

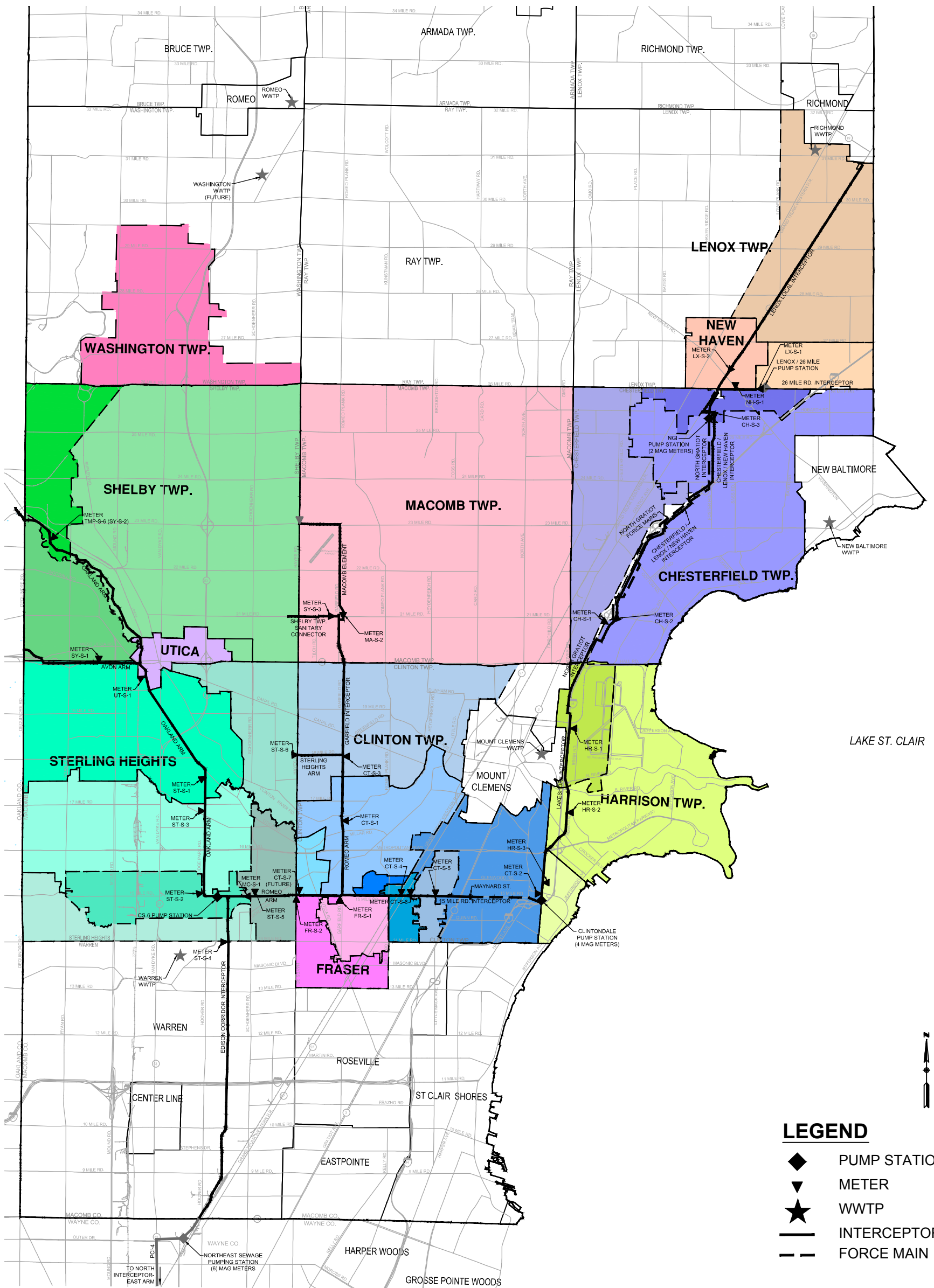
MACOMB INTERCEPTOR DRAIN
INTRA-COUNTY DRAINAGE BOARD
FEBRUARY 13, 2023
10:30 A.M.
AGENDA

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

**Call in Number: 1-224-990-0182
Access Code: 927 405 823**

	Page
1. Call of meeting to order and roll call	
2. Approval of Agenda for February 13, 2023	
3. Approval of Minutes for January 9, 2023	3
4. Public Participation	
5. Project Updates – Stephen Downing/Vince Astorino	6
6. Clintondale Pump Station Plug Valves Installation – Vince Astorino	25
Motion: To approve the bid from Progressive Mechanical for the installation of three plug valves at Clintondale Pump Station totaling \$78,486.	
7. Three Year Meter Maintenance Award – Vince Astorino	28
Motion: To approve the three year Meter Maintenance proposal from HESCO for a not to exceed amount of \$466,200 (MIDD Share \$421,200).	
8. Consideration for approval of invoices (see attached)	39
9. Financial Report – Bruce Manning	41
10. Adjourn	

MACOMB INTERCEPTOR DRAIN DRAINAGE DISTRICT



LEGEND

- ◆ PUMP STATION
- ▼ METER
- ★ WWTP
- INTERCEPTOR
- - - FORCE MAIN



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 in the Office of the Macomb County Public Works Commissioner, 21777 Dunham Clinton Township, Michigan on January 9, 2023, at 10:52 A.M.

PRESENT: Candice S. Miller, Chair
Bryan Santo, Member
Don VanSyckel, Member

ALSO PRESENT: Daniel Acciavatti, Deputy Government Relations; Vince Astorino, Operations & Flow Manager; Brian Baker, Chief Deputy; Stephen Downing, Construction and Maintenance Manager; Norb Franz, Communications Manager; Bruce Manning, Finance Manager; Pam Sonnenberg, Administrative Assistant

PRESENT VIA TELECONFERENCE: Salvatore Saputo, Executive Vice President Meadowbrook Insurance Group; Patrick Kennedy, Account Executive Meadowbrook Insurance Agency; Mary Shepherd, Environmental and Safety Services Supervisor City of Sterling Heights

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

Adopted: YEAS: 3
NAYS: 0

Minutes of the meeting of December 12, 2022 were presented. A motion was made by Mr. VanSyckel, supported by Mr. Santo to approve the minutes as presented.

Adopted: YEAS: 3
NAYS: 0

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

Mr. Downing updated on the Segment 5 Rehabilitation project. Oscar Renda finished the final wall pour for the structure before the holiday break. The electrical contractor is onsite running conduit for the pumps. They continue the spray lining in the 8 foot section and in the drop manholes. They are also continuing construction of the CS-12 permanent structure. Mr. Downing then presented photos of the work being done.

Next, Mr. Downing updated on Segment 6. The contractor's had a hard time getting down to depth because of the clay. When they finally were able to reach the depth, they were ready to pour the mud mat the following morning, but when they showed up there was seven feet of water in the shaft. They must have hit a sandy, silt, seam and it flooded the shaft. They tried to pump it out but instead installed dewatering wells. Hopefully within a week, the dewatering wells will work and allow us to pour the mud mat.

Mr. Downing then showed pictures of the project and spray lining of the FRS-1. Mr. VanSyckel asked how big the pipe is, Mr. Downing said 36 inches.

Mr. Astorino then updated on the 21 Mile Road and Garfield Interceptor Lining project. This project will utilize a spiral wound PVC liner for the first time in Michigan. There was a delay due to the product being stuck on a boat in the Panama Canal. The product is anticipated to arrive at port the week of January 9th and then be trucked to the project site. There are also two connecting pipes, one in Macomb Township and one in Shelby that need repair. They have some pipe deterioration issues so while we are in the area, we'd like to get that taken care of as well. The contractor gave us a price which was higher than expected so we are putting together a bid package.

Mr. Astorino updated on the Interceptor Inspection program. We are working on a lot of punch list items and making progress. We are hoping to get that done before the 2023 inspections begin.

Mr. Downing updated on the Phase II Grouting. He said it remains paused because of staffing. There are no critical areas at this time.

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

Adopted: YEAS: 3
NAYS: 0

Mr. Downing presented a time only extension change order for Segment 6. We have an ongoing Builder's Risk Claim associated with the HOBAS pipe failure. According to the contract, completion was due at the end of this month. This change order is for a time only extension due to this failure. The new substantial completion date would be May 25, 2023 and final completion being achieved within 30 calendar days. There will be a financial transaction at some point that comes through once we finalize the Builder's Risk Claim.

A motion was made by Mr. VanSyckel, supported by Mr. Santo to approve Change Order #2 to the Segment 6 Ric-Man Construction contract for a 4-month time only extension with no increase in cost.

Adopted: YEAS: 3
NAYS: 0

Mr. Downing presented on the Odor and Corrosion Control Facility project. L. D'Agostini & Sons are ready to start field work in late January or early February 2023. We need to bind coverage for the Builder's Risk, OPPI, and Pollution policies to be effective when the field work begins. Meadowbrook Insurance Agency shopped the policies from the insurance market. A complete breakdown of each policy and premium can be found in the attached proposal.

A motion was made by Mr. Santo, supported by Mr. VanSyckel to approve the Builder's Risk, Professional Indemnity, and Pollution Protection Insurance premiums totaling \$261,111.03 through Meadowbrook Insurance for the Odor and Corrosion project.

Adopted: YEAS: 3
NAYS: 0

Mr. Downing presented on the Construction Project Safety Manager. He previously presented the need for a Construction Project Safety Manager during the 8 ½ Mile Relief Drain meeting and reiterated that the time would be split 75% MID and 25% 8 ½ Mile Relief and the contract will be adjusted to make the hourly rate of \$97 all inclusive.

A motion was made by Mr. VanSyckel, supported by Mr. Santo to approve the proposal from Meadowbrook Insurance for the addition of a temporary Construction Project Safety Manager for a 9-month period with an all-inclusive cost of \$97 per hour, 40 hour work week position for an estimated MIDD cost of \$104,760.

Adopted: YEAS: 3
NAYS: 0

The Chair presented the invoices totaling \$1,385,556.68 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. Santo, supported by Mr. VanSyckel, that the meeting of the Macomb Interceptor Drain Board be adjourned.

Adopted: YEAS: 3
NAYS: 0

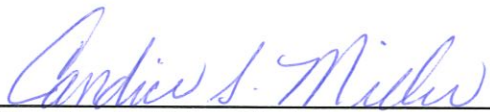
The meeting was adjourned at 11:15 A.M.



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 taken by the Intra-County Drainage Board for the Drainage District shown on the attached set of minutes, on January 9, 2023 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: 1/09/23



Candice S. Miller

Public Works Commissioner
Macomb County

To: Macomb Interceptor Drain Drainage District Board Members

CC: File

From: Stephen Downing, Construction & Maintenance Manager
Vincent Astorino, Operations & Flow Manager

Date: February 13, 2023

Subject: Construction Projects Status Updates for February 2023 Board Meeting

The following provides a status update for construction work performed 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 geo-polymer 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. Ground dewatering well maintenance and monitoring.
3. Continued spray-lining the 8-foot diameter interceptor (PCI-37) – 1300 Linear feet total
 - Approximately 900 linear feet is completed (5 to 7 o'clock)
 - Approximately 825 linear feet is completed (entire circumference of pipe)

- Approximately 60-65% completed
- 4. Completed the spray-lining of the CT-S-7 FR-S-2 drop manholes.
- 5. Continued construction of the CS-12 permanent structure, which includes:
 - a. Rebar assembly for the concrete top panels
 - b. Continued application of the protective epoxy coating.
 - c. Starred the installation of the pumps and piping
- 2. Electrical conduit installation for the permanent CS-12 Pumps

Construction Costs:

	Date	
Original Contract Amount	10/21/2020	\$28,807,500.00
Current Contract Amount	01/31/2023	\$31,702,534.88
Total Spent to Date	01/31/2023	\$15,374,778.56
Remaining Budget	01/31/2023	\$16,327,756.32

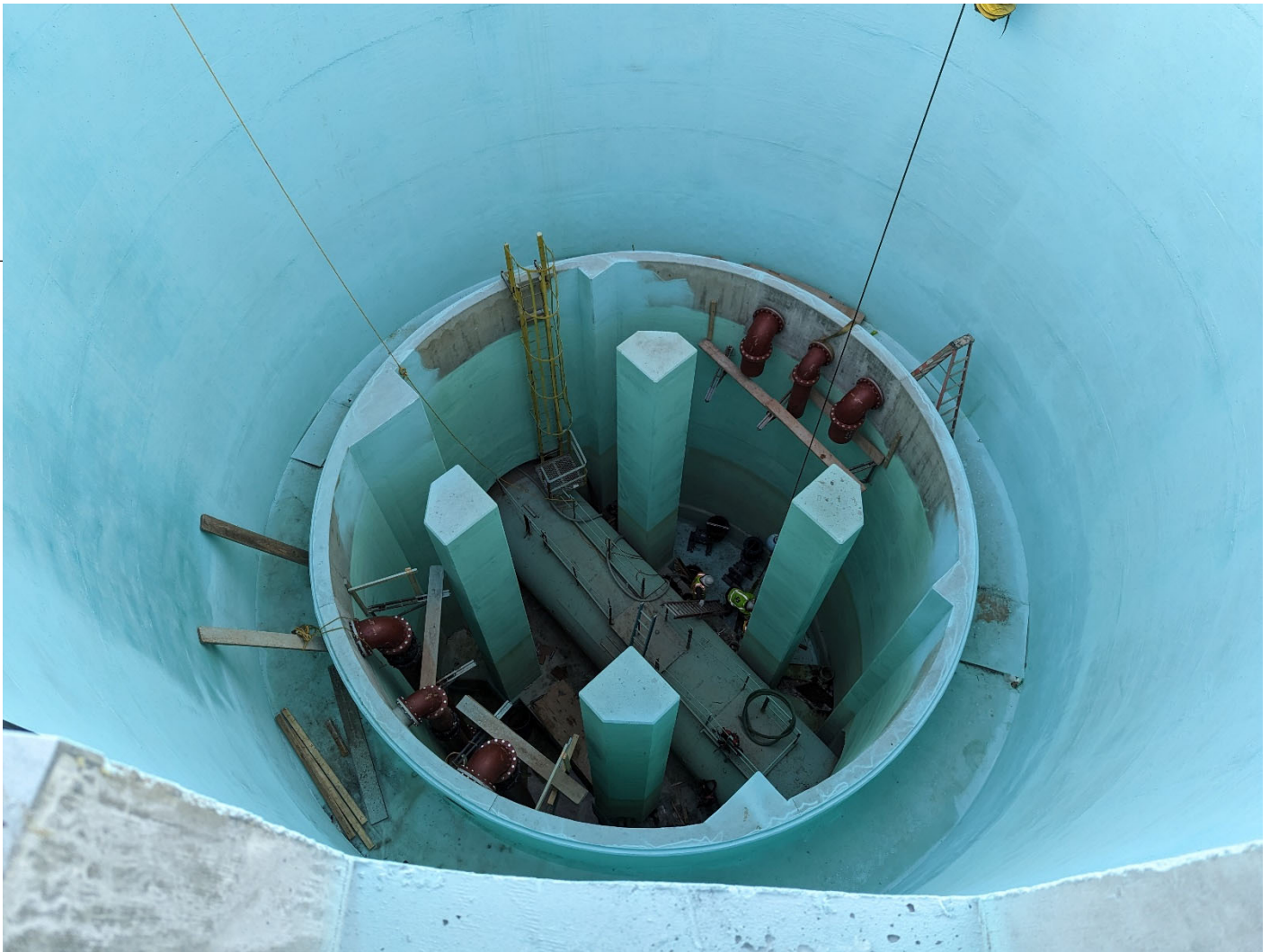


Figure 1 – CS-12 Structure

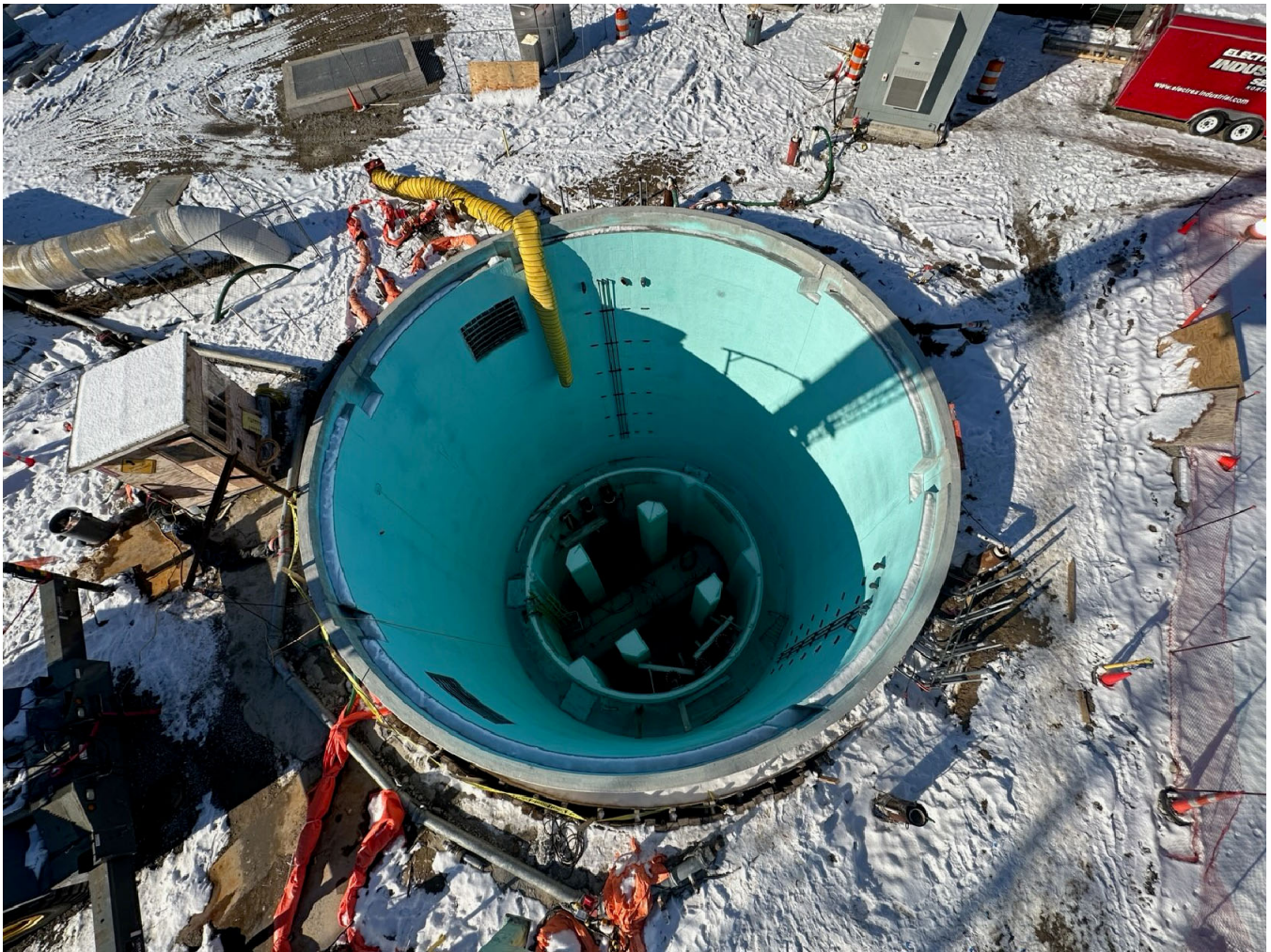


Figure 2 - CS-12 Concrete Structure – Aerial View



Figure 3 – CS-12 Pump & Pipe Installation



Figure 4 - CS-12 Pump & Piping Installation



Figure 5 - CS-12 Flume Pipe Installation



Figure 6 – CS-12 Electrical Conduit Duct-bank for Pumps



Figure 7 – CS-12 Coring Holes for Electrical Conduit

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 started in September 2021 and is scheduled to be completed in June 2023.

Significant project tasks that have occurred over the past month:

1. The Contractor continues to develop and submit the required submittals to the Engineer & Owner for review.
2. The Project team is working with the insurance carrier on a Builder's Risk Claim to determine if a claim condition exists for the damaged HOBAS pipe and installation of the remaining 240 feet of pipe.
 - a. The Insurance Carrier issued partial payment for the undisputed amount of the claim, they have not taken a formal position on the balance of the claim which consists of 80% of the costs associated with the additional lining shaft.
3. The Contractor completed installation and development of two ground dewatering wells.
4. Completed excavation of the tail-tunnels on the additional lining shaft and installed the jacking equipment to re-start pipe-jacking operations.
5. Performed an inspection of the damaged HOBAS which appears to be in the same condition as previously observed.
6. Performed the preliminary flow control testing for the cleaning and HOBAS lining work between CS-2 and CS-3.

Construction Costs:

	Date (if applicable)	
Original Contract Amount	5/1/2021	\$13,541,545.00
Change Order No. 1	8/1/2021	\$132,664.70
Total Contract Amount	01/31/2023	\$13,674,209.70
Total Spent to Date	01/31/2023	\$7,102,844.92
Remaining Budget	01/31/2023	\$6,571,364.78



Figure 8 – Lining Completion – Drilling Dewatering Well



Figure 9 – Lining Completion Shaft – Tail-Tunnel Excavation



Figure 10 – Lining Completion Shaft – Tail-Tunnel Excavation



Figure 11 – Lining Completion Shaft Tail-Tunnel

Garfield Interceptor Lining Project

Contractor: SAK Construction, LLC

Engineering Consultant: AEW

Project Description: MCPWO identified 755 feet of 7-foot diameter pipe within the Garfield Interceptor that has been aggressively attacked with Hydrogen Sulfide damage. This stretch of pipe was immediately labeled as an immediate repair and MCPWO underwent an analysis of options for repairs. The selected option was a Spiral Wound PVC liner which has been installed around the world but is the first time being installed within Michigan. This product has a guaranteed useful life of 50-years and is being treated as a pilot project within the MID system.

Significant project tasks that have occurred over the past month:

- Submittals have been submitted and reviewed by MCPWO and AEW.
- Spiral Wound lining has arrived on site in the past month.
- Traffic control plans approved by MCDOR.
- Mobilization and traffic control in place on 2/6/23.
- Lining to commence by 2/9/23.

Construction Costs:

	Date (if applicable)	
Original Contract Amount	8/25/2022	\$2,394,385.00
Total Spent to Date	10/31/22	\$84,145.50
Remaining Budget	10/31/2022	\$2,310,239.50



Figure 12 – Spiral Wound Lining Being Set in Place

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 November of 2022.

Significant project tasks that have occurred over the past month:

1. The Consultant is reviewing the data and preparing inspection reports.
2. The Owner's Representatives, Engineering Consultant and Contractor are coordinating completion of the remaining areas to be inspected, which included:
 - a. CT-S-1 Drop connection. Doetsch issued change order which will be paid with a 50/50 split between MIDDD and Clinton Twp to clean and finish the inspection.
 - i. Cleaning and inspection completed.
 - b. Lenox Local missing segments. Doetsch issued change order which will be paid for by Lenox Local funds to clean and finish the inspection.
 - i. Cleaning and inspection underway.
 - c. Northeast Relief. Doetsch issued change order which will be paid for by SEMCWWDS funds to clean and finish the inspection.
 - i. Cleaning and inspection completed.

Working through punch list items to finalize the Doetsch inspection work.

Construction Costs:

	Date (if applicable)	
Original Contract Amount	1/19/2021	\$280,034.00
Total Spent to Date	9/30/2022	\$184,971.35
Remaining Budget	9/30/2022	\$95,062.65

***This Table reflects the MIDDD costs only.**

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. The crew has not worked since late July 2022.
2. The critical area grouting is complete, grouting operations will resume in non-critical areas when daily flow control operations allow.

Construction Costs:

	Date	
Original Contract Amount	6/24/2020	\$3,000,000.00
Change Order No. 1	3/14/2022	\$3,000,000.00
Current Contract Amount	1/31/2023	\$6,000,000.00
Total Spent to Date	1/31/2023	\$4,432,736.20
Remaining Budget	1/31/2023	\$1,567,263.80

Odor & Corrosion Control Facilities

Contractor: L. D'Agostini & Sons

Engineering Consultant: Tetra Tech

Project Description:

The Macomb Interceptor Drain completed a system-wide odor and corrosion study to evaluate the need for additional odor and corrosion control facilities to mitigate corrosion induced degradation of the interceptor and nuisance odors emitting from the interceptor near homes, businesses and public spaces. This effort is concentrated on extending the useful life of the interceptor and reducing nuisance odors emitting from the interceptor.

The study identified the need to construct three new odor and corrosion control facilities. Additionally, it was determined that the existing open-bed woodchip media type Fraser Bio-Filter would be more efficient and effective if converted to an enclosed bio-filter with an engineered media. The locations of the new facilities were determined through analysis and computer modeling using data that was collected in the field during the study phase. The facilities are intended to complement one another to reduce hydrogen sulfide induced corrosion.

The facilities are summarized in the Table below:

Facility	Location	Filter Type	Media Type
Fraser	15 Mile & Garfield	Bio-Filter	Engineered
Macomb Township	21 Mile & Garfield	Bio-Filter	Engineered
Clintondale Pump Station	Union Lake & Sorrentino	Carbon Filter	Carbon
NGI Pump Station	Gratiot & Concordia	Chemical Injection	Calcium Nitrate

The construction contract was awarded to L. D'Agostini & Sons in October of 2022 and the contractual Notice to Proceed was issued with an effective date of December 2, 2022. The number of days to achieve substantial completion is 630 days, resulting in a contractually required substantial completion date of August 23, 2024.

The construction work commenced in January of 2023 and is estimated to be completed by the summer of 2024. The estimated schedule for each site is summarized in the table below:

Facility	Location	Start Date	Finish Date
Fraser	15 Mile & Garfield	March – 2023	January – 2024
Macomb Township	21 Mile & Garfield	April – 2023	April – 2024
Clintondale Pump Station	Union Lake & Sorrentino	September – 2023	May – 2024
NGI Pump Station	Gratiot & Concordia	January – 2023	October – 2023

*The dates are based on the Construction schedule dated February 7, 2023

Significant project tasks that have occurred over the past month:

1. The Contractor is developing and submitting the required submittals to the Engineer & Owner for review.
2. The Contractor is working on obtaining the required permits from various agencies.
3. The gas line relocation was performed at the NGI Pump Station by the utility Owner.
4. The Contractor installed SESC measures.
5. The Contractor conducted the pre-construction audio-visual inspection for project record.

Construction Costs:

	Date	
Original Contract Amount	12/2/2022	\$11,799,678.78
Current Contract Amount	12/2/2022	\$11,799,678.78
Total Spent to Date	1/31/2023	\$0
Remaining Budget	1/31/2023	\$11,799,678.78



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: January 13, 2023

Subject: Clintondale Pump Station Plug Valve Replacement Recommendation

Macomb County Public Works Office (MCPWO), on behalf of the Macomb Interceptor Drain Drainage District, has recently replaced one of the four plug valves at Clintondale Pump Station. These plug valves are within the pump discharge piping and are used to stop flow from draining back from the 15 Mile forcemain and recirculation of flows between pumps. The plug valve on pump 2 which recently failed was unable to be rebuilt and therefore had to be completely isolated out which meant that the pump was out of service for close to a year waiting for new parts.

In December 2022, MCPWO brought the recommendation to the board to purchase three (3) new plug valves which was approved. These new plug valves have a 22-24 week lead time. During that time, MCPWO was competitively bidding the removal of the existing valves and then installation of the new ones. Three bids were received, and those numbers are as follows:

Contractor	Cost
J.F. Cavanaugh	\$80,100.00
De-Cal, Inc.	\$118,300.00
Progressive Mechanical	\$78,486.00

MCPWO has reviewed all three proposals and there are no issues. All three (3) companies can perform the work and MCPWO is confident that the low bidder can complete the project as bid.

The total budget for this work was estimated at \$100,000. The purchase and installation of the valves is at \$143,718. Therefore, MCPWO will budget the additional funds within the upcoming 23/24 budget.

MCPWO staff is recommending to award the installation of the three plug valves from Progressive Mechanical in the total NTE amount of \$78,486.

Attachments: Progressive Mechanical Proposal 12-16-22



December 16, 2022

Mr. Vince Astorino

Chapaton Pump Station
23001 E. 9 Mile Road,
Saint Clair Shores, Mi

**RE: Sluice Gate Stem and Plug Valve Replacement
Quote file 6987**

Mr. Astorino,

Progressive Mechanical, Inc. is pleased to provide you with our mechanical proposal for the project mentioned above. We propose to furnish labor, supervision, materials, and equipment for the sum of \$128,045.00 for the 3 work items listed below (One Hundred – Twenty-Eight Thousand Forty- Five Dollars). For the work items listed below as original scope. For the alternate listed below add 5,454.00 (Five Thousand Four Hundred & Fifty -Four dollars)

Ease Sluice Gate Stem Replacement Scope cost \$42,105.00

Scope

- Remove the existing actuator and actuator base on the east screening room sluice gate.
- Disassemble the 3 sections of 4" Diameter shafting installed on the east screening room sluice gate.
- Install new anchor bolts for the lowest shaft support for the east screening room sluice gate.
- Install Non shrink grout between the new lower shaft support and the existing concrete wall.
- Install new shafting and the upper support for the east screening room sluice gate using the existing concrete anchors. (All Shafting, supports, couplings and shaft hardware supplied by others)
- Reinstall the existing Actuator and pedestal on the existing anchor bolts.
- Repair grout under actuator pedestal If needed.

Valve Replacement Cost \$78,486.00

Scope

- Disconnect and remove the differential pressure switch where the valves are to be removed.
- Remove the 3 existing 24" plug valves from the pump discharge Piping.
- Remove the section of 24" Pipe between the Pump discharge and the existing valve for adjustment.
- Installing 3 owner supplied Plug valves on the existing 24" Piping.
- Installing the adjusted Piping section between the new 24" Plug valve and the existing pump discharge.
- Reconnect the differential pressure switch Piping for each pump.
- Install the re fabricated pipe supports under the new 24" Plug valves for support.



West Sluice Gate Shaft Support Replacement Cost \$7,454.00

Scope

- Replace the stem supports on the west screening room sluice gate using the existing anchor bolts. (All Shafting, supports, couplings and shaft hardware supplied by others)

Inclusions:

1. Submit Pre-task plans as required per work task.
2. Daily toolbox talks.
3. Maintain quality and work standards.
4. Identifiable cleanup.
5. Straight time only.
6. *ISNetworld Contractor Member #400-206011*
7. 100% Veteran Owned Business Participation.

Exclusions:

1. Premium Time.
2. Holiday work.
3. All power by GC's.
4. AGC cleanup fees.
5. Liquidated Damages.
6. Dedicated safety, operator, or laborer.
7. Dumpsters or scrap bins.
8. Temporary utility costs, restrooms, air compressors, power, or lighting.

Safety

EMR 2022 -	.83
DART-IR	.0
RIR	.0

We hope the above meets with the approval of all concerned, please do not hesitate to contact me if you should have questions or require further information.

This proposal is valid for **(30 days)**.

Respectfully Yours,

Progressive Mechanical, Inc.

Gregory A Baranski
Project Manager/Estimator

Email: gbaranski@progressivemech.com
Mobile: 586-855-1459



Candice S. Miller

Public Works Commissioner
Macomb County

To: Macomb Interceptor Drain Drainage District Board (MIDDD)

From: Vincent Astorino, Operations & Flow Manager

Date: February 2, 2023

**RE: Proposal Evaluation Project Award Recommendation
MCPWO RFP No.: WWS-2022-012
MCPWO Proposal Name: Meter Maintenance**

This is an open competitive contract for a three (3) year meter maintenance contract. This contract provides maintenance for all flow meters and level sensors across the system to ensure that they are working as accurately as possible. This is a critical effort to ensure that billing is accurate and that the sensors that MCPWO staff rely on to operate the system are functioning properly. The Request for Proposals (RFP) was advertised from 12-1-22 to 2-1-23 on the Michigan Inter-Governmental Trade Network (MITN) website. Twenty-five (25) firms downloaded the RFP.

No Addendums were issued during the bidding process for this solicitation.

On 2-1-23, proposals were received from one (1) firm which was Hesco. This bid package was a two-envelope system in which technical and cost proposals were separated so that a technical review could be performed first. Due to there being only one bid submission, MCPWO reviewed both packages to ensure that the bidder met all qualifications and that the costs were inline with the projected costs.

Comparing this proposal to the current meter maintenance provider, which is ADS Environmental, Hesco does meet all the requirements in which MCPWO put in the proposal. The current cost from ADS is \$543,915 over a three-year period. The proposed cost from Hesco is at \$466,200 over a three-year period.

Hesco was the meter maintenance provider before ADS and MCPWO is confident that they can perform the work associated with this task.

Table 1. Hesco Cost Breakout by District

Task #	District	Annual Cost	3-Year Cost
1	MIDDD	\$140,400	\$421,200
2	8MRDDD	\$6,900	\$20,700
3	MSDDD	\$5,100	\$15,300
4	SEMCWWS	\$1,800	\$5,400
5	Schmidt PS	\$300	\$900
6	Murdock Ballard PS	\$300	\$900
7	Bridgewood PS	\$300	\$900
8	Hildebrandt PS	\$300	\$900
Total		\$155,400	\$466,200

MCPWO staff is recommending the following action:

That the MIDDD board award the contract to Hesco in the total not-to-exceed amount of \$466,200 for the 2023 Meter Maintenance contract.

Attachments: Hesco Technical Proposal 2-1-23
Hesco Cost Proposal 2-1-23

FEBRUARY 1, 2023

HESCO
Novi, Michigan
info@hesco-mi.com
586-978-7200

**MACOMB INTERCEPTOR
DRAIN DRAINAGE DISTRICT
PROPOSAL NO. WWS-2022-0012**



Presented to

**MACOMB COUNTY,
Michigan**

PROPOSAL FORM

Proposal No. Proposer: HESCO (print or type company name)

BASE PROPOSAL

The undersigned Proposer, having carefully examined the Proposal Documents and the Scope of Work, the requirements of the Request for Proposal and all subsequent Addenda, all as issued by the Owner, and being familiar with all conditions and requirements of the Scope of Work, hereby proposes and agrees to furnish all material, labor, equipment, tools and supervision; and to furnish all services necessary to complete the Work required in accordance with the Bidding Documents for the following projects, in the following amount:

four hundred sixty-six thousand, two hundred Dollars \$ 466,200.00 (Sum to be written out)

Respectfully submitted this 1 day of February, 2023

By: HESCO (Signature) Kevin Livingston

Witness:

Attest: Deanna Livingston (Signature) Kevin Livingston (Type or print name)

By: Deanna Livingston (Type or print name) Title: President (Owner/Partner/President/Vice Pres.)

Title: Secretary (Corporate Secretary or Assistant Secretary Only) Address: 29770 Hudson Drive, Novi, MI 48377

Phone: 586-978-7200

License: NA

Federal ID No.: 38-1970867

HESCO Company Name

Kevin Livingston Company Representative

(Affix Corporate Seal Here)

President Title 2/1/2023 Date

REFERENCE DOCUMENT 1

RFP Tables



MACOMB INTERCEPTOR DRAIN DRAINAGE DISTRICT

2023 Meter Maintenance RFP

WWS-2022-012

Frequency	Activities	Notes
Every visit	Provide traffic control (if needed)	-
	Provide appropriate site safety measures	-
	Perform work order items identified	-
	Record all readings upon site arrive (flow rate, level, velocity, temperate, etc.)	-
	Record all readings upon site departure (flow rate, level, velocity, temperate, etc.)	-
	Record as-found calibration and as-left calibration	-
	Log maintenance activities using Nexgen	-
	Append a service report giving all readings, calibration records, noted issues and site conditions and needs for immediate or future action to the work orders in Nexgen	-
	Work order updates on work completed	-
Monthly	Provide routine maintenance schedule	-
	Physical inspection of the facilities	-
	Perform manufacturer's recommended preventive maintenance	-
	Correct any minor issues	Includes no-cost corrections up to \$500 corrections; post-activity approval needed to allow invoicing as an on-demand activity
	Check for vandalism	-
	Check air quality	-
	Check power feed and status of power panel and circuit breakers	-
	Check function of intrusion alarm on cabinet	-
	Check function of intrusion alarm on hatch	-
	Check high and low level alarms	-
	Check loss of power alarm	-
	Provide site housekeeping and outside maintenance (cut grass, weeds, remove debris, and remove snow if needed)	-
	Inspect cables for damage (top side)	-
	Provide maintenance report including work order logs	-
	Provide meter status report	-
	Participate in a data review meeting with MCPWO and its representatives	-
	Perform independent flow check. Q, V, L in influent pipe with adjustments in cross-sectional area for sediment (if any). This is a continuity equation based check against the flume measurement of flow rate.	Only applied to flume sites and area-velocity meters
	Provide any locally collected data	-
	Clean sensors	-
	Measure sediment profile through metering section	Does not apply to Parshall flume or magmeter sites. Perform at three locations along metering section for Accusonic.
	Check and replace desiccant	Only applies to sites with desiccant.
	Remove debris/sediment	Must be done for Parshall flume sites; MCPWO to determine if needed for other sites based on field observations.
	Recalibrate device if depth is out of calibration by greater than +/- 0.50 inches. MUST BE APPROVED BY MCPWO PRIOR TO RECALIBRATION.	-
	Provide confined space entry and rescue	-
	Check sump pumps	-
	Check lights and heater	-
	Target test level sensor at four depths	Does not apply to magmeter sites.
Check that level sensor is plumb and level	Does not apply to magmeter or pressure sensor sites.	
Inspect cables for damage (below grade)	-	
Inspect u-guard, conduits and seal-offs for damage	-	
Confirm level sensor using a ruler	Does not apply to magmeter sites.	
Quarterly	Recalibrate 4-20mA loop if out of calibration by greater than +/- 2%. MUST BE APPROVED BY MCPWO PRIOR TO RECALIBRATION.	-
Annually	Use manufacturer's calibration/diagnostic software/device to check	Currently, only applies to magmeter and LaserFlow sites.
	Measure flume dimensions and check that flume is level; record.	Only applies to Parshall flume sites.
	Device maintenance technical memorandum	-
	Corrective maintenance work status report	-
Bi-Annually	Power wash chambers.	Applies to flumes and magmeters.

Task	System	Location Information			Device Type	Device Service Interval *	Price Per Visit	Year 1 Total	Year 2 Total	Year 3 Total	3 Year Total
		Site ID	Address	Community							
		CH-S-1	26850 21 Mile Rd.	Chesterfield Township	Parshall Flume with an ultrasonic level sensor	Monthly	\$300.00	3,600.00	3,600.00	3,600.00	10,800.00
		CH-S-2	26850 21 Mile Rd.	Chesterfield Township	Parshall Flume with an ultrasonic level sensor	Monthly	\$300.00	3,600.00	3,600.00	3,600.00	10,800.00
		CH-S-3	31000 Concordia Blvd.	Chesterfield Township	Parshall Flume with an ultrasonic level sensor	Monthly	\$300.00	3,600.00	3,600.00	3,600.00	10,800.00
		CT-S-1	38201 Garfield	Clinton Township	Parshall Flume with an ultrasonic level sensor	Monthly	\$300.00	3,600.00	3,600.00	3,600.00	10,800.00
		CT-S-2	35362 Union Lake	Clinton Township	Parshall Flume with an ultrasonic level sensor	Monthly	\$300.00	3,600.00	3,600.00	3,600.00	10,800.00
		CT-S-3	40940 Garfield	Clinton Township	Parshall Flume with an ultrasonic level sensor	Monthly	\$300.00	3,600.00	3,600.00	3,600.00	10,800.00
		CT-S-4	18275 15 Mile Road	Clinton Township	Parshall Flume with an ultrasonic level sensor	Monthly	\$300.00	3,600.00	3,600.00	3,600.00	10,800.00
		CT-S-5	15 Mile & Little Mack Ave.	Clinton Township	Non-contact Area-velocity (LaserFlow)	Monthly	\$300.00	3,600.00	3,600.00	3,600.00	10,800.00
		CT-S-6	15 Mile & Beaconsfield Rd.	Clinton Township	Parshall Flume with an ultrasonic level sensor	Monthly	\$300.00	3,600.00	3,600.00	3,600.00	10,800.00
		CT-S-7	15 Mile & Hayes	Clinton Township	Non-contact Area-velocity (LaserFlow)	Monthly	\$300.00	3,600.00	3,600.00	3,600.00	10,800.00
		FR-S-1	34900 Garfield Road	Fraser	Parshall Flume with an ultrasonic level sensor	Monthly	\$300.00	3,600.00	3,600.00	3,600.00	10,800.00
		FR-S-2	34970 Hayes Road	Fraser	Parshall Flume with an ultrasonic level sensor	Monthly	\$300.00	3,600.00	3,600.00	3,600.00	10,800.00
		HR-S-1	25098 H. B. Joy Boulevard	Harrison Township	Parshall Flume with an ultrasonic level sensor	Monthly	\$300.00	3,600.00	3,600.00	3,600.00	10,800.00
		HR-S-2	38027 Reimold	Harrison Township	Parshall Flume with an ultrasonic level sensor	Monthly	\$300.00	3,600.00	3,600.00	3,600.00	10,800.00
		HR-S-3	35115 Union Lake	Harrison Township	Parshall Flume with an ultrasonic level sensor	Monthly	\$300.00	3,600.00	3,600.00	3,600.00	10,800.00
		LX-S-1	31933 26 Mile Rd.	Lenox Township	ABB Magmeter (needs coordination with Lenox Twp. for access to their facility)	Monthly	\$300.00	3,600.00	3,600.00	3,600.00	10,800.00
		LX-S-2	57696 Gratiot Ave.	Lenox Township	Parshall Flume with an ultrasonic level sensor	Monthly	\$300.00	3,600.00	3,600.00	3,600.00	10,800.00
		MA-S-2	16650 21 Mile Road, 21 Mile & Garfield	Macomb Township	Parshall Flume with an ultrasonic level sensor	Monthly	\$300.00	3,600.00	3,600.00	3,600.00	10,800.00
		MC-S-1	13360 15 Mile Road	Macomb County	Accusonic - Transit Time 8510+ Will be replaced in 2023. Maintenance On Hold until Meter is Replaced	Monthly	\$300.00	3,600.00	3,600.00	3,600.00	10,800.00
		NH-S-1	31921 26 Mile Road	Village of New Haven	Parshall Flume with an ultrasonic level sensor	Monthly	\$300.00	3,600.00	3,600.00	3,600.00	10,800.00
		ST-S-1	40440 Utica Road	Sterling Heights	Parshall Flume with an ultrasonic level sensor	Monthly	\$300.00	3,600.00	3,600.00	3,600.00	10,800.00
		ST-S-2	11590 15 Mile Road	Sterling Heights	Parshall Flume with an ultrasonic level sensor	Monthly	\$300.00	3,600.00	3,600.00	3,600.00	10,800.00
		ST-S-3	11637 Sorrento Boulevard	Sterling Heights	Parshall Flume with an ultrasonic level sensor	Monthly	\$300.00	3,600.00	3,600.00	3,600.00	10,800.00
		ST-S-4	7999 14 Mile Road	Sterling Heights	Parshall Flume with an ultrasonic level sensor	Monthly	\$300.00	3,600.00	3,600.00	3,600.00	10,800.00
		ST-S-5	13793 15 Mile Road	Sterling Heights	Parshall Flume with an ultrasonic level sensor	Monthly	\$300.00	3,600.00	3,600.00	3,600.00	10,800.00
		ST-S-6	41020 Hayes Road	Sterling Heights	Parshall Flume with an ultrasonic level sensor	Monthly	\$300.00	3,600.00	3,600.00	3,600.00	10,800.00
		SY-S-1	45010 Oak Hill Blvd., M-59 & Woodall	Shelby Township	Parshall Flume with an ultrasonic level sensor	Monthly	\$300.00	3,600.00	3,600.00	3,600.00	10,800.00
		SY-S-2	51220 Forester Lane	Shelby Township	ISCO LaserFlow Area-velocity	Monthly	\$300.00	3,600.00	3,600.00	3,600.00	10,800.00
		SY-S-3	16585 21 Mile Rd.	Shelby Township	Parshall Flume with an ultrasonic level sensor	Monthly	\$300.00	3,600.00	3,600.00	3,600.00	10,800.00
		UT-S-1	44400 Utica Road	Utica	Parshall Flume with an ultrasonic level sensor	Monthly	\$300.00	3,600.00	3,600.00	3,600.00	10,800.00
		WA-S-1		Macomb Township	Palmer Bowlious Flume with an ultrasonic level sensor & Redundant ISCO Laserflow Area-velocity	Monthly	\$300.00	3,600.00	3,600.00	3,600.00	10,800.00

Task	System	Location Information			Device Type	Device Service Interval *	Price Per Visit	Year 1 Total	Year 2 Total	Year 3 Total	3 Year Total
		Site ID	Address	Community							
1	MIDDD	15-S-01		Clinton Township	ADS Triton+ with Ayyeka Wavelet V2 for remote communication	Monthly	\$300.00	\$3,600.00	\$3,600.00	\$3,600.00	\$10,800.00
		RA-S-03		Clinton Township	ADS Triton+ with Ayyeka Wavelet V2 for remote communication	Monthly	\$300.00	\$3,600.00	\$3,600.00	\$3,600.00	\$10,800.00
		LI-S-01		Clinton Township	ADS Triton+ with Ayyeka Wavelet V2 for remote communication	Monthly	\$300.00	\$3,600.00	\$3,600.00	\$3,600.00	\$10,800.00
		CLI-PS-1	35029 Union Lake Rd.	Clinton Township	ABB Magmeter	Monthly	\$300.00	\$3,600.00	\$3,600.00	\$3,600.00	\$10,800.00
		CLI-PS-2	35029 Union Lake Rd.	Clinton Township	ABB Magmeter	Monthly	\$300.00	\$3,600.00	\$3,600.00	\$3,600.00	\$10,800.00
		CLI-PS-3	35029 Union Lake Rd.	Clinton Township	ABB Magmeter	Monthly	\$300.00	\$3,600.00	\$3,600.00	\$3,600.00	\$10,800.00
		CLI-PS-4	35029 Union Lake Rd.	Clinton Township	ABB Magmeter	Monthly	\$300.00	\$3,600.00	\$3,600.00	\$3,600.00	\$10,800.00
		Clintondale Stilling Wells	35029 Union Lake Rd.	Clinton Township	(2) - KPSI 707 Pressure Transducers	Annually	\$300.00	\$300.00	\$300.00	\$300.00	\$975.00
		Clintondale Wet Well Level	35029 Union Lake Rd.	Clinton Township	(2) - Ultrasonic downlookers	Annually	\$300.00	\$300.00	\$300.00	\$300.00	\$975.00
		Clintondale East Screen Chamber	35029 Union Lake Rd.	Clinton Township	Ultrasonic downlooker	Annually	\$300.00	\$300.00	\$300.00	\$300.00	\$975.00
		Clintondale West Screen Chamber	35029 Union Lake Rd.	Clinton Township	Ultrasonic downlooker	Annually	\$300.00	\$300.00	\$300.00	\$300.00	\$975.00
		CS-2	35110 Garfield Rd.	Clinton Township	Ultrasonic downlooker (2)	Annually	\$300.00	\$300.00	\$300.00	\$300.00	\$975.00
		CS-3	16510 15 Mile Road	Fraser	Ultrasonic downlooker	Annually	\$300.00	\$300.00	\$300.00	\$300.00	\$975.00
		CS-12		Fraser	Level Sensor to be installed - Type unknown at this time	Annually	\$300.00	\$300.00	\$300.00	\$300.00	\$975.00
		CS-13		Fraser	Level Sensor to be installed - Type unknown at this time	Annually	\$300.00	\$300.00	\$300.00	\$300.00	\$975.00
		NGI Wet Well Level	31000 Concordia Blvd.	Chesterfield Township	NGI ULTRA (2) PRESSURE (2)	Annually	\$300.00	\$300.00	\$300.00	\$300.00	\$975.00
		NGI-PS-1	31000 Concordia Blvd.	Chesterfield Township	ABB Magmeter	Annually	\$300.00	\$300.00	\$300.00	\$300.00	\$975.00
		NGI-PS-2	31000 Concordia Blvd.	Chesterfield Township	Siemens Magmeter	Annually	\$300.00	\$300.00	\$300.00	\$300.00	\$975.00
		NGI-PS-3	31000 Concordia Blvd.	Chesterfield Township	ABB Magmeter	Annually	\$300.00	\$300.00	\$300.00	\$300.00	\$975.00
		Sub Total MIDDD:							\$140,400.00	\$140,400.00	\$140,400.00
2	8MRDDD	Chapaton Bar Screen Level Sensor	23001 East Nine Mile Road	St. Clair Shores	Siemens Sitrans LUT420	Annually	\$300.00	\$300.00	\$300.00	\$300.00	\$900.00
		Chapaton South Suction Well Level	23001 East Nine Mile Road	St. Clair Shores	Two Pressure transducer	Annually	\$300.00	\$300.00	\$300.00	\$300.00	\$900.00
		Chapaton North Suction Well Level	23001 East Nine Mile Road	St. Clair Shores	Two Pressure transducer	Annually	\$300.00	\$300.00	\$300.00	\$300.00	\$900.00
		Jefferson & 9 Mile Level Sensor	23001 East Nine Mile Road	St. Clair Shores	Milltronics Hydromanager 200	Annually	\$300.00	\$300.00	\$300.00	\$300.00	\$900.00
		Chapaton NaOCl Storage Tank 1	23001 East Nine Mile Road	St. Clair Shores	Milltronics Hydromanager 200	Annually	\$300.00	\$300.00	\$300.00	\$300.00	\$900.00
		Chapaton NaOCl Storage Tank 2	23001 East Nine Mile Road	St. Clair Shores	Milltronics Hydromanager 200	Annually	\$300.00	\$300.00	\$300.00	\$300.00	\$900.00
		Chapaton NaOCl Storage Tank 3	23001 East Nine Mile Road	St. Clair Shores	Milltronics Hydromanager 200	Annually	\$300.00	\$300.00	\$300.00	\$300.00	\$900.00
		Chapaton Basin Level	23001 East Nine Mile Road	St. Clair Shores	Milltronics Hydromanager + Two Pressure Transducers	Annually	\$300.00	\$300.00	\$300.00	\$300.00	\$900.00
		Chapaton Canal - Lake Side	23001 East Nine Mile Road	St. Clair Shores	Milltronics Hydromanager Plus	Annually	\$300.00	\$300.00	\$300.00	\$300.00	\$900.00
		Chapaton Canal - Canal Side	23001 East Nine Mile Road	St. Clair Shores	Milltronics Hydromanager Plus	Annually	\$300.00	\$300.00	\$300.00	\$300.00	\$900.00

Task	System	Location Information			Device Type	Device Service Interval *	Price Per Visit	Year 1 Total	Year 2 Total	Year 3 Total	3 Year Total	
		Site ID	Address	Community								
2	8MRDDD	Chapaton Pump #1 & 2	23001 East Nine Mile Road	St. Clair Shores	ABB Mag XM	Annually	\$300.00	\$300.00	\$300.00	\$300.00	\$900.00	
		Chapaton Pump #3 & 4	23001 East Nine Mile Road	St. Clair Shores	ABB Mag XM	Annually	\$300.00	\$300.00	\$300.00	\$300.00	\$900.00	
		Chapaton NaOCl Flow Meters	23001 East Nine Mile Road	St. Clair Shores	Six ABB Process Master Mag Meter	Annually	\$300.00	\$300.00	\$300.00	\$300.00	\$900.00	
		1/2 Mile Drain Remote Level Sensor	Rosedale & Eastlawn	St. Clair Shores	Ultrasonic Level Sensor	Annually	\$300.00	\$300.00	\$300.00	\$300.00	\$900.00	
		Chapaton ISD at Beaconsfield		St. Clair Shores	Two Ultrasonic Level Sensors and One Pressure Transducer	Annually	\$300.00	\$300.00	\$300.00	\$300.00	\$900.00	
		8DR-01		St. Clair Shores	ISCO 2150 & Non-contact Area-velocity (LaserFlow). To be replaced in 2023 with Accusonic - Transit Time 8510+	Semi-Annually	\$300.00	\$600.00	\$600.00	\$600.00	\$600.00	\$1,800.00
		9MD-01S		St. Clair Shores	Accusonic - Transit Time 8510+	Semi-Annually	\$300.00	\$600.00	\$600.00	\$600.00	\$600.00	\$1,800.00
		9MD-01N		St. Clair Shores	Accusonic - Transit Time 8510+	Semi-Annually	\$300.00	\$600.00	\$600.00	\$600.00	\$600.00	\$1,800.00
		CHA-01		St. Clair Shores	Accusonic - Transit Time 8510+	Semi-Annually	\$300.00	\$600.00	\$600.00	\$600.00	\$600.00	\$1,800.00
		Sub Total 8MRDDD:								\$6,900.00	\$6,900.00	\$6,900.00
3	MSDDD	Martin Drain East of Dry Flow Gates	22301 Bon Brae	St. Clair Shores	Milltronics Hydromanager Plus	Annually	\$300.00	\$300.00	\$300.00	\$300.00	\$900.00	
		Martin Drain West of Dry Flow Gates	22301 Bon Brae	St. Clair Shores	Milltronics Hydromanager 200	Annually	\$300.00	\$300.00	\$300.00	\$300.00	\$900.00	
		Martin Basin Level	22301 Bon Brae	St. Clair Shores	Milltronics Hydromanager 200	Annually	\$300.00	\$300.00	\$300.00	\$300.00	\$900.00	
		Martin NaOCl Storage Tank #1	22301 Bon Brae	St. Clair Shores	Milltronics Hydromanager 200	Annually	\$300.00	\$300.00	\$300.00	\$300.00	\$900.00	
		Martin NaOCl Storage Tank #2	22301 Bon Brae	St. Clair Shores	Milltronics Hydromanager 200	Annually	\$300.00	\$300.00	\$300.00	\$300.00	\$900.00	
		Martin NaOCl Day Tank #1	22301 Bon Brae	St. Clair Shores	Milltronics Hydromanager 200	Annually	\$300.00	\$300.00	\$300.00	\$300.00	\$900.00	
		Martin NaOCl Day Tank #2	22301 Bon Brae	St. Clair Shores	Milltronics Hydromanager 200	Annually	\$300.00	\$300.00	\$300.00	\$300.00	\$900.00	
		Martin Chlorination Flow Meter	22301 Bon Brae	St. Clair Shores	Two ABB Process Master Mag Meter	Annually	\$300.00	\$300.00	\$300.00	\$300.00	\$900.00	
		Martin NaOCl Flow to Head Tanks	22301 Bon Brae	St. Clair Shores	Fisher Porter/ABB Model 50XM13N	Annually	\$300.00	\$300.00	\$300.00	\$300.00	\$900.00	
		MTD-01N		St. Clair Shores	ISCO 2150	Semi-Annually	\$300.00	\$600.00	\$600.00	\$600.00	\$600.00	\$1,800.00
		MTD-01S		St. Clair Shores	ISCO 2150	Semi-Annually	\$300.00	\$600.00	\$600.00	\$600.00	\$600.00	\$1,800.00
		MTD-02		St. Clair Shores	ISCO 2150	Semi-Annually	\$300.00	\$600.00	\$600.00	\$600.00	\$600.00	\$1,800.00
		MAR-01		St. Clair Shores	ISCO 2150	Semi-Annually	\$300.00	\$600.00	\$600.00	\$600.00	\$600.00	\$1,800.00
		Sub Total MSDDD:								\$5,100.00	\$5,100.00	\$5,100.00
4	SEMCWDS	Bon Heur Flow	26350 Harper Ave.	St. Clair Shores	Parshall flume with a ultrasonic level sensor	Annually	\$300.00	\$300.00	\$300.00	\$300.00	\$900.00	
		Bon Heur Effluent	26350 Harper Ave.	St. Clair Shores	Milltronics Hydromanager 200	Annually	\$300.00	\$300.00	\$300.00	\$300.00	\$900.00	
		Bon Heur Wet Well	26350 Harper Ave.	St. Clair Shores	Siemens Hydromanager 200	Annually	\$300.00	\$300.00	\$300.00	\$300.00	\$900.00	
		Violet Wet Well Level #1	30801 Greater Mack	St. Clair Shores	Siemens Hydromanager 200	Annually	\$300.00	\$300.00	\$300.00	\$300.00	\$900.00	
		Violet Wet Well Level #2	30801 Greater Mack	St. Clair Shores	Siemens Hydromanager 200	Annually	\$300.00	\$300.00	\$300.00	\$300.00	\$900.00	
		Violet Flow Meter	30801 Greater Mack	St. Clair Shores	Non-contact Area Velocity (Clamp-on Doppler)	Annually	\$300.00	\$300.00	\$300.00	\$300.00	\$300.00	\$900.00
Sub Total SEMCWDS:								\$1,800.00	\$1,800.00	\$1,800.00	\$5,400.00	

Task	System	Location Information			Device Type	Device Service Interval *	Price Per Visit	Year 1 Total	Year 2 Total	Year 3 Total	3 Year Total
		Site ID	Address	Community							
5	SCHMIDT	Schmidt PS			Ultrasonic downlooker	Annually	\$300.00	\$300.00	\$300.00	\$300.00	\$900.00
6	MURDOCK BALLARD	Murdock Ballard PS			Pressure transducer	Annually	\$300.00	\$300.00	\$300.00	\$300.00	\$900.00
7	BRIDGEWOOD	Bridgewood PS			Pressure transducer	Annually	\$300.00	\$300.00	\$300.00	\$300.00	\$900.00
8	HILDEBRANDT	Hildebrandt PS			Pressure transducer	Annually	\$300.00	\$300.00	\$300.00	\$300.00	\$900.00
Total:								\$155,400.00	\$155,400.00	\$155,400.00	\$466,200.00

* Monthly Service includes Quarterly, bi-annual, and annual maintenance as indicated in the RFP

Note. Contractor to perform all tasks varying frequency tasks concurrently where applicable. I.E. monthly tasks to be completed concurrent with quarterly tasks, monthly tasks & quarterly tasks to be completed with bi-annual tasks, etc.

Part 1: Unit Costs for Routine Activities

Device Type	Visit Cost for All Activities from Table 1	Unit
Parshall flumes with ultrasonic level sensors	\$300.00	per device, per visit
Continuous-wave Doppler area-velocity flow meters with submerged sensors	\$300.00	per device, per visit
Range-gated Doppler area-velocity flow meters with submerged sensors	\$300.00	per device, per visit
In-pipe area-velocity meters with non-contact sensors	\$300.00	per device, per visit
Clamp-on area-velocity meters with non-contact sensors	\$300.00	per device, per visit
Transit-time area-velocity meters	\$300.00	per device, per visit
Magnetic flow meters (magmeters)	\$300.00	per device, per visit
Ultrasonic and radar level sensors installed at pump stations or in collection system	\$300.00	per device, per visit
Ultrasonic and radar level sensors installed at Control Shafts	\$300.00	per device, per visit
Pressure transducer level sensors	\$300.00	per device, per visit

Part 2: Budgetary Estimates for On-Demand Activities (set equal to estimated labor and parts cost for in-kind replacement of one unit)

Device Type	Budgetary Estimate
Parshall flumes with ultrasonic level sensors, not including structure	\$12,000.00
Continuous-wave Doppler area-velocity flow meters with submerged sensors	\$25,000.00
Range-gated Doppler area-velocity flow meters with submerged sensors	\$50,000.00
In-pipe area-velocity meters with non-contact sensors	\$35,000.00
Clamp-on area-velocity meters with non-contact sensors	\$10,000.00
Transit-time area-velocity meters	\$150,000.00
Magnetic flow meters (magmeters)	Varies by size
Ultrasonic level sensors	\$10,000.00
Radar level sensors	\$10,000.00
Pressure transducer level sensors	\$4,200.00

Part 3: Labor

Labor Category	Labor Rate	Unit
Principal	\$350	per hour
Project Manager	\$250.00	per hour
Service Manager	\$225.00	per hour
Technician	\$195.00	per hour
		per hour
		per hour
		per hour
		per hour
		per hour
		per hour
		per hour

<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 – 7.4212% Clinton – 21.2122% Fraser – 4.1667% Harrison – 6.3461% Lenox – 1.1179% Macomb – 14.0617% New Haven – 0.8255% Shelby – 9.7911% Sterling Heights – 30.6812% Utica – 1.6170% Washington – 2.7596%	Astorino	Access Interactive LLC	\$ 920.20	Invoice #INV000110996 - 01.03.23	SCADA Maintenance	
		Baker	Aloia & Associates	\$ 551.00	Invoice #27700 - 12.01.22	Sale of 45345 Garfield Road - November 2022	
		Astorino	Anderson, Eckstein & Westrick	\$ 1,673.30	Invoice #141596 - 01.05.23	Garfield Interceptor Pilot Program - 11.21.22 - 12.18.22	\$ 104,746.60
		Astorino	Anderson, Eckstein & Westrick	\$ 1,085.20	Invoice #142191 - 02.01.23	Garfield Interceptor Pilot Program - 12.19.22 - 01.15.23	\$ 103,661.40
		Astorino	Applied Science, Inc.	\$ 35,650.00	Invoice #8378 - 01.30.23	Dye Dilution Testing 07.31.22 - 12.31.22	\$ 31,461.00
		Astorino	Aquasight	\$ 69,789.00	Invoice #000750 - 01.30.23	Covid-19 Monitoring - Grant	\$ 435,772.00
		Astorino	Belle Tire	\$ 1,113.39	Invoice #40234300 - 12.20.22	Tire Service - 2020 Ford F-150 (Keith L.)	
		Astorino	CDW Government	\$ 1,426.92	Invoice #FW35069 - 12.30.22	Routers - SCADA	
		Astorino	City of Mt. Clemens	\$ 14,367.64	Invoice #28005203 - 01.04.23	Monthly Utilities - November 2022	
		Astorino	Department of Roads	\$ 1,341.12	Invoice #302326 - 12.13.22	Fleet Fuel - November 2022	
		Astorino	DTE Energy	\$ 1,086.18	Invoice #23-004 - 01.03.23	Monthly Electric - 12.02.22 - 12.29.22	
		Astorino	DTN, LLC	\$ 891.00	Invoice #6248793 - 01.20.23	Storm Sentry Weather Service	
		Astorino	Fishbeck	\$ 10,779.50	Invoice #418720 - 12.28.22	WWMP through 12.23.22	\$ 195,978.67
		Astorino	Fishbeck	\$ 3,244.00	Invoice #419615 - 01.26.23	WWMP through 01.20.23	\$ 192,734.67
		Astorino	Fishbeck	\$ 1,079.00	Invoice #419616 - 01.26.23	GLWA Engineering Assistance through 01.20.23	
		Astorino	FK Engineering Associates	\$ 9,172.80	Invoice #22-126-002 - 01.11.23	Critical Areas Inspection Program	\$ 72,342.17
		Downing	FK Engineering Associates	\$ 110,144.92	Invoice #20-152-025 - 01.07.23	Segment 5 CCA - 12.04.22 - 01.07.23	\$ 1,341,267.88
		Downing	FK Engineering Associates	\$ 103,292.16	Invoice #20-058-031 - 01.07.23	Segment 6 CCA - 12.04.22 - 01.07.23	\$ 554,998.05
		Baker	KHVPF	\$ 1,585.00	Invoice #49151 - 01.01.23	Contract Review - Segment 6 Insurance	
		Downing	Meadowbrook Insurance	\$ 97,375.00	Invoice #11487 - 01.31.23	Odor Control & Corrosion Improvements Policy	
		Downing	Meadowbrook Insurance	\$ 97,375.00	Invoice #11529 - 02.01.23	Odor Control & Corrosion Improvements Policy	
		Downing	Meadowbrook Insurance	\$ 39,423.00	Invoice #11514 - 02.01.23	Odor Control & Corrosion Improvements Policy	
		Downing	Meadowbrook Insurance	\$ 26,938.03	Invoice #11516 - 02.01.23	Odor Control & Corrosion Improvements Policy	
		Astorino	METCO Consulting Services	\$ 4,485.58	Invoice #1717-43 - 01.02.23	Flow Control	\$ 9,033.25
		Astorino	METCO Consulting Services	\$ 9,023.55	Invoice #1717-44 - 02.01.23	Flow Control	\$ 9.70
		Astorino	METCO Consulting Services	\$ 3,219.66	Invoice #2206A-01 - 02.01.23	Flow Control Assistance	\$ 96,780.34
		Astorino	METCO Consulting Services	\$ 2,771.48	Invoice #2206B-01 - 02.01.23	CPS Electrical Room AC Upgrades Project	\$ 94,008.86
		Astorino	Motor City Electric Technologies	\$ 720.00	Invoice #94945 - 01.05.23	Force Main Valve Programming - SCADA	
		Astorino	Motor City Electric Technologies	\$ 630.00	Invoice #94949 - 01.05.23	Valve Wiring - SCADA	
		Astorino	Motor City Electric Technologies	\$ 765.00	Invoice #94948 - 02.01.23	VDF Programming - SCADA	
		Astorino	NTH Consultants, Ltd	\$ 575.50	Invoice #631739 - 01.05.23	2023 Interceptor Inspection Program - Design	\$ 64,129.00
		Downing	Oscar Renda Contracting	\$ 205,432.57	Invoice #WO19024 Est #28 - 12.29.22	Romeo Arm Segment 5 Lining	\$ 16,611,698.53

<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>
		Downing	Oscar Renda Contracting	\$ 255,547.99	Invoice #WO19024 Est #29 - 01.27.23	Romeo Arm Segment 5 Lining through 01.31.23	\$ 16,327,756.32
		Downing	Ric-Man Construction	\$ 497,215.43	Invoice #WO21026 Est #16 - 01.06.23	Segment 6 Services 12.01.22-12.31.22	\$ 7,089,603.86
		Downing	Ric-Man Construction	\$ 466,415.17	Invoice #WO21026 Est #17 - 01.27.23	Segment 6 Services 01.01.23 - 01.20.23	\$ 6,571,364.78
		Downing	Tetra Tech, Inc.	\$ 10,712.70	Invoice #52014546 - 01.20.23	Odor & Corrosion CCA through 12.30.22	\$ 974,914.03
		Astorino	Verizon	\$ 1,299.09	Invoice #9923687703 - 12.23.22	Monthly Cellular - 11.24.22 - 12.23.22 (Eq. Fund)	
		Astorino	Verizon	\$ 1,743.31	Invoice #9909541461 - 06.23.22	Monthly Cellular - 11.24.22 - 12.23.22	
	<u>CPS</u>	Astorino	Clinton Township Treasurer	\$ 2,558.14	Invoice #23-001 - 01.04.23	Monthly Water - 11.30.22 - 12.28.22	
		Astorino	De-Cal, Inc.	\$ 1,206.20	Invoice #WO9222330 - 01.05.23	Vertical Shaft Support Repair	
		Astorino	De-Cal, Inc.	\$ 39,400.00	Invoice #121006-1 - 01.25.23	12" Plug Valve Electric Actuator	
		Astorino	De-Cal, Inc.	\$ 1,056.20	Invoice #WO9230039 - 01.18.23	Replaced Blower Motor and Fan Prop	
		Astorino	DTE Energy	\$ 22,131.86	Invoice #23-013 - 01.10.23	Monthly Electric - 12.02.22 - 01.03.23	
		Astorino	Duperon Corporation	\$ 2,673.33	Invoice #24383 - 12.15.22	New Motor for Screen Rake	
		Astorino	Galco Industrial Electronics, Inc.	\$ 3,835.04	Invoice #3985705 - 07.27.22	Filter Fans	
		Astorino	Galco Industrial Electronics, Inc.	\$ 509.15	Invoice #4000894 - 08.18.22	Replacement Filters	
		Astorino	Galco Industrial Electronics, Inc.	\$ 926.55	Invoice #4064800 - 11.30.22	Replacement Filters	
		Astorino	Platinum Mechanical Inc	\$ 1,986.32	Invoice #12122022 - 12.12.22	Motor Fan & Prop	
		Astorino	Sunbelt Rentals	\$ 882.12	Invoice #133697168-0001 - 12.07.22	Single Manlift Rental	
		Astorino	Wade Trim	\$ 1,791.33	Invoice #2026187 - 01.12.23	As-Needed Services - Drain Valve	\$ 44,092.85
	<u>METERS</u>	Astorino	Ayyeka	\$ 1,015.00	Invoice #6305 - 01.09.23	Antennas and Batteries	
	<u>NGI</u>	Astorino	Colville Electric, Co	\$ 47,301.24	Invoice #22610 - 12.31.22	Emergency Repair - Replace VFD's	
		Astorino	Fishbeck	\$ 588.00	Invoice #419634 - 01.25.23	Inspection Program through 01.20.23	\$ 63,756.63
		Astorino	Flowmore Services	\$ 1,570.53	Invoice #29362 - 12.22.22	20" Charcoal Plastic Brush - Pigging	
		Astorino	Kennedy Industries	\$ 904.50	Invoice #634520 - 12.28.22	Pump Repair	
		Astorino	National Industrial Maintenance	\$ 1,232.14	Invoice #44488 - 01.09.23	Jet Vac Cleaning	
	<u>OMID</u>	Downing	Oakland County Treasurer	\$ 4,364,430.08	Invoice #CI012572 - 12.31.22	Sewer Disposal - December 2022	
		Downing	Oakland County Treasurer	\$ 4,364,430.08	Invoice #CI014057 - 02.03.22	Sewer Disposal - January 2023	
		Manning	Oakland County Treasurer	\$ 95,598.12	Invoice #CI013986 - 02.03.22	Debt - Series 2011	
		Manning	Oakland County Treasurer	\$ 776,072.81	Invoice #CI013986 - 02.03.23	Debt - Series 2010A	
		Manning	Oakland County Treasurer	\$ 206,748.02	Invoice #CI013986 - 02.03.24	Debt - Series 2013A	
		Manning	Oakland County Treasurer	\$ 49,312.17	Invoice #CI013986 - 02.03.25	Debt - Series 2014A	
		Manning	Oakland County Treasurer	\$ 212,573.34	Invoice #CI013986 - 02.03.26	Debt - Series 2019A	
		Manning	Oakland County Treasurer	\$ 10,349.60	Invoice #CI013986 - 02.03.27	Debt - Series 2019B	
		Manning	Oakland County Treasurer	\$ 377,999.91	Invoice #CI013986 - 02.03.28	Debt - SAW Grant	
		Total		\$ 12,679,942.17			

Budget to Actual
MIDDD
As of Jan 31, 2023 = 58%

DESCRIPTION	2023		ACTUAL	REMAINING BUDGET	PCT UTILIZED
	FINAL BUDGET	ENCUMBERED			
REVENUE ACCOUNTS					
GLWA-OMID	48,014,249		28,011,361	20,002,888	58.3%
OMID O&M	4,358,913		2,542,699	1,816,214	58.3%
Settlement	100,000			100,000	0.0%
Reimbursements	225,000		63,734	161,266	28.3%
PY Revenue-Fund Balance	16,738,220			16,738,220	0.0%
Reimb-Local Communities	17,159,080		10,009,463	7,149,617	58.3%
COVID Grant	-		864,148		100.0%
Interest	50,000		181,613	(131,613)	363.2%
Total Revenue Accounts	86,645,462	-	41,673,019	45,836,592	48.1%
EXPENSE ACCOUNTS					
GLWA-OMID	48,014,249		28,011,361	20,002,888	58.3%
OMID O&M	4,358,913		2,542,699	1,816,214	58.3%
Public Works Wastewater Disposal Division	1,889,760		749,032	1,140,728	39.6%
Office Operations/Insurance	343,100		47,795	295,305	13.9%
SCADA	461,990		110,668	351,322	24.0%
Engineering					
Replenish reserve from CPS refunding	618,680			618,680	0.0%
Drop shaft rehab Design	1,600,000		177,965	1,422,035	11.1%
METCO As Needed	75,000		48,196	26,804	64.3%
Data Review-Aquasight	58,000		18,000	40,000	31.0%
Annual Meter Dye Testing	50,000		26,181	23,819	52.4%
As Needed Engineering	250,000		42,251	207,749	16.9%
Odor and Corrosion Construction/CCA	3,280,000		4,223	3,275,777	0.1%
GLWA Assistance	30,000		5,345	24,655	17.8%
General Construction/Engineering Contingency-All Projects	450,000			450,000	0.0%
Garfield Interceptor Lining Pilot	-		56,165	(56,165)	100.0%
As Needed Applied Science	25,000			25,000	0.0%
As Needed Metco	60,000		13,896	46,104	23.2%
Level Sensors/Pressure/H2S-Meters	214,200			214,200	0.0%
Odor and Control-Construction	7,010,000		103,903	6,906,097	1.5%
Segment 6 Construction Administration	685,530		683,615	1,915	99.7%
Segment 6 Construction/CCA from reserve	-		3,159,970	(3,159,970)	100.0%
Wastewater Master Plan from reserve	-		32,105	(32,105)	100.0%
SY-S-1, SY-S-2, & WA-S-1 Meter Const Admin/Rehab	927,790		17,090	910,700	1.8%
Segment 5 Construction Admin	972,500		786,787	185,713	80.9%
COVID Grant	-		864,148	(864,148)	100.0%
Segment 5 Construction from reserve	611,240		1,881,953	(1,270,713)	307.9%
Legal Services	75,000		13,036	61,964	17.4%
Clintondale PS O&M	870,000		291,772	578,228	33.5%
NGI O&M	307,500		73,230	234,270	23.8%
Meters O&M	228,400		33,725	194,675	14.8%
Control Structures and Pump Station O&M	281,370		51,795	229,575	18.4%
Biofilter O&M	25,500		5,966	19,534	23.4%
Contribution Life Cycle Reserve	184,300			184,300	0.0%
Interceptor O&M	9,898,300		533,788	9,364,512	5.4%
Stormwater Pump Stations	131,000		76,417	54,583	58.3%
Sewage Disposal Charges - Mt. Clemens	200,000		116,646	83,354	58.3%
Debt Service - Revenue Bonds	2,458,140		1,433,915	1,024,225	58.3%
Total Expense Accounts	86,645,462	-	42,013,638	44,631,824	48.5%

	O&M Balance 6/30/2022	O&M	Total 1/31/2023
Cash - Operating	34,922,137	(340,619)	34,581,518
Accounts Receivable			0
Assets			0
Liabilities			0
Revenues		41,673,019	41,673,019
Expenditures		42,013,638	42,013,638
			0
Equity*	34,922,137		34,581,518

Detail of 2022 Equity*

Reserve at 6/30/2022	10,665,604
Construction/ Engineering Reserve	23,088,928
Life Cycle Reserve	1,167,605