

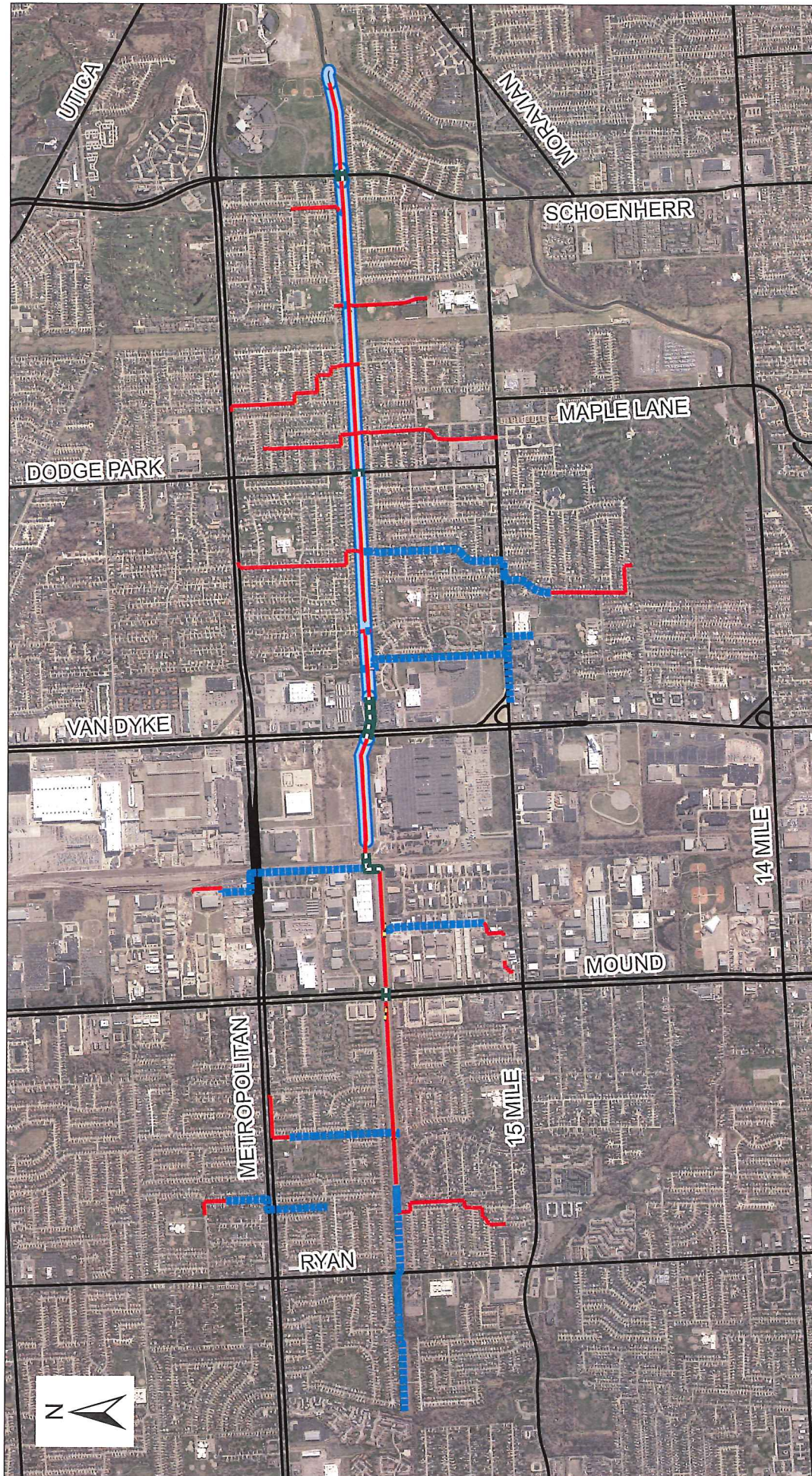
Miller
Santo
Romano

STERLING RELIEF DRAIN
INTRA-COUNTY DRAINAGE BOARD
JANUARY 14, 2019
10:30 A.M.
AGENDA

	Page
1. Call of meeting to order and roll call	
2. Approval of Agenda for January 14, 2019	
3. Approval of Minutes for November 19, 2018	3
4. Public participation	
5. Project Updates – Jeff Bednar	5
6. Consideration for approval of invoices (see attached)	8
7. Financial Report – Bruce Manning	9
8. Adjourn	

STERLING RELIEF & BRANCHES

STERLING HEIGHTS



Legend

- Enclosed Gravity**
 - < 60" Dia
 - >= 60" Dia
 - Multiple Pipes
 - Lateral Connection
- Open Channel**
 - Ditch
 - Pond
- Culvert



Drain Length (Feet/Miles):
104,166.49 / 19.73



An adjourned meeting of the Intra-County Drainage Board for the **STERLING RELIEF DRAIN** was held in the Office of the Macomb County Public Works Commissioner, 21777 Dunham, Clinton Township, Michigan, on November 19, 2018, at 10:22 A.M.

PRESENT: Candice Miller, Chair
Bryan Santo, Member

ABSENT: Joseph Romano, Member

ALSO PRESENT: Robert Leonetti, Macomb County Board of Commissioners; Karen Czernel, Deputy, Vincent Astorino, Operations and Flow Manager, Evans Bantios, P.E., Construction and Maintenance Manager, Jeff Bednar, P.E., Environmental Resources Manager, Bruce Manning, Financial Manager, Dan Heaton, Public Relations Manager, Tamara Keskeny, Manager Real Property, Anthony Lewis, Community Services Manager, Barbara Delecke, Administrative Services, Macomb County Public Works (MCPW); Chris Dilbert, President, Village of New Haven

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

Minutes of the meeting of October 15, 2018 were presented. A motion was made by Mr. Santo, supported by Ms. Miller to approve the minutes as presented.

Adopted: YEAS: 2
NAYS: 0

The condition assessment is complete and the final report will be submitted to the State at the end of November.

The Daylighting Project design will be completed by December 2018. A press conference will be held on November 29, 2018 to explain the project to local residents and businesses.

A motion was made by Mr. Santo, supported by Ms. Miller to approve the receipt of the Sustain Our Great Lakes Grant in the amount of \$602,183 and authorize an expanded scope of work to the TR Pieprzak engineering construction services proposal to be funded with the grant.

Adopted: YEAS: 2
NAYS: 0

The Chair presented the invoices totaling \$58,313.21 to the board for review and approval.

Motion was made by Mr. Santo, supported by Ms. Miller to approve the invoices as presented.

Adopted: YEAS: 2
NAYS: 0

A motion to receive and file the financial report given by Mr. Manning was made by Mr. Santo, supported by Ms. Miller and unanimously carried.

Adopted: YEAS: 2
NAYS: 0

There being no further business, it was moved by Mr. Santo, supported by Ms. Miller, that the meeting of the Sterling Relief Drain Board be adjourned.

Adopted: YEAS: 2
NAYS: 0


The meeting was adjourned at 11:28 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 November 19, 2018, the original of which is on file in the Public Works Commissioner's Office. Public notice of the meeting was given pursuant to Act No. 267, Public Acts of Michigan, 1975, including, in the case of a special or rescheduled meeting or a meeting secured for more than 36 hours, notice by posting at least 18 hours prior to the time set for the meeting.



Candice S. Miller, Chair
Macomb County Public Works Commissioner

DATED: 11/20/18

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FINAL MONTHLY PROGRESS REPORT

TO: Mr. Jeff Bednar , P.E. – Macomb County Public Works Commissioner’s Office (MCPWO)

PREPARED BY: G. Seghi/K. Kingsley/J. Siwek

FIRM: Tetra Tech

DATE: December 4, 2018

PROJECT NO.: 200-16347-14001

SAW: Sterling Relief Drain SAW - Final Progress Report

REPORTING PERIOD
FROM DATE: OCTOBER 26, 2018

REPORTING PERIOD
TO DATE: NOVEMBER 30, 2018

Following is a summary of services completed during the timeframe indicated above. This represents the final work performed for the project.

Tasks accomplished during the reporting period:

1. QA/QC Review of Report
2. Update final Asset Management Report
3. Update BRE_CIP Spreadsheet
4. Update GIS Figures
5. Update GIS Database and synchronize with Macomb County
6. Deliver electronic data to FTCH for delivery and installation on Macomb County servers.
7. Deliver Electronic Files for Final Report to Jeff Bednar via Tetra Tech RMFT
 - a. BRE_CIP Calculations.xlsx
 - b. Sterling Relief Drain AMP Report FINAL.pdf
 - c. Sterling Relief Drain AMP Report FINAL.docx
8. Deliver Hard Copy of Report to Jeff Bednar

Budget:

Spent to Date: \$346,178.14

Budget Remaining: \$73,821.86

EXECUTIVE SUMMARY

In 2015, the Sterling Relief Drainage District was awarded a Stormwater-Asset Management-Wastewater (SAW) grant by the Michigan Department of Environmental Quality (MDEQ) to conduct management and design services for the Sterling Relief Drain (Drain) stormwater system. An asset management plan is a document that assists a municipal utility in understanding the condition of its assets and plan for sustaining the same assets. The plan demonstrates how the County's goal of establishing & delivering certain levels of service may be achieved through effective and sustainable management of the stormwater system. By developing a proactive, long-term plan for stormwater asset management, the County will have a sustainable system that can be partnered with other County plans to ensure the well-being of the community, environment and future generations.

This AMP includes all assets within the Drain system. Best practices suggest an AMP should include four core elements:

1. Asset Inventory
2. Level of Service
3. Criticality
4. Capital Improvement Plan

Asset Inventory

The existing MCPWO GIS information was used as a basis for the inventory, and was augmented with survey data, detailed equipment and collection system asset inventories, and cost opinions. The value of the MCPWO's entire Drain infrastructure exceeds \$36 million. Approximately 87% of the system cost is associated with underdrains and culverts. Table I-1 summarizes the quantity and baseline system replacement value (in 2018 dollars).

Table I-1 - Drain System Asset Summary and Cost

Asset Description	Quantity (unit)	Baseline System Value (2018 Dollars)
Underdrain	28,290 (feet)	\$12,472,000
Catch Basin Leads & Tap Lines	4,390 (feet)	\$408,000
Culverts	5,375 (feet)	\$14,900,000
Manholes and Structures	126 (each)	\$1,049,000
Inlets/Outlets	33 (each)	\$390,000
Outfalls	2 (each)	\$501,000
Open Channel	121.7 (acres)	\$5,338,000
ROW Fence	54,320 (feet)	\$1,320,000
ROW Access	15 (each)	\$158,000
Total Drain Value		\$36,536,000

Level of Service

Level of Service is a measure of the amount and/or quality of the public facility which must be provided to meet that community's basic needs & expectations. The level of service element encompasses those Drain system goals that the MCPWO will attempt to maintain throughout the implementation of the AMP. These goals include

providing a system that meets their permitted regulatory standards, communicating these goals with residents, and maintaining their Drain system in a manner to avoid flooding and functionality of the Drain.

Criticality

Criticality of assets is used to prioritize future improvements. Criticality is measured by use of a numerical score called Business Risk Exposure (BRE), which accounts for the following factors: Consequence of Failure (COF) and Probability of Failure (POF). The COF and POF were determined for each asset through the collection of condition assessment information. Using COF and POF, a Business Risk Evaluation (BRE) was determined. The BRE assists in determining the highest risk assets within the Drain and thus the assets to receive the highest priority for capital improvements.

In many cases, assets were inspected in order to prepare condition assessments. However, in some cases, survey limitations (plugged/blocked pipe, poor conditions in upstream or downstream structures, structures that could not be located, structures filled with water, etc.) prevented the collection of asset information. When an asset was not inspected, its condition, when available, was inferred based upon the previously compiled Sterling Relief Channel Inventory report from 2005.

Capital Improvement Plan

A 20-year capital improvement plan was developed for the Drain using the results of the business risk evaluation conducted in this AMP. The capital improvement plan identifies areas in the system where funding should be spent on system infrastructure over the next 20 years. This capital improvement plan should be routinely updated to ensure that it includes short- and long-term needs and will provide the MCPWO with defensible documentation for setting aside and safeguarding funds for projects. Table I-2 illustrates the projects included in the 20-year CIP.

Table ES-1-2 - Sterling Drain System Capital Improvement Projects (2018-2038)

MCPWO 20-year Capital Improvement Plan (2018-2038)			
Project Number	Description	Project Year	Project Cost
SD-County-01	2019 County-Performed CIP Work	2019	\$68,250
SD-Contracted-01	2019 Contractor-Performed CIP Work	2019	\$130,000
SD-County-02	2020 County-Performed CIP Work	2020	\$15,000
SD-Contracted-02	2020 Contractor-Performed CIP Work	2020	\$76,400
SD-Contracted-03	2023 Contractor-Performed CIP Work	2023	\$129,350
SD-LongTerm-01	Ten-Year Long-Term CIP Work	2028	\$151,000
SD-LongTerm-02	Twenty-Year Long-Term CIP Work	2038	\$151,000
Subtotal			\$721,000

Future Steps

The MCPWO will be required through their permit to submit reports, including specific information regarding what capital improvement projects were completed, how much was spent on sewer cleaning, preventative maintenance, and other measures.

This AMP, inclusive of the GIS model of the Drain system, are intended to be worked as a unit to assist MCPWO staff in operating, maintaining and upgrading the MCPWO's Drain infrastructure efficiently and cost effectively. It will be a living set of documents that will require an on-going process of recording information to help the decision makers best manage the needs of the MCPWO's Drain.

STERLING RELIEF DRAIN - 1/14/19

<u>Funding Source</u>	<u>Apportionment</u>	<u>Manager</u>	<u>Vendor</u>	<u>Amount</u>	<u>Invoice Detail</u>	<u>Project Summary</u>	<u>Project Balance</u>
Sterling Relief Drain	Chapter 20 State of MI - 3.29% Macomb County - 7.79% Sterling Heights - 88.93%						
	SAW 1208-01 (Closing date 11/30/2018)	Bednar	Fishbeck, Thompson, Carr & Huber, Inc.	\$758.00	Invoice #379516 - 12/10/18 Engineering Services - ending 11/30/18	GPS Survey, CCTV, Processing GPS Data	\$9,336.50
		Manning	Macomb County Treasurer/Equipment Fund	\$1,575.46	Invoice #18-668 - 12/28/18	Personnel Reimbursement - 10/1/18 - 12/31/18	
	SAW 1208-01	Bednar	Tetra Tech, Inc.	\$25,206.13	Invoice #51385361 - 12/5/18 Engineering Services - ending 11/30/18	GPS Survey, CCTV, Processing GPS Data	\$63,380.58
Total				\$	27,539.59		

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YTD Trial Balance

Fund: Sterling Relief

As of Fiscal Period: Oct 1, 2018-Dec 31, 2018

	O&M Balance 9/30/2018	O&M	Total 12/31/2018
Cash - Operating	141,067	(3,631)	137,436
Accounts Receivable			0
Assets			0
Liabilities			0
Revenues		724	724
Expenditures		4,355	4,355
Encumbered for SAW		6,338	6,338
Equity	141,067		131,098

<u>NOTES</u>	Grant	Match	Total
SAW 1208-01	377,586	41,954	419,540
YTD	(320,543)	(35,616)	(356,159)
Remaining	57,043	6,338	63,381