

MACOMB INTERCEPTOR DRAIN
INTRA-COUNTY DRAINAGE BOARD
JUNE 13, 2022
10:30 A.M.
AGENDA

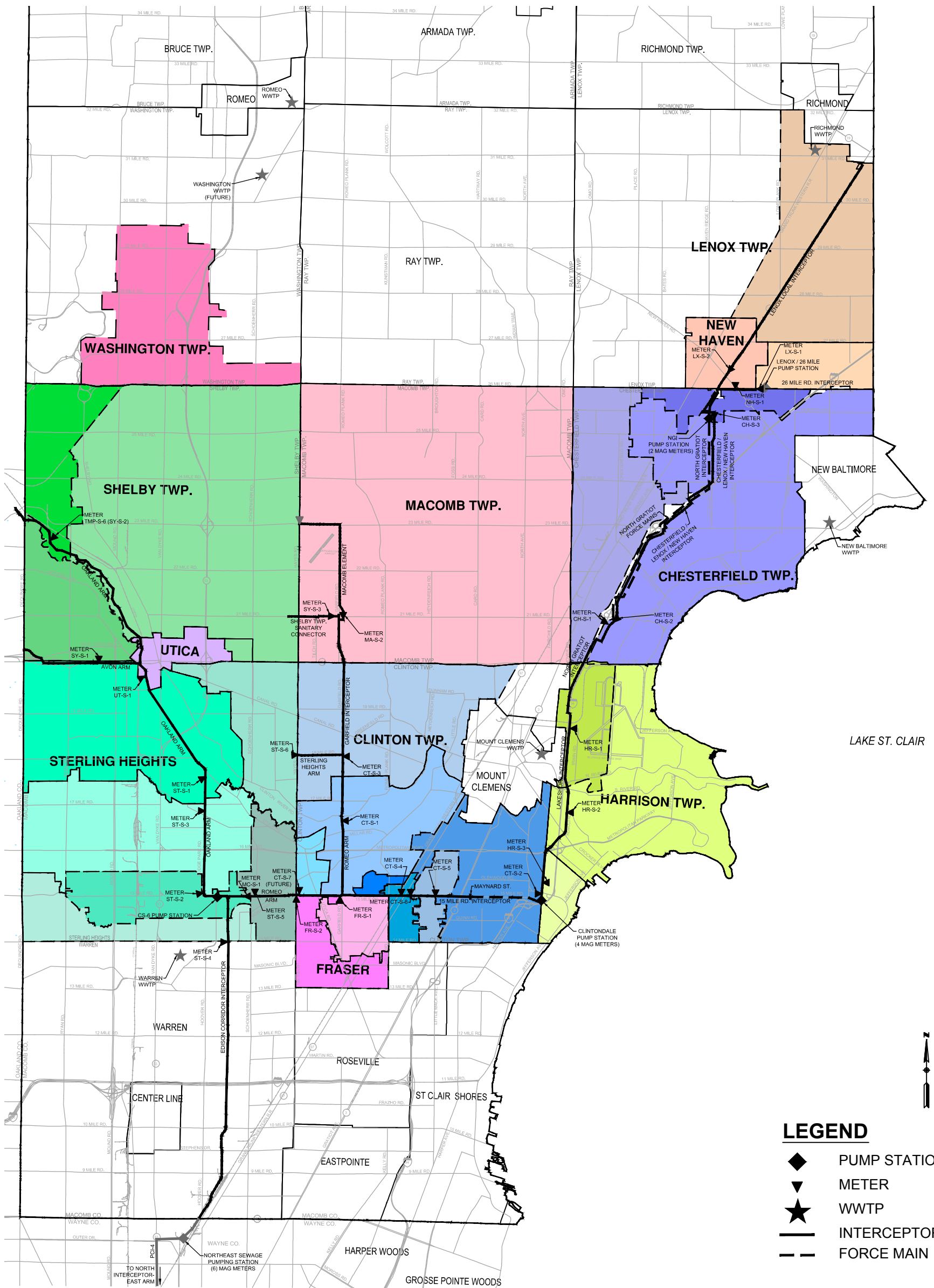
**NOTE: THIS MEETING WILL BE HELD IN PERSON WITH TELECONFERENCE
OPTION FOR PUBLIC**

**Call in Number: 1-650-933-5481
Access Code: 688 366 906**

	Page
1. Call of meeting to order and roll call	
2. Approval of Agenda for June 13, 2022	
3. Approval of Minutes for May 9, 2022	4
4. Public Participation	
5. Project Updates – Stephen Downing (to be provided at the meeting)	
6. Revised 2022/2023 MIDD Budget – Brian Baker	7
Motion: To approve the revised 2022/2023 Macomb Interceptor Drainage District (MIDD) budget and charges reflecting a 1% reduction due to GLWA lowering FY 23 charges relating to Highland Park unpaid bills.	
7. SCADA Server Upgrades Recommendation – Vince Astorino	17
Motion: To approve the purchase and installation of new SCADA servers from Access Interactive for \$200,776 (MIDD share \$86,334)	
8. 2023 Interceptor Inspection Program – Engineering Services – Vince Astorino	37
Motion: To approve the proposal from NTH Consultants for a not to exceed amount of \$81,549 to prepare bids and administer the work associated with the 2023 Interceptor Inspection Program within the Macomb Interceptor Drain.	

9. Consideration for approval of invoices (see attached)	43
10. Financial Report – Bruce Manning	45
11. 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 May 9, 2022, at 11:18 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 & Maintenance Manager; Norb Franz, Communications Manager; Bruce Manning, Financial Manager; Pamela Sonnenberg, Administrative Assistant; Tom Stockel, Construction Supervisor; Sarah Wojdyla, Drain Account Specialist

PRESENT VIA TELECONFERENCE: Madison Tanghe, Administrative Coordinator, Macomb County Public Works; Mary Shepard, Environmental and Safety Services Supervisor of Sterling Heights Department of Public Works

The meeting was called to order by the Chair, Candice 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 April 11, 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 the board regarding Segment 5 rehabilitation project. The contractor, Oscar Renda has continued power washing the interceptor in preparation for spray-lining activities. They also started sludge and debris removal. Continued construction of the CS-12 permanent structure, which includes rebar installation, concrete formwork, and concrete placement of the first wall lift. Mr. VanSyckel asked what the projected life of the spray lining is. Mr. Downing stated the projected life expectancy is about 20 years but, varies upon conditions. This is why we separately implemented the odor and corrosion study and projects in the system to reduce the hydrogen sulfide so that the liners last longer. Mr. Downing states the work is being done at a very good pace to make up for lost time as they have 2 separate crews and with the great weather this has moved things along nicely.

Mr. Downing then updated on the Phase II Grouting project. The crew continued to work in the Garfield Interceptor between M-59 and 21 Mile. A review of historical documents showed the probable cause for the initially higher than expected grout quantities injected. There were voids in the original construction which is why there were pockets of water. This location is wrapping up and continue to grout as needed.

Mr. Downing states there is no activity to report this month on the Meter Rehabilitation project.

Next was the Segment 6 update by Mr. Downing. Happy to report they have started working again on site. They are demolishing a platform at manhole 5 to help facilitate installation of a sewer plug for some of the work they have to do. They are preparing at CS-13 to facilitate the HOBAS slip lining toward the East. This will help to start pushing 14 pieces of pipe this week. If we can get these 14 pieces of pipe in successfully, they can start the CS-13 structure which is the critical path of the project to get back on track.

Mr. Downing then updated on the Interceptor Inspection program. They are continuing to inspect and are near completion. They observed severe degradation on 150-200 feet stretch of failed liner system. Mr. Baker asked what happened since the last time it was inspected. Mr. Downing stated in 2017, Red Zone identified as some damage but not this severe. It was also inspected on December 3, 2021 and we haven't received the footage yet and weren't notified of any issue. He is trying to find out where the drop of the communication was. Definitely more advanced now and are going to get this taken care of as it has gotten bad pretty quick. Mr. Astorino then showed a high quality video of the inside of the damaged pipe as they move down inside of it. Mr. Astorino states it looks like caulk as the hydrogen sulfite has gotten behind the liner causing it to bulge out from the chemical reaction. Mr. Downing pointed out that this was one of the meter facilities where we did the drop shaft at and the same location we are putting a Bio Filter as part of the odor and corrosion project. Mr. VanSyckel asked if this is worse here because of the turbulence. Mr. Astorino states yes, because the flow is being agitated there and kicking up the chemicals and attacking the concrete. Mr. Acciavatti asked when the liner was put in. Mr. Astorino states it had to have been pre 2010, he's thinking 2008-2009. Mr. Downing states the records aren't provided prior to 2010 so there is no way of knowing an exact date, but if they put something in he is guessing it had to have been bad at the time and used this liner to try to fix it. Mr. Downing states he is going to explore our options for this repair.

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

Adopted: YEAS: 3
NAYS: 0

The Chair presented the invoices totaling \$2,095,929.70 to the board for review and approval.

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

Adopted: YEAS: 3
NAYS: 0

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

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 11:46 a.m.



Candice S. Miller, Chair
Macomb County Public Works Commissioner

STATE OF MICHIGAN
COUNTY OF MACOMB

I certify that the foregoing is a true and correct copy of proceedings taking by the Intra-County Drainage Board for the Drainage District shown on the attached set of minutes, on May 9, 2022 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: 5/9/22

Macomb Interceptor Drain Drainage District
REVISED FY 2023 Budget & Charges
Subsequent Actions

June 13, 2022

On June 2, 2022, the Great Lakes Water Authority (GLWA) approved the elimination of Highland Park bad debt expense in the FY 2023 charges. This action results in a reduction to the March 14, 2022 approved MIDD costs and charges of \$935,843. In order to pass these savings on to the MIDD communities and their customers effective July 1, 2022, we need to revise the MIDD budget. The savings will result in a 1% reduction to the previously adopted overall MIDD charges.



Mark A. Hackel
County Executive
Candice S. Miller
Public Works Commissioner

June 6, 2022

Via Email

Macomb County Leaders,

This letter regarding Highland Park’s continuing bad debt to the Great Lakes Water Authority is a follow-up to our letter to you dated May 17, 2022 (emailed on May 18).

On that date, we notified you of our recommendation to GLWA that it allocate all of the \$25 million in new federal funds – part of a bipartisan bill signed by Gov. Whitmer – as a partial refund to the other 111 member communities that have unfairly absorbed Highland Park’s mounting debt, which has now topped \$62 million. For the past 10 years, your communities and others have had to pass on higher water and/or sewer rate increases to subsidize Highland Park’s unpaid costs. The \$25 million would not only have offset this year’s GLWA charge increase related to Highland Park, but also offset past rate increases associated with that debt.

On June 2, the GLWA Board did not approve our proposal to allocate the full \$25 million as partial reimbursement to the communities. Instead, the board voted to allow only a \$6.7 million refund – with the presumption that Highland Park will resume making full payments. In doing so, the board has decided to roll back this year’s upcoming rate increase that the suburban communities would have faced to cover Highland Park’s cost for GLWA’s upcoming fiscal year that starts July 1. For the 18 municipalities in Macomb County that contract with GLWA for water/sewer service, the rollback is a partial victory. We did our jobs and spoke up to protect our ratepayers.

Many of your respective city councils, township boards or village boards voted in the last couple of months – pursuant to our suggestion in late March – to place in escrow only that portion of your fees you would have paid to GLWA starting in July to cover Highland Park debt. With the positive development of the rollback, there is no longer a need to withhold payment to GLWA. Withholding any payments to GLWA at this time could negatively impact the authority’s bond rating, which likely would increase the cost of a \$300 million bond sale this summer and result in higher bond payments for all of our ratepayers for the next 30 years.

Meantime, we will continue working toward a long-term solution in this matter. GLWA took the lead on a legal challenge, and we have supported them by filing an amicus brief. We will continue to pursue

legal options along with GLWA to get a court judgment against Highland Park to recoup some of the previous costs we have shouldered unfairly on behalf of the city because of the position taken by that community's leaders who feel Highland Park – and only Highland Park – has the right to only pay the same fixed GLWA rate it paid over 25 years ago.

We thank you for your support and we continue to advocate on behalf of ratepayers and work with the State and GLWA to develop a more equitable solution.

Sincerely,

Sincerely,



Mark A. Hackel
Macomb County Executive



Candice S. Miller
Macomb County Public Works Commissioner

MIDD Budget
Total Sewer Charges

Cost Category	3/14/22	6/13/22	Change	%	%
	2022/2023	2022/2023		Change	of Total
	Budget	Budget			
GLWA-OMID	47,925,912	46,990,069	(935,843)	-2.0%	51.0%
GLWA CSO Program	1,024,180	1,024,180	0	0.0%	1.1%
Total GLWA	48,950,092	48,014,249	(935,843)	-1.9%	52.1%
OMID Capital	535,200	535,200	0	0.0%	0.6%
OMID O&M	3,823,713	3,823,713	0	0.0%	4.1%
OMID New Debt (NESPS & NIEA)	593,905	593,905	0	0.0%	0.6%
OMID Existing Debt	7,837,639	7,837,639	0	0.0%	8.5%
Total OMID	12,790,457	12,790,457	-	0.0%	13.9%
Subtotal GLWA and OMID	61,740,549	60,804,706	(935,843)	-1.5%	66.0%
MIDD Existing Debt	14,231,450	14,231,450	0	0.0%	15.4%
MIDDD New Debt (Seg 5 & 6 Included in rates)	0	0	0	0.0%	0.0%
MIDDD O&M/Charge Required Revenue	17,159,080	17,159,080	0	0.0%	18.6%
Total MIDDD	31,390,530	31,390,530	-	0.0%	34.0%
Total Budget	93,131,079	92,195,236	(935,843)	-1.0%	100%

MIDDD COMMUNITIES
REVISED

Cost Category	3/14/22	6/13/22	Difference	% Change	Page #
	2022/2023	2022/2023			
	Charge	Charge			
1) GLWA-OMID	47,925,912	46,990,069	(935,843)	-2.0%	2
2) GLWA CSO Program	1,024,180	1,024,180	0	0.0%	2
3) Sub Total GLWA	48,950,092	48,014,249	(935,843)	-1.9%	
4) OMID Capital Improvements	535,200	535,200	0	0.0%	2
5) OMID O&M	3,823,713	3,823,713	0	0.0%	2
6) Sub Total OMID	4,358,913	4,358,913	0	0	
7) MIDDD O&M/Charge Required Revenue	17,159,080	17,159,080	0	0.0%	2,4
8) Use of Reserve	215,000	215,000	0	0.0%	
9) Sub Total	70,468,085	69,532,242	(935,843)	-1.3%	
10) OMID Existing Debt	7,837,639	7,837,639	0	0.0%	3
11) OMID New Debt (NESPS & NIEA)	593,905	593,905	0	0.0%	4
12) MIDDD Seg 5 & 6 Debt (Included in rates)	0	0	0	0.0%	3
13) MIDDD Existing Debt	14,231,450	14,231,450	0	0.0%	3
14) Sub Total Debt(See page 3)	22,662,994	22,662,994	0	0.0%	
TOTAL	93,131,079	92,195,236	(935,843)	-1.0%	

Communities	3/14/22	6/13/22	Difference	% Change
	2022/2023	2022/2023		
	Charge	Charge		
Chesterfield Twp	7,499,038	7,429,594	(69,444)	-0.9%
Clinton Twp	19,326,647	19,128,143	(198,504)	-1.0%
Fraser	3,849,718	3,810,718	(39,000)	-1.0%
Harrison Twp	5,765,414	5,706,026	(59,388)	-1.0%
Lenox Twp	1,634,718	1,624,255	(10,463)	-0.6%
Macomb Twp	12,673,124	12,541,532	(131,592)	-1.0%
New Haven	1,131,538	1,123,810	(7,728)	-0.7%
Shelby Twp	8,824,434	8,732,814	(91,620)	-1.0%
Sterling Heights	28,303,644	28,016,508	(287,136)	-1.0%
Utica	1,511,074	1,495,942	(15,132)	-1.0%
Wash Twp	2,611,730	2,585,894	(25,836)	-1.0%
TOTAL	93,131,079	92,195,236	(935,843)	-1.0%

MACOMB INTERCEPTOR DRAIN DRAINAGE DISTRICT
 REVISED 2022-2023 SEWER CHARGES
 Effective July 1, 2022

	Total Annual	% Macomb County	Allocated to Macomb Cty	Monthly	Chesterfield Twp	Clinton Twp	Fraser	Harrison Twp	Eight Year Rolling Average per actual consumption 7/1/2013-6/30/2021					Total		
									Lenox Twp	Macomb Twp	New Haven	Shelby Twp	Sterling Heights		Ulta	Wash Twp
OMIDD Charges to MIDDD					7.4212%	21.2122%	4.1667%	6.3461%	1.1179%	14.0617%	0.8255%	9.7911%	30.6812%	1.6170%	2.7596%	100.00%
GLWA-OMID	68,870,100	68.23%	46,990,069	3,915,839	290,602	830,635	163,160	248,502	43,774	560,633	32,324	383,403	1,201,426	63,319	103,061	3,915,839
GLWA CSO Program	1,692,300	60.52%	1,024,180	85,348	6,334	18,104	3,556	5,416	954	12,001	705	8,957	26,186	1,380	2,355	85,348
GLWA Sub Total	70,562,400		48,014,249	4,001,187	296,936	848,739	166,716	253,918	44,728	562,634	33,029	391,760	1,227,612	64,699	110,416	4,001,187
OMID Capital Improvements	800,000	66.90%	535,200	44,600	3,310	9,460	1,658	2,830	499	6,272	368	4,367	13,684	721	1,231	44,600
OMID O&M	5,604,150	68.23%	3,823,713	318,643	23,648	67,592	13,276	20,221	3,562	44,807	2,630	31,199	97,763	5,152	8,793	318,643
OMID Sub Total	6,404,150		4,358,913	363,243	26,958	77,052	15,134	23,051	4,061	51,079	2,998	35,666	111,447	5,873	10,024	363,243
Total GLWA and OMID Charges(see Exhibit A)	76,966,550		52,373,162	4,364,430	323,894	925,791	181,850	276,969	48,789	613,713	36,027	427,326	1,339,059	70,572	120,440	4,364,430
Stormwater Pump Station O&M	131,000	100.00%	131,000	10,917	2,334	1,917	0	4,583	0	0	0	0	2,083	0	0	10,917
Segment 5 and Segment 6 SRF Debt(Fg 17)	1,775,000	100.00%	1,775,000	147,916	10,796	31,506	6,058	9,498	1,575	20,625	1,220	14,552	45,622	2,382	4,082	147,916
MIDDD O&M/Charge Required Revenue(pg 4)	15,253,080	100.00%	15,253,080	1,271,090	94,329	269,625	52,962	80,664	14,209	178,737	10,493	124,454	389,986	20,554	35,077	1,271,090
MIDDD Sub Total	17,159,080		17,159,080	1,429,923	107,459	303,048	59,020	94,745	15,784	199,362	11,713	139,006	437,691	22,936	39,159	1,429,923
Total	94,125,630		69,532,242	5,794,353	431,353	1,228,839	240,870	371,714	64,573	813,075	47,740	566,332	1,776,750	93,508	159,599	5,794,353
O&M Total	5,176,236		14,746,068	2,890,440	4,460,568	774,877	9,756,901	572,881	6,795,985	21,321,001	1,122,097	1,915,188	69,632,242			
Debt Total	2,253,358		4,382,075	920,278	1,245,458	849,378	2,784,631	550,929	1,936,829	6,895,507	373,845	670,706	22,662,994			
Grand Total	7,429,594		19,128,143	3,810,718	5,706,026	1,624,255	12,541,532	1,123,810	8,732,814	28,016,508	1,495,942	2,585,894	92,195,236			

Effective July 1, 2022

Exhibit A

Annual Operating Charges

	Current 2022		2023		COSDS		MIDD		Annual		Monthly	
	Budget		Budget		%		%		COSDS	Macomb	COSDS	MIDD
GLWA												
Common-to-all and OMIDDD Charges	\$ 68,038,100	\$	68,870,100		31.77%		68.23%		\$ 21,880,031	\$ 46,990,069		
CSO Program	1,671,700		1,692,300		39.48%		60.52%		668,120	1,024,180		
Total	69,709,800		70,562,400						22,548,151	48,014,249		\$ 1,879,012.58 \$ 4,001,187.42
OMIDDD												
Operations and Maintenance Expense												
Sewer System Maintenance	1,078,400		595,360		31.77%		68.23%		189,146	406,214		
Sewer System Engineering	52,210		68,220		31.77%		68.23%		21,673	46,547		
Pump Maintenance Unit	2,191,860		2,237,780		31.77%		68.23%		710,943	1,526,837		
Systems Control Unit	260		410		31.77%		68.23%		130	280		
Mapping Unit	2,070		1,300		31.77%		68.23%		413	887		
Miss Dig	360		110		31.77%		68.23%		35	75		
General and Administrative	63,090		1,261,030		31.77%		68.23%		400,629	860,401		
Subtotal	3,388,250		4,164,210						1,322,969	2,841,241		110,247.42 236,770.08
Non Operating	-		-		31.77%		68.23%		-	-		-
Major Maintenance	1,150,000		1,150,000		31.77%		68.23%		365,355	784,645		30,446.25 65,387.08
Emergency Maintenance	500,000		500,000		31.77%		68.23%		158,850	341,150		13,237.50 28,429.17
Capital Improvement	802,400		800,000		33.10%		66.90%		264,800	535,200		22,066.67 44,600.00
Subtotal	2,452,400		2,450,000						789,005	1,660,995		
O&M Non-Rate Revenue	(200,420)		(210,060)		31.77%		68.23%		(66,736)	(143,324)		(5,561.33) (11,943.67)
FY 2023 Total Fixed Charges	\$ 75,350,030	\$	76,966,550						\$ 24,593,389	\$ 52,373,161		2,049,449.09 4,364,430.08

Capital Improvements are defined as investments that are made to assets that exceed \$5,000 and increase the useful life of assets by five years or more.

Debt Service*												
2010A mfa 5368-02	1,671,500		1,673,875									
2010B	-		-									
2011A mfa 5368-02	1,624,750		1,619,688									
2013A mfa 5368-03	3,954,400		3,953,400									
2014A	468,344		471,844									
2015A mfa 2001-01	543,625		544,250									
2019 refunding	437,280		445,528									
2019 revenue	1,069,018		507,315									
2020A	3,278,650		3,273,900									
2022 Issuance Projected Debt**	392,900		887,750									
Total Debt Service	13,440,466		13,377,549									
Total OMIDDD Related Revenue Requirements	88,790,496		90,344,099									

* Estimated annual debt service for the 2023 budget updated February 2022

** 2022 issuance projected debt for 2023 using dated date of 9/1/2022, funding of approximately \$15 million, final maturity 7/1/2042, and true interest cost of approximately 2.6%.

FY 2023 Suburban Wholesale Sewer Service Charge Schedule Calculation *
OMID

MODIFIED 6/2/2022 EFFECTIVE JULY 1, 2022 FOR ALL BILLS ISSUED ON OR AFTER AUGUST 1, 2022		<i>2/23/22</i>	<i>6/2/22</i>	<i>Effective 7/1/22</i>
		Originally Approved <u>Charges</u> \$	GLWA Board <u>Modifications</u> \$	Final Modified <u>Charges</u> \$
<u>FY 2023 Revenue Requirements</u>				
1	Wholesale Revenue Requirement	67,730,900		67,730,900
2	Detroit Ownership Adjustment	1,395,500		1,395,500
3	Highland Park Bad Debt Adjustment	1,371,500	(1,371,500)	0
4	Subtotal Amount Required from Charges	70,497,900	(1,371,500)	69,126,400
5	OMID Specific Revenue Req't (per Contract)	2,186,400		2,186,400
6	Total Amount Required from Charges	72,684,300	(1,371,500)	71,312,800
<u>FY 2023 Service Charge Schedule</u>				
7	Fixed Monthly Charge - \$/month	5,874,800	(114,300)	5,760,500
8	OMID Specific Cost Allocation (per Contract) - \$/m	<u>182,200</u>		182,200
9	Total Fixed Monthly Charge - \$/month	6,057,000	(114,300)	5,942,700

* *The charges in this document reflect the action taken by the Great Lakes Water Authority Board on June 2, 2022 following their review, which included a public hearing on the FY 2023 Financial Plan service charge schedules for the System on February 23, 2022 and additional deliberations.*



**Office of the Interim
Chief Executive Officer**
735 Randolph Street, Suite 1900
Detroit, Michigan 48226

June 7, 2022

To Our Member Partners:

I last wrote to you on March 1, 2022, to convey the FY 2023 service charge for your community that was adopted by the Board of Directors for the Great Lakes Water Authority (GLWA) on February 23, 2022. At that time, the adopted charges included an allocation of the Highland Park bad debt expense. Since that time, several positive steps have occurred that allowed the Board of Directors to reverse the bad debt expense allocation and lower the adopted charges for FY 2023. Accordingly, attached is your community's amended approved service charge for FY 2023.

Below is a timeline of the events that have led to this desired outcome for the region related to the complex Highland Park matter.

May 10, 2022 - Wayne County Circuit Court Clarifies 1996 Agreements and Orders the City of Highland Park to Resume Payments – As background, the City of Highland Park stopped making payments to GLWA in April 2021, asserting that its charges were capped by 1996 agreements. The Wayne County Circuit Court rejected that argument and made clear that Highland Park's payment obligation is not limited to 1996 levels. Further, the Court ruled that Highland Park's decision to cease making escrow payments to GLWA based upon its interpretation of prior court orders was incorrect. The Court held that "Highland Park's liabilities under the 1996 Agreements are not capped at the amount those agreements required Highland Park to escrow." The Court states in its opinion, "the Court finds that GLWA has established beyond factual and legal dispute that Highland Park breached its escrow obligations under the 1996 settlement agreements, and that: (1) GLWA is entitled to a judgment representing 65% of Highland Park's water and sewer revenue to GLWA for every month it has not deposited such funds into the parties' escrow account; and (2) Highland Park is hereby ordered to continue making such deposits until this Court rules otherwise."

May 11, 2022 - Governor Whitmer Pledges Support to Resolve Highland Park Matters – Governor Whitmer reaches out to GLWA recognizing the Highland Park matters, the impact that it has on the region, and communicates that "[t]he State stands ready to support GLWA in resolving outstanding issues."

May 31, 2022 - GLWA is Notified that Highland Park is Sending a Payment – This is a key point in evaluating the reversal of the Highland Park bad debt expense allocation. The original driver for including the bad debt expense recovery in FY 2023 charges was Highland Park's nonpayment for nearly a year.

June 2, 2022 - GLWA Board Rolls Back Highland Park Bad Debt Expense Recovery Amounts in FY 2023 Charges - The GLWA Board of Directors voted to eliminate the bad debt expense recovery amounts related to Highland Park in FY 2023 charges that were passed on February 23, 2022. This reduces charges by \$6.7 million (\$1.3 million for water and \$5.4 million for sewer).

June 3, 2022 – GLWA Receives Payment from Highland Park – An amount received from Highland Park, presented as representing 65% of water and sewer bill payments made from Highland Park residents over the course of 14 months, March 2021 through April 2022, is received (approximately \$1.7 million).

While much has been accomplished, there is still much work ahead. Given the extent of the litigation over the past eight years and the complexity of operational and capital decisions surrounding Highland Park's water and sewer services, a concerted large-scale effort must still be undertaken to reach resolution. Achieving a clear path forward depends on a new level of collaboration and engagement by Highland Park, GLWA and its Member Partners, and the State to provide long-term sustainability and affordability of services for the region.

I sincerely thank you for your ongoing participation and collaboration with GLWA throughout the year. As always, we are available to address any questions you may have. Please contact our Member Outreach Team at outreach@glwater.org.

Sincerely,

A handwritten signature in blue ink that reads "Suzanne R. Coffey". The signature is written in a cursive, flowing style.

Suzanne R. Coffey, P.E.
Interim Chief Executive Officer



Candice S. Miller

Public Works Commissioner
Macomb County

To: 8 ½ Mile Relief Drain Drainage District Board Members
Macomb Interceptor Drain Drainage District Board Members

From: Vincent Astorino, Operations & Flow Manager

Date: May 24, 2022

Subject: SCADA Server Upgrades Recommendation

The Macomb County Public Works Office (MCPWO) manages a highly sophisticated Supervisory Control and Data Acquisition (SCADA) system. This system supports all the various drainage district assets that MCPWO maintains along with the OMIDDD system.

The MCPWO SCADA system has 2 data centers each containing redundant servers which are housed at Chapaton & Clintondale Pump Stations. These servers host a VMWare virtual environment which has multiple benefits including the ability to run many different virtual computers simultaneously on a single physical server. Another benefit of a virtual environment is that the physical servers supporting it can be replaced one at a time and yet the virtual computers will continue running uninterrupted. It should be noted that the physical servers also leverage other enterprise hardware such as dedicated high speed network switches and cybersecurity appliances to function in this configuration. For the purposes of this document, the term “server” should be assumed to include that hardware as well.

A SCADA system has 3 primary components: a server, a communication network and software. Each component is equally important; however, the server determines the reliability and longevity of the system. The current SCADA servers were replaced in 2015 and typically have a useful life of 5 to 7 years. We originally slated this replacement for 2020 but due to COVID and staff working remotely we did not want to take any risks with server replacements at that time.

MCPWO has been working with our trusted vendor Access Interactive to pull together pricing for this project. Due to this SCADA system being a potential target to terrorist threats we are unable to publicly bid out this project due to the heightened security risks. Access Interactive was vetted out by Macomb County IT and is one of their trusted vendors and was recommended to us several years ago.

The final negotiated pricing that we have received from Access Interactive is \$200,776 which is being distributed across all drainage districts and OMIDDD. This is broken out below. To ensure that all pricing that we have received for this replacement project is fair, we have gone through an analysis if we were to purchase all the equipment ourselves which we receive a significant account savings from Dell. Even with that we were unable to beat the pricing that Access Interactive has provided to us. A few examples of this are listed below in Table 1. All pricing within Table 1 is for one component in each section.

Table 1 - Cost Comparison

	Dell List Price	MCPWO Account Savings	Final MCPWO Cost	Access Pricing
Dell R650 Server	\$31,303.25	\$13,177.02	\$18,126.33	\$17,129.00
Dell 3148P Switch	\$16,052.00	\$5,297.72	\$10,754.28	\$6,870.00
	CDWG Price			
Dell S4128F Switch*	\$12,277.88	N/A	\$12,277.88	\$11,978.00

*Pricing not available to us through our Dell account for this model.

When the servers were last replaced a life-cycle budget was established across all the wastewater drainage districts to cover the cost of the next replacements. The following funds have been collected for each drain district over that time. The breakdown of the Access Interactive quote per district is also within this table.

Table 2 - Cost Breakdown

Drain District	Total Funds Collected*	Access Interactive Cost Breakdown
MIDDD	\$303,771	\$86,333.68
8.5 Mile	\$184,168	\$64,750.26
MSDDD	\$26,860	\$12,950.05
SEMCWWDS	\$17,260	\$8,633.37
OMIDDD**	N/A	\$28,108.64
Total	\$532,059	\$200,776

*It should be noted that this is one component of the SCADA system as described above. Therefore, the remaining funds can be used for other replacements across the SCADA backbone without having to increase the budgets.

**OMIDDD will be billed directly for this and has been notified of the upcoming project during their budgeting process.

The recommendation from MCPWO is to move forward with the Access Interactive purchase and installation of new SCADA servers with the cost breakdown as described in Table 2 above.

Attachment: Access Interactive Proposal – May 13, 2022



Macomb County Public Works

Dell MHEC Contract: MHEC-07012015

Contract Code: 99AGZ / 77AGV

(Please refer to the above contract # and contract code on all purchase orders for Dell equipment and support. Access Interactive professional services and non-Dell equipment on this proposal are separate from contract)

Infrastructure Upgrade

Version 8

Prepared by:

access  **nteractive**

Bill Fedak
Jerry Rioux
Daniel Heidt

May 13, 2022

Access Interactive Company Overview

Access Interactive provides technology solutions, services and support to business, educational and government organizations since 1985. Our business focus is helping our Clients make the most of technology investments. Over the last 28 years Access has experienced significant growth to establish itself as a \$35 million organization proudly retaining over 65 full-time employees. We pride ourselves on being large enough to be extremely competitive and small enough to pay personal attention to our customers. We have an unwavering commitment to providing the best solutions, service and support to our customers.

Our highly-skilled technical services group includes over 30 full-time technicians including VMware, Microsoft, Cisco and Dell certified system engineers. Our technicians are available to you for projects ranging from on-site break/fix services to full-scale WAN/LAN integration, remote access, IP telephony and more.

Access Interactive sales consultants are technically astute and have an average over 20 years of industry experience. They are ready to apply their knowledge and technical expertise to recommending the best products and solutions and to providing efficient project management.

It is our focused mission to implement the best products, service and support in the industry to our clients.

Strategic Directive

Access Interactive's initial, primary focus in Macomb County Public Works' upcoming project is an in depth review of the organizational environment. Gathering momentum from the initial meetings; we're confident Access can offer credible short term recommendations / solutions in order to create a strong long lasting relationship. Our relationships with our clients grow based on strong commitment and Access Interactive's willingness to go the extra mile. Access Interactive prides itself on communication, documentation and thirst for industry knowledge. These traits, coupled with cross trained technical aptitude, contribute greatly to our overall success. We look forward to working with an organization that has a firm grasp on their field, and knowledge of how their ever changing IT infrastructure can elevate them to new levels of achievement.

Solution Synopsis

The proposed solution provides a scalable, secure, cost effective foundation for Macomb County Public Works. There are several components that work together to provide a network that has excellent performance, is easy to manage, provides fault tolerance and secure connectivity.

These components are:

- Dell PowerEdge Servers
- Dell Switches
- SonicWall Firewalls
- Data Center Rack/UPS
- Professional Services and Knowledge Transfer

CHAPATON



Dell R650 Servers

Description	Quantity
10x2.5 Front Storage	1
SAS/SATA Backplane	1
No Rear Storage	1
Trusted Platform Module 2.0 V3	1
2.5" Chassis with up to 10 Hard Drives (SAS/SATA), 3 PCIe Slots, 2 CPU	1
Intel Xeon Gold 6354 3G, 18C/36T, 11.2GT/s, 39M Cache, Turbo, HT (205W) DDR4-3200	1
Intel Xeon Gold 6354 3G, 18C/36T, 11.2GT/s, 39M Cache, Turbo, HT (205W) DDR4-3200	1
Additional Processor Selected	1
Heatsink for 2 CPU configuration (CPU more than 165W)	1
Performance Optimized	1
3200MT/s RDIMMs	1
No RAID	1
PERC H355 Controller Front	1
Front PERC Mechanical Parts, rear load	1
Performance BIOS Settings	1
UEFI BIOS Boot Mode with GPT Partition	1
4 High Performance Fans for 2 CPU	1
Dual, Hot-plug, Redundant Power Supply (1+1), 1400W, Mixed Mode	1
Riser Config 0, 2CPU, Half Length, Low Profile, 3 x16 Slots, SW GPU Capable	1
PowerEdge R650 Motherboard	1

iDRAC9, Enterprise 15G	1
Broadcom 5720 Quad Port 1GbE BASE-T Adapter, OCP NIC 3.0	1
LCD Bezel	1
Luggage Tray x8 and x10 Chassis, R650	1
BOSS Blank	1
No Quick Sync	1
iDRAC,Factory Generated Password	1
iDRAC Group Manager, Disabled	1
No Operating System	1
No Media Required	1
Strain Relief Bar	1
1U Combo Drop-In/Stab-In Rails	1
OpenManage DVD Kit,Poweredge R650	1
PowerEdge R650 Shipping	1
R650 Ship 4x3.5, 10x2.5, 8x2.5 NVMe	1
R650 Dell/EMC label (BIS) for 2.5" Chassis	1
PowerEdge R650 No CCC Marking, No CE Marking	1
US Order	1
PowerEdge R650 Server	1
Basic Next Business Day 36 Months	1
ProSupport and Next Business Day Onsite Service Initial, 36 Month(s)	1
ProSupport and Next Business Day Onsite Service Extension, 24 Month(s)	1
16GB RDIMM, 3200MT/s, Dual Rank	8
480GB SSD SATA Read Intensive 6Gbps 512 2.5in Hot-plug AG Drive, 1 DWPD	2
Jumper Cord - C13/C14, 4M, 250V, 12A (North America, Guam, North Marianas, Philippines, Samoa)	2
Dell HBA355e Adapter, Full Height	1
Broadcom 57412 Dual Port 10GbE SFP+ Adapter, PCIe Low Profile	1

Dell R650 – 5 Year Support

Qty. 2 @ \$ 17,129.00 each \$ 34,258.00

CLINTONDALE



Dell R650 Servers

Description	Quantity
10x2.5 Front Storage	1
SAS/SATA Backplane	1
No Rear Storage	1
Trusted Platform Module 2.0 V3	1
2.5" Chassis with up to 10 Hard Drives (SAS/SATA), 3 PCIe Slots, 2 CPU	1
Intel Xeon Gold 6354 3G, 18C/36T, 11.2GT/s, 39M Cache, Turbo, HT (205W) DDR4-3200	1
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Heatsink for 2 CPU configuration (CPU more than 165W)	1
Performance Optimized	1
3200MT/s RDIMMs	1
No RAID	1
PERC H355 Controller Front	1
Front PERC Mechanical Parts, rear load	1
Performance BIOS Settings	1
UEFI BIOS Boot Mode with GPT Partition	1
4 High Performance Fans for 2 CPU	1
Dual, Hot-plug, Redundant Power Supply (1+1), 1400W, Mixed Mode	1
Riser Config 0, 2CPU, Half Length, Low Profile, 3 x16 Slots, SW GPU Capable	1
PowerEdge R650 Motherboard	1

iDRAC9, Enterprise 15G	1
Broadcom 5720 Quad Port 1GbE BASE-T Adapter, OCP NIC 3.0	1
LCD Bezel	1
Luggage Tray x8 and x10 Chassis, R650	1
BOSS Blank	1
No Quick Sync	1
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No Media Required	1
Strain Relief Bar	1
1U Combo Drop-In/Stab-In Rails	1
OpenManage DVD Kit,Poweredge R650	1
PowerEdge R650 Shipping	1
R650 Ship 4x3.5, 10x2.5, 8x2.5 NVMe	1
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Broadcom 57412 Dual Port 10GbE SFP+ Adapter, PCIe Low Profile	1

Dell R650 – 5 Year Support

Qty. 2 @ \$ 17,129.00 each \$ 34,258.00

CHAPATON

Dell Networking S4128F

The S4100-ON 10GbE switches comprise Dell EMC's latest disaggregated hardware and software data center networking solutions, providing state-of-the-art 100GbE uplinks, fibre channel connectivity and a broad range of functionality to meet the growing demands of today's data center environment. These innovative, next-generation top-of-rack open networking switches offer optimum flexibility and cost-effectiveness for the enterprise, mid-market and Tier2 cloud service provider with demanding compute and storage traffic environments.



The compact S4100-ON models provide industry-leading density with up to 48 ports of 10GbE or up to 48 ports of 10GBaseT ports, 2 ports of 40GbE and 4 ports of 100GbE in a 1RU form factor. The S4148U-ON model can support up to 28 8/16G fibre channel ports, or 16 ports of 32G* fibre channel ports. The S4112-ON is a halfrack width model that supports up to 12 ports of 10GbE or 12 ports 10GBaseT, and 3 ports of 100GbE.

The S4100-ON series are high-performance, multi-function, 1/10/25/40/50/100 GbE and 8/16/32G FC Top-of-Rack (ToR) switches purpose-built for applications in high-performance data center, cloud and computing environments.

- 1.76Tbps (full-duplex) non-blocking, cut-through switching fabric delivers line-rate performance under full load on S4148F-ON, S4148FE-ON, S4148T-ON and S4148U-ON.
- 960Gbps (full-duplex) non-blocking, cut-through switching fabric delivers line-rate performance under full load on S4128F-ON and S4128T-ON.
- 840Gbps (full-duplex) non-blocking, cut-through switching fabric delivers line-rate performance under full load on S4112F-ON and S4112T-ON.
- VXLAN gateway functionality support for bridging and routing the non-virtualized and the virtualized overlay networks with line rate performance
- Converged Network support with DCB
- IO panel to PSU airflow or PSU to IO panel airflow
- Redundant, hot-swappable power supplies and fans (S4112-ON has redundant, fixed power supplies and fans)
- Support for 10GBASE-LRM optics over OM1/OM2 fiber on S4148FE-ON product (not supported on other products in S4100 product family)
- IEEE 1588v2 supported (hardware only) on 48 port models

Dell EMC Switch S4128F-ON, 1U, 28 x 10GbE SFP+, 2 x QSFP28, PSU to IO, 2 PSU, OS10	1
OS10 Enterprise, S4128F-ON	1
Force10, Power Cord, 125V, 15A, 10 Feet, NEMA 5-15/C13, S-Series	2
Dell Networking, Cable, SFP+ to SFP+, 10GbE, Copper Twinax Direct Attach Cable, 1 Meter	14
Dell Networking, Cable, QSFP+ to QSFP+, 40GbE Passive Copper Direct Attach Cable, .5 Meters	1
Dell EMC Networking S4100-ON Americas User Guide	1
5 Years ProSupport with Next Business Day Onsite Service	1
No Installation	1
5 Years ProSupport OS10 Enterprise Software Support-Maintenance	1

Dell S4128F Switches – 5 Year Support

Qty. 2 @ \$ 11,978.00 each \$ 23,956.00

CLINTONDALE

Dell Networking S4128F

The S4100-ON 10GbE switches comprise Dell EMC's latest disaggregated hardware and software data center networking solutions, providing state-of-the-art 100GbE uplinks, fibre channel connectivity and a broad range of functionality to meet the growing demands of today's data center environment. These innovative, next-generation top-of-rack open networking switches offer optimum flexibility and cost-effectiveness for the enterprise, mid-market and Tier2 cloud service provider with demanding compute and storage traffic environments.



The compact S4100-ON models provide industry-leading density with up to 48 ports of 10GbE or up to 48 ports of 10GBaseT ports, 2 ports of 40GbE and 4 ports of 100GbE in a 1RU form factor. The S4148U-ON model can support up to 28 8/16G fibre channel ports, or 16 ports of 32G* fibre channel ports. The S4112-ON is a halfrack width model that supports up to 12 ports of 10GbE or 12 ports 10GBaseT, and 3 ports of 100GbE.

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- 960Gbps (full-duplex) non-blocking, cut-through switching fabric delivers line-rate performance under full load on S4128F-ON and S4128T-ON.
- 840Gbps (full-duplex) non-blocking, cut-through switching fabric delivers line-rate performance under full load on S4112F-ON and S4112T-ON.
- VXLAN gateway functionality support for bridging and routing the non-virtualized and the virtualized overlay networks with line rate performance
- Converged Network support with DCB
- IO panel to PSU airflow or PSU to IO panel airflow
- Redundant, hot-swappable power supplies and fans (S4112-ON has redundant, fixed power supplies and fans)
- Support for 10GBASE-LRM optics over OM1/OM2 fiber on S4148FE-ON product (not supported on other products in S4100 product family)
- IEEE 1588v2 supported (hardware only) on 48 port models

Dell EMC Switch S4128F-ON, 1U, 28 x 10GbE SFP+, 2 x QSFP28, PSU to IO, 2 PSU, OS10	1
OS10 Enterprise, S4128F-ON	1
Force10, Power Cord, 125V, 15A, 10 Feet, NEMA 5-15/C13, S-Series	2
Dell Networking, Cable, SFP+ to SFP+, 10GbE, Copper Twinax Direct Attach Cable, 1 Meter	14
Dell Networking, Cable, QSFP+ to QSFP+, 40GbE Passive Copper Direct Attach Cable, .5 Meters	1
Dell EMC Networking S4100-ON Americas User Guide	1
5 Years ProSupport with Next Business Day Onsite Service	1
No Installation	1
5 Years ProSupport OS10 Enterprise Software Support-Maintenance	1

Dell S4128F Switches – 5 Year Support

Qty. 2 @ \$ 11,978.00 each \$ 23,956.00

CLINTONDALE

Dell Networking S3128F

Description	Quantity
Dell Networking S3148P, L3, PoE+, 48x 1GbE, 2x Combo, 2x 10GbE SFP+ fixed ports, Stacking, IO to PSU air, 1x 1100w AC PS	4
Power Supply, 715w, S3124P, Required for more than 550 watts of POE+, or for redundancy	4
Dell Networking S3100 Series User Guide	4
Dell Hardware Limited Warranty 1 Year	4
Lifetime Limited Hardware Warranty with Basic Hardware Service Next Business Day Parts Only on Your Network Switch	4
ProSupport: Next Business Day Onsite Service After Problem Diagnosis,5 Year	4
ProSupport:7x24 HW/SWTech Support and Assistance,5 Year	4
Thank you choosing Dell ProSupport. For tech support, visit //www.dell.com/support or call 1-800- 945-3355	4
On-Site Installation Declined	4
Stacking Cable, for Dell Networking N2000/N3000/S3100 series switches (no cross-series stack), 1m	4
Power Cord, 250V, 1 meter, C14 to C15	8

Dell S3128F Switches – 5 Year Support

\$ 6,870.00

CHAPATON

SONICWALL®



SonicWall NSA 2700

HA Pair:

NSA 2700 Total Secure Essential Edition 3yr (Secure Upgrade Plus)	\$ 5,865.00
NSA 2700 High Availability	\$ 1,858.00
Stateful HA Upgrade for NSA 2700 Series	\$ 586.00

CLINTONDALE

SONICWALL®



SonicWall NSA 2700

HA Pair:

NSA 2700 Total Secure Essential Edition 3yr (Secure Upgrade Plus)	\$ 5,865.00
NSA 2700 High Availability	\$ 1,858.00
Stateful HA Upgrade for NSA 2700 Series	\$ 586.00

CHAPATON

Data Center Rack/UPS 120V

One (1) VRCS3357-120V Self-Contained Rack Solution with the following features:

The Vertiv™ VRC-S is a pre-integrated, enclosed micro data center solution designed to be up and running at an edge or other small site in a matter of days. Available in eight pre-built standard sizes with two voltage options (120V or 208V), the solution incorporates a rack power distribution unit (PDU), monitoring software, and the new Vertiv™ VRC self-contained rack cooling unit in an enclosed standard IT rack.

Enclosed Vertiv VR3357 Rack:

- 48U; 2265mm (89.17")H x 800mm (31.50")W x 1215mm (47.83")D
- (1) 77% Perf Locking Front Door, (2) 77% Perf Split Locking Rear Doors, (2) pair 19" Mounting Rails, (4) Split Side Panels with locking slam latch
- Toolless Removeable Top Panel
- Casters and Leveling Feet

Rack Mounted Cooling Unit, VRC100KIT:

- 3.5kW Cooling Capacity
- Integrated Heat Rejection System
- Nema 5-20P Input Plug with 10ft Power Cord
- LCD Display
- Integrated Condensate Pump
- UL484 Certification
- Complete Installation Kit

Pre-Installed NU30021 Rack PDUs:

- 30A, 120V, 2.8kW
- Switched Outlet Level Monitoring EC
- Vertical, (24) NEMA 5-20R
- 10ft / 3m power cord with L5-30P

GXT5 UPS System, Model GXT5-3000LVRT2UXL, 3000 VA/2700 Watts Capacity, 120VAC input and output.

- True on-line design with PWM sine wave output
- 0.9 Output Power Factor Rating
- Input PF correction with wide input voltage and frequency range for longer battery life
- Efficient three-stage charging technique and comprehensive discharging protection
- +/- 3% output voltage regulation
- Automatic restart after extended outages
- Input and output noise suppression
- Emergency fail safe bypass for mission-critical availability
- Configurable to operate at voltages of 110/115/120/127 VAC
- Automatic and manual battery test feature
- Microprocessor-based control and monitoring

- Full color, gravity-sensing, LCD display for user friendly operation with local monitoring and configuration of operational parameters
- USB Port and Contact Closure Communications
- USB compatible Operating systems monitoring and GXT5 configuration program
- Intellislot Communications Port
- Battery start capability
- Extended run capability
- Three year warranty

System Accessories:

Each Liebert GXT5 ships with the following items:

- Liebert GXT5, Quick Installation Guide, Configuration Program
- USB Cable: one, 3.9 ft. (1.2m) long
- Plastic tower stand sets: 2 (four pieces)
- 4-Post Rack Mounting Kit
- Warnings and Safety Instructions booklet and WEEE recycling sheet (ISO 14001 compliance)

Communications Hardware and Software Options:

- RDU101, SNMP/Webcard for communications with environmental sensor support

Installation

- Installation/Rackmount of VRC100KIT, rPDU's, and UPS System

Total: **\$ 20,200.00**

CLINTONDALE

Data Center Rack/UPS 120V

One (1) VRCS3357-120V Self-Contained Rack Solution with the following features:

The Vertiv™ VRC-S is a pre-integrated, enclosed micro data center solution designed to be up and running at an edge or other small site in a matter of days. Available in eight pre-built standard sizes with two voltage options (120V or 208V), the solution incorporates a rack power distribution unit (PDU), monitoring software, and the new Vertiv™ VRC self-contained rack cooling unit in an enclosed standard IT rack.

Enclosed Vertiv VR3357 Rack:

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- (1) 77% Perf Locking Front Door, (2) 77% Perf Split Locking Rear Doors, (2) pair 19" Mounting Rails, (4) Split Side Panels with locking slam latch
- Toolless Removeable Top Panel
- Casters and Leveling Feet

Rack Mounted Cooling Unit, VRC100KIT:

- 3.5kW Cooling Capacity
- Integrated Heat Rejection System
- Nema 5-20P Input Plug with 10ft Power Cord
- LCD Display
- Integrated Condensate Pump
- UL484 Certification
- Complete Installation Kit

Pre-Installed NU30021 Rack PDUs:

- 30A, 120V, 2.8kW
- Switched Outlet Level Monitoring EC
- Vertical, (24) NEMA 5-20R
- 10ft / 3m power cord with L5-30P

GXT5 UPS System, Model GXT5-3000LVRT2UXL, 3000 VA/2700 Watts Capacity, 120VAC input and output.

- True on-line design with PWM sine wave output
- 0.9 Output Power Factor Rating
- Input PF correction with wide input voltage and frequency range for longer battery life
- Efficient three-stage charging technique and comprehensive discharging protection
- +/- 3% output voltage regulation
- Automatic restart after extended outages
- Input and output noise suppression
- Emergency fail safe bypass for mission-critical availability
- Configurable to operate at voltages of 110/115/120/127 VAC
- Automatic and manual battery test feature

- Microprocessor-based control and monitoring
- Full color, gravity-sensing, LCD display for user friendly operation with local monitoring and configuration of operational parameters
- USB Port and Contact Closure Communications
- USB compatible Operating systems monitoring and GXT5 configuration program
- Intellislot Communications Port
- Battery start capability
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System Accessories:

Each Liebert GXT5 ships with the following items:

- Liebert GXT5, Quick Installation Guide, Configuration Program
- USB Cable: one, 3.9 ft. (1.2m) long
- Plastic tower stand sets: 2 (four pieces)
- 4-Post Rack Mounting Kit
- Warnings and Safety Instructions booklet and WEEE recycling sheet (ISO 14001 compliance)

Communications Hardware and Software Options:

- RDU101, SNMP/Webcard for communications with environmental sensor support

Installation

- Installation/Rackmount of VRC100KIT, rPDU's, and UPS System

Total: **\$ 20,200.00**

Design points for discussion

- Macomb County Public Works provides Battery Backup and PDU that can accommodate this solution.
- We assume Rack Space is available. Racks quoted upon request.
- Customer mounting physical equipment.
- Patch cords: customer responsibility, quoted upon request.
- Remote access will be facilitated by customer deployment engineer

PROFESSIONAL SERVICES:

Scope assumes someone from Macomb County Public Works assists with the project. Hours subject to change depending on exact project scope. The following is an estimate based on similar projects.

- Project plan and scheduling
- Equipment prep/software firmware updates
- Physical deployment of equipment
- Equipment integration
- Server installation and configuration
- Migration from existing R630 servers
- Firewall installation and configuration
- System documentation and Visio's
- Performance tuning
- Knowledge transfer and optimization
- Project management

Professional Services Total: 124 hours (62 hours - Chapaton; 62 hours - Clintondale)

Senior LAN Technician @ \$165.00 per hour **\$ 20,460.00**

CHAPATON - PRICING SUMMARY

Qty	Item	Unit Price	Extended
2	Dell PowerEdge R650 Servers with 5 Year Support	\$17,129.00	\$34,258.00
2	Dell S4128F Switches with 5 Year Support	\$11,978.00	\$23,956.00
1	SonicWall NSA 2700 w/Total Secure Essential Edition 3 Year	\$5,865.00	\$5,865.00
1	SonicWall NSA 2700 High Availability Secondary Firewall	\$1,858.00	\$1,858.00
1	SonicWall Stateful HA upgrade for NSA 2700 HA pair	\$586.00	\$586.00
1	Datacenter Rack and UPS 120V with installation	\$20,200.00	\$20,200.00
62	Professional Services: Senior LAN Technician per Hour	\$165.00	\$10,230.00

EQUIPMENT:	\$86,723.00
PROFESSIONAL SERVICES:	\$10,230.00
MI SALE TAX:	EXEMPT
TOTAL:	\$96,953.00

CLINTONDALE - PRICING SUMMARY

Qty	Item	Unit Price	Extended
2	Dell PowerEdge R650 Servers with 5 Year Support	\$17,129.00	\$34,258.00
2	Dell S4128F Switches with 5 Year Support	\$11,978.00	\$23,956.00
1	Dell S3148P Switch with 5 Year Support	\$6,870.00	\$6,870.00
1	SonicWall NSA 2700 w/Total Secure Essential Edition 3 Year	\$5,865.00	\$5,865.00
1	SonicWall NSA 2700 High Availability Secondary Firewall	\$1,858.00	\$1,858.00
1	SonicWall Stateful HA upgrade for NSA 2700 HA pair	\$586.00	\$586.00
1	Datacenter Rack and UPS 120V with installation	\$20,200.00	\$20,200.00
62	Professional Services: Senior LAN Technician per Hour	\$165.00	\$10,230.00

EQUIPMENT:	\$93,593.00
PROFESSIONAL SERVICES:	\$10,230.00
MI SALE TAX:	EXEMPT
TOTAL:	\$103,823.00

Quote Valid for 20 days. Prices subject to change with notice depending on current market conditions. Terms: 50% Upon Acceptance, 25% Upon Delivery, Remainder Net 30. Restocking Fee of 25% plus shipping fee for returned merchandise.
 UPS not included. No returns on software or software licenses. Credit card payment add 4%.

Authorized Signature: _____ Date: _____

Printed Name: _____ Purchase Order No: _____



Candice S. Miller

Public Works Commissioner
Macomb County

To: Board Members of the following Drainage Districts:
- Eight and One Half Mile Relief Drain Drainage District (8MRDDD)
- Macomb Interceptor Drain Drainage District (MIDDD)

From: Vincent Astorino, Operations & Flow Manager

Date: June 13, 2022

Subject: 2023 Interceptor Inspection Program – Consultant Recommendation

Macomb County Public Works Office (MCPWO), on behalf of the two Drainage Districts noted above, has requested consultant proposals to administer the 2023 Interceptor Inspection Program. This program will consist of routine televising and inspection of the large interceptors throughout these systems. Given the recent pipe failures within the Romeo Arm Interceptor, sonar and laser scanning will also be performed in this reach. Inspections of non-reinforced concrete pipe occurs every three (3) years and reinforced concrete pipe every six (6) years. Furthermore, the inspections within the MIDDD are in accordance with the Administrative Consent Order (ACO-004875) entered by the MIDDD with the Michigan Department of Environment, Great Lakes, and Energy (EGLE). Approximately 26 miles of pipe ranging from 3-feet to 12-feet in diameter will be inspected across both districts as part of this project.

MCPWO staff identified several firms that were believed to be willing to and capable of performing the professional services associated with this project. Formal technical proposals were not requested since a) the credentials of the firms were already known as they were pre-selected and b) the project is largely administrative in nature with little opportunity for creative design ideas to be presented. The general scope of work requested of the proposers was to prepare contract documents, assist with bidding, and provide construction oversight for the Program.

On June 3, 2022, MCPWO received proposals from all five firms that were contacted with the cost proposals summarized as follows:

Firm	Task 1 - MIDDD	Task 2 - 8MRDDD	Total
AEW	\$127,730	\$128,487	\$256,216
FKE	\$180,983	\$117,905	\$298,888
HRC	\$136,460	\$138,860	\$275,320
NTH	\$81,549	\$81,507	\$163,056
SDA	\$236,968	\$157,320	\$394,288
Budgeted Amount	\$1,700,000	\$500,000	

*NTH was contacted on 6/6/22 and several revisions were requested to the assumptions section of their proposal

While the proposed fees varied considerably, MCPWO staff believes all proposers understood the objectives of the project. Only a short 1-2 page cover letter was requested of the proposers. Within these letters some creative ideas and unique firm credentials were presented, however, nothing was deemed significant enough to justify proceeding with a higher cost firm (especially considering the second highest proposed fee was more than \$90,000 higher than the lowest). The evaluation of the cover letters was done merely as a cursory review of the firm credentials and no formal scoring matrix was prepared. The recommendation presented below is purely cost-based.

MCPWO staff is recommending the following action:

That the 8MRDDD board award the contract to NTH Consultants, Ltd. in the total not-to-exceed amount of \$81,507 to prepare, bid, and administer the work associated with the 2023 Interceptor Inspection Program within the 8MRDDD.

and,

That the MIDDD board award the contract to NTH Consultants, Ltd. in the total not-to-exceed amount of \$81,549 to prepare, bid, and administer the work associated with the 2023 Interceptor Inspection Program within the MIDDD.

MCPWO staff is confident that NTH will be able to perform the work for the proposed fee. NTH's engineering contract and the subsequent construction bid form(s) will be structured by Task and Subtask to so that each District will only be invoiced for work performed in the respective District. Upon board approvals, MCPWO staff will coordinate with NTH to finalize a contract.

Attachments: NTH Proposal Letter Dated 06-03-22 (rev. 06-06-22)

Mr. Steve Wagner, Engineer II
Macomb County Public Works Office
21777 Dunham Road
Clinton Township, Michigan 48036

June 3, 2022
NTH Proposal OP22000325
(Revised June 6, 2022)

**RE: Proposal for Professional Engineering Services
2023 Interceptor Inspection Program
MCPWO Project Number: WWS-2022-005
Project Management and Oversight**

Dear Mr. Wagner:

NTH Consultants, Ltd. (NTH) is uniquely qualified to successfully deliver your 2023 Interceptor Inspection Program detailed in the Request for Proposal letter dated May 3, 2022, and Addendum No. 1 dated May 25, 2022. Using experience built over our 53 years as a leader in the water / wastewater infrastructure space, NTH's team of professionals have the technical skills, depth of understanding, and resources to ensure a successful project that will be completed on-time and within budget for the Macomb County Public Works Office (MCPWO).

We understand the MCPWO desires to maintain their sewer systems to mitigate against future failures while considering a maintenance approach that provides the best overall value to the health of the system and the communities that it serves. As such, we will carefully monitor the inspection process in real time to properly identify critical defects which may lead to further deterioration or failures. Any such critical defects observed will be immediately identified and communicated to the MCPWO project manager to allow the defects to be addressed in a timely manner. In addition, the final end-of-project memorandum will include prioritization of defects and repair recommendations to make certain that critical defects can be addressed in the early stages of the County's future repair program.

The key personnel that NTH will rely on to successfully deliver this project are unquestionably qualified and experienced, distinguishing NTH from competing firms and ensuring the best value for the County on this project. John Kosnak, P.E. will serve as the NTH Project Manager for this project. Mr. Kosnak has been a certified NASSCO PACP/MACP/LACP user since 2006 and has been involved in numerous sewer rehabilitation projects within Macomb County. Joel Schanne, P.E. will assist Mr. Kosnak in overseeing the review of the inspection videos and logs as well as the development of the end-of-project memorandum. Mr. Schanne has been NASSCO PACP/MACP/LACP certified since 2016 and has performed CCTV inspection for the Oakland-Macomb Interceptor Drain sewer system for the past two inspection cycles. Jason Edberg, P.E. will serve as the NTH Technical Advisor, leveraging his sewer repair experience that began with the 2004 repair of the Romeo Arm Interceptor.

For the Sub-Task 1 (Contract Documents) phase, we will utilize the available information from Macomb County including record drawings, CAD files, GIS base maps, and other data to prepare sewer plan and profile sheets as well as the information tables as outlined in the RFP. We do not anticipate the need for any field work to complete this task. Tables will be included with the drawings to list the applicable manhole and pipeline information including sizes, lengths, and depths based on available data. The Sub-Task 1 Bid Package will be completed for advertising on MITN by December 30, 2022.

NTH currently has 8 certified PACP/MACP/LACP users who will be available as needed for Sub-Task C (inspection) of this project. Our field representatives will document the CCTV contractor’s progress as well as review the inspection videos in real time to ensure the contractor properly records the observed defects within the sewer system. As a value-added service to our clients, our engineers typically perform a visual inspection of the assessable portion of the manholes within the system and will document any serious defects which may affect the structural capacity of the manhole structures. We will document this information in a spread sheet which will be included in the end-of-project memorandum.

Once the data is gathered, an updated Probability of Failure / Consequence of Failure / Business Risk Exposure analysis will be performed in accordance with NASSCO’s PACP Guidelines. During the development of the analysis, we will involve the MCPWO staff through a workshop to discuss the areas of concern. This information will be color coded in the data table such that MCPWO staff can easily identify the areas requiring the most urgent attention. If any critical defects are noted during the inspection process, the MCPWO staff will be notified immediately of the defect and location.

Our estimated effort and the associated fees are provided in the matrix attached to this document. We have separated the hours into the 6 total sub-tasks as requested.

Task	Task Description	Estimated Fee
Task 1A	MIDDD Contract Documents	19,736.00
Task 1B	MIDDD Inspection Bid Support	4,184.00
Task 1C	MIDDD Inspection Oversight & Reporting	57,629.00
Task 2A	8MRDDD Contract Documents	30,746.00
Task 2B	8MRDDD Inspection Bid Support	4,864.00
Task 2C	8MRDDD Inspection Oversight & Reporting	45,897.00
Total		163,056.00

This professional fee is based on the following assumptions:

- The plan and profile drawings for the MID will be prepared using available data which includes existing CAD drawing files.
- The MCPWO will provide the available CAD drawing files for the 8-1/2 Relief Drain plan and profile. The reaches that are not available in CAD will be created using the available construction as-built data.
- The number of drawings, and man hours to produce them, is based on a scale of 1-inch equals 100 feet.

- Since no design services is being performed, only one (1) design submittal (95%) will be provided for Owner review and comments and one set of comments will be incorporated in the final Bid Package.
- The inspection field oversight is based on a 60-day inspection schedule and based on 9 hours per day which was split between the two Tasks. We will include language in the specification to protect the MCPWO against excessive overages and to guard against slower production rates.
- The Inspection Contractor will obtain their traffic control permits and develop flow control plans through a shop drawing/submittal process prior to beginning the inspection work.

Thank you for considering NTH for this project. If you have any questions about this proposal or require additional information, please contact John Kosnak, P.E. or Jason Edberg, P.E.

Sincerely,

NTH Consultants, Ltd.

DocuSigned by:
John R. Kosnak
08D80029F4504E2...

John R. Kosnak, P.E.
Principal Engineer / Project Manager
jkosnak@nthconsultants.com
(248) 662-2725

DocuSigned by:
Jason Edberg
6F5EF26DB5EB4B8...

Jason Edberg, P.E.
Senior Vice President / Technical Advisor
jedberg@nthconsultants.com
(313) 237-3941

JRK/JE/mam

Proj. No.: PROP OP22000325
 Proj. Name: MCO 2023 Interceptor Inspection Program
 Prep. By: John Kosnak

Work Package #:
 Work Package Name:
 Date: 6/3/2022

Labor Discount
 Markup:
 Project Duration (weeks):

Task	Detailed List of Steps or Tasks Required To Complete The Scope of Services	Initials of Team Members, Classifications, and Fee Schedule Rates									Labor Cost	Cost Estimate
		Sub Expenses	NTH Expenses	JRE	JRK	JDS	CM / DV	SP	CADD	WP		
				Sr. Pr	Princ	SPP	SSP/AP					
1	Subtask 1-A: MIDD Contract Documents			\$ 220.00	\$ 192.00	\$ 170.00	\$ 137.00	\$ 120.00	\$ 93.00	\$ 65.00		
1.1	Prepare contract drawings using Google Earth and GIS		\$1,000		2.0	8.0			95.0		\$ -	\$ -
1.2	Create data tables (dia, depth, length...)				3.0			20.0		4.0	\$ 3,236.00	\$ 3,236.00
1.3	Prepare Spec Book - (cleaning, inspect sewer/manhole, sonar, laser, traffic,				3.0		10.0			4.0	\$ 2,206.00	\$ 2,206.00
1.4	Submittals - 60%, 90% and 100% milestones		\$200		2.0					3.0	\$ 579.00	\$ 779.00
1.5	Prepare permit applications (access / traffic control)					8.0					\$ 1,360.00	\$ 1,360.00
1.6	Project management - monthly invoices				3.0						\$ 576.00	\$ 576.00
1.8	note - time for specs and submittals split between 1-A and 2-A										\$ -	\$ -
	Subtotal		\$1,200		13.0	16.0	10.0	20.0	95.0	11.0	\$ 18,536.00	\$ 19,736.00
2	Subtask 1-B MIDD Bidding										\$ -	\$ -
2.1	Prepare Bid Package				2.0					4.0	\$ 644.00	\$ 644.00
2.2	Conduct prebid meeting				4.0						\$ 768.00	\$ 768.00
2.3	Answer Bidder Questions					4.0				4.0	\$ 940.00	\$ 940.00
2.4	Review Bids, verify references and provide recommendations				1.0	4.0					\$ 872.00	\$ 872.00
2.5	Conduct interviews / pre-award meeting w/ Bidders				4.0						\$ 768.00	\$ 768.00
2.6	Project management - monthly invoices				1.0						\$ 192.00	\$ 192.00
	Subtotal				12.0	8.0				8.0	\$ 4,184.00	\$ 4,184.00
3	Subtask 1-C MIDD Inspection										\$ -	\$ -
3.1	Conduct and summarize Kick-off meeting				4.0						\$ 768.00	\$ 768.00
3.2	Review submittals, traffic control plans, flow control plans					4.0	8.0				\$ 1,776.00	\$ 1,776.00
3.3	Review RFIs					4.0					\$ 680.00	\$ 680.00
3.4	Review Contractor's Applications for Payment				2.0		4.0				\$ 932.00	\$ 932.00
3.5	Conduct progress meetings (one virtual and one in-person per month)		\$300		9.0					3.0	\$ 1,923.00	\$ 2,223.00
3.6	Perform full-time construction observation (PACP engineer) assume 60 days (split)		\$1,500					324.0			\$ 38,880.00	\$ 40,380.00
3.7	Review CCTV and logs, incorporate data MCPWO's NEXGEN database										\$ -	\$ -
3.8	Develop Probability of Failure / Consequences of failure scores / recommendation letter				4.0	16.0	36.0			2.0	\$ 8,550.00	\$ 8,550.00
3.9	Project close out				2.0	8.0					\$ 1,744.00	\$ 1,744.00
3.10	Project management - monthly invoices				3.0						\$ 576.00	\$ 576.00
	Subtotal		\$1,800		24.0	32.0	48.0	324.0		5.0	\$ 55,829.00	\$ 57,629.00
4	Subtask 2-A 8MRDDD Contract Documents										\$ -	\$ -
4.1	Prepare contract drawings using Google Earth and GIS		\$500		2.0	28.0			155.0	2.0	\$ 19,689.00	\$ 20,189.00
4.2	Create data tables (dia, depth, length...)				4.0			40.0		4.0	\$ 5,828.00	\$ 5,828.00
4.3	Prepare Spec Book - (cleaning, inspect sewer/manhole, sonar, laser, traffic,				2.0		10.0			4.0	\$ 2,014.00	\$ 2,014.00
4.4	Submittals - 60%, 90% and 100% milestones		\$200		2.0					3.0	\$ 579.00	\$ 779.00
4.5	Prepare permit applications (access / traffic control)					8.0					\$ 1,360.00	\$ 1,360.00
4.6	Project management - monthly invoices				3.0						\$ 576.00	\$ 576.00
4.8	note - time for specs and submittals split between 1-A and 2-A										\$ -	\$ -
	Subtotal		\$700		13.0	36.0	10.0	40.0	155.0	13.0	\$ 30,046.00	\$ 30,746.00
5	Subtask 2-B 8MRDDD Bidding										\$ -	\$ -
5.1	Prepare Bid Package				2.0					4.0	\$ 644.00	\$ 644.00
5.2	Conduct prebid meeting				4.0						\$ 768.00	\$ 768.00
5.3	Answer Bidder Questions					4.0				4.0	\$ 940.00	\$ 940.00
5.4	Review Bids, verify references and provide recommendations				1.0	8.0					\$ 1,552.00	\$ 1,552.00
5.5	Conduct interviews / pre-award meeting w/ Bidders				4.0						\$ 768.00	\$ 768.00
5.6	Project management - monthly invoices				1.0						\$ 192.00	\$ 192.00
	Subtotal				12.0	12.0				8.0	\$ 4,864.00	\$ 4,864.00
6.0	Subtask 2-C 8MRDDD Inspection										\$ -	\$ -
6.1	Conduct and summarize Kick-off meeting				4.0		4.0				\$ 1,316.00	\$ 1,316.00
6.2	Review submittals, traffic control plans, flow control plans					4.0	12.0				\$ 2,324.00	\$ 2,324.00
6.3	Review RFIs					4.0					\$ 680.00	\$ 680.00
6.4	Review Contractor's Applications for Payment					4.0					\$ 680.00	\$ 680.00
6.5	Conduct progress meetings (one virtual and one in-person per month)		\$300		9.0					3.0	\$ 1,923.00	\$ 2,223.00
6.6	Perform full-time construction observation (PACP engineer) assume 60 days (split)		\$1,500					216.0			\$ 25,920.00	\$ 27,420.00
6.7	Review CCTV and logs, incorporate data MCPWO's NEXGEN database										\$ -	\$ -
6.8	Develop Probability of Failure / Consequences of failure scores / recommendation letter				4.0	16.0	36.0			2.0	\$ 8,550.00	\$ 8,550.00
6.9	Project close out				4.0	8.0					\$ 2,128.00	\$ 2,128.00
6.10	Project management - monthly invoices				3.0						\$ 576.00	\$ 576.00
	Subtotal		\$1,800		24.0	36.0	52.0	216.0		5.0	\$ 44,097.00	\$ 45,897.00
Totals:			\$7,000	42	98.0	140.0	120.0	600.0	250.0	50.0	\$157,556	\$163,056

<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 – 7.3432%							
	Clinton – 21.3460%							
	Fraser – 4.1370%							
	Harrison – 6.4221%							
	Lenox – 1.0652%							
	Macomb – 13.9284%							
	New Haven – .8271%							
	Shelby – 9.7757%							
	Sterling Heights – 30.7833%							
	Utica – 1.6268%							
	Washington – 2.7451%							
			Astorino	Abel Electronics	\$ 1,000.00	Invoice #999616 - 04.27.22	SCADA Repair	
			Astorino	Access Interactive LLC	\$ 3,744.00	Invoice #INV000109463 - 05.12.22	Sonic Wall - SCADA	
			Baker	Aloia & Associates, P.C.	\$ 864.50	Invoice #26123 - 04.01.22	Sale of 45345 Garfield Road	
			Astorino	Anderson, Eckstein & Westrick	\$ 23,703.00	Invoice #136592 - 03.28.22	MID Grouting Program - 02.14.22 - 03.13.22	\$ 6,833.10
			Astorino	Anderson, Eckstein & Westrick	\$ 25,703.90	Invoice #136822 - 04.21.22	MID Grouting Program - 03.14.22 - 04.10.22	\$ 281,129.20
			Astorino	Anderson, Eckstein & Westrick	\$ 33,264.40	Invoice #137360 - 05.25.22	MID Grouting Program - 04.11.22 - 05.08.22	\$ 247,864.80
			Astorino	Aquasight	\$ 119,530.00	Invoice #000700 - 05.02.22	Covid-19 Monitoring - Grant	\$ 412,124.00
			Astorino	City of Mt. Clemens	\$ 23,057.87	Invoice #28004199 - 05.23.22	Monthly Utilities - March 2022	
			Astorino	County of Macomb	\$ 262,852.45	Invoice #AR220462 - 05.10.22	1st Quarter Personnel and Operating Expenses	
			Astorino	Department of Roads	\$ 1,406.59	Invoice #302031 - 12.16.21	Fleet Fuel - November 2021	
			Astorino	Department of Roads	\$ 2,126.27	Invoice #302126 - 04.12.22	Fleet Fuel - March 2022	
			Downing	Doetsch	\$ 199,547.00	Invoice #71998 - 04.24.22	Phase 2 Grouting 03.28.22 - 04.24.22	\$ 2,160,051.00
			Astorino	DTE Energy	\$ 1,219.17	Invoice #SS0JP-J7ZCC - 05.24.22	Monthly Electric 03.31.22 - 04.29.22	
			Astorino	DTN, LLC	\$ 823.50	Invoice #6116847 - 04.22.22	Storm Sentry Weather Service	
			Astorino	Fishbeck	\$ 17,298.50	Invoice #411473 - 05.18.22	Wastewater Master Plan 04.16.22 - 05.13.22	\$ 335,686.99
			Astorino	Fishbeck	\$ 2,686.00	Invoice #411394 - 05.18.22	GLWA Assistance 04.16.22 - 05.13.22	
			Astorino	Fishbeck	\$ 2,962.00	Invoice #411416 - 05.18.22	MID Confined Space Entry/Metering/SCADA	\$ 33,665.32
			Downing	FK Engineering Associates	\$ 76,870.93	Invoice #20-058-023 - 05.17.22	MCPWO Segment 6 Rehabilitation 04.03.22 - 04.30.22	\$ 1,164,156.29
			Downing	FK Engineering Associates	\$ 94,651.55	Invoice #20-152-017 - 05.17.22	Romeo Arm Lining Segment 5 CCA 04.03.22 - 04.30.22	\$ 811,660.03
			Astorino	Hank's Auto Service	\$ 698.98	Invoice #64643 - 04.22.22	Brakes/Rotors - 2007 Ford Explorer - Joel S	
		Baker	KHVPPF	\$ 5,737.50	Invoice #48224 - 05.01.22	Highland Park Amicus - March 2022		
		Baker	KHVPPF	\$ 16,455.00	Invoice #48242 - 05.01.22	Highland Park Amicus - April 2022		
		Astorino	KHVPPF	\$ 1,045.00	Invoice #48240 - 05.01.22	MIDD Exceedance Policy		
		Baker	KHVPPF	\$ 3,645.00	Invoice #48217 - 04.01.22	OMID Board Review		
		Manning	Macomb County Treasurer	\$ 23,500.00	Invoice #22-209 - 03.31.22	Admin Cross Charge - Reimburse General Fund		
		Downing	Meadowbrook Insurance	\$ 30,085.06	Invoice #9652 - 04.25.25	OCIP Policy - Odor & Corrosion		
		Downing	Meadowbrook Insurance	\$ 36,020.36	Invoice #9630 - 04.25.25	OCIP Policy - Odor & Corrosion		
		Downing	Meadowbrook Insurance	\$ 16,809.95	Invoice #9651 - 04.25.25	OCIP Policy - Odor & Corrosion		
		Downing	Meadowbrook Insurance	\$ 16,525.82	Invoice #9631 - 04.25.25	OCIP Policy - Odor & Corrosion		
		Downing	Meadowbrook Insurance	\$ 16,122.75	Invoice #9650 - 04.25.25	OCIP Policy - Odor & Corrosion		
		Downing	Meadowbrook Insurance	\$ 54,559.64	Invoice #9653 - 04.25.25	OCIP Policy - Odor & Corrosion		
		Astorino	METCO Consulting Services	\$ 6,188.32	Invoice #1717-34 - 06.01.22	Flow Control Services 04.04.22 - 05.01.22	\$ 98,145.41	
		Astorino	METCO Consulting Services	\$ 9,797.11	Invoice #171733 - 05.05.22	Flow Control Services 04.04.22 - 05.01.22	\$ 104,333.73	

<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	\$ 576,275.40	Invoice #WO19024 Est #21 - 05.27.22	Romeo Arm Segment 5 Lining 05.01.22 - 05.31.22	\$ 17,889,753.21
		Downing	Oscar Renda Contracting	\$ 582,997.50	Invoice #WO19024 - EST#20 - 04.30.22	Romeo Arm Segment 5 Lining 04.01.22 - 04.30.22	\$ 18,530,059.21
		Astorino	Preferred Safe & Lock	\$ 524.88	Invoice #21860 - 04.13.22	Master #3 Keys, Quantity - 36	
		Downing	Ric-Man Construction	\$ 65,818.42	Invoice #WO21026 EST 8 - 04.30.22	Segment 6 Services 04.01.22 - 04.30.22	\$ 10,492,536.48
		Downing	Ric-Man Construction	\$ 218,183.92	Invoice #WO21029 Est #9 - 05.27.22	Segment 6 Services 05.01.22 - 05.31.22	\$ 10,250,109.90
		Astorino	Verizon	\$ 1,071.91	Invoice #9902556658 - 04.26.22	Monthly Cellular - 02.24.22 - 03.23.22 (Eq. Fund)	
		Astorino	Verizon	\$ 1,578.33	Invoice #9902556658 - 04.26.22	Monthly Cellular - 02.24.22 - 03.23.22	
		Astorino	Verizon	\$ 1,071.89	Invoice #9904881281 - 04.26.22	Monthly Cellular - 03.24.22 - 04.23.22 (Eq. Fund)	
		Astorino	Verizon	\$ 1,548.67	Invoice #9904881281 - 04.26.22	Monthly Cellular - 03.24.22 - 04.23.22	
<u>CPS</u>		Astorino	Abel Electronics	\$ 820.00	Invoice #050626 - 05.09.22	Security Camera Repair	
		Astorino	Clinton Township Treasurer	\$ 2,381.17	Invoice #22-205 - 05.03.22	Monthly Electric - 03.28.22 - 04.25.22	
		Astorino	DTE Energy	\$ 26,300.82	Invoice #SS0JP-HQVWV - 05.26.22	Monthly Electric 04.04.22 - 05.02.22	
		Astorino	Great Lakes Pest Control	\$ 525.00	Invoice #66504 - 05.10.22	Exterior Spray	
		Astorino	JGM Valve	\$ 19,570.00	Invoice #22-15124 - 05.16.22	Drain Plug Valve for Force Main	
		Astorino	Spencer Oil Company	\$ 799.75	Invoice #698309 - 05.02.22	Diesel Fuel - Generator	
<u>METERS</u>		Astorino	Aquasight	\$ 93,669.00	Invoice #000698 - 05.02.22	Annual Fee 05.01.22 - 04.30.23	\$ 1,420.00
		Astorino	Cortis Brothers Trucking	\$ 3,071.65	Invoice #9137 - 05.19.22	Vent Pipe Repairs	
<u>NGI</u>		Downing	Fishbeck	\$ 1,710.00	Invoice #411478 - 05.18.22	Inspection Program 04.16.22 - 05.13.22	\$ 115,168.99
<u>OMID</u>		Downing	Access Interactive LLC	\$ 3,744.00	Invoice #INV000109464 - 05.12.22	Sonic Wall - SCADA	
			Total	\$ 2,732,164.43			

Budget to Actual
MIDD
As of May 31, 2022 = 92%

DESCRIPTION	2022 FINAL BUDGET	ENCUMBERED	ACTUAL	REMAINING BUDGET	PCT UTILIZED
REVENUE ACCOUNTS					
GLWA-OMID	47,284,425		43,347,949	3,936,476	91.7%
OMID O&M	3,827,015		3,508,097	318,918	91.7%
Settlement	100,000		427,693	(327,693)	427.7%
Reimbursements	200,000		123,582	76,418	61.8%
PY Revenue-Fund Balance	10,370,340			10,370,340	0.0%
Washington Twp Meter Project	47,470		38,599	8,871	81.3%
Reimb-Local Communities	16,476,210		15,103,193	1,373,018	91.7%
COVID Grant	-		1,155,294		
Interest	60,000		15,981	44,019	26.6%
Total Revenue Accounts	78,365,460	-	63,720,388	15,800,366	81.3%
EXPENSE ACCOUNTS					
GLWA-OMID	47,284,425		43,347,949	3,936,476	91.7%
OMID O&M	3,827,015		3,508,097	318,918	91.7%
Public Works Wastewater Disposal Division	1,702,960		1,510,742	192,218	88.7%
Office Operations/Insurance	332,250		239,084	93,166	72.0%
SCADA	280,490		81,972	198,518	29.2%
Engineering					
Replenish reserve from CPS refunding	618,680		618,680	-	100.0%
Segment 5(Paid from const/ eng reserve)	-		5,905,212	(5,905,212)	100.0%
Segment 6(lawsuit Settlement)	-		3,226,123	(3,226,123)	100.0%
Drop Shaft Repair	-		107,945	(107,945)	100.0%
GLWA Assistance	40,000		23,109	16,891	57.8%
Repair work stemming from inspection program/Phase III Grout	3,200,000			3,200,000	0.0%
Segment 6 Construction Admin	1,500,000		694,638	805,362	46.3%
Odor and Control Construction	6,000,000			6,000,000	0.0%
General Construction/Engineering Contingency-All Projects	225,000			225,000	0.0%
Aquasight-On going improvements to program	175,000		165,148	9,852	94.4%
As Needed Applied Science	25,000			25,000	0.0%
As Needed FK Engineering	60,000			60,000	0.0%
As Needed FTCH	50,000		35,710	14,290	71.4%
As Needed Metco	90,000		53,277	36,723	59.2%
As Needed Wade Trim	70,000		674	69,326	1.0%
Level Sensors/Pressure/H2S-Meters	214,200			214,200	0.0%
Meter Dye Testing(Part of carryforward below)	38,600		69,996	(31,396)	181.3%
Odor and Control-Construction	1,000,000		34,542	965,458	3.5%
Odor and Corrosion Design	375,260		400,069	(24,809)	106.6%
COVID Monitoring -Reimburse from grant	-		1,155,294	(1,155,294)	100.0%
Phase II Grouting	2,000,000		1,810,155	189,845	90.5%
Phase III Grouting	325,000			325,000	0.0%
Segment 6 Construction Administration	1,503,560			1,503,560	0.0%
SY-S-1, SY-S-2, & WA-S-1 Meter Const Admin/Rehab	1,804,590		621,044	1,183,546	34.4%
Wastewater Master Plan/Contract Capacity	330,050		73,920	256,130	22.4%
Data Review-Aquasight	24,090		22,596	1,494	93.8%
Legal Services	150,000		9,357	140,643	6.2%
Clintondale PS O&M	580,000		333,890	246,110	57.6%
NGI O&M	225,000		72,016	152,984	32.0%
Meters O&M	190,970		52,966	138,004	27.7%
CS-3 O&M	216,000		35,618	180,382	16.5%
Biofilter O&M	26,000		8,857	17,143	34.1%
Contribution Life Cycle Reserve	171,700			171,700	0.0%
Interceptor O&M	1,738,450		90,932	1,647,518	5.2%
Stormwater Pump Stations	91,000		83,417	7,583	91.7%
Sewage Disposal Charges - Mt. Clemens	200,000		171,896	28,104	85.9%
Debt Service - Revenue Bonds	1,680,170		1,540,156	140,014	91.7%
Total Expense Accounts	78,365,460	-	66,105,081	12,260,379	84.4%

	O&M Balance 6/30/2021	O&M	Total 5/31/2022
Cash - Operating	37,753,257	(2,384,693)	35,368,564
Accounts Receivable			0
Assets			0
Liabilities			0
Revenues		63,720,388	63,720,388
Expenditures		66,105,081	66,105,081
			0
Equity*	37,753,257		35,368,564

Detail of 2021 Equity*

Projected reserve at 6/30/2021	8,749,004
Projected Construction/ Engineering Reserve	28,001,153
Life Cycle Reserve	1,003,100