

MACOMB INTERCEPTOR DRAIN
INTRA-COUNTY DRAINAGE BOARD
JUNE 14, 2021
10:45 A.M.
AGENDA

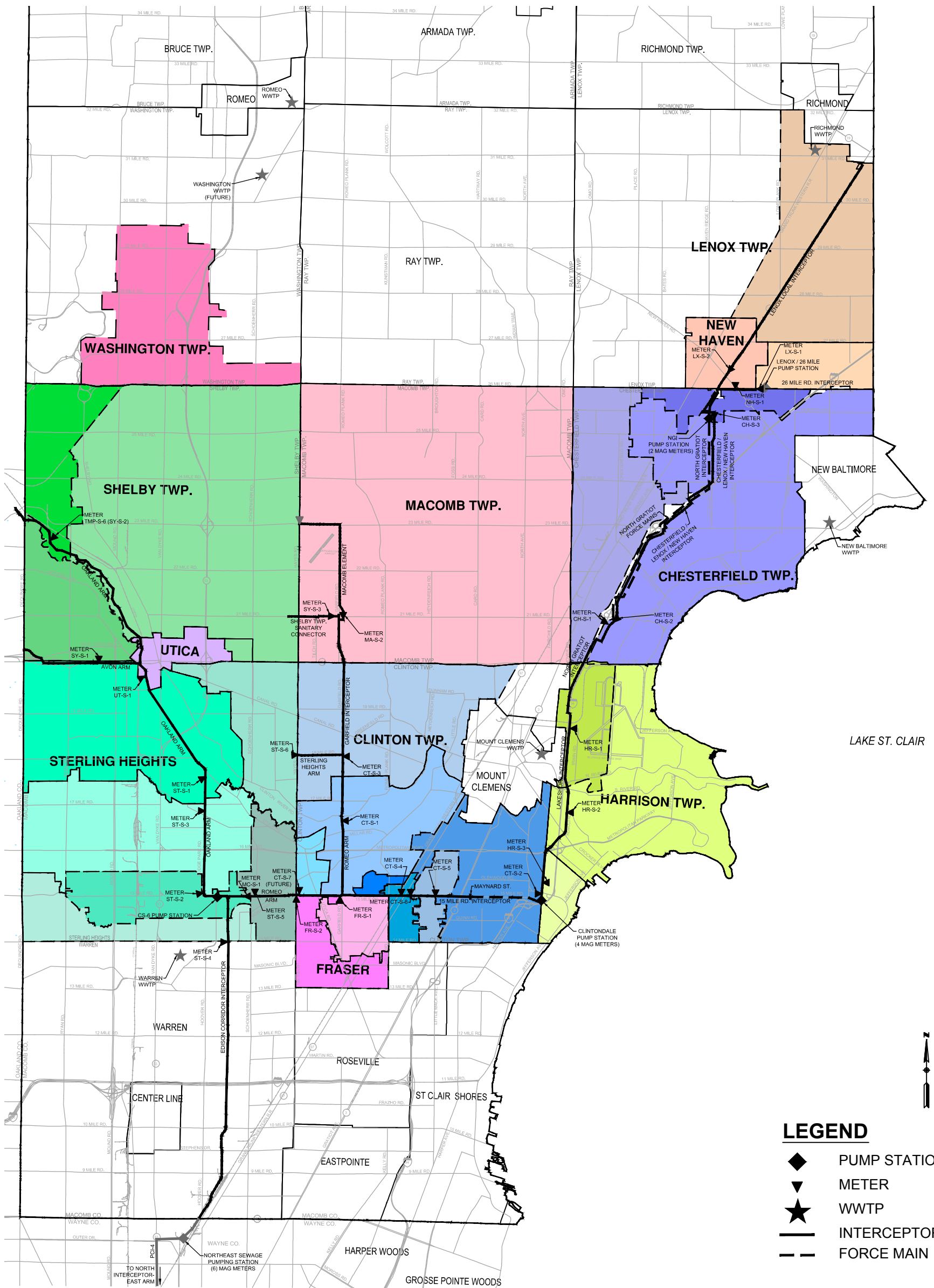
**NOTE: THIS MEETING WILL BE HELD IN PERSON WITH TELECONFERENCE
OPTION**

**Call in Number: 1-304-406-4075
Access Code: 656 796 376**

	Page
1. Call of meeting to order and roll call	
2. Approval of Agenda for June 14, 2021	
3. Approval of Minutes for May 10, 2021	4
4. Public Participation	
5. Project Updates/Segment 5 Video – Stephen Downing	7
6. State Wastewater COVID Detection No Match Grant – Notice of Award - Vince Astorino	19
Motion: To receive and file	
7. Owner Controlled Insurance Program (OCIP) Liability Premium Segment 6 – Stephen Downing/Meadowbrook Insurance	27
Motion: To authorize Meadowbrook Insurance Agency to bind insurance coverage for the General and Excess Liability Coverage for Segment 6 for an amount not to exceed \$434,920	
8. Romeo Arm Segment 6 Rehabilitation CCA Services FKE Change Order – Stephen Downing	52
Motion: To approve the Change Order for FK Engineering to provide Construction Contract Administration services for the rehabilitation of Romeo Arm Segment 6 for the not to exceed amount of \$1,816,769.96	

- | | |
|--|----|
| 9. Drop Shaft & Connecting Sewer Rehabilitation (Segment 5) Design & CCA Services – FKE Change Order No. 4 – Stephen Downing | 68 |
| Motion: To approve the Change Order No. 4 for FK Engineering to provide Design & CCA Services for the Drop Shaft & Connecting Sewer Rehabilitation at FR-S-2 & CT-S-7 for the not to exceed amount of \$35,000 | |
| 10. Aquasight Data Management Phase 3 Recommendation – Vince Astorino | 73 |
| Motion: To award the Phase 3 implementation to Aquasight for data and rain gauge analytics in the amount of \$242,079 | |
| 11. Clintondale Forcemain Valve Actuator – Vince Astorino | 78 |
| Motion: To approve the \$39,400 quote from DeCal, Inc. for the Clintondale Forcemain Valve Actuator project | |
| 12. Consideration for approval of invoices (see attached) | 80 |
| 13. Financial Report – Bruce Manning | 83 |
| 14. Adjourn | |

MACOMB INTERCEPTOR DRAIN DRAINAGE DISTRICT



Candice S. Miller

MACOMB COUNTY PUBLIC WORKS COMMISSIONER



UPDATED: FEBRUARY 2017

An adjourned meeting of the Intra-County Drainage Board for the **MACOMB INTERCEPTOR DRAIN** was held via telephone conference per the State Public Act 254 of 2020 due to the COVID-19 pandemic, on May 10, 2021, at 10:58 A.M.

PRESENT: Candice S. Miller, Chair
Location: Clinton Township, MI

Don VanSyckel, Member
Location: Sterling Heights, MI

Bryan Santo, Member
Location: Mt. Clemens, MI

ALSO PRESENT: Brian Baker, Chief Deputy, Karen Czernel, Deputy, Jeff Bednar P.E., Environmental Resources Manager, Stephen Downing, Construction & Maintenance Manager, Bruce Manning, Financial Manager, Vince Astorino, Operations & Flow Manager, Kellie Kource, Drain Account Specialist, Norb Franz, Communications Manager, Macomb County Public Works; Sydney Hilgendorf, Sterling Heights

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

Adopted: YEAS: 3
NAYS: 0

Minutes of the meeting of April 12, 2021 were presented. A motion was made by Mr. Santo, supported by Mr. VanSyckel 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. Downing updated the board that the Segment 5 Rehabilitation Project is moving along well and on time. Oscar Renda is ready to expose the interceptor soon to start the next phase of the project. Mr. Downing showed the board the updated photos of the project.

The Garfield Interceptor grouting has been completed, and they have now moved to the Lakeshore Interceptor.

The Meter Rehabilitation Project is underway in Shelby Township and Washington Township. The heavy cleaning of the structures has begun so we can do a structural inspection. The project should move fast.

The Segment 6 Rehabilitation Project planning has begun. We are working diligently to get the contract books ready for execution and get a schedule set with the contractors. We also are finalizing the SRF loan dates.

The inspection program is moving along well and is on target.

A motion was made by Mr. Santo, supported by Mr. VanSyckel to receive and file the project updates by Mr. Downing.

Adopted: YEAS: 3
NAYS: 0

Mr. Astorino updated the board that the State approached Macomb County to continue the COVID waste water testing and expand the testing sites with a 2 year program. It is a no match program and fully State funded. The start date would be June 1st if approved.

A motion was made by Mr. VanSyckel, supported by Mr. Santo to approve the no match COVID detection State grant application for \$2,673,807, and if awarded, authorize the Public Works Commissioner to initiate a contract extension with Aquasite so the project can commence on June 1, 2021, per the State grant guidelines.

Adopted: YEAS: 3
NAYS: 0

The Chair presented the invoices totaling \$6,434,069.93 to the board for review and approval.

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

Adopted: YEAS: 3
NAYS: 0

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

Adopted: YEAS: 3
NAYS: 0

There being no further business, it was moved by Mr. VanSyckel, supported by Mr. Santo, that the meeting of the Macomb Interceptor Drain Board be adjourned.

Adopted: YEAS: 3
NAYS: 0

The meeting was adjourned at 11:59 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, May 10, 2021 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: 5/10/21



Candice S. Miller

Public Works Commissioner
Macomb County

To: Macomb Interceptor Drain Drainage District Board Members

CC: File

From: Stephen Downing, Construction & Maintenance Manager

Date: June 14, 2021

Subject: Construction Projects Status Updates for June 2021 Board Meeting

The following provides a status update for construction work completed within the Macomb Interceptor Drain Drainage District for the previous month.

Segment 5 Rehabilitation

Contractor: Oscar Renda

Engineering Consultant: FK Engineering

Project Description:

The Segment 5 reach of the Romeo Arm Interceptor is approximately 8,300 linear feet; it runs along 15 Mile Road starting at the ITC Corridor and extends east to approximately Hayes Road. The first 7,000 linear feet is 11-foot diameter non-reinforced concrete pipe, and the next 1,300 linear feet is 8-foot diameter steel reinforced concrete pipe. The rehabilitation consists of debris removal, cleaning, and inspection of the pipe's invert. Next, HOBAS pipe will be used to slip line 7,000 linear feet of the 11-foot diameter sewer and the 1,300 linear feet section of 8-foot diameter pipe will be coated with a corrosion resistant geopolymer spray applied coating. To facilitate this work, a new control structure and access shaft is under construction in the ITC Corridor. The new control structure will provide the contractor access to the sewer to facilitate the work and will also serve as a dewatering pump station to draw down the upstream water level in the sewer.

Significant project tasks that have occurred over the past month:

1. Continued development, review, and approval of the required construction submittals.
2. Continued excavation to the spring line of the Interceptor.
3. Saw-cut and removed the top of the Interceptor.
4. Started cleaning the section of Interceptor immediately upstream of CS-12 to allow for the physical mandrel test.

5. Constructed the physical mandrel to verify the alignment of the Interceptor will allow a 20-foot section of Hobas pipe to pass through the radius immediately upstream of CS-12.
6. Started constructing the temporary flume.
7. Performed routine maintenance on the groundwater dewatering system.

Construction Costs:

	Date (if applicable)	
Original Contract Amount	9/21/2020	\$28,807,500.00
Total Spent to Date	5/31/2021	\$6,844,935.00
Remaining Budget	4/1/2021	\$21,962,565.00



Figure 1 – Excavating & Exposing the Interceptor



Figure 2 - Interceptor Demo First Section

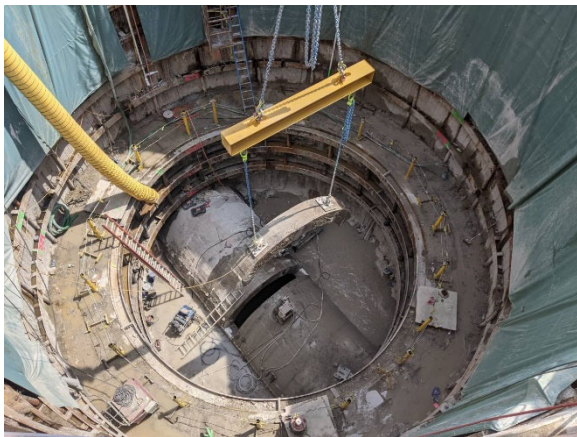


Figure 3 - Interceptor Demolition



Figure 4 - First Section of Interceptor Removed



Figure 5 - Interceptor Demolition



Figure 6 - Interceptor Demolition



Figure 7 - Interceptor Demolition

Phase II Grouting

Contractor: Doetsch Environmental Services, Inc.

Engineering Consultant: AEW

Project Description:

The Phase II Grouting project was awarded to Doetsch Environmental during summer 2020. The work includes chemical grouting of the sewer and manholes where infiltration is present. The work is planned in all reaches of the system not included in the Segment 5 or portion of the Romeo Arm rehabilitated during the 2016 Interceptor Collapse. The main areas of work include the Romeo Arm along Garfield Road between 15 Mile and Clinton River Roads, the Garfield Interceptor between Clinton River and 21 Mile Roads, and the Lakeshore Interceptor between the Clintondale Pump Station at 15 Mile and Union Lake and Joy Boulevard in Harrison Township. The chemical grouting is aimed to stop all active infiltration within the system in advance of future rehabilitation and maintenance projects.

Significant project tasks that have occurred over the past month:

1. This work remained paused this month due to flow control requirements to facilitate downstream work in other systems. The work will resume sometime in June.

Construction Costs:

	Date (if applicable)	
Original Contract Amount	6/24/2020	\$3,000,000.00
Total Spent to Date	5/31/2021	\$1,936,759.00
Remaining Budget	5/31/2021	\$1,063,241.00



Meter Facility Rehabilitation

Contractor: Weiss Construction

Engineering Consultant: HRC

Project Description:

The project includes the rehabilitation of three sewerage meter facilities; work includes removal and application of concrete surface repairs and protective coatings, televising, cleaning, and spray-lining the existing influent and effluent connecting sewers; rehabilitation existing adjacent sanitary manholes; improving access and safety features for maintenance personnel; and replacing existing electrical systems.

The sites, SY-S-1 and SY-S-2 are in Shelby Township and WA-S-1 is in Washington Township. The meter facilities are the point of transition of sewerage flow from the local systems into the MIDDD Interceptors. Each of the metering facilities provides the critical flow data required to allocate the billing apportionment for each of the MIDDD member communities.

The Shelby Township meter facilities, originally constructed by DWSD, have reached the end of their useful life and are need of rehabilitation. The MCPWO previously rehabilitated several of the older metering facilities in the system, which were also constructed by DWSD.

The Washington Township meter facility is currently owned by Washington Township, which is a unique situation in the MIDDD system. Typically, the MIDDD assumes ownership of the billing meter facilities, which includes operation and maintenance activity. As such, the MCPWO negotiated a transfer agreement with Washington Township to transfer ownership of this asset to the MIDDD. The two entities agreed to equitable cost sharing terms within the agreement.

The project was designed by Hubbell, Roth and Clark and the construction contract was awarded to Weiss Construction. The total construction cost for the project is \$857,159.00. The work started in April 2021.

Significant project tasks that have occurred over the past month:

1. The Contractor continued to develop and submit the required construction submittals for the Engineering team to review.
2. The Engineering team continued review and return of the required construction submittals.
3. The Engineer performed a structural analysis of the structures after the Contractor performed the required heavy cleaning. There were minimal structural repairs required.
4. The Contractor installed the temporary by-pass pumping equipment at SY-S-2.
5. The Contractor started to demolish the old SY-S-2 metering facility.
6. The Contractor performed cleaning and debris removal at SY-S-2.

Construction Costs:

	Date (if applicable)	
Original Contract Amount	12/3/2020	\$857,159.00
Total Spent to Date	4/30/2021	\$233,333.50
Remaining Budget	4/30/2021	\$647,158.85

Segment 6 Rehabilitation

Contractor: Ric-Man Construction

Engineering Consultant: FK Engineering

Project Description:

The Segment 6 Rehab project includes the rehabilitation of these main elements:

1. Cleaning and slip-lining (Hobas) of the 5-foot diameter 15 Mile Interceptor from MH-01 at Garfield Road and 15 Mile to MH-04 approximately 2200 feet east along 15 Mile.
2. Cleaning and slip-lining (Hobas) the 1400 linear feet 11-foot diameter Romeo Arm Interceptor sewer between CS-3 on 15 Mile Road and CS-2 on Garfield north of 15 Mile Road.
3. Rehabilitation of the Meter Facility FR-S-1 on Garfield south of 15 Mile Road.
4. Rehabilitation and spray-lining of the CS-2 and CS-3 control structure facilities. These concrete structures have been damaged by H2S damage over time and need repair.
5. Installation of an air-jumper to be incorporated into the existing Biofilter facility. This is being done to address the high level of odor issues that have resulted over the years from the intersection of 15 Mile and Garfield.
6. Installation of a new gate control structure on the 15 Mile Interceptor. This will allow for the rehabilitation of the MH-01 structure and provide future storage options within that interceptor.

The project is scheduled to start in August 2021 and be completed in March 2023.

Significant project tasks that have occurred over the past month:

1. The Engineering Consultant is preparing the Contract Books for delivery to the Contractor for review and signature.
2. The Engineer and Owner's Representatives are reviewing the Issued for Construction Drawing Set.
3. A pre-award meeting was held with Ric-Man to review the bid, discuss the design and review the preliminary construction schedule.
4. The SRF loan closed as scheduled on June 7, 2021.
5. The Construction Notice to Proceed will be issue on August 7, 2021.

Construction Costs:

	Date (if applicable)	
Original Contract Amount	9/21/2020	\$13,541,545.00
Total Spent to Date	4/1/2021	\$0
Remaining Budget	4/1/2021	\$13,541,545.00

Interceptor Inspection Program

Contractor: Doetsch Environmental Services, Inc.

Engineering Consultant: Fishbeck

Project Description:

The 2020 sewer inspection program was awarded to Doetsch Environmental Services in November 2020. The inspection program includes inspection of approximately 26 miles of sanitary sewer, 360 manholes and other aspects of the sanitary sewage infrastructure across multiple drainage districts, including the MIDDD.

The MIDDD portion of the inspection program includes 101,335 linear feet (19.25 miles) of pipe ranging in diameter from 24" to 132" and 145 manhole structures. Additionally, inspection of 8 junction chambers and 8 Drop Shaft/Connecting sewers will be performed.

The inspection interval for the entire system is based on a 3-year cycle, where non-reinforced concrete pipe is inspected every 3 years and reinforced concrete pipe is inspected every 6 years. The 2020 inspection program is the largest ever performed by the Macomb County Public Works Office. The project started in May 2021 and is expected to be completed in October 2021.

Significant project tasks that have occurred over the past month:

1. The system map on the next page illustrates how much of the system is scheduled for inspection and how much was inspected by 5/25/21.

Construction Costs:

	Date (if applicable)	
Original Contract Amount	1/19/2021	\$280,034.00
Total Spent to Date	5/31/2021	\$0
Remaining Budget	4/1/2021	\$280,034.00

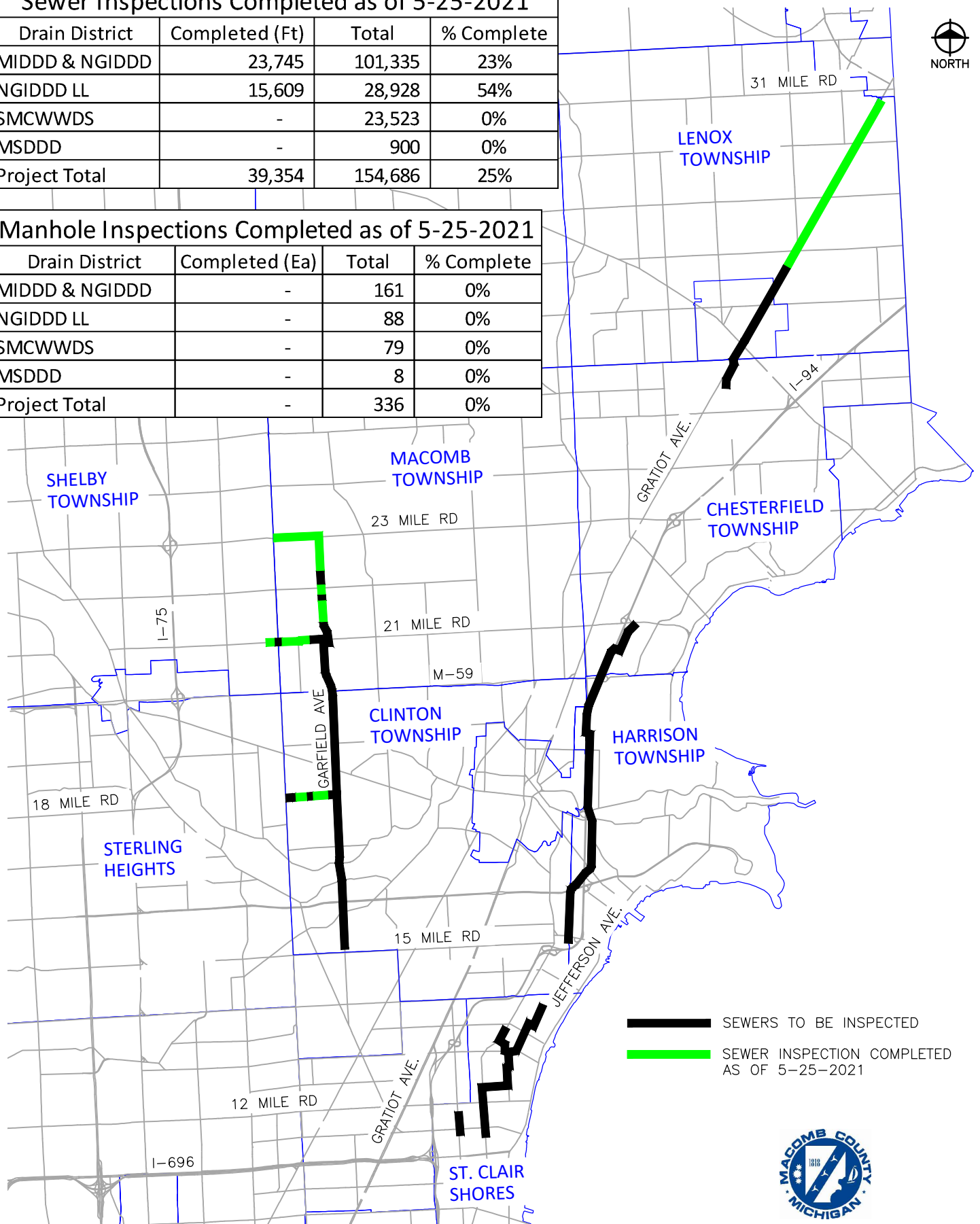
*This Table reflects the MIDDD costs only.

Sewer Inspections Completed as of 5-25-2021

Drain District	Completed (Ft)	Total	% Complete
MIDDD & NGIDDD	23,745	101,335	23%
NGIDDD LL	15,609	28,928	54%
SMCWWDS	-	23,523	0%
MSDDD	-	900	0%
Project Total	39,354	154,686	25%

Manhole Inspections Completed as of 5-25-2021

Drain District	Completed (Ea)	Total	% Complete
MIDDD & NGIDDD	-	161	0%
NGIDDD LL	-	88	0%
SMCWWDS	-	79	0%
MSDDD	-	8	0%
Project Total	-	336	0%





STATE OF MICHIGAN
DEPARTMENT OF HEALTH AND HUMAN SERVICES
LANSING

GRETCHEN WHITMER
GOVERNOR

ELIZABETH HERTEL
DIRECTOR

May 25, 2021

Vincent Astorino
Operations and Flow Manager
Macomb County Public Works Office
21777 Dunham Rd
Clinton Township, MI 48036

Dear Mr. Astorino,

This correspondence serves as the official Notice of Award for the project titled **“SARS-CoV-2 Epidemiology – Wastewater Evaluation and Reporting (SEWER) Network.”** The application and associated workplan for Macomb County Public Works Office have been accepted for funding under this project.

Macomb County Public Works Office is funded for the amount of \$578,683 from June 1, 2021 through September 30, 2021. The Michigan Department of Health and Human Services (MDHHS) has conditionally approved funding estimates of \$1,366,943 for October 1, 2021 through September 30, 2022 and \$728,180 for October 1, 2022 through July 31, 2023. The project begins June 1, 2021 and will end July 31, 2023.

MDHHS is committed to funding the remainder of the project through July 2023, pending final MDHHS approvals of the project budgets for October 1, 2021-September 30, 2022 and for October 1, 2022-July 31, 2023. These future awards are subject to final approval, including approval by the State Administrative Board, if required, and availability of funds.

Funding for this project will come from the Epidemiology and Laboratory Capacity (ELC) Enhancing Detection Expansion grant supported through the Coronavirus Response and Relief Supplemental Appropriations Act of 2021 (P.L. 116-260). Funding is intended to support costs associated with COVID-19 wastewater surveillance and local public health response.

If you have any questions or concerns, please do not hesitate to contact the SEWER Network Project Staff at MDHHS-SEWERNetwork@michigan.gov.

Sincerely,

Susan Peters, DVM, MPH
Waterborne Disease Epidemiologist
Emerging & Zoonotic Infectious Diseases Section
Michigan Department of Health & Human Services
PetersS6@michigan.gov
(517) 930-6957

ORDER FORM AND SCOPE OF SERVICES

1. OWNER: **MACOMB INTERCEPTOR DRAIN
DRAINAGE DISTRICT
21777 Dunham Road
Clinton Township, MI 48036**

2. Program: **CEWS
COVID-19 Early Warning System
(Appendix A, B, D)**

3. Term: **Jun 2021 to September 2021w2**

4. Fees: **\$551,128
(Appendix C)**

5. “CEWS” Program Details
 - Scope of Work (Appendix A)
 - Project Plan (Appendix B)
 - Project Costs (Appendix C)
 - Monitoring Sites (Appendix D)

6. Terms & Conditions:
 - Project will start Jun 1st, 2021, and end Sept 30th, 2021.
 - Fees will be invoiced as defined in the schedule in Appendix E and is payable within 30 days.
 - General terms and conditions are attached in Appendix F and is approved by MIDDD and applied on existing on-going contracts
 - Terms and Conditions as per existing MIDDD Contract number WWS-2019-007 will apply for this program
 - Sample preparation and lab testing will be performed by OU labs as per protocols defined by the lab

- WW based COVID-19 testing is a rapidly evolving science, and standards, testing and interpretation are being developed. MSU/OU experts assigned will make best efforts to ensure latest available best practice protocols will be utilized for the pilot program
- ACE platform will be used for flow data

**OWNER: MACOMB INTERCEPTOR
DRAIN DRAINAGE DISTRICT**

PROVIDER:



By: Candice S. Miller
Its: Public Works Commissioner



5/28/2021

By: Mahesh Lunani
Its: CEO

A. Scope of Work

Project Management and Coordination: Overall project management and coordination for the sewage surveillance program at sites described in Appendix D and across six different agencies and local health departments. This includes development of schedule, creation of work plan, engineering & installation of composite samplers, sampling dates, sampling kit preparation, pre-paid shipment packages, chain of custody forms, on-ground logistics management, lab coordination, results review, issue management, LHD coordination and project meetings.

Sampling Infrastructure Design and Installation: Optimal site identification, site feasibility analysis, selection of the right sampler, purchase samplers, composite samplers, hardware installation, perform flow testing and troubleshooting, and determine optimal sampling aliquot and time window.

Weekly Sample Logistics and Delivery: Establish the schedule for on-site sample pick up and drop off, crew of two to three people preparing samplers, picking up samples and delivering samples to lab. For sites that are shipping the samples, pre-paid shipping labels as well as sample kits including cool packs will be provided to ensure sample is well preserved for testing and minimal lift on WWTP teams' operator's time.

Lab Testing, Variants Analysis and Raw ddPCR Data Quality Checks: Molecular quantification of SARS-CoV-2 virus is conducted using CDC qPCR detection method. The SARS CoV-2 target is amplified by ddPCR using CDC recommended primer and probe sets (N1 and N2). The percent recovery for each sample is analyzed by spiking the sample with Phi6 bacteriophage. Quality assurance and control measures (QA/QC) are performed for all samples. A minimum of 10,000 droplets are required that pass droplet formation QA/QC before a sample can be considered for further analysis. Positive and negative ddPCR controls are run concurrently with all samples for ddPCR analysis. For variant analysis, we will use a strategy developed by GT Molecular, LLC that allows us to assess the relative abundance of the UK, South Africa, and Brazilian variants.

Data Analytics, Reporting & Communication: meta data on sampling site, quality checks on lab data outputs, data conversion, calibration, and normalization. Create analytics and trending, variant analysis, heat maps, on-line dashboard updates, use of clinical case data, correlation and statistical analysis, rapid and instant communication with LHDs and reporting agencies, set up of automated notification system of results availability, follow up on actions.

Training and Access to Surveillance System: Train on how to access the reporting tool, review lab data, interpret the normalization information, read trends, analytics and heat map, when and what actions to take and closely coordinate with LHD and decision-making authorities.

LHD and/or Stakeholder Timely Decision-Making Integration: Frequent touchpoints will be established with decision making and LHD as and when required. Twice a week when the system goes live with new insights so decisions can be made on additional testing and/or isolation or enhanced social distancing activities. This communication along with access by LHD for the reporting system has been made available to severely cut down communication time.

B. Project Plan

Activity(ies)	Responsible Individual(s)	Timeline		Deliverable(s)
		Start By	End By	
Objective Clinton Twp Sewershed Sampling Resumes				
Logistics planning	David Inman, Dave Burkel	6/1/21	6/11/21	
Scheduled sampling resumes	Dave Burkel, Vince Astorino	6/7/21		
Scheduled ddPCR analysis begins	Dave Szlag, Christine Laba	6/9/21		
Scheduled reporting begins	Nabeel Mehdi, Pama B	6/11/21		
Ongoing communication with LHD	Mahesh Lunani, David Inman	6/14/21		
Caseload/Spread review	Nabeel Mehdi, Pama B		9/30/21	Data shared with MDHHS
Objective CF and LTC Sampling (3 new sites)				
Identify new monitoring sites	David Inman	6/1/21	6/11/21	
Onsite site review & Hardware procurement and installation	David Inman, Dave Burkel	6/7/21	6/11/21	
New site metadata collection	Nabeel Mehdi, David Inman	6/1/21	6/11/21	
New sites added to CEWS	David Inman, Nabeel Mehdi, Pama B	6/7/21	6/18/21	
New sites deployed and tested and Sampling strategy and existing sites redeployed	David Inman, Dave Burkel	6/7/21	6/18/21	
Logistics schedule developed	David Inman, Dave Burkel	6/7/21	6/18/21	Sample type updated
Scheduled sampling starts	Dave Burkel	6/7/21	6/18/21	
Scheduled ddPCR analysis begins	Dave Szlag, Christine Laba	6/21/21		
Scheduled data analysis, reporting and communication begins	Nabeel Mehdi, Pama B	6/23/21		
Ongoing communication with LHD	Mahesh Lunani, David Inman	6/25/21		
Caseload/Spread review	Nabeel Mehdi, Pama B	6/28/21		
Objective Mt Clemens WWTP Sample Monitoring				
Logistics planning & Material Delivered	David Inman	6/1/21	6/11/21	
Creation of digital platform	David Inman, Nabeel Mehdi, Pama B	6/1/21	6/11/21	
Scheduled sampling starts	WWTP	6/14/21		
Scheduled ddPCR analysis begins	Dave Szlag, Christine Laba	6/16/21		
Scheduled data analysis, reporting and communication begins	Nabeel Mehdi, Pama B	6/18/21	7/22/21	
Ongoing communication with LHD	Mahesh Lunani, David Inman	6/23/21		
Caseload/Spread review	Nabeel Mehdi, Pama B		9/30/21	Data shared with MDHHS
Objective New Baltimore WWTP Sample Monitoring				
Logistics planning & Material Delivered	David Inman	6/1/21	6/11/21	
Creation of digital platform	David Inman, Nabeel Mehdi, Pama B	6/1/21	6/11/21	
Scheduled sampling starts	WWTP	6/14/21		
Scheduled ddPCR analysis begins	Dave Szlag, Christine Laba	6/16/21		
Scheduled data analysis, reporting and communication begins	Nabeel Mehdi, Pama B	6/18/21	7/22/21	
Ongoing communication with LHD	Mahesh Lunani, David Inman	6/23/21		
Caseload/Spread review	Nabeel Mehdi, Pama B		9/30/21	Data shared with MDHHS
Objective Richmond WWTP Sample Monitoring				
Logistics planning & Material Delivered	David Inman	6/1/21	6/11/21	
Creation of digital platform	David Inman, Nabeel Mehdi, Pama B	6/1/21	6/11/21	
Scheduled sampling starts	WWTP	6/14/21		
Scheduled ddPCR analysis begins	Dave Szlag, Christine Laba	6/16/21		
Scheduled data analysis, reporting and communication begins	Nabeel Mehdi, Pama B	6/18/21	7/22/21	
Ongoing communication with LHD	Mahesh Lunani, David Inman	6/23/21		
Caseload/Spread review	Nabeel Mehdi, Pama B		9/30/21	Data shared with MDHHS
Objective Romeo WWTP Sample Monitoring				
Logistics planning & Material Delivered	David Inman	6/1/21	6/11/21	
Creation of digital platform	David Inman, Nabeel Mehdi, Pama B	6/1/21	6/11/21	
Scheduled sampling starts	WWTP	6/14/21		
Scheduled ddPCR analysis begins	Dave Szlag, Christine Laba	6/16/21		
Scheduled data analysis, reporting and communication begins	Nabeel Mehdi, Pama B	6/18/21	7/22/21	
Ongoing communication with LHD	Mahesh Lunani, David Inman	6/23/21		
Caseload/Spread review	Nabeel Mehdi, Pama B		9/30/21	Data shared with MDHHS
Objective Warren WWTP Sample Monitoring Resumes				
Logistics planning	David Inman	6/1/21	6/11/21	
Scheduled sampling starts	WWTP/PP	6/7/21		
Scheduled ddPCR analysis begins	Dave Szlag, Christine Laba	6/9/21		
Scheduled data analysis, reporting and communication begins	Nabeel Mehdi, Pama B	6/11/21		
Ongoing communication with LHD	Mahesh Lunani, David Inman	6/14/21		
Caseload/Spread review	Nabeel Mehdi, Pama B		9/30/21	Data shared with MDHHS
Objective Warren Senior Community Sample Monitoring Resumes (4 sites)				
Logistics planning	David Inman	6/1/21	6/11/21	
Scheduled sampling starts	WWTP/PP	6/7/21		
Scheduled ddPCR analysis begins	Dave Szlag, Christine Laba	6/9/21		
Scheduled data analysis, reporting and communication begins	Nabeel Mehdi, Pama B	6/11/21		
Ongoing communication with LHD	Mahesh Lunani, David Inman	6/14/21		
Caseload/Spread review	Nabeel Mehdi, Pama B		9/30/21	Data shared with MDHHS

C. Project Costs

Category	Jun-21	Jul-21	Aug-21	Sep-21
Project Management, Set Up New Sites, Planning and Day to Day Program Execution, LHD Integration, Site Meta Data	\$ 13,500	\$ 13,500	\$ 13,500	\$ 13,500
Site Review, Sampling Infrastructure Design & Installation, Flow Testing and Optimization	\$ 46,500			
Weekly Sampling Kits, Sample Pick Up and Drop Off Logistics, Shipment & Delivery via UPS, Chain of Custody, Schedule Management	\$ 22,430	\$ 22,430	\$ 28,038	\$ 22,430
Lab Testing Kits, Variant Analysis, ddPCR Data Quality Checks, System & Data Management	\$ 60,800	\$ 60,800	\$ 76,000	\$ 60,800
Sewage Surveillance Analytics & Reporting, Surveillance System, Notification and Communication, Clinical Case Data and Correlations	\$ 22,800	\$ 22,800	\$ 28,500	\$ 22,800
Total	\$ 166,030	\$ 119,530	\$ 146,038	\$ 119,530

D. Monitoring Sites

Name	Type of Facility	Latitude	Longitude	Street Address or Location	Sampling Frequency/ week (yr/yr2)	# of weeks/yr to be sampled	Sample Type	Estimated Population Served	Anticipated collection start date
Clinton Twp Sewer Shed #1	SS	42.5771919	-82.952047	38201 Garfield @ old DPW yard	2x/1x	52	8hr Peak Composite	19662	6/1/21
Clinton Twp Sewer Shed #2	SS	42.550366	-82.864661	35115 Union Lake Rd @ Clintondale Pump Station	2x/1x	52	8hr Peak Composite	29555	6/1/21
Clinton Twp Sewer Shed #3	SS	42.5979398	-82.952243	20696 15 Mile Rd @ Little Mack	2x/1x	52	8hr Peak Composite	56026	6/1/21
Clinton Twp Sewer Shed #4	SS	42.540362	-82.934368	18275 15 Mile Rd @ Simon	2x/1x	52	8hr Peak Composite	2715	6/1/21
Clinton Twp Sewer Shed #5	SS	42.5545934	-82.910564	19655 15 Mile Rd @ Beaconsfield	2x/1x	52	8hr Peak Composite	9083	6/1/21
Clinton Twp Sewer Shed #6	SS	42.5544519	-82.920615	20696 15 Mile Rd @ Little Mack	2x/1x	52	8hr Peak Composite	4934	6/1/21
Clinton Twp Sewer Shed #7	SS	42.553286	-82.968713	15 Mile @ Hayes	2x/1x	52	8hr Peak Composite	1976	6/1/21
Macomb Correctional Facility	CF	42.7201688	-82.780188	32989 26 Mile Rd	2x/1x	52	24hr Composite	1500	6/1/21
Macomb County Jail	CF	42.6169129	-82.890981	143565 Elizabeth Rd, Mt. Clemens, MI 48043	2x/1x	52	24hr Composite	1250	6/1/21
Martha T Berry Medical Care Facility	LTC	42.6153036	-82.892079	43533 Elizabeth St, Mt. Clemens, MI 48043	2x/1x	52	24hr Composite	250	6/1/21
Mt Clemens WWTP	WWTP	42.6016637	-82.866985	1750 Clara St, Mt. Clemens, MI 48043	2x/1x	52	24hr Composite	16300	6/1/21
New Baltimore WWTP	WWTP	42.6779659	-82.751196	35319 Crocklewood Blvd, New Baltimore, MI 48047	2x/1x	52	24hr Composite	12400	6/1/21
Richmond WWTP	WWTP	42.7953059	-82.757897	35653 31 Mile Rd, Richmond, MI 48062	2x/1x	52	24hr Composite	5800	6/1/21
Romeo WWTP	WWTP	42.8031713	-82.986559	14787 32 Mile Rd, Bruce Township, MI 48065	2x/1x	52	24hr Composite	3900	6/1/21
Stillwell Manor-Joseph Coach Manor Residential Duct	Senior Living Duct	42.488632	83.011369	Carrier Ave and Burg Ave	2x/1x	52	24hr Composite	190	6/1/21
Stillwell Manor-Joseph Coach Manor	Senior Living Community	42.489995	-83.012793	26600 Burg Rd, Warren, MI 48089	2x/1x	52	24hr Composite	400	6/1/21
Tholt Manor	Senior Living Community	42.502845	-83.005686	28103 Imperial Dr, Warren, MI 48093	2x/1x	52	24hr Composite	120	6/1/21
Ukrainian Village	Senior Living Community	42.4863623	-83.070482	26377 Ryan Rd, Warren, MI 48091	2x/1x	52	24hr Composite	309	6/1/21
Warren WWRF	WWTP	42.5330963	-83.024306	32360 Warrop Ave, Warren, MI 48093	2x/1x	52	24hr Composite	135000	6/1/21

E. Invoicing Schedule

Invoice Date	Amount
July 1 st 2021	\$ 166,030
August 1 st 2021	\$ 119,530
September 1 st 2021	\$ 146,038
October 1 st 2021	\$ 119,530



Candice S. Miller

Public Works Commissioner
Macomb County

To: Macomb Interceptor Drain Drainage District Board Members

From: Stephen Downing, Construction & Maintenance Manager

Date: June 14, 2020

Subject: Owner Controlled Insurance Program (OCIP) Liability Premium -Segment 6

The Macomb Interceptor Drain Drainage District and 8 ½ Mile Relief Drain engaged with Meadowbrook Insurance Agency (MIA) in February 2020 to provide the services required to procure and manage an Owner Controlled Insurance Program (OCIP) for upcoming CIP projects. MIA has assisted the MCPWO Engineering staff with development of the OCIP specific contract documents for construction projects and have developed a comprehensive insurance program to obtain pricing from insurance carriers. In addition to setting coverage limits for the required coverages, MIA has developed a project specific profile of each project, collecting the required information to solicit premium costs from insurance carriers. To obtain the most competitive premiums, MIA worked extensively with both MCPWO staff Engineers and each of the project's respective lead engineering consultants.

This procurement of the General Liability and Excess Liability coverages for Segment 6 Rehabilitation was deferred until the project was bid and awarded to a Contractor because Liability Coverage Premiums are dependent on the Contractor performing the work. The Builder's Risk, Contractor's Pollution Liability and Owner's Protective Professional Liability Indemnity coverage premiums were approved at the August 2020 Drain Board. Since these coverages are independent of the prime contractor selected for the work they were bundled in a single program with other projects.

The Segment 6 Rehabilitation project was awarded to Ric-Man Construction in the May 2021 Drain Board meeting. Upon award, MIA obtained the information required from Ric-Man to market the appropriate General and Excess Liability coverages for this project. These premiums are based on the value of the construction contract and the Contractor's past performance.

MIA provided a proposal (attached for reference) for the appropriate General and Excess Liability coverage for this project. The total premium amount of \$434,920 includes the duration of the project starting August 1, 2021 through February 1, 2024.

The recommendation is that the Macomb Interceptor Drain Drainage District Board authorize the Board Chair to authorize Meadowbrook Insurance Agency to bind insurance coverage for the General and Excess Liability Coverage for Segment 6 for the amount equal to or less than \$434,920.

Attachments: Meadowbrook Insurance Agency Proposal

OFFICE LOCATION: 21777 Dunham Road, Clinton Township, Michigan 48036 • Phone: 586-469-5325 • Fax: 586-469-5933

MAILING ADDRESS: P. O. Box 806, Mt. Clemens, Michigan 48046-0806

ENGINEERING • Phone: 586-469-5910 • Fax: 586-469-7693 ♦ **SOIL EROSION** • Phone: 586-469-5327 • Fax 586-307-8264

Macomb County Public Works

Owner Controlled Insurance Program Proposal for Program #2:

MIDD Segment 6 Clean and Rehabilitation

8/1/2021 to 2/1/2024

(date 5/28/2021)

Macomb County Public Works

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Meadowbrook Insurance Agency

MISSION STATEMENT

Global, Innovative, Architect of Risk Management Solutions for our Clients

MANTRA

Urgency.....Integrity.....Solutions

MEADOWBROOK SERVICES

- Insurance Management and Brokerage Operations -

Meadowbrook insurance operations are made up of seven major areas:

- Program management – Account Servicing
- Insurance Agency Operations
- Reinsurance Intermediaries
- Captive Management
- Management of Insurance Companies
- Claims Management
- Loss Control

- Service Products -

Meadowbrook Agency offers an extensive array of services. Our service product capabilities include the following:

➤ Property/Casualty	➤ Captive Formation & Management
➤ Employee Benefits Counseling	➤ Reinsurance Brokerage
➤ Claims Management	➤ Off Shore Captives
➤ Sales & Marketing	➤ Feasibility Studies
➤ Loss Control	➤ Pool Management
➤ Education & Training	➤ Litigation Management
➤ Risk Management	➤ Rent A Captives
➤ Retail Brokerage	

MEADOWBROOK PROFILE

Meadowbrook was founded in 1955. Since that time, Meadowbrook:

- has grown to become Michigan's largest property casualty agency and ranked 20th nationally
- employs more than 801 associates nationwide in 19 offices nationwide
- is heralded as an innovative pioneer of alternative risk management techniques
- offers both traditional and alternative solutions to client's needs
- core business consists of commercial property, casualty, life, accident and health insurance
- clients range from small to large businesses
- is committed to finding the most cost-effective methods of handling client risks and management needs
- brings a wide range of experience and expertise to their work
- is able to create customized solutions for clients by combining traditional insurance products with progressive risk management alternatives
- Estate Planning

Meadowbrook is committed to servicing our client's needs.

Meadowbrook is proud to be affiliated with the following charitable organizations.



Macomb County Public Works

Meadowbrook Agency Service Team

GENERAL INFORMATION

toll free - 800 / 482-2726
switchboard/after hours: 248 / 358-1100
website: www.meadowbrook.com

PRODUCER

Sal Saputo
Executive Vice President
tel - 248 / 204-8163
cell -248 / 943-1317
e-mail: ssaputo@meadowbrook.com

MARKETING

James Kelley
Vice President Marketing
tel - 248 / 204-8153
cell -248 / 914-4995
e-mail: james.kelley@meadowbrook.com

PRIMARY CONTACT

Phillip Anderson
Account Manager
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e-mail: Phillip.Anderson@meadowbrook.com

BACK UP CONTACT

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GROUP BENEFITS

David Sheeran, CPA
President
Agency Operations
tel - 248 / 204-8544
cell - 248 / 361-0084
e-mail: dave.sheeran@meadowbrook.com

PERSONAL LINES

David Sheeran, CPA
President
Agency Operations
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cell - 913 / 361-0084
e-mail: dave.sheeran@meadowbrook.com

CLAIMS REPORTING

*All claims - except Workers Compensation**

It is our ongoing mission to provide effective, efficient solutions for your claims servicing needs. In keeping with the goal of offering world-class claims service and enhancing your experience, we've established two new, centralized claims reporting contacts.

Telephone:

(888) 965-3527

Email:

Agencyclaims@meadowbrook.com Workers Compensation claims will continue to be reported directly to your insurance company.

Macomb County Public Works

Marketing Summary

Insurance Markets Approached:	
AWAC	Venture
Hartford	Westchester
AIG	Allianz
Berkley Assurance	Amtrust
Chubb	Arch
Cove	Aspen
C&F	AXA XL
Endurance	Axis
Everest	Capitol Specialty
Houston Casualty	Colony
Hudson	Cover X
Liberty Mutual	Great American
Markel	IAT
Navigators	Ironshore
Pioneer	SCOR Re
Starr	Scottsdale

Premium Recap

Policy	Ins Company	A.M. Best Rating	Premium
Primary GL	Everest Indemnity	A+ XV	\$ 103,277
5M x P	Everest Indemnity	A+ XV	\$ 78,413
5M x 5M	Navigators Specialty	A+ XI	\$ 47,509
10M x 10M	Capital Specialty	A X	\$ 75,574
15M x 20M	Endurance American	A+ XV	\$ 73,772
15M x 35M	Liberty Surplus	A XV	\$ 56,375
Liability Subtotal			\$ 434,920
Builder's Risk			Previously Paid
Contractors Pollution Liability			Previously Paid
OPPI			Previously Paid
Total Proposed			\$ 434,920

Macomb County Public Works

8/1/2021 to 2/1/2024

Named Insureds

Macomb County Public Works

Scheduled Project

Project Name	Location	Construction Value (Hard Costs)
15 Mile Interceptor Segment 6 Rehab	15 Mile Road & Garfield Road, Clinton Township, MI 48035	\$13,541,000

Macomb County Public Works

General Liability

8/1/2021 to 2/1/2024

Carrier: Everest Indemnity Insurance Company - (Best Rating A+ XV)

Projects Covered: Segment 6 Clean and Rehabilitation

Form: Occurrence Claims Made

Limits:

\$2,000,000		Each Occurrence
\$4,000,000		General Aggregate
\$4,000,000	<i>aggregate</i>	Products / Completed Operations
\$2,000,000	<i>any one person</i>	Personal Injury / Advertising Injury
\$100,000	<i>any one premises</i>	Damage to Premises Rented to You

Defense Costs: Outside the Limits

Deductible: \$25,000

Exposure: \$13,541,000 Construction Value / Hard Cost

Additional Coverages:

Blanket Additional Insured	Owners, Lessees, Contractors, State or Governmental Agency, Subdivision or Political Subdivision	Standard
Total Pollution Exclusion with Hostile Fire Exception	Included	Enhanced
Waiver of Rights of Recovery	As required by written contract	Standard
Primary and Non-Contributory	Included	Standard
Professional Means/Methods	No Applicable	
Owner/GC Cross Suits Exception for Property Damage	Cross Suits Exclusion Deleted	Enhanced
Removal of Course of Construction Exclusion	Can be removed upon review of BR quote	Standard
Property Damage Amendment		Standard
Extended Completed Operations	Lesser of 10 Yrs or Statue of Repose for Completed Ops. General Aggregate will re-apply once after 21 Months.	Enhanced

General Liability *(continued)*

Additional Conditions:

- 100% Fully Earned Premium after 12 Months
- 10 Years Extended Completed Operations

Policy Forms, Endorsements, and Exclusions:

Commercial General Liability Coverage Form	CG 00 01	04-13
State Mandatory Endorsements		
Exclusion – Access Or Disclosure Of Confidential Or Personal Information And Data-Related Li	CG 21 06	05 14
Exclusion – Unmanned Aircraft	CG 21 09	06 15
Employment-Related Practices Exclusion	CG 21 47	12 07
Total Pollution Exclusion Endorsement with hostile fire and HVAC exceptions	CG 21 65	09 99
Exclusion - Exterior Insulation And Finish Systems	CG 21 86	12 04
Silica Or Silica-Related Dust Exclusion	CG 21 96	03 05
Amendment Of Insured Contract Definition	CG 24 26	04 13
Absolute Asbestos Exclusion	ECG 21 510	12 99
Absolute Lead Exclusion	ECG 21 512	12 99
Organic Pathogen, Mold Or Fungus Exclusion	ECG 21 536	07 01
Communicable Disease Exclusion	CG 21 32	05 09
Pollution Changes	EIL 01 510	07 08
Common Policy Conditions	IL 00 17	11 98
Nuclear Energy Liability Exclusion Endorsement (Broad Form)	IL 00 21	09 08
Radioactive Matter Exclusion	ECG 22 550	03 17
Limitation - No Stacking Of Occurrence Limits Of Insurance	ECG 25 511	12 05
Deductible Liability Insurance	CG 03 00	01 96
Primary And Noncontributory – Other Insurance Condition	CG 20 01	04 13
Additional Insured – Owners, Lessees Or Contractors – Scheduled Person Or Organization	CG 20 10	04 13
Additional Insured – Owners, Lessees Or Contractors – Completed Operations	CG 20 37	04 13
As required by written contract		
Exclusion – Contractors – Professional Liability	CG 22 79	04 13
Waiver Of Transfer Of Rights Of Recovery Against Others To Us	CG 24 04	05 09
Additional Insured – Mortgagee, Assignee Or Receiver	CG 20 18	04 13
Additional Insured – Lessor Of Leased Equipment – Automatic Status When Required In		
Lease Agreement With You	CG 20 34	04 13
Limitation Of Coverage To Designated Premises Or Projects	CG 21 44	07 98
Extended Products-Completed Operations Period - 120 months	ECG 04 760	04 15
Amendment - Definition of Bodily Injury	ECG 04 551	04 02
Amendment - Duties In The Event Of Occurrence, Offense, Claim of Suit (Notice of Knowledge	ECG 24 519	04 02
Amendment - Representations (Unintentional Errors And Omissions)	ECG 24 589	12 13
Exclusion - Damage to the Project During the Course of Construction	ECG 03 619	01 19
Amendment To Damage To Your Product Exclusion	ECG 03 614	01 19
Amendment To Damage To Your Work Exclusion	ECG 03 618	01 19
Amendment To Exclusion J - Property Damage - J1, J2, J5 Deleted	ECG 03 615	01 19
Amendment - Definition of Employee	ECG 03 612	01 19
Sole Representative of Insured	ECG 03 625	01 19
Mutual Defense Form	ECG 03 623	01 19
Policy Period Limits of Insurance (Reinstatement of Aggregate - One (1) time reinstatement of		
General Aggregate at 12 months)	ECG 03 624	01 19
Amendment of Premium Audit Condition - 25% MEP at inception, 100% M&D Fully Earned		
at 12 months	ECG 03 613	01 19
Limited Repair Coverage Extension - 120 months	ECG 03 622	01 19
Named Insured Coverage Extension	ECG 03 363	06 19

General Liability *(continued)*

Premium:

\$ 100,758.00	Policy Premium
Included	TRIA Premium
2,015.16	Surplus Lines Taxes & Fees
503.79	Regulatory Fee
<hr/>	
\$103,276.95	Total Premium

This insurance has been placed with an insurer that is not licensed by the State of Michigan and does not participate in the State of Michigan Guarantee Fund.

Macomb County Public Works

Excess Liability

8/1/2021 to 2/1/2024

Carrier: Everest Indemnity Insurance Company (*Best Rating A+ XV*)

Projects Covered: Segment 6 Clean and Rehabilitation

Form: Excess - Occurrence

Limits:

\$5,000,000	<i>Each Occurrence</i>
\$5,000,000	<i>General Aggregate</i>
\$5,000,000	<i>Products & Completed Operations Aggregate</i>

Underlying Coverages & Limits:

General Liability

\$2,000,000		Each Occurrence
\$4,000,000		Aggregate
\$4,000,000	<i>aggregate</i>	Products – Completed Operations
\$2,000,000	<i>aggregate</i>	Personal – Advertising Injury

Policy Forms, Endorsements and Exclusions:

Form Number	Form Title
CU 02 21 09 00	Michigan Changes – Cancellation and Non-renewal
CU 24 03 09 00	Waiver of Transfer of Rights of Recovery Against Others to Us
EIL 01 510 07 08	Pollution Changes
EUM 01 555 02 07	Michigan Changes
MANUSCRIPT	Completed Operations Extension
EUM 22 809 10 16	Designated Premises or Project Limitation
EUM 21 764 06 06	Exclusion – E.R.I.S.A
EUM 21 767 06 06	Exclusion – War
EUM 21 874 04 09	Exclusion – Coverage provided by underlying insurance at sublimits
EUM 24 531 04 09	Amendment of Premium Audit Condition – Hard Costs
EUM 24 553 04 09	Defense Amendatory Endorsement – Limited Duty to Defend
EUM 24 562 01 10	Other Insurance – Primary and Noncontributory for Additional Insured

Excess Liability \$5MM x Primary (continued)

Premium:

\$ 75,000.00	Policy Premium
1,500.00	TRIA Premium
1,537.50	Surplus Lines Taxes & Fees
375.00	Regulatory Fee
<hr/>	
\$78,412.50	Total Premium

This insurance has been placed with an insurer that is not licensed by the State of Michigan and does not participate in the State of Michigan Guarantee Fund.

Macomb County Public Works

Excess Liability

8/1/2021 to 2/1/2024

Carrier: Navigators Specialty Insurance Company - (Best Rating A+ XI)

Projects Covered: Segment 6 Clean and Rehabilitation

Form: Excess - Occurrence

Limits:

\$5,000,000	<i>Each Occurrence</i>
\$5,000,000	<i>General Aggregate</i>
\$5,000,000	<i>Products & Completed Operations Aggregate</i>

Underlying Coverages & Limits:

Excess Liability

\$5,000,000	Each Occurrence
\$5,000,000	Aggregate
\$5,000,000	Products Completed Operations Aggregate

General Liability

\$2,000,000	Each Occurrence
\$4,000,000	Aggregate
\$4,000,000	<i>aggregate</i> Products – Completed Operations
\$2,000,000	<i>aggregate</i> Personal – Advertising Injury

Special Conditions:

- All Underlying Carriers must be rated A- VI or better
- If TRIA is bound, TRIA must be bound on all underlying layers

Excess Liability \$5MM x \$5MM (continued)

Policy Forms, Endorsements and Exclusions:

Policyholder Disclosure Notice of Terrorism Insurance Coverage	NAV-ML-TERRD
Commercial Excess Liability Coverage Part	NAV-EXC-001
CLAIM REPORTING PROCEDURES	NAV-PHN-200
OFAC Endorsement	NAV-ML-002
Exclusion - Cyber Injury	NAV-EXC-5041
Exclusion - Communicable Disease	NAV-EXC-5050
Residential Work Exclusion	NAV-EXC-306
Amendment of Limits of Insurance Application of the General	NAV-EXC-362
Aggregate Policy Period	
Exclusion - Exterior Insulation and Finish System	NAV-EXC-311
Exclusion- Condominium or Townhouse	NAV-EXC-327
Exclusion - Rejected Coverage	NAV-EXC-321
Service of Suit Endorsement	NAV-ECD-300
Nuclear Energy Liability Exclusion	NAV-EXC-302
Exclusion - Prior Work	NAV-EXC-334
Construction Project Endorsement with Completed Operations and	NAV-EXC-504
Repair Work Extension	
Cap on Losses from Certified Acts of Terrorism	NAV-ECD-400
Michigan Notice to Exempt Commercial Policyholders Deregulation	MI-Notice
- Forms & Rates	
Amendment of Conditions Other Insurance Primary and Non-	NAV-EXC-348A
Contributing	
Waiver of Subrogation	NAV-ECD-6012

Subjectivities:

- Copy of all underlying policies
- A Signed TRIA Election Form

Premium:

\$ 45,000.00	Policy Premium
1,350.00	TRIA Premium
933.75	Surplus Lines Taxes
225.00	Regulatory Fee
<hr/>	
\$47,508.75	Total Premium

This insurance has been placed with an insurer that is not licensed by the State of Michigan and does not participate in the State of Michigan Guarantee Fund.

Macomb County Public Works

Excess Liability

8/1/2021 to 2/1/2024

Carrier: Capitol Specialty Insurance Corporation - (Best Rating A X)

Projects Covered: Segment 6 Clean and Rehabilitation

Form: Excess - Occurrence

Limits:

\$10,000,000 *Each Occurrence*
\$10,000,000 *General Aggregate*
\$10,000,000 *Products & Completed Operations Aggregate*

Underlying Coverages & Limits:

Excess Liability

\$5,000,000 Each Occurrence
\$5,000,000 Aggregate
\$5,000,000 Products Completed Operations Aggregate

Excess Liability

\$5,000,000 Each Occurrence
\$5,000,000 Aggregate
\$5,000,000 Products Completed Operations Aggregate

General Liability

\$2,000,000 Each Occurrence
\$4,000,000 Aggregate
\$4,000,000 *aggregate* Products – Completed Operations
\$2,000,000 *aggregate* Personal – Advertising Injury

Special Conditions:

- All Underlying Carriers must be rated A- VI or better
- If TRIA is bound, TRIA must be bound on all underlying layers
- 25% Minimum Earned Premium

Excess Liability \$10MM x \$10MM (continued)

Policy Forms, Endorsements and Exclusions:

XS 507 09 17	Non-Concurrency of Policy Periods
XS 528 09 17	Defense Outside the Limits
E-90005 02 17	Service of Suit
XS 025 09 17	Premium and Rate – Minimum Earned Premium 25%
XS 9504 09 17	Exclusion of Punitive Damages Related to Certified Acts of Terrorism

Subjectivities:

- Completed and Signed Excess Acord Application
- Signed TRIA Acceptance Form

Premium :

\$ 73,001.00	Policy Premium
730.00	TRIA Premium
1,478.27	Surplus Lines Taxes & Fees
365.01	Regulatory Fee
<hr/>	
\$75,574.28	Total Premium

This insurance has been placed with an insurer that is not licensed by the State of Michigan and does not participate in the State of Michigan Guarantee Fund.

Macomb County Public Works

Excess Liability 8/1/2021 to 2/1/2024

Carrier: Endurance American Specialty Ins. Co. - (Best Rating A+ XV)

Projects Covered: Segment 6 Clean and Rehabilitation

Form: Excess - Occurrence

Limits:

\$15,000,000 *Each Occurrence*
\$15,000,000 *General Aggregate*
\$15,000,000 *Products & Completed Operations Aggregate*

Underlying Coverages & Limits:

Excess Liability

\$10,000,000 Each Occurrence
\$10,000,000 Aggregate
\$10,000,000 Products Completed Operations Aggregate

Excess Liability

\$5,000,000 Each Occurrence
\$5,000,000 Aggregate
\$5,000,000 Products Completed Operations Aggregate

Excess Liability

\$5,000,000 Each Occurrence
\$5,000,000 Aggregate
\$5,000,000 Products Completed Operations Aggregate

General Liability

\$2,000,000 Each Occurrence
\$4,000,000 Aggregate
\$4,000,000 *aggregate* Products – Completed Operations
\$2,000,000 *aggregate* Personal – Advertising Injury

Excess Liability \$15MM x \$20MM (continued)

Special Conditions:

- All Underlying Carriers must be rated A- VI or better
- If TRIA is bound, TRIA must be bound on all underlying layers
- 25% Minimum Earned Premium

Policy Forms, Endorsements and Exclusions:

Number	Title
EXL 6001 0813	Absolute Asbestos Exclusion
EXL 0592 0610	Absolute Communicable Disease Exclusion
EXL 0525 0813	Automobile Liability Exclusion
EXL 0573 0606	Cyber Liability Exclusion
EXL 0516 0112	Exclusion-Violation of Information Statutes
EXL 6066 0817	Nuclear Energy Liability Exclusion
EXL 1323 0610	Sub-Limited Coverage Exclusion
EXL 0537 1206	Uninsured/Underinsured Motorist Exclusion
EXL 0562 0606	War Liability Exclusion
EXL 3013 0817	Additional Insured Primary Non-Contributory Endt
EXL 3044 0318	Bankruptcy or Insolvency Condition Endorsement
EXL 1302 0512	Claim Notice with Eclaim Notice
IL 1201 0115	Exclusion of Certified Acts of Terrorism and Exclusion of Other Acts
EXL 6056 0813	Limitation Of Coverage To Designated Premises Or Project
EXL 3303 0615	Products Completed Operations Extension (Aggregate Limits) Endorsement
EXL 1301 0512	Service Of Suit Endorsement
EXL 6092 0813	Waiver Of Subrogation
EXL 1001 0606	MINIMUM EARNED PREMIUM AND AUDIT PREMIUM
SN 9022 0914 MI	SN - Michigan
PN 0001 0110	U.S. Treasury Department's Office of Foreign Assets Control (OFAC)

Subjectivities:

- Signed Terrorism Election Form

Premium:

\$ 71,260.00	Policy Premium
713.00	TRIA Premium
1,443.03	Surplus Lines Taxes & Fees
356.30	Regulatory Fee
<u>\$73,772.33</u>	Total Premium

This insurance has been placed with an insurer that is not licensed by the State of Michigan and does not participate in the State of Michigan Guarantee Fund.

Macomb County Public Works

Excess Liability 8/1/2021 to 2/1/2024

Carrier: Liberty Surplus Insurance Corporation - (Best Rating A XV)

Projects Covered: Segment 6 Clean and Rehabilitation

Form: Excess - Occurrence

Limits:

\$15,000,000 *Each Occurrence*
\$15,000,000 *General Aggregate*
\$15,000,000 *Products & Completed Operations Aggregate*

Underlying Coverages & Limits:

Excess Liability

\$15,000,000 Each Occurrence
\$15,000,000 Aggregate
\$15,000,000 Products Completed Operations Aggregate

Excess Liability

\$10,000,000 Each Occurrence
\$10,000,000 Aggregate
\$10,000,000 Products Completed Operations Aggregate

Excess Liability

\$5,000,000 Each Occurrence
\$5,000,000 Aggregate
\$5,000,000 Products Completed Operations Aggregate

Excess Liability

\$5,000,000 Each Occurrence
\$5,000,000 Aggregate
\$5,000,000 Products Completed Operations Aggregate

General Liability

\$2,000,000 Each Occurrence
\$4,000,000 Aggregate
\$4,000,000 *aggregate* Products – Completed Operations
\$2,000,000 *aggregate* Personal – Advertising Injury

Excess Liability \$15MM x \$35MM (continued)

Special Conditions:

- All Underlying Carriers must be rated A- VI or better
- If TRIA is bound, TRIA must be bound on all underlying layers
- 25% Minimum Earned Premium

Policy Forms, Endorsements and Exclusions:

Number	Title
218-XS 04 07	Non-Pyramiding of Limits Endorsement
244-XS 07 11	Products-Completed Operations Hazard Extension Endorsement (10 Years)
188-XS 03 00	Asbestos Exclusion
113-XS 03 00	Auto Liability Exclusion
241-XS 01 13	Excess Communicable Disease Exclusion
251-XS 04 07	Exclusion – Violation of Statutes that Govern Emails, Faxes, Phone Calls, or Other Methods of Sending Information
102-XS 03 00	Nuclear Energy Liability Exclusion Endorsement
222-XS 01 13	Pre-Existing Damages Exclusion
SL-OFAC-0419	Sanction Limitation and Exclusion Clause
230-XS 04 07	Uninsured and Underinsured Auto Liability Exclusion
Excess 4011 05 06	War Liability Exclusion Endoresment
119-XS 03 00	Contractors Limitation Endoresment – Warp Ups
207-XS 04 07	Limitation of Coverage to Designated Premises or Projects
SC-9 08 18	Service of Suit Clause
231-XS 01 13	Waiver of Subrogation

Subjectivities:

- Signed Terrorism Election Form
- Written confirmation that no layers are placed above LIU, or that any such excess placements do not attract disproportionate per million premium compared to LIU.

Premium :

\$ 55,000.00	Policy Premium
Included	TRIA Premium
1,100.00	Surplus Lines Taxes & Fees
275.00	Regulatory Fee
<u>\$56,375.00</u>	Total Premium

This insurance has been placed with an insurer that is not licensed by the State of Michigan and does not participate in the State of Michigan Guarantee Fund.

Macomb County Public Works Premium Summary

INSURANCE POLICIES	Projects Covered	PROPOSED PREMIUM
General Liability <i>Everest Indemnity Insurance Co.</i>	Segment 6 Clean and Rehabilitation	\$103,276.95
Excess Liability \$5M X Primary <i>Everest Indemnity Insurance Co.</i>	Segment 6 Clean and Rehabilitation	78,412.50
Excess Liability \$5M X \$5M <i>Navigators Specialty Insurance Co.</i>	Segment 6 Clean and Rehabilitation	47,508.75
Excess Liability \$10M X \$10M <i>Capitol Specialty Insurance Corp.</i>	Segment 6 Clean and Rehabilitation	75,574.28
Excess Liability \$15M X \$20M <i>Endurance American Specialty Ins. Co.</i>	Segment 6 Clean and Rehabilitation	73,772.33
Excess Liability \$15M X \$35M <i>Liberty Surplus</i>	Segment 6 Clean and Rehabilitation	56,375.00
TOTAL		\$434,919.81

Macomb County Public Works

Premium Payment Plan

8/1/2021 to 2/1/2024

General Liability, Excess Liability \$5M x Primary, Excess Liability \$5M x \$5M, Excess Liability \$10M x \$10M, Excess Liability \$15M x \$20M, Excess Liability \$15M x \$35M	<input checked="" type="checkbox"/> Pay in Full <input checked="" type="checkbox"/> Agency Bill
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Proposal Disclosure

This document does not amend, extend, or alter coverage afforded by the policy. For a complete understanding of any insurance you purchase, you must first read your policy, declaration page, and any endorsements and discuss them with your Meadowbrook agent. A specimen policy may also be available for your review from the insurance company. Actual policy conditions may be amended by endorsement or state law."

Meadowbrook, Inc. strives to place your insurance with financially-sound insurance carriers. There are many financial rating companies who assign credit ratings to participating insurance carriers (i.e., A.M. Best Company). These ratings are the financial rating company's independent opinion about the financial stability of the insurance carrier and, as a result, vary among insurance carriers. Not all insurance carriers choose to be rated by these services. Please be aware of this rating, or lack thereof, for the insurance carrier listed on your proposal. Meadowbrook, Inc. is not responsible for, nor guarantees, the financial solvency of any insurance carrier through which it places your insurance.

We are pleased to present this insurance proposal and thank you for the opportunity. We look forward to serving you in the future.

Client Signature _____

Date _____



Candice S. Miller

Public Works Commissioner
Macomb County

To: Macomb Interceptor Drain Drainage District Board Members

CC: FILE

From: Stephen Downing, Construction & Maintenance Manager

Date: June 14, 2021

Subject: Romeo Arm Segment 6 Rehabilitation CCA Services Change Order

The MIDDD engaged with FK Engineering in July 2020 to provide engineering design services for the rehabilitation of a portion of the Romeo Arm and the 15 Mile Interceptor that is referred to as Segment 6. In May 2021, the MIDDD Board approved to accept Ric-Man Construction's bid and enter an agreement for the construction component of the rehabilitation of Segment 6. FK Engineering and their subconsultants, AEW and ASI, will provide the Construction Contract Administration (CCA) services for this project. FK Engineering provided a detailed proposal which is attached for reference. In addition to the proposal FK Engineering provides a detailed cost spreadsheet and fee schedule which are both attached for reference.

The FK Engineering proposal assumes a project duration of 15 months based on the design and the preliminary construction schedule provided by Ric-Man Construction. The CCA services are provided on a time and material basis for a not to exceed cost \$1,816,769.96. The MIDDD budgeted \$3,003,560.00 for the CCA services component of the project which leaves a remaining budget of \$1,186,790.04. The construction bids came in under budget for the project which resulted in an initial cost savings for construction and CCA Services.

The recommendation is that the Macomb Interceptor Drain Drainage District Board approve the Change Order for FK Engineering to provide Construction Contract Administration services for the rehabilitation of Romeo Arm Segment 6 for the not to exceed amount of \$1,816,769.96.

Attachments: FK Engineering CCA Proposal
FK Engineering Cost Spreadsheet
FK Engineering Change Order No. 2

OFFICE LOCATION: 21777 Dunham Road, Clinton Township, Michigan 48036 • Phone: 586-469-5325 • Fax: 586-469-5933

MAILING ADDRESS: P. O. Box 806, Mt. Clemens, Michigan 48046-0806

ENGINEERING • Phone: 586-469-5910 • Fax: 586-469-7693 ♦ **SOIL EROSION** • Phone: 586-469-5327 • Fax 586-307-8264

Date of Issuance: 6/14/21
Owner: Macomb Interceptor Drain
Drainage District
Engineer: FKE

Effective Date: 6/14/21
Owner's Contract No.: WWS-2019-023
Engineer Contract No.: 20058
Contract Name: MIDDD Segment 6 Design &
CCA

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

Add \$1,816,769.96 to the existing contract to provide CCA services for the Segment 6 Rehabilitation as described in the attached FK Engineering Proposal dated June 9, 2021.

The original Contract Sum was: \$ 393,488.00

The net change from previously approved Change Orders No. : \$ 19,050.00

The Contract Sum prior to this Change Order: \$ 412,538.00

The Contract Sum prior to this Change Order will be increased by: \$ 1,816,769.96

The new Contract Sum, including this Change Order, will be: \$ 2,229,307.96

The Contract Time will be unchanged by: 0 (days)

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

ACCEPTED:

ACCEPTED:

By: _____
Owner (Authorized Signature)

By: _____
Engineer (Authorized Signature)

Title _____

Title _____

Date _____

Date _____

Mr. Stephen Downing, P.E.
Construction & Maintenance Manager
Macomb County Public Works Office
21777 Dunham Road
Clinton Township, MI 48036

June 9, 2021
FKE Project No. 20-058

RE: Construction Contract Administration (CCA) Proposal
Segment 6 Rehabilitation
Project Number WWS-2021-002
Macomb County, Michigan

Dear Mr. Downing,

This proposal presents our scope of services and associated professional fees to perform the Construction Contract Administration (CCA) services for the Segment 6 Macomb Interceptor Drain (MID) Rehabilitation in accordance with the provisions included in the MID Drainage District (MIDDD) Request for Proposal No. WWS-2019-RFP-004. Segment 6 consists of rehabilitation of portions of the 15 Mile Interceptor between 15MI-MH-001 and 15MI-MH-004, now designated Control Structure No. 13 (CS-13); the Romeo Arm Interceptor (RAI) between Control Structure 2 (CS-2) and Control Structure 3 (CS-3), also referred to as the Romeo Arm Curve; rehabilitation of the connecting sewers from the FR-S-1 Meter Vault, and construction of a new Foul Air duct (FAD) between 15MI-MH-001 and RAI CS-3.

As part of Task 3 of WWS-2019-RFP-004, MIDDD is requesting a proposal from FK Engineering Associates (FKE) to perform CCA services for the proposed Segment 6 rehabilitation work. Key aspects of the request are listed as:

- Pre-construction Meeting
- Submittal Review
- RFI Review and Response
- Pay application review and recommendations
- Coordinate and Memorialize regular construction progress meetings
- Layout/Staking
- Site Visits by the Engineer at Important Project Milestones
- Full-time construction observation with required daily reporting
- Prepare and organize change management forms

- Record drawings
- Contract Close-out
- Update Nexgen database to include all new asset. MCPWO to assist with this effort

In the following sections, we provide project background information, our proposed scope of services, and our associated professional fees and Contract considerations. Our proposed CCA Team will include:

- FK Engineering – Prime Consultant and Geotechnical Engineering Lead
- AEW, Inc. – Subconsultant and Survey and Site/Civil Engineering Lead
- Applied Science, Inc. – Subconsultant and Hydraulic Engineering Lead
- Fishbeck, Inc. – Subconsultant and Electrical Engineering Lead (not originally part of the design team, but services related to increased design scope will be necessary under this discipline during construction)

PROJECT BACKGROUND

The 15 Mile Road Interceptor (Contract No. PCI-15B and 15C), the RAI Contract No. PCI-12A, and FR-S-1 (Contract No. PC-261) were all constructed in the early 1970's by the Detroit Metropolitan Water Services, which then became the Detroit Water and Sewerage Department (DWSD).

PCI-15C runs under 15 Mile Road from Manhole No. 001 (MH-001) at the northeast corner of Garfield Road and 15 Mile Road to a highpoint near Maynard Road. This segment of the PCI-15C sewer is a 5-foot inside diameter, reinforced concrete pipe (RCP) that flows east to west by gravity.

The RAI serves most of Macomb County and generally consists of a 132-inch inside diameter unreinforced concrete tunnel constructed in the 1970s and a 96-inch inside diameter reinforced concrete tunnel constructed in the 1980s. The RAI reach between CS-2 and CS-3 is on a gradual curve bending south to west as the interceptor advances downstream.

The proposed Segment 6 rehabilitation consists of slip-lining approximately 3,500 feet of combined length along both the RAI Curve and PCI-15C interceptors, preparing and spray lining of the FR-S-1 sewer reaches and select manholes and structures, construction of a new FAD between 15MI-MH-001 and RAI CS-3, and construction of a new flow control structure (CS-13), as well as ancillary items.

On February 8, 2021, the FKE team submitted Issued for Bid Drawings and Specifications for MIDD Project No. WWS-2021-002 (Segment 6 Rehabilitation) for Contractor bidding purposes through the Michigan Inter-Government Trade Network (MITN). In consideration of

recent bidding on this project, we have assumed a construction duration was 15 months, starting August 2021 and ending October 2022.

SCOPE OF SERVICES

In conformance with our proposal and the executed design Contract with MIDDD and FKE, we propose the following scope of services for this project.

Task 3 – Construction Contract Administration (CCA)

The following general Task 3 services are expected as part of the proposed CCA work.

Issued for Construction

Our team will prepare Issued for Construction Plans in the form of a Conformance Set. This set would include the updated electrical drawings, changes made via Addendum, and general corrections.

Pre-Construction Meeting

Our team will schedule and conduct a pre-construction meeting with the Owner and selected Contractor prior to initiating construction. The meeting will verify contractor scheduling and sequencing of the work as well as coordination with impacted utility authorities, if necessary. The pre-construction meeting also serves as an opportunity to identify, verify details, and coordinate critical components such as staging, flow control, traffic maintenance, permitting, etc. We will prepare minutes of the meeting for the project record and start tracking specific Action Items that result from this meeting.

Document Control System

Our team will review and recommend a CCA document control system (e.g., Project Team software) and make a recommendation to the MIDDD. Once a system is selected, we will implement the system and maintain project records accordingly including Contract documents, RFIs, Submittals, Daily Inspection Reports, progress photographs and videos, survey information, As-Built drawings, pay applications, etc. This system will remain in operation through the Contract schedule.

Aerial Survey/Documentation

Our team will perform pre-construction, progress, and post-construction flight(s) of project area(s). Footage from these flights may be used to supplement traditional pre-construction video records, document progress, and support documentation of restoration to pre-existing conditions.

Submittal Review and Response

We will log submittals received and coordinate with our subconsultants to ensure each is assigned to appropriate personnel related to their expertise/design work. We will keep a log of submittals, including date(s) received, returned, and approved. This will be a single document that may be readily accessed to check status once received. The Document Control System discussed previously will also provide submittal tracking status.

Request for Information (RFI) Review and Response

Similar to submittals, we will log RFIs received and coordinate to ensure each is assigned to appropriate personnel related to their expertise/design work. We will keep a log of RFIs, including date(s) received and responded to. This will be a single document that may be readily accessed to check status, once received. The Document Control System discussed previously will also provide RFI tracking status.

Contractor's Pay Applications

We will review Contractor's Pay Applications with field records to verify quantities reported and unit rates applied. We will make a formal recommendation to MIDD on the acceptability of submitted Pay Applications and work to resolve discrepancies, as necessary. As this project will be performed using SRF funds, pay application review will also include efforts related to certified payrolls as submitted by the Contractor and their subcontractors.

Construction Progress Meetings

Progress meetings will be conducted on a regular basis (approximately every two weeks) to review ongoing work and schedules and to resolve construction related issues. MIDD typically prefers the Contractor to prepare for, and run, these meetings. Our role will be to provide appropriate updates such as submittal status, RFI status, geotechnical monitoring, and other aspects of the construction. We will prepare the Minutes for each Progress Meeting with decisions, agreements, and/or actions to be taken highlighted. We will maintain an Action Item list as a working document.

Construction Staking

We will use state-of-the-art methods and equipment, including conventional survey methods, drones, and experienced personnel, to assist with phase layout and staking for the construction project.

Project Management and Senior Advisors

Our designated Project Manager and experienced Senior Advisors will participate in project meetings and make routine visits to the site during construction to stay informed on active project activities. This engagement allows our team to be readily involved and proactive should construction issues develop.

Construction Observation & Reporting

Our construction observation staff will be generally comprised of a Resident Project Representative (RPR) who will be supported by one or more Construction Observers depending on the activities occurring.

Our RPR will be an experienced engineer who was involved throughout design and has a sound understanding of the various critical aspects of the project. This individual will serve as the conduit between MIDDD, the contractor, and field staff and he will monitor overall progress, assign tasks (i.e., submittal reviews, RFI responses, etc.), review Inspection Daily Reports (IDRs), prepare letters, review geotechnical instrumentation reports, etc.

The Construction Observer will provide quality control, confirm substantial conformance with the plans and specifications, and keep the RPR and related project staff updated on progress. Daily work effort and construction quantities will be recorded in an Individual Daily Report (IDR) utilizing a documentation software (Project Team).

As construction approaches completion, the Construction Observer will prepare and maintain a substantial completion punch list to document incomplete and unacceptable items of work. Routine updates of this list will be provided to MIDDD and the Contractor. This proactive approach ensures the Contractor is aware of known issues and has an opportunity to resolve prior to the Final Inspection.

We have assumed the RPR at 32 hours per week for the full construction duration (15 months), which amounts to approximately 2,080 hours. We have assumed 1.5 full-time equivalent (FTE) Construction Observers for the estimated project duration, which amounts to approximately 4,040 hours.

Geotechnical Instrumentation

Per the Drawings and Specifications, we will install, maintain, and monitor geotechnical instrumentation throughout construction. Monitoring will include groundwater monitoring wells, inclinometers, tell-tales, and ground monitoring points (GMPs). During active construction in monitoring areas, we will prepare and issue regular monitoring reports. We will also make a final monitoring report at project close-out.

Construction Materials Testing

We will provide construction materials testing throughout construction in accordance with the project Plans and Specifications. Materials testing will include concrete cylinder molding and testing, backfill aggregate analysis (i.e., Modified Proctor, sieve, and hydrometers), compaction

density testing using an E-gauge by Troxler, groundwater testing (total suspended solids, pH), or other testing that may be required.

Contract Modification

Our team will review claims for extension of time, extra compensation, change in condition, etc. and make initial recommendations to MIDDD. As necessary, we will prepare formal contractual change documents in consultation with MIDDD. The documents may take the form of Field Orders, Contract Modifications and Change Orders. We will maintain a log of such change documents. Our scope for this item does not include significant investigational effort related to claims, such as additional subsurface geotechnical investigations, obtaining additional field samples or information, or obtaining outside experts to provide opinion. Neither does our scope include assistance related to major disputes and/or litigation. Such services would be performed as additional services in accordance with the Professional Fees and Contract Conditions section of this proposal.

Record Drawings

Our team will prepare finished as-built record drawings upon completion of construction, as based on the Contractor's as-built drawings. We will provide electronic and hard copies of these drawings for MIDDD records. Our approach will be to work with the Contractor to create/maintain these drawings as the project progresses.

Contract Close-out

Our team will conduct a final inspection to review elements of work for conformance with the Plans and Specifications as well as generally accepted quality of work. This final inspection includes confined space entries. Our team will conduct a final site walk with the Contractor and MIDDD to verify Owner's acceptance of the project. We will prepare a balancing change order to correlate discrepancies between estimated (Plan) quantities and actual field quantities, as necessary. We will coordinate with the Contractor to obtain consent of surety as well as sworn statement and waiver of Lien rights for labor, material, services, and equipment for which a Lien could be filed. Only then, and with MIDDD approval, will we prepare a final pay estimate that includes release of 100% of the retainage.

Database Updates

Upon completion of construction, our team will work with MIDDD to update their Nexgen database to reference the current condition of rehabilitated assets and incorporate new assets.

Warranty Inspection

Our team will conduct a warranty inspection to review elements of work for conformance with the Plans and Specifications as well as generally accepted quality of work. This final inspection involves confined space entries.

PROFESSIONAL FEES AND CONTRACT CONDITIONS

The following summarizes our estimated fees cost-plus (maximum) per task as discussed herein:

Task 3 – Construction Administration \$ 1,816,800

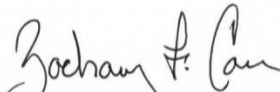
Rates used to develop our CCA budget are based on the attached MIDD D Segment 6 FKE CCA Fee and Rate Schedule (including subconsultants) and Equipment Usage Rate Schedule. Terms and conditions for our performance of the above described CCA services will be in accordance with our current MIDD D Segment 6 Rehabilitation Contract.

Additional services outside the above-described Scope of Services will be performed only upon authorization by representatives of the MIDD D and would be based on the FKE Fee and Rate Schedule, or other negotiated basis.

We appreciate this opportunity to provide this proposal, and we will be honored to continue to provide engineering services to the Macomb County and the Office of The Public Works Commissioner. If you have any questions, please call.

Respectfully submitted,

FK Engineering Associates


Zachary Carr, P.E.
Project Manager


Fritz J. Klingler, P.E.
President

NJB/ZFC/FJK

MIDDD Segment 6 FKE CCA Fee and Rate Schedule

Fees for FKE services will be charged on an hourly basis according to the following schedule:

<u>Personnel Title</u>	<u>Hourly Rate</u>
Principal	\$199.00
Project Principal Engineer	\$159.00
Senior Project Engineer	\$134.00
Project Engineer	\$119.00
Senior Staff Engineer	\$99.00
Staff Engineer	\$86.00
Senior Technician	\$72.00
Field Technician	\$57.00
Administrative Assistant	\$57.00
Senior Engineering Intern	\$58.00
Engineering Intern/Tech 3	\$53.00
Engineering Intern/Tech 2	\$48.00
Engineering Intern/Tech 1	\$42.00

Field Technician over-time will be billed at 1.3 x the hourly rate.

Fees for other standard expenses will be charged on a unit rate basis as follows:

<u>Item</u>	<u>Rate</u>
Mileage	\$0.55 per mile
Company Truck Usage	\$90 per day/\$420 per week up to 50 miles/day included Additional mileage charged at standard rate
B&W Copies (over 50 sheets/day)	\$0.12 per sheet
Color Copies (over 15 sheets/day)	\$0.55 per sheet
Subcontractors	Cost plus 12%
Direct Expenses	Cost plus 10%
Other	Cost plus 12%
Per diem	Breakfast: \$8.00/day, Lunch: \$10.00/day, Dinner: \$20.00/day

Other Terms

- 1) Invoices are due upon receipt. Invoices greater than 15 days old will be assessed a late fee of 1.5% per month for each 1-30 day period beyond 15 days.
- 2) Hourly rates for testimony will be charged at 1.40 times the standard rates indicated above.

MIDDD Segment 6 AEW CCA Fee and Rate Schedule

Fees for AEW services will be charged on an hourly basis according to the following schedule:

<u>Personnel Title</u>	<u>Hourly Rate</u>
Principal Engineer/Surveyor/Architect	\$175.00
Project Manager	\$171.50
Senior Project Engineer	\$161.00
Project Engineer/Project Surveyor/Resident Project Representative	\$146.00
Operation and Maintenance Specialist	\$140.00
Graduate Engineer/Surveyor/Architect	\$120.50
Team Leader / Designer	\$120.50
Drafter/Technician	\$99.50
One-person Survey Crew (Crew Chief) w/ Truck and Equipment	\$171.50
Two-person Survey Crew (Crew Chief and Instrument Man w/ Truck and Equipment)	\$235.50
Two-person Survey Crew (Crew Chief and Instrument Man and Assistant w/ Truck and Equipment)	\$290.50
Three Person Sewer Crew	\$340.00
Four Person Sewer Crew	\$415.00
Construction Observer	\$99.50

Other Terms

- 1) These rates are inclusive of all overhead items that are normal business operations. No reimbursable for normal business operations will be allowed, i.e., mileage, faxes, phone bills, etc.
- 2) Hourly rates for testimony will be charged at 1.50 times the standard rates indicated above.

MIDDD Segment 6 ASI CCA Fee and Rate Schedule

Fees for ASI services will be charged on an hourly basis according to the following schedule:

<u>Personnel Title</u>	<u>Hourly Rate</u>
Principal Engineer	\$175.00
Senior Project Manager	\$141.00 to \$161.00
Project Manager	\$127.00
Project Engineer	\$96.00 to \$105.00
Staff Engineer	\$79.00 to \$96.00
CADD	\$103.00
Field Engineer	\$82.00
Technician	\$68.00 to \$93.00
Controller	\$127.00
Clerical	\$78.00

Geotechnical, Groundwater, and Geophysical Equipment

3-Axis Crack Monitoring Gauge	\$ 100 / each
Vibration Monitoring (InstanTel Micromate)	\$ 75 / Day _ \$310 / Week _ \$1030 / Month
Digitilt Inclinometer, Cable, Read Out Box, Software	\$ 65 / Day _ \$260 / Week _ \$775 / Month
Double Ring Infiltrometer	\$ 260 / Use
Electric Data Logger with Transducer	\$ 105 / Day _ \$360 / Week _ \$1030 / Month
Flow Meter.....	\$ 155 / Day_ \$515 / Week
Ground Penetrating Radar (250 MHZ).....	\$ 260 / Day
Ground Resistance Tester Kit.....	\$ 105 / Day_ \$260 / Week
Hand Auger	\$ 25 / Day
Inclinometer and Reel.....	\$ 200 / Week
Inclinometer Casing	\$ 90 / 10 ft
Pneumatic Piezometer Readout Control	\$ 30 / Day _ \$125 / Week _ \$360 / Month
Power Auger Equipment.....	\$ 50 / Day _ \$205 / Week
Schonstedt Utility Locator	\$ 750 / Day
Super Stinger	\$ 2,000 / Day
Vibrating Wire Piezometer	\$ 525 / Day
Vibrating Wire Analyzer.....	\$ 75 / Day_ \$310 / Week _ \$1030 / Month
Water Level Chart Recording Equipment	\$ 50 / Day _ \$310 / Week _ \$620 / Month
Water Level Indicator	\$ 40 / Day _ \$155 / Week _ \$410 / Month

Environmental Monitoring Equipment

Level B Protection includes emergency self-contained breathing apparatus (SCBA), chemical resistant gloves and clothes, chemical resistant steel toed boots with steel boot shank.....	\$ 225 / Person / Day
Level C Protection includes air purifying respirator, chemical resistant clothing with hood, outer and inner chemical resistant gloves, chemical resistant steel toed boots, chemical resistant outer boot covers As needed: escape mask, face shield, hard hat, coveralls.....	\$ 80 / Person / Day
Level D Protection includes coveralls, chemical resistant steel toed boots, disposable boot covers, safety glasses As needed: escape mask, hard hat, face shield.....	\$ 35 / Person / Day
pH Meter	\$ 25 / Day _ \$105 / Week _ \$310 / Month
Photoionization Detector	\$ 105 / Day _ \$330 / Week
Gas Meter	\$ 50 / Day _ \$175 / Week _ \$525 / Month

Various Test and Field Equipment

10 Minute SCBA Escape Pack.....	\$ 50 / Day _ \$95 / Week _ \$245 / Month
Fall Control Device-50/100 ft.....	\$ 105 / Day _ \$410 / Week _ \$1235 / Month
Additional Company Auto/Truck Mileage.....	\$.65 / mileage over 50 miles / day
Air Compressor	\$ 30 / Day _ \$125 / Week _ \$360 / Month
Camera	\$ 20 / Day _ \$60 / Week _ \$205 / Month
Company Auto/Truck	\$ 95 / Day _ \$435 / Week _ \$1545 / Month
Concrete Testing Equipment	\$ 75 / Day _ \$205 / Week _ \$410 / Month
Confined Space Equipment Level 1 includes 10-minute SCBA, gas meter, harness, Tyvek suit, gloves, waders, lights	\$ 100 / Day _ \$220/ Week _ \$570/ Month

2021 Standard Equipment Usage Rates (cont.)

Confined Space Equipment Level 2 includes Level 1 equipment plus one fall control Device, assumes one entrant; for each additional entrant, charge Level 1 CSE		\$ 450 / Day _ \$1500/ Week _ \$4500/ Month
Confined Space Equipment Level 3 includes Level 1 equipment plus two fall control devices, assumes two entrants; for each additional entrant, charge Level 1 CSE ...		\$ 650 / Day _ \$2500/ Week _ \$6500/ Month
Cordless Sub Scanner Detection Tool	\$ 40 / Day _ \$155 / Week _ \$410 / Month	
Crack Gauges	\$ 50 / Each	
Dynamic Cone Penetrometer.....	\$ 130 /Day _ \$410 / Week _ \$1545 / Month	
Outside Equipment Rental.....	\$ cost varies	
Portable Field Lights	\$ 10 / Day	
Floating Platform Rental	\$ 100 / Day	
Generator	\$ 50 / Day _ \$205 / Week _ \$620 / Month	
Hand Power Tools.....	\$ 10 / Day	
Housel Penetrometer	\$ 20 / Day _ \$75 / Week _ \$205 / Month	
Level Troll (slug testing).....	\$ 205 / Day _ \$410 / Week	
K-90 Core Drill Machine.....	\$ 250 / Day	
Powercase w/ Sierra Modem and Solar Panel.....	\$ 50 / Day _ \$100 / Week _ \$250 / Month	
Reciprocating Saw	\$ 25 / Day	
Rotary Hammer Drill.....	\$ 25 / Day _ \$105 / Week _ \$310 / Month	
Sewer Mandrel	\$ 2500 / Day	
Survey Equipment.....	\$ 130 / Day _ \$335 / Week _ \$980 / Month	
Swiss Hammer	\$ 15 / Day _ \$60 / Week _ \$155 / Month	
Traffic Control (Truck mounted & signs only).....	\$ 155 / Day _ Per Set up	
Troxler E Gauge Model 4590 Soil Density.....	\$ 25 / Each; 250/Day Max; 150/Day Min	
Tunnel Equipment (Basic).....	\$ 50 / Day	
Underwater waterproof camera and reel	\$ 50 / Day _ \$95 / Week _ \$245 / Month	
Underwater / Special Video Equipment – including GoPros.....	\$ 155 / Day _ \$465 / Week _ \$1445/ Month	
Vane Shear.....	\$ 200 / Each	
Wheelbarrow.....	\$ 5 / Day	
Trailer – 6’ x 14’ Open Trailer	\$ 300 / Day	
ATV - Polaris.....	\$ 75 / Day	

2021 Standard Lab Rates

Fees will be charged on a per test basis according to the following schedule:

Code / Description	ASTM/AASHTO Method	Rate
LT 010-Organic Content	D 2974/T 267	\$32.50 /each
LT 020-Atterberg Limits	D 4318/T 89 & T 90*	\$35.00 /each
LT 030-Brass Liner Usage	n/a	\$1.00 /each
LT 040-Consolidation Testing	D 2345	\$350.00 / each
LT 050-Dry Density Soil Testing	D 2216	\$10.00 / each
LT 060-Hand Penetrometer Test	n/a	\$50.00 / each
LT 070-Hydrometer Analysis Soil Gradation	D 422/T 88*	\$40.00 / each
LT 080-Material Passing No. 200 Sieve	D 1140	\$15.00 / each
LT 090-pH Determination	D 4972	\$20.00 / each
LT 100-Sieve Analysis (Washed Through No. 200 Sieve) Soil Gradation	D422/T 88*	\$30.00 / each
LT 110-Unconfined Compression Test (Controlled Strain) Linear	D 2166/T 208*	\$22.50 / Liner
LT 120-Unconfined Compression Test (Controlled Strain) Shelby	D 2166/T 208*	\$32.50 / Shelby
LT 130-Water Content Soil Testing	D 2216/T 265*	\$10.00 / each
LT 140-Concrete Compressive Strength Testing	C39*	\$35.00/ each
LT 150-Modified Proctor Test	D1557	\$225.00/ each

***Note: Fees are for lab equipment use only; hourly rates for personnel will also apply.**



Candice S. Miller

Public Works Commissioner
Macomb County

To: Macomb Interceptor Drain Drainage District Board Members

CC: FILE

From: Stephen Downing, Construction & Maintenance Manager

Date: June 14, 2021

Subject: Additional Drop Shaft & Connecting Sewer Rehabilitation Design & CCA Services – FKE Change Order No. 4

The MIDDD entered an Agreement with FK Engineering in October 2019 to provide engineering design services for the rehabilitation of Romeo Arm Segment 5. The project's design did not initially include rehabilitation of the drop shaft and connecting sewers at the FR-S-2 and CT-S-7 flow metering facilities located near 15 Mile and Hayes Roads. The Owner's Representatives requested that the rehabilitation at these facilities be included in the Segment 5 project since they are located within this reach of Interceptor and because the Contractor is implementing by-pass pumping measures at each facility to facilitate the downstream work. Adding this work to the current Segment 5 Contract with FK Engineering and Oscar Renda will provide a cost savings to the MID as the Engineer and Contractor are currently on-site and working in the area.

Upon completion of the design, FK Engineering will issue a Work Change Directive to Oscar Renda Contracting to provide a cost to perform the tasks required to rehabilitate the Drop Shaft and Connecting sewer at each facility. This work includes heavy cleaning, chemical grouting, structural assessment and repair, and spray lining with a geo-polymer spray lining. A change order to Oscar Renda's contract for the work will be brought back to the Board for approval.

The recommendation is that the Macomb Interceptor Drain Drainage District Board approve Change Order No. 4 for FK Engineering to provide Design & CCA Services for the Drop Shaft & Connecting Sewer Rehabilitation at FR-S-2 & CT-S-7 for the not to exceed amount of \$35,000.00.

Attachments: FK Engineering Proposal
FKE Change Order No. 4

OFFICE LOCATION: 21777 Dunham Road, Clinton Township, Michigan 48036 • Phone: 586-469-5325 • Fax: 586-469-5933

MAILING ADDRESS: P. O. Box 806, Mt. Clemens, Michigan 48046-0806

ENGINEERING • Phone: 586-469-5910 • Fax: 586-469-7693 ♦ **SOIL EROSION** • Phone: 586-469-5327 • Fax 586-307-8264

Date of Issuance: 6/14/2021
Owner: Macomb Interceptor Drain
Drainage District
Engineer: FK Engineering

Effective Date: 6/14/2021
Owner's Contract No.: WWS-2019-013
Engineer Contract No.: N/A
Contract Name: Segment 5 Lining

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

Add \$35,000.00 to the existing contract to provide Design & CCA Services for the Drop Shaft & Connecting Sewer Rehabilitation at FR-S-2 and CT-S-7 meter facilities as described in the attached FK Engineering proposal.

The original Contract Sum was: \$ 498,881.50

The net change from previously approved Change Orders No.1 to No. 2: \$ 2,705,365.00

The Contract Sum prior to this Change Order: \$ 3,204,246.50

The Contract Sum prior to this Change Order will be increased by: \$ 35,000.00

The new Contract Sum, including this Change Order, will be: \$ 3,239,246.50

The Contract Time will be unchanged by: 0 (days)

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

ACCEPTED:

By: _____
Owner (Authorized Signature)

ACCEPTED:

By: _____
Engineer (Authorized Signature)

Title _____

Date _____

Title _____

Date _____

Mr. Stephen Downing, P.E.
Construction & Maintenance Manager
Macomb County Public Works Office
21777 Dunham Road
Clinton Township, MI 48036

May 27, 2021
FKE Project No. 20-152

RE: Design and Construction Contract Administration Proposal
Romeo Arm Lining Segment 5 – FR-S-2/CT-S-7 Work Change Directive
Project Number WWS-2020-007
Macomb County, Michigan

Dear Mr. Downing

This proposal provides our scope of services and associated professional fees to perform the Design and Construction Contract Administration (CCA) for Romeo Arm Lining Segment 5 – FR-S-2/CT-S-7 Work Change Directive. FR-S-2/CT-S-7 tie into the Romeo Arm Interceptor east of the Hayes Road and 15 Mile Road intersection in Fraser, MI.

The Macomb Interceptor Drain Drainage District (MIDDD) is requesting a proposal from FK Engineering Associates (FKE) to perform design and CCA services for this rehabilitation work. Project background information, our proposed scope of services, and our associated professional fees are presented in the following sections.

BACKGROUND

All structures are currently owned and operated by the MIDDD. These sanitary sewers serve the communities of Fraser (FR-S-2) and Clinton Township (CT-S-7). FR-S-2 is a 36-inch diameter sanitary sewer, CT-S-7 is a 24-inch sanitary sewer, and the drop manhole is 48-inches in diameter and approximately 62 feet deep.

The proposed FR-S-2/CT-S-7 rehabilitation will consist of spray lining approximately 170 feet of 24-inch and 36-inch diameter sanitary sewers, spray lining approximately 62 feet of 48-inch diameter manhole, and a flow dissipation drop structure.

Available information to formulate this propose includes the Metering Facility Drop Shaft and Connection Sewers Condition Assessment report by Giffels Webster dated September 2016.

SCOPE OF SERVICES

In accordance with our original proposal and our executed CCA Contract with MIDDD for the Romeo Arm Lining Segment 5 project, we propose the following scope of services separated by design and CCA tasks as Task 2F – FR-S-2/CT-S-7 Design and Task 2G – FR-S-2/CT-S-7 CCA.

Task 2F – FR-S-2/CT-S-7 Design

The following general Task 2F services are expected to facilitate design.

Traffic Control and Site Restoration Design

We will design and develop two plan sheets for traffic control and site restoration that will be needed for the proposed rehabilitation work. The traffic control will be in accordance with the Michigan Manual for Uniform Traffic Control Devices and any applicable local jurisdictions.

We will work with Oscar Renda to apply for and secure the required traffic control permits with the Macomb County Road Commission. We intend to apply for this permit at the earliest stage of the design process to help streamline schedule accordingly.

Spray Lining Design

We will design the required application thickness for both the sanitary sewers and drop manhole and develop a plan sheet for this. The thickness will be designed based on the current conditions of the sewers and drop manhole as documented by the Giffels Webster Condition Assessment Report.

Drop Flow Dissipation Structure Design

To help mitigate the corrosive environment due to the flow “drop” within the manhole structure, we will design a drop flow dissipation structure. This structure will be similar to the one that was designed for ST-S-4 under a separate MIDDD contract (WWS-2019-019). We will develop a plan sheet for this.

Task 2G – FR-S-2/CT-S-7 CCA

The following general Task 2A services are expected for the CCA work. These tasks are further explained in the CCA Proposal for the original CCA proposal for the Romeo Arm Lining Segment 5.

- Aerial Survey/Documentation
- Submittals
- Requests for Information (RFIs)
- Construction Observation & Reporting
- Construction Materials Testing
- Contract Modification
- Record Drawings
- Database Updates
- Warranty Inspection

We have assumed a construction duration of two weeks (40-hour weeks) to complete the rehabilitation work to be performed by Oscar Renda. We will have a full-time inspector on site and have included Resident Engineer oversight.

PROFESSIONAL FEES AND CONTRACT CONSIDERATIONS

The following summarizes our estimated fees cost-plus (maximum) per task as discussed herein:

Task 2F – FR-S-2/CT-S-7 Design	\$ 10,000
<u>Task 2G – FR-S-2/CT-S-7 CCA</u>	<u>\$ 25,000</u>
Total	\$ 35,000

These CCA services would be performed under our current MIDDD Romeo Arm - Segment 5 Contract using the affiliated rates.

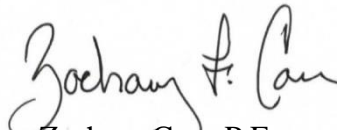
We appreciate this opportunity to provide this proposal, and we will be honored to continue providing service to Macomb County and the Office of The Public Works Commissioner. If you have any questions, please call.

Respectfully submitted,

FK Engineering Associates



Nicholas Bassett, P.E.
Resident Engineer



Zachary Carr, P.E.
Vice President

NJB/ZFC



Candice S. Miller

Public Works Commissioner
Macomb County

To: Macomb Interceptor Drain Drainage District Board Members

CC: File

From: Vincent Astorino, Operations & Flow Manager

Date: June 1, 2020

Subject: Aquasight Phase 3 Recommendation

The purpose of this memorandum is to recommend the proposal for approval of the Aquasight Phase 3 data meter data analytics software development and maintenance. The intent is to make a change order to the Aquasight existing contract for the Phase 3 development.

In May 2019, the MIDDD Board approved Aquasight Phase 1 contract for the development of the data analytics software. The purpose of this software was to replace the antiquated and non-supported McMARS software, previously used for community flow meter data processing and billing. In April 2020, the MIDDD Board approved Aquasight Phase 2 contract for the advancement of the data analytics software. Phase 2 created a web portal, along with other items, that could be used by all of the MIDDD communities to access the data for their billing flow meters. This data is used by communities for capacity evaluations, long-term planning, and billing purposes. At this time, Phase 1 has been completed which provided a fully functional and updated software, currently being used to process billing meter information and Phase 2 is nearing completion.

Phase 3 of this software development, will continue to build upon the previously completed Phase 1/Phase 2 and bring more necessary features to the software, providing communities highly reliable billing meter information. This next phase will focus the following items:

- Enhance the data extraction and downloading capabilities of data to communities, consultants, and MCPWO staff. This will allow all parties to easily extract data from the program so that long-term capacity and master planning analysis can be performed.
- Rain gauge analytics improvements, such as; incremental vs. cumulative tracing, rain gauge data QA/QC process and editing, certification of rain gauge data. This will allow MCPWO the ability to replace erroneous rain gauge data which is used for wet weather events and long-term data analysis.
- Creation of a rain gauge information platform, embedded within the MCPWO website. This feature will include the following abilities and features; GIS map of rain gauge locations, public access to download and view live/historic rain gauge data.
- Addition of eight (8) new rain gauges within the MCPWO rain gauge network into the Aquasight platform. This includes the new rain gauges installed within Clinton Township and then one in Shelby and one in Washington Township.

This proposal is for a 3 year contract that includes the following costs:

On-Boarding (Development) Fee:	\$135,579
Annual Phase 2 Subscription Fee:	\$35,500 / year (for 3 years)

MCPWO staff is recommending to award the phase 3 implementation to Aquasight in the total amount of \$242,079. The 21/22 cost for this will be \$171,079 and this has been budgeted for within the MIDDD 21/22 budget.

ORDER FORM AND SCOPE OF SERVICES

- 1. OWNER: **MACOMB INTERCEPTOR
DRAIN DRAINAGE DISTRICT
21777 Dunham Road
Clinton Township, MI 48036**

- 2. Aquasight Solution: **ACE 3.8, or higher
See Scope of Service**

- 3. Term: **3 years**

- 4. Fees:
 - On-boarding Fee: **\$ 135,579**
 - Annual Subscription Fee: **\$ 35,500 each year**

- 5. Scope of Services

- Implementation and Onboarding of Following Capabilities in ACE:

1. Export Long Term Data for all Assets & Metrics (5 years)
Download feature added in the Plotting module of the UI
2. Rain Gauge Data
Rain Gauge editing Module: Add Incremental Trace
Ability to 'zero' out the Incremental Trace and Cumulative Trace
Include annotations, retain raw and certified data
3. Provide real time data to MCPWO website
Provide user ability on MCPWO website to download data
Embed GIS live rain data for all rain gauges
Plot live rain data for all rain gauges
look back of any historical data
7. Adding Rain Guages
Adding 8 new Rain Guages

- Annual Subscription Service
 - ACE Technology and infrastructure management
 - Software and API upkeep and maintenance
 - Database maintenance
 - Bugs and help desk
 - Additional training
 - Periodic Check-ins

6. Payment Terms:

- Onboarding fees will be invoiced incrementally as detailed in the Rate Schedule
- Annual Subscription Service will be invoiced annually at the execution of the contract and the beginning of each year after the end of the first year as detailed in the Rate Schedule

7. Other terms and conditions:

- Onboarding fee includes providing OWNER access to Aquasight's ACE platform and all other necessary steps to provide OWNER with the features and services described in the Scope of Services
- Onboarding fee includes local OWNER site visits, as needed, during the course of the project
 - Any additional travel costs that may be necessary will be quoted and submitted to the OWNER through a Change Order Request. No additional charges will be incurred without OWNER's prior written approval.
- Any new features that are not described in the above Scope of Services are subject to additional cost and will be provided upon request. Additional costs will not be incurred without OWNER's written authorization.
- Raw data quality is the responsibility of the OWNER
- OWNER has to provide access to a computer that is on the network where source data is available with an internet connection
- No equipment will be provided by AQUASIGHT on-site or at OWNER's remote locations as part of this project
- Data extraction from source system is assuming industry standard data formats and readable technologies
- When requested, OWNER has to provide access to tags, basis of design, standard operating procedures, operators and experts
- Any delay for requested information can cause delays in timelines and milestones
- Pricing is up to 50 users

**OWNER: MACOMB INTERCEPTOR
DRAIN DRAINAGE DISTRICT**

PROVIDER:

By: Candice S. Miller
Its: Board Chairperson

By:
Its:

RATE SCHEDULE

Item	Amount	Invoice Date
Annual Subscription Year 1	\$35,500	7/01/2021
Onboarding Fee	\$22,596	7/1/2021
(\$135,579 total-	\$22,596	8/1/2021
billed across 6 months)	\$22,596	9/1/2021
	\$22,596	10/1/2021
	\$22,596	11/1/2021
	\$22,599	12/01/2021
Annual Subscription Year 2	\$35,500	7/1/2022
Annual Subscription Year 3	\$35,500	7/1/2023



Candice S. Miller

Public Works Commissioner
Macomb County

To: Macomb Interceptor Drain Drainage District Board Members

CC: File

From: Vincent Astorino, Operations & Flow Manager

Date: June 1, 2021

Subject: Clintondale Forcemain Valve Actuator

The 2020/2021 Macomb Interceptor Drain Drainage District (MIDDD) budget allocated \$100,000 for the installation of an actuator on the Clintondale forcemain drain valve. The existing drain valve allows for the forcemain, which conveys all flow from the pump station downstream, to be drained for various maintenance activities within the pipe and at the pump station. The existing valve is a manually operated valve. When opened, allowing the forcemain to be drained, high levels of hydrogen sulfide (H₂S) become present in the area where personnel manually open the valve. This actuator will allow personnel to remotely operate this valve and thus mitigate the risk of exposure to dangerous levels of H₂S. The purpose of this memorandum is to recommend the approval of a contractor quotation that will perform the complete installation of the actuator.

As part of the MIDDD as-needed engineering contract, MCPWO staff engaged Wade Trim to provide the design of the valve actuator, assist with the procurement of quotes for a new unit, and oversee the installation of the actuator. Upon completion of the design documents, three (3) contractors were solicited for quotations. Provided below is a summary of these quotations:

Contractor	Quotation
DeCal	\$ 39,400
Weiss	\$ 54,050
J.F. Cavanaugh	\$ 48,240

All three contractors are qualified and able to perform the work. Ultimately, DeCal was the lowest cost and MCPWO staff is recommending award of the project to DeCal.

Attachments: DeCal Quote Dated 05/10/21



24659 Schoenherr Rd.
Warren, MI 48089
586.754.4370
586.754.4371 fax

MECHANICAL CONTRACTORS

PROPOSAL

Quote #21149

05/10/21

MCPW Clintondale Pump Station – 12” Plug Valve Electric Actuator

We propose to supply all material, labor, & equipment necessary to complete the mechanical work shown & specified by: **Wade Trim (dated 03/10/2021)**

Current Due Date & Time: May 10, 2021 at 9:00 AM

Includes:

1. Furnishing & installing the electric actuator for the existing 12” plug valve
2. Furnishing & installing the electrical power & control wiring
3. Applicable sales tax

Excludes:

1. Modifying the piping
2. All prime & finish painting
3. Sampling, monitoring, abating, handling, disposing, & transporting hazardous material
4. Lead & asbestos abatement
5. Recertification of new & existing monorails & cranes used for installations
6. Costs for performance/payment bonds
7. Premium time & shift work
8. Stand-by labor for system start-up

Schedule: Delivery of Actuator is 10 to 12 weeks after release of order

Quotation: Valid for 30 days

The above work will be completed in a safe & workmanlike manner for the sum of: **\$39,400.00**

Material:	\$14,600.00
Labor:	\$6,200.00
Electrical:	\$18,600.00

If there are any questions, please call.

Respectfully submitted,

Tom Cottrell
Estimator
(586) 709-5637 cell

<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>
Macomb Interceptor Drain	Chapter 20 Chesterfield – 7.2499% Clinton – 21.2506% Fraser – 4.0512% Harrison – 6.4207% Lenox – 1.0638% Macomb – 13.9606% New Haven – 82.26% Shelby – 9.9057% Sterling Heights – 30.9081% Utica – 1.5918% Washington – 2.7751%	Astorino	Access Interactive LLC	\$ 2,874.12	Invoice #INV000106097 - 5.7.21	SCADA Server	
		Astorino	Access Interactive LLC	\$ 1,199.70	Invoice #INV000106271 - 5.25.21	SCADA Software License	
		Astorino	ADS Environmental Services	\$ 9,180.00	Invoice #35414-0421A - 5.22.21	Meter Maintenance - 4.1.21 - 4.30.21	\$ 322,250.00
		Baker	Aloia & Associates, P.C.	\$ 513.00	Invoice #21833 - 4.1.21	Garfield Road Property Sale	
		Astorino	Anderson, Eckstein & Westrick	\$ 24,653.80	Invoice #131501 - 5.27.21	Phase 2 Grouting - Engineering Oversight	\$ 198,795.55
		Downing	Anderson, Eckstein & Westrick	\$ 4,828.25	Invoice #131496 - 5.26.21	Drop Shaft & Connecting Sewer Rehab	\$ 13,639.65
		Downing	Anderson, Eckstein & Westrick	\$ 8,470.45	Invoice #131495 - 5.26.21	1.5 Mile Recovery Shaft Warranty	
		Astorino	Carleton Equipment	\$ 578.73	Invoice #05-489218 - 5.24.21	Repair Lift	
		Astorino	City of Mt. Clemens	\$ 15,522.16	Invoice #28002230 - 4.30.21	Monthly Utilities - March 2021	
		Astorino	Colville Electric Co., LLC	\$ 7,940.00	Invoice #210197 - 4.2.21	Rain Gauges	
		Astorino	Colville Electric Co., LLC	\$ 635.00	Invoice #210250 - 5.17.21	Generator Cables	
		Astorino	Department Of Roads	\$ 642.56	Invoice #301825 - 4.14.21	Fuel through 3.31.21	
		Astorino	Department Of Roads	\$ 588.39	Invoice #301825 - 4.30.21	Fuel through 4.30.21	
		Downing	Doetsch	\$ 89,560.05	Invoice #71615 - 4.28.21	Phase 2 Grouting through 5.15.21	\$ 1,063,241.00
		Astorino	DTE Energy	\$ 1,123.18	Invoice #RJM3N-5XZG3 - 5.3.21	Monthly Electric - 4.1.21 - 4.30.21	
		Astorino	DTE Energy	\$ 1,103.15	Invoice #RMCM0-VSZB5 - 6.2.21	Monthly Electric - 5.1.21 - 6.1.21	
		Astorino	DTN, LLC	\$ 778.50	Invoice #5932779 - 4.23.21	Storm Sentry - 5.15.21 - 8.14.21	
		Astorino	Fishbeck	\$ 1,875.00	Invoice #400236 - 4.21.21	GLWA Assistance through 4.16.21	\$ 15,139.37
		Astorino	Fishbeck	\$ 6,505.00	Invoice #401058 - 5.19.21	Wastewater Master Plan through 5.14.21	\$ 425,237.31
		Astorino	Fishbeck	\$ 2,850.00	Invoice #401027 - 5.19.21	GLWA Assistance through 5.14.21	\$ 12,289.37
		Astorino	Fishbeck	\$ 2,807.00	Invoice #401034 - 5.19.21	As-Needed Engineering - NGI PS Analysis	\$ 63,149.88
		Downing	FK Engineering Associates	\$ 69,807.37	Invoice #20-058-011 - 4.15.21	Segment 6 Rehabilitation - CCA	
		Downing	FK Engineering Associates	\$ 19,520.03	Invoice #20-058-012 - 5.19.21	Segment 6 Rehabilitation - CCA	
Downing	FK Engineering Associates	\$ 98,478.34	Invoice #20-152-006 - 5.19.21	Romeo Arm Liming - Segment 5	\$ 1,885,628.87		
Astorino	Hank's Auto Service	\$ 850.52	Invoice #62775 - 5.13.21	2015 Ford F-150 belt, brake pads, rotors - G. Santo			
Astorino	Hubbell, Roth & Clark, Inc.	\$ 14,346.03	Invoice #187770 - 5.14.21	3 Meter Rehabs	\$ 96,226.91		
Downing	Inland Waters	\$ 133,421.05	Invoice #WO18330 EST 7 - 6.1.21	Drop Shaft & Connecting Sewer Rehab	\$ 199,121.83		
Downing	Inland Waters	\$ 109,883.75	Invoice #WV18331 Est 4 - 6.2.21	Drop Shaft & Connecting Sewer Rehab	\$ 118,700.00		
Downing	KHVPP, PLC	\$ 1,935.00	Invoice #46598 - 5.1.21	General Matters - April 2021 - Contracts			
Astorino	Macomb County Treasurer	\$ 27,436.00	Invoice #21-231 - 5.18.21	Reimbursement for Ford F-150 Purchase - Roscopp	\$ 107,772.89		
Astorino	METCO Consulting Services	\$ 4,070.41	Invoice #1717-21 - 4.2.21	OMID Flow Control Services through 3.28.21			
Astorino	METCO Consulting Services	\$ 4,428.98	Invoice #1717-22 - 5.3.21	OMID Flow Control Services through 4.30.21	\$ 103,343.91		

<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>
MIDD continued		Astorino	METCO Consulting Services	\$ 2,532.16	Invoice #1717-23 - 6.4.21	Flow Control Services through 5.30.21	\$ 100,811.75
		Downing	Oscar Renda Contracting	\$ 227,700.00	Invoice #WO19024, Est #9 - 5.31.21	Segment 5 Lining through 5.31.21	\$ 21,962,565.00
		Astorino	NTH Consultants, Ltd.	\$ 22,519.63	Invoice #626063 - 5.2.21	Meter & Drop Shaft Rehab	\$ 2,906.61
		Downing	Tetra Tech, Inc.	\$ 11,712.14	Invoice #51729690 - 5.3.21	Odor & Corrosion Design through 4.23.21	\$ 766,100.36
		Downing	Tetra Tech	\$ 36,327.50	Invoice #51743362 - 6.3.21	Odor & Corrosion Project Design	\$ 729,772.86
		Sucharski	Verizon Wireless	\$ 1,085.28	Invoice #9876174842 - 3.23.21	Monthly Cellular - 3.24.21 - 4.23.21 (Eq. Fund)	
		Sucharski	Verizon Wireless	\$ 828.25	Invoice #9876174842 - 3.23.21	Monthly Cellular - 3.24.21 - 4.23.21	
		Sucharski	Verizon	\$ 1,207.76	Invoice #9880456107 - 5.23.21	Monthly Cell - 4.24.21 - 5.23.21 - Equipment Fund	
		Sucharski	Verizon	\$ 788.19	Invoice #9880456107 - 5.23.21	Monthly Cell - 4.24.21 - 5.23.21	
		Astorino	Weiss Construction	\$ 207,795.15	Invoice #WO18351 EST #2 - 6.3.21	3 Meter Rehabs	\$ 647,158.85
Biofilter		Astorino	Delecke Welding Inc.	\$ 720.00	Invoice #13999 - 5.7.21	Welding for Doors	
		Astorino	FCx Performance	\$ 647.50	Invoice #4736756 - 4.27.21	Preventative Maintenance for Sage Prime Meters	
CPS		Astorino	Cintas Fire	\$ 1,253.46	Invoice #0D26597763 - 6.2.21	Annual Fire Extinguisher Inspection	
		Astorino	Cintas Fire	\$ 852.61	Invoice #0D26596176 - 6.2.21	Annual Alarm Inspection	
		Astorino	Clinton Township Treasurer	\$ 2,933.88	Invoice #21-224 - 4.30.21	Monthly Utilities - 3.23.21 - 4.27.21	
		Astorino	Clinton Township Treasurer	\$ 2,395.37	Invoice #21-407 - 5.31.21	Monthly Utilities - 4.27.21 - 5.25.21	
		Astorino	Colville Electric Co., LLC	\$ 813.06	Invoice #212062 - 5.24.21	Generator Cables	
		Astorino	Colville Electric Co., LLC	\$ 1,081.80	Invoice #WO9210799 - 5.14.21	Pump Maintenance	
		Astorino	Cummins Sales & Service	\$ 3,284.20	Invoice #S6-69349 - 5.29.21	Full Preventative Maintenance Service - Generator	
		Downing	De-Cal, Inc.	\$ 1,081.80	Invoice #WO9210799 - 5.14.21	Correct ARV Issues	
		Astorino	De-Cal, Inc.	\$ 1,456.80	Invoice #WO90020099 - 1.5.21	Quarterly ARV Maintenance	
		Astorino	De-Cal, Inc.	\$ 1,917.44	Invoice #WO9201893 - 1.4.21	Maintenance and Cleaning	
		Astorino	De-Cal, Inc.	\$ 1,917.44	Invoice #WO90020091-4 - 1.4.21	4th Quarter PM	
		Astorino	DTE Energy	\$ 15,284.90	Invoice #RJY8Z-P094K - 5.3.21	Monthly Electric - 4.5.21 - 5.3.21	
		Astorino	DTE Energy	\$ 14,223.26	Invoice #RMCM0-VPJHN - 6.1.21	Monthly Electric - 5.4.21 - 6.1.21	
		Astorino	Great Lakes Pest Control	\$ 500.00	Invoice #60887 - 5.7.21	Exterior Pest Spray	
		Astorino	McNaughton-McKay Electric	\$ 828.76	Invoice #21351782-00 - 1.13.20	Filter Fans	

<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>
15 Mile Interceptor Meters		Downing	Huntington National Bank	\$ 500.00	Invoice #33889 - 5.3.21	2017 Refunding Bonds - Bond Paying Fee	\$ 251,802.83
		Astorino	Fishbeck	\$ 7,006.17	Invoice #400231 - 4.21.21	2020 Inspection Program through 4.16.21	\$
		Astorino	ADS Environmental	\$ 9,860.00	Invoice #35414-0121A - 2.20.21	Meter Maintenance - 1.1.21 - 1.31.21	\$ 351,150.00
		Astorino	ADS Environmental	\$ 10,200.00	Invoice #35414-0221A - 3.27.21	Meter Maintenance - 2.1.21 - 2.28.21	\$ 340,950.00
		Astorino	ADS Environmental	\$ 9,520.00	Invoice #35414-0321A - 4.24.21	Meter Maintenance - 3.1.21 - 3.31.21	\$
		Astorino	Battery Giant of Macomb	\$ 563.70	Invoice #52847 - 5.4.21	Batteries	\$ 331,430.00
		Astorino	Battery Giant of Macomb	\$ 563.70	Invoice #52903 - 5.6.21	Batteries - Metering Sites	
		Astorino	Battery Giant of Macomb	\$ 563.70	Invoice #52990 - 5.9.21	Batteries - Metering Sites	
		Astorino	DTE Energy	\$ 501.11	Invoice #RHF9D-F3X10 - 4.22.21	Monthly Electric - 2.20.21 - 3.23.21	
		Astorino	De-Cal, Inc.	\$ 11,578.36	Invoice #WO90020084-1 - 1.6.21	ARV Maintenance	
NGI		Astorino	\$ 16,642.10	Invoice #401056 - 5.19.21	2020 Inspection Program	\$ 235,160.73	
SEMSD		Astorino	\$ 12,119.00	Invoice #401137 - 5.20.21	Wastewater Master Plan through 5.14.21	\$	
			\$ 1,311,711.70				\$ 62,706.60
					Total		

Budget to Actual
MIDD
As of May 31, 2021 = 92%

DESCRIPTION	2021 FINAL BUDGET	ENCUMBERED	ACTUAL	REMAINING BUDGET	PCT UTILIZED
REVENUE ACCOUNTS					
GLWA-OMID	47,262,993		43,330,775	3,932,218	91.7%
OMID O&M	3,828,987		3,509,905	319,082	91.7%
Settlement	100,000		12,500,000	(12,400,000)	12500.0%
EGLE Testing Grant	-		366,128	-	0.0%
SRF 5659-03	-		2,505,992	-	9.6%
Reimbursements	225,000		162,291	62,709	72.1%
PY Revenue-Fund Balance	8,388,627			8,388,627	0.0%
Washington Twp Meter Project	47,475			47,475	0.0%
Reimb-Local Communities	13,548,089		10,161,067	3,387,022	75.0%
Interest	250,000		39,536	210,464	15.8%
<i>Total Revenue Accounts</i>	<i>73,651,171</i>	<i>-</i>	<i>72,575,694</i>	<i>3,947,597</i>	<i>98.5%</i>
EXPENSE ACCOUNTS					
GLWA-OMID	47,262,993		43,330,775	3,932,218	91.7%
OMID O&M	3,828,987		3,509,905	319,082	91.7%
Public Works Wastewater Disposal Division	1,942,127		764,147	1,177,980	39.3%
Office Operations/Insurance	309,925		254,187	55,738	82.0%
SCADA	268,889		40,963	227,926	15.2%
Engineering					
Meter Dye Testing 2 year contract new this year	100,000		25,300	74,700	25.3%
Data Review-Aquasight	250,000		157,076	92,924	62.8%
Replenish reserve from CPS refunding	618,680			618,680	0.0%
Design Odor and Corrosion	750,000		36,270	713,730	4.8%
Construction Project for Odor and Control	1,000,000			1,000,000	0.0%
SY-S-1,SY-S-2, WA-S-1 Construction Admin	250,000		46,804	203,196	18.7%
FKE Rehab analysis phase 2	84,000		33,500	50,500	39.9%
Seg 5 Construction ⁽¹⁾	1,150,000		3,884,284	(2,734,284)	337.8%
Seg 5 Lining SRF(\$26 Million)	-		2,505,992	-	9.6%
Phase II Grouting	3,825,000		1,196,625	2,628,375	31.3%
GLWA Assistance	40,000		12,450	27,550	31.1%
Drop Shaft	-		1,414,311	(1,414,311)	100.0%
As Needed FTCH	75,000		26,912	48,088	35.9%
As Needed FK Engineering	75,000		6,898	68,102	9.2%
As Needed Wade Trim	75,000		5,545	69,455	7.4%
As Needed Metco	125,000		23,378	101,622	18.7%
As Needed Applied Science	25,000			25,000	0.0%
As Needed Odor and Corrosion	75,000		53,366	21,634	71.2%
Seg 5 Engineering Design ⁽¹⁾	374,557		426,078	(51,521)	113.8%
Contribution to Segment 5/Grouting	1,450,000		1,085,419	364,581	74.9%
15 Mile Inter Design East of Garfield (Segment 6)/Const Admin	1,500,000		382,046	1,117,954	25.5%
SY-S-1 & SY-S-2 Meter Design/Rehab	1,134,070			1,134,070	0.0%
Level Sensors/Pressure/H2S-Meters	250,000			250,000	0.0%
Wastewater Master Plan/Contract Capacity	400,000		64,026	335,974	16.0%
EGLE Testing Grant	-		330,304	-	0.0%
Washington Township meter	500,000			500,000	0.0%
Legal Services	250,000		24,373	225,627	9.7%
Clintondale PS O&M	639,500		218,063	421,437	34.1%
NGI O&M	230,000		85,884	144,116	37.3%
Meters O&M	253,470		218,547	34,923	86.2%
CS-3 O&M	226,000		7,110	218,890	3.1%
Biofilter O&M	22,500		11,687	10,813	51.9%
Contribution Life Cycle Reserve	171,700			171,700	0.0%
Interceptor O&M	1,900,000		18,659	1,881,341	1.0%
Stormwater Pump Stations	234,250		214,729	19,521	91.7%
Sewage Disposal Charges - Mt. Clemens	200,000		139,596	60,404	69.8%
Debt Service - Revenue Bonds	1,784,523		1,635,813	148,710	91.7%
<i>Total Expense Accounts</i>	<i>73,651,171</i>	<i>-</i>	<i>62,191,022</i>	<i>14,296,445</i>	<i>84.4%</i>

	O&M Balance 6/30/2020	O&M	Total 5/31/2021
Cash - Operating	24,226,346	10,384,671	34,611,017
Accounts Receivable			0
Assets			0
Liabilities			0
Revenues		72,575,694	72,575,694
Expenditures		62,191,022	62,191,022
			0
Equity*	24,226,346		34,611,017

Detail of 2020 Equity*

Projected reserve at 6/30/2020	6,818,887
Projected Engineering Reserve	12,920,000
Projected Sinkhole Surplus	3,656,059
Life Cycle Reserve	831,400

Note

1) Using proceeds from lawsuit settlement to fund Segment 5 construction and engineering