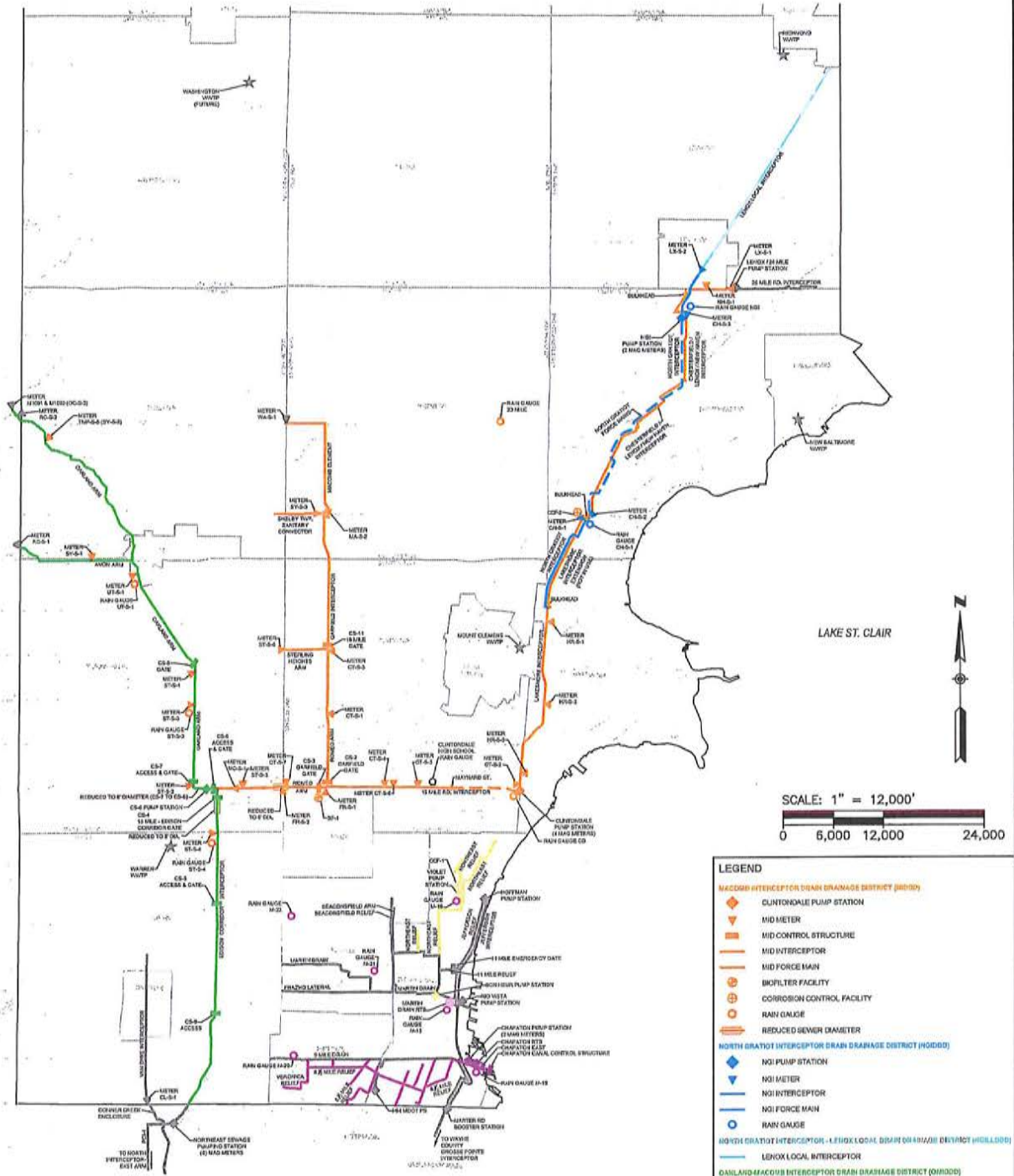


EIGHT AND ONE-HALF MILE RELIEF DRAIN
INTRA-COUNTY DRAINAGE BOARD
DECEMBER 9, 2019
10:00 A.M.
AGENDA

	Page
1. Call of meeting to order and roll call	
2. Approval of Agenda for December 9, 2019	
3. Approval of Minutes for November 18, 2019	3
4. Public Participation	
5. Project Updates – Vince Astorino	
6. Chapaton Boat Launch Relocation - Memorandum of Understanding – Brian Baker	5
Motion: To approve the Memorandum of Understanding (MOU) for the Chapaton boat launch relocation to Blossom Heath Park allowing for greater storage capacity at the Chapaton retention basin, saving money, and providing improved lake access for residents of Eastpointe, Roseville, and St. Clair Shores.	
7. Chapaton Pump & Screen Project Award Recommendation – Vince Astorino	9
Motion: To award the Chapaton Pump & Screen construction bid to J.F. Cavanaugh Company in the amount of \$1,162,472 and the construction administration proposal from HRC for \$97,860.	
8. Consideration for approval of invoices (see attached)	17
9. Financial Report – Bruce Manning	96
10. Adjourn	

MACOMB COUNTY WASTEWATER SYSTEMS



Candice S. Miller
 MACOMB COUNTY PUBLIC WORKS COMMISSIONER



- LEGEND**
- MACOMB INTERCEPTOR DRAIN DRAINAGE DISTRICT (0000)**
 - ◆ CLONTONDALE PUMP STATION
 - ▽ MID METER
 - ▢ MID CONTROL STRUCTURE
 - MID INTERCEPTOR
 - MID FORCE MAIN
 - BROOKLYN FACILITY
 - ⊕ CORROSION CONTROL FACILITY
 - RAIN GAUGE
 - ⊖ REDUCED SEWER DIAMETER
 - NORTH GRATIOT INTERCEPTOR DRAIN DRAINAGE DISTRICT (0000)**
 - ◆ NGI PUMP STATION
 - ▽ NGI METER
 - ▢ NGI INTERCEPTOR
 - NGI FORCE MAIN
 - RAIN GAUGE
 - NORTH LEHIGH INTERCEPTOR - LEHIGH LOCAL DRAIN DRAINAGE DISTRICT (0000)**
 - ◆ LEHIGH LOCAL INTERCEPTOR
 - OAKLAND MACOMB INTERCEPTOR DRAIN DRAINAGE DISTRICT (0000)**
 - ◆ CS-6 PUMP STATION
 - ▽ OAMD METER
 - ▢ OAMD CONTROL STRUCTURE
 - OAMD INTERCEPTOR
 - ⊖ REDUCED SEWER DIAMETER
 - 8 1/2 MILE RELIEF DRAIN DRAINAGE DISTRICT**
 - ◆ CHAMPTON WEST PUMP STATION
 - ▽ CHAMPTON RETENTION TREATMENT BASIN
 - ▢ CHAMPTON CANAL CONTROL GATE
 - 8 1/2 MILE INTERCEPTOR
 - RAIN GAUGE
 - SEMCOWS INTERCEPTOR DRAIN DRAINAGE DISTRICT (0000)**
 - ◆ SEMCOWS PUMP STATION
 - ▢ CORROSION CONTROL FACILITY
 - SEMCOWS INTERCEPTOR
 - MARTINI DRAIN RETENTION TREATMENT BASIN (0000)**
 - ◆ MARTINI DRAIN RETENTION TREATMENT BASIN
 - OTHER SYSTEMS**
 - ◆ PUMP STATION
 - ▽ METER
 - ★ WWTP
 - INTERCEPTOR



UPDATED: APRIL 2017

An adjourned meeting of the Intra-County Drainage Board for the **EIGHT AND ONE-HALF MILE RELIEF DRAIN** was held in the Office of the Macomb County Public Works Commissioner, 21777 Dunham, Clinton Township, Michigan, on November 18, 2019, at 10:02 A.M.

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

ALSO PRESENT: Harold Haugh, Marvin Sauger, Joseph Romano, Macomb County Board of Commissioners; Vince Astorino, Operations & Flow Manager, Brian Baker, Chief Deputy, Jeff Bednar, P.E., Environmental Resources Manager, Bruce Manning, Financial Manager, Tom Stockel, Construction Engineer, Kellie Kource, Drain Account Specialist, Dan Heaton, Communications Manager, 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 October 21, 2019 were presented. A motion was made by Ms. Klinefelt, supported by Mr. Santo 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 Chapaton projects are going well, on schedule and within budget. AEW will design the lighthouse by the end of the year. The boat launch will be moving to Blossom Heath to provide additional storage at Chapaton, save money, and provide easier access for St. Clair Shores, Eastpointe and Roseville residents.

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

A motion was made by Mr. Santo, supported by Ms. Klinefelt to approve the Change Order #1 to allocate an additional \$100,000 to the Fishbeck As-Needed Contract (8 ½ Mile District share \$75,000).

Adopted: YEAS: 3
NAYS: 0

A motion was made by Ms. Klinefelt, supported by Mr. Santo to award the disinfection system design contract to Wade Trim in the total amount of \$157,230 (8 ½ Mile District share \$107,780).

Adopted: YEAS: 3
NAYS: 0

The Chair presented the invoices totaling \$131,196.59 to the board for review and approval.

Mr. Astorino will review the mileage rates charged by NTH and Fishbeck, and iPad charges and subcontractor markup charges by Wade Trim.

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

Adopted: YEAS: 3
NAYS: 0

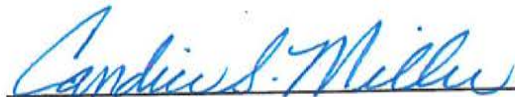
A motion to receive and file the financial report given by Mr. Manning was made by Ms. Klinefelt and supported by Mr. Santo.

Adopted: YEAS: 3
NAYS: 0

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

Adopted: YEAS: 3
NAYS: 0

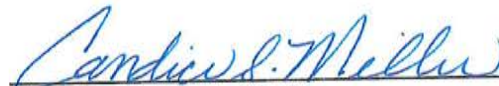
The meeting was adjourned at 10:22 a.m.



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 November 18, 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: 11/18/19

MEMORANDUM OF UNDERSTANDING
BETWEEN SOUTHEAST MACOMB SANITARY DISTRICT, ITS MEMBER COMMUNITIES,
AND MACOMB COUNTY PUBLIC WORKS OFFICE

This Memorandum of Understanding is entered into as of the ____ day of _____, 2019, by and between the Southeast Macomb Sanitary District ("SEMSD"), a Michigan municipal corporation, whose address is 20001 Pleasant Avenue, St. Clair Shores, MI 48080, the City of St. Clair Shores, a Michigan municipal corporation, whose address is 27600 Jefferson Ave., St. Clair Shores, MI 48081, the City of Roseville, a Michigan municipal corporation, whose address is 29777 Gratiot Ave., Roseville, MI 48066, the City of Eastpointe, a Michigan municipal corporation, whose address is 23200 Gratiot Ave., Eastpointe, MI 48021 (collectively hereinafter referred to as "member communities"), and the Eight and One-Half Mile Relief Drain Drainage District ("8.5 Mile District") whose address is 21777 Dunham Road, Clinton Township, MI 48036;

WHEREAS, the 8.5 Mile District has sought participation of the SEMSD, and its member communities, the Cities of St. Clair Shores, Roseville, and Eastpointe, to participate in the proposed upgrade, and expansion of the Chapaton RTB Canal and the 8 1/2 Mile Relief In-System Storage (the "upgrades and improvements"); and

WHEREAS, the 8.5 Mile District is in the process of applying for and securing the required governmental approvals for the upgrades and improvements;

WHEREAS, the SEMSD has committed to participate in the funding of these upgrades and improvements in an amount not to exceed Three Million Dollars (\$3,000,000); and

WHEREAS, there currently exists a boat launch on the existing Chapaton RTB Canal site, originally developed and paid for through the 8.5 Mile District; and

WHEREAS, during the design phase of the upgrades and improvements to the Chapaton RTB Canal, which originally included moving and upgrading the current boat launch at a cost of up to One Million Six Hundred Thousand Dollars (\$1,600,000), it was determined that there was the ability to achieve significantly greater storage capacity of approximately one million gallons with the elimination of the boat launch at its current location at the Chapaton RTB Canal; and

WHEREAS, SEMSD and its member communities, the Cities of St. Clair Shores, Roseville, and Eastpointe, all desire to continue to provide lake access to their residents via an accessible boat launch; and

WHEREAS, St. Clair Shores currently operates a boat launch at its Blossom Heath location; and

WHEREAS, the SEMSD, its member communities, the Cities of St. Clair Shores, Roseville, and Eastpointe, find it in the best interests of its residents to achieve greater storage capacity at the Chapaton RTB Canal with the elimination of the boat launch at said location, and redevelop, upgrade, and expand the Blossom Heath boat launch for the use of their residents at less cost than the upgrade proposed at the Chapaton RTB Canal;

NOW THEREFORE, the SEMSD and its member communities, the Cities of St. Clair Shores, Roseville, and Eastpointe, and the 8.5 Mile District agree as follows:

1. The SEMSD and its member communities agree to eliminate the boat launch at the Chapaton RTB Canal to achieve greater storage capacity in excess of one million gallons to further reduce treated combined sewer discharges that occur during major wet weather events that discharge into the waters of Lake St. Clair.
2. Recognizing that the redesign, upgrading, and expansion of the Blossom Heath boat launch is significantly less costly than that proposed at the Chapaton RTB Canal expansion, the SEMSD and its member communities agree to commit funds to the redesign, development, expansion and upgrade of the facilities located at the current Blossom Heath boat launch for use by the residents of the member communities. The SEMSD commits those funds necessary for the design, development, upgrade and expansion of the Blossom Heath boat launch from its contribution of Three Million Dollars (\$3,000,000) to the 8.5 Mile District for the Chapaton RTB Canal expansion and in-system storage project, in an amount to be established by a professional engineering estimate.
3. That each of the respective City Councils of the member communities of the SEMSD and the SEMSD Board hereby agrees to the above finding same to be in the best interests of their residents and constituents, as well as meeting the public health, safety and welfare needs of their residents in continuing to achieve the ultimate good of eliminating discharges into Lake St. Clair with the expansion of the Chapaton RTB Basin, and by improving the facilities at the Blossom Heath boat launch for the use and benefit of the residents of the member communities, the Cities of St. Clair Shores, Roseville, and Eastpointe, in perpetuity, or until further agreement by the member communities.
4. The obligations stated herein shall be subject to the express conditions precedent of (a) the 8.5 Mile District securing the necessary governmental approvals to proceed with the upgrades and improvements and (b) the final vote of the 8.5 Mile District Drainage Board to proceed with the upgrades and improvements.

IN WITNESS WHEREOF, the SEMSD and its member communities have caused this Agreement to be duly exercised and delivered as of the date first written above.

WITNESSES:

Southeast Macomb Sanitary District,
a Michigan municipal corporation

By: _____
Its: _____

WITNESSES:

CITY OF ST. CLAIR SHORES,
a Michigan municipal corporation

By: _____
Its: Mayor

By: _____
Its: Clerk

WITNESSES:

CITY OF ROSEVILLE,
a Michigan municipal corporation

By: _____
Its: Mayor

By: _____
Its: Clerk

WITNESSES:

CITY OF EASTPOINTE,
a Michigan municipal corporation

By: _____
Its: Mayor

By: _____
Its: Clerk

WITNESSES:
a Michigan municipal corporation

Eight and One Half Mile Relief Drain Drainage District,

By: Candice Miller
Its: Drainage Board Chairperson



Candice S. Miller

Public Works Commissioner
Macomb County

From: Macomb County Public Works Office

Date: 12-03-2019

To: 8-1/2 Mile Relief Drain Drainage District Board

Copy: File

RE: Bid Evaluation Project Award Recommendation
MCPWO Project No.: **MCPWO-WWS-2019-002**
MCPWO Project Name: **Chapaton Dry Weather Pump & Screen Improvements**

This is an open competitive bid for the Chapaton Pump & Screen construction contract. Hubbell Roth & Clark (HRC) was the design firm for this project and procured the bid documents and Request for Bid.

This project entails replacing the bar screen, adding an intermediate pump, and improvements to wet well access hatches and covers at the Chapaton Pump Station. Listed below is a quick summary of each of these items:

- The existing bar screens are at the end of their useful life and serve to protect the pumps from debris, ragging, and solids that may impact pump operations.
- The additional intermediate pump will serve as redundancy to the existing pumps as well as a dewatering device for the future 8-1/2 Mile Relief In-System Storage project.
- Access hatch and cover improvements will allow for operational improvements to the facility that will allow for additional flow to be stored in the 8-1/2 Mile Relief tunnel.

This was advertised from 10-22-19 to 11-18-19 on the Michigan Inter-Governmental Trade Network (MITN) website. Seventy one (71) contractors or firms downloaded the bid documents. Two (2) Addendums were issued during the request for bid. The Addendums provided responses to vendor questions submitted during the question period.

On 11-18-19, bids were received from three (3) contractors. Bids were reviewed for contractor's ability and qualifications to perform work. The bidders were ranked as provided below in Table 1 based on cost.

Table 1. Bidders Cost

Firm	Cost
J.F. Cavanaugh	\$ 1,162,472.00
Weiss	\$ 1,641,340.00
LaSalle	\$ 2,175,001.00

It is recommended that **J.F Cavanaugh**, the responsible low bidder, be named as the contractor for the above referenced Project. Attached to this document is the contract award recommendation from HRC, which is in agreement with the MCPWO engineering recommendation. Also attached is the bid tab form which includes costs for all responsible bidders.

Also recommended is the proposed construction administration (CA) cost for HRC to oversee, document, and manage construction operations for this project. The recommended budget for the CA work is \$ **97,860**. Attached is this cost information.

Thank you for consideration of this recommendation.

BID TABULATION
 CHAPATON DRY WEATHER PUMP AND SCREEN IMPROVEMENTS
 MACOMB COUNTY PUBLIC WORKS COMMISSIONER
 MACOMB COUNTY, MICHIGAN

BIDS DUE: 11/26/2019
 HRC Job # 20190363

JF Cavanaugh Company
 20750 Sunnydale
 Farmington Hills, MI 48336
 248-476-9366

Weiss Construction Company
 41001 Grand River Avenue
 Novi, MI 48376
 313-567-4500

Lasalle Construction Services
 30375 Northwestern Highway
 Farmington Hills, MI 48334
 734-394-0650

Item	Quantity	Unit	Unit Price	Total Cost	Unit Price	Total Cost	Unit Price	Total Cost
Bonds, Insurance and Mobilization (10% Max)	1	LS	\$ 60,500.00	\$ 60,500.00	\$ 120,000.00	\$ 120,000.00	\$ 220,000.00	\$ 220,000.00
Pre-Construction Audio-Visual	1	LS	\$ 2,500.00	\$ 2,500.00	\$ 1,500.00	\$ 1,500.00	\$ 2,500.00	\$ 2,500.00
Flow Diversion During Construction Complete -- South Side	1	LS	\$ 10,650.00	\$ 10,650.00	\$ 25,000.00	\$ 25,000.00	\$ 155,000.00	\$ 155,000.00
Flow Diversion During Construction Complete -- North Side	1	LS	\$ 10,650.00	\$ 10,650.00	\$ 25,000.00	\$ 25,000.00	\$ 155,000.00	\$ 155,000.00
New Stop Logs, Guides and Related Structural Improvements -- South Side	1	LS	\$ 49,950.00	\$ 49,950.00	\$ 190,000.00	\$ 190,000.00	\$ 185,000.00	\$ 185,000.00
New Stop Logs, Guides and Related Structural Improvements -- North Side	1	LS	\$ 86,250.00	\$ 86,250.00	\$ 190,000.00	\$ 190,000.00	\$ 185,000.00	\$ 185,000.00
Remove Existing Bar Rack and Install New -- South Side	1	LS	\$ 158,620.00	\$ 158,620.00	\$ 197,100.00	\$ 197,100.00	\$ 240,000.00	\$ 240,000.00
Remove Existing Bar Rack and Install New -- North Side	1	LS	\$ 158,620.00	\$ 158,620.00	\$ 197,100.00	\$ 197,100.00	\$ 240,000.00	\$ 240,000.00
Access Hatch Revisions in Screen Room	1	LS	\$ 89,433.00	\$ 89,433.00	\$ 50,000.00	\$ 50,000.00	\$ 45,000.00	\$ 45,000.00
Guardrail Revision in Screen Room	1	LS	\$ 16,638.00	\$ 16,638.00	\$ 50,000.00	\$ 50,000.00	\$ 25,000.00	\$ 25,000.00
I&C Upgrades in Screen Room	1	LS	\$ 12,618.00	\$ 12,618.00	\$ 11,000.00	\$ 11,000.00	\$ 11,000.00	\$ 11,000.00
Core Through Wet Well Wall	1	LS	\$ 3,960.00	\$ 3,960.00	\$ 15,000.00	\$ 15,000.00	\$ 6,500.00	\$ 6,500.00
Concrete Collar in Wet Well	1	LS	\$ 13,712.00	\$ 13,712.00	\$ 15,000.00	\$ 15,000.00	\$ 10,000.00	\$ 10,000.00
Through Wall Pipe Penetration	1	LS	\$ 6,203.00	\$ 6,203.00	\$ 30,000.00	\$ 30,000.00	\$ 4,500.00	\$ 4,500.00
North Dry Well Demolition Work	1	LS	\$ 24,863.00	\$ 24,863.00	\$ 15,000.00	\$ 15,000.00	\$ 18,000.00	\$ 18,000.00
Install new Owner Furnished Pump	1	LS	\$ 9,843.00	\$ 9,843.00	\$ 8,000.00	\$ 8,000.00	\$ 9,967.00	\$ 9,967.00
Electrical Upgrades for Added Pump	1	LS	\$ 46,247.00	\$ 46,247.00	\$ 48,000.00	\$ 48,000.00	\$ 50,000.00	\$ 50,000.00
New Concrete Pump Bases	2	EA	\$ 6,953.00	\$ 13,906.00	\$ 7,000.00	\$ 14,000.00	\$ 4,250.00	\$ 8,500.00
Reconfigure Existing Pump	1	LS	\$ 5,200.00	\$ 5,200.00	\$ 6,000.00	\$ 6,000.00	\$ 10,290.00	\$ 10,290.00
New Piping, valves and fittings, in Wet Well	1	LS	\$ 212,044.00	\$ 212,044.00	\$ 305,000.00	\$ 305,000.00	\$ 329,134.00	\$ 329,134.00
Pressure gauges and assemblies	4	EA	\$ 660.00	\$ 2,640.00	\$ 400.00	\$ 1,600.00	\$ 1,390.00	\$ 5,560.00
Jib Crane Addition in North Dry Well	1	LS	\$ 29,355.00	\$ 29,355.00	\$ 28,000.00	\$ 28,000.00	\$ 15,000.00	\$ 15,000.00
Electrical Upgrade for Jib Crane	1	LS	\$ 3,966.00	\$ 3,966.00	\$ 5,800.00	\$ 5,800.00	\$ 8,000.00	\$ 8,000.00
Access Stairway	1	LS	\$ 48,204.00	\$ 48,204.00	\$ 30,000.00	\$ 30,000.00	\$ 120,000.00	\$ 120,000.00
Access Platform Revisions	1	LS	\$ 11,330.00	\$ 11,330.00	\$ 7,000.00	\$ 7,000.00	\$ 15,000.00	\$ 15,000.00
New Pressure Manholes at Elevation 551 - Complete	4	EA	\$ 8,135.00	\$ 32,540.00	\$ 4,100.00	\$ 16,400.00	\$ 6,500.00	\$ 26,000.00
Core Infill at Elevation 551	1	LS	\$ 1,030.00	\$ 1,030.00	\$ 600.00	\$ 600.00	\$ 2,500.00	\$ 2,500.00
Core at Patch Repair Type 1	28	EA	\$ 200.00	\$ 5,600.00	\$ 100.00	\$ 2,800.00	\$ 150.00	\$ 4,200.00
Pressure Injection of Cracks Type 2A (Non-Weeping)	150	LF	\$ 50.00	\$ 7,500.00	\$ 43.00	\$ 6,450.00	\$ 45.00	\$ 6,750.00
Pressure Injection of Cracks Type 2B (Weeping)	50	LF	\$ 50.00	\$ 2,500.00	\$ 35.00	\$ 1,750.00	\$ 40.00	\$ 2,000.00
Concrete Surface Repair Type 3 - Up to 1" Depth	16	SF	\$ 400.00	\$ 6,400.00	\$ 390.00	\$ 6,240.00	\$ 600.00	\$ 9,600.00
Concrete Surface Repair Type 3 - 1" to 3" Depth	10	SF	\$ 400.00	\$ 4,000.00	\$ 585.00	\$ 5,850.00	\$ 600.00	\$ 6,000.00
Concrete Surface Repair Type 3 - Greater than 3"	5	SF	\$ 400.00	\$ 2,000.00	\$ 720.00	\$ 3,600.00	\$ 800.00	\$ 4,000.00
Existing Guardrail Removal Repair Type 4	15	EA	\$ 200.00	\$ 3,000.00	\$ 170.00	\$ 2,550.00	\$ 2,000.00	\$ 30,000.00
Allowance for MCET Work at PLC	1	ALLOW	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00
Total Amount of Base Bid				\$ 1,162,472.00		\$ 1,641,340.00		\$ 2,175,002.00
Division 1 As Read Bid Amount				\$ 1,162,522.00		\$ 1,641,340.00		\$ 2,175,002.00

Y:\2019\03\031904_C\Signal\Sub\Bids\mch\mch\A05191126_BULVA_20190330.dwg



STREET: 535 Griswold Street
Buhl Building, Suite 1650
Detroit, MI 48226
PHONE: 313-965-3330
WEBSITE: hrcengr.com

November 27, 2019

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

Attn: Steve Rozycki, Engineer II

Re: 8-1/2 Mile Relief Drain Drainage District
Chapaton Pump Station Dry Weather Pump & Screen Improvements
Project Number WWS-2018-008
Award Recommendation

HRC Job No. 20180363

Dear Mr. Rozycki:

Attached is a copy of the bid tabulation for the referenced project. Bids were opened and read aloud on Tuesday, November 26, 2019 with a total of three bids received. The Low Bidder for the work is JF Cavanaugh Company with a total bid amount of \$1,162,472.00.

HRC has contacted JF Cavanaugh and verified that they have no reservations with their bid. JF Cavanaugh has provided satisfactory Previous Experience with Similar Projects information with their bid. JF Cavanaugh has the necessary equipment, personnel and experience to complete the project and is qualified to perform the work.

Based on the above, this office recommends award of the contract to JF Cavanaugh Company of 20750 Sunnydale, Farmington Hills, MI 48336, in the amount of \$1,162,472.00, subject to Board approval and the contractor's submission of the necessary bonds and insurance in accordance with the Contract requirements.

If you have any questions or require any additional information, please contact the undersigned.

Very truly yours,

HUBBELL, ROTH & CLARK, INC.

Aaron A. Uranga, P.E.
Associate

Attachment: Bid Tabulation

pc: MCPWC; S. Downing
HRC; T. Sullivan, J. VanDeCreek, File

Bloomfield Hills
555 Hulet Drive
Bloomfield Hills, MI 48302
248-454-6300

Delhi Township
2101 Aurelius Rd.
Suite 2A
Holt, MI 48842
517-694-7760

Grand Rapids
1925 Breton Road SE
Suite 100
Grand Rapids, MI 49506
616-454-4286

Howell
105 W. Grand River
Howell, MI 48843
517-552-9199

Jackson
401 S. Mechanic St.
Suite B
Jackson, MI 49201
517-292-1295

Kalamazoo
834 King Highway
Suite 107
Kalamazoo, MI 49001
269-665-2005

Lansing
215 S. Washington
SQ
Suite D
Lansing, MI 48933
517-292-1488



STREET: 535 Griswold Street
Buhl Building, Suite 1650
Detroit, MI 48226
PHONE: 313-965-3330
WEBSITE: hrcengr.com

December 4, 2019

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

Attn: Steve Rozycki, Engineer II

Re: 8-1/2 Mile Relief Drain Drainage District
Chapaton Pump Station Dry Weather Pump & Screen Improvements
Project Number WWS-2018-008
Contract Administration Services Proposal

HRC Job No. 20180363.09

Dear Mr. Rozycki:

As requested, we are providing this letter proposal to perform Contract Administration services for the referenced project. Our proposal is based upon the Scope of Work for Task #3 included HRC's original cost proposal dated May 18, 2018. A copy is attached. We have reviewed the final scope of work in design documents and believe that the originally scope of work for Task 3 accurately represents the Contract Administration hours for the project as designed.

HRC proposes to complete the Contract Administration for this project as discussed herein for an NTE price of \$97,860.00. This pricing is for Task 3 only.

If you have any questions or require any additional information, please contact the undersigned.

Very truly yours,

HUBBELL, ROTH & CLARK, INC.

Jesse VanDeCreek, P.E.
Vice President/ Principal

Aaron Uranga, P.E.
Associate

AAU/jv
Attachment
pc: HRC; T. Sullivan, File

Bloomfield Hills
555 Hulet Drive
Bloomfield Hills, MI 48302
248-454-6300

Delhi Township
2101 Aurelius Rd.
Suite 2A
Holt, MI 48842
517-694-7760

Grand Rapids
1925 Breton Road SE
Suite 100
Grand Rapids, MI 49506
616-454-4286

Howell
105 W. Grand River
Howell, MI 48843
517-552-9199

Jackson
401 S. Mechanic St.
Suite B
Jackson, MI 49201
517-292-1295

Kalamazoo
834 King Highway
Suite 107
Kalamazoo, MI 49001
269-665-2005

Lansing
215 S. Washington
SQ
Suite D
Lansing, MI 48933
517-292-1488

Your approval, as indicated by your signature below, will constitute an agreement between us for the above services.

Accepted By:

Signature: _____

Written Name: _____

Title: _____

Dated: _____

HUBBELL, ROTH & CLARK, INC. - COST PROPOSAL

8-1/2 MILE RELIEF DRAIN DRAINAGE DISTRICT
 CHAPATON RTB DRY WEATHER PUMP & SCREEN IMPROVEMENTS
 PROPOSAL NO.: MCPWO-WWS-2018-RFP-008
 May 15, 2018

ID	TASK DESCRIPTION	Principal Rate (\$/hr): \$ 174.00	Sr. Assoc. \$ 168.00	Process \$ 145.00	Struc. \$145.00	Arch. \$ 145.00	Elec. \$145.00	Cadd Tech. \$ 96.00	Admin \$ 67.00	Total
0 Task 1 & 2 - Project Management										
2	Kick-off Meeting		4	8						14
4	Workshop No. 1 - Alternatives Assessment		4	8						12
6	Workshop No. 2 - Alternatives Selection		6	8						14
8	50% Plans and Specifications Submittal Review Meeting		6	8	8	8	8		16	54
10	90% Plans and Specifications Submittal Review Meeting		6	8					16	30
12	Routine correspondence		8	16	8	8	8			48
14	MDEQ Mtg		4	4						8
	Subtotals	2	38	60	16	16	16	0	32	180
		\$ 348	\$ 6,384	\$ 8,700	\$ 2,320	\$ 2,320	\$ 2,320	\$ -	\$ 2,144	\$ 24,536
100 TASK 1 - Dry Weather Pump Evaluation and Design										
102	Basis of Design Quantitative Assessment		8	16				8		32
104	Detailed Design - Qualitative LCA		8	16				8		32
106	Detailed Design Report		8	12			4	8	8	40
108	Detailed Design	8	16	24	8		24	60	8	148
	Subtotals	8	40	68	8	0	28	84	16	252
		\$ 1,392	\$ 6,720	\$ 9,860	\$ 1,160	\$ -	\$ 4,060	\$ 8,064	\$ 1,072	\$ 32,328
200 Task 2 - Bar Screen Replacement										
202	Basis of Design Quantitative Assessment		8	16						24
204	Detailed Design - Qualitative LCA		8	16						24
206	Detailed Design Report		8	12	4	4	4			32
208	Detailed Design	6	24	80	40	24	40	100	8	322
	Subtotals	6	48	124	44	28	44	100	8	402
		\$ 1,044	\$ 8,064	\$ 17,980	\$ 6,380	\$ 4,060	\$ 6,380	\$ 9,600	\$ 536	\$ 54,044
300 Task 3 - Construction Administration										
302	Bid Phase		8	8	8	4	8			36
304	Progress Meetings / communicatios		40	80						120
306	Submittals		6	24	12	8	24			74
308	Pay Applications		2	16						18
310	Changes in the Work (RFI, RFQ, COs, etc.)		12	24	12	16	32	40		136
312	Periodic Inspections		8	8	8	8	8			40
314	Start-up / Commissioning		8	8			8			24
316	Project Closeout		12	20	8	8	8	12	16	84
318	Construction Observation		12	20	12	100		12		156
	Subtotals	0	108	208	60	144	88	64	16	688
		\$ -	\$ 18,144	\$ 30,160	\$ 8,700	\$ 20,880	\$12,760	\$ 6,144	\$ 1,072	\$ 97,860
Project Totals		16	234	460	128	188	176	248	72	1522
		\$ 2,784	\$ 39,312	\$ 66,700	\$18,560	\$ 27,260	\$25,520	\$ 23,808	\$ 4,824	\$ 208,768
										\$ 208,768
Percentages		1%	15%	30%	8%	12%	12%	16%	5%	100%



Hubbell, Roth & Clark, Inc.

**2018 Estimated Hourly Rate Schedule
Prepared for:
Macomb County Public Works**

<u>Category</u>	<u>Billable Rates</u>
Principal	187.00 - 187.00
Sr. Associate/Managing Engineer	167.00 - 187.00
Associate/Managing Engineer	136.00 - 165.00
Department Manager	125.00 - 161.00
Manager	123.00 - 128.00
Sr. Project Engineer/Architect	115.00 - 156.00
Project Engineer/Architect	97.00 - 138.00
Staff Engineer/Architect	94.00 - 112.00
Graduate Engineer/Architect I/II	83.00 - 97.00
Transportation Specialist	130.00 - 130.00
GIS Specialist	70.00 - 97.00
Right of Way Specialist	141.00 - 141.00
Environmental Analyst	78.00 - 102.00
Sr. Designer	128.00 - 156.00
Designer	91.00 - 133.00
Sr. Cadd Technician	95.00 - 109.00
Survey Office Supervisor	128.00 - 128.00
Registered Surveyor	105.00 - 105.00
Survey Technician	98.00 - 99.00
Survey Party Chief	79.00 - 114.00
Survey - Instrument Person	76.00 - 76.00
Survey - Survey Assistant	59.00 - 59.00
Supervisors- Construction Observation	110.00 - 115.00
Field Project Representatives	95.00 - 132.00
Construction - Office Technician	53.00 - 66.00
Sr. Construction Observer	76.00 - 94.00
Construction Observer I/II	45.00 - 78.00
Construction Engineer	95.00 - 138.00
Testing Technician	53.00 - 97.00
Administrative Support**	53.00 - 114.00

*Wage rates shown above are estimated for 2018.

Billable rates for Hubbell, Roth & Clark, Inc. include Unemployment and Payroll taxes, contributions for Social Security, Retirement benefits, Medical and Life insurance benefits, normal printing cost, telephones, fax, computer time, mileage, other overhead costs and profit.

Allowable Reimbursable expenses will be invoiced at our cost which is defined as the direct costs plus 5% .

** This Category includes Computer, Reproduction and Administrative Staff.



EIGHT AND ONE HALF MILE RELIEF DRAIN 11/19/19 - 12/03/19

<u>Funding Source</u>	<u>Apportionment</u>	<u>Manager</u>	<u>Vendor</u>	<u>Amount</u>	<u>Invoice Detail</u>	<u>Project Summary</u>	<u>Project Balance</u>		
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	De-Cal, Inc.	\$ 996.20	Invoice #WO19001053 - 10.29.19	4th Quarter PM			
		Astorino	De-Cal, Inc.	\$ 9,000.00	Invoice #WO9192084 - 11.12.19	East Building Furnaces			
		Astorino	DTE Energy	\$ 8,338.82	Invoice #19-524 - 11.06.19	Monthly Electric - 10.09.19 - 11.06.19			
		Astorino	Fishbeck, Thompson, Carr & Huber	\$ 17,157.06	Invoice #387130 - 11.11.19	Chapaton Structural Study/Bar Screen			
		Astorino	Home Depot	\$ 535.34	Invoice #33550 - 10.10.19	Chapaton Drain Maintenance Supplies			
		Manning	Macomb County Treasurer	\$ 3,797.22	Invoice #AR190904 - 09.30.19	Operating Reimbursement 3rd Quarter			
		Manning	Macomb County Treasurer	\$ 218,648.04	Invoice #AR190904 - 09.30.19	Personnel Reimbursement 3rd Quarter	\$ 73,122.10		
		Astorino	Marino's Landscape	\$ 1,375.00	Invoice #8545 - 10.31.19	Lawn Maintenance October 2019			
		Astorino	The Macomb Group, Inc.	\$ 625.75	Invoice #5755077 - 10.29.19	TRC Supplies			
		Astorino	The Macomb Group, Inc.	\$ 714.20	Invoice #5755069 - 10.29.19	TRC Supplies			
		Astorino	Tetra Tech, Inc.	\$ 105,806.32	Invoice #51519169 - 11.14.19	In-System Storage Devices	\$ 299,704.35		
		Astorino	Wade Trim	\$ 140,190.80	Invoice #2016150 (FY19/FY20)	Chapaton RTB Canal Upgrades	\$ 383,188.42		
		Astorino	Wade Trim	\$ 131,501.95	Invoice #2016457 - 12.04.19	Chapaton RTB Canal Upgrades	\$ 251,686.47		
		Total				\$ 638,686.70			



ONESolution

ACCOUNTS PAYABLE CHECK REQUEST

PUBLIC WORKS DIVISION

Mark A. Hackel
County Executive

1. PREPARED BY (Please Type)	2. PHONE #	3. DATE
Michelle Houvener	95966	11/12/19
4. SET ID		
5. POST DATE		

VP191113MA

PARENT RECORD INFORMATION				
6. VENDOR NAME (Check to be issued to)	8. ADDR CODE	9. Invoice No. (MAX = 16 CHARACTERS)	10. Invoice Date	11. Invoice Amount
De-Cal, Inc.	01	WO19001053	10/29/2019	\$ 996.20

CHILD RECORD DETAIL INFORMATION										
Line	12. Org Key	13. Object	14. Job Ledger		16. Work Order Number	17. Secondary Reference (MAX = 16 CHARACTERS)	18. Description (MAX = 30 CHARACTERS)	19. Amount	20. DIV	21. MISC
			Cost Center (CCNT)	15. Object						
A	8210017M	93002	CC0004	93002	WO18006	8 1/2 Mile Relief	Job #900-19-105-4, 4th Qtr PM	\$ 996.20	GEN	
B										
C										
D										
E										
F										
G										

23. Total: \$ 996.20

REV 09/2018

24. COMMENTS, INSTRUCTIONS OR ADDITIONAL NOTES:

25. Finance Officer:	8 1/2 Mile Relief	
26. Chief Deputy:	N/A	
27. Engineers:	11/19/2019	
28. Managers:	12/9/2019	
29. Coordinator:		



DE-CAL, Inc.
 24659 Schoenherr Rd.
 Warren, MI 48089-4775
 Service Phone: 586-619-0281
 Service Fax: 586-486-5242

Service Invoice

Invoice #: WO19001053

Date: 10/29/2019

Billed To: Macomb County Chapaton
 23001 E. 9 Mile Rd.
 St. Clair Shores MI 48080
 Attn: Accounts Payable

Location: Macomb Chapaton Pumping
 23001 E. 9 Mile Rd.
 St. Clair Shores MI 48080

Client PO#:	Employee: Cliff Wilkerson	Due Terms: 30DY
--------------------	----------------------------------	------------------------

Assembly#	Part#	Description	Quantity	Price	Ext Price	Sales Tax
		90019105	1.0000	996.200000	996.20	N

Notes:
 See work order for details

Chap HVAC

De-Cal Service Group is a division of De-Cal, Inc.
 Please Make Checks Payable to: De-Cal, Inc.
 Thank you for your prompt payment!

Amount Due: \$	996.20
-----------------------	---------------



De - Cal Service Group

Commercial & Industrial HVAC Service, Building Automation

Chillers, Boilers, Piping & Plumbing

24659 Schoenherr Rd.

Warren, MI 48089

Phone: 586-619-0281

www.de-cal.com

Customer Name:	Macomb Chapaton	Date:		De-Cal Job #	900-19-105-4
Job Site Location:					
Description Of Work Performed:	4th Quarter PM			PO #	
				Site Contact:	
LABOR HOURS					
<i>Labor Type</i>	<i>Dates, Technicians</i>	<i>Total Hours</i>	<i>Total</i>		
HVAC Technician		8.0	\$	900.00	
Controls Technician			\$	-	
Boiler Technician			\$	-	
Chiller Technician			\$	-	
OT			\$	-	
DT			\$	-	
Veh/Tool Allowance		1.0	\$	75.00	
MATERIALS/SUBCONTRACTORS UTILIZED					
<i>Unit #</i>	<i>Material Description</i>	<i>Part #</i>	<i>Quantity</i>	<i>Price</i>	
	Consumables		1.0	\$	20.00
				\$	-
				\$	-
				\$	-
				\$	-
				\$	-
				\$	-
				\$	-
				\$	-
				\$	-
				\$	-
				\$	-
				\$	-
				\$	-
				\$	-
				\$	-
				\$	-
				\$	-
Total Work Order				Material Tax %	\$ 1.20
				Sell For	\$ -
				TOTAL BILLING:	\$ 996.20

Service Report

Service Report No : 900-19-105-4-1



Date: September 27, 2019

Client P.O. #: N/A

HVAC Service

Ready to Invoice/Work Complete

Site:

Macomb Chapaton Pumping
23001 E. 9 Mile Rd., St. Clair Shores , MI ,
48080

Client:

Macomb County Chaption
23001 E. 9 Mile Rd., St. Clair Shores , MI ,
48080

Reason for Call:

4th quarter PM

Description of Service:

performed preventive maintenance on H.V.A.C. equipment, replaced filters were necessary, greased bearings were necessary, checked operation of all equipment at west and east buildings,

Technician Work

Name	Date	Reg. hrs	Prem. hrs
Cliff Wilkerson	Sep 27, 2019	8	0



ONESolution

ACCOUNTS PAYABLE CHECK REQUEST

PUBLIC WORKS DIVISION

Mark A. Hackel
County Executive

1. PREPARED BY (Please Type) Michelle Houvener	2. PHONE # 95966	3. DATE 11/25/19
4. SET ID VP191126MA		
5. POST DATE		

PARENT RECORD INFORMATION			
6. VENDOR NAME (Check to be issued to) De-Cal, Inc.	7. VENDOR NUMBER V59694	8. ADDR CODE 01	9. Invoice No (MAX = 16 CHARACTERS) WO9192084
			10. Invoice Date 11/12/2019
			11. Invoice Amount \$ 9,000.00

CHILD RECORD DETAIL INFORMATION											
Line	12. Org Key	13. Object	14. Job Ledger		16. Work Order Number	17. Secondary Reference (MAX = 16 CHARACTERS)	18. Description (MAX = 30 CHARACTERS)	19. Amount	20. DIV	21. MISC	22. Sep CK
			Cost Center (CCNT)	15. Object							
A	8210017M	93001	CC0004	93001	WO18006	8 1/2 Mile Relief	Replace both twinned furnaces	\$ 9,000.00	GEN		
B											
C											
D											
E											
F											
G											

23. Total: \$ **9,000.00**

24. COMMENTS, INSTRUCTIONS OR ADDITIONAL NOTES:

25. Finance Officer: *BKM*

26. Chief Deputy: *BB*

27. Engineers: _____

28. Managers: *UA*

29. Coordinator: *[Signature]*

30. Drain: 8 1/2 Mile Relief

31. Project Balance: N/A

32. Staff Date: 12/3/2019

33. Board Date: 12/9/2019

34. Select For Pay Date: _____



DE-CAL, Inc.
 24659 Schoenherr Rd.
 Warren, MI 48089-4775
 Service Phone: 586-619-0281
 Service Fax: 586-486-5242

Service Invoice

Invoice #: WO9192084

Date: 11/12/2019

Billed To: Macomb County Chapaton
 23001 E. 9 Mile Rd.
 St. Clair Shores MI 48080
 Attn: Accounts Payable

Location: Macomb Chapaton Pumping
 23001 E. 9 Mile Rd.
 St. Clair Shores MI 48080

Client PO#:	Employee:	Due Terms: 30DY
--------------------	------------------	------------------------

Assembly#	Part#	Description	Quantity	Price	Ext Price	Sales Tax
		Quoted Price	1.0000	9,000.000000	9,000.00	N

Notes:

Chapaton East Building - Replace Both Twinned Furnace's

De-Cal Service Group is a division of De-Cal, Inc.

Please Make Checks Payable to: De-Cal, Inc.

Thank you for your prompt payment!

Amount Due: \$ 9,000.00



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	11/13/19
4. SET ID	5. POST DATE	
VPI91114MUA		

PARENT RECORD INFORMATION			
6. VENDOR NAME (Check to be issued to)	7. VENDOR NUMBER	8. ADDR CODE	9. Invoice No (MAX = 16 CHARACTERS)
DTE Energy	V01270	08	19-524
			10. Invoice Date
			11/6/2019
			11. Invoice Amount
			8,338.82

CHILD RECORD DETAIL INFORMATION				19. Amount	20. DIV	21. MISC	22 Sep CK			
Line	General Ledger		15. Object	16. Work Order Number	17. Secondary Reference (MAX = 16 CHARACTERS)	18. Description (MAX = 30 CHARACTERS)	19. Amount	20. DIV	21. MISC	22 Sep CK
	12. Org Key	13. Object								
A	8210017M	92101	CC0004	WO18006	8 1/2 Mile Relief	Acct #9100-0005-3785, 10/9-11/6	\$ 8,338.82	GEN		
B										
C										
D										
E										
F										
G										

23. Total: \$ 8,338.82

24. COMMENTS, INSTRUCTIONS OR ADDITIONAL NOTES:

25. Finance Officer: htw

26. Chief Deputy: AB

27. Engineers: _____

28. Managers: wd

29. Coordinator: bl

30. Drain: 8 1/2 Mile Relief

31. Project Balance: N/A

32. Staff Date: 11/19/2019

33. Board Date: 12/9/2019

34. Select For Pay Date: _____



Payment Coupon

Empty rectangular box for stamp or marking.

Account Number	910000053785
Due Date:	December 02, 2019
Total Due:	\$8,338.82

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

19.524

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

Empty rectangular box for stamp or marking.

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

Account Number	9100-0005-3785
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DTE-Energy Federal ID No.	38-3217752
---------------------------	------------

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

Shaded rectangular box.

Your electric bill includes the Transitional Recovery Mechanism (TRM) surcharge, which was approved by the Michigan Public Service Commission to recover a portion of the costs associated with expanding our distribution system to serve former City of Detroit Public Lighting Department customers. This charge is effective for three months.



Summary Of Charges

Account Number 9100-0005-3785

Previous Balance as of 10/10/2019	7,953.21
Payment(s) and Credit(s)	- 7,953.21
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	10/09 - 11/06/19	8,338.82
		Taxes			0.00
		Miscellaneous Charges			0.00
		Current Bill			\$8,338.82

Amount Due on or before Due Date of 12/02/2019 **\$8,338.82**

Your current charges are due on December 2, 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) Michelle Houvener	2. PHONE # 95966	3. DATE 11/14/19
4. SET ID VP19111SMA		5. POST DATE

6. VENDOR NAME (Check to be issued to) FTCH	7. VENDOR NUMBER V44063	8. ADDR CODE 01	9. Invoice No (MAX = 16 CHARACTERS) 387130	10. Invoice Date 11/11/2019	11. Invoice Amount 17,157.06
---	-----------------------------------	---------------------------	--	---------------------------------------	--

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	8210017M	80138	80138	WO19005	8 1/2 Mile Relief	Pjt.#190051 through 11/1/19	\$ 17,157.06	GEN	
B									
C									
D									
E									
F									
G									

REV 09/2018

23. Total: \$ 17,157.06

24. COMMENTS, INSTRUCTIONS OR ADDITIONAL NOTES:
As Needed Services through 11/1/19/19

25. Finance Officer: *BM*

26. Chief Deputy: *AS*

27. Engineers: *MS*

28. Managers: *PL*

29. Coordinator: *PL*

30. Drain: 8 1/2 Mile Relief

31. Project Balance: \$73,122.10

32. Staff Date: 11/19/2019

33. Board Date: 12/9/2019

34. Select For Pay Date:



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

Payment Options

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

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

Invoice : 387130
 Invoice Date : 11/11/2019
 Project : 190051
 Project Name : Macomb Co PW/8.5 As-needed
 Engineering
 Bill Term : 1

For Professional Services Rendered Through 11/1/2019

WO19005

	Fee	Available	Billings		
			To Date	Previous	Current
1 - Task 1 - Genral As Needed	2,286.75	2,286.75	0.00	0.00	0.00
1.A - Task 1a - Chapaton Structural Study	60,663.00	37,020.14	33,908.04	23,642.86	10,265.18
<i>Rate Labor</i>	738.00				
<i>Expenses</i>	9,527.18				
1.B - Task 1b - 9 Mile Pipe Repair	16,256.00	9,918.63	9,082.37	6,337.37	2,745.00
<i>Rate Labor</i>	834.00				
<i>Expenses</i>	1,911.00				
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	22,183.40	789.50	21,393.90	21,393.90	0.00
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	4,065.60	0.00	4,065.60	4,065.60	0.00
1.G - Task 1g - Chapaton Survey	2,084.25	0.00	2,084.25	2,084.25	0.00
1.H - Task 1h - Chapaton Bar Screen Hydraulic Isolation	4,725.00	4,725.00	2,976.75	0.00	2,976.75
<i>Expenses</i>	2,976.75				
1.I - Task 1i - Chapaton Environmental Study	9,730.00	7,286.14	3,121.99	2,443.86	678.13
<i>Rate Labor</i>	566.00				
<i>Expenses</i>	55.13				
<i>Unit Rate Expense</i>	57.00				
<i>Total Expense</i>	112.13				
1.j - Task 1j - Chapaton Flow Meter Drawings	3,000.00	3,000.00	492.00	0.00	492.00
<i>Rate Labor</i>	492.00				
1.k - Task 1k - Chapaton High Water Protection	14,175.00	14,175.00	0.00	0.00	0.00

Current Billings	<u>17,157.06</u>
Amount Due This Bill	17,157.06

1.A - Task 1a - Chapaton Structural Study

Rate Labor

<i>Class</i>	<i>Hours</i>	<i>Rate</i>	<i>Amount</i>
Senior Engineer	4.50	164.0000	738.00
Total Rate Labor			738.00

Expenses

<i>Account / Vendor</i>	<i>Cost</i>	<i>Multiplier</i>	<i>Amount</i>
Subconsultant			
Anderson Eckstein & Westrick Inc	6,006.00	1.05	6,306.30
NTH Consultants Ltd	3,067.50	1.05	3,220.88
Total Subconsultant	9,073.50		9,527.18
Total Expenses			9,527.18

Total Bill Task: 1.A - Task 1a - Chapaton Structural Study 10,265.18

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

Rate Labor

<i>Class</i>	<i>Hours</i>	<i>Rate</i>	<i>Amount</i>
Engineer	2.00	130.0000	260.00
Senior Engineer	3.50	164.0000	574.00
Total Rate Labor			834.00

Expenses

<i>Account / Vendor</i>	<i>Cost</i>	<i>Multiplier</i>	<i>Amount</i>
Subconsultant			
NTH Consultants Ltd	1,820.00	1.05	1,911.00
Total Expenses			1,911.00

Total Bill Task: 1.B - Task 1b - 9 Mile Pipe Repair 2,745.00

1.H - Task 1h - Chapaton Bar Screen Hydraulic Isolation

Expenses

<i>Account / Vendor</i>	<i>Cost</i>	<i>Multiplier</i>	<i>Amount</i>
Subconsultant			
Applied Science Inc	2,835.00	1.05	2,976.75
Total Expenses			2,976.75

EN - Environmental - Task 1

Rate Labor

<i>Class</i>	<i>Hours</i>	<i>Rate</i>	<i>Amount</i>
Production Support	2.00	70.0000	140.00
Senior Industrial Hygienist	1.00	159.0000	159.00
Technician	3.00	89.0000	267.00
Total Rate Labor			566.00

Expenses

<i>Account / Vendor</i>	<i>Cost</i>	<i>Multiplier</i>	<i>Amount</i>
Subconsultant			
EMLab P&K LLC	52.50	1.05	55.13
Total Expenses			55.13

Unit Rate Expenses

<i>Account / Unit</i>	<i>Quantity</i>	<i>Rate</i>	<i>Amount</i>
Company Vehicle Use			
Mileage - Company Vehicle	60.00	0.9500	57.00
Total Unit Rate Expenses			57.00

Total Bill Task: EN - Environmental - Task 1 678.13

WW - Water Wastewater

Rate Labor

<u>Class</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
Senior Engineer	3.00	164.0000	492.00
Total Rate Labor			492.00

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

17,157.00

**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 11/6/2019

INVOICE START DATE 10/5/2019

INVOICE END DATE 11/1/2019

ORIGINAL CONTRACT AMOUNT	\$	151,919.00
CHANGE ORDER TOTAL	\$	-
Change Order No. 1		
Change Order No. 2		
Change Order No. 3		
Change Order No. 4		
TOTAL REVISED CONTRACT AMOUNT	\$	151,919.00
(includes all approved change orders only)		
TOTAL AMOUNT PREVIOUSLY INVOICED	\$	61,639.84
TOTAL AMOUNT DUE THIS INVOICE	\$	17,157.06
TOTAL BUDGET REMAINING	\$	73,122.10
(Includes Total Revised Contract Amount Less Total Invoiced Previously and Total Invoiced Current)		



ONESolution

ACCOUNTS PAYABLE CHECK REQUEST

PUBLIC WORKS DIVISION

Mark A. Hackel
County Executive

1. PREPARED BY (Please Type) Michelle Houvener	2. PHONE # 95966	3. DATE 11/7/19
4. SET ID VP191107MA		
5. POST DATE		

PARENT RECORD INFORMATION			
6. VENDOR NAME (Check to be issued to) Home Depot	7. VENDOR NUMBER V02220	8. ADDR CODE 25	9. Invoice No (MAX = 16 CHARACTERS) 33550
			10. Invoice Date 10/10/2019
			11. Invoice Amount 535.34

CHILD RECORD DETAIL INFORMATION											
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	8210017M	97002	CC0004	97002	WO19081	8 1/2 Mile Relief	6035322501599843, 33550	\$ 494.43	GEN		
B	8210017M	72613	CC0004	72613	WO19081	8 1/2 Mile Relief	6035322501599843, 33550	\$ 40.91	GEN		0
C											
D											
E											
F											
G											

REV 09/2018

23. Total: \$ **535.34**

24. COMMENTS, INSTRUCTIONS OR ADDITIONAL NOTES:

25. Finance Officer: <u><i>pjm</i></u>	30. Drain: 8 1/2 Mile Relief
26. Chief Deputy: <u><i>BJ</i></u>	31. Project Balance: N/A
27. Engineers: <u><i>ud</i></u>	32. Staff Date: 11/19/2019
28. Managers: <u><i>KL</i></u>	33. Board Date: 12/9/2019
29. Coordinator:	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

Amount Due:	Trans Date:	DUE DATE:	Invoice #: 33550
\$535.34	10/10/19	11/18/19	
PO: CHAPATONTRC		Store: 2707, ROSEVILLE, MI	

PRODUCT	SKU #	QUANTITY	UNIT PRICE	TOTAL PRICE
TOUGHBUILT C700 SAWHORSE ADJ HGT	10013062090001100009	1.0000 EA	\$59.97	\$59.97
HOMER BUCKET	00001312270001000008	1.0000 EA	\$3.25	\$3.25
HOMER BUCKET	00001312270001000008	1.0000 EA	\$3.25	\$3.25
HOMER BUCKET	00001312270001000008	1.0000 EA	\$3.25	\$3.25
HOMER BUCKET	00001312270001000008	1.0000 EA	\$3.25	\$3.25
HOMER BUCKET	00001312270001000008	1.0000 EA	\$3.25	\$3.25
DEWALT RETRACTABLE UTILITY KNIFE	10024237480000100006	1.0000 EA	\$14.97	\$14.97
MKE 9-IN-1 SQ DRIVE MULTI-BIT SDVR	10041003690000100007	1.0000 EA	\$14.97	\$14.97
MKE 9-IN-1 SQ DRIVE MULTI-BIT SDVR	10041003690000100007	1.0000 EA	\$14.97	\$14.97
D 14PC	00003434280000700003	1.0000 PK	\$29.97	\$29.97
MAX AAA30	10025808830000500010	1.0000 EA	\$15.98	\$15.98
BOSCH XTREME 3/8X6 SDS+ HMR BIT	00001078780000700008	1.0000 EA	\$8.97	\$8.97
TOUGHBUILT C700 SAWHORSE ADJ HGT	10013062090001100009	1.0000 EA	\$59.97	\$59.97
BOSCH XTREME 1/2X6 SDS+ HMR BIT	00001087120000700008	1.0000 EA	\$9.97	\$9.97
LYSOL DISINFECTING WIPES 3X80	10027652370000400004	1.0000 EA	\$10.97	\$10.97
BOSCH XTREME 3/8X6 SDS+ HMR BIT	00001078780000700008	1.0000 EA	\$8.97	\$8.97
ENR MAX C8	00002508260000500010	1.0000 PK	\$13.98	\$13.98
BOSCH XTREME 3/8X12 SDS+ HMR BIT	00001083650000700008	1.0000 EA	\$17.97	\$17.97
BOSCH XTREME 3/8X12 SDS+ HMR BIT	00001083650000700008	1.0000 EA	\$17.97	\$17.97
BOSCH XTREME 1/2X12 SDS+ HMR BIT	00001097380000700008	1.0000 EA	\$19.97	\$19.97
BOSCH XTREME 1/2X12 SDS+ HMR BIT	00001097380000700008	1.0000 EA	\$19.97	\$19.97
BOSCH XTREME 1/2X6 SDS+ HMR BIT	00001087120000700008	1.0000 EA	\$9.97	\$9.97
DIABLO STEEL DEMON 9"14/18TPI 5 PACK	00002970650000700003	1.0000 PK	\$18.97	\$18.97
DIABLO 6" CARBIDE MEDIUM METAL 3PK	10032388610000700003	1.0000 EA	\$31.97	\$31.97
DIABLO 4-1/2"X7/8" METAL CUTOFF BLDE	00002517870000700004	10.0000 EA	\$2.97	\$29.70
MKE 7A 4-1/2" SM ANG GRINDER CORDED	00001823350000900008	1.0000 EA	\$59.00	\$59.00
25' X 1-1/4" FAT MAX TAPE	00006550950000100004	1.0000 EA	\$14.97	\$14.97
25' X 1-1/4" FAT MAX TAPE	00006550950000100004	1.0000 EA	\$14.97	\$14.97

Purchased by: SEMROW TREVOR
Customer #: 00032

SUBTOTAL	\$535.34
TAX	\$0.00
TOTAL	\$535.34

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

Amount Due:	Trans Date:	DUE DATE:	Invoice #: 3352252
\$107.29	10/17/19	11/18/19	
PO: DRAINMAINTENCE		Store: 2707, ROSEVILLE, MI	

PRODUCT	SKU #	QUANTITY	UNIT PRICE	TOTAL PRICE
PA MTN BLAST 20OZ 8PK	00009570430001300005	1.0000 EA	\$4.97	\$4.97
BOTTLE WATER	00002183400000900013	1.0000 EA	\$2.97	\$2.97
BOTTLE WATER	00002183400000900013	1.0000 EA	\$2.97	\$2.97
BOTTLE WATER	00002183400000900013	1.0000 EA	\$2.97	\$2.97

continued →

984307





Mark A. Hackel
County Executive

ONESolution

ACCOUNTS PAYABLE CHECK REQUEST

PUBLIC WORKS DIVISION

1. PREPARED BY (Please Type) Michelle Houvener	2. PHONE # 95966	3. DATE 11/5/19
4. SET ID V191107MB		
5. POST DATE		

6. VENDOR NAME (Check to be issued to) Macomb County Treasurer		7. VENDOR NUMBER V01085	8. ADDR CODE 26	9. Invoice No (MAX = 16 CHARACTERS) AR190904	10. Invoice Date 9/30/2019	11. Invoice Amount 667,606.09
--	--	-----------------------------------	---------------------------	--	--------------------------------------	---

General Ledger				Job Ledger		OPTIONAL		19. Amount	20. DIV	21. MISC	22. Sep CK
12. Org Key	13. Object	14. Cost Center (GCNT)	15. Object	16. Work Order Number	17. Secondary Reference (MAX = 16 CHARACTERS)	18. Description (MAX = 30 CHARACTERS)					
A	8200017M	72100	72100	WO18006	8 1/2 Mile Relief	3rd Qtr Personnel/Operating	\$ 218,648.04	IPWK		0	
B	8200166M	72100	72100		MIDDD	3rd Qtr Personnel/Operating	\$ 366,420.39	IPWK	MIDDD	0	
C	8200072M	72100			Martin	3rd Qtr Personnel/Operating	\$ 41,497.36	IPWK		0	
D	8703018M	72100			SEMCWWDS	3rd Qtr Personnel/Operating	\$ 27,664.90	IPWK		0	
E	8200017M	99101	99101	WO18006	8 1/2 Mile Relief	3rd Qtr Personnel/Operating	\$ 3,797.22	IPWK		0	
F	8200166M	99101	99101		MIDDD	3rd Qtr Personnel/Operating	\$ 9,578.18	IPWK		0	
G											

23. Total: \$ **667,606.09**

24. COMMENTS, INSTRUCTIONS OR ADDITIONAL NOTES:

Reimbursement to Macomb County for 3rd Quarter 2019 Personnel/Operating Expenses

25. Finance Officer:	<i>hmm</i>	30. Drain:	Multiple
26. Chief Deputy:	<i>AB</i>	31. Project Balance:	N/A
27. Engineers:		32. Staff Date:	11/19/2019
28. Managers:	<i>WDS</i>	33. Board Date:	12/9/2019
29. Coordinator:	<i>ll</i>	34. Select For Pay Date:	



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

PUBLIC WORKS OFFICE
ATTN: BRUCE MANNING
21777 DUNHAM RD
CLINTON TOWNSHIP, MI 48036

See Reverse Side For Easy Opening Instructions

Email Address:

Invoice Date
 10/25/2019

Invoice
 AR190904

REF DATE	DESCRIPTION	AMOUNT
10/25/2019	3RD QTR 19 CHAPOTON-PERSONNEL	220,590.71
10/25/2019	3RD QTR 19 CHAPOTON-OPERATING	5,062.97
10/25/2019	3RD QTR 19 WASTE WTR-PERSONNEL	432,374.23
10/25/2019	3RD QTR 19 WASTE WTR-OPERATING	9,578.18
	Charges	667,606.09
	Amount Due	667,606.09

***** 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 BA

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

Invoice Number: AR190904

Invoice Date: 10/25/2019

Amount Due: \$667,606.09

3rd Quarter Personnel and Operating Costs

	Chapaton Personnel	Chapaton Operating	WW Personnel	WW Operating	3018	0072	Total
Invoice Totals	220,590.71	5,062.97	\$432,374.23	\$9,578.18			\$667,506.09
Due from 8.5 Mile	49,465.38		(49,465.38)			\$9,893.08	
Due from Martin			(9,893.08)		\$6,595.38		
Due from SECVVDS			(6,595.38)		\$506.30		
Due from SECVVDS		(506.30)				\$759.45	
Due from Martin	(30,844.83)	(759.45)				\$30,844.83	
Due from SECVVDS	(20,563.22)				\$20,563.22		
Totals	\$218,648.04	\$3,797.22	\$366,420.39	\$9,578.18	\$27,664.90	\$41,497.36	\$667,506.09

MARTIN SANITARY DIVERSION AND SEMCWWDS
PERSONNEL REIMBURSEMENT
7/1/19 - 9/30/19

10144130 DESCRIPTION	AMOUNT	SEMCWWDS 10%	Martin 15%	
70200 Base Pay	\$109,455.13			L. Lavigne
70203 Part Time	\$6,720.06			P. Dehring
70208 In Lieu of Med	\$501.00			P. Trombley
70211 Overtime	\$12,903.85			B. Bugamelli
70212 Stand By	\$2,509.82			S. Schmeiser
70226 Sal-Wage Lump Sum	\$3,099.11			Z. Heaton
70298 Sal-Wage Other	\$360.15			K. Benda
Total Salary	<u>\$135,549.12</u>	<u>\$13,554.91</u>	<u>\$20,332.37</u>	T. Semrow
71510 FICA - OASDI	\$8,404.06			
71515 FICA - Medicare	\$1,965.49			
71520 Hospitalization Ins.	\$25,985.01			
71521 Dental Ins.	\$1,399.86			
71529 Retiree Medical	\$12,936.00			
71530 Life Ins. - Base	\$41.76			
71540 Pension	\$12,663.00			
71542 Pension Defined Contrib.	\$2,785.83			
71560 Worker's Comp	\$336.78			
71580 Long-term Disability	\$271.06			
71590 Compensated Absences	\$3,294.25			
Total Fringe	<u>\$70,083.10</u>	<u>\$7,008.31</u>	<u>\$10,512.47</u>	
Grand Total	<u>\$205,632.22</u>	<u>\$20,563.22</u>	<u>\$30,844.83</u>	

Calculations regarding percentage Martin and SEMCWWDS owe
8.5 Mile Relief for Salary and Fringe formerly charged to Chapaton.

MARTIN SANITARY DIVERSION , SEMCWWDS AND
8.5 MILE RELIEF PERSONNEL REIMBURSEMENT
7/1/19 - 9/30/19

10144150 DESCRIPTION	AMOUNT	SEMCWWDS 5%	Martin 7.50%	8.5 MILE 37.50%
70200 Base Pay	\$66,709.58			
70203 Part Time	\$6,659.92			
70211 Overtime	\$23,083.93			
70226 Lump Sum	\$1,455.92			
70298 Other	\$255.89			
Total Salary	<u>\$98,165.24</u>	<u>\$4,908.26</u>	<u>\$7,362.39</u>	<u>\$36,811.97</u>
71510 FICA - OASDI	\$5,980.13			
71515 FICA - Medicare	\$1,398.60			
71520 Hospitalization Ins.	\$9,978.75			
71521 Dental Ins.	\$599.94			
71529 Retiree Medical	\$4,311.75			
71530 Life Ins. - Base	\$15.66			
71540 Pension	\$5,064.75			
71542 Pension Defined Contrib.	\$3,958.08			
71560 Worker's Comp	\$241.11			
71580 Long-term Disability	\$192.52			
71590 Compensated Absences	\$2,001.16			
Total Fringe	<u>\$33,742.45</u>	<u>\$1,687.12</u>	<u>\$2,530.68</u>	<u>\$12,653.42</u>
Grand Total	<u>\$131,907.69</u>	<u>\$6,595.38</u>	<u>\$9,893.08</u>	<u>\$49,465.38</u>

V. Astorino
S. Rozycki
J. Betz
B. Welser

Calculations regarding percentage Martin, SEMCWWDS AND 8.5 Mile Relief owe MIDD for Salary and Fringe formerly charged to MIDD.

MARTIN SANITARY DIVERSION and SEMCWWDS
 SHARE OF INTERNAL COSTS
 7/1/19 - 9/30/19

10144130 DESCRIPTION	AMOUNT	SEMCWWDS	Martin
		10.00%	15.00%
91101 Insurance-Liability	\$1,989.51		
91103 Insurance-Fleet	\$1,898.00		
96103 Inter Serv-Telephone	\$1,175.46		
<hr/>			
Total	\$5,062.97	\$506.30	\$759.45

Calculations regarding percentage Martin and SEMCWWDS owe
 8.5 Mile Relief for Internal Service costs charged to 8.5 Mile Relief.



Mark A. Hackel
County Executive

ONESolution

ACCOUNTS PAYABLE CHECK REQUEST

PUBLIC WORKS DIVISION

1. PREPARED BY (Please Type) Michelle Houvener	2. PHONE # 95966	3. DATE 11/6/19
4. SET ID VR191107MA		
5. POST DATE		

PARENT RECORD INFORMATION			
6. VENDOR NAME (Check to be issued to) Marino's Landscape	7. VENDOR NUMBER V66876	8. ADDR CODE 01	9. Invoice No (MAX = 16 CHARACTERS) 8545
		10. Invoice Date 10/31/2019	11. Invoice Amount \$ 1,375.00

CHILD RECORD DETAIL INFORMATION									
Line	General 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							
A	8210017M	92900	CC0004	92900	8 1/2 Mile Relief	\$ 1,375.00	GEN		
B									
C									
D									
E									
F									
G									

23. Total: \$ 1,375.00

24. COMMENTS, INSTRUCTIONS OR ADDITIONAL NOTES:

25. Finance Officer: ghm

26. Chief Deputy: AS

27. Engineers: ut

28. Managers: kk

29. Coordinator:

30. Drain: 8 1/2 Mile Relief

31. Project Balance: Complete for season

32. Staff Date: 11/19/2019

33. Board Date: 12/9/2019

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 # 8545
 Invoice Date 10/31/2019
Invoice Balance 1375.00

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

Date	Description	Qty	Price	Total
10/3/2019	Lawn Maintenance	1.00	275.00	275.00
10/10/2019	Lawn Maintenance	1.00	275.00	275.00
10/17/2019	Lawn Maintenance	1.00	275.00	275.00
10/24/2019	Lawn Maintenance	1.00	275.00	275.00
10/31/2019	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 1375.00
 Invoice Total 1375.00
Invoice Balance 1375.00

Client Name Macomb County Public Works Office
 For 23001 E. 9 Mile Rd. - Chapaon 8 1/2 Mile, St Clair Shores MI 48080
 Invoice # 8545
 Invoice Date 10/31/2019
 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.





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	11/12/19
4. SET ID		
5. POST DATE		

VP191113MA

PARENT RECORD INFORMATION	
6. VENDOR NAME (Check to be issued to)	11. Invoice Amount
The Macomb Group, Inc.	625.75
7. VENDOR NUMBER	10. Invoice Date
V10992	10/29/2019
8. ADDR CODE	19. Amount
01	\$ 625.75
9. Invoice No (MAX = 16 CHARACTERS)	20. DIV
5755077	21. MISC

CHILD RECORD DETAIL INFORMATION							
Line	General Ledger	Job Ledger		18. Description (MAX = 30 CHARACTERS)	19. Amount	20. DIV	21. MISC
		14. Cost Center (CCNT)	15. Object				
A	8210017M	93002	93002	Cust #109933, TRC Supplies	625.75	GEN	
B							
C							
D							
E							
F							
G							

REV 09/2016

23. Total: \$ 625.75

24. COMMENTS, INSTRUCTIONS OR ADDITIONAL NOTES:

25. Finance Officer:	8 1/2 Mile Relief	
26. Chief Deputy:	N/A	
27. Engineers:	11/19/2019	
28. Managers:	12/9/2019	
29. Coordinator:		



3245144

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
5755077	10/29/2019 09:16:41
ORDER NUMBER	Page
3245144	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 WILL CALL-STERLING
WILL CALL
6600 15 MILE RD.
STERLING HEIGHTS, MI 48312
US

W0#19081

Ordered By: BOB 586-772-3425

Customer ID: 109933

PO Number		Term Description		Net Due Date	Disc Due Date	Discount Amount
W019081		1% 10 NET 30		11/28/2019	11/8/2019	6.26
Order Date	Pick Ticket No	Job Name		Primary Salesrep	Taker	
10/28/2019 11:13:12	4725434			1061	115626	
Quantities			Item ID	Pricing UOM	Unit Price	Extended Price
Ordered	Shipped	Remaining	UOM Unit Size	Item Description	Unit Size	
Carrier: WILL CALL			Tracking #:			
3.0	3.0	0.0 EA	1.0	(010) 200PVTUBVE 2 HAYWARD PVC 80 S/T TU BALL VLV EPDM TBH1200ASTE0000 TB1200STE - OLD STYLE	EA 1.0000	70.88 212.64
10.0	10.0	0.0 EA	1.0	(020) 100PVTUBVE 1 HAYWARD PVC 80 S/T TU BALL VLV EPDM TBH1100ASTE0000 TB1100STE - OLD STYLE	EA 1.0000	32.38 323.80
3.0	3.0	0.0 EA	1.0	(030) 20020010080PVSRT 2 X 2 X 1 PVC 80 SW TEE REDUCING	EA 1.0000	6.27 18.81
10.0	10.0	0.0 EA	1.0	(040) 10080PVS90 1 PVC 80 SW 90 ELL	EA 1.0000	1.51 15.10
10.0	10.0	0.0 EA	1.0	(050) 10080PVST 1 PVC 80 SW TEE	EA 1.0000	2.70 27.00
40.0	40.0	0.0 FT	1.0	(060) 10080PVPPE 1 PVC 80 PIPE PE - 20 FT LENGTH ***CUT IN HALF***	FT 1.0000	0.71 28.40

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 and Non-Stock Items may be subject to freight charge.

5755077

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



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
5755077	10/29/2019 09:16:41
ORDER NUMBER	Page
3245144	2 of 2

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

Total Lines: 6

SUB-TOTAL: 625.75
TAX: 0.00
AMOUNT DUE: 625.75

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 and Non-Stock Items may be subject to freight charge.
 ***Special Order/Non-Stock Returned Items are subject to mfg approval.

ORIGINAL



ONESolution

ACCOUNTS PAYABLE CHECK REQUEST

PUBLIC WORKS DIVISION

Mark A. Hackel
County Executive

1. PREPARED BY (Please Type) Michelle Houvener	2. PHONE # 95966	3. DATE 11/12/19
4. SET ID VP191113MA		
5. POST DATE		

PARENT RECORD INFORMATION			
6. VENDOR NAME (Check to be issued to) The Macomb Group, Inc.	7. VENDOR NUMBER V10992	8. ADDR CODE 01	9. Invoice No (MAX = 16 CHARACTERS) 5755069
			10. Invoice Date 10/29/2019
			11. Invoice Amount \$ 714.20

CHILD RECORD DETAIL INFORMATION										
Line	General Ledger		Job Ledger		17. Secondary Reference (MAX = 16 CHARACTERS)	18. Description (MAX = 30 CHARACTERS)	19. Amount	20. DIV	21. MISC	22. Sep CK
	12. Org Key	13. Object	14. Cost Center (CCNT)	15. Object						
A	8210017M	93002	CC0004	93002	WO19081	8 1/2 Mile Relief	\$ 714.20	GEN		
B										
C										
D										
E										
F										
G										

23. Total: \$ **714.20**

REV 09/2018

24. COMMENTS, INSTRUCTIONS OR ADDITIONAL NOTES:

25. Finance Officer:	30. Drain:	8 1/2 Mile Relief
26. Chief Deputy:	31. Project Balance:	N/A
27. Engineers:	32. Staff Date:	11/19/2019
28. Managers:	33. Board Date:	12/9/2019
29. Coordinator:	34. Select For Pay Date:	



3242794

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
5755069	10/29/2019 09:16:41
ORDER NUMBER	Page
3242794	1 of 1

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

Ship To:
MACOMB COUNTY PUBLIC WILL CALL-STERLIN
WILL CALL
6600 15 MILE RD.
STERLING HEIGHTS, MI 48312
US

WO# 19081

Ordered By: BOB 586-772-3425

Customer ID: 109933

PO Number	Term Description	Net Due Date	Disc Due Date	Discount Amount
CHAPATOWN RTD	1% 10 NET 30	11/28/2019	11/8/2019	7.14

Order Date	Pick Ticket No	Job Name	Primary Salesrep	Taker
10/23/2019 15:53:44	4725421		1061	115626

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

Delivery Instructions: CALL 586-772-3425 AS SOON AS READY FOR P/U

Carrier: WILL CALL

Tracking #:

100.0	100.0	0.0	EA	1.0	(010) B201SS 3/8 SS SQUARE WASHER 304 STAINLESS STEEL	EA 1.0000	6.43	643.00
40.0	40.0	0.0	FT	1.0	B22-20 1-5/8 X 1-5/8 GREEN SOLID STRUT 20 FT PHD 1002 PNTD	FT 1.0000	1.78	71.20

Total Lines: 2

SUB-TOTAL: 714.20
TAX: 0.00
AMOUNT DUE: 714.20

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 and Non-Stock Items may be subject to freight charge.
***Special Order/Non-Stock Returned items are subject to mfg approval.

5755069



ORIGINAL





Mark A. Hackel
County Executive

ONESolution

ACCOUNTS PAYABLE CHECK REQUEST

PUBLIC WORKS DIVISION

1. PREPARED BY (Please Type) Michelle Houvener	2. PHONE # 95966	3. DATE 11/15/19
4. SET ID VPA115MA		
5. POST DATE		

6. VENDOR NAME (Check to be issued to) Tetra Tech, Inc.		7. VENDOR NUMBER V16060	8. ADDR CODE 02	9. Invoice No (MAX = 16 CHARACTERS) 51519169	10. Invoice Date 11/14/2019	11. Invoice Amount \$ 105,806.32
---	--	-----------------------------------	---------------------------	--	---------------------------------------	--

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	20. DIV	21. MISC	22. Sep CK	
A	8210017M	80138	80138	WO19085	8 1/2 Mile Relief	Pjt #200-16347-19001 thru 10/25/19	\$ 105,806.32	GEN			
B											
C											
D											
E											
F											
G											

23. Total: \$ 105,806.32

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

25. Finance Officer:	<i>bthm</i>	30. Drain:	8 1/2 Mile Relief
26. Chief Deputy:	<i>APB</i>	31. Project Balance:	\$299,704.35
27. Engineers:		32. Staff Date:	11/19/2019
28. Managers:	<i>WJH</i>	33. Board Date:	12/9/2019
29. Coordinator:	<i>KE</i>	34. Select For Pay Date:	

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

WORK ORDER NUMBER	WO19085	
PROJECT NUMBER	WWS-2019-003	(Tetra Tech# 200-16347-19001)
PROJECT NAME	In-System Storage Devices	
DRAINAGE DISTRICT	Eight and One-Half Mile Relief Drain Drainage District	
CONSULTANT NAME	Tetra Tech of Michigan	
INVOICE DATE	11/14/2019 (Invoice 51519169)	
INVOICE START DATE	9/28/2019	
INVOICE END DATE	10/25/2019	
ORIGINAL CONTRACT AMOUNT	\$	481,098.00
CHANGE ORDER TOTAL	\$	-
Change Order No. 1		
Change Order No. 2		
Change Order No. 3		
Change Order No. 4		
TOTAL REVISED CONTRACT AMOUNT	\$	481,098.00
(includes all approved change orders only)		
TOTAL AMOUNT PREVIOUSLY INVOICED	\$	75,587.33
TOTAL AMOUNT DUE THIS INVOICE	\$	105,806.32
TOTAL BUDGET REMAINING	\$	299,704.35
(Includes Total Revised Contract Amount Less Total Invoiced Previously and Total Invoiced Current)		



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

BILL TO: MACOMB COUNTY
ATTN: FINANCE DEPARTMENT
 OFFICE OF PUBLIC WORKS
 COMMISSIONER
 21777 DUNHAM RD
 PO BOX 806
 CLINTON TOWNSHIP, MI 48036

INVOICE NUMBER: 51519169
INVOICE DATE: 11/14/2019
SERVICES THROUGH: 10/25/2019
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 01AS **Project Management Subcontractors**

SUBCONTRACTOR	TYPE	CURRENT AMOUNT
FISHBECK THOMPSON CARR & HUBER INC	Subcontractor-External	\$962.50
TOTAL SUBCONTRACTOR CHARGES		\$962.50
SUBTOTAL		\$962.50
Total Top Task# 01AS		\$962.50

Top Task 01BS **Infrastructure Survey Subcontractors**

SUBCONTRACTOR	TYPE	CURRENT AMOUNT
FISHBECK THOMPSON CARR & HUBER INC	Subcontractor-External	\$22,400.70
TOTAL SUBCONTRACTOR CHARGES		\$22,400.70
SUBTOTAL		\$22,400.70
Total Top Task# 01BS		\$22,400.70

Top Task 01D **Basis of Design**

EMPLOYEE	TITLE	CURRENT LABOR HOURS	LABOR RATE	CURRENT LABOR AMOUNT
Berube, Charles	Jr Modeler	0.50	\$125.00	\$62.50
Bilodeau, Karine	Jr Modeler	0.50	\$125.00	\$62.50
Ferret, Marion	Jr Modeler	4.50	\$125.00	\$562.50
Fortier, Veronique	Sr Modeler	102.50	\$210.00	\$21,525.00
Fradet, Olivier	Sr Engineer	5.25	\$180.00	\$945.00
Geerlings, Eric P.	Project Engineer 1	69.50	\$155.00	\$10,772.50
Kaliman, Roger G.	Sr Engineer 1	14.50	\$180.00	\$2,610.00
Lopez Lopez, Daniela S.	Engineer 2	53.50	\$125.00	\$6,687.50
Lortz, Thomas J.	CAD Designer	10.00	\$140.00	\$1,400.00
Mohamadou, Bello	Jr Technical I&C	52.25	\$110.00	\$5,747.50
Robitaille, Luc	Engineer 3	62.25	\$250.00	\$15,562.50
Rubel, Brian M.	Program Manager	12.00	\$225.00	\$2,700.00
Stewart, Lynn	Sr Administrator	0.25	\$125.00	\$31.25
Tao, Qing D.	Sr Project Manager	43.00	\$250.00	\$10,750.00
Tremblay, Simon	Sr Engineer I&C	0.25	\$215.00	\$53.75
Voss, Justin D.	Project Engineer 1	8.00	\$155.00	\$1,240.00

BILL TO: MACOMB COUNTY
ATTN: FINANCE DEPARTMENT
 OFFICE OF PUBLIC WORKS
 COMMISSIONER
 21777 DUNHAM RD
 PO BOX 806
 CLINTON TOWNSHIP, MI 48036

INVOICE NUMBER: 51519169
INVOICE DATE: 11/14/2019
SERVICES THROUGH: 10/25/2019
FEDERAL TAX ID#: 95-4148514
TERMS: NET 30

EMPLOYEE	TITLE	CURRENT LABOR HOURS	LABOR RATE	CURRENT LABOR AMOUNT
Walsh, Jean-Simon	Jr Technical I&C	15.00	\$110.00	\$1,650.00
TOTAL LABOR		453.75		\$82,362.50
		SUBTOTAL		\$82,362.50

OTHER DIRECT CHARGES	TYPE	CURRENT QUANTITY	UNIT RATE	CURRENT AMOUNT
Rubel, Brian M.	Mileage (unit)	139.00	\$0.58	\$80.62
TOTAL OTHER DIRECT CHARGES				\$80.62
		SUBTOTAL		\$80.62

Total Top Task# 01D **\$82,443.12**

Total Project# 200-16347-19001 **\$105,806.32**

TOTAL AMOUNT DUE THIS INVOICE: **\$105,806.32**

Gross Contract Summary	
Contract Amount	\$481,098.00
Previously Billed	\$75,587.33
Current Billing	\$105,806.32
Total Billed to Date	\$181,393.65
Contract Balance Remaining	\$299,704.35

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.



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 Arborvitae Drive, SE Grand Rapids, Michigan 49546

ACH

Attention: Brian Rubel PE
Tetra Tech Mps
710 Avis Drive Suite 100
Ann Arbor, MI 48108
United States

103976
200-16347-19001.XXX
SUB-EXT
200 IEW AA

Invoice : 386737
Invoice Date : 10/14/2019
Project : 190884
Project Name : Macomb Co PW/In-system Storage
Bill Term : 1

P.O. 1166522: X

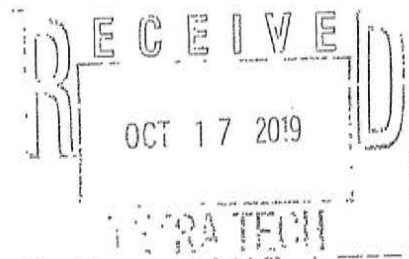
For Professional Services Rendered Through 10/4/2019

Your Project : xxxxx

WO190xx

	Fee	Available	Billings		
			To Date	Previous	Current
1.A - Task 1A - 8.5 Mile Project Management	5,000.00	3,953.65	2,008.85 (2)	1,046.35	.01AS 962.50
- Rate Labor		962.50			
1.B - Task 1B - 8.5 Mile Infrastructure Survey	66,655.00	26,614.02	62,441.68 (2)	40,040.98	.01BS 22,400.70
Rate Labor		21,198.00			
Unit Rate Expense		1,202.70			
Total Expense		1,202.70			
1.C - Task 1C - 8.5 Mile Utility Survey	16,964.00	16,964.00	0.00	0.00	0.00
1.D - Task 1D - 8.5 Mile BOD	23,248.00	23,248.00	0.00	0.00	0.00
Current Billings					<u>23,363.20</u>
Amount Due This Bill					<u>23,363.20</u>

OK to pay when paid
B. Rubel
10/17/19
200-16347-19001



1.A - Task 1A - 8.5 Mile Project Management

Rate Labor

<u>Class</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
Senior Engineer	5.50	175.0000	962.50
Total Rate Labor			962.50

1.B - Task 1B - 8.5 Mile Infrastructure Survey

Rate Labor

<u>Class</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
Geographic Information Systems Manager	0.50	164.0000	82.00
Senior Engineer	2.00	164.0000	328.00
Senior Engineering Specialist	0.50	136.0000	68.00
Senior Surveyor	100.50	130.0000	13,065.00
Senior Technician	6.00	105.0000	630.00
Staff Engineering Specialist	3.00	89.0000	267.00
Staff Surveyor	62.50	92.0000	5,750.00
Staff Technician	12.00	84.0000	1,008.00
Total Rate Labor			21,198.00

Unit Rate Expenses

Account / Unit

<u>Account / Unit</u>	<u>Quantity</u>	<u>Rate</u>	<u>Amount</u>
Company Vehicle Use			
Mileage - Company Vehicle	1,266.00	0.9500	1,202.70
Total Company Vehicle Use			1,202.70
Total Unit Rate Expenses			1,202.70

Total Bill Task: 1.B - Task 1B - 8.5 Mile Infrastructure Survey

22,400.70

Total Project: 190884 - Macomb Co PW/In-system Storage

23,363.20



PROJECT STATUS COMMUNICATION

DATE: November 4, 2019

PREPARED BY: Brian Rubel / Eric Geerlings

PROJECT: Macomb Co. In-System Storage Devices

Tt PROJECT NO: 200-16347-19001 CONTACT: Mr. Vince Astorino
(INVOICE 51519169)

Tasks completed or in-progress since last status communication.

September Updates:

Continued review and analysis of the existing SWMM and updated SWMM received on 7/25.
Continued Real-Time Control (RTC) scheme rule development for the proposed in-system storage devices.
Continued development of control structure device options for Welsh Family Park that include passive overflow.
On October 10th, held a face to face monthly meeting with MCPWO to review storage structures, devices, and initial RTC results.
On October 11th, MCPWO removed the (I-94) Beaconsfield and Oak location as an option for in-system storage.
On October 17th, held a skype meeting with MCPWO to discuss RTC and Dewatering.
On October 22nd, held an internal task kickoff meeting for Transient Analysis with Dr. Steve Wright.

Opportunities for cost avoidance or added value.

Impediments, roadblocks, assistance needed.

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

Funding was not achieved for 9-Mile work that created some inefficiencies for the 8.5-Mile work. MCPWO and Tetra Tech agreed to revisit this as the study progressed.
MCPWO removed the I-94 site from the scope. This may allow more work to be performed during the study to save cost during design and/or eliminate some inefficiencies mentioned above.

Schedule:

November 4th is a meeting with the City of St. Clair Shores Parks and Maintenance Department.
November 20th is the next scheduled Progress Meeting.

Next task or action items.

1. Initiate Utility and Boundary Survey, including pulling titles to confirm relevant easements
2. Initiate Community Enhancement Design and Landscape Architecture
3. Complete SWMM analysis to develop RTC schemes and further refine in-system storage devices
4. Continue using the FTC&H infrastructure survey data and MCPWO Chapaton Pump Station information to update the SWMM
5. Complete Control Structure Selection
6. Complete Transient Evaluation
7. Initiate Geotechnical Evaluation
8. Initiate Permit Requirements
9. Initiate Risk Analysis
10. Initiate Feasibility Analysis
11. Initiate EGLE Coordination near the end of the month.

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

Brian Rubel Phone: (734) 213-4081 Email: Brian.Rubel@tetrattech.com
Project Manager



ONESolution

ACCOUNTS PAYABLE CHECK REQUEST

PUBLIC WORKS DIVISION

Mark A. Hackel
County Executive

1. PREPARED BY (Please Type) Michelle Houvener	2. PHONE # 95966	3. DATE 11/6/19
4. SET ID VP191107MC		
5. POST DATE		

PARENT RECORD INFORMATION	
6. VENDOR NAME (Check to be issued to) Wade Trim	7. VENDOR NUMBER V09446
8. ADDR CODE 02	9. Invoice No (MAX = 16 CHARACTERS) 2016150 (FY19/FY20)
10. Invoice Date Multiple	11. Invoice Amount \$ 140,190.80

CHILD RECORD DETAIL INFORMATION										
Line	General Ledger			Job Ledger		16. Work Order Number	OPTIONAL			22. Sep CK
	12. Org Key	13. Object	14. Cost Center (CCNT)	15. Object	17. Secondary Reference (MAX = 16 CHARACTERS)		18. Description (MAX = 30 CHARACTERS)	19. Amount	20. DIV	
A	8200017C	80138	CC0004	80138	WO19004	8 1/2 Mile Relief	Pjt #MCW200501T, 9/21-9/30	\$ 19,788.75	GEN	
B	8210017C	80138	CC0004	80138	WO19004	8 1/2 Mile Relief	Pjt #MCW200501T, 10/1-10/25	\$ 120,402.05	GEN	0
C										
D										
E										
F										
G										

REV 09/2018

23. Total: \$ **140,190.80**

24. COMMENTS, INSTRUCTIONS OR ADDITIONAL NOTES:
Chapaton RTB Canal Upgrades, 9/21-10/25

25. Finance Officer:	<i>blm</i>	30. Drain:	8 1/2 Mile Relief
26. Chief Deputy:	<i>AB</i>	31. Project Balance:	\$383,188.42 (Grant Balance: \$2,330,577.42)
27. Engineers:		32. Staff Date:	11/6/2019
28. Managers:	<i>WT</i>	33. Board Date:	12/9/2019
29. Coordinator:	<i>WJ</i>	34. Select For Pay Date:	



25251 Northline Road • Taylor, MI 48180
734.947.9700 • www.wadetrim.com

INVOICE

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

ACH payments accepted. Send inquiries to remit@wadetrim.com

Remit Payment To: Wade Trim, 25251 Northline Road, Taylor, MI 48180

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

Invoice : 2016150
Invoice Date : 11/1/2019
Project : MCW200501T
Project Name : Chapaton RTB Canal Upgrades

For Professional Services Rendered For 9/21/2019 Through 10/25/2019

** All subconsultant invoices marked up 5% **

		Billings				
		Fee	Available	To Date	Previous	Current
		1,052,611.00	523,379.22	669,422.58	529,231.78	140,190.80
Rate Labor	119,393.25					
Expenses	20,482.45					
Unit Rate Expense	315.10					
Total Expense	20,797.55					
Current Billings						<u>140,190.80</u>
Amount Due This Bill						<u>140,190.80</u>

Total Fee : 1,052,611.00
To Date Billings : 669,422.58
Total Remaining : 383,188.42

FY 2019 \$ 19,788.75

FY 2020
\$ 120,402.05

\$3M Grant Balance \$ 2,330,577.42
WadeTrim Eng. Balance \$ 383,188.42

1A1 - Project Management

Rate Labor

<u>Class / Employee</u>	<u>Date</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
Senior Professional				
John Arvai	9/23/2019	2.00	215.0000	430.00 *
	9/25/2019	0.50	215.0000	107.50 *
	9/30/2019	2.00	215.0000	430.00 *
	10/1/2019	2.00	215.0000	430.00
	10/3/2019	2.00	215.0000	430.00
	10/4/2019	2.00	215.0000	430.00
	10/7/2019	1.00	215.0000	215.00
	10/8/2019	0.50	215.0000	107.50
	10/14/2019	2.00	215.0000	430.00
	10/18/2019	2.00	215.0000	430.00
	10/21/2019	2.00	215.0000	430.00
	10/23/2019	2.00	215.0000	430.00
	10/24/2019	2.00	215.0000	430.00
	10/25/2019	1.00	215.0000	215.00
Total Senior Professional		23.00		4,945.00
			Total Rate Labor	4,945.00
Total Bill Task: 1A1 - Project Management				4,945.00

1A2 - Project Management Support

Rate Labor

<u>Class / Employee</u>	<u>Date</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
Engineer I				
Jason Obrycki-Smith	9/23/2019	3.50	100.0000	350.00 *
	9/24/2019	3.00	100.0000	300.00 *
	9/25/2019	2.00	100.0000	200.00 *
	9/26/2019	3.00	100.0000	300.00 *
	9/30/2019	2.00	100.0000	200.00 *
	10/13/2019	0.50	100.0000	50.00
Tyler S Davidek	10/3/2019	2.00	100.0000	200.00
	10/4/2019	5.00	100.0000	500.00
Total Engineer I		21.00		2,100.00
			Total Rate Labor	2,100.00
Total Bill Task: 1A2 - Project Management Support				2,100.00

1EXP - Project Management Expenses

Unit Rate Expenses

<u>Account / Unit / Vendor</u>	<u>Quantity</u>	<u>Rate</u>	<u>Amount</u>
Employee Mileage - Regular Rate			
Employee Mileage			
John Arvai	90.00	0.6400	57.60
			Total Unit Rate Expenses
			57.60

3D1 - 60% Process

Rate Labor

Class / Employee

Engineer I

Jason Obrycki-Smith

	Date	Hours	Rate	Amount
	9/24/2019	3.00	100.0000	300.00 *
	9/26/2019	5.00	100.0000	500.00 *
	9/27/2019	4.00	100.0000	400.00 *
		-----		-----
Total Engineer I		12.00		1,200.00

Principal

Steven A Kalinowski

	9/23/2019	1.00	230.0000	230.00 *
	9/26/2019	1.00	230.0000	230.00 *
	10/2/2019	1.00	230.0000	230.00
	10/8/2019	1.00	230.0000	230.00
	10/9/2019	2.00	230.0000	460.00
	10/10/2019	1.00	230.0000	230.00
	10/17/2019	1.00	230.0000	230.00
	10/18/2019	1.00	230.0000	230.00
	10/23/2019	1.00	230.0000	230.00
		-----		-----
Total Principal		10.00		2,300.00

Project Specialist II

John K Golden

	10/15/2019	2.00	150.0000	300.00
	10/16/2019	6.50	150.0000	975.00
	10/17/2019	7.00	150.0000	1,050.00
	10/18/2019	5.00	150.0000	750.00
	10/21/2019	7.00	150.0000	1,050.00
	10/22/2019	3.50	150.0000	525.00
	10/23/2019	6.50	150.0000	975.00
	10/24/2019	8.00	150.0000	1,200.00
	10/25/2019	6.25	150.0000	937.50
		-----		-----
Total Project Specialist II		51.75		7,762.50

Senior Professional

David L Anthony
Jeffrey W Reynhout

	10/10/2019	6.00	215.0000	1,290.00
	9/23/2019	2.00	215.0000	430.00 *
	9/24/2019	3.00	215.0000	645.00 *
	9/26/2019	1.00	215.0000	215.00 *
	9/30/2019	2.00	215.0000	430.00 *
	10/2/2019	2.00	215.0000	430.00
	10/4/2019	2.00	215.0000	430.00
	10/7/2019	2.00	215.0000	430.00
	10/8/2019	1.00	215.0000	215.00
	10/9/2019	7.00	215.0000	1,505.00
	10/10/2019	6.00	215.0000	1,290.00
	10/11/2019	6.00	215.0000	1,290.00
	10/14/2019	6.00	215.0000	1,290.00
	10/15/2019	3.00	215.0000	645.00
	10/16/2019	3.00	215.0000	645.00

3D1 - 60% Process

Rate Labor

<i>Class / Employee</i>	<i>Date</i>	<i>Hours</i>	<i>Rate</i>	<i>Amount</i>
Senior Professional				
Jeffrey W Reynhout	10/18/2019	4.00	215.0000	860.00
	10/21/2019	4.00	215.0000	860.00
	10/22/2019	5.00	215.0000	1,075.00
	10/23/2019	2.00	215.0000	430.00
	10/24/2019	4.00	215.0000	860.00
	10/25/2019	2.00	215.0000	430.00
		-----		-----
Total Senior Professional		73.00		15,695.00
			Total Rate Labor	26,957.50
Total Bill Task: 3D1 - 60% Process				26,957.50

3D10 - 60% Permit Assistance

Rate Labor

<i>Class / Employee</i>	<i>Date</i>	<i>Hours</i>	<i>Rate</i>	<i>Amount</i>
Engineer I				
Jason Obrycki-Smith	10/15/2019	0.50	100.0000	50.00
	10/23/2019	3.00	100.0000	300.00
		-----		-----
Total Engineer I		3.50		350.00
Principal				
Steven A Kalinowski	9/24/2019	1.00	230.0000	230.00
	9/25/2019	1.00	230.0000	230.00
	9/26/2019	1.00	230.0000	230.00
	10/3/2019	2.00	230.0000	460.00
	10/4/2019	2.00	230.0000	460.00
	10/7/2019	1.00	230.0000	230.00
	10/9/2019	1.00	230.0000	230.00
	10/11/2019	2.00	230.0000	460.00
	10/14/2019	1.00	230.0000	230.00
	10/15/2019	2.00	230.0000	460.00
	10/17/2019	1.00	230.0000	230.00
	10/18/2019	1.00	230.0000	230.00
	10/21/2019	2.00	230.0000	460.00
	10/23/2019	1.00	230.0000	230.00
	10/25/2019	2.00	230.0000	460.00
Anthony C Igwe	9/23/2019	4.00	230.0000	920.00
	9/24/2019	2.00	230.0000	460.00
	9/25/2019	2.00	230.0000	460.00
	9/26/2019	2.00	230.0000	460.00
	9/27/2019	3.00	230.0000	690.00
	10/1/2019	2.00	230.0000	460.00
	10/2/2019	2.00	230.0000	460.00
	10/3/2019	1.00	230.0000	230.00
	10/4/2019	3.00	230.0000	690.00

3D10 - 60% Permit Assistance

Rate Labor

Class / Employee

Principal

Anthony C Igwe

Date	Hours	Rate	Amount
10/7/2019	2.00	230.0000	460.00
10/8/2019	2.00	230.0000	460.00
10/10/2019	2.00	230.0000	460.00
10/17/2019	2.00	230.0000	460.00
10/18/2019	4.00	230.0000	920.00
10/21/2019	1.00	230.0000	230.00
10/22/2019	1.00	230.0000	230.00
10/24/2019	2.00	230.0000	460.00
10/25/2019	1.00	230.0000	230.00
	-----		-----
	59.00		13,570.00

Total Principal

Senior Professional

John Arvai

9/25/2019	0.50	215.0000	107.50
10/2/2019	0.50	215.0000	107.50
10/4/2019	1.00	215.0000	215.00
10/8/2019	0.50	215.0000	107.50
10/15/2019	0.50	215.0000	107.50

David L Anthony

9/23/2019	1.50	215.0000	322.50
10/1/2019	1.00	215.0000	215.00
10/4/2019	4.00	215.0000	860.00
10/14/2019	2.00	215.0000	430.00
10/18/2019	6.00	215.0000	1,290.00
	-----		-----
	17.50		3,762.50

Total Senior Professional

Total Rate Labor

17,682.50

Total Bill Task: 3D10 - 60% Permit Assistance

17,682.50

3D13 - 60% Engineer's Cost Estimate

Rate Labor

Class / Employee

Senior Professional

John Arvai

Date	Hours	Rate	Amount
10/23/2019	1.00	215.0000	215.00

Total Rate Labor

215.00

3D14 - 60% Meetings

Rate Labor

Class / Employee

Engineer I

Jason Obrycki-Smith

9/25/2019	6.00	100.0000	600.00
10/10/2019	2.00	100.0000	200.00
	-----		-----
	8.00		800.00

Total Engineer I

Principal

Steven A Kalinowski

9/23/2019	2.00	230.0000	460.00
9/24/2019	4.00	230.0000	920.00

3D14 - 60% Meetings

Rate Labor

Class / Employee

Date

Hours

Rate

Amount

Principal

Steven A Kalinowski

10/22/2019

3.00

230.0000

690.00

Total Principal

9.00

2,070.00

Senior Professional

John Arvai

9/24/2019

0.50

215.0000

107.50

9/25/2019

3.50

215.0000

752.50

10/10/2019

1.00

215.0000

215.00

10/18/2019

2.00

215.0000

430.00

10/22/2019

3.00

215.0000

645.00

10/25/2019

1.50

215.0000

322.50

Total Senior Professional

11.50

2,472.50

Total Rate Labor

5,342.50

Total Bill Task: 3D14 - 60% Meetings

5,342.50

3D2 - 60% Electrical & I&C

Rate Labor

Class / Employee

Date

Hours

Rate

Amount

Engineer III

Thomas J Stark

10/14/2019

4.00

130.0000

520.00

10/18/2019

4.00

130.0000

520.00

10/21/2019

4.00

130.0000

520.00

10/24/2019

6.00

130.0000

780.00

Kyle J Thomas

10/9/2019

8.00

130.0000

1,040.00

10/14/2019

3.00

130.0000

390.00

Total Engineer III

29.00

3,770.00

Engineering Specialist II

Robert J Marker

10/8/2019

0.50

170.0000

85.00

10/10/2019

0.50

170.0000

85.00

10/21/2019

1.00

170.0000

170.00

Total Engineering Specialist II

2.00

340.00

Principal

Steven A Kalinowski

10/2/2019

1.00

230.0000

230.00

10/14/2019

1.00

230.0000

230.00

10/23/2019

1.00

230.0000

230.00

Total Principal

3.00

690.00

Senior Professional

Alan M Schwab

10/18/2019

7.00

215.0000

1,505.00

10/21/2019

8.00

215.0000

1,720.00

10/22/2019

8.00

215.0000

1,720.00

10/23/2019

8.00

215.0000

1,720.00

10/24/2019

5.00

215.0000

1,075.00

3D2 - 60% Electrical & I&C

Rate Labor

<i>Class / Employee</i>	<i>Date</i>	<i>Hours</i>	<i>Rate</i>	<i>Amount</i>
Senior Professional				
Alan M Schwab	10/25/2019	8.00	215.0000	1,720.00
Total Senior Professional		44.00		9,460.00
			Total Rate Labor	14,260.00
Total Bill Task: 3D2 - 60% Electrical & I&C				14,260.00

3D3 - 60% Landscape/Green Infrastructure

Rate Labor

<i>Class / Employee</i>	<i>Date</i>	<i>Hours</i>	<i>Rate</i>	<i>Amount</i>
Engineering Specialist II				
Robert J Marker	10/8/2019	0.50	170.0000	85.00
	10/10/2019	0.50	170.0000	85.00
	10/21/2019	1.00	170.0000	170.00
Total Engineering Specialist II		2.00		340.00
LA Staff				
Catherine A Dennis	10/17/2019	1.50	100.0000	150.00
	10/18/2019	3.50	100.0000	350.00
	10/22/2019	3.50	100.0000	350.00
	10/23/2019	3.00	100.0000	300.00
	10/25/2019	4.50	100.0000	450.00
Melissa O Hernandez	10/22/2019	4.00	100.0000	400.00
	10/23/2019	7.50	100.0000	750.00
	10/25/2019	7.50	100.0000	750.00
Total LA Staff		35.00		3,500.00
Landscape Architect II				
David M Richards	10/23/2019	2.00	85.0000	170.00
	10/25/2019	2.00	85.0000	170.00
Total Landscape Architect II		4.00		340.00
Principal				
Steven A Kalinowski	9/25/2019	2.00	230.0000	460.00
	10/4/2019	1.00	230.0000	230.00
	10/10/2019	2.00	230.0000	460.00
	10/17/2019	2.00	230.0000	460.00
	10/18/2019	1.00	230.0000	230.00
	10/21/2019	1.00	230.0000	230.00
	10/23/2019	1.00	230.0000	230.00
Total Principal		10.00		2,300.00
Professional LA III				
Scot Lautzenheiser	10/15/2019	0.75	150.0000	112.50
	10/17/2019	0.75	150.0000	112.50
	10/18/2019	0.50	150.0000	75.00

3D3 - 60% Landscape/Green Infrastructure

Rate Labor

Class / Employee	Date	Hours	Rate	Amount
Professional LA III				
Scot Lautzenheiser	10/22/2019	1.25	150.0000	187.50
	10/23/2019	0.75	150.0000	112.50
	10/24/2019	0.50	150.0000	75.00
	10/25/2019	1.00	150.0000	150.00
		-----		-----
Total Professional LA III		5.50		825.00
Project Specialist II				
John K Golden	10/2/2019	1.00	150.0000	150.00
Senior Professional				
John Arvai	10/18/2019	1.00	215.0000	215.00
	10/23/2019	0.50	215.0000	107.50
	10/25/2019	0.50	215.0000	107.50
David L Anthony	10/21/2019	5.50	215.0000	1,182.50
		-----		-----
Total Senior Professional		7.50		1,612.50
			Total Rate Labor	9,067.50
Total Bill Task: 3D3 - 60% Landscape/Green Infrastructure				9,067.50

3D4 - 60% Structural

Rate Labor

Class / Employee	Date	Hours	Rate	Amount
Engineer I				
Lauren A Woods	10/23/2019	1.00	100.0000	100.00
	10/24/2019	6.00	100.0000	600.00
	10/25/2019	3.00	100.0000	300.00
		-----		-----
Total Engineer I		10.00		1,000.00
Engineer IV				
Tyler Barkho	9/30/2019	1.00	150.0000	150.00
	10/1/2019	3.00	150.0000	450.00
	10/2/2019	3.00	150.0000	450.00
	10/3/2019	1.50	150.0000	225.00
	10/17/2019	4.00	150.0000	600.00
	10/18/2019	2.00	150.0000	300.00
	10/21/2019	2.00	150.0000	300.00
	10/22/2019	1.00	150.0000	150.00
	10/23/2019	3.00	150.0000	450.00
	10/24/2019	2.00	150.0000	300.00
	10/25/2019	1.00	150.0000	150.00
		-----		-----
Total Engineer IV		23.50		3,525.00
Engineering Specialist II				
Robert J Marker	10/8/2019	0.50	170.0000	85.00
	10/9/2019	0.50	170.0000	85.00
	10/21/2019	1.00	170.0000	170.00
		-----		-----
Total Engineering Specialist II		2.00		340.00

3D4 - 60% Structural

Rate Labor

<u>Class / Employee</u>	<u>Date</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
Senior Professional				
James K White	9/23/2019	2.00	215.0000	430.00
	9/25/2019	2.00	215.0000	430.00
	9/27/2019	2.00	215.0000	430.00
	10/2/2019	4.00	215.0000	860.00
	10/3/2019	2.00	215.0000	430.00
	10/10/2019	2.00	215.0000	430.00
	10/11/2019	5.00	215.0000	1,075.00
	10/22/2019	4.00	215.0000	860.00
	10/23/2019	4.00	215.0000	860.00
John Arvai	10/10/2019	1.00	215.0000	215.00
	10/17/2019	1.00	215.0000	215.00
		-----		6,235.00
Total Senior Professional		29.00		
	Total Rate Labor			11,100.00
Total Bill Task: 3D4 - 60% Structural				11,100.00

3D5 - 60% Mechanical

Rate Labor

<u>Class / Employee</u>	<u>Date</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
Engineer I				
Jason Obrycki-Smith	9/30/2019	6.00	100.0000	600.00
	10/1/2019	8.00	100.0000	800.00
	10/22/2019	5.00	100.0000	500.00
		-----		1,900.00
Total Engineer I		19.00		
Engineering Specialist II				
Robert J Marker	10/8/2019	0.50	170.0000	85.00
	10/9/2019	0.50	170.0000	85.00
	10/21/2019	1.00	170.0000	170.00
		-----		340.00
Total Engineering Specialist II		2.00		
	Total Rate Labor			2,240.00
Total Bill Task: 3D5 - 60% Mechanical				2,240.00

3D6 - 60% Civil / Site

Rate Labor

<u>Class / Employee</u>	<u>Date</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
CADD Technician II				
Blake Lieffers	9/30/2019	6.00	75.0000	450.00
Engineer IV				
Tyler Barkho	9/23/2019	4.00	150.0000	600.00
	9/24/2019	4.00	150.0000	600.00
	9/30/2019	3.00	150.0000	450.00
	10/1/2019	5.00	150.0000	750.00
	10/2/2019	5.00	150.0000	750.00

3D6 - 60% Civil / Site

Rate Labor

Class / Employee

Engineer IV

Tyler Barkho

<i>Date</i>	<i>Hours</i>	<i>Rate</i>	<i>Amount</i>
10/3/2019	5.00	150.0000	750.00
10/9/2019	4.00	150.0000	600.00
10/11/2019	8.00	150.0000	1,200.00
10/14/2019	8.00	150.0000	1,200.00
10/15/2019	8.00	150.0000	1,200.00
10/16/2019	7.50	150.0000	1,125.00
10/17/2019	4.00	150.0000	600.00
10/18/2019	6.00	150.0000	900.00
10/21/2019	6.00	150.0000	900.00
10/22/2019	5.00	150.0000	750.00
10/23/2019	5.00	150.0000	750.00
10/24/2019	6.00	150.0000	900.00
10/25/2019	7.00	150.0000	1,050.00
	-----		-----
	100.50		15,075.00

Total Engineer IV

Engineering Specialist II

Robert J Marker

10/8/2019	0.50	170.0000	85.00
10/9/2019	0.50	170.0000	85.00
10/17/2019	2.00	170.0000	340.00
10/21/2019	1.00	170.0000	170.00
	-----		-----
	4.00		680.00

Total Engineering Specialist II

Principal

Steven A Kalinowski

9/25/2019	2.00	230.0000	460.00
9/30/2019	1.00	230.0000	230.00
10/1/2019	1.00	230.0000	230.00
10/2/2019	1.00	230.0000	230.00
10/10/2019	2.00	230.0000	460.00
10/11/2019	2.00	230.0000	460.00
10/15/2019	1.00	230.0000	230.00
10/17/2019	1.00	230.0000	230.00
10/18/2019	2.00	230.0000	460.00
10/21/2019	1.00	230.0000	230.00
10/22/2019	1.00	230.0000	230.00
10/23/2019	1.00	230.0000	230.00
10/24/2019	2.00	230.0000	460.00
10/25/2019	1.00	230.0000	230.00
	-----		-----
	19.00		4,370.00

Total Principal

Professional Planner I

Michelle Leppek

10/24/2019	1.00	105.0000	105.00
------------	------	----------	--------

Senior Professional

John Arvai

10/10/2019	1.00	215.0000	215.00
10/14/2019	1.00	215.0000	215.00
10/15/2019	1.00	215.0000	215.00

3D6 - 60% Civil / Site

Rate Labor

Class / Employee	Date	Hours	Rate	Amount
Total Senior Professional		3.00		645.00
Survey Technician V				
Matthew J Dudzik				
	9/24/2019	3.50 OT	157.5000	551.25
	9/24/2019	8.00	105.0000	840.00
		-----		-----
Total Matthew J Dudzik		11.50		1,391.25
Total Survey Technician V		-----		-----
		11.50		1,391.25
Total Rate Labor				22,716.25

Unit Rate Expenses

Account / Unit / Vendor	Quantity	Rate	Amount
Equipment Usage Charges			
Daily Vehicle Charge			
Matthew J Dudzik	1.00	85.0000	85.00
Robotic Survey Equipment			
Matthew J Dudzik	11.50	15.0000	172.50
	-----		-----
Total Equipment Usage Charges	12.50		257.50
Total Unit Rate Expenses			257.50

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

22,973.75

3D7 - 60% QA / QC

Rate Labor

Class / Employee	Date	Hours	Rate	Amount
Engineering Specialist II				
Robert J Marker				
	10/8/2019	0.50	170.0000	85.00
	10/21/2019	1.00	170.0000	170.00
		-----		-----
Total Engineering Specialist II		1.50		255.00
Total Rate Labor				255.00

Total Bill Task: 3D7 - 60% QA / QC

255.00

3D8 - 60% Administrative

Rate Labor

Class / Employee	Date	Hours	Rate	Amount
Project Specialist I				
Kimberly M Addison				
	10/9/2019	0.70	110.0000	77.00
Total Rate Labor				77.00

3D9 - 60% Add'l Features Engineering

Rate Labor

Class / Employee	Date	Hours	Rate	Amount
Principal				
Steven A Kalinowski				
	9/25/2019	1.00	230.0000	230.00
	9/30/2019	1.00	230.0000	230.00
	10/9/2019	2.00	230.0000	460.00
	10/10/2019	1.00	230.0000	230.00
	10/17/2019	1.00	230.0000	230.00
	10/18/2019	1.00	230.0000	230.00
	10/21/2019	1.00	230.0000	230.00

3D9 - 60% Add'l Features Engineering

Rate Labor

<u>Class / Employee</u>	<u>Date</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
Principal				
Steven A Kalinowski	10/25/2019	1.00	230.0000	230.00
		-----		-----
Total Principal		9.00		2,070.00
Total Rate Labor				2,070.00
Total Bill Task: 3D9 - 60% Add'l Features Engineering				2,070.00

6A2 - NTH Consultants

Expenses

<u>Account / Vendor</u>	<u>Doc Number</u>	<u>Date</u>	<u>Cost</u>	<u>Multiplier</u>	<u>Amount</u>
Subconsultants					
NTH Consultants LTD	0020016862	10/23/2019	5,589.17	1.050	5,868.63
Total Expenses					5,868.63

6A3 - MKSK

Expenses

<u>Account / Vendor</u>	<u>Doc Number</u>	<u>Date</u>	<u>Cost</u>	<u>Multiplier</u>	<u>Amount</u>
Subconsultants					
MKSK INC	0020016863	10/24/2019	8,417.92	1.050	8,838.82
Total Expenses					8,838.82

6A4 - ASTI

Expenses

<u>Account / Vendor</u>	<u>Doc Number</u>	<u>Date</u>	<u>Cost</u>	<u>Multiplier</u>	<u>Amount</u>
Subconsultants					
ASTI Environmental Services	0020016931	10/18/2019	5,500.00	1.050	5,775.00
Total Expenses					5,775.00

7A1 - Flushing System Study

Rate Labor

<u>Class / Employee</u>	<u>Date</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
Project Specialist II				
John K Golden	10/25/2019	1.00	150.0000	150.00
Senior Professional				
John Arvai	10/25/2019	1.00	215.0000	215.00
Total Rate Labor				365.00
Total Bill Task: 7A1 - Flushing System Study				365.00

Total Project: MCW200501T - Chapaton RTB Canal Upgrades

140,190.80

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 25, 2019. Continued control parameter work and updated reports for inclusion in updated BOD. Development of open space planning concepts. Rendering development and attendance at local communities stakeholder meeting on October 22, 2019. Continue additional permitting efforts and assisting with coordinated response. Development of characterization report of existing conditions and biological resources for the Chapaton RTB canal. Regulatory review of EGLE part 22 GW Discharge rules and liner alternatives. Development of design soils profiles for various areas of the project. Conducting due diligence on architects for light house design. Continued progressing design drawings and specifications to 60% level.



NTH Consultants, Ltd.
 Infrastructure Engineering and
 Environmental Services

INVOICE

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

Invoice # : 620281
Project : 62190022
Invoice Group : **
Invoice Date : 10/23/2019

Attention: Accounts Payable

For Professional Services Rendered through: 10/18/2019

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	11,361.91	1,323.92	16,204.17
20 -- *C* - Preliminary Design	99,060.00	99,031.49	0.00	28.51
30 -- Final Design	91,200.00	1,275.00	4,265.25	85,659.75
40 -- Bidding Assistance	9,360.00	0.00	0.00	9,360.00
Project Total	228,510.00	111,668.40	5,589.17	111,252.43

Amount Due This Invoice : \$ 5,589.17

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

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

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



NTH Consultants, Ltd.

Infrastructure Engineering and Environmental Services

INVOICE

Project : 62190022 -- MCO - Chapaton RTB Canal Upgrades

Invoice # : 620281

Phase : 10 -- Project Management

Rate Schedule Labor	Date	Hours	Rate	Amount
Senior Officer				
Roarty, Charles	09/23/2019	1.00	215.00	215.00
	09/25/2019	4.00	215.00	860.00
	10/10/2019	1.00	215.00	215.00
Rate Schedule Labor		6.00		1,290.00

Unit Pricing Expenses	Units	Rate	Amount
Per Unit Expenses			
REIMBURSED MILEAGE	53.00 MILE(S) @	0.64	33.92
Unit Pricing			33.92

Total Phase : 10 -- Project Management

Labor : 1,290.00
Expense : 33.92

Phase : 30 -- Final Design

Rate Schedule Labor	Date	Hours	Rate	Amount
Cadd Operator				
Bryan, Stephen H.	10/16/2019	0.25 Overtime	85.00	21.25
Project Professional				
Hassan, Samer	10/14/2019	1.25	120.00	150.00
	10/15/2019	2.00	120.00	240.00
	10/16/2019	2.00	120.00	240.00
Senior Officer				
Roarty, Charles	09/24/2019	3.00	215.00	645.00
	09/25/2019	3.50	215.00	752.50
	10/15/2019	0.50	215.00	107.50
	10/16/2019	1.00	215.00	215.00
Sr Principal Engineer				
Venman, Bradley C.	09/25/2019	0.50	185.00	92.50
Sr Staff Professional				
Granger, Lauren	10/15/2019	0.50	100.00	50.00
	10/16/2019	3.00	100.00	300.00
	10/17/2019	6.50	100.00	650.00
	10/18/2019	8.00	100.00	800.00
Rate Schedule Labor		32.00		4,263.75

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

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

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



NTH Consultants, Ltd.

Infrastructure Engineering and Environmental Services

INVOICE

Project : 62190022 -- MCO - Chapaton RTB Canal Upgrades

Invoice #: 620281

Phase : 30 -- Final Design

<u>Unit Pricing Expenses</u>	<u>Units</u>	<u>Rate</u>	<u>Amount</u>
Per Unit Expenses	0.25 HOUR(S) @	6.00	1.50
CADD Supplies			1.50
<i>Unit Pricing</i>			
Total Phase : 30 -- Final Design		Labor :	4,263.75
		Expense :	1.50
Total Project : 62190022 -- MCO - Chapaton RTB Canal Upgrades			5,589.17

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.



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 2191280
 Date 10/23/2019
 Project **k18101 St Clair Shores, Chapaton CSO Basin**

Professional Services for the Period ended October 18, 2019:

****Service Summary****

Professional Fees

Standard Professional Services
 Preliminary - Final Design

	Hours	Rate	Billed Amount
Associate	0.50	150.00	75.00
Landscape Architect II	43.50	115.00	5,002.50
Principal	14.00	210.00	2,940.00
	2.00	190.00	380.00
Subtotal	60.00		3,320.00
Phase subtotal	60.00		8,397.50
Standard Professional Services subtotal			8,397.50
Professional Fees subtotal	60.00		8,397.50

Reimbursable Expenses

Reimbursable Expenses
 Reimbursable Expenses

	Units	Cost Amount	Rate	Billed Amount
Mileage	35.20	20.42	0.58	20.42
Reimbursable Expenses subtotal				20.42

Invoice total **8,417.92**



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

Invoice number 2191280
 Date 10/23/2019

Invoice Summary

Description	Contract Amount	Prior Billed	Total Billed	Current Billed
Standard Professional Services				
Preliminary - Final Design	24,380.00	570.00	8,967.50	8,397.50
Reimbursable Expenses				
Reimbursable Expenses	0.00	408.30	428.72	20.42
Total	24,380.00	978.30	9,396.22	8,417.92

Aging Summary

Invoice Number	Invoice Date	Outstanding	Current	Over 30	Over 60	Over 90	Over 120
2190920	08/23/2019	978.30			978.30		
2191280	10/23/2019	8,417.92	8,417.92				
Total		9,396.22	8,417.92	0.00	978.30	0.00	0.00

Approved by:

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

Professional Services for the Period ended October 18, 2019:

- Project Mobilization and Organization
- MKSK staff coordination
- Review of basin concept pdf's provided by wade trim via email correspondence
- Meeting with Wade Trim to review basin design updates
- Development of 60% Specifications, Permit Narrative, and Concept 3 Submittal
- Development of Plan Rendering



ASTI Environmental
P.O. Box 2160
Brighton, MI 48116-2160
810-225-2800
Fax 810-225-3800

INVOICE

WADE TRIM
25251 NORTHLINE ROAD
TAYLOR, MI 48180
ATTN: JOHN ARVALI, PE

INV. DATE: 10/18/19
INVOICE # : 035053
PROJECT # : 19-0101-0556
PERIOD END: 10/05/19
CLIENT REF:

CHAPATON CANAL BIOLOGICAL CHARACTER

NOTE: 2% DISCOUNT FOR NET 10 DAYS
TERMS: NET 15 DAYS

FOR PROFESSIONAL SERVICES PER CONTRACT DATED SEPTEMBER 16, 2019: CURRENT
CONDITION CHARACTERIZATION OF CHAPATON CANAL SUBMITTED OCTOBER 7, 2019.

AMOUNT DUE THIS INVOICE: 5,500.00

A Monthly Service Charge of 1.5% Will Be Applied to Delinquent Accounts



Mark A. Hackel
County Executive

ONESolution

ACCOUNTS PAYABLE CHECK REQUEST

PUBLIC WORKS DIVISION

1. PREPARED BY (Please Type) Michelle Houvener	2. PHONE # 95966	3. DATE 12/4/19
4. SET ID VP191205MA		
5. POST DATE		

PARENT RECORD INFORMATION				
6. VENDOR NAME (Check to be issued to) Wade Trim	7. VENDOR NUMBER V09446	8. ADDR CODE 02	9. Invoice No. (MAX = 16 CHARACTERS) 2016457	10. Invoice Date 12/4/2019
			11. Invoice Amount \$ 131,501.95	

CHILD RECORD DETAIL INFORMATION												
Line	General Ledger			15. Object	15. Object	15. Work Order Number	OPTIONAL		19. Amount	20. DIV	21. MISC	22. Sep CK
	12. Org Key	13. Object	14. Cost Center (CCNT)				17. Secondary Reference (MAX = 16 CHARACTERS)	18. Description (MAX = 30 CHARACTERS)				
A	8210017C	80138	CC0004	80138	WC19004	8 1/2 Mile Relief			\$ 131,501.95	GEN		
B												
C												
D												
E												
F												
G												
									23. Total: \$ 131,501.95			

REV 09/2018

24. COMMENTS, INSTRUCTIONS OR ADDITIONAL NOTES:
Chapaton RTB Canal Upgrades, 10/26-11/29

25. Finance Officer: <i>ahm</i>	30. Drain: 8 1/2 Mile Relief	
26. Chief Deputy: <i>BS</i>	31. Project Balance: \$251,686.47 (Grant Balance: \$2,199,075.47)	
27. Engineers:	32. Staff Date: 12/17/2019	
28. Managers: <i>kc</i>	33. Board Date: 1/13/2020	
29. Coordinator:	34. Select For Pay Date:	

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

WORK ORDER NUMBER	19004
PROJECT NUMBER	WWS-2019-002
PROJECT NAME	Chapaton RTB Canal Upgrades
DRAINAGE DISTRICT	Eight and One-Half Mile Drainage District
CONSULTANT NAME	Wade Trim Associates Inc
INVOICE DATE	12/4/2019
INVOICE START DATE	10/26/2019
INVOICE END DATE	11/29/2019
ORIGINAL CONTRACT AMOUNT	\$ 977,611.00
CHANGE ORDER TOTAL	\$ 75,000.00 ✓
Change Order No. 1	\$ 75,000.00
Change Order No. 2	
Change Order No. 3	
Change Order No. 4	
TOTAL REVISED CONTRACT AMOUNT	\$ 1,052,611.00
(includes all approved change orders only)	
TOTAL AMOUNT PREVIOUSLY INVOICED	\$ 669,422.58
TOTAL AMOUNT DUE THIS INVOICE	\$ 131,501.95
TOTAL BUDGET REMAINING	\$ 251,686.47
(Includes Total Revised Contract Amount Less Total Invoiced Previously and Total Invoiced Current)	



25251 Northline Road • Taylor, MI 48180
734.947.9700 • www.wadetrtrim.com

INVOICE

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

ACH payments accepted. Send inquiries to remit@wadetrtrim.com

Remit Payment To: Wade Trim, 25251 Northline Road, Taylor, MI 48180

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

Invoice : 2016457
Invoice Date : 12/4/2019
Project : MCW200501T
Project Name : Chapaton RTB Canal Upgrades

For Professional Services Rendered For 10/26/2019 Through 11/29/2019

** All subconsultant invoices marked up 5% **

		<u>Billings</u>				
		<u>Fee</u>	<u>Available</u>	<u>To Date</u>	<u>Previous</u>	<u>Current</u>
		1,052,611.00	383,188.42	800,924.53	669,422.58	131,501.95
<i>Rate Labor</i>	113,617.00					
<i>Multiplier Labor</i>	623.28					
<i>Total Labor</i>	114,240.28					
<i>Expenses</i>	16,891.75					
<i>Unit Rate Expense</i>	369.92					
<i>Total Expense</i>	17,261.67					
Current Billings						<u>131,501.95</u>
Amount Due This Bill						<u>131,501.95</u>

Total Fee : 1,052,611.00
To Date Billings : 800,924.53
Total Remaining : 251,686.47

Outstanding Receivables	<u>Invoice Number</u>	<u>Date</u>	<u>Amount</u>	<u>Balance Due</u>
	2016150	11/1/2019	140,190.80	<u>140,190.80</u>
				140,190.80

1A1 - Project Management

Rate Labor

Class / Employee

Date

Hours

Rate

Amount

Senior Professional

John Arvai

Date	Hours	Rate	Amount
10/28/2019	2.00	215.0000	430.00
10/29/2019	2.00	215.0000	430.00
10/30/2019	2.00	215.0000	430.00
10/31/2019	1.00	215.0000	215.00
11/1/2019	1.00	215.0000	215.00
11/4/2019	2.00	215.0000	430.00
11/11/2019	1.00	215.0000	215.00
11/12/2019	1.00	215.0000	215.00
11/14/2019	2.00	215.0000	430.00
11/21/2019	1.00	215.0000	215.00
11/22/2019	2.00	215.0000	430.00
11/25/2019	2.00	215.0000	430.00
	19.00		4,085.00

Total Senior Professional

Total Rate Labor

4,085.00

Total Bill Task: 1A1 - Project Management

4,085.00

1A2 - Project Management Support

Rate Labor

Class / Employee

Date

Hours

Rate

Amount

Engineer I

Jason Obrycki-Smith

Date	Hours	Rate	Amount
10/28/2019	1.00	100.0000	100.00
10/29/2019	2.00	100.0000	200.00
11/5/2019	2.00	100.0000	200.00
11/11/2019	1.50	100.0000	150.00
11/14/2019	1.50	100.0000	150.00
11/18/2019	5.00	100.0000	500.00
11/19/2019	5.00	100.0000	500.00
	18.00		1,800.00

Total Engineer I

Professional Engineer IV

Oskar E Nordstrom

Date	Hours	Rate	Amount
11/15/2019	0.25	190.0000	47.50
11/26/2019	1.50	190.0000	285.00
11/27/2019	1.00	190.0000	190.00
	2.75		522.50

Total Professional Engineer IV

Project Aide II

Melanie A Phillips

Date	Hours	Rate	Amount
10/28/2019	1.00	95.0000	95.00
11/18/2019	1.00	95.0000	95.00
	2.00		190.00

Total Project Aide II

Total Rate Labor

2,512.50

Total Bill Task: 1A2 - Project Management Support

2,512.50

1EXP - Project Management Expenses

Expenses

<i>Account / Vendor</i>	<i>Doc Number</i>	<i>Date</i>	<i>Cost</i>	<i>Multiplier</i>	<i>Amount</i>
Architectural/Engineering Supplies					
John Arvai	ER000151687	10/14/2019	11.99	1.100	13.19
Jason Obrycki-Smith	ER000151286	10/29/2019	11.99	1.100	13.19
	ER000151755	11/29/2019	11.99	1.100	13.19
			-----		-----
			23.98		26.38
			-----		-----
			35.97		39.57
Total Jason Obrycki-Smith					
Total Architectural/Engineering Supplies					
Total Expenses					39.57

Unit Rate Expenses

<i>Account / Unit / Vendor</i>	<i>Quantity</i>	<i>Rate</i>	<i>Amount</i>
Employee Mileage - Regular Rate			
Employee Mileage			
John Arvai	157.00	0.6400	100.48

			100.48
Total Employee Mileage - Regular Rate			
Total Unit Rate Expenses			100.48

Total Bill Task: 1EXP - Project Management Expenses

140.05

3D1 - 60% Process

Rate Labor

<i>Class / Employee</i>	<i>Date</i>	<i>Hours</i>	<i>Rate</i>	<i>Amount</i>
Engineer I				
Jason Obrycki-Smith	11/6/2019	3.00	100.0000	300.00
	11/7/2019	3.00	100.0000	300.00
	11/8/2019	2.00	100.0000	200.00
		-----		-----
		8.00		800.00
Total Engineer I				
Engineering Specialist II				
Robert J Marker	11/4/2019	1.00	170.0000	170.00
	11/5/2019	0.50	170.0000	85.00
		-----		-----
		1.50		255.00
Total Engineering Specialist II				
Principal				
Steven A Kalinowski	11/1/2019	1.00	230.0000	230.00
	11/4/2019	0.50	230.0000	115.00
		-----		-----
		1.50		345.00
Total Principal				
Project Specialist II				
John K Golden	10/28/2019	5.00	150.0000	750.00
	10/29/2019	1.00	150.0000	150.00
		-----		-----
		6.00		900.00
Total Project Specialist II				
Senior Professional				
Jeffrey W Reynhout	10/28/2019	3.00	215.0000	645.00
	10/29/2019	1.00	215.0000	215.00
	11/4/2019	1.00	215.0000	215.00
	11/6/2019	2.00	215.0000	430.00
		-----		-----
		7.00		1,505.00
Total Senior Professional				

3D1 - 60% Process

Total Rate Labor

3,805.00

3,805.00

Total Bill Task: 3D1 - 60% Process

3D10 - 60% Permit Assistance

Rate Labor

Class / Employee

Date

Hours

Rate

Amount

Engineer I

Jason Obrycki-Smith

11/6/2019

2.00

100.0000

200.00

11/7/2019

1.00

100.0000

100.00

11/8/2019

5.00

100.0000

500.00

8.00

800.00

Total Engineer I

Engineer IV

Tyler Barkho

11/4/2019

6.00

150.0000

900.00

11/6/2019

8.00

150.0000

1,200.00

11/7/2019

7.00

150.0000

1,050.00

11/8/2019

5.00

150.0000

750.00

26.00

3,900.00

Total Engineer IV

Landscape Architect II

David M Richards

11/4/2019

4.50

85.0000

382.50

11/7/2019

1.50

85.0000

127.50

6.00

510.00

Total Landscape Architect II

Principal

Steven A Kalinowski

10/28/2019

1.00

230.0000

230.00

10/30/2019

2.00

230.0000

460.00

10/31/2019

2.00

230.0000

460.00

11/5/2019

2.00

230.0000

460.00

11/6/2019

2.00

230.0000

460.00

11/7/2019

3.00

230.0000

690.00

11/8/2019

3.00

230.0000

690.00

11/11/2019

1.00

230.0000

230.00

11/12/2019

1.00

230.0000

230.00

11/13/2019

4.00

230.0000

920.00

11/14/2019

2.00

230.0000

460.00

11/18/2019

1.00

230.0000

230.00

11/19/2019

2.00

230.0000

460.00

11/20/2019

1.00

230.0000

230.00

11/22/2019

1.00

230.0000

230.00

11/27/2019

1.00

230.0000

230.00

Anthony C Igwe

11/11/2019

3.00

230.0000

690.00

11/12/2019

3.00

230.0000

690.00

11/15/2019

4.00

230.0000

920.00

11/18/2019

2.00

230.0000

460.00

11/19/2019

3.00

230.0000

690.00

11/20/2019

2.00

230.0000

460.00

3D10 - 60% Permit Assistance

Rate Labor

<i>Class / Employee</i>	<i>Date</i>	<i>Hours</i>	<i>Rate</i>	<i>Amount</i>
Total Principal		46.00		10,580.00
Senior Professional				
John Arvai	11/12/2019	0.50	215.0000	107.50
	11/15/2019	1.00	215.0000	215.00
	11/19/2019	1.00	215.0000	215.00
David L. Anthony	11/8/2019	2.00	215.0000	430.00
	11/19/2019	1.00	215.0000	215.00
Total Senior Professional		5.50		1,182.50
Total Rate Labor				16,972.50
Total Bill Task: 3D10 - 60% Permit Assistance				16,972.50

3D11 - 60% Constructability Review

Rate Labor

<i>Class / Employee</i>	<i>Date</i>	<i>Hours</i>	<i>Rate</i>	<i>Amount</i>
Professional LA III				
Scot Lautzenheiser	11/19/2019	0.25	150.0000	37.50
	11/27/2019	0.25	150.0000	37.50
Total Professional LA III		0.50		75.00
Total Rate Labor				75.00
Total Bill Task: 3D11 - 60% Constructability Review				75.00

3D12 - 60% Construction Schedule Update

Rate Labor

<i>Class / Employee</i>	<i>Date</i>	<i>Hours</i>	<i>Rate</i>	<i>Amount</i>
Senior Professional				
John Arvai	11/14/2019	0.50	215.0000	107.50
	11/18/2019	0.50	215.0000	107.50
	11/19/2019	0.50	215.0000	107.50
	11/25/2019	0.50	215.0000	107.50
	11/26/2019	1.00	215.0000	215.00
Total Senior Professional		3.00		645.00
Total Rate Labor				645.00
Total Bill Task: 3D12 - 60% Construction Schedule Update				645.00

3D13 - 60% Engineer's Cost Estimate

Rate Labor

<i>Class / Employee</i>	<i>Date</i>	<i>Hours</i>	<i>Rate</i>	<i>Amount</i>
Project Specialist III				
Daniel T DiPonio	10/29/2019	6.00	175.0000	1,050.00
	10/30/2019	4.00	175.0000	700.00
	11/4/2019	3.00	175.0000	525.00
	11/5/2019	1.00	175.0000	175.00
Total Project Specialist III		14.00		2,450.00

3D13 - 60% Engineer's Cost Estimate**Rate Labor**

<i>Class / Employee</i>	<i>Date</i>	<i>Hours</i>	<i>Rate</i>	<i>Amount</i>
Senior Professional				
John Arvai	10/28/2019	1.00	215.0000	215.00
	11/1/2019	1.50	215.0000	322.50
	11/5/2019	3.00	215.0000	645.00
	11/26/2019	1.00	215.0000	215.00
		-----		-----
Total Senior Professional		6.50		1,397.50
			Total Rate Labor	3,847.50
Total Bill Task: 3D13 - 60% Engineer's Cost Estimate				3,847.50

3D14 - 60% Meetings**Rate Labor**

<i>Class / Employee</i>	<i>Date</i>	<i>Hours</i>	<i>Rate</i>	<i>Amount</i>
Engineer I				
Jason Obrycki-Smith	10/30/2019	1.50	100.0000	150.00
Senior Professional				
John Arvai	10/30/2019	4.00	215.0000	860.00
	10/31/2019	0.50	215.0000	107.50
	11/11/2019	0.50	215.0000	107.50
	11/12/2019	0.50	215.0000	107.50
		-----		-----
Total Senior Professional		5.50		1,182.50
			Total Rate Labor	1,332.50
Total Bill Task: 3D14 - 60% Meetings				1,332.50

3D15 - 60% Review Workshop**Rate Labor**

<i>Class / Employee</i>	<i>Date</i>	<i>Hours</i>	<i>Rate</i>	<i>Amount</i>
Engineer I				
Jason Obrycki-Smith	11/19/2019	2.50	100.0000	250.00
	11/20/2019	4.00	100.0000	400.00
	11/21/2019	3.00	100.0000	300.00
	11/26/2019	0.50	100.0000	50.00
		-----		-----
Total Engineer I		10.00		1,000.00
Engineer III				
Thomas J Stark	11/25/2019	7.00	130.0000	910.00
LA Staff				
Catherine A Dennis	11/19/2019	2.50	100.0000	250.00
	11/29/2019	2.50	100.0000	250.00
		-----		-----
Total LA Staff		5.00		500.00
Senior Professional				
Alan M Schwab	11/19/2019	2.00	215.0000	430.00
	11/25/2019	8.00	215.0000	1,720.00
John Arvai	11/19/2019	2.00	215.0000	430.00

3D15 - 60% Review Workshop

Rate Labor

<i>Class / Employee</i>	<i>Date</i>	<i>Hours</i>	<i>Rate</i>	<i>Amount</i>
Senior Professional				
Jeffrey W Reynhout	11/19/2019	3.00	215.0000	645.00
	11/20/2019	1.00	215.0000	215.00
	11/21/2019	1.00	215.0000	215.00
	11/26/2019	1.00	215.0000	215.00
		-----		-----
Total Senior Professional		18.00		3,870.00
			Total Rate Labor	6,280.00
Total Bill Task: 3D15 - 60% Review Workshop				6,280.00

3D2 - 60% Electrical & I&C

Rate Labor

<i>Class / Employee</i>	<i>Date</i>	<i>Hours</i>	<i>Rate</i>	<i>Amount</i>
Engineer III				
Thomas J Stark	10/28/2019	8.00	130.0000	1,040.00
	10/29/2019	8.00	130.0000	1,040.00
	10/30/2019	4.00	130.0000	520.00
		-----		-----
Total Engineer III		20.00		2,600.00
Engineering Specialist II				
Robert J Marker	10/31/2019	0.50	170.0000	85.00
	11/4/2019	1.00	170.0000	170.00
	11/5/2019	0.50	170.0000	85.00
		-----		-----
Total Engineering Specialist II		2.00		340.00
Principal				
Steven A Kalinowski	10/30/2019	1.00	230.0000	230.00
	11/1/2019	1.00	230.0000	230.00
	11/4/2019	0.50	230.0000	115.00
		-----		-----
Total Principal		2.50		575.00
Project Specialist II				
John K Golden	10/29/2019	2.00	150.0000	300.00
Senior Professional				
Alan M Schwab	10/28/2019	8.00	215.0000	1,720.00
	10/29/2019	2.00	215.0000	430.00
	10/30/2019	8.00	215.0000	1,720.00
	10/31/2019	8.00	215.0000	1,720.00
	11/1/2019	4.00	215.0000	860.00
		-----		-----
Total Senior Professional		30.00		6,450.00
			Total Rate Labor	10,265.00
Total Bill Task: 3D2 - 60% Electrical & I&C				10,265.00

3D3 - 60% Landscape/Green Infrastructure

Rate Labor

<i>Class / Employee</i>	<i>Date</i>	<i>Hours</i>	<i>Rate</i>	<i>Amount</i>
Engineering Specialist II				
Robert J Marker	11/4/2019	1.00	170.0000	170.00
	11/5/2019	0.50	170.0000	85.00
		-----		-----
Total Engineering Specialist II		1.50		255.00
LA Staff				
Catherine A Dennis	11/7/2019	2.50	100.0000	250.00
Melissa O Hernandez	10/28/2019	3.50	100.0000	350.00
		-----		-----
Total LA Staff		6.00		600.00
Principal				
Steven A Kalinowski	10/31/2019	1.00	230.0000	230.00
	11/1/2019	1.00	230.0000	230.00
	11/4/2019	1.00	230.0000	230.00
	11/7/2019	1.00	230.0000	230.00
	11/8/2019	1.00	230.0000	230.00
	11/12/2019	1.00	230.0000	230.00
	11/14/2019	1.00	230.0000	230.00
		-----		-----
Total Principal		7.00		1,610.00
Professional LA III				
Scot Lautzenheiser	10/28/2019	1.50	150.0000	225.00
	11/4/2019	2.50	150.0000	375.00
	11/5/2019	0.25	150.0000	37.50
		-----		-----
Total Professional LA III		4.25		637.50
Senior Professional				
John Arvai	10/28/2019	1.00	215.0000	215.00
Total Rate Labor				3,317.50
Total Bill Task: 3D3 - 60% Landscape/Green Infrastructure				3,317.50

3D4 - 60% Structural

Rate Labor

<i>Class / Employee</i>	<i>Date</i>	<i>Hours</i>	<i>Rate</i>	<i>Amount</i>
CADD Technician I				
Rachelle Setser	11/13/2019	3.00	70.0000	210.00
Engineer II				
Zuzanna Sobczak	10/28/2019	1.00	110.0000	110.00
	10/29/2019	4.00	110.0000	440.00
	10/30/2019	5.00	110.0000	550.00
	11/5/2019	1.00	110.0000	110.00
	11/6/2019	3.00	110.0000	330.00
		-----		-----
Total Engineer II		14.00		1,540.00
Engineer IV				
Tyler Barkho	10/28/2019	5.00	150.0000	750.00
	10/29/2019	6.00	150.0000	900.00
	11/13/2019	1.00	150.0000	150.00

3D4 - 60% Structural

Rate Labor

Class / Employee

Engineer IV

Tyler Barkho

	<u>Date</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
	11/14/2019	1.00	150.0000	150.00
		-----		-----
		13.00		1,950.00

Total Engineer IV

Engineering Specialist II

Robert J Marker

	11/4/2019	1.00	170.0000	170.00
	11/5/2019	0.50	170.0000	85.00
		-----		-----
		1.50		255.00

Total Engineering Specialist II

Principal

Steven A Kalinowski

	11/7/2019	1.00	230.0000	230.00
--	-----------	------	----------	--------

Professional Engineer IV

Italo Gonzalez

	11/7/2019	8.00	190.0000	1,520.00
	11/8/2019	4.00	190.0000	760.00
	11/11/2019	8.00	190.0000	1,520.00
	11/12/2019	6.00	190.0000	1,140.00
	11/13/2019	2.00	190.0000	380.00
	11/15/2019	4.00	190.0000	760.00
		-----		-----
		32.00		6,080.00

Total Professional Engineer IV

Senior Professional

James K White

	10/28/2019	1.00	215.0000	215.00
	10/30/2019	3.00	215.0000	645.00
	11/1/2019	2.00	215.0000	430.00
	11/4/2019	4.00	215.0000	860.00
	11/7/2019	4.00	215.0000	860.00
	11/14/2019	1.00	215.0000	215.00
	11/15/2019	2.00	215.0000	430.00
	10/31/2019	0.50	215.0000	107.50
		-----		-----
		17.50		3,762.50

Total Senior Professional

Total Rate Labor

14,027.50

Total Bill Task: 3D4 - 60% Structural

14,027.50

3D5 - 60% Mechanical

Rate Labor

Class / Employee

Engineer I

Jason Obrycki-Smith

	<u>Date</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
	10/28/2019	3.00	100.0000	300.00
	10/31/2019	1.00	100.0000	100.00
	11/1/2019	1.50	100.0000	150.00
	11/4/2019	8.00	100.0000	800.00
	11/5/2019	4.00	100.0000	400.00
	11/6/2019	3.00	100.0000	300.00
	11/7/2019	2.00	100.0000	200.00
		-----		-----
		22.50		2,250.00

Total Engineer I

3D5 - 60% Mechanical

Rate Labor

<i>Class / Employee</i>	<i>Date</i>	<i>Hours</i>	<i>Rate</i>	<i>Amount</i>
Engineering Specialist II				
Robert J Marker	10/31/2019	2.00	170.0000	340.00
	11/4/2019	1.00	170.0000	170.00
	11/5/2019	0.50	170.0000	85.00
		-----		-----
Total Engineering Specialist II		3.50		595.00
			Total Rate Labor	2,845.00
Total Bill Task: 3D5 - 60% Mechanical				2,845.00

3D6 - 60% Civil / Site

Rate Labor

<i>Class / Employee</i>	<i>Date</i>	<i>Hours</i>	<i>Rate</i>	<i>Amount</i>
CADD Technician I				
Rachelle Setser	10/28/2019	1.00	70.0000	70.00
Engineer IV				
Tyler Barkho	10/28/2019	3.00	150.0000	450.00
	10/29/2019	2.00	150.0000	300.00
	10/30/2019	2.50	150.0000	375.00
	10/31/2019	0.50	150.0000	75.00
	11/1/2019	4.00	150.0000	600.00
	11/4/2019	1.00	150.0000	150.00
		-----		-----
Total Engineer IV		13.00		1,950.00
Engineering Specialist II				
Robert J Marker	11/1/2019	2.10	170.0000	357.00
	11/5/2019	1.50	170.0000	255.00
		-----		-----
Total Engineering Specialist II		3.60		612.00
Principal				
Steven A Kalinowski	10/28/2019	1.00	230.0000	230.00
	10/30/2019	1.00	230.0000	230.00
	10/31/2019	1.00	230.0000	230.00
	11/1/2019	1.00	230.0000	230.00
	11/4/2019	1.00	230.0000	230.00
	11/5/2019	2.00	230.0000	460.00
	11/7/2019	1.00	230.0000	230.00
	11/12/2019	1.00	230.0000	230.00
		-----		-----
Total Principal		9.00		2,070.00
			Total Rate Labor	4,702.00
Total Bill Task: 3D6 - 60% Civil / Site				4,702.00

3D7 - 60% QA / QC

Rate Labor

<i>Class / Employee</i>	<i>Date</i>	<i>Hours</i>	<i>Rate</i>	<i>Amount</i>
Engineer I				
Tyler S Davidek	10/31/2019	2.00	100.0000	200.00

3D7 - 60% QA / QC

Rate Labor

Class / Employee	Date	Hours	Rate	Amount
Engineer IV				
Tyler Barkho				
	11/20/2019	1.00	150.0000	150.00
	11/21/2019	7.00	150.0000	1,050.00
	11/22/2019	6.00	150.0000	900.00
	11/25/2019	8.00	150.0000	1,200.00
	11/26/2019	2.00	150.0000	300.00
	11/27/2019	4.00	150.0000	600.00
		-----		-----
Total Engineer IV		28.00		4,200.00

Principal

Steven A Kalinowski				
	11/4/2019	2.00	230.0000	460.00
	11/6/2019	1.00	230.0000	230.00
	11/8/2019	1.00	230.0000	230.00
	11/11/2019	1.00	230.0000	230.00
	11/14/2019	2.00	230.0000	460.00
	11/18/2019	1.00	230.0000	230.00
	11/19/2019	2.00	230.0000	460.00
	11/20/2019	2.00	230.0000	460.00
	11/22/2019	1.00	230.0000	230.00
	11/27/2019	1.00	230.0000	230.00
		-----		-----
Total Principal		14.00		3,220.00

Project Aide II

Jack R Simmons				
	11/18/2019	2.00	95.0000	190.00
	11/19/2019	1.00	95.0000	95.00
	11/20/2019	1.00	95.0000	95.00
	11/21/2019	2.00	95.0000	190.00
		-----		-----
Total Project Aide II		6.00		570.00

Total Rate Labor 8,190.00

Total Bill Task: 3D7 - 60% QA / QC 8,190.00

3D8 - 60% Administrative

Rate Labor

Class / Employee	Date	Hours	Rate	Amount
Project Aide II				
Jack R Simmons				
	11/11/2019	5.00	95.0000	475.00
	11/12/2019	5.00	95.0000	475.00
	11/13/2019	5.00	95.0000	475.00
		-----		-----
Total Project Aide II		15.00		1,425.00

Total Rate Labor 1,425.00

Total Bill Task: 3D8 - 60% Administrative 1,425.00

3D9 - 60% Add'l Features Engineering

Rate Labor

<u>Class / Employee</u>	<u>Date</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
Principal				
Steven A Kalinowski	10/31/2019	1.00	230.0000	230.00
	11/8/2019	1.00	230.0000	230.00
		-----		460.00
Total Principal		2.00		
	Total Rate Labor			460.00

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

460.00

3E13 - 90% Meetings

Rate Labor

<u>Class / Employee</u>	<u>Date</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
Senior Professional				
John Arvai	11/18/2019	0.50	215.0000	107.50
	11/20/2019	1.00	215.0000	215.00
	11/26/2019	0.50	215.0000	107.50
		-----		430.00
Total Senior Professional		2.00		
	Total Rate Labor			430.00

Total Bill Task: 3E13 - 90% Meetings

430.00

3E2 - 90% Electrical & I&C

Rate Labor

<u>Class / Employee</u>	<u>Date</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
Engineer III				
Thomas J Stark	11/26/2019	6.00	130.0000	780.00
	11/27/2019	7.00	130.0000	910.00
		-----		1,690.00
Total Engineer III		13.00		
	Total Rate Labor			1,690.00

Total Bill Task: 3E2 - 90% Electrical & I&C

1,690.00

3E15 - 90% Lighthouse

Rate Labor

<u>Class / Employee</u>	<u>Date</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
Principal				
Steven A Kalinowski	11/21/2019	1.00	230.0000	230.00
Project Specialist II				
John K Golden	11/21/2019	6.00	150.0000	900.00
	11/22/2019	0.50	150.0000	75.00
		-----		975.00
Total Project Specialist II		6.50		
Senior Professional				
James K White	11/20/2019	2.00	215.0000	430.00
John Arvai	11/20/2019	1.00	215.0000	215.00
	11/21/2019	1.50	215.0000	322.50
		-----		967.50
Total Senior Professional		4.50		
	Total Rate Labor			2,172.50

Total Bill Task: 3E15 - 90% Lighthouse 2,172.50

3E3 - 90% Landscape/Green Infrastructure

Rate Labor					
Class / Employee	Date	Hours	Rate	Amount	
LA Staff					
Melissa O Hernandez	11/27/2019	3.50	100.0000	350.00	
Total Rate Labor				350.00	

3E4 - 90% Structural

Rate Labor					
Class / Employee	Date	Hours	Rate	Amount	
CADD Technician I					
Rachelle Setser	11/22/2019	0.50	70.0000	35.00	
	11/25/2019	4.00	70.0000	280.00	
Total CADD Technician I				315.00	
Professional Engineer IV					
Italo Gonzalez	11/21/2019	3.00	190.0000	570.00	
	11/22/2019	8.00	190.0000	1,520.00	
	11/25/2019	3.00	190.0000	570.00	
	11/27/2019	8.00	190.0000	1,520.00	
Total Professional Engineer IV				4,180.00	
Senior Professional					
James K White	11/19/2019	2.00	215.0000	430.00	
	11/20/2019	2.00	215.0000	430.00	
	11/21/2019	2.00	215.0000	430.00	
Total Senior Professional				1,290.00	
Total Rate Labor				5,785.00	

Total Bill Task: 3E4 - 90% Structural 5,785.00

3E5 - 90% Mechanical

Rate Labor					
Class / Employee	Date	Hours	Rate	Amount	
Engineer I					
Jason Obrycki-Smith	11/22/2019	1.00	100.0000	100.00	
Total Rate Labor				100.00	

3EXP - Expenses

Expenses						
Account / Vendor	Doc Number	Date	Cost	Multiplier	Amount	
Employee Travel						
Italo Gonzalez	ER000151541	11/7/2019	5.75	1.100	6.33	
	ER000151541	11/7/2019	5.75	1.100	6.33	
	ER000151541	11/7/2019	25.00	1.100	27.50	
Total Italo Gonzalez				36.50	40.16	
Total Employee Travel				36.50	40.16	

3EXP - Expenses

Expenses

<i>Account / Vendor</i>	<i>Doc Number</i>	<i>Date</i>	<i>Cost</i>	<i>Multiplier</i>	<i>Amount</i>
Employee Travel / Subsistence					
Italo Gonzalez					
	ER000151541	11/7/2019	7.60	1.100	8.36
	ER000151541	11/7/2019	15.13	1.100	16.64
			22.73		25.00
Total Italo Gonzalez			22.73		25.00
Total Employee Travel / Subsistence					
	Total Expenses				65.16

Unit Rate Expenses

<i>Account / Unit / Vendor</i>	<i>Quantity</i>	<i>Rate</i>	<i>Amount</i>
Employee Mileage - Regular Rate			
Employee Mileage			
Jason Obrycki-Smith	71.00	0.6400	45.44
Employee Mileage - Regular Rate			
Employee Mileage			
Italo Gonzalez	350.00	0.6400	224.00
	Total Unit Rate Expenses		269.44
Total Bill Task: 3EXP - Expenses			334.60

6A1 - Applied Science

<i>Account / Vendor</i>	<i>Doc Number</i>	<i>Date</i>	<i>Cost</i>	<i>Multiplier</i>	<i>Amount</i>
Expenses					
Subconsultants					
Applied Science Inc	0020017182	11/26/2019	5,230.00	1.050	5,491.50
	Total Expenses				5,491.50

6A2 - NTH Consultants

<i>Account / Vendor</i>	<i>Doc Number</i>	<i>Date</i>	<i>Cost</i>	<i>Multiplier</i>	<i>Amount</i>
Expenses					
Subconsultants					
NTH Consultants LTD	0020017138	11/15/2019	4,748.50	1.050	4,985.93
	Total Expenses				4,985.93

6A3 - MKSK

<i>Account / Vendor</i>	<i>Doc Number</i>	<i>Date</i>	<i>Cost</i>	<i>Multiplier</i>	<i>Amount</i>
Expenses					
Subconsultants					
MKSK INC	0020017163	10/31/2019	6,009.13	1.050	6,309.59
	Total Expenses				6,309.59

7A1 - Flushing System Study

<i>Class / Employee</i>	<i>Date</i>	<i>Hours</i>	<i>Rate</i>	<i>Amount</i>
Rate Labor				
Engineer I				
Tyler S Davidek				
	10/31/2019	1.00	100.0000	100.00
	11/1/2019	5.00	100.0000	500.00
	11/4/2019	2.00	100.0000	200.00
	11/12/2019	2.00	100.0000	200.00
	11/13/2019	1.50	100.0000	150.00
	11/14/2019	8.00	100.0000	800.00

7A1 - Flushing System Study

Rate Labor

Class / Employee

	<u>Date</u>	<u>Hours</u>	<u>Rate</u>	<u>Amount</u>
Engineer I				
Tyler S Davidek				
	11/15/2019	7.00	100.0000	700.00
	11/18/2019	5.00	100.0000	500.00
	11/19/2019	8.00	100.0000	800.00
	11/20/2019	7.00	100.0000	700.00
	11/21/2019	5.00	100.0000	500.00
	11/22/2019	2.00	100.0000	200.00
	11/25/2019	7.00	100.0000	700.00
	11/26/2019	5.00	100.0000	500.00
	11/27/2019	2.00	100.0000	200.00
		-----		-----
Total Engineer I		67.50		6,750.00
Project Specialist II				
John K Golden				
	10/30/2019	2.00	150.0000	300.00
	11/1/2019	2.00	150.0000	300.00
	11/7/2019	6.00	150.0000	900.00
	11/8/2019	8.00	150.0000	1,200.00
	11/11/2019	4.00	150.0000	600.00
	11/13/2019	2.00	150.0000	300.00
	11/15/2019	5.00	150.0000	750.00
		-----		-----
Total Project Specialist II		29.00		4,350.00
Senior Professional				
John Arvai				
	11/1/2019	0.50	215.0000	107.50
	11/4/2019	0.50	215.0000	107.50
	11/11/2019	0.50	215.0000	107.50
	11/15/2019	1.00	215.0000	215.00
	11/21/2019	0.50	215.0000	107.50
	11/26/2019	0.50	215.0000	107.50
Jeffrey W Reinhout				
	11/4/2019	1.00	215.0000	215.00
	11/14/2019	3.00	215.0000	645.00
	11/15/2019	6.00	215.0000	1,290.00
	11/18/2019	2.00	215.0000	430.00
	11/20/2019	4.00	215.0000	860.00
	11/21/2019	4.00	215.0000	860.00
	11/22/2019	3.00	215.0000	645.00
	11/25/2019	2.00	215.0000	430.00
	11/26/2019	2.00	215.0000	430.00
	11/27/2019	3.00	215.0000	645.00
		-----		-----
Total Senior Professional		33.50		7,202.50

Total Rate Labor

18,302.50

7A1 - Flushing System Study

Multiplier Labor

<i>Class / Employee</i>	<i>Date</i>	<i>Hours</i>	<i>Cost Rate</i>	<i>Multiplier</i>	<i>Amount</i>
Professional Engineer V					
Mark S Pribak	11/25/2019	2.00	67.0200	3.100	415.52
	11/26/2019	1.00	67.0200	3.100	207.76
		3.00			623.28
Total Professional Engineer V					623.28
					Total Multiplier Labor
					18,925.78
Total Bill Task: 7A1 - Flushing System Study					18,925.78

Total Project: MCW200501T - Chapaton RTB Canal Upgrades

131,501.95

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 October 30, 2019. Continued additional permitting efforts and assisting with coordinated response. Regulatory review of EGLE concern regarding Part 22 GW Discharge Rules and liner alternatives. Supplemental Permitting Document review meeting on November 19, 2019. Continued development of open space planning concepts. Continued due diligence and architect proposal solicitation for light house control building design. Issued contract to AEW for architectural services. Continued progressing design drawings and specifications to 60% level and QA/QC review. Construction 60% estimate and schedule development. Project drawing and specification review workshop for 60% design phase on November 19, 2019. Updated drawings with 60% review workshop comments. Commenced Chapaton RTB flushing system study work.



Applied Science, Inc.

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

November 25, 2019

Invoice #7 (ASI Inv. #7476)

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

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

Services provided from September 22, 2019 through November 16, 2019.

<u>Employee</u>	<u>Classification</u>	<u>Direct Labor Hrs.</u>	<u>Hourly Rate</u>	<u>Total</u>
John Michalski	Sr. Project Manager	21.0	\$ 155.00	\$ 3,255.00
Paul Szaga	Project Engineer	10.0	\$ 115.00	\$ 1,150.00
Doria Herold Jackson	CADD	5.0	\$ 96.00	\$ 480.00
Dane Weibe	Project Engineer	3.0	\$ 115.00	\$ 345.00
Total this invoice:				\$ 5,230.00
Previous Amount Invoiced:				<u>\$ 54,965.00</u>
Total Invoiced To-Date:				\$ 60,195.00
Not To Exceed:				\$ 68,005.00
Amount Remaining:				\$ 7,810.00
Total Amount Due This Invoice:				<u>\$ 5,230.00</u>



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 2191439
 Date 11/19/2019

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

Professional Services for the Period ended October 31, 2019:

****Service Summary****

Professional Fees

Standard Professional Services
 Preliminary - Final Design

	Hours	Rate	Billed Amount
Landscape Architect II	37.00	115.00	4,255.00
Principal	8.00	210.00	1,680.00
Phase subtotal	45.00		5,935.00
Standard Professional Services subtotal			5,935.00
Professional Fees subtotal	45.00		5,935.00

Reimbursable Expenses

Reimbursable Expenses
 Reimbursable Expenses

	Units	Cost Amount	Rate	Billed Amount
Mileage	33.90	19.66	0.58	19.66
<i>Meeting with SCS, Eastpointe, Roseville</i>	34.80	20.18	0.58	20.18
<i>Meeting at Chapaton site</i>		34.29		34.29
Reproduction				
<i>OVS Color - H. Wolfe, 10-22-219</i>				
Phase subtotal				74.13
Reimbursable Expenses subtotal				74.13
Reimbursable Expenses subtotal	74.13			74.13

Invoice total **6,009.13**



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

Invoice number 2191439
 Date 11/19/2019

Invoice Summary

Description	Contract Amount	Prior Billed	Total Billed	Current Billed
Standard Professional Services				
Preliminary - Final Design	24,380.00	8,967.50	14,902.50	5,935.00
Reimbursable Expenses				
Reimbursable Expenses	0.00	428.72	502.85	74.13
Total	24,380.00	9,396.22	15,405.35	6,009.13

Aging Summary

Invoice Number	Invoice Date	Outstanding	Current	Over 30	Over 60	Over 90	Over 120
2191280	10/23/2019	8,417.92		8,417.92			
2191439	11/19/2019	6,009.13	6,009.13				
	Total	14,427.05	6,009.13	8,417.92	0.00	0.00	0.00

Approved by:

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

Professional Services for the Period ended October 31, 2019:

- *Concept Review & Coordination*
- *Design Revisions for Boardwalk and Pier*
- *Project Management and Base File Coordination*
- *Development of Image Preference Booklet & Meetings for Review*
- *Project and client team meetings*

0020017138



NTH Consultants, Ltd.
Infrastructure Engineering and
Environmental Services

INVOICE

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

Invoice #: 620558
Project: 62190022
Invoice Group: **
Invoice Date: 11/20/2019

Attention: Accounts Payable

For Professional Services Rendered through: 11/15/2019

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	12,685.83	430.00	15,774.17
20 -- *C* - Preliminary Design	99,060.00	99,031.49	0.00	28.51
30 -- Final Design	91,200.00	5,540.25	4,318.50	81,341.25
40 -- Bidding Assistance	9,360.00	0.00	0.00	9,360.00
Project Total	228,510.00	117,257.57	4,748.50	106,503.93

Amount Due This Invoice : \$ 4,748.50

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 248-563-6300 with questions.

Budget to Actual
 8.5 Mile Relief
 As of November 30, 2019 = 17%

DESCRIPTION	2020 FINAL BUDGET	ENCUMBERED	ACTUAL	REMAINING BUDGET	PCT UTILIZED
REVENUE ACCOUNTS					
Interest Earned	80,000		61,847	18,153	77.3%
Other Revenue	5,000			5,000	0.0%
State Grant	-			-	100.0%
8.5 O&M/Charge Required Revenue	4,279,768		2,139,884	2,139,884	50.0%
PY Revenue-Fund Balance	3,098,050			3,098,050	0.0%
Rental Fee	16,464		2,744	13,720	16.7%
<i>Total Revenue Accounts</i>	7,479,282	-	2,204,475	5,274,807	29.5%
EXPENSE ACCOUNTS					
Application/Permit Fee	3,000			3,000	0.0%
Dues, Training, Conf, Subs.	5,750		66	5,684	1.1%
Engineering					
As needed Engineering	75,000		17,157	57,843	22.9%
Chapaton Improvements-Office Space	500,000			500,000	0.0%
Disinfection system upgrade (Design and Construction)	1,000,000			1,000,000	0.0%
HVAC Design	200,000			200,000	0.0%
Flushing Study	75,000			75,000	0.0%
RTB/PS Ventilation Design	120,000			120,000	0.0%
Chapaton Improvements-Lab Relocation	250,000			250,000	0.0%
Basin Expansion Design	775,000		120,402	654,598	15.5%
In-System Storage Design(Gates on 8.5 Tunnel)	1,200,000		105,806	1,094,194	8.8%
9 Mile & 8 1/2 Mile Rehab	75,000			75,000	0.0%
New Equipment					
Office Supplies	23,500		2,556	20,944	10.9%
Operating Supplies	1,000		46	954	4.6%
Other Professional Svcs	74,600		5,675	68,925	7.6%
Personnel Services	46,800		781	46,019	1.7%
Repair & Maintenance	979,953			979,953	0.0%
Pumping and screening improvements	148,500		26,287	122,213	17.7%
SRF Replacement Reserve	1,150,000			1,150,000	0.0%
SRF Replacement Reserve	259,215			259,215	0.0%
Scada System					
Scada System	243,839		1,183	242,656	0.5%
Utilities	273,125		10,567	262,558	3.9%
<i>Total Expense Accounts</i>	7,479,282	-	290,526	7,188,756	3.9%

	O&M Balance 9/30/2019	O&M	Total 11/30/2019
Cash - Operating	8,784,262	1,913,949	10,698,210
Accounts Receivable			0
Assets			0
Liabilities			0
Revenues		2,204,475	2,204,475
Expenditures		290,526	290,526
			0
Equity*	8,784,262		10,698,210

Detail of 2019 Equity*

Disinfection system upgrade (Design and Construction)	100,000	Basin Expansion Design	450,000
RTB/PS Ventilation Design	120,000	Pumping and screening improvements	1,215,000
Chapaton Improvements-Office Space	228,000	PLC Replacements at Chapaton East	40,000
In-System Storage Design (Gates on 8.5 Tunnel)	425,000	SRF Replacement Reserve	1,814,505
9 Mile & 8 1/2 Mile Rehab	67,800	Expansion Reserve (From State)	3,000,000
Scada Reserve	109,025	Capital Reserve	1,054,932
Phase 1 TRC Basin Equipment	100,000	Basin Structural Integrity Study	60,000