

EIGHT AND ONE-HALF MILE RELIEF DRAIN
INTRA-COUNTY DRAINAGE BOARD
FEBRUARY 13, 2023
10:15 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**

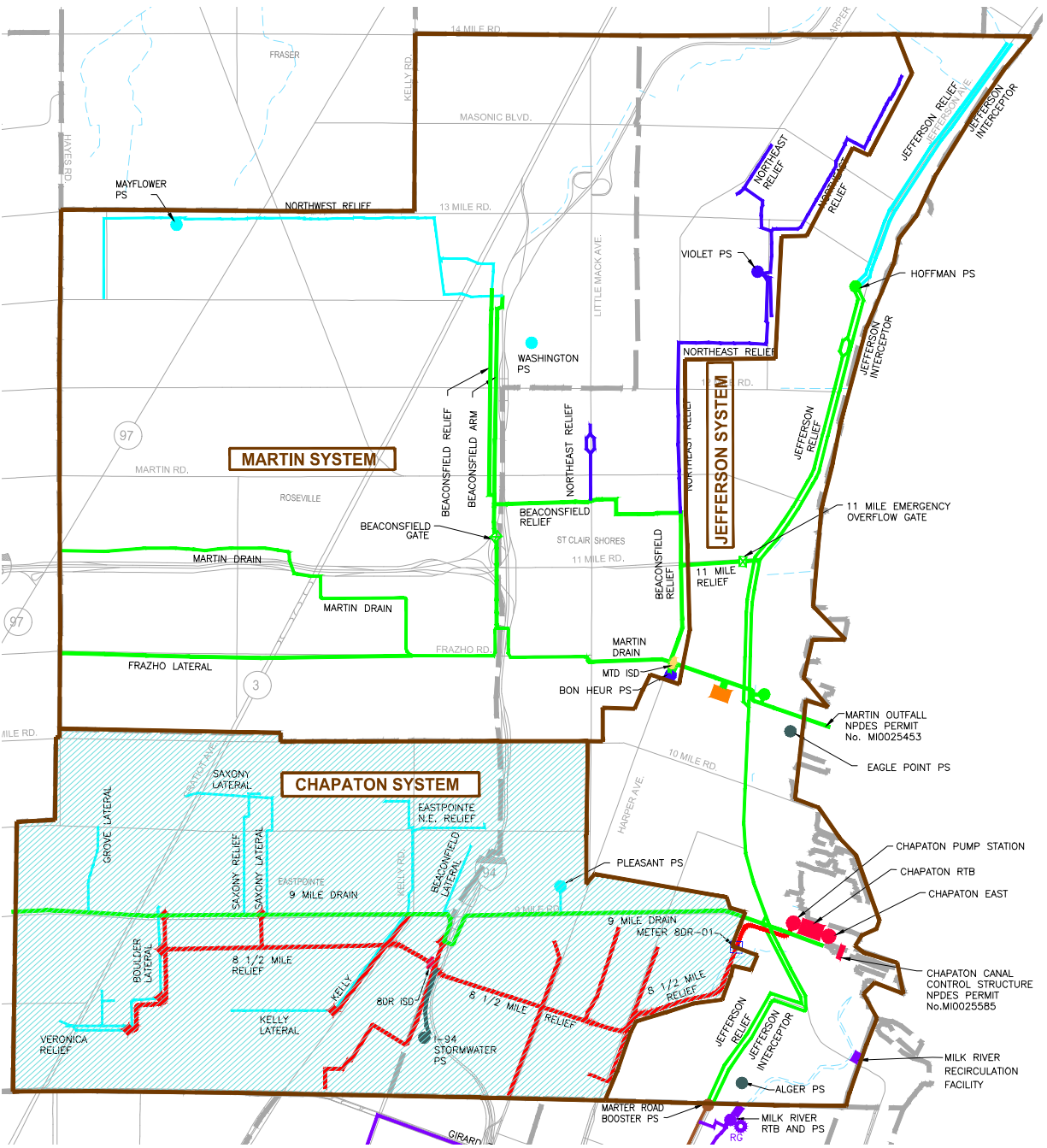
	Page
1. Call of meeting to order and roll call	
2. Approval of Agenda for February 13, 2023	
3. Approval of Minutes for January 9, 2023	3
4. Public Participation	
5. Project & Operational Updates – Vince Astorino	6
6. Consideration for approval of invoices (see attached)	16
7. Financial Report – Bruce Manning	17
8. Adjourn	

Hard copy is intended to be 8.5"x11" when plotted. Scale(s) indicated and graphic quality may not be accurate for any other size.

CHAPATON SYSTEM MAP

Macomb County, MI

Southeast Macomb Sanitary District Wastewater Master Plan



SYSTEM LEGEND

(AS OF DATE OF PUBLICATION)

- SYSTEM BOUNDARY

DISTRICT LEGEND

(AS OF DATE OF PUBLICATION)

- 8 1/2 MILE RELIEF DRAIN DRAINAGE DISTRICT
- SOUTHEAST MACOMB COUNTY WASTEWATER DISPOSAL SYSTEM
- MARTIN SANITARY DIVERSION DISTRICT
- SOUTHEAST MACOMB SANITARY DISTRICT
- NORTHEAST SEWAGE DISPOSAL SYSTEM
- MILK RIVER INTERCOUNTY DRAIN DRAINAGE DISTRICT
- LOCAL MUNICIPALITY
- OTHER

ASSET LEGEND

- PUMP STATION
- FLOW CONTROL STRUCTURE
- RTB
- GRAVITY INTERCEPTOR
- IN-SYSTEM STORAGE DEVICE
- OVERFLOW POINT
- LEVEL SENSOR
- RAIN GAUGE
- FLOW METER

PLOT INFO: Z:\2018\181053\CAD\PRECED\SEMSD_OVERALL.DWG LAYOUT: FIG 3-6_CHAPATON SYS DATE: 7/20/2021 TIME: 1:33:59 PM USER: WESEDK1

PROJECT NO.

181053

3.6

An adjourned meeting of the Intra-County Drainage Board for the **EIGHT AND ONE-HALF MILE RELIEF DRAIN** was held in the Office of the Macomb County Public Works Commissioner, 21777 Dunham Clinton Township, Michigan on January 9, 2023, at 10:22 A.M.

PRESENT: Candice S. Miller, Chair
Bryan Santo, Member
Sarah Lucido, 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; Don VanSyckel, Board of Commissioners

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 Ms. Lucido, supported by Mr. Santo 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. Santo, supported by Ms. Lucido to approve the minutes as presented.

Adopted: YEAS: 3
NAYS: 0

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

Mr. Astorino updated that there were no wet weather events this month. The Chapaton In-System Storage project is the only active construction project currently. They are making good progress. They have started to expose the shaft and are welding up the lower support steel around the structure. Thick clay and a lot of rain lately is making it difficult. It is a 50 foot wide by 75 foot long shaft and is going down approximately 35 feet deep. As of now, everything is on schedule.

As with Martin, we completed a 2022 Eight and One Half Summary. We had one wet weather event during 2022 which is the lowest number of treated events in more than 20 years. As we add more projects to reduce overflows, that number will be even better.

A motion was made by Mr. Santo supported by Ms. Lucido to receive and file project updates.

Adopted: YEAS: 3
NAYS: 0

Mr. Astorino presented the 9 Mile Emergency Bypass Rehabilitation engineering project recommendation. Back in the 1920's when the 9 Mile drain was built, all the sewage went directly out

into the lake. There was no wastewater treatment. Since that time, this box culvert still exists and the overflow is sent to the bypass. This asset was most recently inspected in 2016 but given the uncertainty of whether this pipe would remain, repairs were not immediately made as it was thought to be incorporated into other upcoming projects. Mr. Astorino presented some pictures of the pipe and showed the condition it is in and the need for repair. MCPWO reached out to FKE and NTH for quotes which NTH Consultants came in with a lower cost.

A motion was made by Ms. Lucido supported by Mr. Santo to approve the proposal from NTH Consultants, Ltd. for a not to exceed amount of \$118,578 for inspection, planning, and contract administration services for the 9 Mile Emergency Bypass Rehabilitation project.

Adopted: YEAS: 3
NAYS: 0

Mr. Downing presented on the Construction Project Safety Manager. After conducting a safety review of our active construction projects and our upcoming projects that will start this year, Mr. Downing felt that our office would benefit from the addition of a Safety Manager. He asked Meadowbrook Insurance Agency to research and recommend a qualified candidate on a temporary basis. He is recommending that this individual be a sub-consultant of Meadowbrook Insurance to help provide safety oversight with portions of time split 75% MID and 25% 8 ½ Relief for a nine month period at an hourly rate of \$97.00 per hour in accordance with the terms outlined in the MIA Contract Amendment No. 2. Mr. Santo questioned that if we are paying the insurance premium, and the contractor is paying the deductible if a safety issue should arise, should there be buy-in from the contractor. Mr. Downing said that it is just his recommendation, it is the Board's discretion to proceed with the recommendation. Mr. Santo asked if mileage was included in the hourly rate of \$97.00. Ms. Lucido said that she would support it because it shows intent to take every safety precaution. Mr. Santo said that if it can be worked out the hourly rate is all-inclusive of costs, then he will support it. Mr. Downing said that he will work with the legal department on the terms of the agreement.

A motion was made by Ms. Lucido, 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 a cost of \$97 per hour (all costs included), 40 hour work week position, for an estimated total of \$34,920 for the 8.5 Mile Relief Drain.

Adopted: YEAS: 3
NAYS: 0

The Chair presented the invoices totaling \$536,211.95 to the board for review and approval.

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

Adopted: YEAS: 3
NAYS: 0

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

Adopted: YEAS: 3
NAYS: 0

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

Adopted: YEAS: 3
NAYS: 0


The meeting was adjourned at 10:51 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: 8 ½ Mile Relief Drain Drainage District Board Members

CC: File

From: Vincent Astorino, Operations & Flow Manager

Date: February 13, 2022

Subject: Construction Projects Status Updates for the February 2023 Board Meeting

The following provides a status update for construction work completed within the 8 ½ Mile Relief Drain Drainage District (8MRDDD) for the previous month.

Wet Weather Operations

No wet weather events this past month.

Chapaton In-System Storage Project

Contractor: Weiss Construction

Engineering Consultant: Tetra Tech

Project Description:

The primary focus of the project is the construction of an access shaft and installation of the In-System Storage Device at Beaconsfield and Oak in Eastpointe. This project will achieve an additional 3.5 million gallons of storage within the 8.5 Mile Relief tunnel.

Significant project tasks that have occurred over the past month:

1. Submittals are being received and processed by the engineering team.
2. Construction activities per Update Period:
 - Continued staging construction materials delivered & stored along Beaconsfield greenbelt.
 - Maintained secured work site with swing gates and privacy fence screening at construction sites.

- Continued Beaconsfield site vibration and sensor monitoring and documentation during and shaft construction as required.
- Continued excavating interior of shaft approximately **30-ft** below grade.
- Continued to load out excavated spoils off site as planned.
- Exposed top, north and south sides of 11.5ft tunnel to spring line elevation within the excavation shaft at the Beaconsfield site.
- Completed installing and welding the lower-tier steel shaft bracing inside the Beaconsfield shaft construction site as designed.
- Continued installing timber lagging retaining walls around the interior of Beaconsfield shaft as required.
- Continued applying flow fill grout to fill voids behind timber lagging from over-excavation as required.
- Proposed control building transformer set in place on concrete pad as required.
- Temporary power skid installed and energized with DTE meter in place as required.

3. Construction look ahead:

- Continue deliveries of construction materials along Beaconsfield greenbelt.
- Continue Beaconsfield site vibration monitoring & documentation.
- Ongoing excavation surrounding the exposed 11.5ft tunnel at Beaconsfield and remove spoils offsite as planned.
- Continue to install shaft interior timber lagging retaining walls as required.
- Place flow fill grout to fill voids behind shaft lagging and seal timber walls as necessary.
- Start excavation process to undermine existing 11.5ft tunnel in proposed design sequence as required.
- Install cribbing and supports to existing 11.5ft tunnel during undermining of existing tunnel as required.
- Place low strength concrete mud-mat and high strength mass concrete under-side of existing 11.5ft tunnel in proposed design sequence as required.

Construction Costs:

	Date (if applicable)	Amount
Original Contract Amount		\$9,673,200.00
Change Order #1	9/15/22	\$269,666.49
Revised Contract Amount		\$9,942,866.49
Total Spent to Date	Pay Apps. #1 - 10	\$3,474,231.97
Remaining Budget		\$6,468,634.52

Figure 1 – Chipping Grout from Drilled Piers



Figure 2 – Pumping Grout to fill Voids



Figure 3 – Welding Lower Tier Shaft Bracing



OFFICE LOCATION: 21777 Dunham Road, Clinton Township, Michigan 48036 • Phone: 586-469-5325 • Fax: 586-469-5933
ENGINEERING • Phone: 586-469-5910 • Fax: 586-469-7693 ♦ **SOIL EROSION** • Phone: 586-469-5327 • Fax 586-307-8264

Figure 4 – Excavated Approx. 25FT Facing West



Figure 5 – Excavated Approx. 30FT Facing East



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Figure 6 – DTE Energizing Transformer



Figure 7 – Temporary Power w/DTE Meter



Figure 8 – Drone Aerial at 100 FT



<u>Funding Source</u>	<u>Apportionment</u>	<u>Manager</u>	<u>Vendor</u>	<u>Amount</u>	<u>Invoice Detail</u>	<u>Project Summary</u>	<u>Project Balance</u>			
8 1/2 Mile Relief	Chapter 20 State of MI – 16.04% County of Macomb – 2.25% Dept. of Roads – 2.25% Eastpointe – 54.33% St. Clair Shores – 25.13%	Astorino	Access Interactive LLC	\$ 802.50	Invoice #INV000110996 - 01.03.23	SCADA Maintenance				
			Astorino	Anderson, Eckstein, & Westrick	\$ 1,200.00	Invoice #141597 - 01.05.23	Gate Rehabilitation Project - 11.21.22 - 12.18.22	\$ 86,400.50		
			Astorino	Anderson, Eckstein, & Westrick	\$ 5,900.00	Invoice #142059 - 01.27.23	Gate Rehabilitation Project - 12.19.22 - 01.15.23	\$ 80,500.50		
			Astorino	Cintas Fire 636525	\$ 1,891.66	Invoice #0D26621143 - 01.18.23	Annual Fire Extinguisher Inspection			
			Astorino	City of St. Clair Shores Treasurer	\$ 1,161.70	Invoice #22-491 - 01.04.23	Monthly Utilities - 9.14.22 - 12.15.22			
			Astorino	Consumers Energy	\$ 1,348.48	Invoice #201986657286 - 01.07.23	Monthly Utilities - 12.08.22 - 01.07.23			
			Astorino	Consumers Energy	\$ 915.58	Invoice #201986657285 - 01.07.23	Monthly Utilities - 12.08.22 - 01.07.23			
			Astorino	Consumers Energy	\$ 1,864.43	Invoice #207058397268 - 01.07.23	Monthly Utilities - 12.08.22 - 01.07.23			
			Astorino	Department of Roads	\$ 527.50	Invoice #302326 - 12.13.22	Fleet Fuel - November 2022			
			Astorino	DTE Energy	\$ 659.37	Invoice #23-002 - 01.03.23	Monthly Electric - 12.01.22 - 12.31.22			
			Astorino	DTE Energy	\$ 3,677.19	Invoice #23-019 - 01.09.23	Monthly Electric - 12.07.22 - 01.09.23			
			Astorino	DTN, LLC	\$ 668.25	Invoice #6248793 - 01.20.23	Storm Sentry Weather Service			
			Astorino	JCI Jones Chemicals Inc	\$ 10,057.49	Invoice #904448 - 01.11.23	Hypochlorite Solution			
			Astorino	Lardner Elevator	\$ 1,650.00	Invoice #16162 - 12.23.22	Elevator Safety Testing			
			Astorino	The Macomb Group, Inc.	\$ 935.45	Invoice #6688576 - 01.16.23	Piping Supplies			
			Astorino	Major Brands Oil	\$ 1,598.66	Invoice #0378680-IN - 01.19.23	Storm Pump Grease			
			Astorino	Mobile Motion Controls	\$ 1,692.37	Invoice #FS044 - 12.31.22	Hydraulic System Gauge Replacement			
			Astorino	Mobile Motion Controls	\$ 1,132.83	Invoice #FS048 - 01.30.23	Hydraulic Unit Preventative Maintenance			
			Astorino	NTH Consultants, Ltd	\$ 3,191.50	Invoice #631738 - 01.06.23	2023 Interceptor Inspection Program - Design	\$ 58,985.25		
			Astorino	State of MI	\$ 1,600.00	Invoice #HPQ-K40J-5K070 - 01.27.23	EGLE/USACE Joint Permit - Canal Rehab			
			Astorino	Tetra Tech, Inc.	\$ 18,033.08	Invoice #52014548 - 01.20.23	Chapton Electrical/Generator Design	\$ 179,931.92		
			Astorino	Tetra Tech, Inc.	\$ 44,314.26	Invoice #52014541 - 01.20.23	In-System Storage CCA	\$ 665,224.73		
			Manning	US Bank Trust Company	\$ 20,500.00	Invoice #5708-MFA - 02.01.23	Debt - SRF 5306-01 Bonds 2008			
			Manning	US Bank Trust Company	\$ 7,107.24	Invoice #5708-MFA - 02.01.24	Debt - SRF 5393-01 Bonds 2010			
			Manning	US Bank Trust Company	\$ 3,354.58	Invoice #5708-MFA - 02.01.25	Debt - SRF 5460-01 Bonds 2010			
			Manning	US Bank Trust Company	\$ 22,754.31	Invoice #5708-MFA - 02.01.26	Debt SRF 5579-01 Bonds 2014			
			Astorino	Wade Trim	\$ 57,912.96	Invoice #2026432 - 01.27.23	Chapaton RTB Canal Rehab - Design	\$ 87,348.78		
			Total				\$ 216,451.39			

Budget to Actual
8.5 Mile Relief
As of January 31, 2023 = 33%

DESCRIPTION	2023 FINAL BUDGET	ENCUMBERED	ACTUAL	REMAINING BUDGET	PCT UTILIZED
REVENUE ACCOUNTS					
Interest Earned	20,000		70,608	(50,608)	353.0%
Other Revenue	5,000		301	4,699	6.0%
8.5 O&M/Charge Required Revenue	5,003,220		2,501,610	2,501,610	50.0%
PY Revenue-Fund Balance	4,412,010			4,412,010	0.0%
Use of Reserve from prior contributions	3,738,110			3,738,110	0.0%
Use of Reserve(Flow Meters)	350,000			350,000	0.0%
Use of SCADA Reserve	64,750			64,750	0.0%
Use of Surplus from past collections	1,051,830		-	1,051,830	0.0%
Total Revenue Accounts	14,644,920	-	2,572,519	12,072,401	17.6%
EXPENSE ACCOUNTS					
Application/Permit Fee	6,000		6,000	-	100.0%
Dues, Training, Conf, Subs.	17,010		165	16,845	1.0%
Engineering					
Sluice & Dewatering Gates Rehab/Replacement Project	1,974,340			1,974,340	0.0%
Canal Rehab Design	320,000		187,286	132,714	58.5%
8.5 Mile Inspection Project	500,000		8,577	491,423	1.7%
9 Mile Drain & Dewater Accusonic Flow Meters	350,000			350,000	0.0%
9 Mile Emergency Bypass Structural Rehab	3,000,000			3,000,000	0.0%
Flushing	1,895,660		464	1,895,196	0.0%
Chapaton Electrical Upgrades(ARP Funds)	-		41,091	(41,091)	100.0%
As needed Engineering	39,110		10,229	28,881	26.2%
Sluice and Dewatering Gates Rehab/Replace Project(Was 9 Mile PS)	2,025,660		50,450	1,975,210	2.5%
Cost Share Army Corp Grant-Green Infrastructure Project	162,500			162,500	0.0%
9 Mile Bypass Pipe Structural Repairs-Construction/CA	308,010			308,010	0.0%
Chapaton Improvements-Office Space Downstairs	100,000			100,000	0.0%
In-System Storage-Construction Admin and Construction	1,659,410		1,286,975	372,435	77.6%
New Equipment	3,000			3,000	0.0%
Office Supplies	500			500	0.0%
Operating Supplies	81,800		12,453	69,347	15.2%
Other Professional Svcs	42,500		18,685	23,815	44.0%
Personnel Services	1,135,790			1,135,790	0.0%
Repair & Maintenance	246,000		23,271	222,729	9.5%
Contribution to Reserve	288,240			288,240	0.0%
Scada System	199,390		18,639	180,751	9.3%
Utilities	290,000		40,248	249,752	13.9%
Total Expense Accounts	14,644,920	-	1,704,533	12,940,387	11.6%

	O&M Balance 9/30/2022	O&M	Total 1/31/2023
Cash - Operating	9,802,509	867,986	10,670,495
Accounts Receivable			0
Assets			0
Liabilities			0
Revenues		2,572,519	2,572,519
Expenditures		1,704,533	1,704,533
			0
Equity*	9,802,509		10,670,495

Detail of 2022 Equity*

9 Mile Bypass Struct Rprs-Const/CA	292,264	Capital Reserve	953,047
As-Needed Engineering	48,544	Contribution from Macomb Cty	2,000,000
Chapaton Improvements-Lab/Office Space	173,347	In System Contrib from SEMSD	1,351,239
Chlorine storage tank #3 relining	7,500	LSCWWI 04B Transfer	738,112
Cost Share Army corp Grant-Green Infrastructure Project	162,500	SCADA Reserve	155,140
Fiber Optic Improvements	16,130	SRF Replacement Reserve	2,592,140
Firewall Hardware Design/Config	12,900	Painting	25,000
In-System Storage Design/Const Admin/Const	116,276	SolarWind -Network Mgmt Softwar	9,670
Obsolete Wireless backhaul replacement links	16,120	Storm PLC Replacments	30,000
Sluice & Dewatering Gates Rehab/Replace Proj(Was 9 Mile PS)	1,102,581		