM CHECK N/A

NOTES: NONE

HOURS	CURRENT	LAST	CHANGE	HOURS ARE TOTAL OVERALL HOURS FROM SCADA. SCADA RESETS PUMP YEARLY HOURS.
PUMP#1	<u>879.6</u>	<u>N/A</u>	<u>N/A</u>	
PUMP#2	<u>6001.0</u>	<u>N/A</u>	<u>N/A</u>	
PUMP#3	<u>7989.5</u>	<u>N/A</u>	<u>N/A</u>	
PUMP#4	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	

WET WELL CONDITION N/A DRY WELL SUMP PUMP OPERATION GOOD

NOTES: NONE



Mark A. Hackel  
County Executive

# ONESolution

ACCOUNTS PAYABLE CHECK REQUEST

## PUBLIC WORKS DIVISION

1. PREPARED BY (Please Type) <b>Michelle Houvener</b>	2. PHONE # <b>95966</b>	3. DATE <b>9/30/19</b>
4. SET ID <b>VPI91010MA</b>		
5. POST DATE		

6. VENDOR NAME (Check to be issued to) <b>Kienbaum Hardy Viviano Pelton &amp; Forrest PLC</b>	7. VENDOR NUMBER <b>V69063</b>	8. ADDR CODE <b>01</b>	9. Invoice No (MAX = 15 CHARACTERS) <b>43094</b>	10. Invoice Date <b>9/30/2019</b>	11. Invoice Amount <b>697.50</b>
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General Ledger		Job Ledger		OPTIONAL		19. Amount	20. DIV	21. MISC	23 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	80139	80139	WO19094	8 1/2 Mile Relief	Re: 1351-001/Sep 2019	697.50	GEN	
B									
C									
D									
E									
F									
G									

23. Total: \$ **697.50**

REV 08/2018

24. COMMENTS, INSTRUCTIONS OR ADDITIONAL NOTES:

25. Finance Officer: <u><i>ghm</i></u>	30. Drain: <u>8 1/2 Mile Relief</u>
26. Chief Deputy: <u><i>AB</i></u>	31. Project Balance: <u>N/A</u>
27. Engineers: <u><i>us</i></u>	32. Staff Date: <u>10/15/2019</u>
28. Managers: <u><i>CR</i></u>	33. Board Date: <u>10/21/2019</u>
29. Coordinator: <u></u>	34. Select For Pay Date: <u></u>

**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 10/8/2019  
 Statement no 43094

**8.5 Mile Relief Drain Drainage District**

21777 Dunham Rd  
 Clinton Twp MI 48036

1351-001 / City of St. Clair Shores

**Professional Fees**

			Hours	Rate	Amount
09/03/2019	JEV	Email to SCS legal counsel re Chapaton canal/Blossom Health issue.	0.80	225.00	180.00
09/09/2019	JEV	Telephone discussions with Mr. Ihrie re Chapaton canal issue; follow up with Mr. Astorino re same.	0.60	225.00	135.00
09/10/2019	JEV	Follow up on status and SCS meeting.	0.10	225.00	22.50
09/11/2019	JEV	Telephone discussions with Commissioner Miller and MCWPO re Chapaton project, resolution, and strategy for SCS meeting; telephone discussion with Mr. Ihrie re Miller litigation, resolution, and board meeting; initial drafting of resolution and follow up for necessary information.	1.00	225.00	225.00
09/12/2019	JEV	Draft resolution for SCS board meeting on Chapaton project.	0.60	225.00	135.00
Sub-total Fees:					\$697.50

**Rate Summary**

Joseph E. Viviano	3.10	hours at \$225.00/hr	697.50
Total hours:	3.10		

**Payments**

10/07/2019	Payment	Thank you	225.00
Sub-total Payments:			\$225.00

Total Current Billing:	\$697.50
Previous Balance Due:	\$225.00
Total Payments:	(\$225.00)
<b>Total Now Due:</b>	<b>\$697.50</b>





# ONESolution

ACCOUNTS PAYABLE CHECK REQUEST

## PUBLIC WORKS DIVISION

Mark A. Hackel  
County Executive

1. PREPARED BY (Please Type) <b>Michelle Houvener</b>	2. PHONE # <b>95966</b>	3. DATE <b>9/23/19</b>
4. SET ID <b>VPI9924MA</b>		
5. POST DATE		

PARENT RECORD INFORMATION	
6. VENDOR NAME (Check to be issued to) <b>Macomb County Treasurer</b>	9. Invoice No (MAX = 16 CHARACTERS) <b>AR190762</b>
7. VENDOR NUMBER <b>V01085</b>	10. Invoice Date <b>9/13/2019</b>
8. ADDR CODE <b>26</b>	11. Invoice Amount <b>\$ 72,145.00</b>

CHILD RECORD/DETAIL INFORMATION										
Line	General Ledger		Job Ledger		16. Work Order Number	OPTIONAL		19. Amount	20. DIV	21. MISC
	12. Org Key	13. Object	14. Cost Center (CCNT)	15. Object		17. Secondary Reference (MAX = 16 CHARACTERS)	18. Description (MAX = 30 CHARACTERS)			
A	8200166M	97002	CC0018	97002		MIDDD	Radio Replacements	\$ 36,072.50	IFIN MCI	
B	8200017M	97002	CC0004	97002	WO18006	8 1/2 Mile Relief	Radio Replacements	\$ 36,072.50	IFIN MCI	0
C										
D										
E										
F										
G										

23. Total: \$ **72,145.00**

REV 09/2018

24. COMMENTS, INSTRUCTIONS OR ADDITIONAL NOTES:  
**Cap Proj-Motorola Radio Replacement**

25. Finance Officer: <i>DM</i>	30. Drain: <b>MIDDD; 8 1/2 Mile Relief</b>
26. Chief Deputy: <i>AB</i>	31. Project Balance: <b>N/A</b>
27. Engineers: <i>UB</i>	32. Staff Date: <b>10/1/2019</b>
28. Managers: <i>UB</i>	33. Board Date: <b>10/21/2019</b>
29. Coordinator: <i>UB</i>	34. Select For Pay Date:



Macomb County Finance Department  
 120 N. Main Street, 2<sup>nd</sup> Floor  
 Mt. Clemens, MI 48043

**PUBLIC WORKS OFFICE**  
**ATTN: Finance Department**  
**21777 DUNHAM RD**  
**CLINTON TOWNSHIP, MI 48036**

\*See Reverse Side For Easy Clearing Instructions\*



Email Address:

*Admission*  
*5090 - MEND*  
*5090 815*

REF DATE	DESCRIPTION
09/13/2019	CAP PROJ-MOTOROLA RADIO REF

Invoice
<b>190762</b>
AMOUNT
72,145.00
72,145.00
72,145.00

\*\*\*\*\* PLEASE RETURN THIS PORTION WITH YOUR PAYMENT \*\*\*\*\*

Finance Department Contact Number:  
 (586) 469-5251

Tax ID # / EIN Number:  
 38-6004868

Payment Terms:  
 Due Upon Receipt

Please email any questions about your account to:  
 Accounting@MacombGov.Org

Customer Number: DPWK 01

Invoice Number: AR190762

Please remit your payment to:  
 COUNTY OF MACOMB  
 FINANCE DEPARTMENT  
 120 NORTH MAIN STREET, 2nd FLOOR  
 MOUNT CLEMENS, MI. 48043-5622

Invoice Date: 09/13/2019

Amount Due: \$72,145.00

WORK ORDER#

2019 - 0851



MACOMB COUNTY TECHNICAL SERVICES
21930 DUNHAM ROAD
MOUNT CLEMENS, MI 48043
Shop: (586) 469-5888 radio@macombgov.org
Office: (586) 469-5370 techservices@macombgov.org

Location

- Road
Shop

Accessories

- Battery
Mic
Antenna

Customer MACOMB COUNTY PUBLIC WORKS

Date Received: 9/10/2019

Contact

Date Completed: 9/10/2019

Telephone

Date Notified:
Technician

Table with 5 columns: Unit ID, Model #, Serial #, Vehicle #, Location

Other Information:

Service Requested

800 MHz radio purchase project costs

Service Performed

The following is a list of the serial numbers of the radios that were issued to Public Works as part of the Subscriber Replacement Project.

Serial Numbers:

- 481CUZ8032 481CUZ8047 481CUZ8048 481CUZ8053 481CUZ8054 481CUZ8030 481CUZ8031 481CUZ8033
481CUZ8034 481CUZ8039 481CUZ8045 481CUZ8046 481CUZ8050 481CUZ8051 481CUZ8052 481CUZ8035
481CUZ8036 481CUZ8037 481CUZ8038 481CUZ8040 481CUZ8041 481CUZ8042 481CUZ8043 481CUZ8044
481CUZ8049

If you have any questions, please contact Brandon Lewis, Director of Macomb County Emergency Management & Communications at (586) 469-6327.

Table with 4 columns: QTY, PART, UNIT, TOTAL. Includes row for SHOP SUPPLIES and a TOTAL row.

Table with 2 columns: SUMMARY, Amount. Includes rows for Mileage, Labor/Travel, Overtime, Parts, Shipping, Other, Administrative Fee, TOTAL CHARGE (\$72,145.00), RECEIVED BY, and DATE.





Mark A. Hackel  
County Executive

# ONESolution

## ACCOUNTS PAYABLE CHECK REQUEST

### PUBLIC WORKS DIVISION

1. PREPARED BY (Please Type) <b>Michelle Houvener</b>	2. PHONE # <b>95966</b>	3. DATE <b>10/1/19</b>
4. SET ID <b>VPI91001MA</b>		5. POST DATE <b>9.30.19</b>

PARENT RECORD INFORMATION			
6. VENDOR NAME (Check to be issued to) <b>The Macomb Group, Inc.</b>	7. VENDOR NUMBER <b>V10992</b>	8. ADDR CODE <b>01</b>	9. Invoice No (MAX = 16 CHARACTERS) <b>5722083</b>
			10. Invoice Date <b>9/24/2019</b>
			11. Invoice Amount <b>\$ 9,593.70</b>

CHILD RECORD DETAIL INFORMATION									
General Ledger		Job Ledger		OPTIONAL					
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
A	8200017M	97002	97002	WO19081	8 1/2 Mile Relief	Cust #109933, Order 3212764	\$ 9,593.70	GEN	
B									
C									
D									
E									
F									
G									

23. Total: \$ **9,593.70**

REV 09/2018

24. COMMENTS, INSTRUCTIONS OR ADDITIONAL NOTES:

25. Finance Officer: <u>PHM</u>	30. Drain: <u>8 1/2 Mile Relief</u>
26. Chief Deputy: <u>AB</u>	31. Project Balance: <u>N/A</u>
27. Engineers:	32. Staff Date: <u>10/15/2019</u>
28. Managers: <u>US</u>	33. Board Date: <u>10/21/2019</u>
29. Coordinator: <u>UX</u>	34. Select For Pay Date:



3212764

# INVOICE



THE MACOMB GROUP, INC  
Branch: 01 MG-STERLING

6600 E. 15 MILE ROAD  
STERLING HEIGHTS, MI 48312  
USA

586-274-4100

Remit payment to:  
The Macomb Group, Inc.  
PO Box 671664  
DETROIT, MI 48267-1664

INVOICE	Invoice Date
5722083	9/24/2019 09:03:10
ORDER NUMBER	Page
3212764	1 of 2

**Bill To:**

MACOMB COUNTY PUBLIC WORKS  
23001 E. 9 MILE RD.  
ST CLAIR SHORES, MI 48080  
US

**Ship To:**

MACOMB COUNTY PUBLIC WORKS  
CHAPATON PUMPING STATION  
23001 E. 9 MILE RD.  
ST CLAIR SHORES, MI 48080  
US

WO# 19081

Ordered By: BOB 586-772-3425

Customer ID: 109933

PO Number	Term Description	Net Due Date	Disc Due Date	Discount Amount
WO19081	1% 10 NET 30	10/24/2019	10/4/2019	95.94

Order Date	Pick Ticket No	Job Name	Primary Salesrep	Taker
9/18/2019 11:24:03	4692957	TRC BASIN EQUIPMENT	1061	115626

Quantities					Item ID	Pricing UOM	Unit Price	Extended Price
Ordered	Shipped	Remaining	UOM Unit Size	Disp.	Item Description	Unit Size		

Carrier: OUR TRUCK					Tracking #:			
400.0	400.0	0.0	FT	1.0	(010) B22SSSH-20 1-5/8 X 1-5/8 SS SLOTTED STRUT - 20 FT	FT 1.0000	5.95	2,380.00
40.0	40.0	0.0	EA	1.0	(020) 255RFPPT714SS304 TP-714 SS 304 4 HOLE FLAT TEE PLATE	EA 1.0000	24.91	996.40
40.0	40.0	0.0	EA	1.0	(030) 37MISCA60455304SS2HSB SS TWO HOLE STRUT 90 BRACKET PART NUMBER CA-604-SS304	EA 1.0000	13.24	529.60
20.0	20.0	0.0	EA	1.0	(040) 134RFPKA606SS304 3 HOLE 90 CORNER ANGLE SS316 CA-606-SS316	EA 1.0000	15.26	305.20
12.0	12.0	0.0	EA	1.0	(050) 9999RFPBPB3033SQSS304 PB3033SQSS304 T304 S/S STRUT POST BASE B280SQSS304	EA 1.0000	121.36	1,456.32
12.0	12.0	0.0	EA	1.0	(060) 134RFPBPB280FLSS304 FLUSH MOUNT POST BASE 304SS PB-280-FL-SS304	EA 1.0000	113.89	1,366.68
300.0	300.0	0.0	EA	1.0	(090) N228WOSS 3/8 T316 SS STRUT NUT W/O SPRING 316 STAINLESS STEEL	EA 1.0000	7.46	2,238.00
50.0	50.0	0.0	EA	1.0	(100) B20ISS 3/8 SS SQUARE WASHER	EA 1.0000	6.43	321.50

A finance charge will be applied for all invoices not paid within terms. Would you like to receive invoices via fax or email? Contact our AVR department at 586-268-0720 or AR@macombgroup.com. Also, reprint your invoices from our website: www.macombgroup.com.

\*\*\*Special Order/Non-Stock Returned items are subject to mfg approval.

5722083



ORIGINAL



# INVOICE



THE MACOMB GROUP, INC.  
 Branch: 01 MG-STERLING

6600 E. 15 MILE ROAD  
 STERLING HEIGHTS, MI 48312  
 USA

586-274-4100

Remit payment to:  
 The Macomb Group, Inc.  
 PO Box 671664  
 DETROIT, MI 48267-1664

INVOICE	Invoice Date
5722083	9/24/2019 09:03:10
ORDER NUMBER	Page
3212764	2 of 2

Quantities					Item ID	Pricing UOM	Unit Price	Extended Price
Ordered	Shipped	Remaining	UOM Unit Size	Disp.				
					304 STAINLESS STEEL			

Total Lines: 8

**SUB-TOTAL:** 9,593.70

**TAX:** 0.00

**AMOUNT DUE:** 9,593.70

WO# 19081

A finance charge will be applied for all invoices not paid within terms. Would you like to receive invoices via fax or email? Contact our A/R department at 586-268-0720 or AR@macombgroup.com. Also, reprint your invoices from our website: www.macombgroup.com.

\*\*\*Special Order/Non-Stock Returned items are subject to mfg approval.

ORIGINAL





Mark A. Hackel  
County Executive

# ONESolution

ACCOUNTS PAYABLE CHECK REQUEST

## PUBLIC WORKS DIVISION

1. PREPARED BY (Please Type) <b>Michelle Houvener</b>	2. PHONE # <b>95966</b>	3. DATE <b>10/1/19</b>
4. SET ID <b>VP191001MA</b>		
5. POST DATE <b>9.30.19</b>		

6. VENDOR NAME (Check to be issued to) <b>The Macomb Group, Inc.</b>		7. VENDOR NUMBER <b>V10992</b>	8. ADDR CODE <b>01</b>	9. Invoice No (MAX = 16 CHARACTERS) <b>5724507</b>	10. Invoice Date <b>9/26/2019</b>	11. Invoice Amount <b>\$ 1,203.60</b>
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CHILD RECORD DETAIL INFORMATION									
General Ledger			Job Ledger		OPTIONAL			21. MISC	
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)	18. Amount	20. DIV	22. Sep CK
A	8200017M	97002	97002	WO18006	8 1/2 Mile Relief	Cust #109933, Order 3222125	\$ 1,203.60	GEN	
B									
C									
D									
E									
F									
G									

23. Total: \$ **1,203.60**

REV 09/2018

24. COMMENTS, INSTRUCTIONS OR ADDITIONAL NOTES:

25. Finance Officer: <u><i>BHM</i></u>	30. Drain: <b>8 1/2 Mile Relief</b>
26. Chief Deputy: <u><i>AD</i></u>	31. Project Balance: <b>N/A</b>
27. Engineers:	32. Staff Date: <b>10/15/2019</b>
28. Managers: <u><i>UB</i></u>	33. Board Date: <b>10/21/2019</b>
29. Coordinator: <u><i>NW</i></u>	34. Select For Pay Date:



3222125

# INVOICE



THE MACOMB GROUP, INC  
Branch: 01 MG-STERLING

6600 E. 15 MILE ROAD  
STERLING HEIGHTS, MI 48312  
USA

586-274-4100

Remit payment to:  
The Macomb Group, Inc.  
PO Box 671664  
DETROIT, MI 48267-1664

INVOICE	Invoice Date
5724507	9/26/2019 08:46:35
ORDER NUMBER	Page
3222125	1 of 1

**Bill To:**

MACOMB COUNTY PUBLIC WORKS  
23001 E. 9 MILE RD.  
ST CLAIR SHORES, MI 48080  
US

**Ship To:**

PUMPING STATION  
23001 E 9 MILE  
ST CLAIR SHORES, MI 48080  
US

Ordered By: TREVOR SEMROW 586-772-3425

Customer ID: 109933

PO Number	Term Description	Net Due Date	Disc Due Date	Discount Amount
BLANKET	1% 10 NET 30	10/26/2019	10/6/2019	12.04

Order Date	Pick Ticket No	Job Name	Primary Salesrep	Taker
9/24/2019 12:18:00	4695384		1061	114917

Quantities					Item ID	Item Description	Pricing UOM	Unit Price	Extended Price
Ordered	Shipped	Remaining	UOM Unit Size	Disp.					

Carrier:					Tracking #:				
200.0	200.0	0.0 FT	1.0		(010) 20080PVPPE	FT	1.54	308.00	
					2 PVC 80 PIPE PE - 20 FT LENGTH	1.0000			
20.0	20.0	0.0 EA	1.0		(020) 20080PVS90	EA	2.61	52.20	
					2 PVC 80 SW 90 ELL	1.0000			
20.0	20.0	0.0 EA	1.0		(030) 20080PVSU	EA	11.98	239.60	
					2 PVC 80 SW UNION	1.0000			
20.0	20.0	0.0 EA	1.0		(040) 20080PVSC	EA	3.24	64.80	
					2 PVC 80 SW COUPLING	1.0000			
50.0	50.0	0.0 EA	1.0		(050) 2004SSC	EA	10.78	539.00	
					2 304 SS STRUT CLAMP	1.0000			

Total Lines: 5

**SUB-TOTAL:** 1,203.60  
**TAX:** 0.00  
**AMOUNT DUE:** 1,203.60

Chap Chlorine line  
repair

A finance charge will be applied for all invoices not paid within terms. Would you like to receive invoices via fax or email? Contact our A/R department at 586-268-0720 or AR@macombgroup.com. Also, reprint your invoices from our website: www.macombgroup.com.

\*\*\*Special Order/Non-Stock Returned items are subject to mfg approval.

5724507



ORIGINAL







# ONESolution

ACCOUNTS PAYABLE CHECK REQUEST

## PUBLIC WORKS DIVISION

Mark A. Hackel  
County Executive

1. PREPARED BY (Please Type) <b>Michelle Houvener</b>	2. PHONE # <b>95966</b>	3. DATE <b>9/5/19</b>
4. SET ID <b>VPI9906MA</b>		
5. POST DATE		

PARENT RECORD INFORMATION	
6. VENDOR NAME (Check to be issued to) <b>Marino's Landscape</b>	7. VENDOR NUMBER <b>V66876</b>
8. ADDR CODE <b>01</b>	9. Invoice No (MAX = 16 CHARACTERS) <b>7757</b>
10. Invoice Date <b>8/31/2019</b>	11. Invoice Amount <b>1,375.00</b>

CHILD RECORD DETAIL INFORMATION		OPTIONAL	19. Amount	20. DIV	21. MISC	22. Sep CK				
12. Org Key	13. Object	14. Job Ledger Cost Center (CCNT)	15. Object	16. Work Order Number	17. Secondary Reference (MAX = 16 CHARACTERS)	18. Description (MAX = 30 CHARACTERS)				
A	8200017M	92900	92900	W01500P	8 1/2 Mile Relief	Lawn Care August 2019	\$ 1,375.00	GEN		
B										
C										
D										
E										
F										
G										

23. Total: \$ **1,375.00**

REV 09/2018

24. COMMENTS, INSTRUCTIONS OR ADDITIONAL NOTES:

25. Finance Officer: <i>[Signature]</i>	30. Drain: <b>8 1/2 Mile Relief</b>
26. Chief Deputy: <i>[Signature]</i>	31. Project Balance: <b>\$2,475.00</b>
27. Engineers: <i>[Signature]</i>	32. Staff Date: <b>9/17/2019</b>
28. Managers: <i>[Signature]</i>	33. Board Date: <b>10/21/2019</b>
29. Coordinator: <i>[Signature]</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 # 7757  
 Invoice Date 8/31/2019  
 Invoice Balance 1375.00

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

Date	Description
8/1/2019	Lawn Maintenance
8/8/2019	Lawn Maintenance
8/15/2019	Lawn Maintenance
8/22/2019	Lawn Maintenance
8/29/2019	Lawn Maintenance

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

Qty	Price	Total
1.00	275.00	275.00
1.00	275.00	275.00
1.00	275.00	275.00
1.00	275.00	275.00
1.00	275.00	275.00
<b>Subtotal</b>		1375.00
<b>Invoice Total</b>		1375.00
<b>Invoice Balance</b>		<b>1375.00</b>

Client Name Macomb County Public Works Office  
 For 23001 E. 9 Mile Rd. - Chapaon 8 1/2 Mile, St Clair Shores MI 48080  
 Invoice # 7757  
 Invoice Date 8/31/2019  
 Invoice Balance 1375.00  
 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.

82475



Mark A. Hackel  
County Executive

# ONESolution

ACCOUNTS PAYABLE CHECK REQUEST

## PUBLIC WORKS DIVISION

1. PREPARED BY (Please Type) <b>Michelle Houvener</b>	2. PHONE # <b>95966</b>	3. DATE <b>9/30/19</b>
4. SET ID <b>VPIA1010MA</b>		
5. POST DATE		

6. VENDOR NAME (Check to be issued to) <b>Marino's Landscape</b>		7. VENDOR NUMBER <b>V66876</b>	8. ADDR CODE <b>01</b>	9. Invoice No (MAX = 16 CHARACTERS) <b>8242</b>	10. Invoice Date <b>9/30/2019</b>	11. Invoice Amount <b>\$ 1,100.00</b>
---	--	-----------------------------------	---------------------------	--	--------------------------------------	--

General Ledger		Job Ledger		OPTIONAL			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)	19. Amount		
A	8200017M	92900	92900		8 1/2 Mile Relief	Lawn Care Sep 2019	\$ 1,100.00	GEN	
B									
C									
D									
E									
F									
G									

23. Total: \$ **1,100.00**

REV 09/2016

24. COMMENTS, INSTRUCTIONS OR ADDITIONAL NOTES:

25. Finance Officer: blm 30. Drain: 8 1/2 Mile Relief

26. Chief Deputy: AFB 31. Project Balance: \$1,375.00

27. Engineers: UJ 32. Staff Date: 10/15/2019

28. Managers: KC 33. Board Date: 10/21/2019

29. Coordinator:

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 # 8242  
 Invoice Date 9/30/2019  
 Invoice Balance **1100.00**

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

Date	Description	Qty	Price	Total
9/5/2019	Lawn Maintenance	1.00	275.00	275.00
9/12/2019	Lawn Maintenance	1.00	275.00	275.00
9/19/2019	Lawn Maintenance	1.00	275.00	275.00
9/26/2019	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 # 8242  
 Invoice Date 9/30/2019  
 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.





# ONESolution

ACCOUNTS PAYABLE CHECK REQUEST

## PUBLIC WORKS DIVISION

Mark A. Hackel  
County Executive

1. PREPARED BY (Please Type) <b>Michelle Houvener</b>	2. PHONE # <b>95966</b>	3. DATE <b>8/29/19</b>
4. SET ID <b>VP19830MA</b>		
5. POST DATE		

PARENT RECORD INFORMATION	
6. VENDOR NAME (Check to be issued to) <b>NEXGEN</b>	7. VENDOR NUMBER <b>V65304</b>
8. ADDR CODE <b>01</b>	9. Invoice No (MAX = 16 CHARACTERS) <b>2231</b>
10. Invoice Date <b>7/1/2019</b>	11. Invoice Amount <b>\$ 10,500.00</b>

CHILD RECORD DETAIL INFORMATION										
General Ledger			Job Ledger			OPTIONAL				
5e	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
A	8200166M	80152	CC0018	80152		MIDDD	NEXGEN License Support	\$ 2,625.00	GEN	MIDDD
B	8200017M	80152	CC0004	80152		8 1/2 Mile	NEXGEN License Support	\$ 2,625.00	GEN	0
C	8200072M	80152				Martin	NEXGEN License Support	\$ 2,625.00	GEN	0
D	8703018M	80152				SEMCWWDS	NEXGEN License Support	\$ 2,625.00	GEN	0
E	<b>54</b>									
F										
G										

23. Total: \$ **10,500.00**

REV 08/2018

24. COMMENTS, INSTRUCTIONS OR ADDITIONAL NOTES:

25. Finance Officer: <i>BHM</i>	30. Drain: <b>Multiple</b>
25. Chief Deputy: <i>AB</i>	31. Project Balance: <b>N/A</b>
27. Engineers: <i>UB</i>	32. Staff Date: <b>9/17/2019</b>
28. Managers: <i>UB</i>	33. Board Date: <b>10/21/2019</b>
29. Coordinator: <i>UB</i>	34. Select For Pay Date:

**NEXGEN Utility Management**

4010 Lennane Drive  
Sacramento, CA 95834

**Invoice**  
V65304

**Invoice #:** 2231  
**Invoice Date:** 7/1/2019  
**Due Date:** 7/16/2019  
**Terms:** Net 15  
**P.O. Number:**

**Bill To:**  
Macomb County Public Works  
Vincent Astorino  
21777 Dunham Road,  
Clinton Township, MI 48036

Item	Description	Hours/Qty	Rate	Class	Serviced	Amount
NEXGEN AM License ...	NEXGEN AM License Maintenance & Support No Sales Tax	5	2,100.00	AM		10,500.00
			0.00%	AM		0.00

Direct Deposit: Bank of America Routing: 121000358 Account: 07031 41840  
Send remittances to: vyee@nexgenam.com.

<b>Total</b>	\$10,500.00
<b>Payments/Credits</b>	\$0.00
<b>Balance Due</b>	\$10,500.00

Phone #	E-Mail
916.564.8000	vyee@nexgenam.com



Mark A. Hackel  
County Executive

# ONESolution

ACCOUNTS PAYABLE CHECK REQUEST

## PUBLIC WORKS DIVISION

1. PREPARED BY (Please Type) <b>Michelle Houvener</b>	2. PHONE # <b>95966</b>	3. DATE <b>10/1/19</b>
4. SET ID <b>VP191001MA</b>	5. POST DATE <b>9-30-19</b>	

6. VENDOR NAME (Check to be issued to) <b>Premier Safety</b>		7. VENDOR NUMBER <b>V62291</b>	8. ADDR CODE <b>01</b>	9. Invoice No (MAX = 16 CHARACTERS) <b>04166347</b>	10. Invoice Date <b>9/26/2019</b>	11. Invoice Amount <b>\$ 2,783.62</b>
---	--	-----------------------------------	---------------------------	--	--------------------------------------	--

General Ledger		Job Ledger		OPTIONAL			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)	19. Amount		
A	8200017M	97002	97002	WO18006	8 1/2 Mile Relief	Cust #1007555, Order #04106173	\$ 1,391.81	GEN	
B	8200166M	97002	97002		MIDDD	Cust #1007555, Order #04106173	\$ 1,391.81	GEN	0
C									
D									
E									
F									
G									

23. Total: \$ **2,783.62** REV 09/20/18

24. COMMENTS, INSTRUCTIONS OR ADDITIONAL NOTES:  
Calibration kits

25. Finance Officer: <i>[Signature]</i>	30. Drain: <b>8 1/2 Mile Relief; MIDDD</b>
26. Chief Deputy: <i>[Signature]</i>	31. Project Balance: <b>N/A</b>
27. Engineers: <i>[Signature]</i>	32. Staff Date: <b>10/15/2019</b>
28. Managers: <i>[Signature]</i>	33. Board Date: <b>10/21/2019</b>
29. Coordinator: <i>[Signature]</i>	34. Select For Pay Date:





46400 CONTINENTAL DR  
CHESTERFIELD, MI 48047-5206  
PH 586-840-3200 FX 586-840-3201

REMIT TO  
Premier Safety  
PO Box 33757  
Detroit MI 48232-3757

**Sales Invoice**

INVOICE #	04166347
LOCATION	04
DATE	09/26/19
PAGE	1 of 2

**BILL TO**  
1007555  
MACOMB CTY PUBLIC WORKS  
ATTN:\*\*\*\*EMAIL INVOICES\*\*\*\*  
21777 DUNHAM RD  
CLINTON TOWNSHIP, MI 48036-1005

**SHIP TO**  
MACOMB COUNTY DPW  
23001 E 9 MILE RD  
SAINT CLAIR SHORES, MI 48080-1

8 1/2 - MIDD

ORDER NUMBER 04106173	ORDER DATE 09/18/19	CUSTOMER P/O NUMBER AUTHORIZED KRISTOFER	PAYMENT TERMS NET 30 DAYS
CUSTOMER SALES REP DALE TAYLOR	CONTACT KRISTOFER BENDA		SHIP VIA UPS GROUND
FREIGHT TERMS PREPAY & ADD	JOB NUMBER		SALES PERSON DIMITRI PERVOLARAKIS

PRODUCT/DESCRIPTION	QUANTITY OPEN	QUANTITY SHIPPED	QUANTITY BACKORDERED	PRICE	U/M	EXTENSION
<b>RKI72-RA-C</b> GX-3R LEL/O2/H2S/CO W/115 V CH	4	4	0	595.0000	EA	2,380.00
<b>ARGCALKIT</b> CALIBRATION KIT, SPECIFY CALIB GASES	1	1	0	350.0000	EA	350.00

MERCHANDISE TOTAL	FREIGHT & HANDLING	MISC CHARGE	TAX	INVOICE TOTAL
2,730.00	53.62	0.00	0.00	2,783.62

PAYMENT APPLIED	0.00
CREDIT APPLIED	0.00
BALANCE DUE	2783.62

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# ONESolution

ACCOUNTS PAYABLE CHECK REQUEST

## PUBLIC WORKS DIVISION

Mark A. Hackel  
County Executive

1. PREPARED BY (Please Type) <b>Michelle Houvener</b>	2. PHONE # <b>95966</b>	3. DATE <b>9/13/19</b>
4. SET ID <b>VP19916MA</b>		
5. POST DATE		

6. VENDOR NAME (Check to be issued to) <b>Tetra Tech, Inc.</b>	7. VENDOR NUMBER <b>V16060</b>	8. ADDR CODE <b>02</b>	9. Invoice No (MAX = 16 CHARACTERS) <b>51486824</b>	10. Invoice Date <b>9/12/2019</b>	11. Invoice Amount <b>\$ 9,346.50</b>
---	-----------------------------------	---------------------------	--	--------------------------------------	--

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	15. Object							
A	8200017M	80138	CC0004	80138	WO19085	8 1/2 Mile Relief	Pjt #200-16347-19001 thru 8/23/19	\$ 9,346.50	GEN			
B												
C												
D												
E												
F												
G												

23. Total: \$ **9,346.50**

REV 09/2018

24. COMMENTS, INSTRUCTIONS OR ADDITIONAL NOTES:  
In-System Storage Devices

25. Finance Officer: <i>[Signature]</i>	30. Drain: <b>8 1/2 Mile Relief</b>
26. Chief Deputy: <i>[Signature]</i>	31. Project Balance: <b>\$465,860.50</b>
27. Engineers: <i>[Signature]</i>	32. Staff Date: <b>10/1/2019</b>
28. Managers: <i>[Signature]</i>	33. Board Date: <b>10/21/2019</b>
29. Coordinator: <i>[Signature]</i>	34. Select For Pay Date:

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

<b>WORK ORDER NUMBER</b>	WO19085	
<b>PROJECT NUMBER</b>	WWS-2019-003	(Tetra Tech# 200-16347-19001)
<b>PROJECT NAME</b>	In-System Storage Devices	
<b>DRAINAGE DISTRICT</b>	Eight and One-Half Mile Relief Drain Drainage District	
<b>CONSULTANT NAME</b>	Tetra Tech of Michigan	
<b>INVOICE DATE</b>	9/12/2019	
<b>INVOICE START DATE</b>	7/28/2019	
<b>INVOICE END DATE</b>	8/23/2019	

<b>ORIGINAL CONTRACT AMOUNT</b>	\$ 481,098.00
<b>CHANGE ORDER TOTAL</b>	\$ -
Change Order No. 1	
Change Order No. 2	
Change Order No. 3	
Change Order No. 4	
<b>TOTAL REVISED CONTRACT AMOUNT</b>	\$ 481,098.00
(includes all approved change orders only)	
<b>TOTAL AMOUNT PREVIOUSLY INVOICED</b>	\$ 5,891.00
<b>TOTAL AMOUNT DUE THIS INVOICE</b>	\$ 9,346.50
<b>TOTAL BUDGET REMAINING</b>	\$ 465,860.50
(Includes Total Revised Contract Amount Less Total Invoiced Previously and Total Invoiced Current)	





**Tetra Tech, Inc.**  
 424 Lewis Hargett Circle  
 Ste. 110  
 Lexington, KY 40503  
 (859) 223-8000

**BILL TO:** MACOMB COUNTY  
**ATTN:** WILLIAM MISTEROVICH  
 115 S GROESBECK HWY  
 MOUNT CLEMENS, MI 48043

**INVOICE NUMBER:** 51486824  
**INVOICE DATE:** 09/12/2019  
**SERVICES THROUGH:** 08/23/2019  
**FEDERAL TAX ID#:** 95-4148514  
**TERMS:** NET 30

ESA dated 10July 2019  
 Client Contact: Vince Astorino. Email vincent.astorino@macombgov.org

**PROFESSIONAL SERVICES:**

Project Number 200-16347-19001 In-System Storage Devices  
 Top Task 01A Project Management

EMPLOYEE	TITLE	CURRENT LABOR HOURS	LABOR RATE	CURRENT LABOR AMOUNT
Geerlings, Eric P.	Project Engineer 1	54.00	\$155.00	\$8,370.00
Nolta, Michael C.	Project Administrator	1.00	\$90.00	\$90.00
Takacs, Krista M.	Project Engineer 1	0.50	\$155.00	\$77.50
<b>TOTAL LABOR</b>		<b>55.50</b>		<b>\$8,537.50</b>
		<b>SUBTOTAL</b>		<b>\$8,537.50</b>

EVENT DESCRIPTION	TYPE	CURRENT AMOUNT
Bill Rate Correction (Invoice 51471309/Mike Nolta - 1 hr 7/12/19)	Event	\$89.00
<b>TOTAL EVENT</b>		<b>\$89.00</b>
	<b>SUBTOTAL</b>	<b>\$89.00</b>

Total Top Task# 01A \$8,626.50

Top Task 01D Basis of Design

EMPLOYEE	TITLE	CURRENT LABOR HOURS	LABOR RATE	CURRENT LABOR AMOUNT
Kaliman, Roger G.	Sr Engineer 1	1.50	\$180.00	\$270.00
Rubel, Brian M.	Program Manager	2.00	\$225.00	\$450.00
<b>TOTAL LABOR</b>		<b>3.50</b>		<b>\$720.00</b>
	<b>SUBTOTAL</b>			<b>\$720.00</b>

Total Top Task# 01D \$720.00

Total Project# 200-16347-19001 \$9,346.50

**TOTAL AMOUNT DUE THIS INVOICE:** \$9,346.50

**BILL TO:** MACOMB COUNTY  
**ATTN:** WILLIAM MISTEROVICH  
115 S GROESBECK HWY  
MOUNT CLEMENS, MI 48043

**INVOICE NUMBER:** 51486824  
**INVOICE DATE:** 09/12/2019  
**SERVICES THROUGH:** 08/23/2019  
**FEDERAL TAX ID#:** 95-4148514  
**TERMS:** NET 30

---

<b>Gross Contract Summary</b>	
Contract Amount	\$481,098.00
Previously Billed	\$5,891.00
Current Billing	\$9,346.50
Total Billed to Date	\$15,237.50
Contract Balance Remaining	\$465,860.50

---

**REMIT PAYMENT TO:**  
**TETRA TECH, INC.**  
PO BOX 911967  
DENVER, CO 80291-1967

To ensure accurate posting, please note the invoice number on your check. Interest will be charged on all past-due amounts per contract terms and conditions.



# PROJECT STATUS COMMUNICATION

DATE: September 3, 2019

PREPARED BY: Brian Rubel / Eric Geerlings

PROJECT: Macomb Co. In-System Storage Devices

Tt PROJECT NO: 200-16347-19001 CONTACT: Mr. Vince Astorino

### Task completed or in-progress since last status communication.

Continued review and analysis of the existing SWMM and updated SWMM received on 7/25.  
August 14<sup>th</sup>, Tetra Tech delivered a memo which summarized available storage device equipment manufacturers.  
A progress meeting was held on 8/15 to discuss findings of the initial SWMM analysis and align on the in-system storage sites.  
Survey work by FTC&H progressed quickly and was completed by mid-August.  
On August 19<sup>th</sup> MCPWO staff visited the Louisville RTC system with Diana Tao.  
Held a brief Q&A call with MCPWO on 8/23 to ask questions for clarification on existing permanent sensors, datum adjustments, etc.  
Started communicating with GLWA regarding the inflatable dam at the Hubbell-Southfield CSO Control Facility.  
Began development of control structure device options for Welsh Family Park that include passive overflow.

### Opportunities for cost avoidance or added value.

### Impediments, roadblocks, assistance needed.

Sometime in September Tetra Tech anticipates receiving design information from MCPWO for the Chapaton Pump Station project. The expected modifications to pump setpoint levels are relevant to SWMM modeling of storm events and Real Time Control (RTC) schemes.

### Change (or potential change) of scope items or customer concession. (Details on attached Request to Change Authorization)

### Schedule:

On September 12<sup>th</sup> Tetra Tech is scheduled to meet with FTC&H to review survey data. MCPWO will also receive update soon afterward. September 17<sup>th</sup> is the next scheduled Progress Meeting, though it may be delayed since SWMM analysis will not yet be complete.

### Next task or action items.

1. Continue SWMM analysis to develop RTC schemes and further refine in-system storage device options. We will keep Macomb abreast of our progress.
2. Continue working with manufacturers and vendors of in-system storage devices, including sluice gates and inflatable dams.
3. Gather feedback from GLWA regarding the Dyrhoff inflatable dam at their Hubbell-Southfield Facility and request a site visit.
4. Use the FTC&H infrastructure survey data and MCPWO Chapaton Pump Station information to update the SWMM.

Please do not hesitate to contact any member of our Team at any time.

Brian Rubel  
Project Manager

Phone: (734) 213-4081

Email: Brian.Rubel@tetrattech.com





Mark A. Hackel  
County Executive

# ONESolution

ACCOUNTS PAYABLE CHECK REQUEST

## PUBLIC WORKS DIVISION

1. PREPARED BY (Please Type) <b>Michelle Houvener</b>	2. PHONE # <b>95966</b>	3. DATE <b>8/29/19</b>
4. SET ID <b>V1919830MA</b>		
5. POST DATE		

PARENT RECORD INFORMATION	
6. VENDOR NAME (Check to be issued to) <b>Wade Trim</b>	7. VENDOR NUMBER <b>V09446</b>
8. ADDR CODE <b>02</b>	9. Invoice No (MAX = 16 CHARACTERS) <b>M2015602</b>
10. Invoice Date <b>8/28/2019</b>	11. Invoice Amount <b>\$ 78,710.44</b>

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	8200017C	80138	CC0004	80138	WO19004	8 1/2 Mile Relief	Pjt #MCW200501T, 7/27-8/23	\$ 78,710.44	GEN		
B											
C											
D											
E											
F											
G											

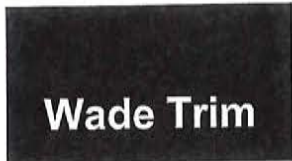
23. Total: \$ **78,710.44**

REV 09/2018

24. COMMENTS, INSTRUCTIONS OR ADDITIONAL NOTES:  
**Chapaton RTB Canal Upgrades, 7/27/19-8/23/19**

25. Finance Officer: <u><i>ptm</i></u>	30. Drain: <u>8 1/2 Mile Relief</u>
26. Chief Deputy: <u><i>AG</i></u>	31. Project Balance: <u>\$537,636.11 (Grant Balance: \$2,560,025.11)</u>
27. Engineers: <u></u>	32. Staff Date: <u>9/17/2019</u>
28. Managers: <u><i>UB</i></u>	33. Board Date: <u>10/21/2019</u>
29. Coordinator: <u><i>NW</i></u>	34. Select For Pay Date: <u></u>

# 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

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

Attention: Vince Astorino  
 Operations and Flow Manager

Invoice Date : August 28, 2019  
 Invoice # : M2015602  
 Project # : MCW200501T

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

**Re: Chapaton RTB Canal Upgrades**

For Professional Services rendered from 7/27/2019 through 8/23/2019

\*\* All subconsultant invoices marked up 5% \*\*

Total Salaries	\$55,178.75
Total Expenses	\$23,531.69
Professional Services Rendered	\$78,710.44

<b>Amount Due This Invoice</b>	<b>\$78,710.44</b>
--------------------------------	--------------------

Statement	
Prior Invoices	\$361,264.45
This Invoice	\$78,710.44
Total Invoiced	\$439,974.89
Paid to Date	\$361,264.45
<b>Amount Outstanding</b>	<b>\$78,710.44</b>

Fee Summary	
Authorized Fee	\$977,611.00
Total Invoiced	\$439,974.89
<b>Amount Remaining</b>	<b>\$537,636.11</b>

# 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 : August 28, 2019  
 Invoice # : M2015602  
 Project # : MCW200501T

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

### Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
Senior Professional	07/29/2019	1.00	\$215.00	\$215.00
	07/30/2019	1.50	\$215.00	\$322.50
	08/05/2019	2.00	\$215.00	\$430.00
	08/06/2019	1.00	\$215.00	\$215.00
	08/08/2019	1.00	\$215.00	\$215.00
	08/19/2019	1.00	\$215.00	\$215.00
	08/20/2019	1.00	\$215.00	\$215.00
	08/23/2019	1.00	\$215.00	\$215.00
			----- 9.50	

### Total Rate Schedule Labor

**\$2,042.50**

Total Task : 1A1 -- Project Management

Labor : \$2,042.50  
 Expense : \$0.00

Task: 1A2 -- Project Management Support

### Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
Engineer I	07/31/2019	3.00	\$100.00	\$300.00
	08/01/2019	2.00	\$100.00	\$200.00
		----- 5.00		----- \$500.00
Professional Engineer IV	07/30/2019	0.50	\$190.00	\$95.00
	08/12/2019	0.50	\$190.00	\$95.00
		----- 1.00		----- \$190.00
Project Aide II	08/05/2019	1.00	\$95.00	\$95.00
		----- 1.00		----- \$95.00

### Total Rate Schedule Labor

**\$785.00**

Total Task : 1A2 -- Project Management Support

Labor : \$785.00  
 Expense : \$0.00



# 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

Invoice Date : August 28, 2019  
 Invoice # : M2015602  
 Project # : MCW200501T

Phase: 100 -- Project Management  
 Task: 1EXP -- Project Management Expenses

**Regular Expenses**

Vendor Name	Doc Nbr	Date	Cost	Amount
Architectural/Engineering Supplies	C99CD7	07/29/2019	\$11.99	\$13.19
				----- \$13.19
<b>Total Regular Expenses</b>				<b>\$13.19</b>
Total Task : 1EXP -- Project Management Expenses			Labor :	\$0.00
			Expense :	\$13.19

Total Phase : 100 -- Project Management	Labor :	\$2,827.50
	Expense :	\$13.19

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

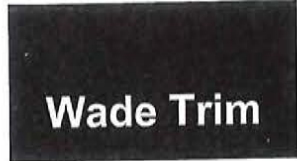
**Rate Schedule Labor**

Class Name	Date	Hours	Rate	Amount
Senior Professional	07/29/2019	1.00	\$215.00	\$215.00
		----- 1.00		----- \$215.00
<b>Total Rate Schedule Labor</b>				<b>\$215.00</b>
Total Task : 2B1 -- Alt Analysis & Development			Labor :	\$215.00
			Expense :	\$0.00

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

**Rate Schedule Labor**

Class Name	Date	Hours	Rate	Amount
Senior Professional	07/30/2019	0.50	\$215.00	\$107.50
		----- 0.50		----- \$107.50
<b>Total Rate Schedule Labor</b>				<b>\$107.50</b>



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

Invoice Date : August 28, 2019  
 Invoice # : M2015602  
 Project # : MCW200501T

**Phase: 200 -- Preliminary Design**

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

Labor : \$107.50  
 Expense : \$0.00

**Task: 2B4 -- Alt Final Report**

**Rate Schedule Labor**

Class Name	Date	Hours	Rate	Amount
<b>Engineer I</b>	08/07/2019	2.00	\$100.00	\$200.00
	08/09/2019	1.00	\$100.00	\$100.00
		----- 3.00		----- \$300.00
<b>Principal</b>	08/05/2019	1.00	\$230.00	\$230.00
	08/06/2019	1.00	\$230.00	\$230.00
	08/07/2019	2.00	\$230.00	\$460.00
	08/08/2019	2.00	\$230.00	\$460.00
		----- 6.00		----- \$1,380.00
<b>Senior Professional</b>	08/12/2019	2.50	\$215.00	\$537.50
	08/13/2019	1.00	\$215.00	\$215.00
	08/14/2019	2.00	\$215.00	\$430.00
		----- 5.50		----- \$1,182.50
<b>Total Rate Schedule Labor</b>				<b>\$2,862.50</b>

Total Task : 2B4 -- Alt Final Report

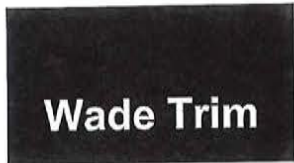
Labor : \$2,862.50  
 Expense : \$0.00

**Task: 2C2 -- Basis of Design Report**

**Rate Schedule Labor**

Class Name	Date	Hours	Rate	Amount
<b>Engineer I</b>	07/29/2019	6.00	\$100.00	\$600.00
	07/30/2019	9.00	\$100.00	\$900.00
	08/05/2019	4.00	\$100.00	\$400.00
	08/06/2019	6.00	\$100.00	\$600.00
	08/12/2019	3.50	\$100.00	\$350.00
		----- 28.50		----- \$2,850.00
<b>Principal</b>				

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

Invoice Date : August 28, 2019  
 Invoice # : M2015602  
 Project # : MCW200501T

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

### Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
<b>Principal</b>				
	07/29/2019	4.00	\$230.00	\$920.00
	07/30/2019	2.00	\$230.00	\$460.00
	08/02/2019	2.00	\$230.00	\$460.00
	08/05/2019	4.00	\$230.00	\$920.00
	08/06/2019	4.00	\$230.00	\$920.00
	08/08/2019	2.00	\$230.00	\$460.00
	08/12/2019	4.00	\$230.00	\$920.00
		-----		
		22.00		\$5,060.00
<b>Professional LA III</b>				
	07/31/2019	0.25	\$150.00	\$37.50
	08/05/2019	0.25	\$150.00	\$37.50
	08/06/2019	0.25	\$150.00	\$37.50
		-----		
		0.75		\$112.50
<b>Senior Professional</b>				
	08/07/2019	3.00	\$215.00	\$645.00
	08/08/2019	1.50	\$215.00	\$322.50
	08/09/2019	2.00	\$215.00	\$430.00
	07/29/2019	2.00	\$215.00	\$430.00
	07/31/2019	3.00	\$215.00	\$645.00
	08/06/2019	2.00	\$215.00	\$430.00
		-----		
		13.50		\$2,902.50
<b>Total Rate Schedule Labor</b>				<b>\$10,925.00</b>
Total Task : 2C2 -- Basis of Design Report			Labor :	\$10,925.00
			Expense :	\$0.00

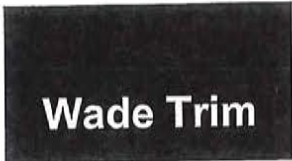
Task: 2D1 -- 30% Process

### Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
<b>Engineering Specialist II</b>				
	07/30/2019	4.00	\$170.00	\$680.00
		-----		
		4.00		\$680.00
<b>Principal</b>				



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

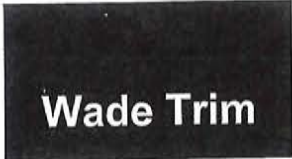
**Rate Schedule Labor**

Class Name	Date	Hours	Rate	Amount
Principal	08/06/2019	1.00	\$230.00	\$230.00
	08/08/2019	1.00	\$230.00	\$230.00
	08/13/2019	1.00	\$230.00	\$230.00
		----- 3.00		----- \$690.00
<b>Total Rate Schedule Labor</b>				<b>\$1,370.00</b>
Total Task : 2D1 -- 30% Process			Labor :	\$1,370.00
			Expense :	\$0.00

Task: 2D10 -- 30% Permit Assistance

**Rate Schedule Labor**

Class Name	Date	Hours	Rate	Amount	
Principal	07/29/2019	1.00	\$230.00	\$230.00	
	07/30/2019	1.00	\$230.00	\$230.00	
	08/02/2019	4.00	\$230.00	\$920.00	
	08/14/2019	1.00	\$230.00	\$230.00	
	08/22/2019	2.00	\$230.00	\$460.00	
	08/23/2019	4.00	\$230.00	\$920.00	
	07/29/2019	2.00	\$230.00	\$460.00	
	07/30/2019	2.00	\$230.00	\$460.00	
	08/01/2019	2.00	\$230.00	\$460.00	
	08/02/2019	3.00	\$230.00	\$690.00	
	08/07/2019	1.00	\$230.00	\$230.00	
	08/08/2019	2.00	\$230.00	\$460.00	
	08/19/2019	2.00	\$230.00	\$460.00	
	08/21/2019	1.00	\$230.00	\$230.00	
	08/22/2019	2.00	\$230.00	\$460.00	
	08/23/2019	3.00	\$230.00	\$690.00	
		----- 33.00		----- \$7,590.00	
	Senior Professional	08/21/2019	1.00	\$215.00	\$215.00
		08/22/2019	1.00	\$215.00	\$215.00
08/02/2019		3.00	\$215.00	\$645.00	
08/22/2019		0.50	\$215.00	\$107.50	



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 18% Annual Rate

Invoice Date : August 28, 2019  
 Invoice # : M2015602  
 Project # : MCW200501T

Phase: 200 -- Preliminary Design  
 Task: 2D10 -- 30% Permit Assistance

**Rate Schedule Labor**

Class Name	Date	Hours	Rate	Amount
Senior Professional	08/23/2019	3.00	\$215.00	\$645.00
		8.50		\$1,827.50
<b>Total Rate Schedule Labor</b>				<b>\$9,417.50</b>

**Regular Expenses**

Vendor Name	Doc Nbr	Date	Cost	Amount
Employee Travel	CB927C	07/25/2019	\$139.20	\$153.12
	CB927C	07/25/2019	\$8.35	\$9.19
	CB927C	07/25/2019	\$6.26	\$6.89
	CB927C	07/25/2019	\$9.25	\$10.18
	CB927C	07/26/2019	\$18.45	\$20.30
Employee Travel / Subsistence	CB927C	07/25/2019	\$20.01	\$22.01
				\$22.01
<b>Total Regular Expenses</b>				<b>\$221.69</b>

**Unit Pricing Expenses**

Vendor / Employee Name	Doc Nbr	Date	Units	Rate	Amount
Employee Mileage	CB927C	07/25/2019	300.00	\$0.640	\$192.00
	CB927C	07/26/2019	300.00	\$0.640	\$192.00
<b>Total Unit Pricing</b>					<b>\$384.00</b>

Total Task : 2D10 -- 30% Permit Assistance  
 Labor : \$9,417.50  
 Expense : \$605.69

Task: 2D11 -- 30% Constructability Review



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 Project # : MCW200501T

Phase: 200 -- Preliminary Design  
 Task: 2D11 -- 30% Constructability Review

**Rate Schedule Labor**

Class Name	Date	Hours	Rate	Amount
Senior Professional	08/09/2019	1.00	\$215.00	\$215.00
	08/19/2019	1.00	\$215.00	\$215.00
	08/21/2019	0.50	\$215.00	\$107.50
		----- 2.50		----- \$537.50
<b>Total Rate Schedule Labor</b>				<b>\$537.50</b>
Total Task : 2D11 -- 30% Constructability Review			Labor :	\$537.50
			Expense :	\$0.00

Task: 2D12 -- 30% Const Schedule Development

**Rate Schedule Labor**

Class Name	Date	Hours	Rate	Amount
Professional Engineer IV	08/19/2019	1.00	\$190.00	\$190.00
	08/20/2019	3.00	\$190.00	\$570.00
	08/21/2019	3.00	\$190.00	\$570.00
		----- 7.00		----- \$1,330.00
Senior Professional	08/19/2019	0.50	\$215.00	\$107.50
	08/20/2019	0.50	\$215.00	\$107.50
	08/21/2019	0.50	\$215.00	\$107.50
		----- 1.50		----- \$322.50
<b>Total Rate Schedule Labor</b>				<b>\$1,652.50</b>
Total Task : 2D12 -- 30% Const Schedule Development			Labor :	\$1,652.50
			Expense :	\$0.00

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

**Rate Schedule Labor**

Class Name	Date	Hours	Rate	Amount
Principal	07/29/2019	1.00	\$230.00	\$230.00



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Phase: 200 -- Preliminary Design  
 Task: 2D13 -- 30% Engineer's Cost Estimate

### Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
Principal	07/30/2019	1.00	\$230.00	\$230.00
	08/07/2019	1.00	\$230.00	\$230.00
		----- 3.00		----- \$690.00
Project Specialist III	07/29/2019	1.00	\$175.00	\$175.00
	07/30/2019	1.00	\$175.00	\$175.00
		----- 2.00		----- \$350.00
Senior Professional	07/30/2019	0.50	\$215.00	\$107.50
	08/06/2019	0.50	\$215.00	\$107.50
	08/08/2019	0.25	\$215.00	\$53.75
		----- 1.25		----- \$268.75
<b>Total Rate Schedule Labor</b>				<b>\$1,308.75</b>
Total Task : 2D13 -- 30% Engineer's Cost Estimate			Labor :	\$1,308.75
			Expense :	\$0.00

Task: 2D14 -- 30% Meetings

### Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
Engineer I	08/13/2019	1.00	\$100.00	\$100.00
		----- 1.00		----- \$100.00
Principal	07/31/2019	2.00	\$230.00	\$460.00
	08/20/2019	2.00	\$230.00	\$460.00
	08/21/2019	3.00	\$230.00	\$690.00
		----- 7.00		----- \$1,610.00
Senior Professional	07/30/2019	1.00	\$215.00	\$215.00
	07/31/2019	1.50	\$215.00	\$322.50
	08/06/2019	1.00	\$215.00	\$215.00



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Phase: 200 -- Preliminary Design  
 Task: 2D14 -- 30% Meetings

**Rate Schedule Labor**

Class Name	Date	Hours	Rate	Amount
Senior Professional	08/21/2019	2.00	\$215.00	\$430.00
	08/23/2019	0.50	\$215.00	\$107.50
		----- 6.00		----- \$1,290.00
<b>Total Rate Schedule Labor</b>				<b>\$3,000.00</b>
Total Task : 2D14 -- 30% Meetings			Labor :	\$3,000.00
			Expense :	\$0.00

Task: 2D15 -- 30% General

**Rate Schedule Labor**

Class Name	Date	Hours	Rate	Amount
Engineer IV	07/29/2019	2.00	\$150.00	\$300.00
	07/30/2019	2.00	\$150.00	\$300.00
	07/31/2019	2.00	\$150.00	\$300.00
	08/01/2019	2.00	\$150.00	\$300.00
	08/02/2019	1.00	\$150.00	\$150.00
	08/05/2019	0.50	\$150.00	\$75.00
	08/06/2019	0.50	\$150.00	\$75.00
	08/08/2019	1.00	\$150.00	\$150.00
	08/09/2019	1.00	\$150.00	\$150.00
		----- 12.00		----- \$1,800.00
<b>Total Rate Schedule Labor</b>				<b>\$1,800.00</b>
Total Task : 2D15 -- 30% General			Labor :	\$1,800.00
			Expense :	\$0.00

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

**Rate Schedule Labor**

Class Name	Date	Hours	Rate	Amount
LA Staff	07/29/2019	1.00	\$100.00	\$100.00
	07/29/2019	1.00	\$100.00	\$100.00

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

### Rate Schedule Labor

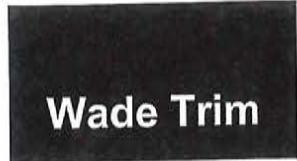
Class Name	Date	Hours	Rate	Amount
LA Staff	08/06/2019	1.50	\$100.00	\$150.00
		----- 3.50		----- \$350.00
Principal	08/07/2019	3.00	\$230.00	\$690.00
	08/12/2019	2.00	\$230.00	\$460.00
	08/13/2019	2.00	\$230.00	\$460.00
	08/14/2019	1.00	\$230.00	\$230.00
	08/20/2019	1.00	\$230.00	\$230.00
	08/21/2019	2.00	\$230.00	\$460.00
	08/23/2019	1.00	\$230.00	\$230.00
	----- 12.00		----- \$2,760.00	
Professional LA III	08/13/2019	0.50	\$150.00	\$75.00
	08/19/2019	1.00	\$150.00	\$150.00
	08/20/2019	0.50	\$150.00	\$75.00
		----- 2.00		----- \$300.00
<b>Total Rate Schedule Labor</b>				<b>\$3,410.00</b>
Total Task : 2D3 -- 30% Landscape/Green Infrastructure			Labor :	\$3,410.00
			Expense :	\$0.00

Task: 2D4 -- 30% Structural

### Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
Engineer II	07/29/2019	1.00	\$110.00	\$110.00
	07/31/2019	2.00	\$110.00	\$220.00
		----- 3.00		----- \$330.00
Engineer IV	07/29/2019	1.00	\$150.00	\$150.00
	07/30/2019	3.00	\$150.00	\$450.00
	08/02/2019	1.00	\$150.00	\$150.00
	08/08/2019	1.00	\$150.00	\$150.00





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 Invoice # : M2015602  
 Project # : MCW200501T

Phase: 200 -- Preliminary Design  
 Task: 2D4 -- 30% Structural

**Rate Schedule Labor**

Class Name	Date	Hours	Rate	Amount
Engineer IV	08/09/2019	1.00	\$150.00	\$150.00
		----- 7.00		----- \$1,050.00
Senior Professional	07/29/2019	7.00	\$215.00	\$1,505.00
	07/30/2019	2.00	\$215.00	\$430.00
	07/31/2019	4.00	\$215.00	\$860.00
	08/05/2019	2.00	\$215.00	\$430.00
	08/06/2019	4.00	\$215.00	\$860.00
	08/07/2019	2.00	\$215.00	\$430.00
		----- 21.00		----- \$4,515.00
<b>Total Rate Schedule Labor</b>				<b>\$5,895.00</b>
Total Task : 2D4 -- 30% Structural			Labor :	\$5,895.00
			Expense :	\$0.00

Task: 2D6 -- 30% Civil / Site

**Rate Schedule Labor**

Class Name	Date	Hours	Rate	Amount
Engineer IV	07/29/2019	1.00	\$150.00	\$150.00
	07/30/2019	3.00	\$150.00	\$450.00
	08/02/2019	1.00	\$150.00	\$150.00
	08/08/2019	2.00	\$150.00	\$300.00
	08/09/2019	1.00	\$150.00	\$150.00
	08/12/2019	2.00	\$150.00	\$300.00
	08/13/2019	2.00	\$150.00	\$300.00
	08/16/2019	2.00	\$150.00	\$300.00
		----- 14.00		----- \$2,100.00
Engineering Specialist II	08/13/2019	0.50	\$170.00	\$85.00
		----- 0.50		----- \$85.00
Principal	07/29/2019	1.00	\$230.00	\$230.00

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 Project # : MCW200501T

Phase: 200 -- Preliminary Design

Task: 2D6 -- 30% Civil / Site

### Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount	
Principal	07/30/2019	1.00	\$230.00	\$230.00	
	08/05/2019	1.00	\$230.00	\$230.00	
	08/06/2019	1.00	\$230.00	\$230.00	
	08/08/2019	2.00	\$230.00	\$460.00	
	08/12/2019	1.00	\$230.00	\$230.00	
	08/13/2019	1.00	\$230.00	\$230.00	
	08/14/2019	2.00	\$230.00	\$460.00	
	08/20/2019	2.00	\$230.00	\$460.00	
	08/21/2019	1.00	\$230.00	\$230.00	
	08/23/2019	1.00	\$230.00	\$230.00	
			----- 14.00		----- \$3,220.00

**Total Rate Schedule Labor**

**\$5,405.00**

Total Task : 2D6 -- 30% Civil / Site

Labor : \$5,405.00  
 Expense : \$0.00

Task: 2D7 -- 30% QA / QC

### Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
Principal	08/22/2019	1.00	\$230.00	\$230.00
		----- 1.00		----- \$230.00
Senior Professional	08/01/2019	2.00	\$215.00	\$430.00
	08/07/2019	2.00	\$215.00	\$430.00
	08/08/2019	2.00	\$215.00	\$430.00
		----- 6.00		----- \$1,290.00

**Total Rate Schedule Labor**

**\$1,520.00**

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

Labor : \$1,520.00  
 Expense : \$0.00

Task: 2EXP -- Preliminary Design Expenses



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Phase: 200 -- Preliminary Design  
 Task: 2EXP -- Preliminary Design Expenses

**Unit Pricing Expenses**

Vendor / Employee Name	Doc Nbr	Date	Units	Rate	Amount
<b>Employee Mileage</b>					
	99A571	08/02/2019	64.00	\$0.640	\$40.96
					----- 40.96

**Total Unit Pricing**

**\$40.96**

Total Task : 2EXP -- Preliminary Design Expenses

Labor : \$0.00  
 Expense : \$40.96

Total Phase : 200 -- Preliminary Design	Labor :	\$49,426.25
	Expense :	\$646.65

Phase: 300 -- Final Design  
 Task: 3D14 -- 60% Meetings

**Rate Schedule Labor**

Class Name	Date	Hours	Rate	Amount
<b>Engineer I</b>				
	08/20/2019	1.50	\$100.00	\$150.00
	08/21/2019	0.25	\$100.00	\$25.00
		----- 1.75		----- \$175.00

**Total Rate Schedule Labor**

**\$175.00**

Total Task : 3D14 -- 60% Meetings

Labor : \$175.00  
 Expense : \$0.00

Task: 3D3 -- 60% Landscape/Green Infrastructure

**Rate Schedule Labor**

Class Name	Date	Hours	Rate	Amount
<b>LA Staff</b>				
	08/19/2019	2.00	\$100.00	\$200.00
	08/20/2019	7.50	\$100.00	\$750.00
	08/21/2019	4.00	\$100.00	\$400.00
	08/22/2019	0.50	\$100.00	\$50.00



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Phase: 300 -- Final Design

Task: 3D3 -- 60% Landscape/Green Infrastructure

### Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
		14.00		\$1,400.00

**Total Rate Schedule Labor**

**\$1,400.00**

Total Task : 3D3 -- 60% Landscape/Green Infrastructure

Labor : \$1,400.00  
 Expense : \$0.00

Task: 3D4 -- 60% Structural

### Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
Engineer IV	08/22/2019	3.00	\$150.00	\$450.00
	08/23/2019	1.00	\$150.00	\$150.00
		4.00		\$600.00

**Total Rate Schedule Labor**

**\$600.00**

Total Task : 3D4 -- 60% Structural

Labor : \$600.00  
 Expense : \$0.00

Task: 3D6 -- 60% Civil / Site

### Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
Engineer IV	08/20/2019	1.00	\$150.00	\$150.00
	08/21/2019	2.00	\$150.00	\$300.00
	08/22/2019	2.00	\$150.00	\$300.00
		5.00		\$750.00

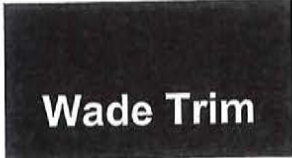
**Total Rate Schedule Labor**

**\$750.00**

Total Task : 3D6 -- 60% Civil / Site

Labor : \$750.00  
 Expense : \$0.00

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Total Phase :	300 -- Final Design	Labor :	\$2,925.00
		Expense :	\$0.00

Phase: 600 -- Subcontractors  
 Task: 6A1 -- Applied Science

**Regular Expenses**

Vendor Name	Doc Nbr	Date	Cost	Amount
<b>Subconsultants</b>				
	20016181	08/08/2019	\$16,449.50	\$17,271.98
				-----
				\$17,271.98
<b>Total Regular Expenses</b>				<b>\$17,271.98</b>

Total Task : 6A1 -- Applied Science  
 Labor : \$0.00  
 Expense : \$17,271.98

Task: 6A2 -- NTH Consultants

**Regular Expenses**

Vendor Name	Doc Nbr	Date	Cost	Amount
<b>Subconsultants</b>				
	20016339	08/22/2019	\$4,354.90	\$4,572.65
				-----
				\$4,572.65
<b>Total Regular Expenses</b>				<b>\$4,572.65</b>

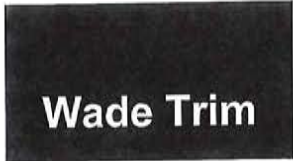
Total Task : 6A2 -- NTH Consultants  
 Labor : \$0.00  
 Expense : \$4,572.65

Task: 6A3 -- MKSK

**Regular Expenses**

Vendor Name	Doc Nbr	Date	Cost	Amount
<b>Subconsultants</b>				
	20016353	08/23/2019	\$978.30	\$1,027.22
				-----
				\$1,027.22
<b>Total Regular Expenses</b>				<b>\$1,027.22</b>

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 : August 28, 2019  
Invoice # : M2015602  
Project # : MCW200501T

Phase: 600 -- Subcontractors

Total Task : 6A3 -- MKSK

Labor : \$0.00  
Expense : \$1,027.22

Total Phase :	600 -- Subcontractors	Labor :	\$0.00
		Expense :	\$22,871.85

Work Description:

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 July 31, 2019. Completed and reviewed Sonic Echo Testing Report for site steel sheet piling. Commenced coordination of environmental sediment sampling at Chapaton Canal. Updated Alternatives Report with option 2A for MCPWO review. Progressed and completed project BOD, 30% drawings and TOC for MCPWO review. Held 30% Design Review workshop with MCPWO on August 21st. Prepared exhibits and slides for MCPWO presentation to EGLE and attended permitting meetings with EGLE on August 2nd , 23rd and 27th. Preliminary construction project schedule and sequence of construction developed. Preliminary wetland concept and south side channel berm concept developed. Progressing design to 60% level and continue to assist with permitting efforts.





# Applied Science, Inc.

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

August 5, 2019

Invoice #5 (ASI Inv. #7407)

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

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

Services provided from June 16, 2019 through July 27, 2019.

<u>Employee</u>	<u>Classification</u>	<u>Direct Labor Hrs.</u>	<u>Hourly Rate</u>	<u>Total</u>
John Michalski	Sr. Project Manager	37.0	\$ 155.00	\$ 5,735.00
Paul Szaga	Project Engineer	51.0	\$ 115.00	\$ 5,865.00
Doria Herold Jackson	CADD	12.0	\$ 96.00	\$ 1,152.00
Erika Campbell	Staff Engineer	43.5	\$ 85.00	\$ 3,697.50
Total this invoice:				\$ 16,449.50
Previous Amount Invoiced:				\$ 24,321.00
Total Invoiced To-Date:				\$ 40,770.50
Not To Exceed:				\$ 68,005.00
Amount Remaining:				\$ 27,234.50
<b>Total Amount Due This Invoice:</b>				<b>\$ 16,449.50</b>



**Time by Project**

6/16/2019 (Sun) - 7/27/2019 (Sat)

(Single Project)

Hours	Date	Task	Type	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Approver	Status	Description
4	06/23/19	1831 Chapaton Canal & Gate:1-001 Proposal	Reg	0	0	0	0	2	2	0	CEC	07/01/19	
23.50	06/30/19	1831 Chapaton Canal & Gate:1-001 Proposal	Reg	0	2.50	4	9.50	0	7.50	0	CEC	07/15/19	
13	07/14/19	1831 Chapaton Canal & Gate:1-001 Proposal	Reg	0	4	0	1	0	8	0	CEC	07/29/19	
3	07/21/19	1831 Chapaton Canal & Gate:1-001 Proposal	Reg	0	0	0	0	3	0	0	CEC	07/29/19	
43.50		<b>Subtotal</b>											
3	07/07/19	1831 Chapaton Canal & Gate:1-001 Proposal	Reg	0	0	1	0	0.50	1.50	0	CEC	07/15/19	
3.50	07/14/19	1831 Chapaton Canal & Gate:1-001 Proposal	Reg	0	2	1.50	0	0	0	0	CEC	07/29/19	
4	07/21/19	1831 Chapaton Canal & Gate:1-001 Proposal	Reg	0	0	0	0	1.50	2.50	0	CEC	07/29/19	
1.50	07/21/19	1831 Chapaton Canal & Gate:1-001 Proposal	Reg	0	0	0	0	0	1.50	0	CEC	07/29/19	
12		<b>Subtotal</b>											
5	06/16/19	1831 Chapaton Canal & Gate:1-001 Proposal	Reg	0	1	1	3	0	0	0	CEC	07/01/19	
5	06/23/19	1831 Chapaton Canal & Gate:1-001 Proposal	Reg	0	1	1	1	2	0	0	CEC	07/01/19	
5.50	06/30/19	1831 Chapaton Canal & Gate:1-001 Proposal	OT	0	1	1	2	0	1.50	0	CEC	07/15/19	
7.50	07/07/19	1831 Chapaton Canal & Gate:1-001 Proposal	Reg	0	1	1	2	2	1.50	0	CEC	07/15/19	
8	07/14/19	1831 Chapaton Canal & Gate:1-001 Proposal	Reg	0	1	2	2	2	2	1	CEC	07/29/19	
6	07/21/19	1831 Chapaton Canal & Gate:1-001 Proposal	Reg	0	0	2	0	2	2	0	CEC	07/29/19	
37		<b>Subtotal</b>											
14	07/07/19	1831 Chapaton Canal & Gate:1-001 Proposal	Reg	0	0	2	8	4	0	0	CEC	07/15/19	Cleaned up model, resolved instabilities, set up suite of runs.
19	07/14/19	1831 Chapaton Canal & Gate:1-001 Proposal	Reg	0	0	0	3	8	8	0	CEC	07/29/19	Draft modeling report
18	07/21/19	1831 Chapaton Canal & Gate:1-001 Proposal	Reg	0	2	6	5	5	0	0	CEC	07/29/19	Finalized draft report for 30% submittal
51		<b>Subtotal</b>											
143.50		<b>Subtotal</b>											
143.50		<b>Total</b>											

About v6.5 (24712)



NTH Consultants, Ltd.  
Infrastructure Engineering and  
Environmental Services

INVOICE

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

Invoice # : 619566  
Project : 62190022  
Invoice Group : \*\*  
Invoice Date : 08/20/2019

Attention: Accounts Payable

For Professional Services Rendered through: 8/16/2019

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	10,049.51	774.90	18,065.59
20 -- Preliminary Design	99,060.00	70,236.57	3,580.00	25,243.43
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	80,286.08	4,354.90	143,869.02

Amount Due This Invoice : \$ 4,354.90

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 # : 619566

Phase : 10 -- Project Management

Rate Schedule Labor	Date	Hours	Rate	Amount
<b>Senior Officer</b>				
Roarty, Charles	07/23/2019	0.50	215.00	107.50
	07/31/2019	3.00	215.00	645.00
<b>Rate Schedule Labor</b>				<b>752.50</b>

Unit Pricing Expenses	Units	Rate	Amount
Per Unit Expenses			
REIMBURSED MILEAGE	35.00 MILE(S) @	0.64	22.40
<b>Unit Pricing</b>			<b>22.40</b>

Total Phase : 10 -- Project Management

Labor : 752.50  
Expense : 22.40

Phase : 20 -- Preliminary Design

Rate Schedule Labor	Date	Hours	Rate	Amount
<b>Cadd Operator</b>				
Bryan, Stephen H.	07/22/2019	0.50	85.00	42.50
	07/23/2019	1.25 Overtime	85.00	106.25
	07/23/2019	0.50	85.00	42.50
	08/01/2019	0.25	85.00	21.25
<b>Project Professional</b>				
Hassan, Samer	07/30/2019	0.75	120.00	90.00
<b>Senior Officer</b>				
Roarty, Charles	07/22/2019	1.50	215.00	322.50
	07/23/2019	1.00	215.00	215.00
	07/23/2019	1.00	215.00	215.00
	07/24/2019	1.00	215.00	215.00
	07/25/2019	0.50	215.00	107.50
	07/29/2019	0.50	215.00	107.50
	07/30/2019	1.50	215.00	322.50
	07/31/2019	1.00	215.00	215.00
	08/01/2019	0.50	215.00	107.50
	08/02/2019	0.50	215.00	107.50
	08/05/2019	0.50	215.00	107.50
	08/06/2019	0.50	215.00	107.50
	08/06/2019	1.00	215.00	215.00
	08/09/2019	2.00	215.00	430.00
	08/14/2019	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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NTH Consultants, Ltd.

Infrastructure Engineering and Environmental Services

INVOICE

Project : 62190022 -- MCO - Chapaton RTB Canal Upgrades

Invoice # : 619566

Phase : 20 -- Preliminary Design

<u>Rate Schedule Labor</u>	<u>Date</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
<b>Senior Officer</b>				
Roarty, Charles	08/16/2019	0.50	215.00	107.50
<b>Sr Proj Professional</b>				
Andrews, Cliff J.	08/14/2019	1.00	145.00	145.00
<b>Rate Schedule Labor</b>		<b>18.75</b>		<b>3,565.00</b>

<u>Unit Pricing Expenses</u>	<u>Units</u>	<u>Rate</u>	<u>Amount</u>
<b>Per Unit Expenses</b>			
CADD Supplies	2.50 HOUR(S) @	6.00	15.00
<b>Unit Pricing</b>			<b>15.00</b>

Total Phase : 20 -- Preliminary Design

Labor : 3,565.00  
Expense : 15.00

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

4,354.90

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.

# MKSK

462 South Ludlow Alley  
 Columbus, OH 43215  
 614-621-2796

Wade Trim Associates  
 John Arvai  
 jarvai@wadetrim.com  
 25251 Northline Road  
 Taylor, MI 48180

Invoice number 2190920  
 Date 08/23/2019

Project **k18101 St Clair Shores, Chapaton CSO Basin**

Professional Services for the Period ended July 31, 2019:

**\*\*Service Summary\*\***

**Professional Fees**

Standard Professional Services  
 Preliminary - Final Design

	Hours	Rate	Billed Amount
Principal	3.00	190.00	570.00
Standard Professional Services subtotal			570.00

**Reimbursable Expenses**

Reimbursable Expenses  
 Reimbursable Expenses

	Units	Cost Amount	Rate	Billed Amount
Travel		408.30		408.30
<i>Flight - A. Knight, 07-27-2019</i>				
Reimbursable Expenses subtotal				408.30

Invoice total **978.30**



# MKSK

Wade Trim Associates  
 Project k18101 St Clair Shores, Chapaton CSO Basin

Invoice number 2190920  
 Date 08/23/2019

## Invoice Summary

Description	Contract Amount	Prior Billed	Total Billed	Current Billed
Standard Professional Services				
Preliminary - Final Design	24,380.00	0.00	570.00	570.00
Reimbursable Expenses				
Reimbursable Expenses	0.00	0.00	408.30	408.30
<b>Total</b>	<b>24,380.00</b>	<b>0.00</b>	<b>978.30</b>	<b>978.30</b>

## Aging Summary

Invoice Number	Invoice Date	Outstanding	Current	Over 30	Over 60	Over 90	Over 120
2190920	08/23/2019	978.30	978.30				
	<b>Total</b>	<b>978.30</b>	<b>978.30</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

Approved by:

Christopher E. Hostettler, C.P.A.  
 C.F.O.

### Professional Services for the Period ended July 31, 2019:

- Attended team meeting at Wade Trim office (Detroit) to review project status, budget, and schedule
- Review preferred concept design and alternative provided by Wade Trim
- Internal project coordination with MKSK staff



Mark A. Hackel  
County Executive

# ONESolution

ACCOUNTS PAYABLE CHECK REQUEST

## PUBLIC WORKS DIVISION

1. PREPARED BY (Please Type) <b>Michelle Houvener</b>	2. PHONE # <b>95966</b>	3. DATE <b>9/24/19</b>
4. SET ID <b>VP19927MA</b>		
5. POST DATE		

6. VENDOR NAME (Check to be issued to) <b>Wade Trim</b>		7. VENDOR NUMBER <b>V09446</b>	8. ADDR CODE <b>02</b>	9. Invoice No (MAX = 16 CHARACTERS) <b>M2015870</b>	10. Invoice Date <b>9/24/2019</b>	11. Invoice Amount <b>\$ 89,256.89</b>
--	--	-----------------------------------	---------------------------	--	--------------------------------------	---

General Ledger		Job Ledger		OPTIONAL			20. DIV	21. MISC	
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		
A	8200017C	80138	80138	WO19004	8 1/2 Mile Relief	Pjt #MCW200501T, 8/24-9/20	\$ 89,256.89	GEN	
B									
C									
D									
E	88								
F									
G									

23. Total: \$ **89,256.89** REV/09/2018

24. COMMENTS, INSTRUCTIONS OR ADDITIONAL NOTES:  
**Chapaton RTB Canal Upgrades, 8/24-9/20**

25. Finance Officer: *BHM*

26. Chief Deputy: *AS*

27. Engineers: *URS*

28. Managers: *URS*

29. Coordinator: *URS*

30. Drain: **8 1/2 Mile Relief**

31. Project Balance: **\$448,379.22 (Grant Balance: \$2,470,768.22)**

32. Staff Date: **10/1/2019**

33. Board Date: **10/21/2019**

34. Select For Pay Date: \_\_\_\_\_

# 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

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

Attention: Vince Astorino  
 Operations and Flow Manager

Invoice Date : September 24, 2019  
 Invoice # : M2015870  
 Project # : MCW200501T

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

**Re: Chapaton RTB Canal Upgrades**

For Professional Services rendered from 8/24/2019 through 9/20/2019

\*\* All subconsultant invoices marked up 5% \*\*

Total Salaries	\$44,013.75
Total Expenses	\$45,243.14
Professional Services Rendered	<u>\$89,256.89</u>

<b>Amount Due This Invoice</b>	<b>\$89,256.89</b>
--------------------------------	--------------------

Statement	
Prior Invoices	\$439,974.89
This Invoice	\$89,256.89
Total Invoiced	\$529,231.78
Paid to Date	\$361,264.45
<b>Amount Outstanding</b>	<b>\$167,967.33</b>

Fee Summary	
Authorized Fee	\$977,611.00
Total Invoiced	\$529,231.78
<b>Amount Remaining</b>	<b>\$448,379.22</b>



# 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

Invoice Date : September 24, 2019  
 Invoice # : M2015870  
 Project # : MCW200501T

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

### Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
Senior Professional	08/26/2019	1.00	\$215.00	\$215.00
	08/28/2019	2.00	\$215.00	\$430.00
	08/29/2019	0.50	\$215.00	\$107.50
	09/03/2019	3.00	\$215.00	\$645.00
	09/09/2019	2.00	\$215.00	\$430.00
	09/11/2019	1.50	\$215.00	\$322.50
	09/12/2019	2.00	\$215.00	\$430.00
	09/16/2019	2.00	\$215.00	\$430.00
	09/18/2019	1.00	\$215.00	\$215.00
	09/20/2019	2.00	\$215.00	\$430.00
		----- 17.00		----- \$3,655.00

### Total Rate Schedule Labor

**\$3,655.00**

Total Task : 1A1 -- Project Management

Labor : \$3,655.00  
 Expense : \$0.00

### Task: 1A2 -- Project Management Support

#### Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
Engineer I	08/28/2019	1.50	\$100.00	\$150.00
	09/03/2019	4.00	\$100.00	\$400.00
	09/04/2019	1.00	\$100.00	\$100.00
	09/06/2019	1.25	\$100.00	\$125.00
			----- 7.75	
Professional Engineer IV	09/03/2019	1.00	\$190.00	\$190.00
		----- 1.00		----- \$190.00
Project Aide II	09/09/2019	1.00	\$95.00	\$95.00
		----- 1.00		----- \$95.00

### Total Rate Schedule Labor

**\$1,060.00**

**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

Invoice Date : September 24, 2019  
 Invoice # : M2015870  
 Project # : MCW200501T

**Phase: 100 -- Project Management**

Total Task : 1A2 -- Project Management Support

Labor : \$1,060.00  
 Expense : \$0.00

**Task: 1EXP -- Project Management Expenses**

**Unit Pricing Expenses**

Vendor / Employee Name	Doc Nbr	Date	Units	Rate	Amount
<b>Employee Mileage</b>					
	EB8114	08/27/2019	58.00	\$0.640	\$37.12
	FCA2EC	09/04/2019	80.00	\$0.640	\$51.20
	FCA2EC	09/06/2019	20.00	\$0.640	\$12.80
					----- 101.12
<b>Total Unit Pricing</b>					<b>\$101.12</b>

Total Task : 1EXP -- Project Management Expenses

Labor : \$0.00  
 Expense : \$101.12

Total Phase : 100 -- Project Management	Labor : \$4,715.00
	Expense : \$101.12

**Phase: 200 -- Preliminary Design**

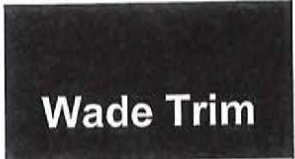
**Task: 2EXP -- Preliminary Design Expenses**

**Regular Expenses**

Vendor Name	Doc Nbr	Date	Cost	Amount
<b>Employee Travel</b>				
	2EB19C	08/01/2019	\$130.89	\$143.98
	2EB19C	08/01/2019	\$13.50	\$14.85
	2EB19C	08/02/2019	\$25.50	\$28.05
	2EB19C	08/22/2019	\$134.70	\$148.17
	2EB19C	08/22/2019	\$13.50	\$14.85
	2EB19C	08/23/2019	\$26.80	\$29.48
	2EB19C	08/26/2019	\$13.20	\$14.52
	2EB19C	08/27/2019	\$18.45	\$20.30
	2EB19C	08/27/2019	\$134.70	\$148.17
				----- \$562.37

**Employee Travel / Subsistence**

	2EB19C	08/01/2019	\$18.95	\$20.85
	2EB19C	08/02/2019	\$9.74	\$10.71
	2EB19C	08/22/2019	\$16.95	\$18.65



Wade Trim  
 25251 Northline Road • Taylor, MI 48180  
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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 : September 24, 2019  
 Invoice # : M2015870  
 Project # : MCW200501T

Phase: 200 -- Preliminary Design  
 Task: 2EXP -- Preliminary Design Expenses

**Regular Expenses**

Vendor Name	Doc Nbr	Date	Cost	Amount
<b>Employee Travel / Subsistence</b>				
	2EB19C	08/23/2019	\$9.16	\$10.08
	2EB19C	08/26/2019	\$20.01	\$22.01
	2EB19C	08/26/2019	\$7.98	\$8.78
	2EB19C	08/27/2019	\$7.37	\$8.11
				-----
				\$99.19
<b>Total Regular Expenses</b>				<b>\$661.56</b>

**Unit Pricing Expenses**

Vendor / Employee Name	Doc Nbr	Date	Units	Rate	Amount
<b>Employee Mileage</b>					
	EBAD5B	08/23/2019	71.00	\$0.640	\$45.44
					-----
					45.44
<b>Employee Mileage</b>					
	2EB19C	08/01/2019	300.00	\$0.640	\$192.00
	2EB19C	08/02/2019	300.00	\$0.640	\$192.00
	2EB19C	08/22/2019	300.00	\$0.640	\$192.00
	2EB19C	08/23/2019	300.00	\$0.640	\$192.00
	2EB19C	08/26/2019	300.00	\$0.640	\$192.00
	2EB19C	08/27/2019	300.00	\$0.640	\$192.00
					-----
					1,152.00
<b>Total Unit Pricing</b>					<b>\$1,197.44</b>

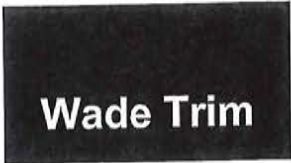
Total Task : 2EXP -- Preliminary Design Expenses      Labor : \$0.00  
 Expense : \$1,859.00

Total Phase : 200 -- Preliminary Design	Labor :	\$0.00
	Expense :	\$1,859.00

Phase: 300 -- Final Design  
 Task: 3D1 -- 60% Process



# INVOICE



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 25251 Northline Road • Taylor, MI 48180  
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 Federal ID 38-1802386

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

Invoice Date : September 24, 2019  
 Invoice # : M2015870  
 Project # : MCW200501T

Phase: 300 -- Final Design  
 Task: 3D1 -- 60% Process

### Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount	
<b>Principal</b>	08/26/2019	2.00	\$230.00	\$460.00	
	08/28/2019	1.00	\$230.00	\$230.00	
	08/29/2019	1.00	\$230.00	\$230.00	
	09/03/2019	1.00	\$230.00	\$230.00	
	09/05/2019	1.00	\$230.00	\$230.00	
	09/11/2019	1.00	\$230.00	\$230.00	
	09/17/2019	1.00	\$230.00	\$230.00	
	09/19/2019	1.00	\$230.00	\$230.00	
	09/20/2019	1.00	\$230.00	\$230.00	
			----- 10.00		----- \$2,300.00
<b>Senior Professional</b>	08/27/2019	2.00	\$215.00	\$430.00	
	08/28/2019	2.00	\$215.00	\$430.00	
	09/03/2019	2.00	\$215.00	\$430.00	
	09/04/2019	2.00	\$215.00	\$430.00	
	09/09/2019	2.00	\$215.00	\$430.00	
	09/10/2019	2.00	\$215.00	\$430.00	
	09/11/2019	2.00	\$215.00	\$430.00	
	09/12/2019	4.00	\$215.00	\$860.00	
	09/16/2019	2.00	\$215.00	\$430.00	
	09/17/2019	4.00	\$215.00	\$860.00	
	09/20/2019	1.00	\$215.00	\$215.00	
			----- 25.00		----- \$5,375.00
	<b>Total Rate Schedule Labor</b>				<b>\$7,675.00</b>

Total Task: 3D1 -- 60% Process

Labor : \$7,675.00  
 Expense : \$0.00

Task: 3D10 -- 60% Permit Assistance

### Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
<b>Principal</b>	08/26/2019	2.00	\$230.00	\$460.00
	08/27/2019	4.00	\$230.00	\$920.00
	08/28/2019	2.00	\$230.00	\$460.00

# INVOICE



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

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

Invoice Date : September 24, 2019  
 Invoice # : M2015870  
 Project # : MCW200501T

Phase: 300 -- Final Design  
 Task: 3D10 -- 60% Permit Assistance

### Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
Principal	08/29/2019	2.00	\$230.00	\$460.00
	09/03/2019	1.00	\$230.00	\$230.00
	09/04/2019	1.00	\$230.00	\$230.00
	09/06/2019	3.00	\$230.00	\$690.00
	09/09/2019	2.00	\$230.00	\$460.00
	09/10/2019	1.00	\$230.00	\$230.00
	09/11/2019	2.00	\$230.00	\$460.00
	09/12/2019	2.00	\$230.00	\$460.00
	09/17/2019	1.00	\$230.00	\$230.00
	09/18/2019	2.00	\$230.00	\$460.00
	09/19/2019	2.00	\$230.00	\$460.00
	09/20/2019	3.00	\$230.00	\$690.00
	08/26/2019	1.00	\$230.00	\$230.00
	08/27/2019	4.00	\$230.00	\$920.00
	08/28/2019	3.00	\$230.00	\$690.00
	08/29/2019	2.00	\$230.00	\$460.00
	09/09/2019	4.00	\$230.00	\$920.00
	09/10/2019	2.00	\$230.00	\$460.00
	09/12/2019	3.00	\$230.00	\$690.00
	09/16/2019	6.00	\$230.00	\$1,380.00
09/20/2019	2.00	\$230.00	\$460.00	
		----- 57.00		----- \$13,110.00
Senior Professional	09/05/2019	1.00	\$215.00	\$215.00
	09/17/2019	1.00	\$215.00	\$215.00
	08/27/2019	3.00	\$215.00	\$645.00
	08/29/2019	0.25	\$215.00	\$53.75
	09/06/2019	0.50	\$215.00	\$107.50
	09/10/2019	0.50	\$215.00	\$107.50
	09/17/2019	1.00	\$215.00	\$215.00
		----- 7.25		----- \$1,558.75

### Total Rate Schedule Labor

**\$14,668.75**

Total Task : 3D10 -- 60% Permit Assistance

Labor : \$14,668.75  
 Expense : \$0.00

Task: 3D11 -- 60% Constructability Review

# INVOICE

## Wade Trim

Wade Trim  
 25251 Northline Road • Taylor, MI 48180  
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 Federal ID 38-1802386

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

Invoice Date : September 24, 2019  
 Invoice # : M2015870  
 Project # : MCW200501T

Phase: 300 -- Final Design

Task: 3D11 -- 60% Constructability Review

### Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
Senior Professional	09/06/2019	2.00	\$215.00	\$430.00
	09/20/2019	2.00	\$215.00	\$430.00
		----- 4.00		----- \$860.00
<b>Total Rate Schedule Labor</b>				<b>\$860.00</b>
Total Task : 3D11 -- 60% Constructability Review			Labor :	\$860.00
			Expense :	\$0.00

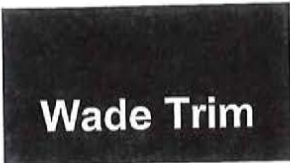
Task: 3D14 -- 60% Meetings

### Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
Engineer I	08/27/2019	1.00	\$100.00	\$100.00
	09/04/2019	1.00	\$100.00	\$100.00
	09/10/2019	1.00	\$100.00	\$100.00
		----- 3.00		----- \$300.00
Engineer IV	08/26/2019	1.00	\$150.00	\$150.00
		----- 1.00		----- \$150.00
Principal	09/03/2019	1.00	\$230.00	\$230.00
	09/10/2019	1.00	\$230.00	\$230.00
		----- 2.00		----- \$460.00
Senior Professional	08/27/2019	1.00	\$215.00	\$215.00
	09/04/2019	3.00	\$215.00	\$645.00
	09/10/2019	0.50	\$215.00	\$107.50
		----- 4.50		----- \$967.50
<b>Total Rate Schedule Labor</b>				<b>\$1,877.50</b>



# INVOICE



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 Federal ID 38-1802386

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

Invoice Date : September 24, 2019  
 Invoice # : M2015870  
 Project # : MCW200501T

**Phase: 300 -- Final Design**

Total Task : 3D14 -- 60% Meetings

Labor : \$1,877.50  
 Expense : \$0.00

**Task: 3D3 -- 60% Landscape/Green Infrastructure**

**Rate Schedule Labor**

Class Name	Date	Hours	Rate	Amount
Principal	09/04/2019	2.00	\$230.00	\$460.00
	09/05/2019	1.00	\$230.00	\$230.00
	09/10/2019	1.00	\$230.00	\$230.00
	09/18/2019	1.00	\$230.00	\$230.00
	09/20/2019	1.00	\$230.00	\$230.00
			----- 6.00	
Senior Professional	08/27/2019	1.50	\$215.00	\$322.50
		----- 1.50		----- \$322.50
<b>Total Rate Schedule Labor</b>				<b>\$1,702.50</b>

Total Task : 3D3 -- 60% Landscape/Green Infrastructure

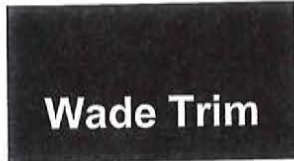
Labor : \$1,702.50  
 Expense : \$0.00

**Task: 3D4 -- 60% Structural**

**Rate Schedule Labor**

Class Name	Date	Hours	Rate	Amount	
Engineer IV	09/04/2019	2.00	\$150.00	\$300.00	
	09/05/2019	4.00	\$150.00	\$600.00	
	09/12/2019	2.00	\$150.00	\$300.00	
	09/16/2019	4.00	\$150.00	\$600.00	
	09/17/2019	8.00	\$150.00	\$1,200.00	
	09/18/2019	5.00	\$150.00	\$750.00	
	09/19/2019	4.00	\$150.00	\$600.00	
	09/20/2019	5.50	\$150.00	\$825.00	
			----- 34.50		----- \$5,175.00
	Senior Professional	09/03/2019	2.00	\$215.00	\$430.00
09/04/2019		2.00	\$215.00	\$430.00	
09/10/2019		2.00	\$215.00	\$430.00	

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 Federal ID 38-1802386

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

Invoice Date : September 24, 2019  
 Invoice # : M2015870  
 Project # : MCW200501T

Phase: 300 -- Final Design  
 Task: 3D4 -- 60% Structural

### Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
Senior Professional	09/11/2019	2.00	\$215.00	\$430.00
	09/17/2019	2.00	\$215.00	\$430.00
	09/19/2019	2.00	\$215.00	\$430.00
	09/20/2019	2.00	\$215.00	\$430.00
			----- 14.00	

### Total Rate Schedule Labor

**\$8,185.00**

Total Task : 3D4 -- 60% Structural

Labor : \$8,185.00  
 Expense : \$0.00

Task: 3D6 -- 60% Civil / Site

### Rate Schedule Labor

Class Name	Date	Hours	Rate	Amount
Engineer IV	08/26/2019	3.00	\$150.00	\$450.00
	08/27/2019	1.00	\$150.00	\$150.00
	08/29/2019	2.00	\$150.00	\$300.00
	09/04/2019	2.00	\$150.00	\$300.00
	09/18/2019	2.00	\$150.00	\$300.00
	09/19/2019	2.00	\$150.00	\$300.00
			----- 12.00	

### Principal

08/26/2019	1.00	\$230.00	\$230.00	
08/28/2019	1.00	\$230.00	\$230.00	
08/29/2019	2.00	\$230.00	\$460.00	
09/03/2019	1.00	\$230.00	\$230.00	
09/04/2019	1.00	\$230.00	\$230.00	
09/09/2019	1.00	\$230.00	\$230.00	
09/12/2019	1.00	\$230.00	\$230.00	
09/16/2019	1.00	\$230.00	\$230.00	
09/19/2019	1.00	\$230.00	\$230.00	
		----- 10.00		----- \$2,300.00

### Total Rate Schedule Labor

**\$4,100.00**

# INVOICE



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 734.947.9700 • FAX: 734.947.1380 • www.wadetrtrim.com  
 Federal ID 38-1802386

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

Invoice Date : September 24, 2019  
 Invoice # : M2015870  
 Project # : MCW200501T

**Phase: 300 -- Final Design**

Total Task : 3D6 -- 60% Civil / Site  
 Labor : \$4,100.00  
 Expense : \$0.00

**Task: 3D9 -- 60% Add'l Features Engineering**

**Rate Schedule Labor**

Class Name	Date	Hours	Rate	Amount
Principal	09/19/2019	1.00	\$230.00	\$230.00
		-----		-----
		1.00		\$230.00

**Total Rate Schedule Labor** **\$230.00**

Total Task : 3D9 -- 60% Add'l Features Engineering  
 Labor : \$230.00  
 Expense : \$0.00

Total Phase : 300 -- Final Design	Labor :	\$39,298.75
	Expense :	\$0.00

**Phase: 600 -- Subcontractors**

**Task: 6A1 -- Applied Science**

**Regular Expenses**

Vendor Name	Doc Nbr	Date	Cost	Amount
Subconsultants	20016711	09/24/2019	\$14,194.50	\$14,904.23
			-----	-----
				\$14,904.23

**Total Regular Expenses** **\$14,904.23**

Total Task : 6A1 -- Applied Science  
 Labor : \$0.00  
 Expense : \$14,904.23

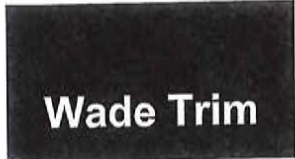
**Task: 6A2 -- NTH Consultants**

**Regular Expenses**

Vendor Name	Doc Nbr	Date	Cost	Amount
Subconsultants	20016709	09/24/2019	\$27,027.42	\$28,378.79
			-----	-----
				\$28,378.79



# INVOICE



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 Federal ID 38-1802386

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

Invoice Date : September 24, 2019  
 Invoice # : M2015870  
 Project # : MCW200501T

Phase: 600 -- Subcontractors

Task: 6A2 -- NTH Consultants

*Total Regular Expenses*

**\$28,378.79**

Total Task : 6A2 -- NTH Consultants

Labor : \$0.00  
 Expense : \$28,378.79

Total Phase :	600 -- Subcontractors	Labor :	\$0.00
		Expense :	\$43,283.02

**Work Description:**

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 September 4, 2019. Completed environmental sediment sampling at Chapaton Canal on August 29, 2019, and issued analytical sampling results on September 13, 2019. Continued control parameter work and updated reports for inclusion in updated BOD. Continue additional permitting efforts and assisting with coordinated response. Meetings held with contractors to review design drawings for constructability. Continued progressing design to 60% level.



# Applied Science, Inc.

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

September 23, 2019

Invoice #6 (ASI Inv. #7440)

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

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

Services provided from July 28, 2019 through September 21, 2019.

<u>Employee</u>	<u>Classification</u>	<u>Direct Labor Hrs.</u>	<u>Hourly Rate</u>	<u>Total</u>
John Michalski	Sr. Project Manager	33.5	\$ 155.00	\$ 5,192.50
Paul Szaga	Project Engineer	25.0	\$ 115.00	\$ 2,875.00
Doria Herold Jackson	CADD	4.5	\$ 96.00	\$ 432.00
Erika Campbell	Staff Engineer	67.0	\$ 85.00	\$ 5,695.00
Total this invoice:				\$ 14,194.50
Previous Amount Invoiced:				\$ 40,770.50
Total Invoiced To-Date:				\$ 54,965.00
Not To Exceed:				\$ 68,005.00
Amount Remaining:				\$ 13,040.00
<b>Total Amount Due This Invoice:</b>				<b><u>\$ 14,194.50</u></b>



NTH Consultants, Ltd.  
Infrastructure Engineering and  
Environmental Services

INVOICE

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

Invoice # : 619947  
Project : 62190022  
Invoice Group : \*\*  
Invoice Date : 09/23/2019

Attention: Accounts Payable

For Professional Services Rendered through: 9/20/2019

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

Engineering services related to the expansion of the Chapaton Basin

Phase Name	Maximum Budget	Previous Billings	Current Charges	Remaining Budget
10 -- Project Management	28,890.00	10,824.41	537.50	17,528.09
20 -- Preliminary Design	99,060.00	73,816.57	25,214.92	28.51
30 -- Final Design	91,200.00	0.00	1,275.00	89,925.00
40 -- Bidding Assistance	9,360.00	0.00	0.00	9,360.00
Project Total	228,510.00	84,640.98	27,027.42	116,841.60

Amount Due This Invoice : \$ 27,027.42

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 # : 619947

Phase : 10 -- Project Management

<u>Rate Schedule Labor</u>	<u>Date</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
<b>Senior Officer</b>				
Roarty, Charles	08/20/2019	0.50	215.00	107.50
	08/27/2019	0.50	215.00	107.50
	09/10/2019	0.50	215.00	107.50
	09/11/2019	0.50	215.00	107.50
	09/18/2019	0.50	215.00	107.50
<b>Rate Schedule Labor</b>		<b>2.50</b>		<b>537.50</b>
<b>Total Phase : 10 -- Project Management</b>				<b>Labor : 537.50</b>
				<b>Expense : 0.00</b>

Phase : 20 -- Preliminary Design

<u>Rate Schedule Labor</u>	<u>Date</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
<b>Cadd Operator</b>				
Bryan, Stephen H.	08/24/2019	0.50	85.00	42.50
	09/13/2019	0.25	85.00	21.25
<b>Senior Officer</b>				
Roarty, Charles	08/20/2019	2.00	215.00	430.00
	08/21/2019	3.50	215.00	752.50
	08/23/2019	0.50	215.00	107.50
	08/28/2019	1.00	215.00	215.00
	08/29/2019	0.50	215.00	107.50
	09/03/2019	0.50	215.00	107.50
	09/18/2019	0.50	215.00	107.50
<b>Sr Principal Engineer</b>				
Price, Harry R.	09/20/2019	0.50	185.00	92.50
Venman, Bradley C.	09/13/2019	1.50	185.00	277.50
<b>Sr Proj Professional</b>				
Andrews, Cliff J.	08/22/2019	1.00	145.00	145.00
	09/13/2019	2.00	145.00	290.00
<b>Sr Staff Professional</b>				
Warning, Kurt D.	08/29/2019	9.00	100.00	900.00
Kelly, Andrew	08/22/2019	0.50	100.00	50.00
	08/27/2019	0.50	100.00	50.00
	08/28/2019	2.00	100.00	200.00
	08/29/2019	9.00	100.00	900.00
	09/13/2019	1.00	100.00	100.00
<b>Word Processor</b>				

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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NTH Consultants, Ltd.

Infrastructure Engineering and  
Environmental Services

INVOICE

Project : 62190022 -- MCO - Chapaton RTB Canal Upgrades

Invoice # : 619947

Phase : 20 -- Preliminary Design

Rate Schedule Labor	Date	Hours	Rate	Amount
<b>Word Processor</b>				
McKiever, Marguerite A.	09/13/2019	0.50	65.00	32.50
<b>Rate Schedule Labor</b>				<b>4,928.75</b>

Regular Expenses	Date	Cost	Multiplier	Amount
<b>Subcontractors</b>				
University of Detroit Mercy	09/13/2019	8,580.00	1.15	9,867.00
<b>Lab Services</b>				
Fibertec Environmental Services	09/13/2019	8,808.00	1.15	10,129.20
<b>Field Supplies</b>				
Equipment	08/30/2019	46.75	1.10	51.43
<b>Regular Expenses</b>				<b>20,047.63</b>

Unit Pricing Expenses	Units	Rate	Amount
<b>Per Unit Expenses</b>			
SLUDGE SAMPLER	0.50 DAY(S) @	250.00	125.00
REIMBURSED MILEAGE	36.00 MILE(S) @	0.64	23.04
CADD Supplies	0.75 HOUR(S) @	6.00	4.50
COMPANY VEHICLE MILEAGE	86.00 MILE(S) @	1.00	86.00
<b>Unit Pricing</b>			<b>238.54</b>

Total Phase : 20 -- Preliminary Design

Labor : 4,928.75  
Expense : 20,286.17

Phase : 30 -- Final Design

Rate Schedule Labor	Date	Hours	Rate	Amount
<b>Senior Officer</b>				
Roarty, Charles	08/25/2019	0.50	215.00	107.50
	08/27/2019	2.00	215.00	430.00
	09/10/2019	1.00	215.00	215.00
	09/13/2019	2.00	215.00	430.00
<b>Sr Principal Engineer</b>				
Venman, Bradley C.	08/28/2019	0.50	185.00	92.50
<b>Rate Schedule Labor</b>				<b>1,275.00</b>

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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NTH Consultants, Ltd.

Infrastructure Engineering and  
Environmental Services

# INVOICE

Project : 62190022 -- MCO - Chapaton RTB Canal Upgrades

Invoice # : 619947

Total Phase : 30 -- Final Design

Labor : 1,275.00  
Expense : 0.00

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

27,027.42

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 September 30, 2019 = 100%

DESCRIPTION	2019 FINAL BUDGET	ENCUMBERED	ACTUAL	REMAINING BUDGET	PCT UTILIZED
<b>REVENUE ACCOUNTS</b>					
Interest Earned	26,000		94,177	(68,177)	362.2%
Other Revenue	1,500		4,100	(2,600)	273.3%
State Grant			3,000,000	(3,000,000)	100.0%
8.5 O&M/Charge Required Revenue	3,898,266		3,898,266	(0)	100.0%
PY Revenue-Fund Balance	1,946,000		246,000	1,700,000	12.6%
Rental Fee	15,360		15,638	(278)	101.8%
<b>Total Revenue Accounts</b>	<b>5,887,126</b>	<b>-</b>	<b>7,258,181</b>	<b>(1,371,055)</b>	<b>123.3%</b>
<b>EXPENSE ACCOUNTS</b>					
Application/Permit Fee	3,000		3,000	-	100.0%
Dues, Training, Conf, Subs.	5,750		13,118	(7,368)	228.1%
<b>Engineering</b>					
Chapaton East Disinfection System Improvement	50,000			50,000	0.0%
Disinfection Systems Improvement Study	120,000		92,215	27,785	76.8%
RTB/PS Ventilation Design	120,000			120,000	0.0%
Design of Improvements	50,000			50,000	0.0%
As Needed Engineering	75,000		61,007	13,993	81.3%
Chapaton Improvements-Office Space	250,000			250,000	0.0%
Phase 1 TRC Basin Equipment	100,000		65,036	34,964	65.0%
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		557,424	442,576	55.7%
In-System Storage Design(Gates on 8.5 Tunnel)	500,000		15,238	484,762	3.0%
<b>New Equipment</b>					
Office Supplies	750		1,286	(536)	171.5%
Operating Supplies	82,750		55,689	27,061	67.3%
Other Professional Svcs	47,920		36,280	11,640	75.7%
Personnel Services	875,405		751,696	123,709	85.9%
Repair & Maintenance	100,615		100,443	172	99.8%
Switch gear	45,000		28,176	16,824	62.6%
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		44,944	1,205,056	3.6%
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	-	100.0%
<b>Scada System</b>					
Scada System	190,073		179,659	10,414	94.5%
Utilities	284,148		157,514	126,634	55.4%
<b>Total Expense Accounts</b>	<b>5,887,126</b>	<b>-</b>	<b>2,505,525</b>	<b>3,381,601</b>	<b>42.6%</b>

	O&M Balance 9/30/2018	O&M	Total 9/30/2019
Cash - Operating	4,445,246	4,752,656	9,197,902
Accounts Receivable			0
Assets			0
Liabilities			0
Revenues		7,258,181	7,258,181
Expenditures		2,505,525	2,505,525
			0
Equity*	4,445,246		9,197,902

**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	60,000
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