

NOTICE OF MEETINGS
DRAINAGE BOARD FOR THE FOLLOWING DRAINS:

1. Evergreen-Farmington Sanitary Sewer Drain
2. Acacia Park CSO Drain
3. Birmingham CSO Drain
4. Bloomfield Village CSO Drain
5. George W. Kuhn Drain
6. Clinton River Water Resource Recovery Facility
7. Bloomfield Township CSO Drain
8. Edwards Relief Drain
9. Twelve Towns Relief Drain
10. Nichols Drain
11. Robert A. Reid Drain
12. Blue Heron Drain
13. Donohue Drain
14. Hayes Drain
15. Korzon Drain
16. Mullen Drain
17. Powers Drain

NOTICE IS HEREBY GIVEN THAT MEETINGS OF THE DRAINAGE BOARD FOR THE ABOVE-MENTIONED DRAINS WILL COMMENCE IN THE OAKLAND COUNTY PUBLIC WORKS BUILDING, ONE PUBLIC WORKS DRIVE, WATERFORD, MICHIGAN, AND VIA **MICROSOFT TEAMS** AT 2 P.M., ON **TUESDAY, APRIL 23, 2024**, TO CONDUCT NECESSARY AND APPROPRIATE BUSINESS OF THE DRAINAGE BOARDS. THOSE WHO WISH TO PARTICIPATE REMOTELY MAY FOLLOW THE INSTRUCTIONS ATTACHED TO THIS NOTICE. ALL BOARD MEMBERS WILL BE PARTICIPATING IN-PERSON.

DURING THE MEETING, THERE WILL BE AN AGENDA ITEM FOR PUBLIC COMMENT, DURING WHICH THE PUBLIC MAY PROVIDE INPUT OR ASK QUESTIONS OF THE BOARD. IN THE EVENT A MEMBER OF THE PUBLIC WOULD LIKE TO SUBMIT THEIR INPUT OR QUESTIONS TO BE READ AT THE MEETING BY THE BOARD CHAIRPERSON, PLEASE PROVIDE THE INPUT OR QUESTIONS IN WRITING TO STEPHANIE LAJDZIAK AT LAJDZIAKS@OAKGOV.COM. PERSONS WITH DISABILITIES WHO NEED ASSISTANCE PARTICIPATING IN THE MEETING SHOULD CONTACT STEPHANIE LAJDZIAK AT LAJDZIAKS@OAKGOV.COM.

JIM NASH
Oakland County Water Resources Commissioner
Telephone: 248-858-0958

Microsoft Teams meeting

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1. Evergreen-Farmington Sanitary Drain

AGENDA

DRAINAGE BOARD FOR THE EVERGREEN-FARMINGTON SANITARY DRAIN

April 23, 2024

1. Call meeting to order
2. Approve minutes of meeting of March 26, 2024
3. Public Comments
4. Meadowbrook Insurance Renewal Proposal for the 24-25 Insurance Program
5. Present Memorandum from Gary Nigro, P.E., Manager, dated April 23, 2024, requesting the Board approve the proposed operating budget and sewer charges, cost allocation, and the Capital Improvement Program for the rate year beginning July 1, 2024
6. Present Memorandum from Philip Kerby, P.E., Operations Engineer, dated April 23, 2024, requesting the Board add the Sanitary Sewer Rehabilitation project at Quarton Lake in the City of Birmingham to the capital improvement plan with a design budget of \$48,000 and award the engineering services contract to Hubbell, Roth & Clark, Inc. in the amount of \$42,000
7. Present Engineering Work Order for Applied Science, Inc., for the development of estimated lateral flow rates on the Southfield Sewer Lining Project in the amount of \$8,100
8. Present Change Order No. 9 for Walsh Construction for the 8 Mile Road Pump Station & SSO Chamber Improvements – Phase 1 for a net increase in the amount of \$219,478.08
9. Present Construction Estimate No. 25 for Walsh Construction Company II, LLC for the 8 Mile Road Pump Station & SSO Chamber Improvements – Phase 1 in the amount of \$2,253,985 with a transfer to the Oakland County Treasurer in the amount of \$250,442.78
10. Present Construction Estimate No. 7 for Dan’s Excavating for Construction of the 8 Mile Road Corrective Action Plan – Phase 2 in the amount of \$1,478,773.91 with a transfer to the Oakland County Treasurer in the amount of \$8,697.05
11. Present Construction Estimate No. 6 for Midwest Power Systems for Construction of the Lathrup Sanitary Retention Tank Improvements in the amount of \$83,500
12. Present request for Board approval of payment of invoices from the Evergreen Farmington Sanitary Drain in the amount of \$384,611.99
13. Other business
14. Approve pro rata payment to Drainage Board members
15. Adjourn

**MINUTES OF THE MEETING OF THE DRAINAGE BOARD
FOR THE EVERGREEN -FARMINGTON SANITARY DRAIN**

March 26, 2024

A meeting of the Drainage Board for the Evergreen-Farmington Sanitary Drain was held in the office of the Oakland County Water Resources Commissioner, Public Works Building, One Public Works Drive, Waterford, Michigan at 2:00 p.m. on the 26th day of March 2024.

The meeting was called to order by the Chairperson.

PRESENT: Jim Nash, Oakland County Water Resources Commissioner

Gwen Markham, Chairperson of the Finance Committee, Oakland County Board of Commissioners

ABSENT: David Woodward, Chairperson of the Oakland County Board of Commissioners

Minutes of the meeting held February 27, 2024, were presented for consideration. It was moved by Markham, supported by Nash, that the minutes be approved.

ADOPTED: Yeas - 2
Nays - 0

Chairperson Nash asked if there were any public comments. There were none.

A memorandum from Meg Koss, Senior Attorney, dated March 26, 2024, requesting the Board extend the current contract with Young Insurance Law for two years from the date of expiration of the current contract from May 31, 2024 to May 31, 2026 and authorize the Chairperson to execute any documents necessary to effectuate the extension was presented. It was moved by Markham, supported by Nash, to extend the current contract with Young Insurance Law for two years from the date of expiration of the current contract from May 31, 2024 to May 31, 2026 and authorize the Chairperson to execute any documents necessary to effectuate the extension as presented.

ADOPTED: Yeas - 2
Nays - 0

A memorandum from Lawrence Young, Civil Engineer, dated March 26, 2024, requesting the Board to approve the Drainage District's Meter Based Billing Project for \$57,000 and award OHM Advisors with a not-to-exceed amount of \$47,000 was presented. It was moved by Markham, supported by Nash, to approve the Drainage District's Meter Based Billing Project for \$57,000 and award OHM Advisors with a not-to-exceed amount of \$47,000 as presented.

ADOPTED: Yeas - 2
Nays - 0

A resolution adopting a final project planning document for the Walnut Lake Pump Station No.1 Corrective Action Plan designating an authorized project representative was presented. It was moved by Markham, supported by Nash, to adopt the resolution for a final project planning document for the Walnut Lake Pump Station No.1 Corrective Action Plan designating an authorized project representative as presented.

ADOPTED: Yeas - 2
Nays - 0

Construction Estimate No. 24 for Walsh Construction Company II, LLC for the 8 Mile Road Pump Station & SSO Chamber Improvements – Phase 1 in the amount of \$539,783.12 with a transfer to the Oakland County Treasurer in the amount of \$59,975.90 was presented. It was moved by Markham, supported by Nash, to approve Construction Estimate No. 24 for Walsh Construction Company II, LLC for the 8 Mile Road Pump Station & SSO Chamber Improvements – Phase 1 in the amount of \$539,783.12 with a transfer to the Oakland County Treasurer in the amount of \$59,975.90 as presented.

ADOPTED: Yeas - 2
Nays - 0

Construction Estimate No. 6 for Dan’s Excavating for Construction of the 8 Mile Road Corrective Action Plan – Phase 2 in the amount of \$1,519,503.19 with a transfer to the Oakland County Treasurer in the amount of \$168,833.69 was presented. It was moved by Markham, supported by Nash, to approve Construction Estimate No. 6 for Dan’s Excavating for Construction of the 8 Mile Road Corrective Action Plan – Phase 2 in the amount of \$1,519,503.19 with a transfer to the Oakland County Treasurer in the amount of \$168,833.69 as presented.

ADOPTED: Yeas - 2
Nays - 0

Construction Estimate No. 5 for Midwest Power Systems for Construction of the Lathrup Sanitary Retention Tank Improvements in the amount of \$448,727.27 was presented. It was moved by Markham, supported by Nash, to approve Construction Estimate No. 5 for Midwest Power Systems for Construction of the Lathrup Sanitary Retention Tank Improvements in the amount of \$448,727.27 as presented.

ADOPTED: Yeas - 2
Nays - 0

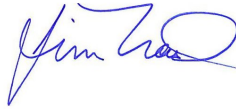
A request for approval of payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$362,196.83 (as attached) was presented. It was moved by Markham, supported by Nash, to approve the payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$362,196.83.

ADOPTED: Yeas - 2
Nays - 0

It was moved by Nash, supported by Markham, to certify attendance and authorize pro rata payment of \$25 per day to Ms. Markham.

ADOPTED: Yeas - 2
Nays - 0

There being no further business, the meeting was adjourned.

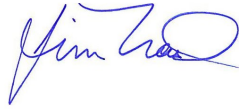


Jim Nash, Chairperson

STATE OF MICHIGAN)
)SS.
COUNTY OF OAKLAND)

I, the undersigned, do hereby certify that the foregoing is a true and complete copy of the minutes of the Drainage Board for the Evergreen-Farmington Sanitary Drain, Oakland County, Michigan, held on the 26th day of March 2024, and that the minutes are on file in the office of the Oakland County Water Resources Commissioner and are available to the public.

I further certify that the notice of the meeting was posted at least 18 hours in advance of the meeting at the office of the Oakland County Water Resources Commissioner which is the principal office of the Drainage Board for the Evergreen-Farmington Sanitary Drain Drainage District.



Jim Nash, Chairperson

Dated: March 26, 2024



Evergreen-Farmington Sanitary Drain Drainage District

Building 95 West, One Public Works Drive, Waterford, MI 48328

Insurance Proposal for Property, General Liability, Excess Liability, and Pollution Liability Coverage

4/27/2024

to

4/27/2025

(Dated 4/18/24)

Evergreen-Farmington Sanitary Drain Drainage District

Executive Summary 4/27/2024 to 4/27/2025

Insurance Renewal Summary

We have completed the renewal process for the operational insurance program renewing April 27th, 2024. The hardening marketplace continues to be a major challenge through most lines of coverage, with carriers reducing capacity, increasing rates and in some cases, withdrawing from certain segments of the market altogether. Our objective is always to provide the broadest coverage at the most competitive pricing.

From the table below, the total renewal premium for the April insurance policies will increase from \$747,815 to \$789,169 (+5.52% total). Some notable points regarding the marketing of the 2024 insurance renewals are:

- Property Coverage: In a very tight marketplace for underground property insurance Chubb continues to be the industry leader. We approached Chubb early in the process and were able to negotiate a below market average rate increase for the upcoming policy term. The property premium has *increased a total of 3.57%* for this renewal, which includes the -0.8% Engineering News Record Construction Cost Index value adjustment, and a +4.5% property rate increase putting the total annual premium at \$294,990. Reinsurance treaties, natural and manmade disasters, and overall industry performance has resulted in average rate increases holding strong at 10%-25% on property insurance. The large cost of construction index increases have subsided resulting in a negative inflationary value adjustment this year after several years of increases in excess of 5%.
- Public Entity (PE) Liability: This year we secured a renewal option from Lexington, and an alternative option from Liberty Mutual on the public entity liability and excess liability policies. We were able to create competition on the excess liability policies to drive a more competitively placed excess liability tower this year. As a result, we are recommending moving to Liberty and increasing the total liability limit from \$21,000,000 to \$31,000,000 to help negate some coverage implications by moving the coverage from Lexington (outlined in comparison below). If we did not have this option from Liberty Mutual, we would be seeing an increase of more than +38% on the liability insurance and therefore a significant double digit increases on the total insurance program. The public entity marketplace continues to see considerable disruption in rate, coverage, and reduced capacity for limits, however, we were successful in countering the adverse market conditions with a strong effort to seek alternative options on your behalf.
- Pollution Liability: The renewal coverage was quoted through Chubb insurance at \$92,499 premium, which reflects a 4.12% increase over the expiring term. Chubb is one of the leaders in the pollution marketplace and offered a reasonable renewal at slightly below average increase.

Liability Summary - Evergreen Farmington Sanitary Drainage District



Updated April 18th, 2024

	Expiring Program	Renewal Option #1	Renewal Option #2 Recommended
Term	04/27/2023-2024	04/27/2024-2025	04/27/2024-2025
Carrier	Lexington (AIG)/Homesite/HDI/Ha llmark	Lexington (AIG)/Homesite/HDI/Ha llmark	Liberty Mutual / Homesite / StarStone / Vantage / Great American
Form Type	Occurrence	GL Occurrence	Occurrence
Primary Limit	\$1,000,000	\$1,000,000	\$1,000,000
1st Excess Limit	\$10,000,000	\$5,000,000	\$10,000,000
2nd Excess Limit	\$5,000,000	\$5,000,000	\$5,000,000
3rd Excess Limit	\$5,000,000	\$5,000,000	\$5,000,000
4th Excess Limit	N/A	\$5,000,000	\$5,000,000
5th Excess Limit	N/A	N/A	\$5,000,000
Limits	\$21,000,000 (Each General Liability and Public Officials)	\$21,000,000 (Each General Liability and Public Officials)	\$31,000,000 (Combined General Liability and Public Officials Limit)
Retention	\$250,000	\$250,000	\$250,000
Primary Premium	\$129,857	\$133,025	\$87,397
1st Excess Premium	\$137,906	\$141,944	\$59,340
2nd Excess Premium	\$54,141	\$120,000	\$91,668
3rd Excess Premium	\$52,275	\$59,500	\$61,500
4th Excess Premium	N/A	\$57,500	\$53,275
5th Excess Premium	N/A	N/A	\$48,500
TPA Fee	\$1,500	\$1,500	N/A
Premium	\$375,678	\$513,469	\$401,680
Percentage Change		37%	7%
<u>Defense Costs</u>	GL - Outside the limit, POL - Inside the limit	GL - Outside the limit, POL - Inside the limit	GL - Outside the limit, POL - Inside the limit
<u>Duty to Defend</u>	Right and Duty	Right and Duty	Right and Duty
<u>How Limits Apply</u>	Seperate Aggregate	Separate Aggregate	Combined Aggregate
<u>Backup Exclusion</u> - Backup or overflow of any sewer line installed, owned, maintained and/or serviced by you.	Yes	Yes	Yes
<u>Earth Movement</u> (Subsidence) Exclusion - applies to Property Damage liability only (does not exclude Bodily Injury)	Exclusion for Property Damage Only (no Exclusion for Bodily Injury)	Exclusion for Property Damage Only (no Exclusion for Bodily Injury)	No Exclusion for Bodily Injury or Property Damage

Evergreen-Farmington Sanitary Drain Drainage District

4/27/2024 to 4/27/2025

Premium Summary

POLICIES	Expiring 2023-2024	Proposed 2024-2025	Percentage Change
Property ACE American Ins. Co. \$50M Limit \$250k SIR	\$284,801 TIV: \$1,857,103,747 Rate: .01533	\$294,990 TIV: \$1,842,246,917 Rate: .01601	0.8% Decrease in TIV due to ENR Index 4.5% Increase in Rate
Public Entity Liability	\$129,857 Lexington Ins. Co. \$1M Per Occurrence Limit \$2M Aggregate Policy Limit \$2M E&O Limit \$250k SIR	\$87,397 Liberty Mutual \$1M Per Occurrence Limit \$2M Aggregate Policy Limit \$2M E&O Limit \$250k SIR	32.69% Decrease in Rate
1 st Excess Liability Layer \$10M X \$1M	\$137,905 \$10M Per Occurrence Limit \$10M Aggregate Limit Homesite Ins. Co.	\$59,340 \$10M Per Occurrence Limit \$10M Aggregate Limit Liberty Mutual	56.97% Decrease in Rate
2 nd Excess Liability Layer \$5M X \$10M	\$54,140 \$5M Per Occurrence Limit \$5M Aggregate Limit	\$91,668 \$5M Per Occurrence Limit \$5M Aggregate Limit	
3 rd Excess Liability Layer \$5M X \$15M	\$52,275 \$5M Per Occurrence Limit \$5M Aggregate Limit	\$61,500 \$5M Per Occurrence Limit \$5M Aggregate Limit	
4 th Excess Liability Layer \$5M X \$20M	N/A	\$53,275 \$5M Per Occurrence Limit \$5M Aggregate Limit	
5 th Excess Liability Layer \$5M X \$25M	N/A	\$48,500 \$5M Per Occurrence Limit \$5M Aggregate Limit	
Pollution Liability \$10M \$10M Limit \$250k Deductible	\$88,837	\$92,499	4.12% Increase in Rate
TOTAL	\$747,815	\$789,169	5.52% Increase in premium

**OAKLAND COUNTY
WATER RESOURCES COMMISSIONER****MEMORANDUM**

TO: Jim Nash, Chairperson
Evergreen-Farmington Sanitary Drain Drainage District

FROM: Gary Nigro, P.E., Manager

SUBJECT: FY 2024-2025 Rate Recommendation

DATE: April 23, 2024

The purpose of this memorandum is to communicate a recommendation to the Board of the Evergreen Farmington Sanitary Drain Drainage District (EFSD) detailing the proposed monthly charges to our customer communities based on approved Great Lakes Water Authority (GLWA) monthly charges for its fiscal 2024-25 rate year.

The attached exhibits highlighting the proposed budget, sewer charges, cost allocation and capital improvement plan were presented to the EFSD customer communities on April 15, 2024.

The proposed budget and sewer charges are attached in Exhibit A. Because of increases in operating expenses the total annual charge to communities will increase 2.3% to \$53,202,110.

The proposed cost allocation to each community for operation and maintenance charges is included in Exhibit B. The methodology will remain the same as previous years, based on a rolling five-year flow average.

The proposed major maintenance and capital improvement plan is included in Exhibit C.

Recommended Action: Approve the proposed operating budget and sewer charges (Exhibit A), cost allocation (Exhibit B), and the Capital Improvement Program (Exhibit C) for the rate year beginning July 1, 2024, as presented.

EXHIBIT A

PROPOSED OPERATING BUDGET
AND SEWER CHARGES

Evergreen Farmington Sewage Disposal System
82410
Financial Summary

	2023 Actual	2024 Budget	2025 Forecast	Inc / (Dec)	% Variance
<u>Operating Revenues</u>					
Operating Rate Revenue	\$ 44,581,252.50	\$ 43,176,570.00	\$ 43,749,610.00	\$ 573,040.00	1.3%
Operating Non-Rate Revenue	46,166,655.73	373,270.00	828,220.00	454,950.00	121.9%
Operating Revenues	\$ 90,747,908.23	\$ 43,549,840.00	\$ 44,577,830.00	\$ 1,027,990.00	2.4%
<u>Operating Expenses</u>					
Sewage Treatment	\$ 36,336,351.35	\$ 37,192,800.00	\$ 37,912,800.00	\$ 720,000.00	1.9%
Sewer System Maintenance	34,559,809.39	479,870.00	642,980.00	163,110.00	34.0%
Sewer System Engineering	234,781.04	320,670.00	268,730.00	(51,940.00)	-16.2%
Water Purchases	-	-	-	-	
Water Maintenance Unit	-	-	-	-	
Water Systems Engineering	-	-	-	-	
Septage Unloading Facility	211,890.82	259,100.00	220,130.00	(38,970.00)	-15.0%
Pump Maintenance Unit	1,225,258.21	1,347,120.00	1,343,520.00	(3,600.00)	-0.3%
Systems Control Unit	1,439,924.68	1,512,680.00	1,507,320.00	(5,360.00)	-0.4%
Plan Review and Permitting	231,996.99	169,520.00	203,520.00	34,000.00	20.1%
Inspection	18,351.98	7,980.00	11,740.00	3,760.00	47.1%
IPP	24,344.72	-	8,110.00	8,110.00	
Laboratory	-	-	-	-	
Mapping Unit	134,804.18	28,440.00	66,180.00	37,740.00	132.7%
Miss Dig	1,958.48	1,150.00	1,740.00	590.00	51.3%
Billing Services Unit	-	-	-	-	
General and Administrative	2,185,621.07	2,230,510.00	2,391,060.00	160,550.00	7.2%
Total Operating Expenses	76,605,092.91	43,549,840.00	44,577,830.00	1,027,990.00	2.4%
Net Income	\$ 13,480,593.93	\$ -	\$ -	\$ -	
Depreciation	-	-	-	-	
<u>Reserves</u>					
Non-Operating Revenue	\$ 1,328,855.24	\$ 1,251,620.00	\$ 1,252,500.00	\$ 880.00	0.1%
Non-Operating Expense	(10,598.13)	(212,550.00)	-	212,550.00	-100.0%
Major Maintenance Reserve Revenue	1,391,460.12	1,391,460.00	2,000,000.00	608,540.00	43.7%
Major Maintenance Reserve Expense	(801,821.46)	(3,022,090.00)	(2,847,810.00)	174,280.00	-5.8%
Emergency Reserve Revenue	-	-	-	-	
Emergency Reserve Expense	20,000.00	-	-	-	
Capital Reserve Revenue	6,366,304.96	13,200,000.00	6,200,000.00	(7,000,000.00)	-53.0%
Capital Reserve Expense	(15,682,655.48)	(10,618,890.00)	(13,198,350.00)	(2,579,460.00)	24.3%
Change in Net Assets	\$ 6,092,139.18	\$ 1,989,550.00	\$ (6,593,660.00)	\$ (8,583,210.00)	-431.4%
<u>Rate Revenue</u>					
Revenue Requirements:					
Operating Expense	\$ 77,267,314.30	\$ 43,549,840.00	\$ 44,577,830.00	\$ 1,027,990.00	2.4%
Non-Operating	1,328,855.24	1,251,620.00	1,252,500.00	880.00	0.1%
Major Maintenance	1,391,460.12	1,391,460.00	2,000,000.00	608,540.00	43.7%
Emergency Maintenance	-	-	-	-	
Capital	6,366,304.96	13,200,000.00	6,200,000.00	(7,000,000.00)	-53.0%
Total Revenue Requirements	\$ 86,353,934.62	\$ 59,392,920.00	\$ 54,030,330.00	\$ (5,362,590.00)	-9.0%
Non-Rate Revenue	\$ (46,240,276.23)	\$ (7,373,270.00)	\$ (828,220.00)	\$ 6,545,050.00	-88.8%
Rate Required Revenue	\$ 40,113,658.39	\$ 52,019,650.00	\$ 53,202,110.00	\$ 1,182,460.00	2.3%

Evergreen Farmington Sanitary Drainage District, Effective July 1, 2024
Monthly Charge Breakdown

	<u>Effective July 1, 2024</u>
GLWA Fixed Charge	\$ 37,912,800.00
OCWRC Fixed Charge ⁽¹⁾	6,665,030.00
Non-Operating	1,252,500.00
Major Maintenance Reserve	2,000,000.00
Emergency Reserve	-
Capital Improvement Reserve	6,200,000.00
Misc Revenue	(828,220.00)
Total Charge:	53,202,110.00

	<u>Effective July 1, 2024</u>	<u>Effective July 1, 2024</u>
	<u>Annual Charge</u>	<u>Monthly Charge</u>
Auburn Hills	\$ 384,652	\$ 32,054.34
Beverly Hills	2,403,671	200,305.92
Bingham Farms	308,572	25,714.34
Birmingham	4,013,036	334,419.67
Bloomfield Hills	1,310,368	109,197.33
Bloomfield Township	9,539,138	794,928.17
Franklin	266,011	22,167.58
Lathrup Village	1,057,658	88,138.16
Southfield	9,829,090	819,090.84
Troy	2,221,720	185,143.33
Farmington	422,957	35,246.42
Farmington Hills	12,409,923	1,034,160.25
Keego Harbor	434,128	36,177.34
Orchard Lake Village	469,775	39,147.93
West Bloomfield Township	6,687,505	557,292.08
Acacia Park RTB	424,553	35,379.42
Birmingham RTB	460,198	38,349.83
Bloomfield RTB	559,155	46,596.25
Total	\$ 53,202,110	\$ 4,433,509.20

Evergreen Farmington Sanitary Drainage District, Effective July 1, 2024
Share & Monthly Charge Comparison

	FY 2023-2024 (July - June)		FY 2024-2025 (July - June)		% Change Mthly Charge
	Share % of System	Monthly Charge	Share % of System	Monthly Charge	
Auburn Hills	0.736%	\$ 31,905.34	0.723%	\$ 32,054.34	0.5%
Beverly Hills	4.445%	192,689.42	4.518%	200,305.92	4.0%
Bingham Farms	0.592%	25,663.01	0.580%	25,714.34	0.2%
Birmingham	7.632%	330,845.00	7.543%	334,419.67	1.1%
Bloomfield Hills	2.450%	106,206.83	2.463%	109,197.33	2.8%
Bloomfield Township	17.803%	771,754.84	17.930%	794,928.17	3.0%
Franklin	0.501%	21,718.25	0.500%	22,167.58	2.1%
Lathrup Village	2.066%	89,560.49	1.988%	88,138.16	-1.6%
Southfield	18.517%	802,706.59	18.475%	819,090.84	2.0%
Troy	4.179%	181,158.42	4.176%	185,143.33	2.2%
Farmington	0.800%	34,679.76	0.795%	35,246.42	1.6%
Farmington Hills	23.255%	1,008,097.49	23.326%	1,034,160.25	2.6%
Keego Harbor	0.838%	36,327.09	0.816%	36,177.34	-0.4%
Orchard Lake Village	0.883%	38,277.84	0.883%	39,147.93	2.3%
West Bloomfield Township	12.579%	545,295.91	12.570%	557,292.08	2.2%
Acacia Park RTB	0.796%	34,506.42	0.798%	35,379.42	2.5%
Birmingham RTB	0.844%	36,587.17	0.865%	38,349.83	4.8%
Bloomfield RTB	1.084%	46,991.00	1.051%	46,596.25	-0.8%
Total	100.00%	\$ 4,334,970.87	100.00%	\$ 4,433,509.20	2.3%

Charges have been rounded

**EVERGREEN FARMINGTON SANITARY DRAINAGE DISTRICT
SCHEDULE OF RATES AND CHARGES
EFFECTIVE JULY 1, 2024**

1. Wastewater Disposal Charge

Each community shall pay monthly, a charge in accordance with schedule below:

	Effective July 1, 2024 Monthly Charge
Auburn Hills	\$ 32,054.34
Beverly Hills	200,305.92
Bingham Farms	25,714.34
Birmingham	334,419.67
Bloomfield Hills	109,197.33
Bloomfield Township	794,928.17
Franklin	22,167.58
Lathrup Village	88,138.16
Southfield	819,090.84
Troy	185,143.33
Farmington	35,246.42
Farmington Hills	1,034,160.25
Keego Harbor	36,177.34
Orchard Lake Village	39,147.93
West Bloomfield Township	557,292.08
Acacia Park RTB	35,379.42
Birmingham RTB	38,349.83
Bloomfield RTB	<u>46,596.25</u>
Total:	\$ 4,433,509.20

2. Pollutant Surcharge

In accordance with current Great Lakes Water Authority (GLWA) standards and rates, the following pollutant surcharges shall be levied against industrial and commercial customers contributing sewage to the System with concentrations of pollutants exceeding the levels described as follows:

POLLUTANT SURCHARGE RATE, PER EXCESS POUND	EFFECTIVE JULY 1, 2024 \$/LB
Biochemical Oxygen Demand (BOD) in excess of 275 mg/l	\$0.392
Total Suspended Solids (TSS) in excess of 350 mg/l	0.525
Phosphorus (PHOS) in excess of 12 mg/l	7.571
Fats, Oil, & Grease (FOG) in excess of 100 mg/l	0.125

3. Industrial Waste Control Charge (IWC)

Each community shall report monthly the total number and size of water meters used by non-residential users of the System. Where metered water is not available, the community shall report monthly the "Assigned Water Meter Size" of non-residential users of the System as determined by WRC via Residential Equivalency Units (REU) equivalents or use of AWWA M22 (Chapter 5 – Sizing the Customer’s Service and Meter).

Based on the reported number of water meter sizes, actual and assigned, for non-residential users of the System, each community shall pay a monthly IWC in accordance with the following schedule:

METER SIZE	EFFECTIVE JULY 1, 2024 MONTHLY IWC CHARGE
5/8"	\$3.72
3/4"	5.58
1"	9.30
1 1/2"	20.46
2"	29.76
3"	53.94
4"	74.40
6"	111.60
8"	186.00
10"	260.40
12"	297.60
14"	372.00
16"	446.40
18"	520.80

Non-residential users shall be defined as all users other than those in single family houses, apartment buildings, condominiums, town houses, mobile homes, schools, churches and municipal buildings.

4. Penalty

The sewage disposal service charge shall be payable monthly. If any municipality does not pay its service charge by the due date, there will be a penalty of one (1) percent for each month or a fraction thereof for which the charge remains.

EXHIBIT B

COST ALLOCATION/
SHARES

EXHIBIT B

Evergreen-Farmington Sanitary Drain
Fiscal Year 2025 Proposed Cost Allocation

Community	Volumes for Individual Years (MCF)						Proposed Fiscal Year 2025 Shares
	RY 2017/18	RY 2018/19	RY 2019/20	RY 2020/21	RY 2021/22	RY 2022/23	
Auburn Hills	14,598	13,999	13,271	11,409	14,019	11,610	0.723%
Beverly Hills	75,789	96,320	77,751	67,521	90,344	71,577	4.518%
Bingham Farms	11,864	11,282	9,737	8,132	13,405	9,435	0.580%
Birmingham	126,793	153,015	137,038	118,633	164,312	103,358	7.543%
Bloomfield Hills	45,663	47,557	43,944	35,132	52,717	40,708	2.463%
Bloomfield Township	297,697	336,064	339,137	285,928	369,976	268,783	17.930%
Franklin	9,192	9,782	9,879	8,552	8,197	7,902	0.500%
Lathrup Village	39,549	43,281	36,840	25,132	45,919	28,316	1.988%
Southfield	364,192	350,632	338,774	269,712	373,404	313,455	18.475%
Troy	74,557	77,415	80,070	68,581	80,751	64,643	4.176%
Farmington	13,871	15,715	13,365	14,038	15,956	11,654	0.795%
Farmington Hills	408,396	447,079	422,938	399,883	441,307	360,711	23.326%
Keego Harbor	15,874	15,292	15,944	11,652	18,200	12,091	0.816%
Orchard Lake Village	17,045	14,582	16,049	15,354	17,323	14,835	0.883%
West Bloomfield Township	236,194	229,020	235,071	200,971	247,649	204,757	12.570%
APRTB Stormwater	23,367	31,074	18,956	16,373	24,508	20,554	0.798%
BirmRTB Stormwater	22,425	29,944	21,217	17,909	29,820	21,977	0.865%
BVRTB Stormwater	33,641	42,419	28,627	17,559	34,130	25,230	1.051%
Total	1,830,707	1,964,472	1,858,609	1,592,472	2,041,938	1,591,595	100.000%
Basis of Current Shares							
Basis of Proposed Shares							

EXHIBIT C

MAJOR MAINTENANCE AND CAPITAL IMPROVEMENT PLAN

Expense Description	FY 2024 Projected	FY 2025 Projected	FY 2026 Projected	FY 2027 Projected	FY 2028 Projected	FY 2029 Projected
RTB Unplanned Major Maintenance	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 50,000	\$ 50,000
Manhole Lining	\$ 500,000	\$ -	\$ 1,000,000	\$ -	\$ 1,000,000	\$ -
Pipe Grouting	\$ 200,000	\$ 200,000	\$ 20,000	\$ 400,000	\$ 20,000	\$ 400,000
Excavation Spot Repair	\$ 500,000	\$ 500,000	\$ 20,000	\$ 500,000	\$ 20,000	\$ 500,000
CCTV-System Prog	\$ 900,000	\$ 900,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 900,000
Manhole Inspection	\$ 80,000	\$ 80,000	\$ 80,000	\$ 80,000	\$ 80,000	\$ 80,000
Manhole Repair	\$ 250,000	\$ 250,000	\$ -	\$ -	\$ -	\$ -
CAMP (RIVA)	\$ 221,091	\$ 292,806	\$ 301,590	\$ 310,638	\$ 319,957	\$ 329,556
Consultant Project Planning	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ -
Amy PS Site/Facility Improvements	\$ -	\$ 10,000	\$ -	\$ 26,000	\$ -	\$ -
Drake PS Site/Facility Improvements	\$ -	\$ 130,000	\$ 61,000	\$ -	\$ -	\$ 15,000
Eldon PS Site/Facility Improvements	\$ -	\$ -	\$ 15,000	\$ -	\$ -	\$ -
Morris Lk PS Site/Facility Improvements	\$ -	\$ 20,000	\$ -	\$ -	\$ -	\$ -
Thornbrook PS Site/Facility Improvements	\$ 36,000	\$ 205,000	\$ 56,000	\$ -	\$ -	\$ -
Walnut Lk 1 PS Site/Facility Improvements	\$ 40,000	\$ 140,000	\$ 169,750	\$ 41,750	\$ -	\$ 44,000
Walnut Lk 3 PS Site/Facility Improvements	\$ -	\$ -	\$ -	\$ -	\$ 6,000	\$ -
EFSDS EvgrnIntRehab	\$ 45,000	\$ -	\$ -	\$ -	\$ -	\$ -
EFSD Hydraulic Modeling & Response Plan	\$ 50,000	\$ 50,000	\$ -	\$ -	\$ -	\$ -
E-F SDS 2023 Regional Sampling	\$ 25,655	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ -
Amy PS Forcemain Rehab ARVs	\$ 150,000	\$ -	\$ -	\$ -	\$ -	\$ -
Quarton Lake Assessment	\$ 16,126	\$ -	\$ -	\$ -	\$ -	\$ -
MTST Operational Enhancements	\$ 125,000	\$ -	\$ -	\$ -	\$ -	\$ -
Quarton Operational Enhancements	\$ 85,000	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expense	\$ 3,293,872	\$ 2,847,806	\$ 2,293,340	\$ 1,928,388	\$ 2,064,957	\$ 2,318,556

Expense Description	FY 2024 Projected	FY 2025 Projected	FY 2026 Projected	FY 2027 Projected	FY 2028 Projected	FY 2029 Projected
CIP Unplanned	\$ -	\$ -	\$ -	\$ 50,000	\$ 75,000	\$ 100,000
Sewage Meter Replacement Prog	\$ -	\$ 800,000	\$ 300,000	\$ 50,000	\$ 50,000	\$ 50,000
Pipe Lining / Replacement	\$ 250,000	\$ 250,000	\$ -	\$ 3,000,000	\$ 500,000	\$ 3,500,000
Collection System Improvements	\$ 42,580	\$ 849,350	\$ 1,250,000	\$ -	\$ -	\$ -
Adams Road LM Site/Facility Improvements	\$ -	\$ -	\$ -	\$ 5,000	\$ -	\$ -
Amy PS Site/Facility Improvements	\$ -	\$ 138,000	\$ -	\$ 120,000	\$ 5,000	\$ 15,000
Biddestone PS Site/Facility Improvements	\$ -	\$ 460,000	\$ 900,000	\$ -	\$ -	\$ -
Burnley(Wattles) Regulator Site/Facility Improvements	\$ -	\$ -	\$ -	\$ 5,000	\$ -	\$ -
Chestnut Hill(Wattles) Regulator Site/Facility Improvements	\$ -	\$ 6,000	\$ -	\$ -	\$ 6,000	\$ -
Drake PS Site/Facility Improvements	\$ 75,000	\$ 527,000	\$ 16,000	\$ 30,000	\$ 60,000	\$ 40,000
Inkster PS Site/Facility Improvements	\$ 159,000	\$ 391,000	\$ 700,000	\$ -	\$ -	\$ -
Lakeside LM Site/Facility Improvements	\$ 6,000	\$ -	\$ -	\$ -	\$ 5,000	\$ -
Lathrup Vlg LM Site/Facility Improvements	\$ -	\$ -	\$ -	\$ -	\$ 5,000	\$ -
Middlebelt Storage Tunnel & N of 14 LM Site/Facility Improvements	\$ -	\$ 36,000	\$ -	\$ -	\$ 78,000	\$ -
Morris Lk PS Site/Facility Improvements	\$ -	\$ -	\$ 15,000	\$ 135,000	\$ 80,000	\$ -
Quarton Dewatering & Inlet Diversion Chamber Site/Facility Improvements	\$ -	\$ -	\$ -	\$ -	\$ 10,000	\$ -
Quarton Rd PS Site/Facility Improvements	\$ -	\$ 45,000	\$ -	\$ -	\$ 10,000	\$ -
Springdale LM Site/Facility Improvements	\$ -	\$ 11,000	\$ -	\$ 5,000	\$ -	\$ -
Thornbrook PS Site/Facility Improvements	\$ 123,000	\$ 580,000	\$ 36,000	\$ 94,000	\$ -	\$ -
Walnut Lk 1 PS Site/Facility Improvements	\$ 80,000	\$ 145,000	\$ -	\$ 25,000	\$ 55,000	\$ 115,000
Walnut 3 PS Rehab	\$ 580,521	\$ -	\$ -	\$ -	\$ -	\$ -
8 Mile CAP - Conveyance	\$ 30,000,000	\$ 15,000,000	\$ 15,000,000	\$ 8,254,081	\$ -	\$ -
I-696 PS Rehab	\$ 1,267,877	\$ 300,000	\$ -	\$ -	\$ -	\$ -
Walnut 2 PS Rehab	\$ 500,000	\$ 1,500,000	\$ -	\$ -	\$ -	\$ -
EFSD LathVilSRRT ACO	\$ 2,752,511	\$ -	\$ -	\$ -	\$ -	\$ -
EF 8Mile PS CIP	\$ -	\$ -	\$ -	\$ 1,138,000	\$ -	\$ -
EFSD Area 7 Lining	\$ 1,000,000	\$ 7,000,000	\$ -	\$ -	\$ -	\$ -
WLPS1 Replace Wet Well Ventilation	\$ 45,000	\$ -	\$ -	\$ -	\$ -	\$ -
Morris PS Replace Check Valves	\$ 12,000	\$ 20,000	\$ -	\$ -	\$ -	\$ -
EFSD BLT087 CMP Lining	\$ 200,000	\$ -	\$ -	\$ -	\$ -	\$ -
Eldon PS Add Actuator	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ -
Drake PS Replace Pump P3	\$ 85,000	\$ -	\$ -	\$ -	\$ -	\$ -
Drake PS Add Water Service	\$ 20,000	\$ -	\$ -	\$ -	\$ -	\$ -
Thornbrook PS Add Water Service	\$ 45,000	\$ -	\$ -	\$ -	\$ -	\$ -
Walnut 1 PS CAP	\$ 400,000	\$ 4,700,000	\$ -	\$ -	\$ -	\$ -
Biddestone Pump Station Rehab	\$ 150,000	\$ 140,000	\$ -	\$ -	\$ -	\$ -
Total Expense	\$ 37,843,489	\$ 32,898,350	\$ 18,217,000	\$ 12,911,081	\$ 939,000	\$ 3,820,000

**OAKLAND COUNTY
WATER RESOURCES COMMISSIONER**
MEMORANDUM

TO: Jim Nash, Chairperson of the
Evergreen-Farmington Sanitary Drain Drainage Board

FROM: Philip Kerby P.E., Operations Engineer

SUBJECT: 27-inch Sanitary Sewer Rehabilitation
W. Maple Rd. at Quarton Lake in the City of Birmingham

DATE: April 23, 2024

The Water Resources Commissioner's office (WRC) has identified a segment of sanitary sewer in the Evergreen-Farmington Sanitary Drain Drainage District in need of rehabilitation. The sewer, depicted in the attached photos, is a 27-inch reinforced concrete pipe in the City of Birmingham north of West Maple Road at Quarton Lake.

This Board previously approved an assessment of funds for this sewer and the adjacent sewer segments during its January 24, 2023 meeting. This assessment was performed by Hubbell, Roth, & Clark, Inc. (HRC) under the direction of WRC staff. Some 1,200 feet of sanitary sewer was inspected while the sewer was being bypassed. Following a careful review of the inspection videos, it was determined that a 102-foot section of the 27-inch reinforced concrete pipe needs rehabilitation.

Included with this memo is the condition assessment recommendation and proposal for design services from HRC. It is recommended that an engineering design services contract be awarded to HRC in the amount of \$42,000 in conformance with the attached proposal. This amount will cover the cost for the design of the sanitary sewer rehabilitation. The estimated construction cost to rehabilitate this sewer is \$316,000. This preliminary estimate will be refined during the design phase. The Drainage Board will be advised at a later date the amount necessary to fund the construction phase of this project.

The following is a breakdown of the estimated expenses for the design phase of this project:

Engineering Design Services:	\$42,000
WRC Engineering:	<u>\$ 6,000</u>
Total:	\$48,000

RECOMMENDED ACTION: Add this rehabilitation project to the capital improvement plan with a design budget of \$48,000 and award the engineering services contract to Hubbell, Roth & Clark, Inc. in the amount of \$42,000.



Heavy Agitation



Exposed Reinforcement



September 5, 2023

Oakland County Water Resources Commissioner
One Works Public Drive
Waterford, Michigan 48328

Attn: Mr. Phillip Kerby, P.E.
Operations Engineer

Re: Evergreen-Farmington Sanitary Drain – Quarton Lake Sewer Rehabilitation
Task 1 – Condition Assessment

HRC Job No. 20220986

Dear Mr. Kerby:

As requested, we have completed our review of the sewer conditions in the Evergreen-Farmington Sanitary Drain section identified in our proposal. We have prepared this letter to present the summary and design recommendations.

The study area is along Mill Race beginning at Lakeside Drive and through easement areas east of Quarton Lake Park in the City of Birmingham Michigan. The 27-inch diameter Evergreen-Farmington sanitary drain is constructed of pre-cast C-76 Class I concrete pipe according to the 1960 dated as-builts. HRC previously reviewed televising video of the sewer and determined that a second attempt should be performed under bypassed flow conditions in order to obtain a more detailed inspection of the pipe wall conditions and circumference, along with the joint integrity. WRC recently completed a secondary inspection of the pipe successfully under bypassed flow conditions. The following list includes a summary of the defects present by segment:

- ≡ BLT104003 to BLT104002 – One weeper leak was observed approximately 118 feet downstream from BLT104003
- ≡ BLT104002 to BLT104001 – No defects observed.
- ≡ BLT104001 to BLT137013 – Surface Damage reinforcement Corroded/Projecting is observed after the first pipe joint from manhole BLT104001 beginning at approximately 8 feet to 20 feet
- ≡ BLT137013 to BLT137012 – One weeper leak was observed approximately 57 feet downstream from BLT137013.
- ≡ BLT137012 to BLT142003 – One weeper leak was observed approximately 200 feet downstream from BLT137012.

Based on the televising video, the pipe is observed to be in fairly good condition. The segment with the surface damage observation crosses the Rouge River, and HRC recommends this segment be lined full length using a cured-in-place resin liner due to the criticality of that segment. We also recommend that chemical injection grouting and air pressure tests at the joints be performed on the sewer segments where leaks were observed while this part of the interceptor is bypassed for the lining work. Grouting the known leaks, as well as other joints that do not pass a pressure test, will prevent infiltration and potential soil loss around the pipe through the infiltration process. The approximate location of the noted defects are shown on the attached exhibit.

While it is not warranted based solely on the conditions observed in the inspection videos at this time, CIPP lining of these additional segments should be considered as a potential preventative maintenance measure on this section of the interceptor. If lining these additional segments, joint grouting would be limited to active leaks only to allow proper installation of the liners. The cost to line the additional segments will never be less than if completing with the upcoming project. Coming back with a separate, future project will require the sanitary bypass to be set-up again, and it can be expected that materials and labor costs will continue to increase with time. Including these additional segments with the upcoming project may improve the competitiveness of the bids, as economies-of-scale for the larger scope-of-work may come into play.

For budgetary planning purposes, the conceptual construction cost estimate for the recommended rehabilitation is \$316,000.00. The conceptual construction cost estimate for the recommended rehabilitation plus the additional lining work would be \$667,000.00. Please refer to the attached conceptual construction cost estimates for more information.

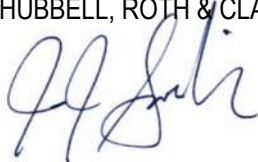
As part of our condition assessment review, HRC did not analyze bench configurations in the manhole structures. We understand that WRC is removing square and rectangular manhole structures in other areas of the Evergreen Interceptor. It would be a good opportunity to perform manhole modifications while the sewer is bypassed.

HRC will prepare a design engineering services proposal to provide final plans and specifications based on the rehabilitative recommendations discussed above. The proposed design cost will not be increased if the additional lining work is requested, as that will only affect the quantities for the work items.

If you have any questions or require any additional information, please contact the undersigned.

Very truly yours,

HUBBELL, ROTH & CLARK, INC.



James J. Surhigh, P.E.
Senior Associate



Matthew G. Hughes, P.E.
Project Engineer

Attachments: (1) Cost Estimates (2) Condition Assessment Exhibits

pc: WRC; M. Drew Sandahl
HRC; D. Mitchell, K. Stickel, File

OAKLAND COUNTY WATER RESOURCES COMMISSIONER'S OFFICE

*EVERGREEN-FARMINGTON SANITARY DRAIN
 QUARTON LAKE AREA SEWER REHABILITATION
 OPTION 1 - CURED-IN-PLACE LINER ON #25924 AND GROUT LEAKS IN REMAINING PIPES*

ITEM	DESCRIPTION	QUANTITY	UNITS	RATE	COST
<u>SANITARY SEWER PIPE #25924</u>					
	Mobilization (20% Max)	1	LS @	\$ 45,600.00	\$ 45,600
	Permit Allowance	0	DLR @	\$ 100.00	\$ -
	Color Audio-Video Recording of Construction Areas	1	LS @	\$ 5,200.00	\$ 5,200
	Temporary Bypass Pumping, Portable 6-8 Inch Pump Setup & Breakdown	1	LS @	\$ 22,000.00	\$ 22,000
	Temporary Bypass Pumping, Portable 6-8 Inch Pump Operation	1	LS @	\$ 10,500.00	\$ 10,500
	Temporary Heavy Equipment Mats	1	LS @	\$ 3,000.00	\$ 3,000
	Pre-Lining Manhole Adjustment - Temporary Remove Casting and Cone	2	EA @	\$ 7,500.00	\$ 15,000
	Pre-lining Preparation, Clean and Televis, 27-Inch	100	LFT @	\$ 30.00	\$ 3,000
	Pre-Lining, Grouting Operation Setup & Breakdown	1	EA @	\$ 1,500.00	\$ 1,500
	Pre-Lining, Test Main Line Joint, 27-Inch Diameter	8	EA @	\$ 450.00	\$ 3,600
	Pre-Lining, Grout Main Line Joint or Defect, 27-Inch Diameter	3	EA @	\$ 1,200.00	\$ 3,600
	Sewer Lining, CIPP, 27-Inch	100	LFT @	\$ 450.00	\$ 45,000
	Post-Lining, Clean and Televis with PACP reporting, 27-Inch	100	LFT @	\$ 10.00	\$ 1,000
	Rebuild Manhole	2	EA @	\$ 7,500.00	\$ 15,000
	Traffic Control	1	LS @	\$ 2,000.00	\$ 2,000
	Restoration	1	LS @	\$ 8,000.00	\$ 8,000
<u>LEAK SEALING FOR REMAINING SEGMENTS</u>					
	Chemical Grouting Operation Setup	6	EA @	\$ 1,500.00	\$ 9,000
	Test Main Line Joint, 27-Inch Diameter	106	EA @	\$ 450.00	\$ 47,700
	Grout Main Line Joint or Defect, 27-Inch Diameter	24	EA @	\$ 1,200.00	\$ 28,800
	Grout Lateral Connection In Main Line	6	EA @	\$ 750.00	\$ 4,500
				15% Contingency	\$ 42,000
CONCEPTUAL ESTIMATED CONSTRUCTION COST					\$ 316,000

Note:

Preliminary cost estimate is for information only, final items of work and quantities may change after final project design is completed

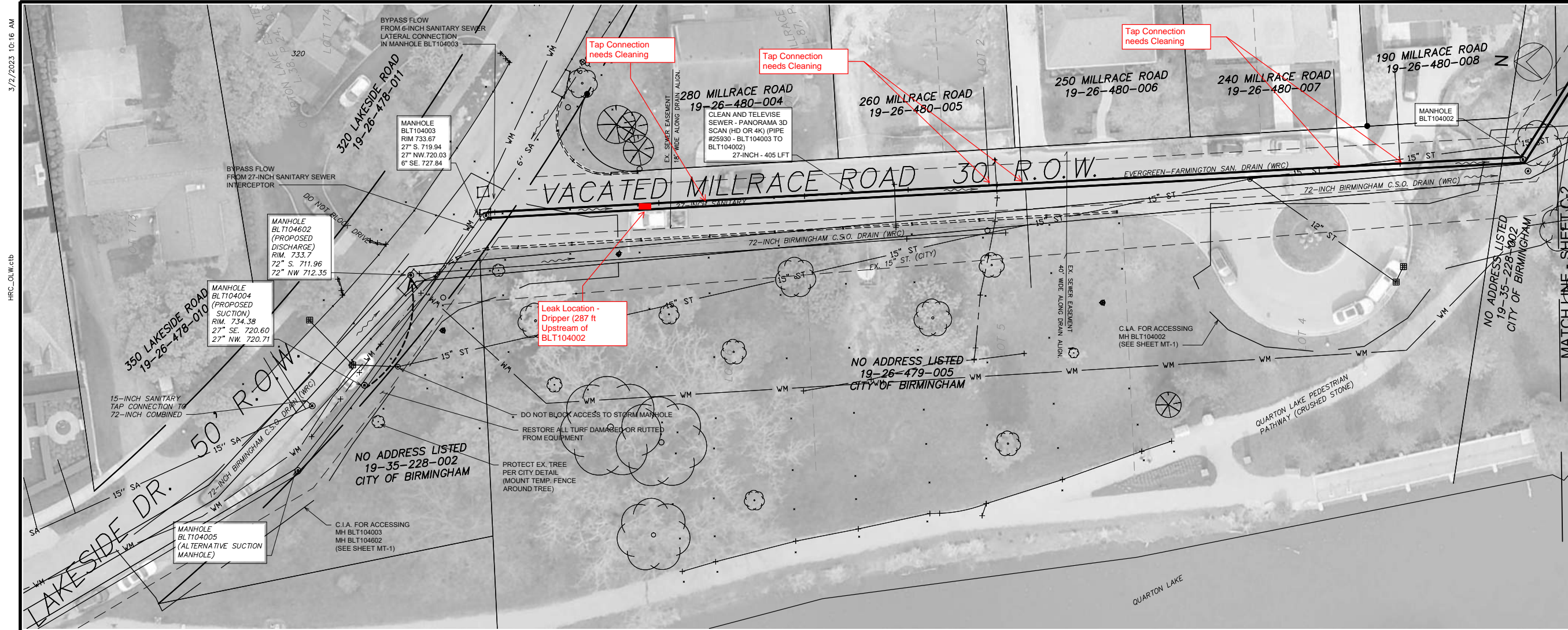
OAKLAND COUNTY WATER RESOURCES COMMISSIONER'S OFFICE

*EVERGREEN-FARMINGTON SANITARY DRAIN
 QUARTON LAKE AREA SEWER REHABILITATION
 OPTION 2 - CIPP LINER ON ALL SEGMENTS, LEAK SEALING AS NEEDED*

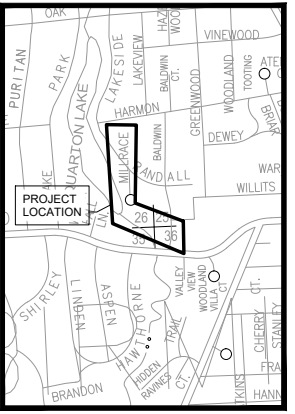
ITEM	DESCRIPTION	QUANTITY	UNITS	RATE	COST
SANITARY SEWER PIPE					
	Mobilization (10% Max)	1	LS @	\$ 55,100.00	\$ 55,100
	Permit Allowance	0	DLR @	\$ 100.00	\$ -
	Color Audio-Video Recording of Construction Areas	1	LS @	\$ 5,200.00	\$ 5,200
	Temporary Bypass Pumping, Portable 6-8 Inch Pump Setup & Breakdown	1	LS @	\$ 22,000.00	\$ 22,000
	Temporary Bypass Pumping, Portable 6-8 Inch Pump Operation	1	LS @	\$ 21,000.00	\$ 21,000
	Temporary Heavy Equipment Mats	1	LS @	\$ 3,000.00	\$ 3,000
	Pre-Lining Manhole Adjustment - Temporary Remove Casting and Cone	6	EA @	\$ 7,500.00	\$ 45,000
	Pre-lining Preparation, Clean and Televis, 27-Inch	1,120	LFT @	\$ 10.00	\$ 11,200
	Pre-Lining, Grouting Operation Setup & Breakdown	3	EA @	\$ 1,500.00	\$ 4,500
	Pre-Lining, Grout Main Line Joint or Defect, 27-Inch Diameter	12	EA @	\$ 1,200.00	\$ 14,400
	Pre-Lining, Grout Lateral Connection In Main Line	6	EA @	\$ 750.00	\$ 4,500
	Sewer Lining, CIPP, 27-Inch	1,120	LFT @	\$ 315.00	\$ 352,800
	Post-Lining, Clean and Televis with PACP reporting, 27-Inch	1,120	LFT @	\$ 5.00	\$ 5,600
	Rebuild Manhole	6	EA @	\$ 7,500.00	\$ 45,000
	Traffic Control	1	LS @	\$ 5,000.00	\$ 5,000
	Restoration	1	LS @	\$ 12,000.00	\$ 12,000
				<i>10% Contingency</i>	\$ 60,700
CONCEPTUAL ESTIMATED CONSTRUCTION COST					\$ 667,000

Note:

Preliminary cost estimate is for information only, final items of work and quantities may change after final project design is completed



03-02-2023	REQUEST FOR QUOTE
02-15-2023	ISSUED FOR OWNER REVIEW
DATE	ADDITIONS AND/OR REVISIONS
DESIGNED	MGH
DRAWN	MGH
CHECKED	JJS
APPROVED	DWM



OKLAND COUNTY WATER RESOURCES COMMISSIONER
EVERGREEN-FARMINGTON SANITARY DRAIN
QUARTON LAKE AREA
SEWER REHABILITATION

TASK-1 - 27-INCH SEWER CONDITION ASSESSMENT
BLT104003 TO BLT104002
OBSERVATIONS OBSERVED

HRC JOB NO.	SCALE
20220986	1" = 20'
DATE	SHEET NO.
February 2023	C-1 OF 2

BYPASS PUMPING GENERAL REQUIREMENTS BY CONTRACTOR:

QUALIFICATIONS:
GENERAL/PRIME CONTRACTOR IS REQUIRED TO SUBMIT NAME OF SUBCONTRACTOR PERFORMING BYPASS PUMPING OPERATIONS

MOBILIZATION AND SCHEDULE NOTES:
STAGE CONSTRUCTION OPERATION AND SCHEDULE WORK SUCH THAT EVERY EFFORT SHALL BE MADE TO MINIMIZE THE AMOUNT OF BY-PASS PUMPING THAT WILL BE REQUIRED. AT A MINIMUM, GENERATE BYPASS PUMPING LOGS SO THE OWNER IS NOTIFIED OF START/STOP TIMES.

MONITORING:
WHILE IN USE, CONTINUOUSLY MONITOR THE BY-PASS PUMPING OPERATIONS FOR 24 HOURS PER DAY, 7 DAYS PER WEEK.

OPERATE AND MAINTAIN ALL PUMPS AND DISCHARGE PIPING, CONDUITS, FITTINGS, ETC.

PROVIDE LIST OF PERSONNEL WITH CONTACT TELEPHONE NUMBERS, WORK CLASSIFICATION, DUTIES, AND ANTICIPATED RESPONSE TIME FOR EMERGENCY CONDITIONS TO BE REVIEWED BY THE OWNER. REASONABLE RESPONSE TIMES SHALL BE REQUIRED FOR CORRECTION OF EMERGENCY CONDITIONS.

PROVIDE A RECORD OF SURCHARGE LEVEL ELEVATION CHECKS AT UPSTREAM MANHOLE(S) LOGGED AT 2 HOUR INTERVALS DURING THE PUMPING.

CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGE INCURRED BY OR ASSOCIATED WITH SEWER BACKUPS CAUSED BY BYPASS PUMPING OPERATIONS.

FOR LONG TERM BYPASS PUMPING, PROVIDE AN ELECTRONIC LEVEL MONITORING ENCLOSURE INSTALLED ABOVE GRADE. THIS MONITOR SHALL PROVIDE A MINIMUM OF 5 DISTINCT LEVEL INDICATIONS DISPLAYED BY LIGHTS MOUNTED ON THE FACE OF THE PANEL. THE FOURTH AND FIFTH INDICATING LIGHTS SHALL BE IN COMMON WITH A FLASHING RED ALARM BEACON AND HORN MOUNTED ON THE ENCLOSURE.

THE FIRST LIGHT SHALL BE LIT AT THE NORMAL DRY WEATHER FLOW LEVEL. THE HIGHER ELEVATIONS SHALL BE SET AT LEVELS DETERMINED FOR EACH INSTALLATION. DIFFERENT LEVELS SHALL BE SENSED BY SEPARATE ADJUSTABLE FLOAT LEVEL SWITCHES LOCATED NEAR THE BOTTOM OF THE SUCTION MANHOLE. THIS MONITOR SHALL BE POWERED BY A STAND ALONE POWER SUPPLY UNLESS OTHERWISE AUTHORIZED. THIS MONITOR SHALL BE SEPARATE FROM THE CONTROLS FURNISHED TO OPERATE THE BY-PASS PUMPS.

POWER:
PROVIDE ADEQUATE STAND ALONE POWER SUPPLY FOR THE OPERATION OF THE TEMPORARY BYPASS PUMPING SYSTEM AS SPECIFIED HEREIN, INCLUDING BUT NOT LIMITED TO ALL POTENTIAL PUMPING SCENARIOS AND MONITORING EQUIPMENT.

BYPASS SUBMITTAL REQUIREMENTS:
WHERE NOT PROVIDED IN THE SPECIFICATIONS FOR BID, AT MINIMUM PROVIDE: DESIGN CALCULATIONS INCLUDING STATIC LIFT, FRICTION LOSSES, FLOW VELOCITY, PUMP AND PIPE SIZES, PUMP TYPE AND CAPACITY, POWER REQUIREMENTS, AND PROJECT SETUP CONFIGURATION.

REDUNDANCY REQUIREMENTS:
REDUNDANT PUMPING CAPACITIES ARE REQUIRED FOR THE DRY WEATHER FLOW RATES.

PERMANENT BACK-UP PUMPING CAPACITY IS NOT REQUIRED FOR WET WEATHER PEAK FLOW CAPACITIES. HOWEVER, PRIOR TO STARTING BY-PASS PUMPING OPERATIONS, PROVISIONS SHALL BE MADE FOR OBTAINING AN ADEQUATE SIZE STAND-BY PUMP CAPABLE OF HANDLING THE WET WEATHER PEAK FLOWS.

DURING WET WEATHER FLOW CONDITIONS, STOP BYPASS PUMPING OPERATIONS AND RETURN FLOWS TO SEWER, OR PROVIDE SUFFICIENT PUMPING CAPACITY TO MAINTAIN LEVELS IN THE SUCTION MANHOLES BELOW THE MANHOLE SURCHARGE LEVEL FOR EACH SITE.

PUMP REQUIREMENTS:
THE DRY WEATHER FLOW PUMPS SHALL BE CAPABLE OF HANDLING SOLIDS SIZES OF UP TO 3".

PUMP SELECTION AND PIPE SIZING SHALL BE DETERMINED BY THE BY-PASS PUMPING CONTRACTOR BASED ON BY-PASS PUMPING CONDITION TABLE PROVIDED PER SITE.

TEST AND DEMONSTRATE BY-PASS PUMPING OPERATIONS FOR A MINIMUM OF 48 HOURS PRIOR TO SHUTDOWN OF A FACILITY. CONTRACTOR SHALL CONTACT LOCAL MUNICIPALITY A MINIMUM OF 48 HOURS PRIOR TO DEMONSTRATION OF BY-PASS PUMPING OPERATIONS.

NOISE LEVELS:
NOISE LEVELS SHALL BE LIMITED TO 70dB(A) OR A MAXIMUM OF 10dB(A) ABOVE AMBIENT NOISE LEVELS WHICHEVER IS LESS. SOUND ATTENUATION OF POWER GENERATION EQUIPMENT SHALL BE UTILIZED IN RESIDENTIAL AREAS.

TEMPORARY ODOR CONTROL:
PREVENT THE RELEASE OF OBJECTIONABLE ODORS RELATED TO THE BY-PASS PUMPING OPERATION. PROVIDE PROVISIONS TO CONTROL ODORS AT THE PROJECT SITE DURING BY-PASS PUMPING OPERATIONS.

PROJECT SITE INFORMATION:
SIZE OF SEWER TO BYPASS: 27-INCH DIA.
AVERAGE DRY WEATHER FLOW: 6.5 CFS
MAX. DAILY DRY WEATHER FLOW: 7.5 CFS
MAX. 5-MINUTE DRY WEATHER FLOW: 11.5 CFS
MONITORING PERIOD: JULY 1 2021 TO JULY 1 2022

MANHOLE BLT104004: (PROPOSED SUCTION)
RIM ELEV. 734.38
27" SE INV. 720.60
27" NW INV. 720.71

MANHOLE BLT104602: (PROPOSED DISCHARGE)
RIM ELEV. 733.70
72" S. INV. 711.96
72" NW. INV. 712.35

MANHOLE BLT104003: (BYPASS)
RIM ELEV. 733.67
27" S. INV. 719.94
27" NW. INV. 720.03
6" SE. INV. 727.84

IF REQUIRED PLACE TEMPORARY MANHOLE WALL BARREL ABOVE GRADE TO ACCOMMODATE DISCHARGE PIPING AND PROVIDE FALL PROTECTION. PROVIDE ODOR CONTROL AND FALL HAZARD MEASURES TO ALL PERSONNEL AND WILDLIFE.

HIGH FLOW SUCTION LINE (AVAILABLE FOR STANDBY)

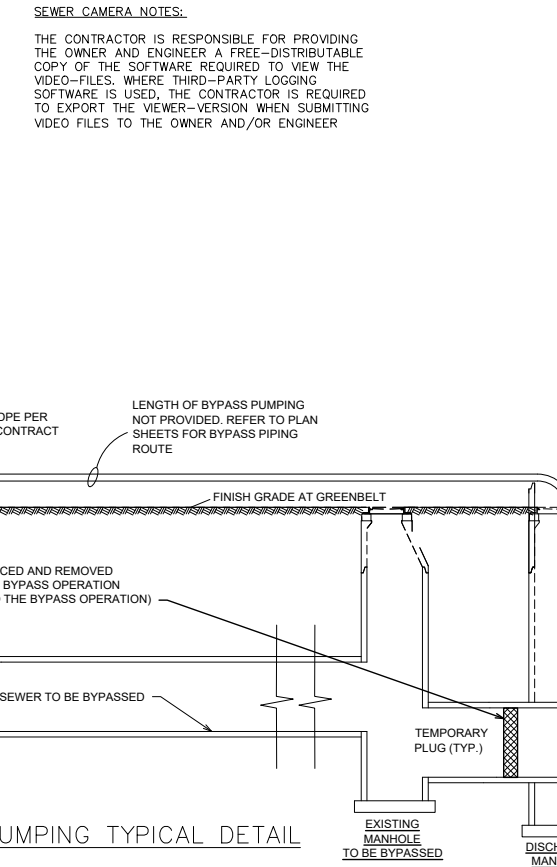
SUCTION AND DISCHARGE MANHOLES:
PREPARATION AND SUBSEQUENT ADJUSTMENT OR RECONSTRUCTION OF ACCESS MANHOLE STRUCTURES TO ACCOMMODATE SEWER BYPASS PUMPING EQUIPMENT IS CALLED OUT ON THE PLAN SHEETS. BID ITEMS FOR COSTS FOR RECONSTRUCTION OF SUCTION AND DISCHARGE MANHOLES ARE NOT INCLUDED.

UPON COMPLETION OF BYPASS PUMPING ACTIVITIES, ALL SUCTION AND DISCHARGE MANHOLES SHALL BE RECONSTRUCTED TO FINISHED GRADE PER JURISDICTIONAL STANDARDS AND PROVIDED WITH NEW FRAME & COVER TO MATCH EXISTING TYPE AND STYLE.

A) FINAL ADJUSTMENT OF STRUCTURES SHALL BE IN ACCORDANCE COUNTY STANDARD SEWER DETAILS.

B) NEW FRAME AND COVER SHALL BE PROVIDED IN ACCORDANCE WITH OAKLAND COUNTY STANDARD SEWER DETAILS

RESTORE ALL DISTURBED SURFACES FROM SEWER BYPASS PUMPING ACTIVITY.



SEWER CAMERA NOTES:
THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE OWNER AND ENGINEER A FREE-DISTRIBUTABLE COPY OF THE SOFTWARE REQUIRED TO VIEW THE VIDEO-FILES. WHERE THIRD-PARTY LOGGING SOFTWARE IS USED, THE CONTRACTOR IS REQUIRED TO EXPORT THE VIEWER-VERSION WHEN SUBMITTING VIDEO FILES TO THE OWNER AND/OR ENGINEER

GENERAL PROJECT OVERVIEW:

- OBTAIN ALL NECESSARY PERMITS AND RECEIVE APPROVAL TO START WORK
- INSTALL TRAFFIC CONTROL
- SETUP BYPASS PUMPING EQUIPMENT AND PERFORM TESTING ON ALL EQUIPMENT WITH ALL PARTIES INVOLVED 48 HOURS PRIOR TO START OF WORK
- PERFORM CLEANING AND TELEVISIONING OUTLINED IN PLANS AND SPECIFICATIONS
- SUBMIT ALL TELEVISIONING FILES AND VIDEO TO ENGINEER
- DEMOLISH PUMPING EQUIPMENT, REMOVE PIPING AND RESTORE MANHOLES TO GRADE (IF PREVIOUSLY ADJUSTED FOR BYPASS PUMPING).
- PERFORM PAVEMENT AND TURF RESTORATION FOR THE PROJECT, INCLUDING ANY FENCING OR LANDSCAPING THAT WAS DISTURBED (INCL.).
- REMOVE DETOUR AND ALL TRAFFIC CONTROL DEVICES.

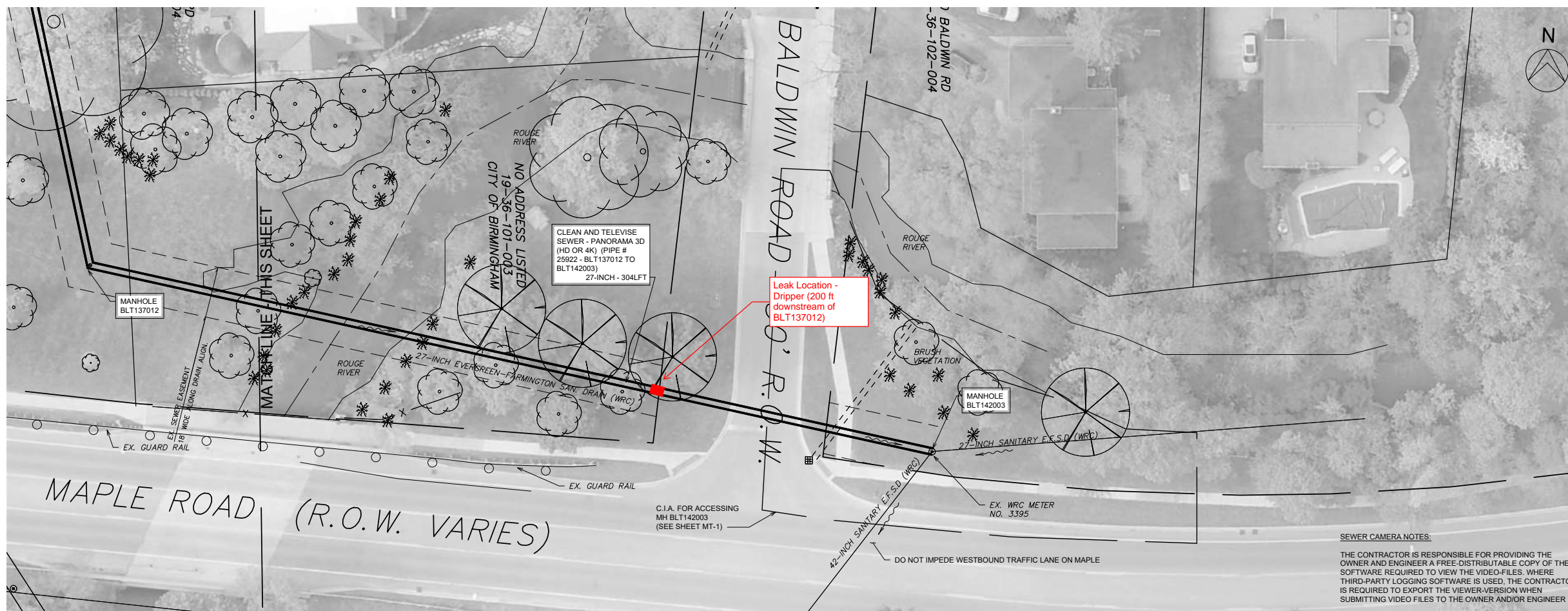
IF REQUIRED, PLACE TEMPORARY MANHOLE WALL BARREL ABOVE GRADE TO ACCOMMODATE DISCHARGE PIPING AND PROVIDE FALL PROTECTION. PROVIDE ODOR CONTROL AND FALL HAZARD MEASURES TO ALL PERSONNEL AND WILDLIFE.

NOTE: UTILITY INFORMATION ON THIS DRAWING MAY BE FROM INFORMATION DISCLOSED TO THIS FIRM BY THE VARIOUS UTILITY COMPANIES, CITY/COUNTY AGENCIES AND OTHER VARIOUS SOURCES. UNDERGROUND UTILITIES WHICH ARE ON PRIVATE PROPERTY ARE USUALLY NOT DELINEATED UPON A UTILITY COMPANY'S PUBLISHED PLANS. THEIR LOCATION, IF SHOWN UPON THIS SURVEY, ARE APPROXIMATED FROM FOUND PAINT MARKS/STAKES, ETC. AS LOCATED BY THIS FIRM FROM SOURCES WHICH ARE UNKNOWN. NO GUARANTEE IS GIVEN AS TO THE COMPLETENESS OR ACCURACY THEREOF.

PRIOR TO CONSTRUCTION, ALL LOCATIONS AND DEPTHS OF EXISTING UTILITIES IN CONFLICT WITH PROPOSED IMPROVEMENTS) SHALL BE VERIFIED IN THE FIELD. CALL MISS DIG 3 WORKING DAYS PRIOR TO CONSTRUCTION.

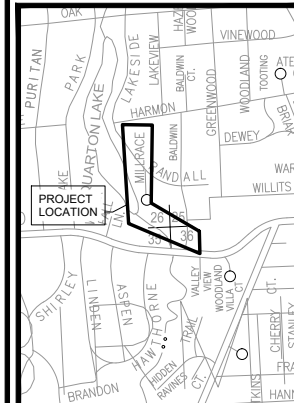
CALL MISS DIG 72 HOURS BEFORE YOU DIG: 1-800-482-7171 or 811 CALL111.COM (TOLL FREE)

3/2/2023 10:16 AM
HRC_OLW.ctb
v:\202209\20220986\C\Sheets\c01p01.dwg
Hughes, Matthew



HRC
HUBBELL, ROTH & CLARK, INC.
 CONSULTING ENGINEERS SINCE 1915
 555 HULET DRIVE
 BLOOMFIELD HILLS, MICH. P.O. BOX 824
 48303 - 0824
 PHONE: (248) 454-6300
 FAX (1st. Floor): (248) 454-6312
 FAX (2nd. Floor): (248) 454-6359
 WEB SITE: www.hrcengr.com

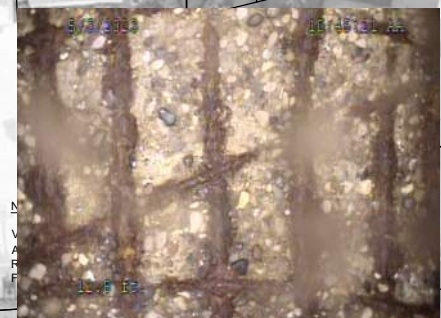
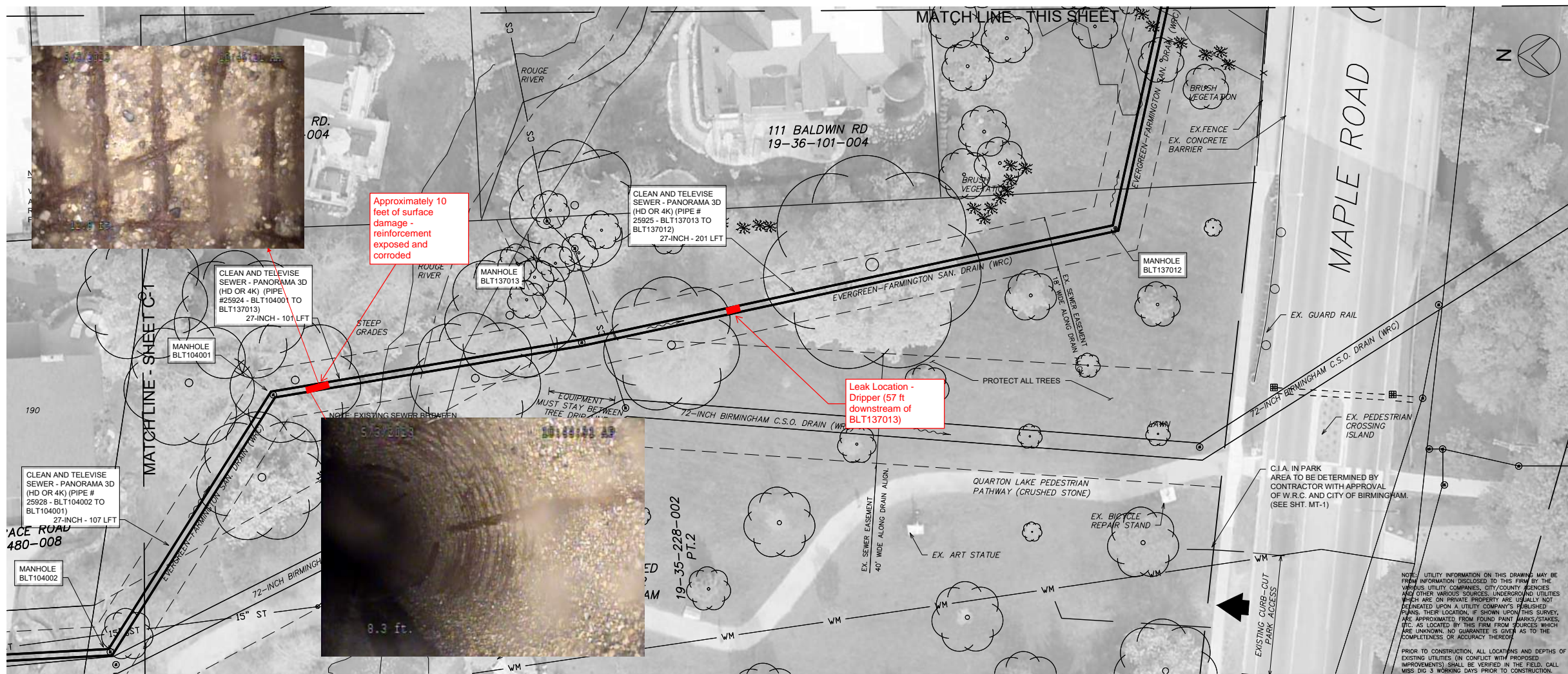
03-02-2023	REQUEST FOR QUOTE
02-15-2023	ISSUED FOR OWNER REVIEW
DATE	ADDITIONS AND/OR REVISIONS
DESIGNED	MGH
DRAWN	MGH
CHECKED	JJS
APPROVED	DWM



OAKLAND COUNTY WATER RESOURCES COMMISSIONER
EVERGREEN-FARMINGTON SANITARY DRAIN
QUARTON LAKE AREA
SEWER REHABILITATION

TASK-1 - 27-INCH SEWER
 CONDITION ASSESSMENT
 BLT104002 TO BLT142003
OBSERVATIONS OBSERVED

HRC JOB NO.	20220986	SCALE	1" = 20'
DATE	February 2023	SHEET NO.	C-2 OF 2



Approximately 10 feet of surface damage - reinforcement exposed and corroded



NOTES: UTILITY INFORMATION ON THIS DRAWING MAY BE FROM INFORMATION DISCLOSED TO THIS FIRM BY THE VARIOUS UTILITY COMPANIES, CITY/COUNTY SERVICES AND OTHER VARIOUS SOURCES. UNDERGROUND UTILITIES WHEN ARE ON PRIVATE PROPERTY ARE USUALLY NOT IDENTIFIED UPON A UTILITY COMPANY'S PUBLISHED PLANS. THEIR LOCATION, IF SHOWN UPON THIS SURVEY, ARE APPROXIMATED FROM FOUND PAINT MARKS/STAKES, ETC. AS LOCATED BY THIS FIRM FROM SOURCES WHICH ARE UNKNOWN, NO GUARANTEE IS GIVEN AS TO THE COMPLETENESS OR ACCURACY THEREOF.
 PRIOR TO CONSTRUCTION, ALL LOCATIONS AND DEPTHS OF EXISTING UTILITIES (IN CONFLICT WITH PROPOSED IMPROVEMENTS) SHALL BE VERIFIED IN THE FIELD. CALL MISS DIG 3 WORKING DAYS PRIOR TO CONSTRUCTION.
 CALL 811.COM (TOLL FREE)



September 5, 2023

Oakland County Water Resources Commissioner
Building #95 West
One Public Works Drive
Waterford, MI 48328-1907

Attn: Mr. Drew Sandahl, P.E.

Re: EFSD Quarton Lake Arm Sanitary Sewer Rehabilitation
Proposal for Design Engineering Services (Task 2)

HRC Job No. 20220986

Dear Mr. Sandahl:

Hubbell, Roth & Clark, Inc. (HRC) was authorized to start preliminary design of this sewer rehabilitation project with an initial budget of \$15,000, as described in our proposal dated November 17, 2022. We indicated that a proposal for final design (Task 2) would be provided once the specific scope of the project was better defined after sewer inspection work was completed by WRC's contractor. We are writing this letter to present the effort required to complete the final design of the project, along with the associated fees for engineering services, based on the recommended rehabilitation presented in our technical memo dated August 29, 2023.

Summary of Recommended Rehabilitation Work

The recommended scope-of-work for rehabilitating the sewer segments within the designated project area include cured-in-place pipe (CIPP) lining of one segment that crosses the Rouge River, and "as-needed" sewer joint grouting with chemical grout on the remaining segments. We also recommended that WRC consider CIPP lining for all the segments in the project area as a preventative rehabilitation measure. We note that the proposed design fee will not change if WRC decides to line these other sewer segments. The conceptual construction cost for the recommended rehabilitation work is estimated at \$316,000. If all segments are to be lined, the conceptual construction cost is estimated at \$667,000.

The design engineering phase includes preparing plans and specifications, and assisting WRC with solicitation of contractor bids for the project. Plans and specifications will address the need for bypass pumping, PE design of cured-in-place liners by contractor/manufacturer, and coordination with the City of Birmingham Parks Department.

Design Budget

The preliminary initial design budget for our effort was \$15,000. The last invoice submitted for this project, dated 8/24/23, was for time billed through 8/19/23, and the amount billed up to that date was \$14,994.96. After reviewing our current to-date costs, we have slightly surpassed the initial limit based on our time through 9/2/23 as we finished reviewing the CCTV inspection videos and preparing the summary report. We are hereby requesting the additional costs to be included in the authorized budget to complete the final design of the project.

HRC's services during the design phase will include Project Management & Coordination, Supplemental Topographic Survey, Plans & Specifications, Permit Assistance (for RCOC and City of Birmingham as we assume EGLE Part 41 permit is not required for this rehabilitation project), and Bidding Assistance. The fees associated with these services are as follows:

Task Description	Authorized Amount	Requested Amount
Preliminary Design Phase [additional 15 hours] (HRC Proposal dated 11/17/22)	\$ 15,000	\$ 2,000
Final Design – Plans & Specifications [240 hours]		\$ 30,000
Bidding Assistance [80 hours]		\$ 10,000
TOTAL PROPOSED BUDGET		\$ 42,000

Design Schedule

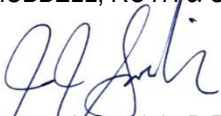
Upon WRC’s authorization to proceed, HRC can immediately begin work on this project. We would expect submittal of “90% complete” plans and specifications for WRC’s review within 6 weeks. Assuming a start date of 9/18/23, plans would be submitted for review by 11/3/23. These plans would be sufficient for permit applications, and once received, final bid plans and specifications would be issued. Assuming one month for permit reviews and finalizing plans, the project would be issued for bids around 12/4/23. The type of work included in this project can be completed over the winter months, however, extreme cold weather would negatively impact the contractor’s schedule, and times having snowmelt and/or active precipitation causing increased sanitary flows could result in further delays.

Based on the above breakdown, our proposed design engineering budget for the project is **\$42,000**. The fee will be billed monthly on a time and material basis under the terms and conditions of our engineering services agreement with the Oakland County Water Resources Commissioner, and will not be exceeded without your authorization.

We sincerely appreciate the opportunity to work with WRC on this important project. If you have any questions or require any additional information, please contact the undersigned.

Very truly yours,

HUBBELL, ROTH & CLARK, INC.



James J. Surnigh, P.E.
Senior Associate

pc: WRC; Philip Kerby
HRC; D. Mitchell, K. Stickel, File

Accepted By:

Signature: _____

Written Name: _____

Title: _____

Dated: _____

**OAKLAND COUNTY
WATER RESOURCES COMMISSIONER**

MEMORANDUM

TO: Jim Nash, Chairperson of the Evergreen Farmington Sanitary Drain Drainage Board

FROM: Scott Schultz, Project Engineer

SUBJECT: Request for Approval of ASI Engineering Work Order to develop dry and wet weather lateral peak bypass flows as a part of the EFSDDD Southfield Sewer Lining Project Design

DATE: April 9, 2024

Applied Science, Inc. (ASI) will assist Oakland County Water Resources Commissioner (OCWRC) in the development of estimated flow rates for 8 laterals that connect to a portion of the Southfield Area 7 sewer scheduled to be rehabilitated as part of the EFSDDD Southfield Sewer Lining Project. These estimates will aid prospective lining and bypass pumping contractors in sizing pumps needed to handle the flow these laterals convey to the Area 7 sewer.

A detailed breakdown of ASI's scope of work is detailed in the attached Engineering Work Order. ASI is requesting a not-to-exceed amount of \$8,100 for the work. ASI will bill OCWRC on a time and material basis in accordance with the contract standard fee contained in their blanket Contract CON00009183 and schedule.

Requested Action: Approve the attached Engineering Work Order for the development of estimated lateral flow rates on the EFSDDD Southfield Sewer Lining Project in the amount of \$8,100.

**Jim Nash Oakland County Water Resources Commissioner
Evergreen-Farmington Sanitary Drain Drainage District
For the EFSDDD Southfield Sewer Lining Project
Southfield
Oakland County, Michigan**

Engineering Work Order No. SS-189(1)

Date: 3/26/2024

To: Applied Science, Inc.

For: Estimate of Flow Rates from Lateral Connections to EFSD Interceptor in Area 7

DESCRIPTION

This Engineering Work Order (EWO) is required to define specific tasks and compensation related to the EFSDDD Southfield Sewer Lining Project that will fall under the existing as-needed contract CON00009183. This EWO serves as your approval for compensation of the following services as delineated in your attached proposal to develop dry and wet weather peak flows for the 8 laterals tying into the Area 7 sewer dated March 8, 2024.

Fees for this Engineering Work Order shall be billed on a time and material basis according to the contract standard fee and rate schedule as modified by your proposal. The total amount of the as-needed contract is to be increased by a not to exceed amount of \$8,100. This amount is not to be exceeded without written authorization from this office.

RECOMMENDED	DATE: 3/26/24	ACCEPTED	DATE: 4/1/2024
By: <i>Scott Schultz</i>		By: <i>Tim Minor</i>	
Scott Schultz Project Engineer OCWRC		Tim Minor, P.E. Vice President Applied Science, Inc.	
APPROVED		APPROVED	
DATE: 4/2/2024		DATE: April, 2, 2024	
By: <i>Joel Brown</i>		By: <i>Steven Korth</i>	
Joel Brown, P.E. Chief Engineer OCWRC		Steven Korth, P.E. Chief Manager OCWRC	
Approved by the Drainage District Board on:			

Department No.:	CCN6010101	Account No.:	SC730639
Fund No.:	FND82410	Program No.:	PRG149667
Project No.:	PRJ-17455	Project Activity:	ENG
Contract No.:	CON00009183	Contract Exp.:	08/31/24

**JIM NASH
OAKLAND COUNTY WATER RESOURCES COMMISSIONER**

CHANGE ORDER NO. 9

Evergreen Farmington Sanitary Drain Drainage District
 8 Mile Road CAP 8 Mile Road Pump Station & SSO Chamber Improvements - Phase 1
 Southfield
 Oakland County, Michigan

Authorization for Extras To & Changes In Contract

Department No. : 6010101
 Fund No. : FND84410
 Project No. : PRJ-17452

Account No. : 730352
 Program No. : PRG149015
 Project Activity : FAC

Construction Manager at Risk :
 Walsh Construction Company II, LLC
 3031 W Grand Blvd, Suite 640
 Detroit, MI 48202

Contract No. : 6628
 Date of Contract: 2/2/2022
 Completion Date: 8/13/2027

Auth No.	Location-Description-Reason	Unit Used	Est. Qty.	Unit Price	Amount Increase	Amount Decrease
9-1	<p>LOCATION: Pump Sta. Floor P5</p> <p>DESCRIPTION (Extra/Add): Walsh PCI 970038 - Additional Chipping at floor P5 for Rebar Installation</p> <p>REASON: Following replacement of pump no. 2 suction elbow, Walsh discovered that existing reinforcement steel spacing did not allow installation of rebar couplers as detailed. This additional cost is for added concrete removal to allow placemtn of staggered rebar couplers. Attachments: PCI 970038 WRC/WCC-020</p>	LS	1.0	\$8,624.34	\$8,624.34	---

Auth No.	Location-Description-Reason	Unit Used	Est. Qty.	Unit Price	Amount Increase	Amount Decrease
9-2	<p>LOCATION: Pump Sta. Floor P1-P5</p> <p>DESCRIPTION (Extra/Add): Walsh PCI 970041 - Asbestos Gasket Material for Existing Suction Valves (T&M)</p> <p>REASON: Upon removal of the suction valves during the replacement of pump nos. 1 and 2, Walsh discovered asbestos gaskets that were concealed from inspection during the design. This additional cost is for asbestos gasket abatement and disposal for these specific pumps. Attachments: PCI 970041 WRC/WCC-022</p>	LS	1.0	\$882.48	\$882.48	---

Auth No.	Location-Description-Reason	Unit Used	Est. Qty.	Unit Price	Amount Increase	Amount Decrease
9-3	<p>LOCATION: EFSDS Pump Station site / Adjacent OCWRC Water Maintenance Facility</p> <p>DESCRIPTION (Extra/Add):</p> <p>Walsh PCI 970034 rev1 - Emergency Generator for OCWRC Water Maintenance Building</p> <p>REASON:</p> <p>The pump station scope of work includes separation of the Pump Station and Water Maintenance Building electrical feeds. This change will maintain that separation during a DTE power outage.</p> <p>Attachments: Work Directive No. 3 PCI 970034 rev1 WRC/WCC-025</p>	LS	1.0	\$209,971.26	\$209,971.26	---
Totals					\$219,478.08	\$0.00
Net Increase					\$219,478.08	---

JIM NASH
OAKLAND COUNTY WATER RESOURCES COMMISSIONER

CHANGE ORDER NO. 9

Evergreen Farmington Sanitary Drain Drainage District
8 Mile Road CAP 8 Mile Road Pump Station & SSO Chamber Improvements - Phase 1
Southfield
Oakland County, Michigan

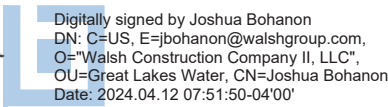
Prepared by: *Charles J. Roarty, Jr.* Date: 2024 04 11
Charles J. Roarty, Jr., P.E. - NTH Consultants

Recommended by: *Joseph C Siwek* Date: 4/11/2024
Joe Siwek, P.E. - Consulting Engineer (Fishbeck)

Recommended by: *Evangelos Bantios* Date: 4-15-2024
Evangelos Bantios, P.E. - Project Engineer

Approved by: _____ Date: _____
Joel Brown, P.E. - Chief Engineer

The Contractor agrees to do the work described above and agrees to accept payment in full on the basis indicated.

Accepted by: *Joshua Bohanon*  Date: 4/12/2024
Josh Bohanon - Business Group Leader
Walsh Construction Company II, LLC

Approved by: *Steven Korth* Date: April 19, 2024
Steve Korth, P.E.
Chief Manager

The Contractor is hereby authorized and instructed to do the work described above in accordance with the terms of the Contract.

This Change Order was approved by the Drainage Board on:

JIM NASH
OAKLAND COUNTY WATER RESOURCES COMMISSIONER

CHANGE ORDER NO. 9

**Evergreen Farmington Sanitary Drain Drainage District
8 Mile Road CAP 8 Mile Road Pump Station & SSO Chamber Improvements - Phase 1
Southfield
Oakland County, Michigan**

Project Award Date (Pre-Construction Services)	2/2/2022
Notice to Proceed Date (Construction Phase):	n/a
Contract Substantial Completion Date:	Friday, February 19, 2027
Contract Final Completion Date:	Friday, August 13, 2027
Original GMP Contract Value:	n/a
Original Contract Value (Pre-Construction Services):	\$848,980.48
<u>GMP Construction Services</u>	
Construction Notice to Proceed Date:	December 13, 2022
Contract Substantial Completion Date:	February 19, 2027
Contract Final Completion Date:	August 13, 2027
Original Contract Value:	\$ -
Previous C.O. Values (Change Order nos. 1 to 8):	\$ 50,292,966.06
Change Order No. 9 Value	\$219,478.08
Adjusted GMP Contract Value	\$ 50,512,444.14

**Jim Nash, Oakland County Water Resources Commissioner
 Evergreen Farmington Sanitary Drain Drainage District
 8 Mile Road CAP 8 Mile Road Pump Station & SSO Chamber Improvements - Phase 1
 Southfield
 Oakland County, Michigan**

Construction Estimate No. 25

March 1, 2024 to Mar. 31, 2024

Department No. : 6010101
 Fund No. : FND84410
 Project No. : PRJ-17452

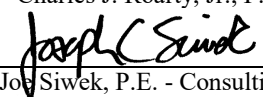
Account No. : 730352
 Program No. : PRG149015
 Activity : FAC
 Vendor No. : 23191
 Contract No. : 6628
 Date of Contract : 2/2/2022
 Completion Date : 8/13/2027

Contractor :
 Walsh Construction Company II, LLC
 3031 W Grand Blvd, Suite 640
 Detroit, MI 48202

Original Contract Amount:	\$0.00
Previous Change Order Numbers: CO Nos. 1, 2, 3, 4, 5, 6, 7, and 8.	\$50,292,966.06
Change Orders This Estimate Number:	\$0.00
Total Net Change Orders:	\$50,292,966.06
<u>Adjusted Contract Amount:</u>	<u>\$50,292,966.06</u>
Subtotal To Date: (Sheet 2 of 3 Column 7)	\$18,050,260.58
Less Deductions to Date: (Sheet 2 of 3 Column 7)	\$0.00
Gross Estimate: (Work in Place) 35.89%	\$18,050,260.58
Less Amount Reserved: (10% of Gross Estimate)	\$1,805,026.06
Total Amount Allowed To Date:	\$16,245,234.52
Less Previous Estimates:	\$13,991,249.52
Net Payment Request To Be Paid To Contractor:	\$2,253,985.00
Reserve Payment to Contractor	\$0.00
Balance of Contract To Date \$32,242,705.48	Accounting Auditor:
Less Previous Transfers To Reserve:	\$1,554,583.28
<u>Amount of Current Transfer:</u>	<u>\$250,442.78</u>

Prepared by: 
 Charles J. Roarty, Jr., P.E. - NTH Consultants

Date: 2024 04 04

Recommended by: 
 Joe Siwek, P.E. - Consulting Engineer (Fishbeck)

Date: 4/5/2024

Recommended by: 
 Evangelos Bantios, P.E. - Project Engineer

Date: 4-12-2024

Approved by: _____
 Joel Brown, P.E. - Chief Engineer

Date: _____

Approved by Board on: _____

**JIM NASH
 OAKLAND COUNTY WATER RESOURCES COMMISSIONER**

**Jim Nash, Oakland County Water Resources Commissioner
 Evergreen Farmington Sanitary Drain Drainage District
 For Construction of 8 Mile Road CAP Phase 2 - 8 Mile Pump Station 54-Inch Relief Forcemain
 Southfield, Michigan**

Construction Estimate No. 7

March 1, 2024 to Mar. 31, 2024

Department No. : 6010101
 Fund No. : FND84410
 Project No. : PRJ-17452

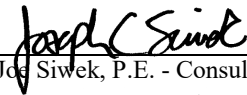
Account No. : 730352
 Program No. : PRG149015
 Activity : FAC
 Vendor No. : 40260
 Contract No. : 10305
 Date of Contract : 7/17/2023
 Completion Date : 1/12/2025

Contractor :
 Dan's Excavating, Inc.
 12955 23 Mile Road
 Shelby Township, MI 48315

Original Contract Amount:		\$10,381,154.00
Previous Change Order Numbers: CO Nos. 1 and 2		\$214,293.91
Change Orders This Estimate Number:		\$0.00
Total Net Change Orders:		\$214,293.91
<u>Adjusted Contract Amount:</u>		<u>\$10,595,447.91</u>
Subtotal To Date: (Sheet 2 of 2 Column 7)		\$6,698,224.44
Less Deductions to Date: (Sheet 2 of 2 Column 7)		\$0.00
Gross Estimate: (Work in Place) 63.22%		\$6,698,224.44
Less Amount Reserved: (5% of Adjusted Contract Amount)		\$529,772.40
Total Amount Allowed To Date:		\$6,168,452.04
Less Previous Estimates:		\$4,689,678.13
Net Payment Request To Be Paid To Contractor:		\$1,478,773.91
Reserve Payment to Contractor		\$0.00
<u>Balance of Contract To Date</u>	<u>\$3,897,223.47</u>	<u>Accounting Auditor:</u>
Less Previous Transfers To Reserve:		\$521,075.35
<u>Amount of Current Transfer:</u>		<u>\$8,697.05</u>

Prepared by: 
 Charles J. Roarty, Jr., P.E. - NTH Consultants

Date: 2024 04 09

Recommended by: 
 Joe Siwek, P.E. - Consulting Engineer (Fishbeck)

Date: 4/9/2024

Recommended by: 
 Evangelos Bantios, P.E. - Project Engineer

Date: 4-15-2024

Approved by: _____
 Joel Brown, P.E. - Chief Engineer

Date: _____

Approved by Board on: _____

**JIM NASH
 OAKLAND COUNTY WATER RESOURCES COMMISSIONER**

**Jim Nash, Oakland County Water Resources Commissioner
 Evergreen Farmington Sanitary Drain Drainage District
 For Construction of the Lathrup SRT
 Lathrup Village
 Oakland County, Michigan**

Construction Estimate No. 6

3-16-2024 to 4-5-2024

Department No. : CCN6010101
 Fund No. : FND84410
 Project No. : PRJ-17450

Account No. : 730352
 Program No. : PRG149015
 Activity : FA C
 Vendor No. : 40564

Contractor :
 Midwest Power Systems
 2401 Hickory Oak Lane
 Milford, MI 48380

Contract No. : CON00010270
 Date of Contract : April 19, 2023
 Completion Date : May 3, 2024

Original Contract Amount:		\$2,318,504.20	
Previous Change Order Number (CO #1):		\$4,600.00	
Change Orders This Estimate (CO #2):		\$10,650.00	
Total Net Change Orders:		\$15,250.00	✓
<u>Adjusted Contract Amount:</u>		<u>\$2,333,754.20</u>	
Subtotal To Date: (Sheet 2 of 2 Column 7)		\$1,814,728.72	
Less Deductions to Date: (Sheet 2 of 2 Column 7)		\$0.00	
Gross Estimate: (Work in Place)	77.76%	\$1,814,728.72	
Less Amount Reserved: (5% of Adjusted Contract Amount)		\$116,687.71	✓
Total Amount Allowed To Date:		\$1,698,041.01	
Less Previous Estimates:		\$1,614,541.01	
Net Payment Request To Be Paid To Contractor:		\$83,500.00	
Reserve Payment to Contractor		\$0.00	
Balance of Contract To Date	✓ \$519,025.48		Accounting Auditor: <i>BCR</i> 4/9/2024
Less Previous Transfers To Reserve:		\$116,687.71	✓
<u>Amount of Current Transfer:</u>		<u>\$0.00</u>	

Prepared by: Evangelos Bantios
 Evangelos Bantios, P.E. - Project Engineer

Date: 4-15-2024

Recommended by: John Bergsma
 John Bergsma, P.E. - Consulting Engineer

Date: 4-12-2024

Approved by: _____
 Joel Brown, P.E. - Chief Engineer

Date: _____

Approved by Board on: _____

MEMO TO: Mr. Jim Nash, Chairman
of the Drainage Board for the Evergreen Farmington Sanitary Drain Ch20

FROM: Shawn Phelps, Chief of Fiscal Services
OCWRC Accounting

HP for Shawn Phelps

DATE: April 23, 2024

SUBJECT: Request for Approval of Invoices

The following is a detail of charges paid from the Evergreen Farmington Sanitary Drain Ch20 and Invoices

Payable To	Ref No.	For	Amount
Kennedy Industries	SINV00252151	Inv# 641277 - Materials and Supplies - Proj #17443	36,231.00
		Subtotal - Project #17443	\$ 36,231.00
Hubbell Roth and Clark Inc	SINV00250138	Inv# 0215390 - Engineering Services - Proj #17449	25,563.54
		Subtotal - Project #17449	\$ 25,563.54
Hubbell Roth and Clark Inc	SINV00250605	Inv# 0215222 - Engineering Services - Proj #17450	6,236.13
H and P Technologies	SINV00249590	Inv# 1081304 - Materials and Supplies - Proj #17450	3,897.20
		Subtotal - Project #17450	\$ 10,133.33
PMA Consultants	TBP	Inv# 04582.00 - 1.0-16 - Professional Services - Proj #17452	5,149.00
Fishbeck	SINV00250619	Invoice# 435255 - Engineering Services - Proj #17452	23,071.10
PMA Consultants	SINV00249644	Inv# 04582.00 - 1.0-15 - Professional Services - Proj #17452	4,336.00
Meadowbrook Insurancy Agency	TBP	Inv# 12369 - Insurance - Proj #17452	50,440.00
		Subtotal - Project #17452	\$ 82,996.10
Fishbeck	SINV00253571	Invoice# 434781 - Engineering Services - Proj #17455	6,564.00
JMK Engineering, Inc.	SINV00253309	Invoice# 1692 - Professional Services - Proj #17455	4,862.00
JMK Engineering, Inc.	SINV00249588	Invoice# 1670 - Professional Services - Proj #17455	2,618.00
		Subtotal - Project #17455	\$ 14,044.00
JMK Engineering, Inc.	SINV00253309	Invoice# 1692 - Professional Services - Proj #17459	3,179.00
DLZ Michigan Inc	SINV00250062	Invoice# 000400301 - Engineering Services - Proj #17459	6,981.00
JMK Engineering, Inc.	SINV00249588	Invoice# 1670 - Professional Services - Proj #17459	2,898.50
		Subtotal - Project #17459	\$ 13,058.50
JMK Engineering, Inc.	SINV00253309	Invoice# 1692 - Professional Services - Proj #17554	1,028.50
DLZ Michigan Inc	SINV00252272	Invoice# 000400282 - Engineering Services - Proj #17554	3,443.32
		Subtotal - Project #17554	\$ 4,471.82
JMK Engineering, Inc.	SINV00253309	Invoice# 1692 - Professional Services - Proj #17555	1,122.00
DLZ Michigan Inc	SINV00252273	Invoice# 000400292 - Engineering Services - Proj #17555	3,254.64
		Subtotal - Project #17555	\$ 4,376.64
ADS LLC	SINV00250058	Inv# 35801-0124-A-R1 - Contracted Services	\$ 51,950.00
ADS LLC	SINV00250060	Inv# 35801-0124-K-R1 - Contracted Services	4,725.00
ICS Integration Services LLC	SINV00250813	Invoice# 2920 - Contracted Services	1,190.00
ADS LLC	SINV00251677	Inv# 35801-0124-I-R1 - Contracted Services	2,770.00
Orchard Hiltz and McCliment Inc	SINV00252972	Inv# 73804 - Professional Services	1,758.75
MacAllister Machinery Co Inc	SINV00254338	Inv# SD15957242 - Contracted Services	2,364.19
Pipeline Management Company	SINV00254734	Invoice# 24-01253 - Contracted Services	5,955.75
Kotz Sangster Wysocki PC	SINV00254784	Inv# 598961 - Legal Services	3,311.37
Pipeline Management Company	TBP	Inv# 24-01163 - Contracted Services	53,967.00
Pipeline Management Company	TBP	Inv# 24-01193 - Contracted Services	65,745.00
		Subtotal	\$ 193,737.06
		Total	\$ 384,611.99

2. Acacia Park CSO

AGENDA

DRAINAGE BOARD FOR THE ACACIA PARK CSO DRAIN

April 23, 2024

1. Call meeting to order
2. Approve minutes of meeting of March 26, 2024
3. Public Comments
4. Present Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$1,221,390.00
5. Present request for reimbursement of the Evergreen Farmington Fund in the amount of \$103,519.26
6. Present request for Board approval of payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$115,624.00
7. Other business
8. Approve pro rata payment to Drainage Board members
9. Adjourn

**MINUTES OF THE MEETING OF THE DRAINAGE BOARD
FOR THE ACACIA PARK CSO DRAIN**

March 26, 2024

A meeting of the Drainage Board for the Acacia Park CSO Drain was held in the office of the Oakland County Water Resources Commissioner, Public Works Building, One Public Works Drive, Waterford, Michigan at 2:00 p.m. on the 26th day of March 2024.

The meeting was called to order by the Chairperson.

PRESENT: Jim Nash, Oakland County Water Resources Commissioner

Gwen Markham, Chairperson of the Finance Committee, Oakland County Board of Commissioners

ABSENT: David Woodward, Chairperson of the Oakland County Board of Commissioners

Minutes of the meeting held February 27, 2024, were presented for consideration. It was moved by Markham, supported by Nash, that the minutes be approved.

ADOPTED: Yeas - 2
Nays - 0

Chairperson Nash asked if there were any public comments. There were none.

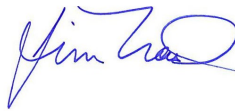
A request for approval of payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$8,086.32 (as attached) was presented. It was moved by Markham, supported by Nash, to approve the payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$8,086.32.

ADOPTED: Yeas - 2
Nays - 0

It was moved by Nash, supported by Markham, to certify attendance and authorize pro rata payment of \$25 per day to Ms. Markham.

ADOPTED: Yeas - 2
Nays - 0

There being no further business, the meeting was adjourned.

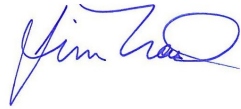


Jim Nash, Chairperson

STATE OF MICHIGAN)
)SS.
COUNTY OF OAKLAND)

I, the undersigned, do hereby certify that the foregoing is a true and complete copy of the minutes of the Drainage Board for the Acacia Park CSO Drain, Oakland County, Michigan, held on the 26th day of March 2024, and that the minutes are on file in the office of the Oakland County Water Resources Commissioner and are available to the public.

I further certify that the notice of the meeting was posted at least 18 hours in advance of the meeting at the office of the Oakland County Water Resources Commissioner which is the principal office of the Drainage Board for the Acacia Park CSO Drain Drainage District.



Jim Nash, Chairperson

Dated: March 26, 2024

OAKLAND COUNTY WATER RESOURCES COMMISSIONER

MAINTENANCE ASSESSMENT RECOMMENDATION FOR THE

Acacia Park CSO Drain

Assessment for the following year of expenses: July 1, 2024 through June 30, 2025

Last Assessment (\$):	\$	1,153,770.00
Date last assessment approved:		5/23/23
Unreserved and Undesignated Fund Balance as of 2/29/24	\$	141,381.23
Capital Improvement Reserves as of 2/29/24		948,026.43
Major Maintenance Reserves as of 2/29/24		256,232.82
CSO Equipment Reserves (MDEQ) as of 2/29/24		350,000.00
Reserves for Encumbrances as of 2/29/24		0.00
Total Fund Balance at 2/29/2024	\$	<u>1,695,640.48</u>

OPERATIONS, MAINTENANCE & REPLACEMENT BUDGET for July 1, 2024 through June 30, 2025

Operating Expenses

Sewage Treatment	\$	433,710.00
Sewer System Maintenance	\$	38,730.00
Sewer System Engineering	\$	29,570.00
Pump Maintenance Unit	\$	288,020.00
Systems Control Unit	\$	7,990.00
Laboratory	\$	2,330.00
Mapping Unit	\$	990.00
General and Administrative	\$	46,760.00
Total Operating Expenses	\$	848,100.00

Revenue Requirements

Operating Expense	\$	848,100.00
Major Maintenance	\$	180,000.00
Capital	\$	220,000.00
Total Revenue Requirements	\$	1,248,100.00
Non-Rate Revenue	\$	(26,710.00)
Rate Required Revenue	\$	1,221,390.00

Recommended July 1, 2024 through June 30, 2025 assessment:

Total Anticipated Expenses for July 1, 2024 - June 30, 2025	\$	1,221,390.00
Total Anticipated Funds Needed	\$	<u>1,221,390.00</u>

TOTAL RECOMMENDED ASSESSMENT

\$ 1,221,390.00

Billings are to be at the end of the calendar quarters.

Prepared by: Leo Lease Date: 4/10/2024
Leo Lease - Senior Financial Analyst

Approved by: _____ Date: _____
Gary Nigro - Manager, Water Resources Commissioner

SPECIAL ASSESSMENT ROLL FOR THE MAINTENANCE OF THE ACACIA PARK CSO DRAIN

Public Corporation	Percentage of Apportionment	Total Amount of Assessment
Village of Beverly Hills	68.16%	\$ 832,499.42
City of Birmingham	28.83%	\$ 352,126.74
County of Oakland	3.01%	\$ 36,763.84
Total	100.00%	\$ 1,221,390.00

Assessment Due Date: To be collected on the following quarters: 9/30/2024, 12/31/2024, 3/31/2025 and 6/30/2025.

I hereby certify that I have prepared the Special Assessment Roll for the Maintenance of the Acacia Park CSO Drain for the period July 1, 2024 through June 30, 2025 in accordance with the direction of the Drainage Board and the statutory provisions applicable thereto.

Jim Nash
Chairman of the Drainage Board for the Acacia Park CSO Drain

The foregoing Special Assessment Roll for the maintenance of the Acacia Park CSO Drain was approved by the Drainage Board on _____.

Jim Nash
Chairman of the Drainage Board for the Acacia Park CSO Drain

MEMO TO: Mr. Jim Nash, Chairman
of the Drainage Board for the ACACIA PARK CSO DRAIN

FROM: Shawn Phelps, Chief of Fiscal Services
OCWRC Accounting

HP for Shawn Phelps

DATE: April 23, 2024

SUBJECT: Request for Reimbursement of Evergreen Farmington Fund

The following is a detail of charges paid from the Evergreen Farmington Fund for the period ending April 17, 2024.

<u>Date</u>	<u>Ref No.</u>	<u>For</u>	<u>Amount</u>
01/31/24	JE# 023585	Jan 2024 Storm Water Flow Charges	\$34,506.42
02/29/24	JE# 024589	Feb 2024 Storm Water Flow Charges	34,506.42
03/31/24	JE# 025557	Mar 2024 Storm Water Flow Charges	34,506.42
		Total	<u>\$103,519.26</u>

MEMO TO: Mr. Jim Nash, Chairman
of the Drainage Board for the ACACIA PARK CSO DRAIN

FROM: Shawn Phelps, Chief of Fiscal Services 
OCWRC Accounting

DATE: April 23, 2024

SUBJECT: Request for Approval of Invoices

The following is a detail of Maintenance charges paid from the Drain Revolving Fund and Invoices
for the period ending April 17, 2024

G/L Date	Ref No.	Paid To	For	Amount
4/1/2024	V # SIN00250996	Weiss Construction Co LLC	Invoice # Estimate No 1 PRJ-17317 - Contracted Services - Proj 1-7317	\$ 115,624.00
			Total Project 1-7317	<u>\$ 115,624.00</u>

3. Birmingham CSO

AGENDA

DRAINAGE BOARD FOR THE BIRMINGHAM CSO DRAIN

April 23, 2024

1. Call meeting to order
2. Approve minutes of meeting of March 26, 2024
3. Public Comments
4. Present Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$1,264,100.00
5. Present request for reimbursement of the Evergreen Farmington Fund in the amount of \$109,761.51
6. Present request for Board approval of payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$14,513.02
7. Other business
8. Approve pro rata payment to Drainage Board members
9. Adjourn

**MINUTES OF THE MEETING OF THE DRAINAGE BOARD
FOR THE BIRMINGHAM CSO DRAIN**

March 26, 2024

A meeting of the Drainage Board for the Birmingham CSO Drain was held in the office of the Oakland County Water Resources Commissioner, Public Works Building, One Public Works Drive, Waterford, Michigan at 2:00 p.m. on the 26th day of March 2024.

The meeting was called to order by the Chairperson.

PRESENT: Jim Nash, Oakland County Water Resources Commissioner

Gwen Markham, Chairperson of the Finance Committee, Oakland County Board of Commissioners

ABSENT: David Woodward, Chairperson of the Oakland County Board of Commissioners

Minutes of the meeting held February 27, 2024, were presented for consideration. It was moved by Markham, supported by Nash, that the minutes be approved.

ADOPTED: Yeas - 2
Nays - 0

Chairperson Nash asked if there were any public comments. There were none.

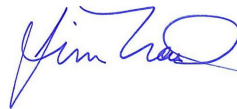
A request for approval of payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$8,552.11 (as attached) was presented. It was moved by Markham, supported by Nash, to approve the payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$8,552.11.

ADOPTED: Yeas - 2
Nays - 0

It was moved by Nash, supported by Markham, to certify attendance and authorize pro rata payment of \$25 per day to Ms. Markham.

ADOPTED: Yeas - 2
Nays - 0

There being no further business, the meeting was adjourned.

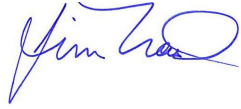


Jim Nash, Chairperson

STATE OF MICHIGAN)
)SS.
COUNTY OF OAKLAND)

I, the undersigned, do hereby certify that the foregoing is a true and complete copy of the minutes of the Drainage Board for the Birmingham CSO Drain, Oakland County, Michigan, held on the 26th day of March 2024, and that the minutes are on file in the office of the Oakland County Water Resources Commissioner and are available to the public.

I further certify that the notice of the meeting was posted at least 18 hours in advance of the meeting at the office of the Oakland County Water Resources Commissioner which is the principal office of the Drainage Board for Birmingham CSO Drain Drainage District.



Jim Nash, Chairperson

Dated: March 26, 2024

OAKLAND COUNTY WATER RESOURCES COMMISSIONER

MAINTENANCE ASSESSMENT RECOMMENDATION FOR THE

Birmingham CSO Drain

Assessment for the following year of expenses: July 1, 2024 through June 30, 2025

Last Assessment (\$):	\$	1,090,020.00
Date last assessment approved:		5/23/23
Unreserved and Undesignated Fund Balance as of 2/29/24	\$	44,962.25
Capital Improvement Reserves as of 2/29/24		138,380.95
Major Maintenance Reserves as of 2/29/24		336,916.54
CSO Equipment Reserves (MDEQ) as of 2/29/24		480,000.00
Reserves for Encumbrances as of 2/29/24		0.00
Total Fund Balance at 2/29/2024	\$	<u>1,000,259.74</u>

OPERATIONS, MAINTENANCE & REPLACEMENT BUDGET for July 1, 2024 through June 30, 2025

Operating Expenses

Sewage Treatment	\$	468,410.00
Sewer System Maintenance	\$	39,710.00
Sewer System Engineering	\$	23,960.00
Pump Maintenance Unit	\$	326,370.00
System Control Unit	\$	10,300.00
Laboratory	\$	1,990.00
Mapping Unit	\$	4,110.00
General and Administrative	\$	51,370.00
Total Operating Expenses	\$	926,220.00

Revenue Requirements

Operating Expense	\$	926,220.00
Major Maintenance	\$	190,000.00
Capital	\$	165,000.00
Total Reserves	\$	1,281,220.00
Non-Rate Revenue	\$	(17,120.00)
Grand Total	\$	1,264,100.00

Recommended July 1, 2024 through June 30, 2025 assessment:

Total Anticipated Expenses for July 1, 2024 - June 30, 2025	\$	1,264,100.00
Total Anticipated Funds Needed	\$	<u>1,264,100.00</u>

TOTAL RECOMMENDED ASSESSMENT

\$ 1,264,100.00

Billings are to be at the end of the calendar quarters.

Prepared by: Leo Lease
Leo Lease - Senior Financial Analyst

Date: 4/10/2024

Approved by: _____
Gary Nigro - Manager, Water Resources Commissioner

Date: _____

SPECIAL ASSESSMENT ROLL FOR THE MAINTENANCE OF THE BIRMINGHAM CSO DRAIN

Public Corporation	Percentage of Apportionment	Total Amount of Assessment
City of Birmingham	96.86%	\$ 1,224,407.26
County of Oakland	0.29%	\$ 3,665.89
State of Michigan	2.85%	\$ 36,026.85
Total	100.00%	\$ 1,264,100.00

Assessment Due Date: To be collected on the following quarters: 9/30/2024, 12/31/2024, 3/31/2025 and 6/30/2025.

I hereby certify that I have prepared the Special Assessment Roll for the Maintenance of the Birmingham CSO Drain for the period July 1, 2024 through June 30, 2025 in accordance with the direction of the Drainage Board and the statutory provisions applicable thereto.

Jim Nash
Chairman of the Drainage Board for the Birmingham CSO Drain

The foregoing Special Assessment Roll for the maintenance of the Birmingham CSO Drain was approved by the Drainage Board on _____.

Jim Nash
Chairman of the Drainage Board for the Birmingham CSO Drain

MEMO TO: Mr. Jim Nash, Chairman
of the Drainage Board for the BIRMINGHAM CSO DRAIN

FROM: Shawn Phelps, Chief of Fiscal Services *SP for Shawn Phelps*
OCWRC Accounting

DATE: April 23, 2024

SUBJECT: Request for Reimbursement of Evergreen Farmington Fund

The following is a detail of charges paid from the Evergreen Farmington Fund for the period ending April 17, 2024.

<u>Date</u>	<u>Ref No.</u>	<u>For</u>	<u>Amount</u>
01/31/24	JE# 023585	Jan 2024 Storm Water Flow Charges	\$36,587.17
02/29/24	JE# 024589	Feb 2024 Storm Water Flow Charges	36,587.17
03/31/24	JE# 025557	Mar 2024 Storm Water Flow Charges	36,587.17
		Total	<u>\$109,761.51</u>

MEMO TO: Mr. Jim Nash, Chairman
of the Drainage Board for the BIRMINGHAM CSO DRAIN

FROM: Shawn Phelps, Chief of Fiscal Services
OCWRC Accounting *HP for Shawn Phelps*

DATE: April 23, 2024

SUBJECT: Request for Approval of Invoices

The following is a detail of Maintenance charges paid from the Drain Revolving Fund and Invoices
for the period ending April 17, 2024

G/L Date	Ref No.	Paid To	For	Amount
4/15/2024	V # SINV00254762	JCI Jones Chemical Inc	Invoice # 937509 - Chlorination Supplies	\$ 10,501.25
			Total	\$ 10,501.25
4/1/2024	V # SINV00251021	Shaw Service & Maintenance	Invoice # 910010925 - Contracted Services - Proj 1-6097	\$ 4,011.77
			Total Project 1-6097	\$ 4,011.77
			Grand Total	\$ 14,513.02

4. Bloomfield Village CSO

AGENDA

DRAINAGE BOARD FOR THE BLOOMFIELD VILLAGE CSO DRAIN

April 23, 2024

1. Call meeting to order
2. Approve minutes of meeting of March 26, 2024
3. Public Comments
4. Present Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$2,079,140.00
5. Present request for reimbursement of the Evergreen Farmington Fund in the amount of \$140,973.00
6. Present request for Board approval of payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$15,966.74
7. Other business
8. Approve pro rata payment to Drainage Board members
9. Adjourn

**MINUTES OF THE MEETING OF THE DRAINAGE BOARD
FOR THE BLOOMFIELD VILLAGE CSO DRAIN**

March 26, 2024

A meeting of the Drainage Board for the Bloomfield Village CSO Drain was held in the office of the Oakland County Water Resources Commissioner, Public Works Building, One Public Works Drive, Waterford, Michigan at 2:00 p.m. on the 26th day of March 2024.

The meeting was called to order by the Chairperson.

PRESENT: Jim Nash, Oakland County Water Resources Commissioner

Gwen Markham, Chairperson of the Finance Committee, Oakland County Board of Commissioners

ABSENT: David Woodward, Chairperson of the Oakland County Board of Commissioners

Minutes of the meeting held February 27, 2024, were presented for consideration. It was moved by Markham, supported by Nash, that the minutes be approved.

ADOPTED: Yeas - 2
Nays - 0

Chairperson Nash asked if there were any public comments. There were none.

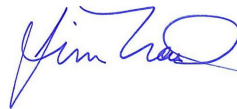
A request for approval of payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$38,162.38 (as attached) was presented. It was moved by Markham, supported by Nash, to approve the payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$38,162.38.

ADOPTED: Yeas - 2
Nays - 0

It was moved by Nash, supported by Markham, to certify attendance and authorize pro rata payment of \$25 per day to Ms. Markham.

ADOPTED: Yeas - 2
Nays - 0

There being no further business, the meeting was adjourned.

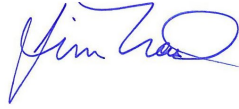


Jim Nash, Chairperson

STATE OF MICHIGAN)
)SS.
COUNTY OF OAKLAND)

I, the undersigned, do hereby certify that the foregoing is a true and complete copy of the minutes of the Drainage Board for the Bloomfield Village CSO Drain, Oakland County, Michigan, held on the 26th day of March 2024, and that the minutes are on file in the office of the Oakland County Water Resources Commissioner and are available to the public.

I further certify that the notice of the meeting was posted at least 18 hours in advance of the meeting at the office of the Oakland County Water Resources Commissioner which is the principal office of the Drainage Board for Bloomfield Village CSO Drain Drainage District.



Jim Nash, Chairperson

Dated: March 26, 2024

OAKLAND COUNTY WATER RESOURCES COMMISSIONER

MAINTENANCE ASSESSMENT RECOMMENDATION FOR THE

Bloomfield Village CSO Drain

Assessment for the following year of expenses: July 1, 2024 through June 30, 2025

Last Assessment (\$):	\$	1,943,690.00
Date last assessment approved:		5/23/23
Unreserved and Undesignated Fund Balance as of 2/29/24	\$	(180,545.22)
Capital Improvement Reserves as of 2/29/24		(12,083.10)
Major Maintenance Reserves as of 2/29/24		310,407.45
CSO Equipment Reserves (MDEQ) as of 2/29/24		480,000.00
Reserves for Encumbrances as of 2/29/24		0.00
Total Fund Balance at 2/29/2024	\$	<u>597,779.13</u>

OPERATIONS, MAINTENANCE & REPLACEMENT BUDGET for July 1, 2024 through June 30, 2025

Operating Expenses

Sewage Treatment	\$	585,220.00
Sewer System Maintenance	\$	60,760.00
Sewer System Engineering	\$	37,290.00
Pump Maintenance Unit	\$	347,800.00
Systems Control Unit	\$	10,630.00
Laboratory	\$	2,730.00
Mapping Unit	\$	1,610.00
General and Administrative	\$	58,280.00
Total Operating Expenses	\$	1,104,320.00

Revenue Requirements

Operating Expense	\$	1,104,320.00
Major Maintenance	\$	330,000.00
Capital	\$	660,000.00
Total Revenue Requirements	\$	2,094,320.00
Non-Rate Revenue	\$	(15,180.00)
Rate Required Revenue	\$	2,079,140.00

Recommended July 1, 2024 through June 30, 2025 assessment:

Total Anticipated Expenses for July 1, 2024 - June 30, 2025	\$	2,079,140.00
Total Anticipated Funds Needed	\$	<u>2,079,140.00</u>

TOTAL RECOMMENDED ASSESSMENT

\$ 2,079,140.00

Billings are to be at the end of the calendar quarters.

Prepared by: Leo Lease Date: 4/10/2024
Leo Lease - Senior Financial Analyst

Approved by: _____ Date: _____
Gary Nigro - Manager, Water Resources Commissioner

SPECIAL ASSESSMENT ROLL FOR THE MAINTENANCE OF THE BLOOMFIELD VILLAGE CSO DRAIN

Public Corporation	Percentage of Apportionment	Total Amount of Assessment
City of Birmingham	22.095%	\$ 459,385.98
Charter Township of Bloomfield	54.830%	\$ 1,139,992.46
City of Bloomfield Hills	6.784%	\$ 141,048.86
County of Oakland	16.291%	\$ 338,712.70
<hr/>		
Total	100.000%	\$ 2,079,140.00

Assessment Due Date: To be collected on the following quarters: 9/30/2024, 12/31/2024, 3/31/2025 and 6/30/2025.

I hereby certify that I have prepared the Special Assessment Roll for the Maintenance of the Bloomfield Village CSO Drain for the period July 1, 2024 through June 30, 2025 in accordance with the direction of the Drainage Board and the statutory provisions applicable thereto.

 Jim Nash
 Chairman of the Drainage Board for the Bloomfield Village CSO Drain

The foregoing Special Assessment Roll for the maintenance of the Bloomfield Village CSO Drain was approved by the Drainage Board on _____.

 Jim Nash
 Chairman of the Drainage Board for the Bloomfield Village CSO Drain

MEMO TO: Mr. Jim Nash, Chairman
of the Drainage Board for the BLOOMFIELD VILLAGE CSO DRAIN

FROM: Shawn Phelps, Chief of Fiscal Services *HP for Shawn Phelps*
OCWRC Accounting

DATE: April 23, 2024

SUBJECT: Request for Reimbursement of Evergreen Farmington Fund

The following is a detail of charges paid from the Evergreen Farmington Fund for the period ending April 15, 2024.

<u>Date</u>	<u>Ref No.</u>	<u>For</u>	<u>Amount</u>
01/31/24	JE# 023585	Jan 2024 Storm Water Flow Charges	\$46,991.00
02/29/24	JE# 024589	Feb 2024 Storm Water Flow Charges	46,991.00
03/31/24	JE# 025557	Mar 2024 Storm Water Flow Charges	46,991.00
		Total	<u>\$140,973.00</u>

MEMO TO: Mr. Jim Nash, Chairman
of the Drainage Board for the BLOOMFIELD VILLAGE CSO DRAIN

FROM: Shawn Phelps, Chief of Fiscal Services
OCWRC Accounting

 for Shawn Phelps

DATE: April 23, 2024

SUBJECT: Request for Approval of Invoices

The following is a detail of Maintenance charges paid from the Drain Revolving Fund and Invoices for the period ending April 17, 2024

G/L Date	Ref No.	Paid To	For	Amount
4/4/2024	V # SIN00254764	Kennedy Industries Inc	Invoice # 641322 - Contract Services	\$ 15,966.74
			Total	\$ 15,966.74

5. George W. Kuhn Drain

AGENDA

DRAINAGE BOARD FOR THE GEORGE W. KUHN DRAIN

April 23, 2024

1. Call meeting to order
2. Approve minutes of meeting of March 26, 2024
3. Public Comments
4. Present Memorandum from Gary Nigro, P.E., Manager, dated April 23, 2024, requesting the Board approve the rates and charges for the rate year beginning July 1, 2024
5. Present Memorandum from Lynne Seymour, P.E., Chief Engineer, dated April 23, 2024, requesting the Board authorize the hiring of Drummond Carpenter, PLLC to prepare the Environmental Protection Agency Community Change grant application for a not-to-exceed price of \$50,456
6. Present Memorandum from Stephanie Petriello, Environmental Planner, requesting the Board award the construction contract with Michigan Lawn Maintenance, Inc. doing business as Sherman Nursery Farms for a not-to-exceed price of \$123,107.62
7. Present request for Board approval of payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$205,063.16
8. Other business
9. Approve pro rata payment to Drainage Board members
10. Adjourn

**MINUTES OF THE MEETING OF THE DRAINAGE BOARD
FOR THE GEORGE W. KUHN DRAIN**

March 26, 2024

A meeting of the Drainage Board for the George W. Kuhn Drain was held in the office of the Oakland County Water Resources Commissioner, Public Works Building, One Public Works Drive, Waterford, Michigan at 2:00 p.m. on the 26th day of March 2024.

The meeting was called to order by the Chairperson.

PRESENT: Jim Nash, Oakland County Water Resources Commissioner

Gwen Markham, Chairperson of the Finance Committee, Oakland County Board of Commissioners

ABSENT: David Woodward, Chairperson of the Oakland County Board of Commissioners

Minutes of the meeting held February 27, 2024, were presented for consideration. It was moved by Markham, supported by Nash, that the minutes be approved.

ADOPTED: Yeas - 2
Nays - 0

Chairperson Nash asked if there were any public comments. There were none.

A memorandum George Nichols, P.E., Assistant Chief Engineer, dated March 26, 2024, requesting the Board retain the services of Hubbell, Roth & Clark for the not-to-exceed amount of \$49,950 and authorize the Chairperson to sign the proposal on behalf of the Drainage Board was presented. It was moved by Markham, supported by Nash, to authorize the retention of services from Hubbell, Roth & Clark for the not-to-exceed amount of \$49,950 as presented and authorize the Chairperson to sign the proposal on behalf of the Drainage Board.

ADOPTED: Yeas - 2
Nays - 0

A memorandum from George Nichols, P.E., Assistant Chief Engineer, dated March 26, 2024, requesting the Board award the construction contract to Pipeline Management Company in the amount of \$510,522.20 and authorize the Chairperson to execute the contract was presented. It was moved by Markham, supported by Nash, to award the construction contract to Pipeline Management Company in the amount of \$510,522.20 and authorize the Chairperson to execute the contract as presented.

ADOPTED: Yeas - 2
Nays - 0

A memorandum from Stephanie Petriello, Environmental Planner, dated March 26, 2024, requesting the Board authorize the Chairperson to execute the construction contact

with TSP Services, Inc. for a not-to-exceed price of \$395,392 and increase the GWK Parking Lot and Green Infrastructure project budget by \$550,000 was presented. It was moved by Markham, supported by Nash, to authorize the Chairperson to execute the construction contact with TSP Services, Inc. for a not-to-exceed price of \$395,392 and increase the GWK Parking Lot and Green Infrastructure project budget by \$550,000 as presented.

ADOPTED: Yeas - 2
Nays - 0

Construction Estimate No. 1 for Doetsch Environmental Services for Construction of the 2023 GWK Sewer Cleaning and Inspection in the amount of \$344,846.09 with a transfer to the Oakland County Treasurer in the amount of \$34,277.66 was presented. It was moved by Markham, supported by Nash, to approve Construction Estimate No. 1 for Doetsch Environmental Services for Construction of the 2023 GWK Sewer Cleaning and Inspection in the amount of \$344,846.09 with a transfer to the Oakland County Treasurer in the amount of \$34,277.66 as presented.

ADOPTED: Yeas - 2
Nays - 0

A request for approval of payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$198,096.78 (as attached) was presented. It was moved by Markham, supported by Nash, to approve the payment of invoices and/or reimbursement of the Drain Revolving Fund in the amount of \$198,096.78.

ADOPTED: Yeas - 2
Nays - 0

A motion was made by Markham, supported by Nash, to enter into closed session at 2:18 p.m. to consider material exempt from discussion or disclosure as subject active litigation pursuant to section 8(e) of the Freedom of Information Act.

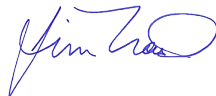
ADOPTED: Yeas - 2
Nays - 0

Chairperson Nash declared the closed session ended at 3:07 p.m.

It was moved by Nash, supported by Markham, to certify attendance and authorize pro rata payment of \$25 per day to Ms. Markham.

ADOPTED: Yeas - 2
Nays - 0

There being no further business, the meeting was adjourned.

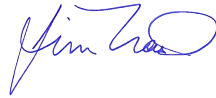


Jim Nash, Chairperson

STATE OF MICHIGAN)
)SS.
COUNTY OF OAKLAND)

I, the undersigned, do hereby certify that the foregoing is a true and complete copy of the minutes of the Drainage Board for the George W. Kuhn Drain, Oakland County, Michigan, held on the 26th day of March 2024, and that the minutes are on file in the office of the Oakland County Water Resources Commissioner and are available to the public.

I further certify that the notice of the meeting was posted at least 18 hours in advance of the meeting at the office of the Oakland County Water Resources Commissioner which is the principal office of the Drainage Board for George W. Kuhn Drain Drainage District.



Jim Nash, Chairperson

Dated: March 26, 2024

**OAKLAND COUNTY
WATER RESOURCES COMMISSIONER****MEMORANDUM**

TO: Jim Nash, Chairperson
George W. Kuhn Drain Drainage District

FROM: Gary Nigro, P.E., Manager

SUBJECT: FY 2024-2025 Rate Recommendation

DATE: April 23, 2024

The purpose of this memorandum is to communicate a recommendation to the Board of the George W. Kuhn Drain Drainage District (GWK) detailing the proposed monthly charges to our customer communities based on approved Great Lakes Water Authority (GLWA) monthly charges for its fiscal 2024-25 rate year.

The attached monthly charges were presented to the GWK customer communities on April 16, 2024. Community representatives were advised that we would continue to follow the rate share calculation based on a five-year average of water volume to determine each community's monthly sewage charge. These percentages are reviewed annually during the rate-setting process. The stormwater charge continues to be based on the apportionment percentages previously adopted by the Board. The revised monthly charges for services will be billed effective July 2024.

Increases in operating, major maintenance, and capital improvement expenses result in an overall 2.6% increase from the previous year for combined sewage and stormwater charges. Please refer to the attached Schedule of Rates and Charges for a list of charges for each community. Detailed worksheets, including a Financial Summary, Monthly Charge Schedule, and Share and Monthly Charge Comparison, are also attached.

Recommended Action: Approve the rates and charges for the rate year beginning July 1, 2024, as presented.

Great Lakes Water Authority
Proposed FY 2025 Sewage Disposal System Service Charges and Allocated Revenue Requirements
Proposed Effective Date: July 1, 2024

Line No.	Suburban Wholesale	Contract	Fixed Monthly Charge	Projected Revenue from Charges
			<u>\$/mo</u>	<u>\$</u>
1	OMID	<i>Model</i>	6,242,500	74,910,000
2	Rouge Valley	<i>Older</i>	4,820,700	57,848,400
3	Oakland GWK	<i>Older</i>	4,025,800	48,309,600
4	Evergreen Farmington	<i>Model</i>	3,159,400	37,912,800
5	SE Macomb San Dist	<i>Model</i>	2,175,000	26,100,000
6	Dearborn	<i>Model</i>	1,791,400	21,496,800
7	Grosse Pointe Farms	<i>Older</i>	232,500	2,790,000
8	Grosse Pointe Park	<i>Model</i>	165,900	1,990,800
9	Melvindale	<i>Model</i>	137,100	1,645,200
10	Farmington	<i>Model</i>	104,500	1,254,000
11	Center Line	<i>Model</i>	91,500	1,098,000
12	Allen Park	<i>Model</i>	73,600	883,200
13	Grosse Pointe	<i>Model</i>	102,200	1,226,400
14	Highland Park	<i>Older</i>	415,100	4,981,200
15	Hamtramck	<i>Model</i>	374,800	4,497,600
16	Harper Woods	<i>Model</i>	14,200	170,400
17	Redford Township	<i>Model</i>	29,400	352,800
18	Wayne County #3	<i>Older</i>	4,200	50,400
19	Subtotal "Regional Wholesale Revenues from Charges"			287,517,600
20	Industrial Specific Revenues			14,153,700
21	Subtotal "Regional Wholesale Revenues from Charges" (a)			301,671,300
	Detroit Customer Class - \$			
22	Wholesale Revenue Requirement (c)			211,440,800
23	less: Ownership Benefit per Lease			-5,516,000
24	Net Wholesale Revenue Requirement			205,924,800
25	Indirect Retail Revenue Requirements (d)			34,873,500
26	less: Use of Lease Payment for Debt Service			-1,166,800
27	Net Indirect Retail Revenue Requirements (d)			33,706,700
28	Subtotal Subject to GLWA Board Approval (24) + (27)			239,631,500
29	Direct Retail Revenue Requirements (e)			57,986,800
30	Total Local System Revenue Requirement (27) + (29)			91,693,500
31	Total Requirement from Detroit Customer Class (a)			297,618,300
(a)	<i>Agrees with "GLWA Budget Schedule 3"</i>			
(b)	<i>Reserved</i>			
(c)	<i>Wholesale revenue requirements for the Detroit Customer Class.</i>			
(d)	<i>Local System revenue requirements related to Master Bond Ordinance (local debt service, etc.)</i>			
(e)	<i>Local System operating expenses (net of shared services reimbursement) and I&E deposit. Not Subject to GLWA Board approval.</i>			
(d)&(e)	<i>Local System information provided from Detroit Water & Sewerage Department as of December 15, 2023.</i>			

**Great Lakes Water Authority
Approved FY 2025 Sewage Disposal System
Industrial Specific Retail Charges
Effective Date: July 1, 2024**

Industrial Waste Control Charges

Meter Size	Full Charge	Admin Only Charge
inches	\$/mo	\$/mo
5/8	3.72	0.93
3/4	5.58	1.40
1	9.30	2.33
1-1/2	20.46	5.12
2	29.76	7.44
3	53.94	13.49
4	74.40	18.60
6	111.60	27.90
8	186.00	46.50
10	260.40	65.10
12	297.60	74.40
14	372.00	93.00
16	446.40	111.60
18	520.80	130.20
20	595.20	148.80
24	669.60	167.40
30	744.00	186.00
36	818.40	204.60
48	892.80	223.20

Pollutant Surcharges

Pollutant	Charge
	\$/lb
BIOCHEMICAL OXYGEN DEMAND (BOD) for concentrations > 275 mg/l	0.392
TOTAL SUSPENDED SOLIDS (TSS) for concentrations > 350 mg/l	0.525
PHOSPHORUS (P) for concentrations > 12 mg/l	7.571
FATS, OIL AND GREASE (FOG) for concentrations > 100 mg/l	0.125
SEPTAGE DISPOSAL FEE Per 500 gallons of disposal	38.00

George W. Kuhn Sewage and Twelve Towns
58510 and 58530
Financial Summary

	2023 Actual	2024 Budget	2025 Forecast	Inc / (Dec)	% Variance
<u>Operating Revenues</u>					
Operating Rate Revenue	\$ 23,920,220.13	\$ 23,895,260.00	\$ 25,030,420.00	\$ 1,135,160.00	4.8%
Operating Non-Rate Revenue	437,270.55	115,720.00	299,040.00	183,320.00	158.4%
Operating Revenues	<u>\$ 24,357,490.68</u>	<u>\$ 24,010,980.00</u>	<u>\$ 25,329,460.00</u>	<u>\$ 1,318,480.00</u>	<u>5.5%</u>
<u>Operating Expenses</u>					
Sewage Treatment	\$ 21,778,294.50	\$ 21,873,920.00	\$ 22,705,510.00	\$ 831,590.00	3.8%
Sewer System Maintenance	319,278.85	276,010.00	347,090.00	71,080.00	25.8%
Sewer System Engineering	74,779.35	85,670.00	68,520.00	(17,150.00)	-20.0%
Water Purchases	-	-	-	-	
Water Maintenance Unit	-	-	-	-	
Water Systems Engineering	-	-	-	-	
Septage Unloading Facility	-	-	-	-	
Pump Maintenance Unit	22,991.26	16,380.00	22,550.00	6,170.00	37.7%
Systems Control Unit	144,035.26	192,330.00	188,480.00	(3,850.00)	-2.0%
Plan Review and Permitting	165,246.27	112,810.00	136,300.00	23,490.00	20.8%
Inspection	3,920.48	7,230.00	5,290.00	(1,940.00)	-26.8%
IPP	13,212.44	-	11,510.00	11,510.00	
Laboratory	-	-	-	-	
Mapping Unit	12,111.26	19,300.00	15,330.00	(3,970.00)	-20.6%
Miss Dig	-	1,270.00	590.00	(680.00)	-53.5%
Billing Services Unit	-	-	-	-	
General and Administrative	1,718,634.29	1,426,060.00	1,828,290.00	402,230.00	28.2%
Total Operating Expenses	<u>24,252,503.96</u>	<u>24,010,980.00</u>	<u>25,329,460.00</u>	<u>1,318,480.00</u>	<u>5.5%</u>
Net Income	<u>\$ 104,986.72</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	
Depreciation	-	-	-	-	
<u>Reserves</u>					
Non-Operating Revenue	\$ 450,000.03	\$ 300,000.00	\$ 130,000.00	\$ (170,000.00)	-56.7%
Non-Operating Expense	-	-	-	-	
Major Maintenance Reserve Revenue	1,056,762.18	1,179,000.00	1,179,000.00	-	0.0%
Major Maintenance Reserve Expense	(497,265.16)	(1,376,230.00)	(2,638,990.00)	(1,262,760.00)	91.8%
Emergency Reserve Revenue	99,999.99	100,000.00	100,000.00	-	0.0%
Emergency Reserve Expense	-	-	-	-	
Capital Reserve Revenue	1,390,500.18	1,390,500.00	1,600,000.00	209,500.00	15.1%
Capital Reserve Expense	(53,043.86)	(1,411,440.00)	(1,905,460.00)	(494,020.00)	35.0%
Change in Net Assets	<u>\$ 2,551,940.08</u>	<u>\$ 181,830.00</u>	<u>\$ (1,535,450.00)</u>	<u>\$ (1,717,280.00)</u>	<u>-944.4%</u>
<u>Rate Revenue</u>					
Revenue Requirements:					
Operating Expense	\$ 24,252,503.96	\$ 24,010,980.00	\$ 25,329,460.00	\$ 1,318,480.00	5.5%
Non-Operating	450,000.03	300,000.00	130,000.00	(170,000.00)	-56.7%
Major Maintenance	1,056,762.18	1,179,000.00	1,179,000.00	-	0.0%
Emergency Maintenance	99,999.99	100,000.00	100,000.00	-	0.0%
Capital	1,390,500.18	1,390,500.00	1,600,000.00	209,500.00	15.1%
Total Revenue Requirements	<u>\$ 27,249,766.34</u>	<u>\$ 26,980,480.00</u>	<u>\$ 28,338,460.00</u>	<u>\$ 1,357,980.00</u>	<u>5.0%</u>
Non-Rate Revenue	<u>\$ (711,322.71)</u>	<u>\$ (294,720.00)</u>	<u>\$ (478,040.00)</u>	<u>\$ (183,320.00)</u>	<u>62.2%</u>
Rate Required Revenue	<u>\$ 26,538,443.63</u>	<u>\$ 26,685,760.00</u>	<u>\$ 27,860,420.00</u>	<u>\$ 1,174,660.00</u>	<u>4.4%</u>

George W. Kuhn Pollution Control
58520
Financial Summary

	2023 Actual	2024 Budget	2025 Forecast	Inc / (Dec)	% Variance
<u>Operating Revenues</u>					
Operating Rate Revenue	\$ 28,453,020.42	\$ 29,437,170.00	\$ 29,265,870.00	\$ (171,300.00)	-0.6%
Operating Non-Rate Revenue	529,544.77	103,960.00	285,080.00	181,120.00	174.2%
Operating Revenues	<u>\$ 28,982,565.19</u>	<u>\$ 29,541,130.00</u>	<u>\$ 29,550,950.00</u>	<u>\$ 9,820.00</u>	<u>0.0%</u>
<u>Operating Expenses</u>					
Sewage Treatment	\$ 24,843,570.26	\$ 25,883,700.00	\$ 25,710,110.00	\$ (173,590.00)	-0.7%
Sewer System Maintenance	381,764.21	326,640.00	363,620.00	36,980.00	11.3%
Sewer System Engineering	435,425.48	627,450.00	583,030.00	(44,420.00)	-7.1%
Water Purchases	-	-	-	-	
Water Maintenance Unit	-	-	-	-	
Water Systems Engineering	-	-	-	-	
Septage Unloading Facility	506.00	-	-	-	
Pump Maintenance Unit	1,490,229.36	1,498,080.00	1,620,640.00	122,560.00	8.2%
Systems Control Unit	64,343.30	67,230.00	67,870.00	640.00	1.0%
Plan Review and Permitting	-	-	-	-	
Inspection	-	350.00	350.00	-	0.0%
IPP	-	-	-	-	
Laboratory	6,051.33	11,480.00	9,560.00	(1,920.00)	-16.7%
Mapping Unit	990.51	1,970.00	2,250.00	280.00	14.2%
Miss Dig	-	-	-	-	
Billing Services Unit	-	-	-	-	
General and Administrative	1,103,659.74	1,124,230.00	1,193,520.00	69,290.00	6.2%
Total Operating Expenses	<u>28,326,540.19</u>	<u>29,541,130.00</u>	<u>29,550,950.00</u>	<u>9,820.00</u>	<u>0.0%</u>
Net Income	<u>\$ 656,025.00</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	
Depreciation	-	-	-	-	
<u>Reserves</u>					
Non-Operating Revenue	\$ 511.88	\$ -	\$ -	\$ -	
Non-Operating Expense	(75,865.46)	-	-	-	
Major Maintenance Reserve Revenue	413,702.46	700,000.00	1,200,000.00	500,000.00	71.4%
Major Maintenance Reserve Expense	(272,666.80)	(1,218,840.00)	(1,231,740.00)	(12,900.00)	1.1%
Emergency Reserve Revenue	50,000.04	50,000.00	50,000.00	-	0.0%
Emergency Reserve Expense	(13,450.51)	-	-	-	
Capital Reserve Revenue	659,770.08	1,000,000.00	1,000,000.00	-	0.0%
Capital Reserve Expense	(154,172.14)	(1,888,320.00)	(1,354,910.00)	533,410.00	-28.2%
Change in Net Assets	<u>\$ 1,263,854.55</u>	<u>\$ (1,357,160.00)</u>	<u>\$ (336,650.00)</u>	<u>\$ 1,020,510.00</u>	<u>-75.2%</u>
<u>Rate Revenue</u>					
Revenue Requirements:					
Operating Expense	\$ 28,326,540.19	\$ 29,541,130.00	\$ 29,550,950.00	\$ 9,820.00	0.0%
Non-Operating	511.88	-	-	-	
Major Maintenance	413,702.46	700,000.00	1,200,000.00	500,000.00	71.4%
Emergency Maintenance	50,000.04	50,000.00	50,000.00	-	0.0%
Capital	659,770.08	1,000,000.00	1,000,000.00	-	0.0%
Total Revenue Requirements	<u>\$ 29,450,524.65</u>	<u>\$ 31,291,130.00</u>	<u>\$ 31,800,950.00</u>	<u>\$ 509,820.00</u>	<u>1.6%</u>
Non-Rate Revenue	<u>\$ (530,056.65)</u>	<u>\$ (103,960.00)</u>	<u>\$ (285,080.00)</u>	<u>\$ (181,120.00)</u>	<u>174.2%</u>
Rate Required Revenue	<u>\$ 28,920,468.00</u>	<u>\$ 31,187,170.00</u>	<u>\$ 31,515,870.00</u>	<u>\$ 328,700.00</u>	<u>1.1%</u>

George W. Kuhn Drainage District, Effective July 1, 2024
Monthly Charge Breakdown

SEWAGE CHARGE

Flat Rate Sewage Charge	Effective July 1, 2024	
	Annual Charge	
GLWA Purchased Expense	\$	22,705,510.00
OCWRC Operating Expense		2,623,950.00
Non-Operating		130,000.00
Major Maintenance Reserve		1,000,000.00
Emergency Maintenance Reserve		100,000.00
Capital Improvement Reserve		1,600,000.00
Less: Misc. Revenue		(299,040.00)
Total:	\$	27,860,420.00

	Effective July 1, 2024	
	Annual Charge	Monthly Charge
City of Berkley	\$ 1,128,625	\$ 94,052.07
Village of Beverly Hills	78,567	6,547.24
City of Birmingham	889,305	74,108.75
City of Clawson	851,971	70,997.58
City of Ferndale	1,555,169	129,597.43
City of Hazel Park	1,112,188	92,682.35
City of Huntington Woods	525,170	43,764.15
City of Madison Heights	2,732,549	227,712.41
City of Oak Park	2,108,476	175,706.34
City of Pleasant Ridge	242,107	20,175.59
City of Royal Oak	5,508,283	459,023.57
Royal Oak Twp	236,814	19,734.48
City of Southfield	1,751,584	145,965.34
City of Troy	8,799,993	733,332.76
Detroit Zoological Park	302,565	25,213.75
County of Oakland	-	-
Rackham Golf Course	37,054	3,087.83
State Of Michigan	-	-
Total	\$ 27,860,420	\$ 2,321,701.64

George W. Kuhn Drainage District, Effective July 1, 2024
Monthly Charge Breakdown

STORM CHARGE

Flat Rate Storm Charge	Effective July 1, 2024	
	<u>Annual Charge</u>	
GLWA Purchased Expense	\$	25,710,110.00
OCWRC Operating Expense		3,840,840.00
Non-Operating		-
Major Maintenance		1,200,000.00
Emergency Maintenance		50,000.00
Capital Improvement		1,000,000.00
Less: Interest Income		<u>(285,080.00)</u>
Total:	\$	31,515,870.00

	Effective July, 1 2024	Effective July 1, 2024
	<u>Annual Charge</u>	<u>Monthly Charge</u>
City of Berkley	\$ 2,045,222	\$ 170,435.17
Village of Beverly Hills	263,756	21,979.67
City of Birmingham	1,539,141	128,261.75
City of Clawson	1,867,693	155,641.09
City of Ferndale	3,242,510	270,209.17
City of Hazel Park	710,810	59,234.17
City of Huntington Woods	777,528	64,793.99
City of Madison Heights	2,061,453	171,787.74
City of Oak Park	4,298,229	358,185.74
City of Pleasant Ridge	421,998	35,166.50
City of Royal Oak	9,361,094	780,091.16
Royal Oak Twp	402,616	33,551.33
City of Southfield	2,431,638	202,636.51
City of Troy	781,562	65,130.16
Detroit Zoological Park	106,020	8,835.00
County of Oakland	481,374	40,114.51
Rackham Golf Course	60,290	5,024.16
State Of Michigan	<u>662,936</u>	<u>55,244.68</u>
Total	\$ 31,515,870	\$ 2,626,322.50

George W. Kuhn Drainage District, Effective July 1, 2024
 Share & Monthly Charge Comparison

SEWAGE CHARGE

	FY 2023-24 (July - June)		FY 2024-25 (July - June)		% Change Mthly Charge
	Share % of System	Monthly Charge	Share % of System	Monthly Charge	
City of Berkley	4.085%	\$ 90,842.76	4.051%	\$ 94,052.07	3.5%
Village of Beverly Hills	0.271%	6,026.49	0.282%	6,547.24	8.6%
City of Birmingham	3.026%	67,292.68	3.192%	74,108.75	10.1%
City of Clawson	3.080%	68,493.42	3.058%	70,997.58	3.7%
City of Ferndale	5.697%	126,690.67	5.582%	129,597.43	2.3%
City of Hazel Park	4.025%	89,508.51	3.992%	92,682.35	3.5%
City of Huntington Woods	1.879%	41,785.49	1.885%	43,764.15	4.7%
City of Madison Heights	9.668%	214,998.34	9.808%	227,712.41	5.9%
City of Oak Park	7.668%	170,521.99	7.568%	175,706.34	3.0%
City of Pleasant Ridge	0.880%	19,569.49	0.869%	20,175.59	3.1%
City of Royal Oak	19.199%	426,949.92	19.771%	459,023.57	7.5%
Royal Oak Twp	0.881%	19,591.75	0.850%	19,734.48	0.7%
City of Southfield	6.451%	143,458.15	6.287%	145,965.34	1.7%
City of Troy	31.968%	710,908.67	31.586%	733,332.76	3.2%
Detroit Zoological Park	1.096%	24,373.00	1.086%	25,213.75	3.4%
County of Oakland	-	-	-	-	-
Rackham Golf Course	0.126%	2,802.00	0.133%	3,087.83	10.2%
State Of Michigan	-	-	-	-	-
Total	100.00%	\$ 2,223,813.33	100.00%	\$ 2,321,701.64	4.4%

Charges have been rounded

George W. Kuhn Drainage District, Effective July 1, 2024

Share & Monthly Charge Comparison

STORM CHARGE

	FY 2023-24 (July - June)		FY 2024-25 (July - June)		% Change Mthly Charge
	Share % of System	Monthly Charge	Share % of System	Monthly Charge	
City of Berkley	6.4895%	\$ 168,657.67	6.4895%	\$ 170,435.17	1.1%
Village of Beverly Hills	0.8369%	21,750.42	0.8369%	21,979.67	1.1%
City of Birmingham	4.8837%	126,924.00	4.8837%	128,261.75	1.1%
City of Clawson	5.9262%	154,017.84	5.9262%	155,641.09	1.1%
City of Ferndale	10.2885%	267,391.00	10.2885%	270,209.17	1.1%
City of Hazel Park	2.2554%	58,616.34	2.2554%	59,234.17	1.1%
City of Huntington Woods	2.4671%	64,118.17	2.4671%	64,793.99	1.1%
City of Madison Heights	6.5410%	169,996.07	6.5410%	171,787.74	1.1%
City of Oak Park	13.6383%	354,450.00	13.6383%	358,185.74	1.1%
City of Pleasant Ridge	1.3390%	34,799.74	1.3390%	35,166.50	1.1%
City of Royal Oak	29.7028%	771,955.16	29.7028%	780,091.16	1.1%
Royal Oak Twp	1.2775%	33,201.41	1.2775%	33,551.33	1.1%
City of Southfield	7.7156%	200,523.08	7.7156%	202,636.51	1.1%
City of Troy	2.4799%	64,450.82	2.4799%	65,130.16	1.1%
Detroit Zoological Park	0.3364%	8,742.83	0.3364%	8,835.00	1.1%
County of Oakland	1.5274%	39,696.08	1.5274%	40,114.51	1.1%
Rackham Golf Course	0.1913%	4,971.67	0.1913%	5,024.16	1.1%
State Of Michigan	2.1035%	54,668.51	2.1035%	55,244.68	1.1%
Total	100.00%	\$ 2,598,930.81	100.00%	\$ 2,626,322.50	1.1%

Charges have been rounded

**OAKLAND COUNTY WATER RESOURCES COMMISSIONER
 GEORGE W. KUHN DRAINAGE DISTRICT
 SCHEDULE OF RATES AND CHARGES, EFFECTIVE JULY 1, 2024**

1. **Sewage Disposal Charge**

<u>Municipality</u>	Effective July 1, 2024 <u>Monthly</u>
City of Berkley	\$ 94,052.07
Village of Beverly Hills	6,547.24
City of Birmingham	74,108.75
City of Clawson	70,997.58
City of Ferndale	129,597.43
City of Hazel Park	92,682.35
City of Huntington Woods	43,764.15
City of Madison Heights	227,712.41
City of Oak Park	175,706.34
City of Pleasant Ridge	20,175.59
City of Royal Oak	459,023.57
Royal Oak Twp	19,734.48
City of Southfield	145,965.34
City of Troy	733,332.76
Detroit Zoological Park	25,213.75
County of Oakland	-
Rackham Golf Course	3,087.83
State Of Michigan	-
Total:	<u><u>\$ 2,321,701.64</u></u>

Where communities have individual sewer customers with metered sewage, permitted and approved by the Oakland County Water Resources Commissioner (WRC), then each community shall also report, within ten days following the end of each month, the total metered sewage within the community, in lieu of water consumption.

2. Pollutant Surcharge - APPROVED BY GLWA

A Pollutant Surcharge shall be levied against industrial and commercial customers contributing sewage to the system with concentrations of pollutants exceeding the levels described as follows:

- A. 275 milligrams per liter (mg/l) of Biochemical Oxygen Demand (BOD)
- B. 350 milligrams per liter (mg/l) of Total Suspended Solids (TSS)
- C. 12 milligrams per liter (mg/l) of Phosphorus (P)
- D. 100 milligrams per liter (mg/l) of Fats, Oils & Grease (FOG)

<u>Pollutant</u>	Effective July 1, 2024 Total Charge Per lb. of Excess Pollutants
Biochemical Oxygen Demand (BOD)	\$ 0.392
Total Suspended Solids (TSS)	0.525
Phosphorus (PHOS)	7.571
Fats, Oils & Grease (FOG)	0.125

It is assumed that normal residential customers do not contribute sewage with concentration of pollutants exceeding the above levels, therefore, the Pollutant Surcharge shall not apply to residential customers. Further, restaurants shall also be exempt from Pollutant Surcharge per the federal court "Second Interim Order", dated July 10, 1981.

3. Industrial Waste Control Charge - APPROVED BY GLWA

Based on the reported number of water meter sizes for non-residential users of the System, each community shall pay a monthly Industrial Waste Control Charge (IWC) in accordance with the following schedule:

Non-Residential Meter Size in Inches	Effective July 1, 2024 \$/Month
5/8	\$ 3.72
3/4	5.58
1	9.30
1 1/2	20.46
2	29.76
3	53.94
4	74.40
6	111.60
8	186.00
10	260.40
12	297.60
14	372.00
16	446.40
18	520.80
20	595.20
24	669.60
30	744.00
36	818.40
48	892.80

Non-residential users shall be defined as all users other than those in single family houses, apartment buildings, condominiums, town houses, mobile homes, schools, churches and municipal buildings.

4. **Flat Rate Storm Charge**

<u>Municipality</u>	Effective July 1, 2024
	<u>Monthly</u>
City of Berkley	\$ 170,435.17
Village of Beverly Hills	21,979.67
City of Birmingham	128,261.75
City of Clawson	155,641.09
City of Ferndale	270,209.17
City of Hazel Park	59,234.17
City of Huntington Woods	64,793.99
City of Madison Heights	171,787.74
City of Oak Park	358,185.74
City of Pleasant Ridge	35,166.50
City of Royal Oak	780,091.16
Royal Oak Twp	33,551.33
City of Southfield	202,636.51
City of Troy	65,130.16
Detroit Zoological Park	8,835.00
County of Oakland	40,114.51
Rackham Golf Course	5,024.16
State Of Michigan	55,244.68
Total:	<u><u>\$ 2,626,322.50</u></u>

George W. Kuhn Drainage District
Schedule of Rates and Charges

5. Total Sewer and Storm Water Charge

The following schedule identifies the total of the sewer charge and the storm water charge. The combined amount will be billed monthly to each customer:

Combined Monthly Sewer and Storm Charges

<u>Municipality</u>	Effective July 1, 2024 <u>Monthly</u>
City of Berkley	\$ 264,487.24
Village of Beverly Hills	28,526.91
City of Birmingham	202,370.50
City of Clawson	226,638.67
City of Ferndale	399,806.60
City of Hazel Park	151,916.52
City of Huntington Woods	108,558.14
City of Madison Heights	399,500.15
City of Oak Park	533,892.08
City of Pleasant Ridge	55,342.09
City of Royal Oak	1,239,114.73
Royal Oak Twp	53,285.81
City of Southfield	348,601.85
City of Troy	798,462.92
Detroit Zoological Park	34,048.75
County of Oakland	40,114.51
Rackham Golf Course	8,111.99
State Of Michigan	55,244.68
Total:	<u><u>\$ 4,948,024.14</u></u>

**OAKLAND COUNTY
WATER RESOURCES COMMISSIONER****MEMORANDUM**

TO: Jim Nash, Chairperson of the George W. Kuhn Drain Drainage Board

FROM: Lynne Seymour, P.E., Chief Engineer

SUBJECT: GWK Green Stormwater Infrastructure Grant Application

DATE: April 23, 2024

The United States Environmental Protection Agency (EPA) is accepting Community Change grant applications on a rolling basis to support community-driven projects that build capacity for communities. The grants are intended to help communities tackle environmental and climate justice challenges, strengthen their climate resilience, and advance clean energy. The EPA Community Change program has \$2 billion in Inflation Reduction Act funding and expects most awards will be between \$10-20 million for multi-faceted projects addressing a range of pollution, climate change, and other priority issues. There is no match required for this grant.

After reviewing the grant criteria, staff recommends a grant application be developed and submitted on behalf of the Drainage District to provide additional funding for the RainSmart Rebates program and to support the construction of GWK WaterTown® projects scoped for green stormwater infrastructure (GSI) on municipal properties. A partnership with a community-based organization is required and the Clinton River Watershed Council has expressed its support for a grant application to continue RainSmart Rebates and implement the WaterTown® GSI projects.

The grant application is extensive and outside assistance is required to submit a competitive, comprehensive application in a timely manner. Due to its extensive knowledge of the EPA Community Change program, WaterTown®, and the GWK Drain Drainage District, a proposal was sought from Drummond Carpenter, PLLC, an engineering and research firm specializing in environmental and water resources. The scope of work to be performed by Drummond Carpenter, PLLC includes:

- Task 1 – Proposal Assistance
 - Coordinate proposal elements including main proposal, attachments, forms, and budget
 - Develop maps, exhibits, etc. in support of proposal text.
 - Draft sections of the proposal based on information provided by WRC and CRWC.
 - Draft a budget for project.
 - Provide QA/QC of proposal sections developed by WRC or CRWC staff.
- Task 2 – Miscellaneous Services
 - As-needed services task, if authorized by WRC staff, for ongoing assistance, meeting support, or technical guidance as directed in support of the grant application

Requested Action: Authorize the hiring of Drummond Carpenter, PLLC to prepare the EPA Community Change grant application for a not-to-exceed price of \$50,456.

27 March 2024

To: Lynne Seymour, PE
Chief Engineer
Oakland County Water Resources Commissioners Office

via email: seymourl@oakgov.com

Subject: Proposal to Assist with EPA Community Change Grant Application

Lynne,

The USEPA Community Change Grant (CCG) program is supporting comprehensive community and place-based approaches to redressing environmental and climate injustices for communities facing legacy pollution, climate change, and persistent disinvestment through grant awards up to \$20M. It is our understanding that the OCWRC office plans to submit a grant application in partnership with Clinton River Watershed Council and Detroit Zoological Society (DZS) to support green stormwater infrastructure (GSI) implementation in the GWK Drainage District.

Drummond Carpenter, PLLC (Drummond Carpenter) is pleased to present this requested scope of work (SOW) to assist with the development of a proposal for the CCG Program. Drummond Carpenter's efforts on this project will be led by Donald Carpenter, PhD, PE, LEED AP.

Scope of Work

The initial scope of work includes the following and broken into two tasks:

- Task 1 – Proposal Assistance
 - Coordinate proposal elements including main proposal, attachments, forms, and budget (see provided excel spreadsheet for details).
 - Develop maps, exhibits, etc. in support of proposal text.
 - Draft sections of the proposal based on information provided by OCWRC, CRWC, and DZS.
 - Draft a budget for project.
 - Provide QA/QC of proposal sections developed by OCWRC, CRWC, or DZS staff.
- Task 2 – Miscellaneous Services
 - As-needed services task, if authorized by WRC staff, for ongoing assistance, meeting support, or technical guidance as directed in support of the CCG application (for example, answer questions from EPA based on submittal, etc.).

It is assumed that CRWC or the OCWRC will be responsible for submitting the proposal and will provide required information to Drummond Carpenter on a timely basis with the goal of submittal by 31 May 2024.

Contract Arrangement and Schedule

Drummond Carpenter will execute this agreement on a time and expense basis with WRC invoiced monthly for actual time and expenses incurred. Each invoice will include a summary of tasks and budget remaining.

OCWRC Professional Services

8 April 2024

It is anticipated that tasks will commence immediately, and all professional services will be completed by 31 December 2024. Drummond Carpenter requests an initial not-to-exceed budget of \$35,616 (approximately 192 hours) to perform the requested services under Task 1 and \$14,840 (approximately 80 hours) for additional services under Task 2.

Please note that our ability to stay within this budget will be dependent upon the breadth and nature of the services requested of us. Should you request services which are outside of this scope of work, incurred costs will be charged on a time and materials basis using standard Drummond Carpenter rates as agreed upon. Work will not be performed outside of this scope of work without prior authorization by representatives of WRC.

Best Regards,

A handwritten signature in black ink, appearing to read "D.D. Carpenter". The signature is fluid and cursive, with a long horizontal stroke at the end.

Donald D. Carpenter, PhD, PE, LEED AP
Principal

**OAKLAND COUNTY
WATER RESOURCES COMMISSIONER****MEMORANDUM**

TO: Jim Nash, Chairperson of the George W. Kuhn Drain Drainage Board

FROM: Stephanie Petriello, Environmental Planner

SUBJECT: GWK Parking Lot and Green Infrastructure Improvements – Phase II

DATE: April 23, 2024

Over the past year, WRC staff has been working with Hubbell, Roth & Clark, Inc. to develop and finalize engineering plans for a project to repair, expand, and redesign the layout of the existing parking lot at the George W. Kuhn Retention Treatment Basin Facility. This project also includes several green infrastructure features such as a bioretention area, shade trees, and three acres of turf grass conversion into native prairie grow zones.

Given the scope and expertise needed for different aspects of the project, the construction sequence was separated into two phases. Phase I consists of the parking lot expansion, bioretention area, and shade trees. A contract for Phase I was approved at the March 26, 2024 Drainage Board meeting. Phase II consists of the turf grass conversion into native prairie grass with the utilization of biosolids generated at the Clinton River Water Resource Recovery Facility.

In March, the WRC solicited proposals from contractors to construct Phase II and received two proposals. After review, staff recommend awarding the contract to Sherman Nursery Farms for the proposed amount of \$123,107.62 based on its understanding of the project, similar project experience, and qualified staff. This work has been planned and budgeted for in the GWK reserves.

Requested Action: Award the construction contract with Michigan Lawn Maintenance, Inc. doing business as Sherman Nursery Farms for a not-to-exceed price of \$123,107.62.

MEMO TO: Mr. Jim Nash, Chairman
of the Drainage Board for the GEORGE W. KUHN DRAIN

FROM: Shawn Phelps, Chief of Fiscal Services
OCWRC Accounting

HP for Shawn Phelps

DATE: April 23, 2024

SUBJECT: Request for Board approval of payment of the following invoices:

<u>Payable To</u>	<u>Ref No.</u>	<u>For</u>	<u>Amount</u>
Orchard Hiltz & McCliment Inc	TBP	Invoice # 73804 - Professional Services - 03/23/24	\$ 1,758.75
Dickinson Wright PLLC	V # SINV00250607	Invoice # 1901824 - Legal Services - 02/29/24	5,864.27
Dickinson Wright PLLC	TBP	Invoice # 1909611 - Legal Services - 03/31/24	19,546.05
Dickinson Wright PLLC	TBP	Invoice # 1909614 - Legal Services - 03/31/24	948.00
Dickinson Wright PLLC	TBP	Invoice # 1909620 - Legal Services - 03/31/24	12,234.50
Dickinson Wright PLLC	TBP	Invoice # 1909621 - Legal Services - 03/31/24	77,598.59
Dickinson Wright PLLC	TBP	Invoice # 1909612 - Legal Services - 03/31/24	72,962.00
CSM Mechanical	TBP	Invoice # 3125 - Contract Services	14,151.00
		Total	\$ 205,063.16

**6. Clinton River Water
Resource Recovery Facility**

AGENDA

DRAINAGE BOARD FOR THE CLINTON RIVER WATER RESOURCE RECOVERY FACILITY

April 23, 2024

1. Call meeting to order
2. Approve minutes of meeting of March 26, 2024
3. Public Comments
4. Present request for Board approval of payment of invoices and/or reimbursement of the Drain Revolving Fund from the Maintenance Fund in the amount of \$748,688.51
5. Present request for Board approval of payment of invoices and/or reimbursement of the Drain Revolving Fund from the Construction Fund in the amount of \$50,994.96
6. Other business
7. Approve pro rata payment to Drainage Board members
8. Adjourn

**MINUTES OF THE MEETING OF THE DRAINAGE BOARD
FOR THE CLINTON RIVER WATER RESOURCE RECOVERY FACILITY**

March 26, 2024

A meeting of the Drainage Board for the Clinton River Water Resource Recovery Facility was held in the office of the Oakland County Water Resources Commissioner, Public Works Building, One Public Works Drive, Waterford, Michigan at 2:00 p.m. on the 26th day of March 2024.

The meeting was called to order by the Chairperson.

PRESENT: Jim Nash, Oakland County Water Resources Commissioner

Gwen Markham, Chairperson of the Finance Committee, Oakland County Board of Commissioners

ABSENT: David Woodward, Chairperson of the Oakland County Board of Commissioners

Minutes of the meeting held February 27, 2024, were presented for consideration. It was moved by Markham, supported by Nash, that the minutes be approved.

ADOPTED: Yeas - 2
Nays - 0

Chairperson Nash asked if there were any public comments. There were none.

A memorandum from Razik Alsaigh, P.E., Civil Engineer III, dated March 26, 2024, requesting the Board accept Meadowbrook's Owner Controlled Insurance Premium Proposal for the Optimization Phase I Project at a cost of \$877,849.30 covering the three year period of construction was presented. It was moved by Markham, supported by Nash, to accept Meadowbrook's Owner Controlled Insurance Premium Proposal for the Optimization Phase I Project at a cost of \$877,849.30 covering the three year period of construction as presented.

ADOPTED: Yeas - 2
Nays - 0

A Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$11,943,350 for the Clinton River Water Resource Recovery Facility (as attached) were presented. It was moved by Markham, supported by Nash, to adopt the Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$11,943,350 as presented.

ADOPTED: Yeas - 2
Nays - 0

A request for approval of payment of invoices and/or reimbursement of the Drain Revolving Fund from the Maintenance Fund in the amount of \$300,974.20 (as attached) was

presented. It was moved by Markham, supported by Nash, to approve the payment of invoices and/or reimbursement of the Drain Revolving Fund from the Maintenance Fund in the amount of \$300,974.20.

ADOPTED: Yeas - 2
Nays - 0

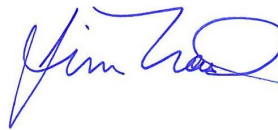
A request for approval of payment of invoices and/or reimbursement of the Drain Revolving Fund from the Construction Fund in the amount of \$20,965.19 (as attached) was presented. It was moved by Markham, supported by Nash, to approve the payment of invoices and/or reimbursement of the Drain Revolving Fund from the Construction Fund in the amount of \$20,965.19.

ADOPTED: Yeas - 2
Nays - 0

It was moved by Nash, supported by Markham, to certify attendance and authorize pro rata payment of \$25 per day to Ms. Markham.

ADOPTED: Yeas - 2
Nays - 0

There being no further business, the meeting was adjourned.

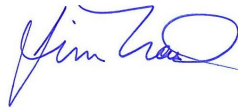


Jim Nash, Chairperson

STATE OF MICHIGAN)
)SS.
COUNTY OF OAKLAND)

I, the undersigned, do hereby certify that the foregoing is a true and complete copy of the minutes of the Drainage Board for the Clinton River Water Resource Recovery Facility, Oakland County, Michigan, held on the 26th day of March 2024, and that the minutes are on file in the office of the Oakland County Water Resources Commissioner and are available to the public.

I further certify that the notice of the meeting was posted at least 18 hours in advance of the meeting at the office of the Oakland County Water Resources Commissioner which is the principal office of the Drainage Board for the Clinton River Water Resource Recovery Facility.



Jim Nash, Chairperson

Dated: March 26, 2024

MEMO TO: Mr. Jim Nash, Chairman
of the Drainage Board for the CLINTON RIVER WATER RESOURCE RECOVERY FACILITY DRAIN - (Maintenance)

FROM: Shawn Phelps, Chief of Fiscal Services
OCWRC Accounting

HP for Shawn Phelps

DATE: April 23, 2024

SUBJECT: Request for Approval of Invoices

The following is a detail of charges paid from the Drain Revolving Fund and Invoices

Payable To	Ref No.	For	Amount
USA Blue Book	PC00031503	Pcard - Lab Supplies # INV00318996	\$ 3,759.23
Grainger	PC00031346	Pcard - Materials and Supplies # 9058893620	1,127.65
The Macomb Group	PC00031407	Pcard - Materials and Supplies # Order #4219730	1,491.76
The Macomb Group	PC00032039	Pcard - Materials and Supplies # Order #4226318	1,697.31
Andritz Separation Inc	V # SINV00253305	Invoice # 8480125033 / 02/29/2024 - Equipment Maintenance	66,729.70
Biotech Agronomics	V # SINV00250099	Invoice # 3648 - Land Application	28,001.92
D3W Industries	V # SINV00251425	Invoice # 4393 - Material and Supplies	5,720.00
Hach Company	V # SINV00250100	Invoice # 13969684 - Contracted Services	1,848.00
Haviland Products Company	V # SINV00250127	Invoice # 499754 - Chemical Treatment	9,029.00
Haviland Products Company	V # SINV00250668	Invoice # 500365 - Chemical Treatment	7,269.76
Haviland Products Company	V # SINV00250662	Invoice # 500446 - Chemical Treatment	9,029.00
Haviland Products Company	V # SINV00250672	Invoice # 500447 - Chemical Treatment	10,567.00
Ingersoll Rand	V # SINV00252324	Invoice # 31125956 - Laboratory Fees	3,071.38
LaSalle Agri Inc	V # SINV00254906	Invoice # 8 - Land Application	8,161.30
LaSalle Agri Inc	V # SINV00254907	Invoice # 1996 - Land Application	19,211.15
Lamphere's Tree Services	TBP	Invoice # 1865 - Contracted Services	11,250.00
PVS Technologies Inc	V # SINV00250128	Invoice # 353609 - Chemical Treatment	2,673.44
PVS Technologies Inc	V # SINV00252327	Invoice # 354480 - Chemical Treatment	2,674.68
PVS Technologies Inc	V # SINV00252329	Invoice # 354483 - Chemical Treatment	4,539.64
PVS Technologies Inc	V # SINV00255601	Invoice # 354900 - Chemical Treatment	5,209.24
Saber Building Services Inc	V # SINV00251427	Invoice # 44271 - Contracted Services - Apr 24	1,800.00
Waste Management	V # SINV00251428	Invoice # 8747094 -1714-9 Garbage & Rubbish Disposal	1,385.62
Waste Management	V # SINV00252333	Invoice # 8747095 -1714-6 Garbage & Rubbish Disposal	3,002.76
Waste Management	V # SINV00251429	Invoice # 8747119 -1714-4 Garbage & Rubbish Disposal	1,011.64
HOH Water Technology	V # SINV00254771	Invoice # 674365 - Contracted Services	2,050.00
Polydyne Inc	V # SINV00254774	Invoice # 1823433 - Chemical Treatment	49,269.00
		Subtotal	\$ 261,580.18
HESCO Group LLC	TBP	Invoice # 242232 - Material and Supplies - Proj 1-7514	1,633.00
		Subtotal - Project 1-7514	\$ 1,633.00
Jacobs	V # SINV00252271	Invoice # C6A21702-1 - Engineering & Survey - Proj # 1-7515	\$ 315,560.98
Environmental Testing & Consulting Inc	TBP	Invoice # 112025 - Testing Materials - Proj # 1-7515	\$ 520.20
Environmental Testing & Consulting Inc	TBP	Invoice # 112093 - Testing Materials - Proj # 1-7515	\$ 735.00
		Subtotal - Project 1-7515	\$ 316,816.18
Jacobs Consultant, Inc	V # SINV00254570	Invoice # C6A19600-12 - Professional Services - 02/23/24 - Proj # 1-7550	\$ 23,166.84
Jacobs Consultant, Inc	V # SINV00254905	Invoice # C6A19600-13 - Professional Services - 03/29/24 - Proj # 1-7550	\$ 38,633.52
		Subtotal - Project 1-7550	\$ 61,800.36
OHM Advisors	V # SINV00254573	Invoice # 73810 - Professional Services - 3/23/24 Proj # 1-7047	\$ 7,896.75
		Subtotal - Project 1-7047	\$ 7,896.75
Michigan Independent Door Company	V # SINV00250638	Invoice # J24122 - Contracted Services - Proj # 1-3451	\$ 5,500.00
		Subtotal - Project 1-3451	\$ 5,500.00

Kennedy Industries	V # SINV00250617	Invoice # 641207 - Contracted Services - Proj # 1-3492	\$	12,270.00
Kennedy Industries	V # SINV00250618	Invoice # 641208 - Contracted Services - Proj # 1-3492	\$	12,270.00
CSM Mechanical	TBP	Invoice # 2942 - Contracted Services - Proj # 1-3492	\$	15,333.06
		Subtotal - Project 1-3492	\$	39,873.06
Andritz Separation Inc	V # SINV00249579	Invoice # 8480125211 / 03/11/2024 - Equipment Repair - Proj- 1-7513	\$	48,904.00
		Subtotal - Project 1-7513	\$	48,904.00
Hamlett Environmental Technologies	TBP	Invoice # 2024214 - Material and Supplies - Proj # 1-3470	\$	1,161.00
		Subtotal - Project 1-3470	\$	1,161.00
Hubbell Roth & Clark Inc	V # SINV00252590	Invoice # 0215382 - Engineering & Survey -03/02/24 - Proj 1-3679	\$	3,523.98
		Subtotal - Project 1-3679	\$	3,523.98
		Total	\$	748,688.51

MEMO TO: Mr. Jim Nash, Chairman
of the Drainage Board for the CLINTON RIVER WATER RESOURCE RECOVERY FACILITY DRAIN - (Construction)

FROM: Shawn Phelps, Chief of Fiscal Services
OCWRC Accounting

 for Shawn Phelps

DATE: April 23, 2024

SUBJECT: Request for Board approval of payment of the following invoices:

	Ref No.	For	Amount
CSM Mechanical	V # SINV00254575	Invoice # 3041 - Project Construction & Improvement - Proj #1-2181	\$ 3,568.97
CDM Smith Michigan, Inc	V # SINV00254766	Invoice # 90203147- Engineering Survey - 11/26/23 - 03/30/24 - Proj # 1-2181	3,358.49
		Total for Project # 1-2181	\$ 6,927.46
Jacobs Consultant, Inc	TBP	Invoice # C6A21700-15 - Engineering and Survey - 03/29/24 - Proj # 1-7461	44,067.50
		Total for Project # 1-7461	\$ 44,067.50
			\$ 50,994.96

7. Bloomfield Township CSO

AGENDA

DRAINAGE BOARD FOR THE BLOOMFIELD TOWNSHIP CSO DRAIN

April 23, 2024

1. Call meeting to order
2. Approve minutes of meeting of May 24, 2016
3. Public Comments
4. Present Memorandum from Geoff Wilson, P.E., Chief Engineer, dated April 23, 2024, requesting the Board authorize Spicer Group, LLC to proceed with engineering services to prepare a route and course description of existing infrastructure of the drain and identify the benefitting properties for an amount not to exceed \$18,500 per its March 27, 2024 proposal
5. Other business
6. Approve pro rata payment to Drainage Board members
7. Adjourn

**MINUTES OF THE MEETING OF THE DRAINAGE BOARD
FOR THE BLOOMFIELD TOWNSHIP CSO DRAIN**

May 24, 2016

A meeting of the Drainage Board for the Bloomfield Township CSO Drain was held in the office of the Oakland County Water Resources Commissioner, Public Works Building, One Public Works Drive, Waterford, Michigan at 2:00 p.m. on the 24th day of May, 2016.

The meeting was called to order by the Chairperson.

PRESENT: Jim Nash, Chairperson and Oakland County Water Resources Commissioner

Thomas F. Middleton, Chairperson of the Finance Committee,
Oakland County Board of Commissioners

ABSENT: Michael Gingell, Chairperson of the Oakland County Board of Commissioners

Minutes of the meeting held December 16, 2014 were presented for consideration. It was moved by Middleton, supported by Nash, that the minutes be approved.

ADOPTED: Yeas - 2
Nays - 0

Chairperson Nash asked if there were any public comments. There were none.

Change Order No. 11 (Final Balancing) for LiquiForce Services, Inc., with a net decrease amount of \$397,983.60 (as attached) was presented. It was moved by Middleton, supported by Nash, to approve Change Order No. 11 as presented.

ADOPTED: Yeas - 2
Nays - 0

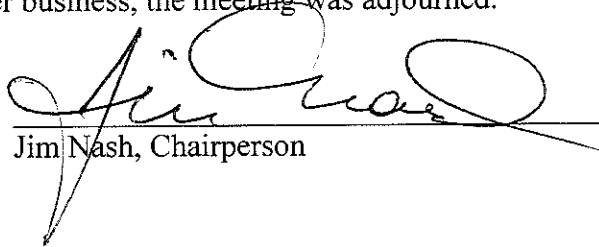
Final Construction Payment for LiquiForce Services, Inc., in the amount of \$1,125 (as attached); and a payment of \$35,000 from the Oakland County Treasurer from retained funds for reserve payment plus interest to the contractor was presented. It was moved by Middleton, supported by Nash, to approve the Final Construction Payment in the amount of \$1,125; and a payment of \$35,000 from the Oakland County Treasurer from retained funds.

ADOPTED: Yeas - 2
Nays - 0

It was moved by Nash, supported by Middleton, to certify attendance and authorize pro rata payment of \$25 per day to Mr. Middleton.

ADOPTED: Yeas - 2
Nays - 0

There being no further business, the meeting was adjourned.

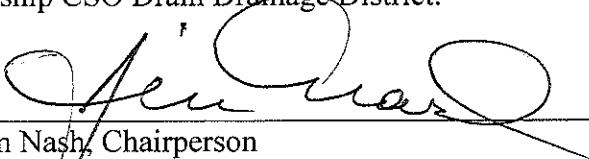


Jim Nash, Chairperson

STATE OF MICHIGAN)
)SS.
COUNTY OF OAKLAND)

I, the undersigned, do hereby certify that the foregoing is a true and complete copy of the minutes of the Bloomfield Township CSO Drain, Oakland County, Michigan, held on the 24th day of May, 2016, and that the minutes are on file in the office of the Oakland County Water Resources Commissioner and are available to the public.

I further certify that the notice of the meeting was posted at least 18 hours in advance of the meeting at the office of the Oakland County Water Resources Commissioner which is the principal office of the Bloomfield Township CSO Drain Drainage District.



Jim Nash, Chairperson

Dated: June 15, 2016

CHANGE ORDER NO. 11 (Final Balancing)

Jim Nash, Oakland County Water Resources Commissioner

For Construction of the Bloomfield Township CSO Drainage District - Sewer Rehabilitation Project

Located in Bloomfield Township, Oakland County, Michigan

CONTRACTOR: Liqui-Force Services (USA) Inc.

Authorization for Extras To Contract

Address: 28529 Goddard Road, Suite 106

Romulus, Michigan 48174

Change Order No: 11

Date: 5/3/2016

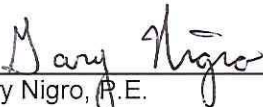
Auth	Location-Description-Reason	Unit Used	Quant.	Unit Price	Amount Increase	Amount Decrease
	LOCATION: Bloomfield Township Drainage District Various locations throughout Bloomfield Township					
	DESCRIPTION: CHANGE:					
	8" Heavy Cleaning and Televising (Bid Item #2)	LFT	1,971	\$1.00	\$1,971.00	---
	12" Heavy Cleaning and Televising (Bid Item #3)	LFT	3,234	\$1.00	\$3,234.00	---
	15" Heavy Cleaning and Televising (Bid Item #4)	LFT	(1,868)	\$1.00	---	\$1,868.00
	21" Heavy Cleaning and Televising (Bid Item #5)	LFT	622	\$1.00	\$622.00	---
	8" Relining (Bid Item #6)	LFT	(312)	\$30.00	---	\$9,360.00
	10" Relining (Bid Item #7)	LFT	(979)	\$31.00	---	\$30,349.00
	12" Relining (Bid Item #8)	LFT	(3,919)	\$34.00	---	\$133,246.00
	15" Relining (Bid Item #9)	LFT	(128)	\$36.00	---	\$4,608.00
	18" Relining (Bid Item #10)	LFT	(1,819)	\$45.00	---	\$81,855.00
	21" Relining (Bid Item #11)	LFT	(79)	\$50.00	---	\$3,950.00
	Grout 8" Joints (Bid Item #12)	EA	(75)	\$10.00	---	\$750.00
	Grout 10" Joints (Bid Item #13)	EA	(10)	\$10.00	---	\$100.00
	Grout 12" Joints (Bid Item #14)	EA	(99)	\$10.00	---	\$990.00
	Grout 15" Joints (Bid Item #15)	EA	(20)	\$10.00	---	\$200.00
	Grout 18" Joints (Bid Item #16)	EA	(20)	\$10.00	---	\$200.00
	Grout 21" Joints (Bid Item #17)	EA	(10)	\$10.00	---	\$100.00
	8" Spot Repairs (Bid Item #18)	LFT	(103)	\$775.00	---	\$79,825.00
	10" Spot Repairs (Bid Item #19)	LFT	(10)	\$775.00	---	\$7,750.00
	12" Spot Repairs (Bid Item #20)	LFT	29	\$775.00	\$22,475.00	---
	18" Spot Repairs (Bid Item #21)	LFT	(10)	\$775.00	---	\$7,750.00
	18" Spot Liners (Bid Item #22)	EA	(4)	\$4,000.00	---	\$16,000.00
	Fix Protruding Lead (Bid Item #23)	EA	(121)	\$25.00	---	\$3,025.00
	Manhole Rehabilitation (Division B - Pay Item #2)	VF	88	\$102.00	\$8,996.40	---
	Replace Frame and Cover (Division B - Pay Item #3)	EA	1	\$1,150.00	\$1,150.00	---
	Grout Manhole Leaks (Division B - Pay Item #4)	EA	(15)	\$250.00	---	\$3,750.00
	Replace Manhole Cover (Division B - Pay Item #5)	EA	(2)	\$1,000.00	---	\$2,000.00
	Raise Manhole (<6") (Division B - Pay Item #6)	EA	6	\$1,150.00	\$6,900.00	---
	4' dia. Sanitary Manhole (C.O. 1A)	EA	1	\$7,500.00	\$7,500.00	---
	5' dia. Sanitary Manhole Over Existing (C.O. 1A)	EA	(1)	\$11,500.00	---	\$11,500.00
	21" San. Sewer - C76, CL IV Prem Joint (C.O. 1A)	LFT	(2)	\$130.00	---	\$260.00
	6" San. Lead - Sch 40 PVC or SDR 23.5 (C.O. 1A)	LFT	17	\$25.00	\$425.00	---
	Reduced odor - 8" Relining	LFT	(42)	\$6.50	---	\$273.00
	Reduced odor - 10" Relining	LFT	(819)	\$6.50	---	\$5,323.50
	Reduced odor - 12" Relining	LFT	(2,070)	\$10.50	---	\$21,735.00
	Reduced odor - 15" Relining	LFT	38	\$13.50	\$513.00	---
	Reduced odor - 18" Relining	LFT	(1,295)	\$17.50	---	\$22,662.50
	Reduced odor - 21" Relining	LFT	(104)	\$22.50	---	\$2,340.00
	Contract Time Extension	DAYS	1,217	---	---	---
	REASON: To adjust bid quantities to reflect as-built quantities and determine the final contract amount.					
Totals					\$53,786.40	\$451,770.00
Net Decrease					---	\$397,983.60

JIM NASH
OAKLAND COUNTY WATER RESOURCES COMMISSIONER

CHANGE ORDER NO. 11 (Final Balancing)

JIM NASH, Oakland County Water Resources Commissioner

For Construction of the Bloomfield Township CSO Drainage District - Sewer Rehabilitation Project

Prepared by: 
Assistant Chief Engineer – Gary Nigro, P.E.

Date: May 16, 2016

Recommended by: 
Consulting Engineer – Hubbell, Roth & Clark, Inc.

Date: May 18, 2016

Approved by: 
Chief Engineer – Glenn Appel, P.E.

Date: MAY 18, 2016

The Contractor agrees to do the work described above and agrees to accept payment in full on the basis indicated.

Accepted by: 
Title

Date: MAY 19, 2016

of: Liqui-Force Services (USA) Inc.

Approved by: 
Manager Steven Korth, P.E.

Date: May 19, 2016

The Contractor is hereby authorized and instructed to do the work described above in accordance with the terms of the Contract.

This Change Order No. 11 (final) was approved by the Drainage Board on: May 24, 2016

**OAKLAND COUNTY
WATER RESOURCES COMMISSIONER**

MEMORANDUM

TO: Jim Nash, Chairman
Bloomfield Township CSO Drain Drainage Board

FROM: Gary Nigro, P.E. – Assistant Chief Engineer 

SUBJECT: Final payment of construction contract

DATE: May 24, 2016

Construction of the Bloomfield Township CSO Drain – Sewer Rehabilitation Project has been completed in accordance with the requirements of the Contract Documents.

Attached are the following:

1. Final Construction Payment
2. Contractor's Declaration, dated May 19, 2016.
3. Contractor's Affidavit, dated May 19, 2016.
4. Consent of Surety to release Final Payment, dated October 16, 2014.
5. Permit release from Road Commission for Oakland County dated February 1, 2013.
6. A copy of the Maintenance and Guarantee Bond.

It is my recommendation that the Final Construction Payment be approved by the Drainage Board for the Bloomfield Township CSO Drain – Sewer Rehabilitation Project.

**Jim Nash, Oakland County Water Resources Commissioner
 Bloomfield Township CSO Drainage District Sewer Rehabilitation Project
 Bloomfield Township
 Oakland County, Michigan**

Final Construction Payment

December 1, 2014 to April 30, 2016

Contract # 3222
Line Item # 28574

Department No.: 6010101
 Fund No.: 84729
 Project No.: 1-1412

Account No.: 731472
 Program No.: 149015
 Activity: FAC

Contractor:

LiquiForce Services, Inc.
 28529 Goddard Road, Suite 106
 Romulus, MI 48174

Job File No. N/A
 Date of Contract: February 14, 2011
 Completion Date: October 10, 2011
 Extended to: April 30, 2016

Original Contract Amount: \$1,718,760.00

Previous Change Orders: \$1,001,617.24
 Numbers: (1-10)

Change Orders This Estimate: (\$397,983.60) ✓
 Numbers: (Final)

Total Net Change Orders: (No further authorization on this Contract) \$603,633.64

Final Adjusted Contract Amount: \$2,322,393.64 ✓

Final Subtotal: (Sheet 3 of 3 Column 7) \$2,322,393.64

Final Amount Allowed: \$2,322,393.64

Less Previous Estimates: \$2,286,268.64 ✓

Final Payment Request To Be Paid To Contractor: \$1,125.00

Final Reserve Payment to Contractor \$35,000.00

Balance of Contract To Date \$0.00 Accounting Auditor: *JN 5/17/16*

Amount To Be Reserved (From Above) \$0.00

Less Previous Transfers To Reserve: \$35,000.00 ✓

Amount of Current Transfer: (\$35,000.00)

Prepared by: *Gary Nigro*
 Gary Nigro, P.E. - Assistant Chief Engineer

Date: May 17, 2016

Recommended by: *Kayn Stichel*
 Hubbell, Roth and Clark, Inc. - Consulting Engineer

Date: May 18, 2016

Approved by: *Glenn Appel*
 Glenn Appel, P.E. - Chief Engineer

Date: MAY 18, 2016

Final Construction Payment

Approved By Board On: May 24, 2016

**Jim Nash, Oakland County Water Resources Commissioner
Bloomfield Township CSO Drainage District Sewer Rehabilitation Project
Bloomfield Township, Oakland County, Michigan**

Final Construction Payment	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Contract Item	Bid Quantity	Unit	Unit Price	Quantity This Payment	Total Quantity Previous Estimate	Total Quantity to Date	Total Amount to Date
Division A - Sanitary Sewer							
1 Mobilization	1.00	LS	\$50,000.00	0.00	1.00	1.00	\$50,000.00
2 8" Heavy Cleaning and Televising	1,520	LFT	\$1.00	0.0	7808.0	7808.0	\$7,808.00
3 12" Heavy Cleaning and Televising	781	LFT	\$1.00	0.0	8002.0	8002.0	\$8,002.00
4 15" Heavy Cleaning and Televising	240	LFT	\$1.00	0.0	1704.0	1704.0	\$1,704.00
5 21" Heavy Cleaning and Televising	253	LFT	\$1.00	0.0	875.0	875.0	\$875.00
6 8" Relining	10,610	LFT	\$30.00	0.0	15404.0	15404.0	\$462,120.00
7 10" Relining	952	LFT	\$31.00	0.0	1966.0	1966.0	\$60,946.00
8 12" Relining	14,134	LFT	\$34.00	0.0	17035.0	17035.0	\$579,190.00
9 15" Relining	4,153	LFT	\$36.00	0.0	5590.0	5590.0	\$201,240.00
10 18" Relining	4,872	LFT	\$45.00	0.0	4680.0	4680.0	\$210,600.00
11 21" Relining	2,124	LFT	\$50.00	0.0	2045.0	2045.0	\$102,250.00
12 Grout 8" Joints	100	EA	\$10.00	0.0	25.0	25.0	\$250.00
13 Grout 10" Joints	10	EA	\$10.00	0.0	0.0	0.0	\$0.00
14 Grout 12" Joints	100	EA	\$10.00	0.0	1.0	1.0	\$10.00
15 Grout 15" Joints	20	EA	\$10.00	0.0	0.0	0.0	\$0.00
16 Grout 18" Joints	20	EA	\$10.00	0.0	0.0	0.0	\$0.00
17 Grout 21" Joints	10	EA	\$10.00	0.0	0.0	0.0	\$0.00
18 8" Spot Repairs	120	LFT	\$775.00	0.0	17.0	17.0	\$13,175.00
19 10" Spot Repairs	10	LFT	\$775.00	0.0	0.0	0.0	\$0.00
20 12" Spot Repairs	50	LFT	\$775.00	0.0	79.0	79.0	\$61,225.00
21 18" Spot Repairs	10	LFT	\$775.00	0.0	0.0	0.0	\$0.00
22 18" Spot Liners	4	EA	\$4,000.00	0.0	1.0	1.0	\$4,000.00
23 Fix Protruding Lead	200	EA	\$25.00	0.0	79.0	79.0	\$1,975.00
24 Traffic Maintenance and Control	1	LS	\$20,000.00	0.05	0.95	1.00	\$20,000.00
Division B - Sanitary Manhole Rehabilitation							
1 Mobilization	1	LS	\$2,500.00	0.0	1.0	1.0	\$2,500.00
2 Manhole Rehabilitation	1,500	VF	\$102.00	0.0	1588.2	1588.2	\$161,996.40
3 Replace Frame and Cover	1	EA	\$1,150.00	0.0	2.0	2.0	\$2,300.00
4 Grout Manhole Leaks	15	EA	\$250.00	0.0	0.0	0.0	\$0.00
5 Replace Manhole Cover	2	EA	\$1,000.00	0.0	0.0	0.0	\$0.00
6 Raise Manhole (<6")	6	EA	\$1,150.00	0.0	12.0	12.0	\$13,800.00
7 Traffic Maintenance and Control	1	LS	\$2,500.00	0.05	0.95	1.00	\$2,500.00

Change Orders:

Description							
1A Mobilization (max 5%)	1	LS	\$4,250.00	0.0	1.0	1.0	\$4,250.00
Color Audio-Video Route Survey	1	LS	\$2,000.00	0.0	1.0	1.0	\$2,000.00
Remove 18" to 36" dia. Trees, Including Stumps	2	EA	\$750.00	0.0	2.0	2.0	\$1,500.00
4' dia. Sanitary Manhole	1	EA	\$7,500.00	0.0	2.0	2.0	\$15,000.00
5' dia. Sanitary Manhole Over Existing	2	EA	\$11,500.00	0.0	1.0	1.0	\$11,500.00
21" Sanitary Sewer - C76, CL IV Premium Joint	302	LFT	\$130.00	0.0	300.0	300.0	\$39,000.00
8" Sanitary Lead - Sch 40 PVC or SDR 23.5	42	LFT	\$25.00	0.0	59.0	59.0	\$1,475.00
Install Sanitary Sewer Bulkhead	3	EA	\$525.00	0.0	3.0	3.0	\$1,575.00
Sanitary Sewer Cleanout	1	EA	\$1,250.00	0.0	1.0	1.0	\$1,250.00
Restoration	1	LS	\$7,500.00	0.0	1.0	1.0	\$7,500.00
Bonds, Insurance, Overhead and Profit (7.8%)	1	LS	\$6,930.00	0.0	1.0	1.0	\$6,930.00
1B Contract Time Extension	188	DAYS					
2, 8" Relining (Increase Quantity for Bid Item #6)	5,106	LFT	\$30.00	0.0	0.0	---	---
6A 10" Relining (Increase Quantity for Bid Item #7)	1,993	LFT	\$31.00	0.0	0.0	---	---
& 12" Relining (Increase Quantity for Bid Item #8)	6,820	LFT	\$34.00	0.0	0.0	---	---
9 15" Relining (Increase Quantity for Bid Item #9)	1,565	LFT	\$36.00	0.0	0.0	---	---
18" Relining (Increase Quantity for Bid Item #10)	1,627	LFT	\$45.00	0.0	0.0	---	---
18" Spot Liners (Increase Quantity for Bid Item #22)	1	EA	\$4,000.00	0.0	0.0	---	---
3 Install 3 sanitary house lead clean outs	1	LS	\$12,678.60	0.0	1.0	1.0	\$12,678.60
4, Reduced odor - 8" Relining	5,934	LFT	\$6.50	0.0	5,892.0	5892.0	\$38,298.00
6A Reduced odor - 10" Relining	1,705	LFT	\$6.50	0.0	886.0	886.0	\$5,759.00
& Reduced odor - 12" Relining	8,334	LFT	\$10.50	0.0	6,264.0	6264.0	\$66,772.00
9 Reduced odor - 15" Relining	2,126	LFT	\$13.50	0.0	2,164.0	2164.0	\$29,214.00
Reduced odor - 18" Relining	2,045	LFT	\$17.50	0.0	750.0	750.0	\$13,125.00
Reduced odor - 21" Relining	1,242	LFT	\$22.50	0.0	1,138.0	1138.0	\$25,605.00
5 Additional work at 3400 Breckinridge Lane	1	LS	\$4,197.27	0.0	1.0	1.0	\$4,197.27
6A 8" Heavy Cleaning and Televising	4,317	LFT	\$1.00	0.0	0.0	---	---
& 12" Heavy Cleaning and Televising	3,987	LFT	\$1.00	0.0	0.0	---	---
9 15" Heavy Cleaning and Televising	3,332	LFT	\$1.00	0.0	0.0	---	---
6B Contract Time Extension	60	DAYS					
7A Install 2 sanitary house lead clean outs	1	LS	\$7,668.00	0.0	1.0	1.0	\$7,668.00
7B Reroute sanitary lead and point liner	1	LS	\$12,753.50	0.0	1.0	1.0	\$12,753.50
7C 10 Vac-a-tee clean out installations	1	LS	\$21,230.00	0.0	1.0	1.0	\$21,230.00
7D Grout, spot line and dewatering for run A10	1	LS	\$11,475.75	0.0	1.0	1.0	\$11,475.75
8A Install sanitary house lead	1	LS	\$5,002.50	0.0	1.0	1.0	\$5,002.50
8B Remove tree over sanitary manhole	1	LS	\$1,001.00	0.0	1.0	1.0	\$1,001.00
10 Additional work at 1293 Twin Maples	1	LS	\$8,167.62	0.0	1.0	1.0	\$8,167.62

Final Construction Payment		(1)	(2)	(3)	(4)	(5)	(6)	(7)
Contract Item		Bid Quantity	Unit	Unit Price	Quantity This Payment	Total Quantity Previous Estimate	Total Quantity to Date	Total Amount to Date
11	8" Heavy Cleaning and Televising (Bid Item #2)		LFT	\$1.00	1,971.00	1,971.0	---	---
final	12" Heavy Cleaning and Televising (Bid Item #3)		LFT	\$1.00	3,234.00	3,234.0	---	---
	15" Heavy Cleaning and Televising (Bid Item #4)		LFT	\$1.00	(1,868.00)	-1,868.0	---	---
	21" Heavy Cleaning and Televising (Bid Item #5)		LFT	\$1.00	622.00	622.0	---	---
	8" Relining (Bid Item #6)		LFT	\$30.00	(312.0)	-9,360.0	---	---
	10" Relining (Bid Item #7)		LFT	\$31.00	(979.0)	-30,349.0	---	---
	12" Relining (Bid Item #8)		LFT	\$34.00	(3,919.0)	-133,246.0	---	---
	15" Relining (Bid Item #9)		LFT	\$36.00	(128.0)	-4,608.0	---	---
	18" Relining (Bid Item #10)		LFT	\$45.00	(1,819.0)	-81,855.0	---	---
	21" Relining (Bid Item #11)		LFT	\$50.00	(79.0)	-3,950.0	---	---
	Grout 8" Joints (Bid Item #12)		EA	\$10.00	(75.0)	-750.0	---	---
	Grout 10" Joints (Bid Item #13)		EA	\$10.00	(10.0)	-100.0	---	---
	Grout 12" Joints (Bid Item #14)		EA	\$10.00	(99.0)	-990.0	---	---
	Grout 15" Joints (Bid Item #15)		EA	\$10.00	(20.0)	-200.0	---	---
	Grout 18" Joints (Bid Item #16)		EA	\$10.00	(20.0)	-200.0	---	---
	Grout 21" Joints (Bid Item #17)		EA	\$10.00	(10.0)	-100.0	---	---
	8" Spot Repairs (Bid Item #18)		LFT	\$775.00	(103.0)	-79,825.0	---	---
	10" Spot Repairs (Bid Item #19)		LFT	\$775.00	(10.0)	-7,750.0	---	---
	12" Spot Repairs (Bid Item #20)		LFT	\$775.00	29.0	22,475.0	---	---
	18" Spot Repairs (Bid Item #21)		LFT	\$775.00	(10.0)	-7,750.0	---	---
	18" Spot Liners (Bid Item #22)		EA	\$4,000.00	(4.0)	-16,000.0	---	---
	Fix Protruding Lead (Bid Item #23)		EA	\$25.00	(121.0)	-3,025.0	---	---
	Manhole Rehabilitation (Division B - Pay Item #2)		VF	\$102.00	88.2	8,996.4	---	---
	Replace Frame and Cover (Division B - Pay Item #3)		EA	\$1,150.00	1.0	1,150.0	---	---
	Grout Manhole Leaks (Division B - Pay Item #4)		EA	\$250.00	(15.0)	-3,750.0	---	---
	Replace Manhole Cover (Division B - Pay Item #5)		EA	\$1,000.00	(2.0)	-2,000.0	---	---
	Raise Manhole (<6") (Division B - Pay Item #6)		EA	\$1,150.00	6.0	6,900.0	---	---
	4' dia. Sanitary Manhole (C.O. 1A)		EA	\$7,500.00	1.0	7,500.0	---	---
	5' dia. Sanitary Manhole Over Existing (C.O. 1A)		EA	\$11,500.00	(1.0)	-11,500.0	---	---
	21" San. Sewer - C76, CL IV Prem Joint (C.O. 1A)		LFT	\$130.00	(2.0)	-260.0	---	---
	6" San. Lead - Sch 40 PVC or SDR 23.5 (C.O. 1A)		LFT	\$25.00	17.0	425.0	---	---
	Reduced odor - 8" Relining (C.O. 4, 6A & 9)		LFT	\$6.50	(42.0)	-273.0	---	---
	Reduced odor - 10" Relining (C.O. 4, 6A & 9)		LFT	\$6.50	(819.0)	-5,323.5	---	---
	Reduced odor - 12" Relining (C.O. 4, 6A & 9)		LFT	\$10.50	(2,070.0)	-21,735.0	---	---
	Reduced odor - 15" Relining (C.O. 4, 6A & 9)		LFT	\$13.50	38.0	513.0	---	---
	Reduced odor - 18" Relining (C.O. 4, 6A & 9)		LFT	\$17.50	(1,295.0)	-22,662.5	---	---
	Reduced odor - 21" Relining (C.O. 4, 6A & 9)		LFT	\$22.50	(104.0)	-2,340.0	---	---
	Contract Time Extension	1,217	DAYS				---	---

FINAL SUB-TOTAL

\$2,322,393.64

GENERAL CONDITIONS

CONTRACTOR'S DECLARATION

The undersigned, DALE NEWBY, hereby declares that I have not, during the period December 1, 2014 to April 30, 2016, A.D., ~~20~~, performed any work furnished any material, sustained any loss, damage or delay for any reason, including soil conditions encountered or created, or otherwise done anything for which I shall ask, demand, sue for, or claim compensation from Bloomfield Twp CSO Drainage District the Owner, or its agents, in addition to the regular items set forth in the Contract numbered HRC Job No. 20100230 / 20100399 and dated October, A.D., 2010, for Bloomfield Twp. CSO District, Sewer Rehabilitation and Maple Rd. Sewer Relocation executed between myself and the Owner, and in the Change Orders for work issued by the Owner, in writing, as provided thereunder and/or extension of time, except as set forth on the itemized statement attached hereto.

There is is not an itemized statement attached.

Date: May 19, 2016

Liquiforce Services (USA) Inc
(Contractor)

By: [Signature]
DALE NEWBY

Title OPERATIONS MANAGER

GENERAL CONDITIONS

CONTRACTOR'S AFFIDAVIT

STATE OF MICHIGAN)
COUNTY OF WASHTENAW) ss

The undersigned, DALE NEWBY hereby represents that on 2/14/11 it was awarded a Contract by Bloomfield Twp CSC Drainage District, hereinafter called the Owner, to Sewer Rehabilitation Project, in accordance with the terms and conditions of Contract No. 20100230; and the undersigned further represents that the subject work has now been accomplished and the said Contract has now been completed.

The undersigned hereby warrants and certifies that all of its indebtedness arising by reason of the said Contract has been fully or satisfactorily secured, and that all claims from Subcontractors and others for labor and material used in accomplishing the said project, as well as all other claims arising from the performance of the said Contract, have been fully paid or satisfactorily secured. The undersigned further agrees that if any such claim should hereafter arise, it shall assume responsibility for the same immediately upon request to do so by the Owner.

The undersigned, for a valuable consideration, the receipt of which is hereby acknowledged, does further hereby waive, release and relinquish any and all claims or right of lien which the undersigned now has or may hereafter acquire upon the subject premises for labor and material used in accomplishing said project owned by the Owner.

This affidavit is freely and voluntarily given with full knowledge of the facts, on this 19th day of May, 2016.

LIQUIFORCE SERVICES (USA) INC.
(Contractor)

By: [Signature]
DALE NEWBY

Title OPERATIONS MANAGER

Subscribed and sworn to before me, a Notary Public in and for Washtenaw, County, Michigan, on this 19 day of May, 2016.

[Signature]
Notary Public

My Commission Expires: 2-14-2022

J. M. PARKER
NOTARY PUBLIC, STATE OF MI
COUNTY OF WASHTENAW
MY COMMISSION EXPIRES Feb 14, 2022
ACTING IN COUNTY OF WASHENAW

**CONSENT OF SURETY
TO REDUCTION IN OR
PARTIAL RELEASE OF RETAINAGE
AIA DOCUMENT G707A**

Owner
Architect
Contractor
Surety **X**
Other

Bond No. 1000877527

PROJECT: Bloomfield Township SCO Drain Sewer Rehabilitation, Bloomfield Township, Oakland
(name, address) County, Michigan

TO: (Owner)
Bloomfield Township
4200 Telegraph Road
Bloomfield Hills, MI 48302

ARCHITECT'S PROJECT NO:

CONTRACT FOR: Bloomfield Township SCO Drain Sewer
Rehabilitation, Bloomfield Township, Oakland County, Michigan

CONTRACT DATE:

In accordance with the provisions of the Contract between the Owner and the Contractor as indicated above, the
(here insert name and address of Surety as it appears in the bond).

U.S. Specialty Insurance Company
5601 Granite Parkway, Suite 1100
Plano, Texas 75024-6094

SURETY,

on bond of (here insert name and address of Contractor as it appears in the bond)

Liqui-Force Services (USA) Inc.
28529 Goddard Rd., Suite 106
Romulus, Michigan 48174

CONTRACTOR

hereby approves of the reduction in or partial release of retainage to the Contractor as follows:

Reduce Retainage to Zero Percent (0%)

The Surety agrees that such reduction in or partial release of retainage to the Contractor shall not
relieve the Surety of any of its obligations to (here insert name and address of Owner)

Bloomfield Township
4200 Telegraph Road
Bloomfield Hills, Michigan 48302

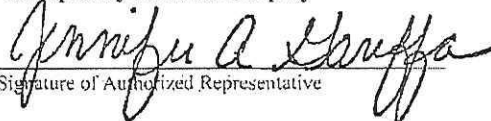
OWNER,

as set forth in the said Surety's bond.

IN WITNESS WHEREOF,

the Surety Company has hereunto set its hand this 16th day of October, 2014

Surety Company
U.S. Specialty Insurance Company


Signature of Authorized Representative

Jennifer A. Gareffa - Attorney-In-Fact
Title

Attest:
(Seal)



POWER OF ATTORNEY

AMERICAN CONTRACTORS INDEMNITY COMPANY UNITED STATES SURETY COMPANY U.S. SPECIALTY INSURANCE COMPANY

KNOW ALL MEN BY THESE PRESENTS: That American Contractors Indemnity Company, a California corporation, United States Surety Company, a Maryland corporation and U.S. Specialty Insurance Company, a Texas corporation (collectively, the "Companies"), do by these presents make, constitute and appoint:

Robert Trobec, Alan P. Chandler, Jeffrey A. Chandler, Kathleen M. Ireland, Ian J. Donald or Jennifer A. Gareffa of Troy, Michigan

its true and lawful Attorney(s)-in-fact, each in their separate capacity if more than one is named above, with full power and authority hereby conferred in its name, place and stead, to execute, acknowledge and deliver any and all bonds, recognizances, undertakings or other instruments or contracts of suretyship to include riders, amendments, and consents of surety, providing the bond penalty does not exceed *****Ten Million***** Dollars (\$**10,000,000.00**)

This Power of Attorney shall expire without further action on December 08, 2016. This Power of Attorney is granted under and by authority of the following resolutions adopted by the Boards of Directors of the Companies:

Be it Resolved, that the President, any Vice-President, any Assistant Vice-President, any Secretary or any Assistant Secretary shall be and is hereby vested with full power and authority to appoint any one or more suitable persons as Attorney(s)-in-Fact to represent and act for and on behalf of the Company subject to the following provisions:

Attorney-in-Fact may be given full power and authority for and in the name of and on behalf of the Company, to execute, acknowledge and deliver, any and all bonds, recognizances, contracts, agreements or indemnity and other conditional or obligatory undertakings, including any and all consents for the release of retained percentages and/or final estimates on engineering and construction contracts, and any and all notices and documents canceling or terminating the Company's liability thereunder, and any such instruments so executed by any such Attorney-in-Fact shall be binding upon the Company as if signed by the President and sealed and effected by the Corporate Secretary.

Be it Resolved, that the signature of any authorized officer and seal of the Company heretofore or hereafter affixed to any power of attorney or any certificate relating thereto by facsimile, and any power of attorney or certificate bearing facsimile signature or facsimile seal shall be valid and binding upon the Company with respect to any bond or undertaking to which it is attached.

IN WITNESS WHEREOF, The Companies have caused this instrument to be signed and their corporate seals to be hereto affixed, this 10th day of December, 2012.

AMERICAN CONTRACTORS INDEMNITY COMPANY UNITED STATES SURETY COMPANY U.S. SPECIALTY INSURANCE COMPANY

Corporate Seals



Daniel P. Aguilar, Vice President

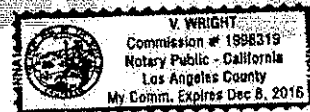
State of California

County of Los Angeles SS:

On 10th day of December, 2012, before me, Vanessa Wright, a notary public, personally appeared Daniel P. Aguilar, Vice President of American Contractors Indemnity Company, United States Surety Company and U.S. Specialty Insurance Company who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct. WITNESS my hand and official seal.

Signature [Signature] (Seal)



I, Jeannie Lee, Assistant Secretary of American Contractors Indemnity Company, United States Surety Company and U.S. Specialty Insurance Company, do hereby certify that the above and foregoing is a true and correct copy of a Power of Attorney, executed by said Companies, which is still in full force and effect; furthermore, the resolutions of the Boards of Directors, set out in the Power of Attorney are in full force and effect.

In Witness Whereof, I have hereunto set my hand and affixed the seals of said Companies at Los Angeles, California this 10th day of October, 2014

Corporate Seals



Jeannie Lee, Assistant Secretary

Bond No. 1000877527 Agency No. 17050

ROAD COMMISSION FOR OAKLAND COUNTY
2420 PONTIAC LAKE ROAD-WATERFORD, MI 48328
DEPARTMENT OF CUSTOMER SERVICES
PERMITS
(248) 858-4835

DO NOT WRITE IN THIS BOX
APPLICATION # 30-464
PERMIT # 53619
TOWNSHIP Bloomfield

CONSTRUCTION BOND

SURETY BOND # 24898179

DEPARTMENT OF CUSTOMER SERVICES PERMITS
OAKLAND COUNTY

Effective Date: February 16th, 2011

KNOW ALL MEN BY THESE PRESENTS:

That Liqui-Force Services (USA) Inc. of Romulus, Michigan, as Principal, and

WESTERN SURETY COMPANY of

P.O. Box 5077, Sioux Falls, SD 57117-5077

duly authorized to transact business in the State of Michigan, as surety, are held and firmly bound unto the BOARD OF COUNTY ROAD COMMISSIONERS OF THE COUNTY OF OAKLAND, a Michigan public body corporate, in the penal sum of Twenty Five Thousand and 00/100 (\$ 25,000.00) DOLLARS, lawful money of the United States of America, to be paid to the said BOARD OF COUNTY ROAD COMMISSIONERS OF THE COUNTY OF OAKLAND, or to its attorney, successor or assigns, to which payment well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns and each and every one of them firmly be these presents.

SEALED with our seals and dated this 16th day of February, 2011.

WHEREAS, The above bounden Liqui-Force Services (USA) Inc. has made application to the BOARD OF COUNTY ROAD COMMISSIONERS OF THE COUNTY OF OAKLAND for a permit for construction within the right-of-way as stated in the application for said permit.

NOW, THEREFORE, The condition of this obligation is such that in case said permit is granted, if the said Liqui-Force Services (USA) Inc., the above bounden, shall construct and maintain such work in the manner prescribed in the permit therefor issued by said BOARD OF COUNTY ROAD COMMISSIONERS OF THE COUNTY OF OAKLAND and shall well and truly pay all damages on account of such construction and maintenance, and all other damages, fines and penalties which he shall become liable to pay, and shall save said BOARD OF COUNTY ROAD COMMISSIONERS OF THE COUNTY OF OAKLAND harmless from all suits, claims, damages and proceedings of every kind arising out of the construction and maintenance of said work, and shall observe all the terms and conditions of the permit to be issued, then this obligation to be void, otherwise of full force and virtue.

~~THIS BOND SHALL NOT EXPIRE UNTIL SUCH TIME AS THE PERMIT FOR WHICH THIS BOND IS REQUIRED, IS RELEASED.~~

Signed, sealed and delivered in the presence of

Witness

Witness

Witness

Witness

Liqui-Force Services (USA) Inc.
Principal

[Signature]
Principal's Signature

John Thompson
Printed Name & Title

28629 Goddard Road Suite 106
P.O. Box, Address, Street

Romulus, MI 48174
City, State, Zip

734 955-2508
Telephone

WESTERN SURETY COMPANY
Surety

[Signature]
Surety's Signature

Kathleen M. Irelan, Attorney-in-Fact

P.O. Box 5077
P.O. Box, Address, Street

Sioux Falls, SD 57117-5077
City, State, Zip

605-336-0850
Telephone

NOTE: INCOMPLETE OR INVALID SURETY ADDRESSES DELAYS RELEASE OF BOND, IN WHICH CASE WE WILL RELEASE TO THE PRINCIPAL FOR THEIR RECORDS.

BOND NO. 1000877527**MAINTENANCE AND GUARANTEE BOND**

KNOW ALL MEN BY THESE PRESENTS, That we **Liqui-Force Services, Inc.**, as Principal, and U.S. Specialty Insurance Company 13403 Northwest Freeway, Houston, Texas 77040 are held and firmly bound unto the **Bloomfield Township CSO Drainage District** in the sum of One million, seven hundred eighteen thousand, seven hundred-sixty, and 00/100 Dollars (\$1,718,760.00) good and lawful money of the United States of America, to be paid to said Bloomfield Township CSO Drainage District, its legal representatives and assigns, for which payment well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, and each and every one of them jointly and severally, firmly by these presents.

Sealed with our seals and dated this 22 day of December A.D., 2010.

WHEREAS, the above named Principal has entered into a certain written Contract with the Bloomfield Township CSO Drainage District dated this 14 day of February A.D., 2011, wherein the said Principal covenanted and agreed as follows, to wit to perform all work and provide all materials associated with the Bloomfield Township CSO District Sewer Rehabilitation Project.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that by and under such Contract, the above named Principal has agreed with the Bloomfield Township CSO Drainage District for a period of **two (2)** years from the date of final acceptance, to keep in good order and repair any defect in all the work done under said Contract either by the Principal or its subcontractors, or its material suppliers, that may develop during said period due to improper materials, defective equipment, workmanship or arrangements, and any other work affected in making good such imperfections, shall also be made good all without expense to the Owner, excepting only such part or parts of said work as may have been disturbed without the consent or approval of the Principal after the final acceptance of the work, and that whenever directed to do so by the Bloomfield Township CSO Drainage District, by Notice served in writing, either personally or by mail, on the Principal at 28529 Goddard Drive, Suite 106, Romulus, Michigan 48174 or legal representatives, or successors, or on the Surety at 13403 Northwest Freeway, Houston, Texas 77040

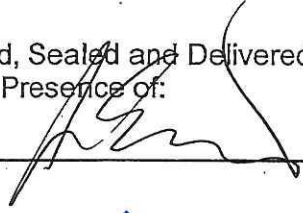
JOHN P. McCULLOCH
OAKLAND COUNTY WATER RESOURCES COMMISSIONER
Page MGB-1 of MGB-2


01/29/02

_____ WILL PROCEED at once to make such repairs as directed by said Bloomfield Township CSO Drainage District and such notice, nor within reasonable time not less than ten (10) days, as shall be fixed in said Notice, then the Owner shall have the right to purchase such materials and employ such labor and equipment as may be necessary for the purpose, and to undertake, do and make such repairs, and charge the expense thereof to, and receive same from said Principal or Surety. If any repair is necessary to be made at once to protect life and property, the Bloomfield Township CSO Drainage District may take any immediate steps to repair, barricade defects or other action without notice to contractor. In said case, the Owner shall not be held to obtain the lowest figures for doing of the work, or any part thereof, but all sums actually paid therefor shall be charged to the Principal or Surety. In this connection the judgment of the Bloomfield Township CSO Drainage District is final and conclusive. If the said Principal for the period of **two** years from the date of final acceptance, shall keep said work so constructed under said Contract in good order and repair, excepting only such part or parts of said work which may have been disturbed without the consent or approval of said Principal after the final acceptance of the same, and shall, whenever notice is given as hereinbefore specified, at once proceed to make repair as in said notice directed, or shall reimburse said Bloomfield Township CSO Drainage District for any expense incurred by making such repairs, should be Principal or Surety fail to do so as hereinbefore specified, and shall fully indemnify, defend and save harmless the said Bloomfield Township CSO Drainage District from all suits and actions for damages of every name and person or property received or sustained by any party or parties, by or from any of the acts or omissions or through the negligence of said Principal, servants, agents, or employees, in the prosecution of the work included in said Contract, and from any and all claims arising under the Workman's Compensation Act, so-called, of the State of Michigan, then the above obligation shall be void; otherwise, it will remain in full force and effect.

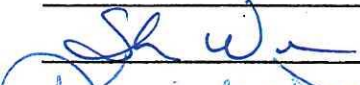

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be executed by their respective authorized officers this 22 day of December, A.D., 2010.

Signed, Sealed and Delivered
in the Presence of:




 Liqui-Force Services (USA) Inc. _____ (L.S.)

 U.S. Specialty Insurance Company _____ (L.S.)

By:  _____ (L.S.)
 Kathleen M. Irelan, Attorney-In-Fact

POWER OF ATTORNEY

AMERICAN CONTRACTORS INDEMNITY COMPANY TEXAS BONDING COMPANY
UNITED STATES SURETY COMPANY U.S. SPECIALTY INSURANCE COMPANY

KNOW ALL MEN BY THESE PRESENTS: That American Contractors Indemnity Company, a California corporation, Texas Bonding Company, an assumed name of American Contractors Indemnity Company of the State of California, a California corporation, United States Surety Company, a Maryland corporation and U.S. Specialty Insurance Company, A Texas corporation (collectively, the "Companies"), do by these presents make, constituted and appoint:

Robert Trobec, Alan P. Chandler, Jeffrey A. Chandler, Kathleen M. Irelan, Chad Teague or Ian J. Donald of Troy, Michigan

its true and lawful Attorney(s)-in-fact, each in their separate capacity if more than one is named above, with full power and authority hereby conferred in its name, place and stead, to execute, acknowledge and deliver any and all bonds, recognizances, undertakings or other instruments or contracts of suretyship to include riders, amendments, and consents of surety, providing the bond penalty does not exceed ****Ten Million**** Dollars (\$ **10,000,000.00**).

This Power of Attorney shall expire without further action on December 8, 2012. This Power of Attorney is granted under and by authority of the following resolutions adopted by the Boards of Directors of the Companies:

Be it Resolved, that the President, any Vice-President, any Assistant Vice-President, any Secretary or any Assistant Secretary shall be and is hereby vested with full power and authority to appoint any one or more suitable persons as Attorney(s)-in-Fact to represent and act for and on behalf of the Company subject to the following provisions:

Attorney-In-Fact may be given full power and authority for and in the name of and on behalf of the Company, to execute, acknowledge and deliver, any and all bonds, recognizances, contracts, agreements or indemnity and other conditional or obligatory undertakings and any and all notices and documents canceling or terminating the Company's liability thereunder, and any such instruments so executed by any such Attorney-in-Fact shall be binding upon the Company as if signed by the President and sealed and effected by the Corporate Secretary.

Be it Resolved, that the signature of any authorized officer and seal of the Company heretofore or hereafter affixed to any power of attorney or any certificate relating thereto by facsimile, and any power of attorney or certificate bearing facsimile signature or facsimile seal shall be valid and binding upon the Company with respect to any bond or undertaking to which it is attached.

IN WITNESS WHEREOF, The Companies have caused this instrument to be signed and their corporate seals to be hereto affixed, this 15th day of June, 2009

AMERICAN CONTRACTORS INDEMNITY COMPANY TEXAS BONDING COMPANY
UNITED STATES SURETY COMPANY U.S. SPECIALTY INSURANCE COMPANY

Corporate Seals



State of California
County of Los Angeles SS:

By Daniel P. Aguilar, Vice President

On this 15th day of June, 2009, before me, V. Wright, a notary public, personally appeared Daniel P. Aguilar, Vice President of American Contractors Indemnity Company, Texas Bonding Company, United States Surety Company and U.S. Specialty Insurance Company who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

Signature

[Handwritten signature]

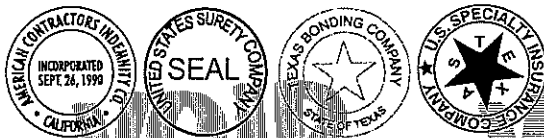
(Seal)



I, Jeannie J. Kim, Assistant Secretary of American Contractors Indemnity Company, Texas Bonding Company, United States Surety Company and U.S. Specialty Insurance Company, do hereby certify that the above and foregoing is a true and correct copy of a Power of Attorney, executed by said Companies, which is still in full force and effect; furthermore, the resolutions of the Boards of Directors, set out in the Power of Attorney are in full force and effect.

In Witness Whereof, I have hereunto set my hand and affixed the seals of said Companies at Los Angeles, California this 22nd day of December, 2010

Corporate Seals



Bond No. 1000877527
Agency No. 17050

Jeannie J. Kim, Assistant Secretary

**OAKLAND COUNTY
WATER RESOURCES COMMISSIONER****MEMORANDUM**

TO: Jim Nash, Chairperson of the Bloomfield Township CSO Drain Drainage Board

FROM: Geoff S. Wilson, P.E., Chief Engineer, Drain Maintenance

SUBJECT: Bloomfield Township CSO Drain Engineering Services – District and Route Description

DATE: April 23, 2024

Bloomfield Township currently operates and maintains the Bloomfield Township CSO Drain through an agreement with the Bloomfield Township CSO Drain Drainage District. There exists ambiguity in both the establishment documents for the Bloomfield Township CSO Drain and the existing operation and maintenance agreement between the drainage district and Bloomfield Township. To clarify and establish maintenance responsibilities going forward, the drain should be defined on a route and course and the benefitting properties should be determined. This will allow Bloomfield Township and the drainage district to pursue one of the following two options:

- 1.) Reestablish the legal course of the Bloomfield Township CSO Drain based on the existing system route and determine an apportionment based on benefitting properties.
- 2.) Relinquish the Bloomfield Township CSO Drain to Bloomfield Township.

Spicer Group, LLC, which provides drainage district benefitting property studies, and route and course descriptions on many Oakland County drains, will provide these services for the Bloomfield Township CSO Drain as described in its March 27, 2024 letter.

Recommendation: Authorize Spicer Group, LLC to proceed with engineering services to prepare a route and course description of existing infrastructure of the drain and identify the benefitting properties for an amount not to exceed \$18,500 per its March 27, 2024 proposal.

March 27, 2024

Geoff S. Wilson, P.E.
Chief Engineer - Oakland County Water Resources Commissioner
1200 N. Telegraph Road
Pontiac, MI 48341

RE: Professional Services for Bloomfield Township CSO Drain

Mr. Wilson,

At your request, we propose to provide professional engineering services for preparing a route and course description for the Bloomfield Township CSO Drain. The following letter agreement outlines our understanding of the project, proposed scope of services, and fee related to preparing route and course documents.

Project Understanding

It is our understanding that the Oakland County Water Resources Commissioner's Office is working to describe the route of the Bloomfield Township CSO Drain. Oakland County is requesting assistance in reviewing the existing drain centerline and establishing a naming system for all branches of the drain. At your request, each description will be tied down to a section corner and the beginning catchbasin.

Scope of Services

Based on our understanding of the project, the scope and fee for our professional engineering services is as follows:

1. Review an existing conditions plan and profile drawing of the infrastructure to be described.
2. Compile available storm sewer, sanitary sewer, parcel, section, and topographic information in a GIS basemap. We anticipate the data will be provided to us from Oakland County in a GIS format, such as shapefiles, raster images, or geodatabases.
3. Prepare a route and course description of existing infrastructure. This will be provided in a Word Document format, accompanied by digital shapefiles of the drain centerline with branches named to match the route and course description.
4. Prepare an approximate drainage delineation based on available GIS data and LiDAR topography.

Our anticipated fee for this part of the project as outlined above is **\$15,800**.

Services Not Included

For a clearer understanding of our work scope, the following items are not included in our Scope of Basic Professional Services at this time. We understand you may wish to proceed with some of these services after we have completed the above tasks and can provide you with a supplemental agreement at that time. Additional services related to this project will be furnished by us only after you authorize the work.

- Topographic survey
- Review of historical drain documents
- Field verification of drainage district boundaries
- Metes and bounds description of drainage district boundaries

March 27, 2024

Page 2 of 2

- 14A calculations
- Notification or assessment rolls
- Maps of drain or drainage district

Fee Structure

Our fees are based on our standard hourly rates; therefore, invoices will be for actual hours of service provided on this project. Our estimated fees on this project are based upon our experience with the actual time required on previous projects of this type. We will submit monthly invoices to you for services furnished and for any reimbursable expenses during each phase of the authorized work.

We have calculated our fees based on our current understanding of the project. Should we approach the amount of the fee for any reason before we are finished with the work, if the scope changes, or if our understanding was incorrect, we will notify you and discuss with you the option of further adjusting the amount of the fee or adjusting the scope of services. Attached to this letter is a copy of our general conditions for our services which are part of this agreement. Any changes to this agreement must be agreed to by both of us in writing.

If this proposal meets with your approval, please acknowledge your approval by signing and returning it to our office. We deeply appreciate your confidence in our firm, and we are looking forward to working with you on this project.

Sincerely,



Steven K. Roznowski, P.E.

Principal

mailto: stever@spicergroup.com



William J. Becker

Project Manager

mailto: williams@spicergroup.com

SPICER GROUP, INC

30300 Telegraph Road, Suite 100

Bingham Farms, MI 48025

Phone: (248) 985-2900

Encl.: Spicer Group General Conditions

SMC, Accounting

Above proposal accepted and approved by Owner:

By: _____

Geoff S. Wilson, P.E.
Chief Engineer - Oakland County Water Resources
Commissioner

Date: _____

GENERAL CONDITIONS ATTACHED TO LETTER AGREEMENT

SECTION 1

1.1 **Preamble.** This agreement is based upon a mutual obligation of good faith and fair dealing between the parties in its performance and enforcement. Accordingly, the OWNER and the PROFESSIONAL, with a positive commitment to honesty and integrity, agree to the following:

That each will function within the laws and statutes that apply to its duties and responsibilities; that each will assist in the other's performance; that each will avoid hindering the other's performance; that each will work diligently to fulfill its obligations; and that each will cooperate in the common endeavor of the contract.

1.2 **Ownership of Instruments of Service.** All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by the PROFESSIONAL as instruments of service shall remain the property of the PROFESSIONAL. The PROFESSIONAL shall retain all common law, statutory and other reserved rights, including the copyright thereto.

1.3 **Covenant not to Hire.** OWNER agrees that during the term of this agreement and for a period of one (1) year thereafter that it will not hire for its own employment any person employed by the PROFESSIONAL in the performance of this agreement.

1.4 **Standard of Care.** Service performed by PROFESSIONAL under this AGREEMENT will be conducted in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions. No other representation, express or implied, and no warranty or guarantee is included or intended in this AGREEMENT, or in any report, opinion, document or otherwise.

1.5 **Defects in Service.** OWNER and OWNER's personnel, contractors and subcontractors shall upon discovery promptly report to PROFESSIONAL any defects or suspected defects in PROFESSIONAL's work, in order that PROFESSIONAL may take prompt, effective measures which in PROFESSIONAL's opinion will minimize the consequences of a defect in service. PROFESSIONAL shall not be responsible for additional costs due to any tardiness in reporting defects in service.

1.6 **Reimbursable Expenses** mean the actual expenses incurred by PROFESSIONAL or PROFESSIONAL's independent professional associates or consultants, directly or indirectly in connection with the Project, such as expenses for; transportation and subsistence incidental thereto; obtaining bids or proposals from Contractor(s); providing and maintaining field office facilities including furnishings and utilities; subsistence and transportation of Resident Project Representatives and their assistants; toll telephone calls and courier services; reproduction of reports, drawings, specifications, bidding documents, and similar project-related items; and, if authorized in advance by OWNER, overtime work requiring higher than regular rates.

1.7 **Standard Hourly Rates** used as a basis for payment mean those rates in effect at the time that the work is performed, for all PROFESSIONAL's personnel engaged directly on the Project, including, but not limited to, architects, engineers, surveyors, designers, planners, drafters, specification writers, estimators, other technical and business personnel. The Standard Hourly Rates include salaries and wages, direct and indirect payroll costs and fringe benefits. The Standard Hourly Rates of personnel of PROFESSIONAL will be adjusted periodically to reflect changes in personnel and in PROFESSIONAL's overall compensation procedures and practices.

1.8 **Limitation of Liability.** To the fullest extent permitted by law, and not withstanding any other provision of this Agreement, the total liability, in the aggregate, of the PROFESSIONAL and the PROFESSIONAL's officers, directors, partners, employees and subconsultants, and any of them, to the OWNER and anyone claiming by or through the OWNER, for any and all claims, losses, costs or damages, including attorneys' fees and costs and expert-witness fees and costs of any nature whatsoever or claims expenses resulting from or in any way related to the Project or the Agreement from any cause or causes shall not exceed the total compensation received by the PROFESSIONAL under this Agreement, or the total amount of \$100,000.00, whichever is greater. It is intended that this limitation apply to any and all liability or caused of action however alleged or arising, unless otherwise prohibited by law.

1.9 **Indemnification.** The PROFESSIONAL agrees, to the fullest extent permitted by law, to indemnify and hold harmless the OWNER, its officers, directors and employees (collectively, Owner) against all damages, liabilities or costs, including reasonable attorneys' fees and defense costs, to the extent caused by the PROFESSIONAL's negligent performance of professional services under this Agreement.

The OWNER agrees, to the fullest extent permitted by law, to indemnify and hold harmless the PROFESSIONAL, its officers, directors, employees and subconsultants (collectively, Professional) against all damages, liabilities or costs, including reasonable attorneys' fees and defense costs, to the extent caused by the OWNER's negligent acts in connection with the Project and the acts of its contractors, subcontractors or PROFESSIONAL or anyone for whom the OWNER is legally liable.

Neither the OWNER nor the PROFESSIONAL shall be obligated to indemnify the other party in any manner whatsoever for the other party's own negligence.

1.10 **Severability.** Any term or provision of this Agreement found to be invalid under any applicable statute or rule of law shall be deemed omitted and the remainder of this Agreement shall remain in full force and effect.

1.11 **Survival.** Notwithstanding completion or termination of this Agreement for any reason, all rights, duties and obligations of the parties to this Agreement shall survive such completion or termination and remain in full force and effect until fulfilled.

1.12 **Betterment.** If, due to the PROFESSIONAL's negligence, a required item or component of the Project is omitted from the PROFESSIONAL's construction documents, the PROFESSIONAL shall not be responsible for paying the cost required to add such item or component to the extent that such item or component would have been required and included in the original construction documents. In no event will the PROFESSIONAL be responsible for any cost or expense that provides betterment or upgrades or enhances the value of the Project.

1.13 **Mediation.** In an effort to resolve any conflicts that arise during the design and construction of the Project or following the completion of the Project, the OWNER and the PROFESSIONAL agree that all disputes between them arising out of or relating to the Agreement or the Project shall be submitted to nonbinding mediation unless the parties mutually agree otherwise.

The OWNER and the PROFESSIONAL further agree to include a similar mediation provision in all agreements with independent contractors and consultants also to include a similar mediation provision in all agreements with their subcontractors, subconsultants, suppliers and fabricators, thereby providing for mediation as the primary method for dispute resolution between the parties to all those agreements.

1.14 **Changed Conditions.** If, during the term of this Agreement, circumstances or conditions that were not originally contemplated by or known to the PROFESSIONAL are revealed, to the extent that they affect the scope of services, compensation, schedule, allocation of risks or other material terms of this Agreement, the PROFESSIONAL may call for renegotiation of appropriate portions of this Agreement. The PROFESSIONAL shall notify the OWNER of the changed conditions necessitating renegotiation, and the PROFESSIONAL and the OWNER shall promptly and in good faith enter into renegotiation of this Agreement to address the changed conditions.

1.15 **Hazardous Materials.** Both parties acknowledge that the PROFESSIONAL's scope of services does not include any services related to the presence of any hazardous or toxic materials. In the event the PROFESSIONAL or any other party encounters any hazardous or toxic materials, or should it become known to the PROFESSIONAL that such materials may be present on or about the job site or any adjacent areas that may affect the performance of the PROFESSIONAL's services, the PROFESSIONAL may, at its option and without liability for consequential or any other damages, suspend performance of its services under this Agreement until the OWNER retains appropriate PROFESSIONAL's or contractors to identify and abate or remove the hazardous or toxic materials and warrants that the job site is in full compliance with all applicable laws and regulations.

SECTION 2

2.1 **Assignment.** Neither party to this Agreement shall transfer, sublet or assign any rights under or interest in this Agreement (including but not limited to monies that are due or monies that may be due) without the prior written consent of the other party. Subcontracting to subconsultants normally contemplated by the PROFESSIONAL shall not be considered an assignment for purposes of this Agreement.

2.2 **Governing Law & Jurisdiction.** The OWNER and the PROFESSIONAL agree that this Agreement and any legal actions concerning its validity, interpretation and performance shall be governed by the laws of the State of Michigan.

2.3 **Billing and Payment Terms.** *Payment Due:* invoices shall be submitted by the PROFESSIONAL (monthly) are due upon presentation and shall be considered past due if not paid within thirty (30) calendar days of the due date. *Interest:* If payment in full is not received by the PROFESSIONAL within thirty (30) calendar days of the due date, invoices shall bear interest at one-and one-half (1.5) percent of the PAST DUE amount per month, which shall be calculated from the invoice due date. Payment thereafter shall first be applied to accrued interest and then to the unpaid principal.

2.4 **Suspension of Services.** If the OWNER fails to make payments when due or otherwise is in breach of this Agreement, the PROFESSIONAL may suspend performance of service upon ten (10) calendar days' notice to the OWNER. The PROFESSIONAL shall have no liability whatsoever to the OWNER for any costs or damages as a result of such suspension caused by any breach of this Agreement by the OWNER. Upon payment in full by the OWNER the PROFESSIONAL shall resume services under this Agreement, and the time scheduled and compensation shall be equitably adjusted to compensate for the period of suspension plus any other reasonable time and expenses necessary for the PROFESSIONAL to resume performance. *Termination of Services:* If the OWNER fails to make payment to the PROFESSIONAL in accordance with the payment terms herein, this shall constitute a material breach of this Agreement and shall be cause for termination of this Agreement by the PROFESSIONAL. *Set-off, Backcharges, Discounts:* Payment of invoices shall not be subject to any discounts or set-off's by the OWNER unless agreed to in writing by the PROFESSIONAL. Payment to the PROFESSIONAL for services rendered and expenses incurred shall be due and payable regardless of any subsequent suspension or termination of this Agreement by either party.

2.5 **Collection of Costs.** In the event legal actions necessary to enforce the payment terms of this Agreement, the PROFESSIONAL shall be entitled to collect from the OWNER any judgement or settlement sums due, plus reasonable attorneys' fees, court costs and other expenses incurred by the PROFESSIONAL in connection therewith and, in addition, the reasonable value of the PROFESSIONAL's time and expenses spent in connection with such collection action, computed according to the PROFESSIONAL's prevailing fee schedule and expense policies.

2.6 **Delays.** The OWNER agrees that the PROFESSIONAL is not responsible for damages arising directly or indirectly from any delays for causes beyond the PROFESSIONAL's control. For purposes of this Agreement, such causes include, but are not limited to, strikes or other labor disputes; severe weather disruptions or other natural disasters; fires, riots, war or other emergencies or acts of God; failure of any government agency to act in timely manner; failure of performance by the OWNER or the OWNER's contractors or consultants; or discovery of any hazardous substances or differing site conditions.

In addition, if the delays resulting from any such causes increase the cost or time required by the PROFESSIONAL to perform its services in an orderly and efficient manner, the PROFESSIONAL shall be entitled to an equitable adjustment in schedule and/or compensation.

2.7 Delivery and Use of Electronic Files. In accepting and utilizing any drawings, reports and data on any form of electronic media generated and furnished by the PROFESSIONAL, the OWNER agrees that all such electronic files are instruments of service of the PROFESSIONAL, who shall be deemed the author, and shall retain all common law, statutory law and other rights, including copyrights.

The OWNER agrees not to reuse these electronic files, in whole or in part, for any purpose other than for the Project. The OWNER agrees not to transfer these electronic files to others without the prior written consent of the PROFESSIONAL. The OWNER further agrees to waive all claims against the PROFESSIONAL resulting in any way from any unauthorized changes to or reuse of the electronic files for any other project by anyone other than the PROFESSIONAL.

The OWNER and the PROFESSIONAL agree that any electronic files furnished by either party shall conform to the original specifications. Any changes to the original electronic specifications by either the OWNER or the PROFESSIONAL are subject to review and acceptance by the other party. Additional services by the PROFESSIONAL made necessary by changes to the electronic file specifications shall be compensated for as Additional Services.

Electronic files furnished by either party shall be subject to an acceptance period of fourteen (14) days during which the receiving party agrees to perform appropriate acceptance tests. The party furnishing the electronic file shall correct any discrepancies or errors detected and reported within the acceptance period. After the acceptance period, the electronic files shall be deemed to be accepted and neither party shall have any obligation to correct errors or maintain electronic files.

The OWNER is aware that differences may exist between the electronic files delivered and the printed hard-copy construction documents. In the event of a conflict between the signed construction documents prepared by the PROFESSIONAL and electronic files, the signed or sealed hard-copy construction documents shall govern.

In addition, the OWNER agrees, to the fullest extent permitted by law, to indemnify and hold harmless the PROFESSIONAL, its officers, directors, employees and subconsultants (collectively, Professional) against all damages, liabilities or costs, including reasonable attorneys' fees and defense costs, arising from any changes made by anyone other than the PROFESSIONAL or from any reuse of the electronic files without the prior written consent of the PROFESSIONAL.

Under no circumstances shall delivery of electronic files for use by the OWNER be deemed a sale by the PROFESSIONAL, and the PROFESSIONAL makes no warranties, either expressed or implied, or merchantability and fitness for any particular purpose. In no event shall the PROFESSIONAL be liable for indirect or consequential damages as a result of the OWNER's use or reuse of the electronic files.

2.8 Opinions of Probable Construction Costs. In providing opinions of probable construction cost, the OWNER understands that the PROFESSIONAL has no control over the cost or availability of labor, equipment or materials, or over market conditions or the Contractor's method of pricing, and that the PROFESSIONAL's opinions of probable construction costs are

made on the basis of the PROFESSIONAL's judgement and experience. The PROFESSIONAL makes no warranty, express or implied that the bids or the negotiated cost of the Work will not vary from the PROFESSIONAL's opinion of probable construction costs.

SECTION 3

3.1 Construction Layout. If requested by the Owner, or other authorized party, as detailed in the scope of services or as an Additional Service to this Agreement, the PROFESSIONAL shall provide construction layout stakes sufficient for construction purposes. The stakes will reflect pertinent information from the construction bidding and contract documents. The stakes shall be set in place one time by the PROFESSIONAL, staged and scheduled as requested by the Contractor. After the stakes are set, it shall be the Contractor's exclusive responsibility to protect the stakes from damage or removal. Once the stake is set, if the stake becomes unusable due to the Contractor's negligence it shall be reset by the PROFESSIONAL, only at the Contractor's direction. The cost for resetting the stakes shall be borne by the Contractor and shall be paid by the Owner or authorized representative of this Agreement to the PROFESSIONAL from monies due the Contractor from the construction contract. The Owner acknowledges and agrees that these staking requirements and the procedures and payments for restaking described in this section shall be stipulated in the General Conditions of the construction contract.

3.2 Jobsite Safety. Neither the professional activities of the PROFESSIONAL, nor the presence of the PROFESSIONAL or its employees and subconsultants at a construction/project site, shall relieve the General Contractor of its obligations, duties and responsibilities including, but not limited to, construction means, methods, sequence, techniques or procedures necessary for performing, superintending and coordinating the Work in accordance with the contract documents and any health or safety precautions required by any regulatory agencies, the PROFESSIONAL and its personnel have no authority to exercise any control over any construction contractor or its employees in connection with their work or any health or safety programs or procedures. The OWNER agrees that the General Contractor shall be solely responsible for jobsite safety, and warrants that this intent shall be carried out in the OWNER's contract with the General Contractor. The OWNER also agrees that the OWNER, the PROFESSIONAL and the PROFESSIONAL's subconsultants shall be indemnified by the General Contractor and shall be made additional insureds under the General Contractor's policies of general liability insurance.

3.3 Construction Observation. The PROFESSIONAL shall visit the site if authorized at intervals appropriate to the stage of construction, or as otherwise agreed to in writing by the OWNER and the PROFESSIONAL, in order to observe the progress and quality of the Work completed by the Contractor. Such visits and observation are not intended to be an exhaustive check or a detailed inspection of the Contractor's work but rather are to allow the PROFESSIONAL, as an experienced professional, to become generally familiar with the Work in progress and to determine, in general, if the Work is proceeding in accordance with the Contract Documents.

Based on this general observation, the PROFESSIONAL shall keep the OWNER informed about the progress of the Work and shall endeavor to guard the OWNER against deficiencies in the work.

If the OWNER desires more extensive project observation or full-time project representation, the OWNER shall request that such services be provided by the PROFESSIONAL as Additional Services in accordance with the terms of this Agreement.

The PROFESSIONAL shall not supervise, direct or have control over the Contractor's work nor have any responsibility for the construction means, methods, techniques, sequences or procedures selected by the Contractor nor for the Contractor's safety precautions or programs in connection with the Work. These rights and responsibilities are solely those of the contractor in accordance with the Contract Documents.

The PROFESSIONAL shall not be responsible for any acts or omissions of the contractor, subcontractor, any entity performing any portions of the Work, or any agents or employees of any of them. The PROFESSIONAL does not guarantee the performance of the Contractor and shall not be responsible for the Contractor's failure to perform its Work in accordance with the Contract Documents or any applicable laws, codes, rules or regulations.

3.4 Design Without Construction Administration. Unless Authorized, it is understood and agreed that the PROFESSIONAL's Basic Services under this Agreement do not include project observation or review of the Contractor's performance or any other construction phase services, and that such services will be provided for by the OWNER. The OWNER assumes all responsibility for interpretation of the Contract Documents and for construction observation, and the OWNER waives any claims against the PROFESSIONAL that may be in any way connected thereto.

3.5 Record Drawings. If authorized by the Agreement, upon completion of the Work, the PROFESSIONAL shall compile for and deliver to the OWNER a reproducible set of Record Documents based upon the marked-up record drawings, addenda, change orders and other data furnished by the Contractor. These Record documents will show significant changes made during construction. Because these Record Documents are based on unverified information provided by other parties, which the PROFESSIONAL shall assume will be reliable, the PROFESSIONAL cannot and does not warrant their accuracy.

3.6 Contingency Fund. The OWNER and the PROFESSIONAL agree that certain increased cost and changes may be required because of possible omissions, ambiguities or inconsistencies in the drawings and specifications prepared by the PROFESSIONAL and, therefore, that the final construction cost of the Project may exceed the estimated construction cost. The OWNER agrees to set aside a reserve in the amount of 10 percent of the Project construction costs as a contingency to be used, as required, to pay for any such increased costs and changes. The OWNER further agrees to make no claim by way of direct or third-party action against the PROFESSIONAL or its subconsultants with respect to any increased costs within the contingency because of such changes or because of any claims made by the Contractor relating to such changes.

3.7 Right of Entry. OWNER shall provide for PROFESSIONAL's right to enter from time to time property owned by OWNER and/or other(s) in order for PROFESSIONAL to fulfill the scope of services indicated hereunder. OWNER understands that use of testing or other equipment may unavoidably cause some damage, the correction of which is not part of this AGREEMENT.

3.8 Buried Utilities. OWNER will furnish to PROFESSIONAL information identifying the type and location of utility lines and other man-made objects beneath the site's surface. PROFESSIONAL will take reasonable precautions to avoid damaging these man-made objects and will, prior to penetrating the site's surface furnish to OWNER a plan indicating the locations intended for these penetrations with respect to what PROFESSIONAL has been told are the locations of utilities and other man-made objects beneath the site's surface. OWNER will approve the location of these penetrations prior to their being made and OWNER will authorize PROFESSIONAL to proceed.

These General Conditions shall be attached to and made part of the Agreement between Spicer Group, Inc. (PROFESSIONAL) and the Owner.

8. Edwards Relief Drain

AGENDA

DRAINAGE BOARD FOR EDWARDS RELIEF DRAIN

April 23, 2024

1. Call meeting to order
2. Approve minutes of meeting of February 23, 2021
3. Public Comments
4. Present Memorandum from Geoff Wilson, P.E., Chief Engineer, Drain Maintenance, requesting the Board authorize Doetsch Industrial Services (AKA Doetsch Environmental Services) to proceed with services outlined in its February 25, 2024 proposal for a not-to-exceed amount of \$349,540 based on existing as-needed services contract 009838 and approve project budget of \$486,008 for the Edwards Relief Maintenance Repairs Project 17416
5. Other business
6. Approve pro rata payment to Drainage Board members
7. Adjourn

**MINUTES OF THE MEETING OF THE DRAINAGE BOARD
FOR THE EDWARDS RELIEF DRAIN**

February 23, 2021

A meeting of the Drainage Board for the Edwards Relief Drain was held at 2:00 p.m. on the 23rd of February, 2021. The meeting was conducted electronically via GoToMeeting in accordance with PA 267 of 1976, as amended, and/or as otherwise provided by law.

The meeting was called to order by the Chairperson. The Board indicated where they were physically located at the time of the meeting as follows:

PRESENT: Jim Nash, Oakland County Water Resources Commissioner, participating from Farmington Hills, Michigan.

Gwen Markham, Chairperson of the Finance Committee, Oakland County Board of Commissioners, participating from Novi, Michigan.

ABSENT: David Woodward, Chairperson of the Oakland County Board of Commissioners

Minutes of the meeting held January 26, 2021 were presented for consideration. It was moved by Markham, supported by Nash, that the minutes be approved.

ADOPTED: Yeas - 2
Nays - 0

Chairperson Nash asked if there were any public comments. There were none.

A request for approval of payment of invoices in the amount of \$3,597.73 (as attached) was presented. It was moved by Markham, supported by Nash, to approve the payment of invoices in the amount of \$3,597.73.

ADOPTED: Yeas - 2
Nays - 0

It was moved by Nash, supported by Markham, to certify attendance and authorize pro rata payment of \$25 per day to Ms. Markham.

ADOPTED: Yeas - 2
Nays - 0

There being no further business, the meeting was adjourned.

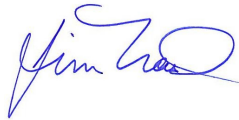


Jim Nash, Chairperson

STATE OF MICHIGAN)
)SS.
COUNTY OF OAKLAND)

I, the undersigned, do hereby certify that the foregoing is a true and complete copy of the minutes of the Drainage Board of the Edwards Relief Drain, Oakland County, Michigan, held on the 23rd day of February, 2021, and that the minutes are on file in the office of the Oakland County Water Resources Commissioner and are available to the public.

I further certify that the notice of the meeting was posted at least 18 hours in advance of the meeting at the office of the Oakland County Water Resources Commissioner which is the principal office of the Drainage Board for the Edwards Relief Drain Drainage District.



Jim Nash, Chairperson

Dated: March 1 , 2021

**OAKLAND COUNTY
WATER RESOURCES COMMISSIONER**

MEMORANDUM

TO: Jim Nash, Chairperson of the Edwards Relief Drain Drainage Board

FROM: Geoff S. Wilson, P.E., Chief Engineer, Drain Maintenance

SUBJECT: Edwards Relief Drain Maintenance Repairs – Doetsch Environmental Services

DATE: April 23, 2024

Inspection of the Edwards Relief Drain in 2019 revealed several segments of pipe in need of repair. Staff prepared a scope of work and solicited pricing from three existing as-needed contractors who specialize in enclosed storm drain maintenance and repairs. Doetsch Environmental Services provided the most cost effective proposal for the work. WRC Staff has prepared the enclosed project budget to perform the repairs.

Recommendation: Authorize Doetsch Industrial Services (AKA Doetsch Environmental Services) to proceed with services outlined in its February 25, 2024 proposal for a not-to-exceed amount of \$349,540 based on existing as-needed services contract 009838.

Approve a project budget of \$486,008 for the Edwards Relief Maintenance Repairs Project 17416 based on the enclosed project budget estimate form.

Doetsch
ENVIRONMENTAL SERVICES
 21221 Mullin Ave. Warren MI 48089

February 25, 2024

Geoff Wilson, PE
 Chief Engineer
 One Public Works Drive, Bldg. 95 West Waterford,
 MI 48328-1907

RE: Edwards Relief Drain

Mr. Wilson,

Doetsch Environmental Services will provide necessary labor, grouting equipment and supplies, based on blanket rates:

Hourly Rates		
	Straight	Overtime
Labor		
Project Manager	\$85	\$100
Equipment Operator	\$75	\$90
Confined Space Tech	\$75	\$90
Laborer	\$70	\$85
	Straight	Overtime
Equipment		
Grout Truck	\$ 100.00	\$ 100.00
20KW Generator	\$ 20.00	\$ 20.00
20" Ventilation Blower	\$ 20.00	\$ 20.00
CCTV Equipment	\$ 120.00	\$ 120.00
Supply truck	\$ 20.00	\$ 20.00
Support vehicle	\$ 20.00	\$ 20.00
Support trailer	\$ 20.00	\$ 20.00
375 CFM Air Comp	\$ 40.00	\$ 40.00
High Pressure Jet Truck	\$ 135.00	\$ 135.00
Vacuum Truck	\$ 120.00	\$ 120.00
Robotic milling truck	\$ 175.00	\$ 175.00

Acrylamide Grout: \$97.00 per gallon for packer injection

Acrylamide Grout: \$30.00 per gallon for point injection / manual injection inside the pipe.

Scope: Grout/Chip Deposits

1) Chemical grout will be injected from inside the pipe at known leak areas or areas of previous leakage. For large leaks grout mix will be increased to an 18% grout mix.

Time estimate: 100-300 gallons per day

Crew will be 1 Project manager, 1 Operator, 2 Confined Space Entry Technicians and if needed, 1 Laborer.

Equipment will be Grout truck, Blower and Generator (if required at an upstream manhole, 1-2 support vehicles + grout.

Scope: Spot/Reinf Repair

1) Will be cleaned, invert and if needed, rotational cleaning to remove encrustations. Equipment will be high pressure truck, vacuum truck, CCTV truck, 1 support vehicle 1 project manager, 3 operators and if needed, 1 laborer

2) Equipment will be air compressor, cctv truck, 1-2 support vehicles, appropriately sized packers + pipe patch, reinforcement repair materials per details.

Pipe Patch 10" \$760, 12" \$820, 15" \$1,000

Crew will be 1 Project manager, 1 Operator, 2 Confined Space Entry Technicians and if needed, 1 Laborer.

Estimated Budget:

Labor, Equipment, and Materials (per above rates, excluding grout):

\$241,450

Grout Budget (as agreed upon with owner): \$108,000

- Traffic control to consist of cones and signs, additional equipment will be cost + 10%

Please call with any questions or concerns 810-499-9233

Thank you for the opportunity to be of service,

Joe Schotthoefner

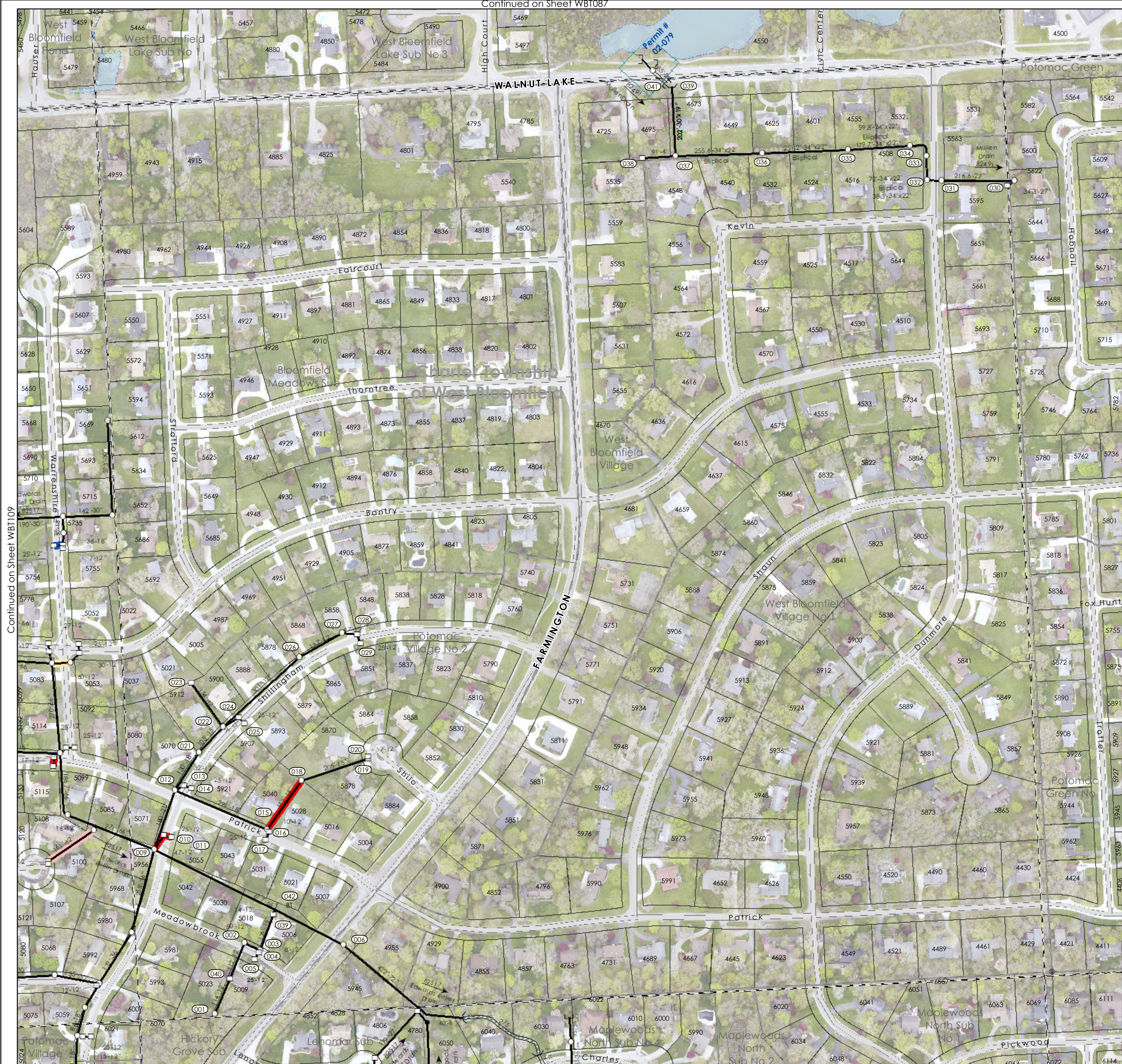
EDWARDS RELIEF MAINTENANCE REPAIRS PRJ-17416
ESTIMATE OF PROJECT COSTS
REVISED: APRIL 15, 2024

	Project Costs
1) Contracted Services: Construction Cost	
a Constuction Cost (as-bid)	\$ 349,540
b Add More if Multiple Phases/ Contracts	
Subtotal Construction Cost	\$ 349,540
2) Engineering Consultants	
a Design Phase	
b Construction Administration	
c Scheduling Consultant for Large Projects	
d Reinforcement Repair Construction Administration	\$ 11,000
e	
f	
Subtotal Engineering Consultants	\$ 11,000
3) Legal & Financial	
a Easements	\$ 7,000
b Legal Costs	
c Financial Consultant (For Bond Sale Only) TBD	
d Bond Counsel (Bond Issue Only) TBD	
e OCIP Insurance	
f Official Statement	
g Wetland Mitigation	
Subtotal Legal & Financial	\$ 7,000
4) County Services:	
a Administration & General (ADM)	\$ 13,982
b Engineering (ENG)	\$ 24,468
c Right-Of-Way (ROW)	\$ 6,991
d Construction Inspection (INS)	\$ 25,350
e GIS Mapping (ADM)	\$ 3,495
f Operation Staff (STD) (Shutdowns, Training New Facilities, etc.)	
g Survey (SUR)	
Subtotal County Services	\$ 74,286
Project Subtotal	\$ 441,826
5) 10% Construction Contingency	\$ 44,183
6) Less Anticipated Grant Funds	
7) Total Project Cost	\$ 486,008



DRAIN QUARTER GRID(S)
 9 QUARTER SHEET(S):
 WBT106, WBT107, WBT108,
 WBT109, WBT133, WBT137,
 WBT138, WBT140, WBT143

EDWARDS RELIEF DRAIN REPAIRS



Continued on Sheet WB109

Continued on Sheet WB105

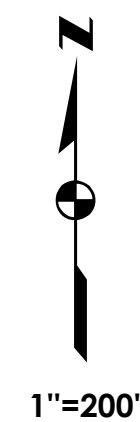
DISCLAIMER:
 The information displayed in this map is compiled from recorded deeds, plats, tax maps, surveys and other public records. Although this information is intended to accurately reflect public information, it is not a legally recorded map or survey and is not intended to be used as one. Users should consult primary/original information sources where appropriate.

EDWARDS RELIEF DRAIN REPAIRS

One Public Works Drive
 Building 95 West
 Waterford, Michigan
 48328-1907



STORM DRAIN LEGEND	
Storm Gravity Pipe	Combined Non-Gravity Main
Online Storm Pipe	Comb FM Interceptor
Online Storm Culvert	Comb FM Trunk
Prop Storm Pipe / Culvert	Treated Effluent
Aband Storm Pipe / Culvert	Aband Comb FM Interceptor
Private / Maintained by Others	Comb FM/PS Lateral
Non WRC Culvert	Aband Comb FM/PS Trunk or Lateral
Virtual Drain Line	Private or Maint. by Others Comb FM/PS
Artificial Hydro Pathway	Open Storm Features
Combined Gravity Main	Channel - No Easement
Comb Interceptor	Spillway
Private or Maint. by Others Interceptor	Aband Channel
Aband Comb Interceptor	Stream/River
Comb Lateral	Sediment Basin/Silling Basin
Treated Effluent	WRC Retention/Detention Basin
Proposed Comb Lateral	WRC Channel
Aband Comb Lateral	Private Retention/Detention Basin
Private or Maint. by Others Comb	Non WRC Lake/Pond or Stream/River
Proposed Private or Maint. by Others	Non WRC Swamp / Marsh
Virtual Combined Line	Storm Structures
Storm Drain Proposed Project	Standard Manhole / Access Point
Vault	Junction Chamber
Large pipe	Siphon Structure
Private Large Pipe	Catch Basin
Retention/Detention Vault/Basin	Inlet w/ End Section
Private Retention/Detention Vault/Basin	Leaching Basin
Storm Siphons	Inlet w/ Headwall
Online Siphon	Pipe Outlet w/ End Section
Prop Siphon	Pipe Outlet w/ Headwall
Private Siphon	Access Manhole
Aband Siphon	Access Point
Storm Force Main	
Online Force Main	
Prop Force Main	
Aband Force Main	
Private / Maintained by Others	
Storm Drain Permit Location	
	Air Release Valve
	Cleanout
	Bulkhead or Cap
	Inlet/Reducer
	Basin Tap, TV, or Blind Connection
	No Access Chamber
	Restrictor / Office
	Weir
	DIV Diversion Chamber
	REG Flow Regulator
	DAM Dam
	Dam Maintained by Others
	Augmentation Well
	LS Drain / Lake Level Lift Station
	Control Structure
	Overflow Structure
	Special Structure
	Oil/Grit Separator Structure
	Untreated Outfall
	Treated Outfall
	Sleeved Utility Crossing
	CIPP Line
	Grout
	Grout/Chip Deposits
	Obstruction Removal/Grout
	Open Cut
	Reinforcement Repair
	Reinforcement Repair/Grout
	Spot Line
	Spot Line/Cleaning



Continued on Sheet WB1112

Continued on Sheet WB1108

DISCLAIMER:
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EDWARDS RELIEF DRAIN REPAIRS

One Public Works Drive
 Building 95 West
 Waterford, Michigan
 48328-1907

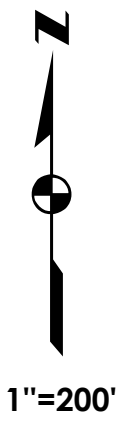


STORM DRAIN LEGEND	
Storm Gravitly Pipe	Combined Non-Gravitly Main
Online Storm Pipe	Comb FM Interceptor
Online Storm Culvert	Comb FM Trunk
Prop Storm Pipe / Culvert	Treated Effluent
Aband Storm Pipe / Culvert	Aband Comb FM Interceptor
Private / Maintained by Others	Comb FM/PS Lateral
Non WRC Culvert	Aband Comb FM/PS Trunk or Lateral
Virtual Drain Line	Private or Maint. by Others Comb FM/PS
Artificial Hydro Pathway	
Combined Gravitly Main	Open Storm Features
Comb Interceptor	Channel - No Easement
Private or Maint. by Others Interceptor	Splway
Aband Comb Interceptor	Aband Channel
Treated Effluent	WRC Retention/Detention Basin
Proposed Comb Lateral	WRC Lake Level
Aband Comb Lateral	Private Retention/Detention Basin
Private or Maint. by Others Comb	Non WRC Lake/Pond or Stream/River
Proposed Private or Maint. by Others	Non WRC Swamp / Marsh
Virtual Combined Line	Storm Structures
Storm Drain Proposed Project	Vault
Storm Siphons	Large pipe
Online Siphon	Private Large Pipe
Prop Siphon	Retention/Detention Vault/Basin
Private Siphon	Private Retention/Detention Vault/Basin
Aband Siphon	
Storm Force Main	
Online Force Main	
Prop Force Main	
Aband Force Main	
Private / Maintained by Others	
Storm Drain Permit Location	
	All Release Valve
	Cleanout
	Bulkhead or Cap
	Increase / Reducer
	Boiler Tap, TV, or Blind Connection
	No Access Chamber
	Restrictor / Orifice
	Waiver
	DI V
	REG
	DAM
	Dam Maintained by Others
	Augmentation Well
	LS
	Drain / Lake Level Lift Station
	C
	Control Structure
	Overflow Structure
	Special Structure
	Oil/Grit Separator Structure
	Untreated Outfall
	Treated Outfall
	Sieved Utility Crossing
	CIPP Line
	Grout
	Grout/Chip Deposits
	Obstruction Removal/Grout
	Open Cut
	Reinforcement Repair
	Reinforcement Repair/Grout
	Spot Line
	Spot Line/Cleaning

SW
 Section 27

WEST BLOOMFIELD
STORM DRAIN SYSTEMS
 Township of West Bloomfield

SHEET
107



Continued on Sheet WBT107

Continued on Sheet WBT103

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EDWARDS RELIEF DRAIN REPAIRS

One Public Works Drive
 Building 95 West
 Waterford, Michigan
 48328-1907



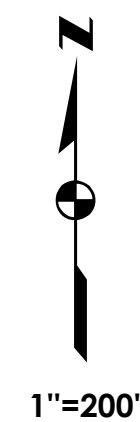
STORM DRAIN LEGEND	
Storm Gravitly Pipe	Combined Non-Gravitly Main
Online Storm Pipe	Comb FM Interceptor
Online Storm Culvert	Comb FM Trunk
Prop Storm Pipe / Culvert	Treated Effluent
Aband Storm Pipe / Culvert	Aband Comb FM Interceptor
Private / Maintained by Others	Comb FM/PS Lateral
Non WRC Culvert	Aband Comb FM/PS Trunk or Lateral
Virtual Drain Line	Private or Maint. by Others Comb FM/PS
Artificial Hydr Pathway	
Combined Gravitly Main	Open Storm Features
Comb Interceptor	Channel - No Easement
Private or Maint. by Others Interceptor	Splway
Aband Comb Interceptor	Aband Channel
Comb Lateral	Stream/River
Treated Effluent	WRC Retention/Detention Basin
Proposed Comb Lateral	WRC Lake Level
Aband Comb Lateral	WRC Channel
Private or Maint. by Others Comb	Private Retention/Detention Basin
Proposed Private or Maint. by Others	Non WRC Lake/Pond or Stream/River
Virtual Combined Line	Non WRC Swamp / Marsh
Storm Drain Proposed Project	Storm Structures
Vault	Standard Manhole / Access Point
Large pipe	Junction Chamber
Private Large Pipe	Catch Basin
Retention/Detention Vault/Basin	Inlet w/ End Section
Private Retention/Detention Vault/Basin	Leaching Basin
Storm Siphons	Inlet w/ Headwall
Online Siphon	Pipe Outlet w/ End Section
Prop Siphon	Pipe Outlet w/ Headwall
Private Siphon	Access Manhole
Aband Siphon	Access Point
Private / Maintained by Others	
Storm Drain Permit Location	
	All Release Valve
	Cleanout
	Bulkhead or Cap
	Increase / Reducer
	Boiler Tap, TV, or Blind Connection
	No Access Chamber
	Restrictor / Orifice
	Weir
	Diversion Chamber
	Flow Regulator
	DAM
	Dam Maintained by Others
	Augmentation Well
	LS
	Drain / Lake Level Lift Station
	C
	Control Structure
	Overflow Structure
	Special Structure
	Oil Grl Separator Structure
	Untreated Outfall
	Treated Outfall
	Sieved Utility Crossing
	CIPP Line
	Grout
	Grout/Chip Deposits
	Obstruction Removal/Grout
	Open Cut
	Reinforcement Repair
	Reinforcement Repair/Grout
	Spot Line
	Spot Line/Cleaning

SE Section 27

WEST BLOOMFIELD
STORM DRAIN SYSTEMS
 Township of West Bloomfield

SHEET 108

Map Printed Sep 25, 2023



Continued on Sheet WBT110

Continued on Sheet WBT106

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EDWARDS RELIEF DRAIN REPAIRS

One Public Works Drive
Building 95 West
Waterford, Michigan
48328-1907



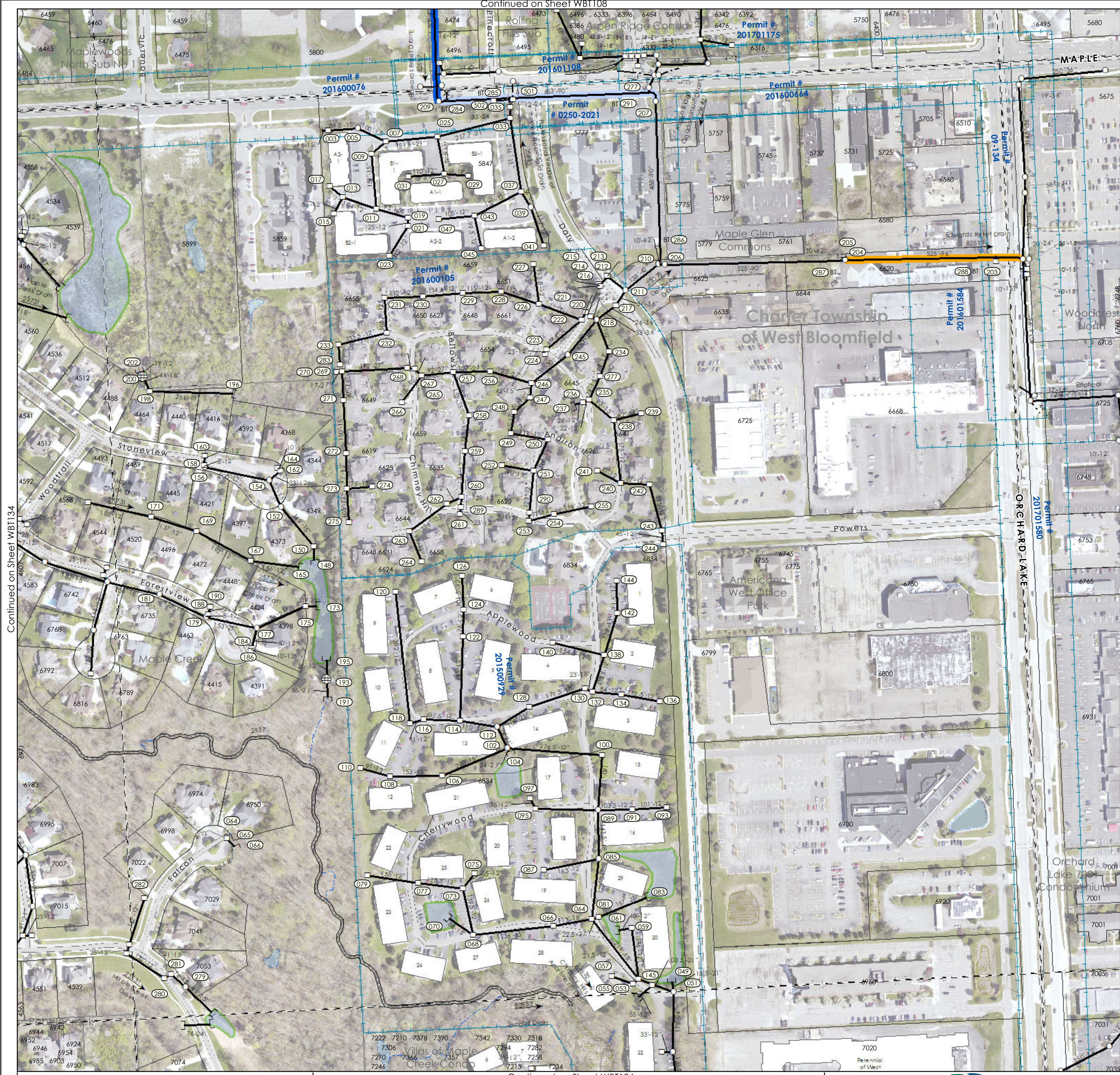
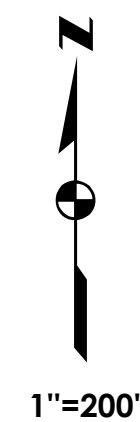
STORM DRAIN LEGEND	
Storm Gravitly Pipe	Combined Non-Gravitly Main
Online Storm Pipe	Comb FM Interceptor
Online Storm Pipe / Culvert	Comb FM Trunk
Prop Storm Pipe / Culvert	Treated Effluent
Aband Storm Pipe / Culvert	Aband Comb FM Interceptor
Private / Maintained by Others	Comb FM/PS Lateral
Non WRC Culvert	Aband Comb FM/PS Lateral
Virtual Drain Line	Private Comb FM/PS Trunk or Lateral
Artificial Hydro Pathway	Private or Maint. by Others Comb FM/PS
Combined Gravitly Main	Open Storm Features
Comb Interceptor	Channel - No Easement
Private or Maint. by Others Interceptor	Slightway
Aband Comb Interceptor	Aband Channel
Treated Effluent	Stream/River
Proposed Comb Lateral	Sediment Basin / Silling Basin
Aband Comb Lateral	WRC Retention/Detention Basin
Private or Maint. by Others Comb	WRC Lake Level
Proposed Private or Maint. by Others	WRC Channel
Virtual Combined Line	Private Retention/Detention Basin
Storm Drain Proposed Project	Non WRC Lake/Pond or Stream/River
Vault	Non WRC Swamp / Marsh
Large pipe	Storm Structures
Private Large Pipe	Standard Manhole / Access Point
Retention/Detention Vault/Basin	Junction Chamber
Private Retention/Detention Vault/Basin	Catch Basin
Storm Siphons	Inlet w/ End Section
Online Siphon	Leaching Basin
Prop Siphon	Inlet w/ Headwall
Private Siphon	Pipe Outlet w/ End Section
Aband Siphon	Pipe Outlet w/ Headwall
Storm Force Main	Access Manhole
Online Force Main	Access Point
Prop Force Main	
Private Force Main	
Private / Maintained by Others	
Storm Drain Permit Location	
	All Release Valve
	Cleanout
	Bulkhead or Cap
	Increase / Reducer
	Boiler Tap, TV, or Blind Connection
	No Access Chamber
	Restrictor / Orifice
	Well
	DI V
	REG
	Flow Regulator
	DAM
	Dam
	Dam Maintained by Others
	Augmentation Well
	LS
	Drain / Lake Level Lift Station
	C
	Control Structure
	Overflow Structure
	Special Structure
	Oil/Grease Separator Structure
	Untreated Outfall
	Treated Outfall
	Sieved Utility Crossing
	CIPP Line
	Grout
	Grout/Chip Deposits
	Obstruction Removal/Grout
	Open Cut
	Reinforcement Repair
	Reinforcement Repair/Grout
	Spot Line
	Spot Line/Cleaning

NE Section 28

WEST BLOOMFIELD STORM DRAIN SYSTEMS Township of West Bloomfield

SHEET 109

Map Printed Sep 25, 2023



Continued on Sheet WB1134

Continued on Sheet WB1138

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EDWARDS RELIEF DRAIN REPAIRS

One Public Works Drive
 Building 95 West
 Waterford, Michigan
 48328-1907



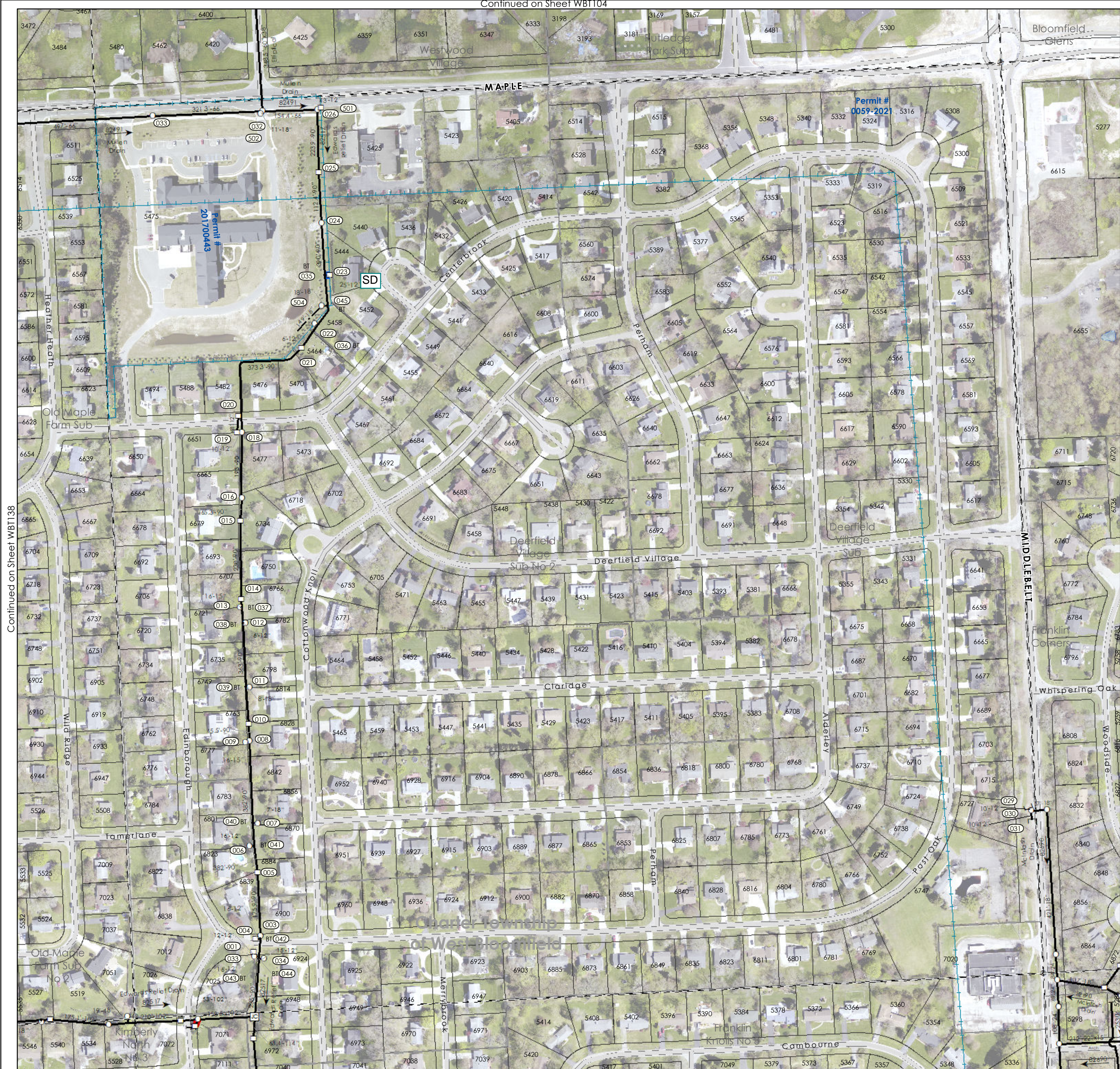
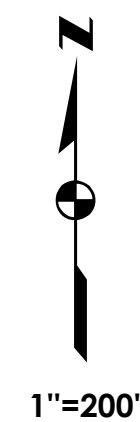
STORM DRAIN LEGEND	
Storm Gravitly Pipe	Combined Non-Gravitly Main
Online Storm Pipe	Comb FM Interceptor
Online Storm Culvert	Comb FM Trunk
Prop Storm Pipe / Culvert	Treated Effluent
Aband Storm Pipe / Culvert	Aband Comb FM Interceptor
Private / Maintained by Others	Comb FM/PS Lateral
Non WRC Culvert	Aband Comb FM/PS Trunk or Lateral
Virtual Drain Line	Private or Maint. by Others Comb FM/PS
Artificial Hydro Pathway	
Combined Gravitly Main	Open Storm Features
Comb Interceptor	Channel
Private or Maint. by Others Interceptor	Channel - No Easement
Aband Comb Interceptor	Slyway
Treated Effluent	Aband Channel
Proposed Comb Lateral	Stream/River
Aband Comb Lateral	Sediment Basin / Stilling Basin
Private or Maint. by Others Comb	WRC Retention/Detention Basin
Proposed Private or Maint. by Others	WRC Lake Level
Virtual Combined Line	WRC Channel
Storm Drain Proposed Project	Private Retention/Detention Basin
Vault	Non WRC Lake/Pond or Stream/River
Large pipe	Non WRC Swamp / Marsh
Private Large Pipe	Storm Structures
Retention/Detention Vault/Basin	Standard Manhole / Access Point
Private Retention/Detention Vault/Basin	Junction Chamber
Storm Siphons	Catch Basin
Online Siphon	Inlet w/ End Section
Prop Siphon	Leaching Basin
Private Siphon	Inlet w/ Headwall
Aband Siphon	Pipe Outlet w/ Headwall
Storm Force Main	Access Manhole
Online Force Main	Access Point
Prop Force Main	
Aband Force Main	
Private / Maintained by Others	
Storm Drain Permit Location	
	All Release Valve
	Cleanout
	Bulkhead or Cap
	Increase / Reducer
	Barrel Tap, TV, or Blind Connection
	No Access Chamber
	Restrictor / Orifice
	Weir
	Diversion Chamber
	Flow Regulator
	DAM
	Dam Maintained by Others
	Augmentation Well
	Drain / Lake Level Lift Station
	Control Structure
	Overflow Structure
	Special Structure
	Oil/Grit Separator Structure
	Untreated Outfall
	Treated Outfall
	Sieved Utility Crossing
	CIPP Line
	Grout
	Grout/Chip Deposits
	Obstruction Removal/Grout
	Open Cut
	Reinforcement Repair
	Reinforcement Repair/Grout
	Spot Line
	Spot Line/Cleaning

NE Section 34

WEST BLOOMFIELD STORM DRAIN SYSTEMS Township of West Bloomfield

SHEET 133

Map Printed Sep. 25, 2023



Continued on Sheet WB1138

Continued on Sheet WB1142

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EDWARDS RELIEF DRAIN REPAIRS

One Public Works Drive
 Building 95 West
 Waterford, Michigan
 48328-1907



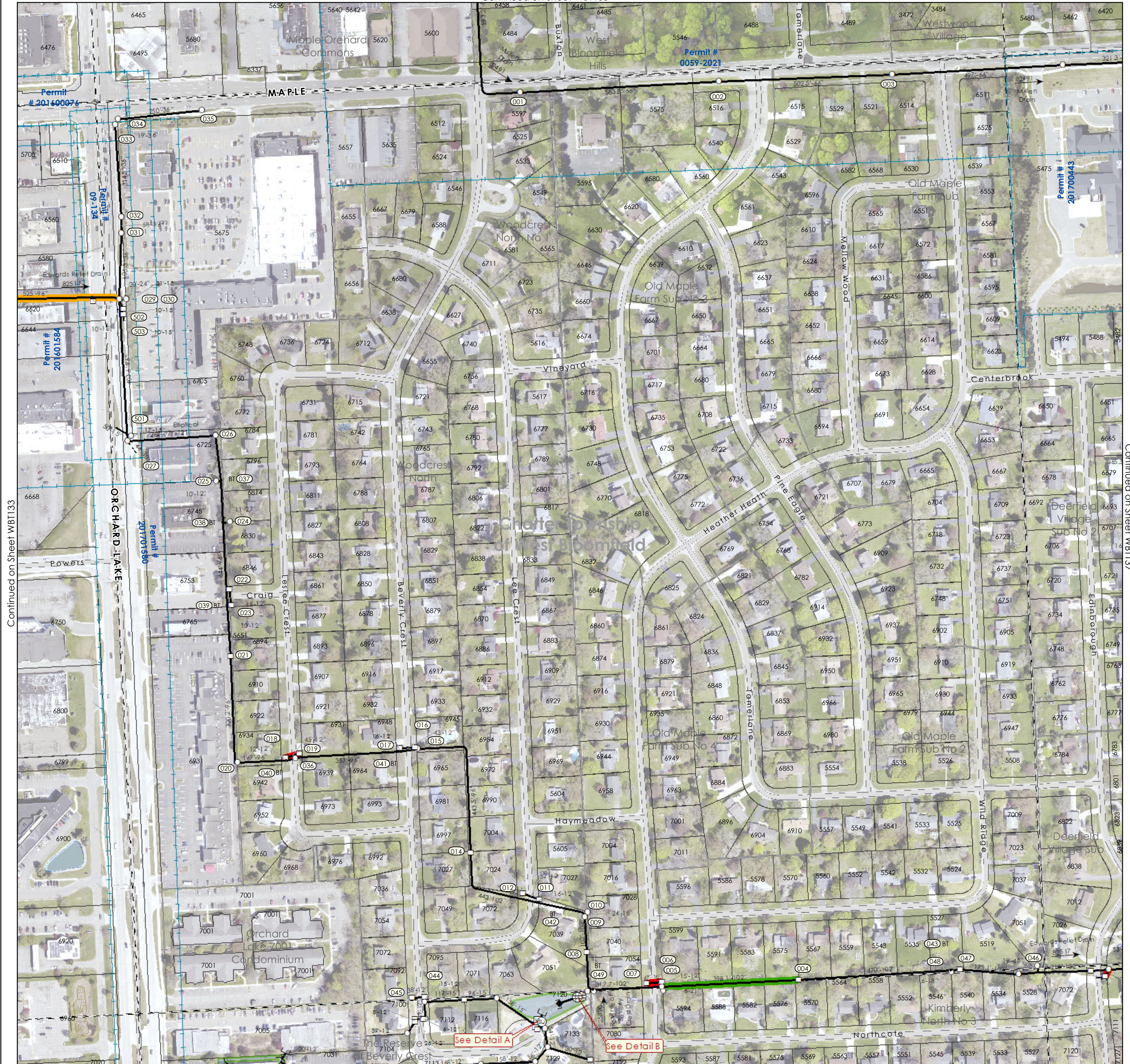
STORM DRAIN LEGEND	
Storm Gravitly Pipe	Combined Non-Gravitly Main
Online Storm Pipe	Comb FM Interceptor
Online Storm Culvert	Comb FM Trunk
Prop Storm Pipe / Culvert	Treated Effluent
Aband Storm Pipe / Culvert	Aband Comb FM Interceptor
Private / Maintained by Others	Comb FM/PS Lateral
Non WRC Culvert	Aband Comb FM/PS Trunk or Lateral
Virtual Drain Line	Private or Maint. by Others Comb FM/PS
Artificial Hydro Pathway	Open Storm Features
Combined Gravitly Main	Channel - No Easement
Comb Interceptor	Slyway
Private or Maint. by Others Interceptor	Aband Channel
Aband Comb Interceptor	Stream/River
Comb Lateral	Sediment Basin / Stilling Basin
Treated Effluent	WRC Retention/Detention Basin
Proposed Comb Lateral	WRC Channel
Aband Comb Lateral	WRC Lake Level
Private or Maint. by Others Comb	WRC Retention/Detention Basin
Proposed Private or Maint. by Others	Non WRC Lake/Pond or Stream/River
Virtual Combined Line	Non WRC Swamp / Marsh
Storm Drain Proposed Project	Storm Structures
Vault	Standard Manhole / Access Point
Large pipe	Junction Chamber
Private Large Pipe	Catch Basin
Retention/Detention Vault/Basin	Inlet w/ End Section
Private Retention/Detention Vault/Basin	Leaching Basin
Storm Siphons	Inlet w/ Headwall
Online Siphon	Pipe Outlet w/ End Section
Prop Siphon	Pipe Outlet w/ Headwall
Private Siphon	Access Manhole
Aband Siphon	Access Point
Private / Maintained by Others	
Storm Drain Permit Location	
	All Release Valve
	Cleanout
	Bulkhead or Cap
	Increase / Reducer
	Boiler Tap, TV, or Blind Connection
	No Access Chamber
	Restrictor / Orifice
	Well
	DI V
	Flow Regulator
	DAM
	Dam
	Dam Maintained by Others
	Augmentation Well
	LS
	Drain / Lake Level Lift Station
	C
	Control Structure
	Overflow Structure
	Special Structure
	Oil/Grit Separator Structure
	Untreated Outfall
	Treated Outfall
	Sieved Utility Crossing
	CIPP Line
	Grout
	Grout/Chip Deposits
	Obstruction Removal/Grout
	Open Cut
	Reinforcement Repair
	Reinforcement Repair/Grout
	Spot Line
	Spot Line/Cleaning

NE Section 35

WEST BLOOMFIELD
STORM DRAIN SYSTEMS
 Township of West Bloomfield

SHEET 137

Map Printed Sep 25, 2023



Continued on Sheet WB1133

Continued on Sheet WB1137

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EDWARDS RELIEF DRAIN REPAIRS

One Public Works Drive
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 Waterford, Michigan
 48328-1907



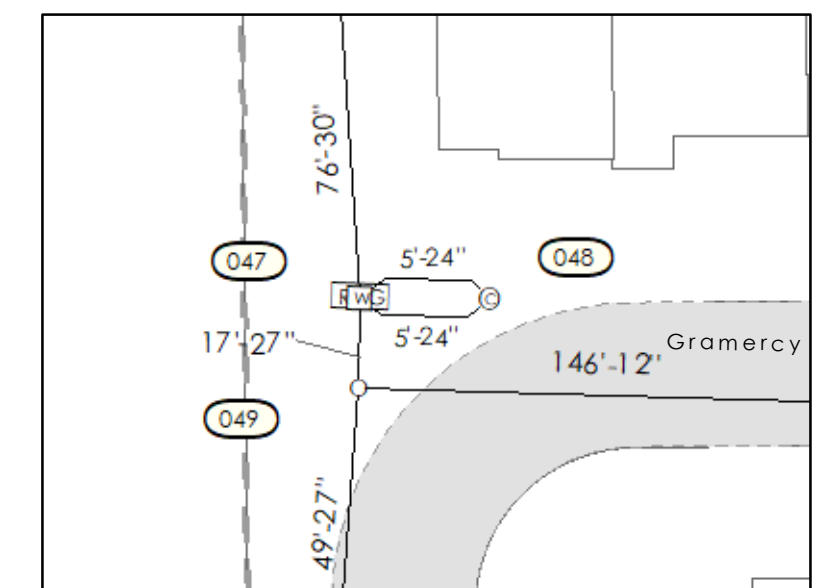
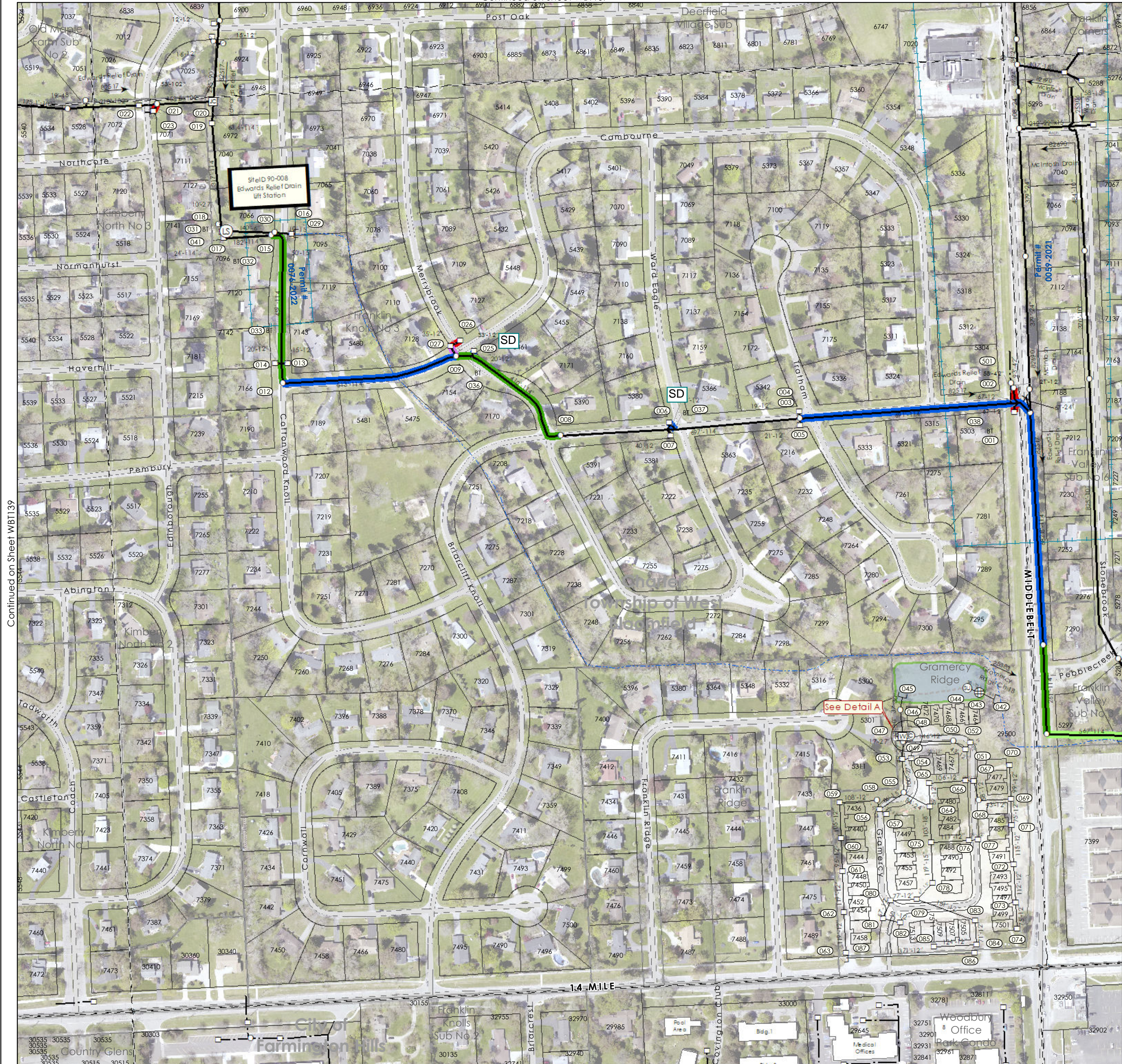
STORM DRAIN LEGEND	
Storm Gravitly Pipe	Combined Non-Gravitly Main
Online Storm Pipe	Comb FM Interceptor
Online Storm Culvert	Comb FM Trunk
Prop Storm Pipe / Culvert	Treated Effluent
Aband Storm Pipe / Culvert	Aband Comb FM Interceptor
Private / Maintained by Others	Comb FM/PS Lateral
Non WRC Culvert	Aband Comb FM/PS Trunk or Lateral
Virtual Drain Line	Private or Maint. by Others Comb FM/PS
Artificial Hydr Pathway	
Combined Gravitly Main	Open Storm Features
Comb Interceptor	Channel - No Easement
Private or Maint. by Others Interceptor	Sigilway
Aband Comb Interceptor	Aband Channel
Comb Lateral	Stream/River
Treated Effluent	Sediment Basin / Stilling Basin
Proposed Comb Lateral	WRC Retention/Detention Basin
Aband Comb Lateral	WRC Lake Level
Private or Maint. by Others Comb	WRC Channel
Proposed Private or Maint. by Others	Non WRC Retention/Detention Basin
Virtual Combined Line	Non WRC Lake/Pond or Stream/River
Storm Drain Proposed Project	Non WRC Swamp / Marsh
Storm Siphons	Storm Structures
Online Siphon	Standard Manhole / Access Point
Prop Siphon	Junction Chamber
Private Siphon	Catch Basin
Aband Siphon	Inlet w/ End Section
Private / Maintained by Others	Leaching Basin
Storm Drain Permit Location	Pipe Outlet w/ End Section
	Pipe Outlet w/ Headwall
	Access Manhole
	Access Point
	All Release Valve
	Cleanout
	Bulkhead or Cap
	Increase / Reducer
	Barrel Tap, Tee, or Blind Connection
	No Access Chamber
	Restrictor / Orifice
	Waiver
	Division Chamber
	Flow Regulator
	DAM
	Dam
	Dam Maintained by Others
	Augmentation Well
	LS
	Drain / Lake Level Lift Station
	C
	Control Structure
	Overflow Structure
	Special Structure
	Oil Grl Separator Structure
	Untreated Outfall
	Treated Outfall
	Sieved Utility Crossing
	CIPP Line
	Grout
	Grout/Chip Deposits
	Obstruction Removal/Grout
	Open Cut
	Reinforcement Repair
	Reinforcement Repair/Grout
	Spot Line
	Spot Line/Cleaning

NW Section 35

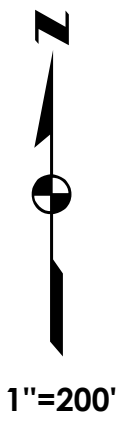
WEST BLOOMFIELD
STORM DRAIN SYSTEMS
 Township of West Bloomfield

SHEET 138

Map Printed Sep. 25, 2023



Detail A



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EDWARDS RELIEF DRAIN REPAIRS

One Public Works Drive
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 48328-1907

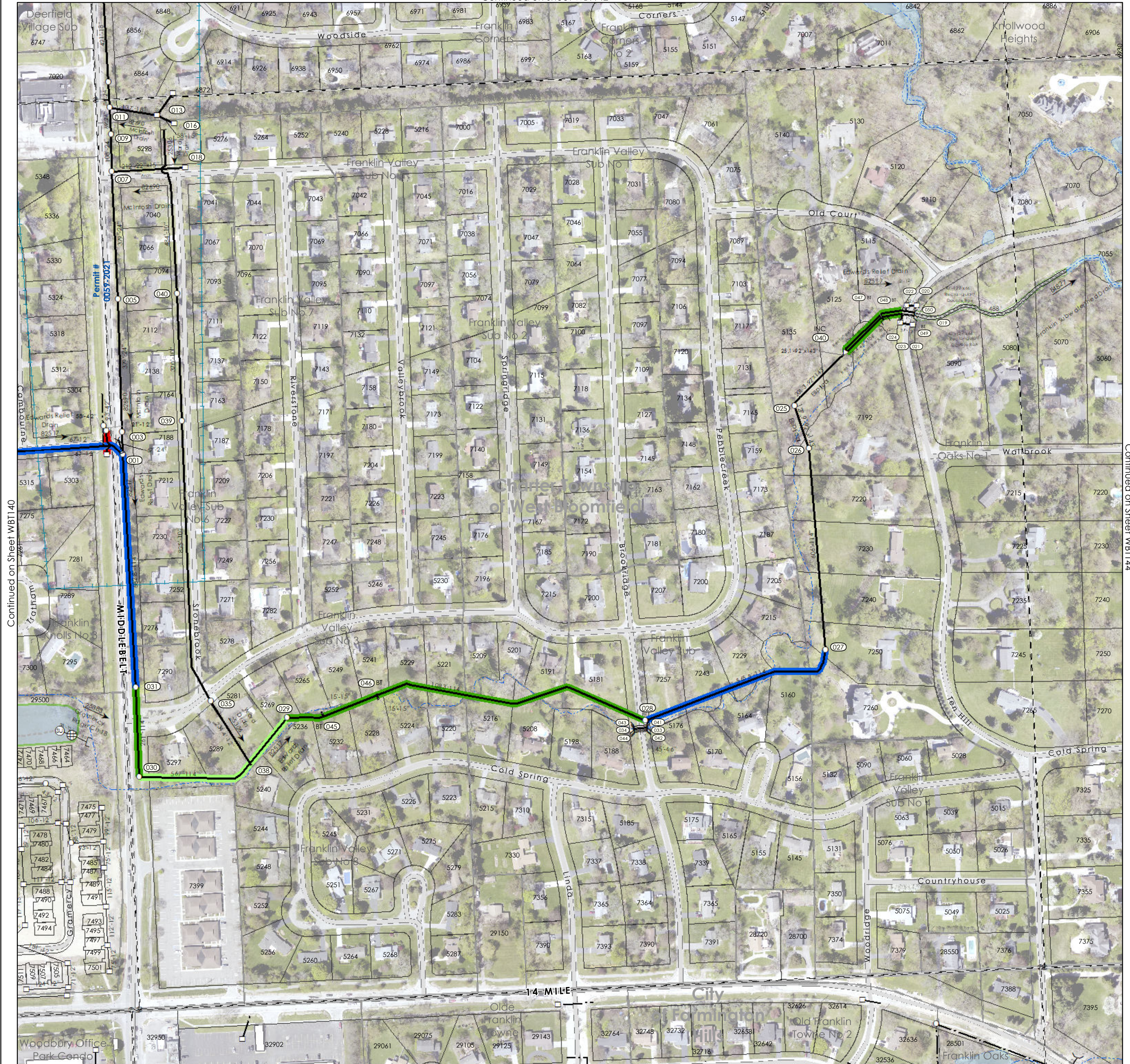


STORM DRAIN LEGEND	
Storm Gravitly Pipe	Combined Non-Gravitly Main
Online Storm Pipe	Comb FM Interceptor
Abandon Storm Pipe / Culvert	Comb FM Trunk
Private / Maintained by Others	Treated Effluent
Non WRC Culvert	Abandon Comb FM Interceptor
Virtual Drain Line	Comb FM/PS Lateral
Artificial Hydro Pathway	Abandon Comb FM/PS Trunk or Lateral
Combined Gravitly Main	Open Storm Features
Comb Interceptor	Channel - No Easement
Private or Maint. by Others Interceptor	Sigilway
Abandon Comb Interceptor	Abandon Channel
Comb Lateral	Stream/River
Treated Effluent	Sediment Basin / Stilling Basin
Proposed Comb Lateral	WRC Retention/Detention Basin
Abandon Comb Lateral	WRC Lake Level
Private or Maint. by Others Comb	WRC Channel
Proposed Private or Maint. by Others	Private Retention/Detention Basin
Virtual Combined Line	Non WRC Lake/Pond or Stream/River
Storm Drain Proposed Project	Storm WRC Swamp / Marsh
Storm Siphons	Storm Structures
Online Siphon	Standard Manhole / Access Point
Prop Siphon	Junction Chamber
Private Siphon	Catch Basin
Abandon Siphon	Inlet w/ End Section
Private / Maintained by Others	Leaching Basin
Storm Drain Permit Location	Inlet w/ Headwall
	Pipe Outlet w/ End Section
	Pipe Outlet w/ Headwall
	Access Manhole
	Access Point
	All Release Valve
	Cleanout
	Bulkhead or Cap
	Increase / Reducer
	Barrel Tap, TV, or Blind Connection
	No Access Chamber
	Restrictor / Orifice
	Waiver
	Division Chamber
	Flow Regulator
	DAM
	Dam
	Dam Maintained by Others
	Augmentation Well
	Drain / Lake Level Lift Station
	Control Structure
	Overflow Structure
	Special Structure
	Oil/Girl Separator Structure
	Untreated Outfall
	Treated Outfall
	Sieved Utility Crossing
	CIPP Line
	Grout
	Grout/Chip Deposits
	Obstruction Removal/Grout
	Open Cut
	Reinforcement Repair
	Reinforcement Repair/Grout
	Spot Line
	Spot Line/Cleaning

SE
 Section 35

**WEST BLOOMFIELD
 STORM DRAIN SYSTEMS**
 Township of West Bloomfield

**SHEET
 140**



Continued on Sheet WB1140

Continued on Sheet WB1144

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EDWARDS RELIEF DRAIN REPAIRS

One Public Works Drive
 Building 95 West
 Waterford, Michigan
 48328-1907



STORM DRAIN LEGEND	
Storm Gravitly Pipe	Combined Non-Gravitly Main
Online Storm Pipe	Comb FM Interceptor
Online Storm Culvert	Comb FM Trunk
Prop Storm Pipe / Culvert	Treated Effluent
Private / Maintained by Others	Aband Comb FM Interceptor
Non WRC Culvert	Comb FM/PS Lateral
Virtual Drain Line	Aband Comb FM/PS Trunk or Lateral
Artificial Hydro Pathway	Private or Maint. by Others Comb FM/PS
Combined Gravitly Main	Open Storm Features
Comb Interceptor	Channel - No Easement
Private or Maint. by Others Interceptor	Sillway
Comb Lateral	Aband Channel
Treated Effluent	Stream/River
Proposed Comb Lateral	Sediment Basin/Silling Basin
Aband Comb Lateral	WRC Retention/Detention Basin
Private or Maint. by Others Comb	WRC Lake Level
Proposed Private or Maint. by Others	Private Channel
Virtual Combined Line	Private Retention/Detention Basin
Storm Drain Proposed Project	Non WRC Lake/Pond or Stream/River
Vault	Non WRC Swamp / Marsh
Large pipe	Storm Structures
Private Large Pipe	Standard Manhole / Access Point
Retention/Detention Vault/Basin	Junction Chamber
Private Retention/Detention Vault/Basin	Catch Basin
Storm Siphons	Inlet w/ End Section
Online Siphon	Leaching Basin
Prop Siphon	Inlet w/ Headwall
Private Siphon	Pipe Outlet w/ End Section
Aband Siphon	Pipe Outlet w/ Headwall
Private / Maintained by Others	Access Manhole
Storm Drain Permit Location	Access Point
	All Release Valve
	Cleanout
	Bulkhead or Cap
	Increase / Reducer
	Barrel Tap, TV, or Blind Connection
	No Access Chamber
	Restrictor / Orifice
	Weir
	Diversion Chamber
	Flow Regulator
	DAM
	Dam Maintained by Others
	Augmentation Well
	LS
	Drain / Lake Level Lift Station
	C
	Control Structure
	Overflow Structure
	Special Structure
	Oil/Grit Separator Structure
	Untreated Outfall
	Treated Outfall
	Sieved Utility Crossing
	CIPP Line
	Grout
	Grout/Chip Deposits
	Obstruction Removal/Grout
	Open Cut
	Reinforcement Repair
	Reinforcement Repair/Grout
	Spot Line
	Spot Line/Cleaning

SW Section 36

WEST BLOOMFIELD STORM DRAIN SYSTEMS Township of West Bloomfield

SHEET 143

9. Twelve Towns Relief Drain

AGENDA

DRAINAGE BOARD FOR THE TWELVE TOWNS RELIEF DRAIN

April 23, 2024

1. Call meeting to order
2. Approve minutes of meeting of May 22, 2018
3. Public Comments
4. Present Memorandum from Jeffrey Parrott, Supervisor, Right of Way, dated April 23, 2024, requesting the Board authorize the Chairperson to sign the Easement Use Agreement to accommodate the City of Ferndale's proposed construction of multi-use courts across the Drainage District's easement
5. Other business
6. Approve pro rata payment to Drainage Board members
7. Adjourn

**MINUTES OF THE MEETING OF THE DRAINAGE BOARD
FOR THE TWELVE TOWNS RELIEF DRAIN**

May 22, 2018

A meeting of the Drainage Board for the Twelve Towns Relief Drain was held in the office of the Oakland County Water Resources Commissioner, Public Works Building, One Public Works Drive, Waterford, Michigan at 2:00 p.m. on the 22nd day of May, 2018.

The meeting was called to order by the Chairperson.

PRESENT: Jim Nash, Oakland County Water Resources Commissioner

Thomas F. Middleton, Chairperson of the Finance Committee,
Oakland County Board of Commissioners

ABSENT: Michael Gingell, Chairperson of the Oakland County Board of Commissioners

Minutes of the meeting held December 14, 2010 were presented for consideration. It was moved by Middleton, supported by Nash, that the minutes be approved.

ADOPTED: Yeas - 2
Nays - 0

Chairperson Nash asked if there were any public comments. There were none.

A Memorandum from Jeffrey S. Parrott, Right of Way Supervisor, dated May 22, 2018 (as attached) was presented recommending the Board authorize the Chairperson to execute the attached easement document to accommodate the City of Ferndale's request for a watermain easement. It was moved by Middleton, supported by Nash, to authorize the Chairperson to execute the easement document to accommodate the City of Ferndale's request for a watermain easement.

ADOPTED: Yeas - 2
Nays - 0

It was moved by Nash, supported by Middleton, to certify attendance and authorize pro rata payment of \$25 per day to Mr. Middleton.

ADOPTED: Yeas - 2
Nays - 0

There being no further business, the meeting was adjourned.

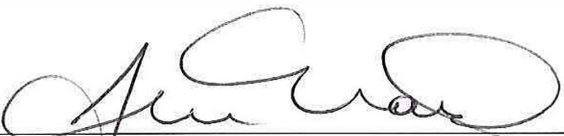


Jim Nash, Chairperson

STATE OF MICHIGAN)
)SS.
COUNTY OF OAKLAND)

I, the undersigned, do hereby certify that the foregoing is a true and complete copy of the minutes of the Twelve Towns Relief Drain, Oakland County, Michigan, held on the 22nd day of May, 2018, and that the minutes are on file in the office of the Oakland County Water Resources Commissioner and are available to the public.

I further certify that the notice of the meeting was posted at least 18 hours in advance of the meeting at the office of the Oakland County Water Resources Commissioner which is the principal office of the Twelve Towns Relief Drain Drainage District.



Jim Nash, Chairperson

Dated: June 18, 2018

**OAKLAND COUNTY
WATER RESOURCES COMMISSIONER**

MEMORANDUM

TO: Jim Nash, Chairperson of the Twelve Towns Relief Drains Drainage District

FROM: Jeffrey Parrott, Supervisor, Right of Way

SUBJECT: City of Ferndale, Martin Road Park Improvements – Easement Use Agreement

DATE: April 23, 2024

The City of Ferndale is proposing to construct a multi-use court including basketball and pickleball courts over and across existing easement for the Twelve Towns Relief Drains. Staff has no objection to the construction of these improvements provided there is an Easement Use Agreement between City of Ferndale and the Drainage District.

Attached is an Easement Use Agreement signed by the mayor and clerk of the City of Ferndale including the construction plans as exhibits for your review.

Requested Action: Authorize the chairperson to sign the Easement Use Agreement to accommodate the City of Ferndale’s proposed construction of multi-use courts across the Twelve Towns Relief Drains easement.

EASEMENT USE AGREEMENT

This Agreement made and entered into this _____ day of _____, 2024 (“Effective Date”) by and between the **CITY OF FERNDALE**, a Michigan municipal corporation, whose address is 300 E. Nine Mile Road, Ferndale, MI 48220, (“City”) and the **TWELVE TOWNS RELIEF DRAINS DRAINAGE DISTRICT**, a Michigan Statutory Corporation, acting through the Drainage Board for the **TWELVE TOWNS RELIEF DRAINS (“Drain”)** pursuant to Chapter 20 of Act No. 40 of the Public Acts of 1956, as amended (Michigan Drain Code), (the “District”), whose address is the Office of the Oakland County Water Resources Commissioner (“WRC”), One Public Works Drive, Waterford, Michigan, 48328-1907.

WITNESSETH:

WHEREAS, City is the owner of certain property as tenants by the entirety, said property being more particularly described as:

Land situated in the City of Ferndale, County of Oakland, State of Michigan described as follows:

Town 1 North, Range 11 East, Section 26, that part of the South 20 Acres of the Northeast 1/4 of the Southwest 1/4, lying South of a line running East & West and distant North 514.18 feet from and parallel with the centerline of Orchard Avenue.

Sidwell No. 25-26-326-010

Commonly Known As: Martin Road Park

WHEREAS, there are permanent easements located over said property for storm drainage purposes, said easements having been granted to the **District** as recorded in **Liber 4061, Pages 856 through 859**, and **Liber**

4263 Pages 636 through 639, Oakland County Records and attached as Exhibit A; and,

WHEREAS, City acknowledges and accepts the rights of the **District** in permanently maintaining control and usage of said easements; and,

WHEREAS, City desires to construct multi-use courts consisting of 6-inch diameter underdrain, geotextile fabric, 21AA aggregate base, hot mix asphalt 31A LS, hot mix asphalt 4 EML, landscaping, 6-foot-tall and 10-foot-tall chain-link fencing, galvanized fence posts spaced 10-foot apart and 3-foot six-inches deep, basketball hoop post 54-inches deep with concrete, and related appurtenances (hereinafter referred to as "**Improvements**") within said easement; and,

WHEREAS, the **District** does not object to the placement of said **Improvements** within the easements as approved at its Board meeting _____, 2024 subject to the following terms and conditions.

NOW, THEREFORE, in consideration of the premises and covenants and undertakings hereinafter contained, and for **ONE DOLLAR (\$1.00)**, receipt of which is hereby acknowledged, **City** and **District** mutually agree as follows:

- 1) **City** shall be allowed to construct and maintain the **Improvements** within said easements as depicted in the attached site plans prepared by Giffels Webster, Project No. 19034.14, dated January 4, 2024, attached as **Exhibit B**, and approved by the **District**. Said **Improvements** to be used for **City** purposes, and shall further be subject to the following conditions:
 - a) **City** shall not change or modify the **Improvements** located within the easement without prior approval from the **District**.

- b) **City** shall notify the **District** 48 hours prior to construction to arrange inspection as may be necessary.
 - c) **City** shall obtain a permit from the **District** for said construction, if required.
 - d) **City** shall not change the grade within the easement to interfere with or impede the flow of surface drainage.
 - e) **City** shall have the limits of the easement staked by a qualified surveyor prior to construction.
- 2) The **Improvements** and all related appurtenances shall be subject to the paramount rights of the **District**.
- 3) Except as permitted by this agreement, the **City** shall not build or convey to others permission to build any permanent structures in or on the easement area. As used herein, the term “**permanent structures**” shall include, by way of example but not limitation, buildings, additions, retaining walls or other structures which require footings or structures that impair, obstruct, or adversely affect the rights of the **District** under said easement. Notwithstanding anything else contained herein, in the event it becomes necessary for the **District**, its agents or assigns to maintain, operate, repair, clean, replace, enlarge, relocate, or otherwise improve the drainage system, and in doing so it requires the removal, disassembly, disturbance or destruction of the **Improvements** located within the easement, the **City** shall be solely responsible for any increased costs to the **District** and all costs associated with the restoration of said **Improvements**.

- 4) **City** shall indemnify the **District** against, and shall forever hold the **District** harmless from, any and all losses, liability, actions, claims, demands, costs, expenses, injuries, or damages of any kind whatsoever which may be brought or made which shall be caused by or arise out of any use of the easement by **City** in construction, repair or replacement of the improvements.
- 5) **City** shall acknowledge and further hold harmless the **District** for any and all costs and expenses incurred in and arising out of any use of the easement for any of the purposes legally allowed arising out of the existence of said easement caused by the City, its employees or contractors.
- 6) **City** shall be responsible for any damage to **District's** facility due to construction or future use of the **Improvements**.
- 7) Prior to the Effective Date of this agreement and continuing for the duration of construction of the **Improvements**, **City** shall obtain and maintain General Liability Insurance with minimum limits of **\$500,000.00** per occurrence and **\$500,000.00** dollars aggregate protecting **District** from any and all claims arising from construction of the **Improvements**. **City** shall provide proof of insurance showing **District** as an additional named insured prior to construction.
- 8) **City** and/or its contractor shall be responsible for and obtain any permits, approvals or clearances as may be required from federal, state, or local authorities, the public utilities and private property owners.
- 9) The terms, conditions, covenants, and other provisions contained in this Agreement shall run with the land and be binding upon and inure to the benefit of each of the parties hereto and their respective agents, successors, and assigns;

further, this instrument shall be recorded in the Register of Deeds Office, Oakland County, Michigan, as a condition precedent to effectuation of the Agreement.


(Remainer of this page intentionally left blank)

IN WITNESS WHEREOF, the City has hereunto affixed their signatures this

8 day of April, A.D., 2024.

OWNER

CITY OF FERNDALE, a Michigan
municipal corporation



By: **Raylon Leaks-May**
Its: **Mayor**


By: **Dean Lent**
Its: **Clerk**

ACKNOWLEDGEMENT

STATE OF MICHIGAN)
)SS:
COUNTY OF OAKLAND)

On this 8th day of April, 2024, before me, a Notary Public in and for said County, personally appeared **Raylon Leaks-May, Mayor** and **Dean Lent, Clerk** of the **City of Ferndale**, a Michigan Municipal Corporation, to me known to be the same persons described in and who executed this instrument on behalf of Michigan Municipal Corporation by authority of its City Council, and the **Mayor** and **Clerk** acknowledged this instrument to be the free act and deed of the Michigan Municipal Corporation.


_____, Notary Public
Wayne County, operating in Oakland
My Commission Expires: 10/12/2027
Acting in County of: OAKLAND

Philip D. Whitfield
NOTARY PUBLIC - STATE OF MICHIGAN
COUNTY of WAYNE
My Commission Expires October 12, 2027
Acting in the County of Oakland

IN WITNESS WHEREOF, the **District** has hereunto affixed its signature
this _____ day of _____ A.D., 2024.

**TWELVE TOWNS RELIEF DRAINS
DRAINAGE DISTRICT**, a Michigan
Statutory Corporation, acting through the
Twelve Towns Relief Drains Drainage
Board

By: _____
**Jim Nash, Oakland County
Water Resources Commissioner**

Its: Chairperson

ACKNOWLEDGEMENT

STATE OF MICHIGAN)
)SS:
COUNTY OF OAKLAND)

On this ____ day of _____, 2024, before me a Notary Public,
personally appeared **Jim Nash, Chairperson of the Twelve Towns Relief Drains
Drainage Board**, known to me to be the person who executed the within
instrument and who acknowledged the same to be their free act and deed.

_____, Notary Public
_____ County, _____
My Commission Expires: _____
Acting in County of: _____

This instrument drafted by:
Jeffrey S. Parrott, Supervisor Right of Way
Office of the Oakland County Water Resources Commissioner
Building 95 West
One Public Works Drive
Waterford, Michigan 48328-1907

1-4
26

(1)

EXHIBIT A

RIGHT OF WAY

KNOW ALL MEN BY THESE PRESENTS, that the City of Ferndale, Oakland County, Michigan, a Municipal Corporation, party of the first part, for and in consideration of the sum of One Dollar (\$1.00) and other good and valuable considerations paid to it by the County of Oakland, Michigan, acting through the Drainage Board for the Twelve Towns Relief Drains, under Chapter 20 of Act No. 40 of the Public Acts of 1956, as amended, party of the second part, whose address is No. 550 South Telegraph Road, Pontiac, Michigan, does hereby grant to the said party of the second part the right to construct, operate, maintain, repair and/or replace a portion of the Twelve Towns Relief Drains across and through the following described land situated in the City of Ferndale, Oakland County, Michigan, to-wit:

Easements through the following described parcel of land owned by the City of Ferndale and known as "Martin Road Park", in Section 26, T1N, R11E, City of Ferndale, Oakland County, Michigan:

South 5 acres of the E 10.08 acres of the NE 1/4 of the SW 1/4; south 5 acres of the W 10.08 acres of the E 20.16 acres of the NE 1/4 of the SW 1/4; south 5 acres of the W 10.08 acres of the E 30.24 acres of the NE 1/4 of the SW 1/4,

the description of which easements is as follows:

- (A) A construction easement of 50 feet width and a maintenance easement of 35 feet width, the mutual centerline of which easements commences at a point on the north line of said parcel of land located approximately 118.41 feet west of the west line of Martin Road; thence S 0° 42' W 3.74 feet to a point; thence on a curve to the right delta 65° 15' 15", radius 100.00 feet, arc 113.89 feet, tangent 64.01 feet, a distance of 113.89 feet to a point; thence S 65° 57' W a distance of 67.50 feet.
- (B) A construction easement of 50 feet width and a maintenance easement of 22 feet width, the mutual centerline of which easements commences at a point N 24° 03' W 15.75 feet from the westerly end of easement (A); thence S 65° 57' W a distance of 905.14 feet to a point on the west line of said parcel of land located 205 feet north of the south line of Orchard Avenue.
- (C) A construction easement of 50 feet width and a maintenance easement of 20 feet width, the mutual centerline of which easements commences at a point on the south line of said parcel of land located 12 feet east of the west line of Wrenson Avenue extended northerly; thence northerly and parallel with said extended west line of Wrenson Avenue 455.50 feet to a point;

RECORDED
OAKLAND COUNTY, MICHIGAN
REGISTER OF DEEDS - RECORDS

1960 MAR 24 PM 2 20

Daniel J. Murphy, Jr.
DANIEL J. MURPHY, JR.
CO-CLERK OF REG-DEEDS

William J. Burt
111 S. Troy
Royal Oak

*1/4
7.1.1964*

300

thence on a curve to the right delta 65° 30', radius 70 feet, arc 80.02 feet, tangent 45.02 feet, a distance of 80.02 feet to point located S 24° 03' E 9.0 feet from the westerly end of the center-line of easement (A).

If the said premises shall be disturbed by reason of the exercise of any of the foregoing powers, then said premises shall be restored to its original condition by the party of the second part.

The Drainage Board shall be responsible for the removal of or injury to any trees within the boundaries of the previously described property known as Martin Road Park.

This instrument shall be binding upon and inure to the benefit of the parties hereto, their heirs, representatives, successors and assigns.

IN WITNESS WHEREOF, the party of the first part has caused its signature to be affixed hereto by its duly authorized officers this 19th day of January, A. D. 19 60.

In presence of

CITY OF FERNDALE

Minnie M. Widman
Minnie M. Widman

By Bruce D. Garbutt
Bruce D. Garbutt
Its Mayor

Carolyn Anderson
Carolyn Anderson

By Lawrence P. Kress
Lawrence P. Kress
Its City Clerk

(Seal)

STATE OF MICHIGAN)
) ss:
COUNTY OF OAKLAND)

On this 19th day of January, 19 60, before me personally appeared Bruce D. Garbutt and Lawrence P. Kress, to me personally known, who being by me duly sworn, did each for himself say that they are respectively the Mayor and City Clerk of the municipal corporation named in and which executed the within instrument, and that the seal affixed to said instrument is the corporate seal of said corporation and that said instrument was signed and sealed in behalf of said corporation by authority of its City Commission; and said Bruce D. Garbutt and Lawrence P. Kress acknowledged said instrument to be the free act and deed of said corporation.

Edith F. Currie
Notary Public, Oakland County, Michigan

My commission expires: 3/10/62

(f)

At a regular meeting of the City Commission of the City of Ferndale, Oakland County, Michigan, held in the city hall in said city on the 11th day of January, 1960, at 8:00 o'clock P. M., Eastern Standard Time.

PRESENT: Commissioners O'Donnell, O'Donoghue, Schiffer, Vickers; Mayor Garbutt.

ABSENT: None.

The City Clerk presented the proposed right-of-way agreement referred to in the following resolution.

The following resolution was offered by Commissioner O'Donnell and seconded by Commissioner Vickers :

BE IT RESOLVED, that the Mayor and City Clerk of the City of Ferndale, Michigan, be and they are hereby authorized and directed to execute and deliver, for and on behalf of the city, the right-of-way agreement granting to the County of Oakland, Michigan, acting through the Drainage Board for the Twelve Towns Relief Drains, under the provisions of Chapter 20 of Act No. 40 of the Public Acts of 1956, as amended, the right to construct, use, maintain, repair and/or replace a part of the Twelve Towns Relief Drains and appurtenances across and through the following described lands in said city, to-wit:

Easements through the following described parcel of land owned by the City of Ferndale and known as "Martin Road Park", in Section 26, T1N, R11E, City of Ferndale, Oakland County, Michigan:

South 5 acres of the E 10.08 acres of the NE 1/4 of the SW 1/4; south 5 acres of the W 10.08 acres of the E 20.16 acres of the NE 1/4 of the SW 1/4; south 5 acres of the W 10.08 acres of the E 30.24 acres of the NE 1/4 of the SW 1/4,

the description of which easements is as follows:

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- (B) A construction easement of 50 feet width and a maintenance easement of 22 feet width, the mutual centerline of which easements commences at a point N 24° 03' W 15.75 feet from the westerly end of easement (A); thence S 65° 57' W a distance of 905.14 feet to a point on the west line of said parcel of land located 205 feet north of the south line of Orchard Avenue.

J.A. [Signature]

(C) A construction easement of 50 feet width and a maintenance easement of 20 feet width, the mutual centerline of which easements commences at a point on the south line of said parcel of land located 12 feet east of the west line of Wrenson Avenue extended northerly; thence northerly and parallel with said extended west line of Wrenson Avenue 455.50 feet to a point; thence on a curve to the right delta 65° 30', radius 70 feet, arc 80.02 feet, tangent 45.02 feet, a distance of 80.02 feet to point located S 24° 03' E 9.0 feet from the westerly end of the centerline of Easement (A).

ADOPTED: Yeas Commissioners O'Donnell, O'Donoghue, Schiffer, Vickers; Mayor Garbutt.

Nays None.

STATE OF MICHIGAN)
) ss:
COUNTY OF OAKLAND)

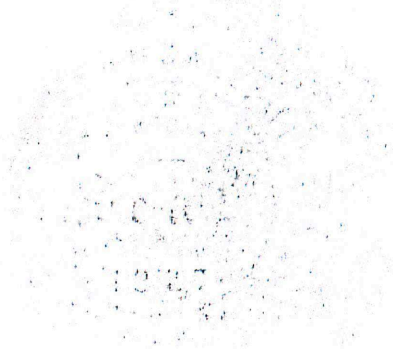
I, the undersigned, the duly qualified and acting Clerk of the City of Ferndale, Oakland County, Michigan, do hereby certify that the foregoing is a true and complete copy of a resolution adopted by the City Commission of said city at the meeting above indicated, the original of which is on file in my office.

IN WITNESS WHEREOF, I have hereunto affixed my official signature this 19th day of January, A. D. 1960.

Lawrence P. Kress

Lawrence P. Kress, City Clerk

(City Seal)



[Handwritten initials]
6/1/74

RIGHT OF WAY

KNOW ALL MEN BY THESE PRESENTS, that the Board of Education of the School District of the City of Hazel Park, Hazel Park, Oakland County, Michigan, a Public Corporation, party of the first part, for and in consideration of the sum of One Dollar (\$1.00) and other good and valuable considerations paid to it by the County of Oakland, Michigan, acting through the Drainage Board for the Twelve Towns Relief Drains, under Chapter 20 of Act No. 40 of the Public Acts of 1956, as amended, party of the second part, whose address is No. 550 South Telegraph Road, Pontiac, Michigan, does hereby grant to the said party of the second part the right to construct, operate, maintain, repair and/or replace a portion of the Twelve Towns Relief Drains across and through the following described land situated in the City of Ferndale, Oakland County, Michigan, to-wit:

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- (C) A construction easement of 50 feet width and a maintenance easement of 20 feet width, the mutual centerline of which easements commences at a point on the south line of said parcel of land located 12 feet east of the west line of Wrenson Avenue extended northerly; thence northerly and parallel with said extended west line of Wrenson Avenue 455.50 feet to a point;

*Twelve Towns Relief Drains
17 E 11th St. Ferndale, Mich*

Handwritten notes and markings in the right margin.

37

thence on a curve to the right delta
65° 30', radius 70 feet, arc 80.02 feet,
tangent 45.02 feet, a distance of 80.02
feet to point located S 24° 03' E 9.0
feet from the westerly end of the center-
line of easement (A).

If the said premises shall be disturbed by reason of the exercise of any of the foregoing powers, then said premises shall be restored to its original condition by the party of the second part.

The Drainage Board shall be responsible for the removal of or injury to any trees within the boundaries of the previously described property known as Martin Road Park.

This instrument shall be binding upon and inure to the benefit of the parties hereto, their heirs, representatives, successors and assigns.

IN WITNESS WHEREOF, the party of the first part has caused its signature to be affixed hereto by its duly authorized officers this 15th day of August A. D. 19661.

In presence of

Wilfred Webb
Wilfred Webb

SCHOOL DISTRICT OF THE CITY OF HAZEL PARK

By Harold F. Neher
Harold F. Neher
Its President

Patricia Quick
Patricia Quick

By Carl J. Bowers
Carl J. Bowers
Its Secretary

STATE OF MICHIGAN)
) ss:
COUNTY OF OAKLAND)

(Seal)

On this 15th day of August, 1961, before me personally appeared Harold F. Neher and Carl J. Bowers, to me personally known, who being by me duly sworn, did each for himself say that they are respectively the President and Secretary of the public corporation named in and which executed the within instrument, and that the seal affixed to said instrument is the corporate seal of said corporation and that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Education; and said Harold F. Neher and Carl J. Bowers acknowledged said instrument to be the free act and deed of said corporation.

E. Paul Frampton
Notary Public, Oakland County, Michigan

My commission expires:

E. PAUL FRAMPTON
Notary Public, Macomb County, Mich.
Acting in Oakland County
My Commission Expires Jan. 16, 1965

At a regular meeting of the Board of Education of the School District of the City of Hazel Park, Hazel Park, Oakland County, Michigan, held in the Board of Education Offices in said city on the 15 day of August, 1961, at 7:42 P. M. o'clock P. M., Eastern Standard Time.

PRESENT: Hitchcock, Lilly, Bowers, Kettlewell

ABSENT Armour, Neher, Scott

The Secretary presented the proposed right-of-way agreement referred to in the following resolution.

The following resolution was offered by Mr. Lilly and seconded by Mr. Hitchcock:

BE IT RESOLVED, that the President and Secretary of the Board of Education of the School District of the City of Hazel Park be and they are hereby authorized and directed to execute and deliver, for and on behalf of the school district, the right-of-way agreement granting to the County of Oakland, Michigan, acting through the Drainage Board for the Twelve Towns Relief Drains, under the provisions of Chapter 20 of Act No. 40 of the Public Acts of 1956, as amended, the right to construct, use, maintain, repair and/or replace a part of the Twelve Towns Relief Drains and appurtenances across and through the following described lands in the City of Ferndale, to-wit:

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- (B) A construction easement of 50 feet width and a maintenance easement of 22 feet width, the mutual centerline of which easements commences at a point N $24^{\circ} 03'$ W 15.75 feet from the westerly end of easement (A); thence S $65^{\circ} 57'$ W a distance of 905.14 feet to a point on the west line of said parcel of land located 205 feet north of the south line of Orchard Avenue.

*Hand to
Under Comm. Policy Board
317 E 11th Street, N.E. Ferndale, Mich.*

(C) A construction easement of 50 feet width and a maintenance easement of 20 feet width, the mutual centerline of which easements commences at a point on the south line of said parcel of land located 12 feet east of the west line of Wrenson Avenue extended northerly; thence northerly and parallel with said extended west line of Wrenson Avenue 455.50 feet to a point; thence on a curve to the right delta $65^{\circ} 30'$, radius 70 feet, arc 80.02 feet, tangent 45.02 feet, a distance of 80.02 feet to point located S $24^{\circ} 03'$ E 9.0 feet from the westerly end of the centerline of Easement (A).

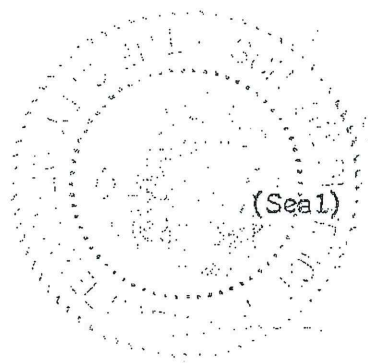
ADOPTED: Yeas Lilly, Hitchcock, Bowers, Kettlewell

Nays None
Absent: Armour, Neher, Scott

STATE OF MICHIGAN)
) ss
COUNTY OF OAKLAND)

I, the undersigned, the duly qualified and acting Secretary of the Board of Education of the School District of the City of Hazel Park, Hazel Park, Oakland County, Michigan, do hereby certify that the foregoing is a true and complete copy of a resolution adopted by the said Board of Education at the meeting above indicated, the original of which is on file in my office.

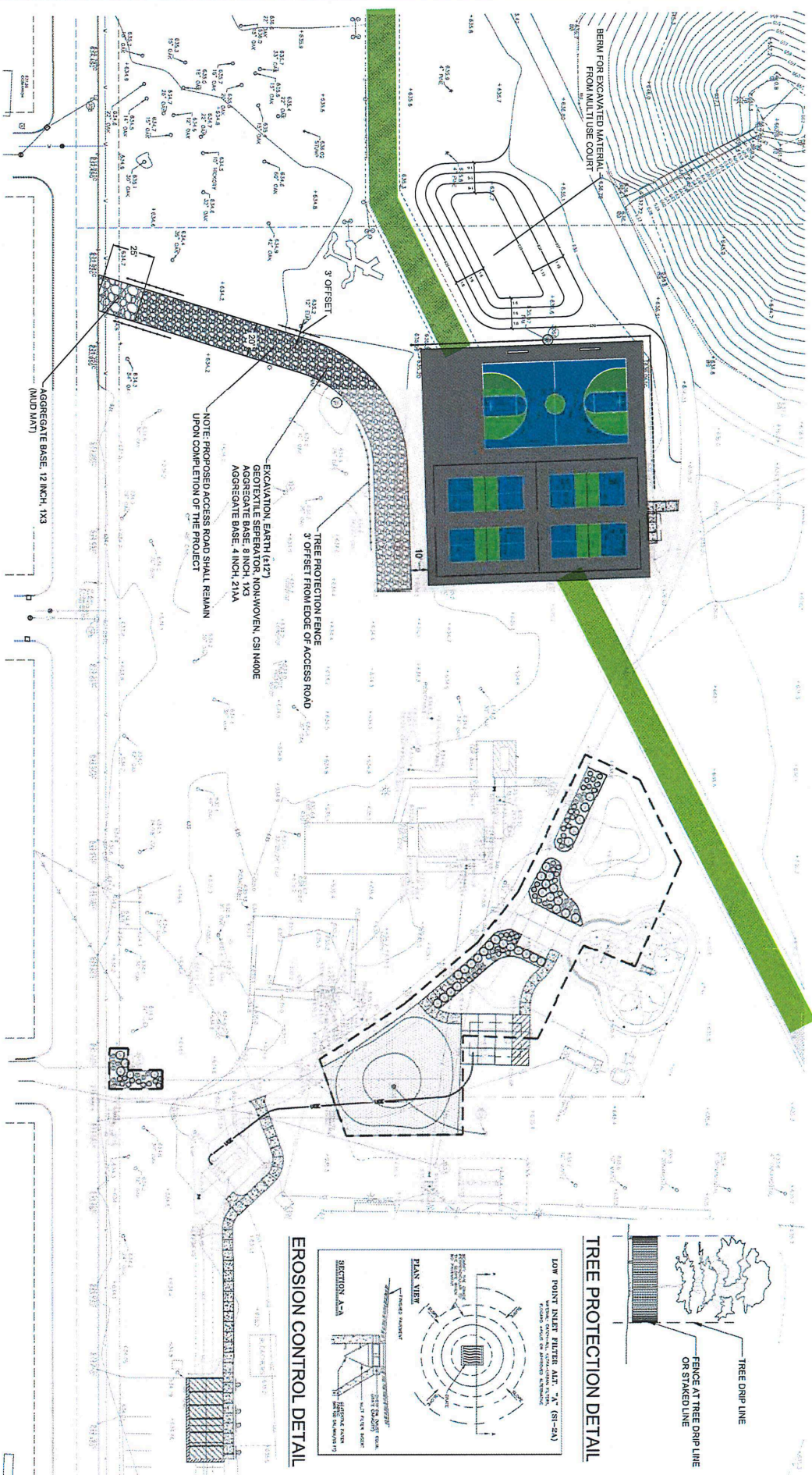
IN WITNESS WHEREOF, I have hereunto affixed my official signature
this 15 day of August, A. D. 196 1 .-



Carl J. Bowers
Carl J. Bowers
Secretary

EXHIBIT B

H:\19\19000\19034.14 Martin Park DNR Grant 2021\Drawing Files\2024 Martin Park Improvement Plans.dwg



Existing Twelve towns drain

OAKLAND COUNTY ARPA FUNDED

ESTIMATED QUANTITIES (THIS SHEET)
 EXCAVATION, EARTH 215 CYD
 GEOTEXTILE SEPARATOR, NON-WOVEN CS/IMDGE 690 SYD
 AGGREGATE BASE, 8 INCH, 1X3 590 SYD
 AGGREGATE BASE, 12 INCH, 1X3 60 SYD
 AGGREGATE BASE, 4 INCH, 21/4 590 SYD
 TREE PROTECTION FENCE 190 LF
 EROSION CONTROL, INLET FILTER, DROP CLOTH 2 EA

HMA APPLICATION ESTIMATE			
MATERIAL	ITEM(S)	APPLICATION RATE	ESTIMATED THICKNESS
HMA, 3 1/2 IS	TOP COURSE	110 LBS / IN / SYD	1.5 INCHES
HMA, 4 EMIL	LENDING COURSE	110 LBS / IN / SYD	2.0 INCHES
HMA, 3/4	PATCHING	110 LBS / IN / SYD	VARIES
			58-22

NOTE: APPLY BOND COAT BETWEEN ALL HMA LIFTS AT 0.10 GAL/SYD FOR ALL HMA SURFACES NOT OPENED TO TRAFFIC AND 0.15 GAL/SYD FOR ALL HMA SURFACES OPENED TO TRAFFIC.

LINE/TYPE LEGEND

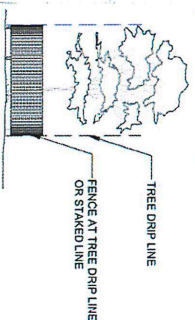
---	EXISTING GAS MAIN
---	EXISTING UNDERGROUND CABLE
---	EXISTING SANITARY SEWER
---	EXISTING STORM SEWER
---	EXISTING WATER MAIN

LEGEND

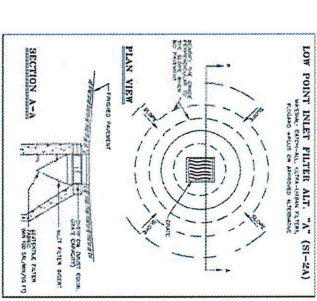
[Pattern]	CONCRETE PAVT., NONREINFC. 4 INCH
[Pattern]	CONCRETE SIDEWALK (THICKNESS SPECIFIED)
[Pattern]	HMA PAVING (SECTION SPECIFIED)
[Pattern]	ACCESS ROAD
[Pattern]	MUD MAT
[Pattern]	LANDSCAPE RESTORATION
[Pattern]	EROSION CONTROL, INLET FILTER, DROP CLOTH



TREE PROTECTION DETAIL



EROSION CONTROL DETAIL



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 F (313) 553-5568
 www.giffelswebster.com

Engineer: S.A.R.
 Designer: J.R.W.
 Designer: A.F.N.
 Draft Control: J.P.K.



Know what's below,
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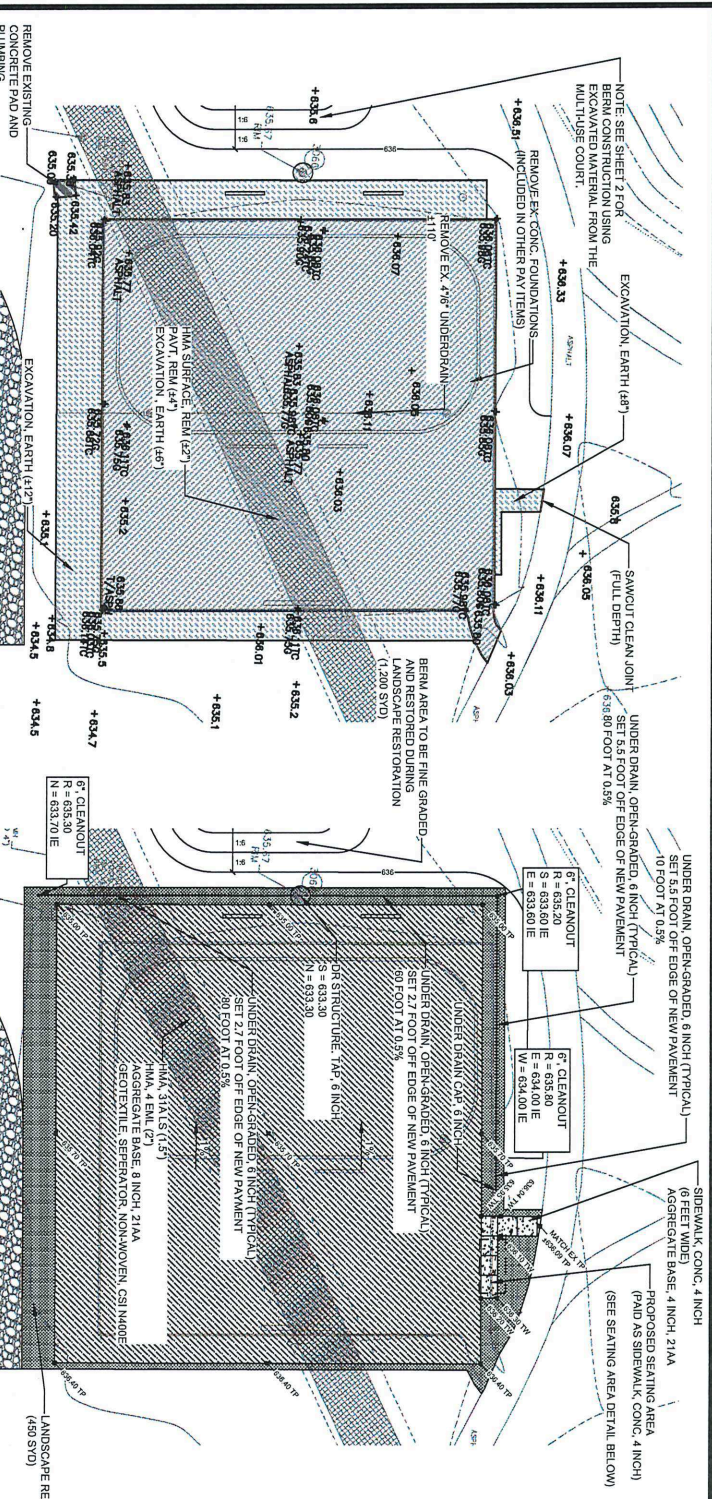
DATE: _____ ISSUE: _____

Designed For:
 CITY OF
 FERRINDALE
 300 EAST NINE MILE
 FERRINDALE, MI 48220
 (248)546-2519

**EX. CONDITIONS
 & GENERAL SITE
 LAYOUT**

2024 MARTIN PARK
 IMPROVEMENTS
 CITY OF FERRINDALE
 OAKLAND COUNTY
 MICHIGAN

Date: 01.04.24
 Scale: AS SHOWN
 Sheet: 2 of 12
 Project: 19034.14
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MGNR GRANT #TF21-0095 FUNDED

ESTIMATED QUANTITIES (THIS SHEET)	QTY UNIT
CUT/FILL	230 CYD
HMA SURFACE REM	830 STD
PAINT REM	830 STD
REMOVE EX. CONC. PAD AND CAP PLUMBING	1 LS
GEOTEXTILE SEPARATOR, NONWOVEN, CSI M00E	1040 STD
AGGREGATE BASE, 8 INCH, 21AA	90 TON
HMA, 3/4\"/>	

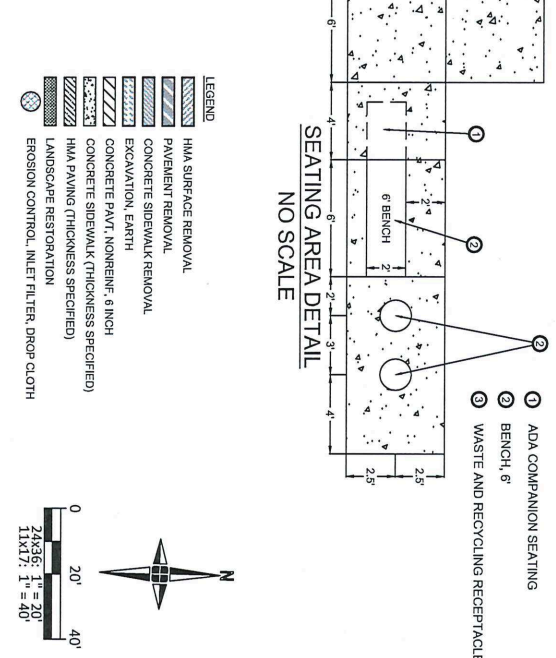
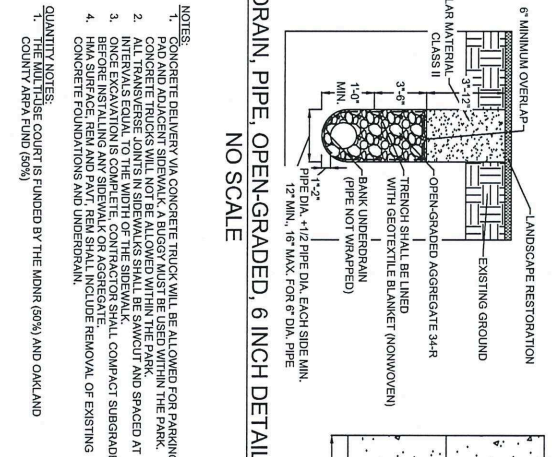
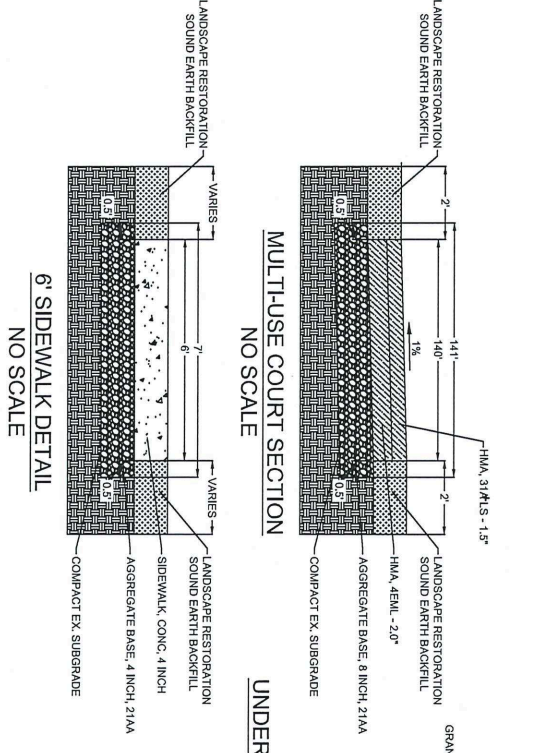
OAKLAND COUNTY ARPA FUNDED

ESTIMATED QUANTITIES (THIS SHEET)

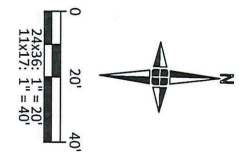
QTY UNIT	230 CYD
CUT/FILL	830 STD
HMA SURFACE, REM	830 STD
PAINT REM	1040 STD
GEOTEXTILE SEPARATOR, NONWOVEN, CSI M00E	28 STD
AGGREGATE BASE, 4 INCH, 21AA	210 SFT
SIDEWALK, CONC, 4 INCH	90 TON
HMA, 3/4\"/>	

MULTI-USE COURT DEMO
NO SCALE

MULTI-USE COURT IMPROVEMENT
NO SCALE



- LEGEND**
- HMA SURFACE REMOVAL
 - PAVEMENT REMOVAL
 - CONCRETE SIDEWALK REMOVAL
 - EXCAVATION, EARTH
 - CONCRETE PAVT., NONREINF., 6 INCH
 - CONCRETE SIDEWALK THICKNESS SPECIFIED
 - HMA FINISH THICKNESS SPECIFIED
 - LANDSCAPE RESTORATION
 - EROSION CONTROL, INLET FILTER, DRYP-CLOTH
- NOTES:**
- CONCRETE DELIVERY VIA CONCRETE TRUCK WILL BE ALLOWED FOR PARKING PAD AND ADJACENT SIDEWALK. A BULKY MUST BE USED WITHIN THE PARK.
 - ALL TRANSVERSE JOINTS IN SIDEWALKS SHALL BE STAMPED AND SPACED AT INTERVALS EQUAL TO THE WIDTH OF THE SIDEWALK.
 - ONCE EXCAVATION IS COMPLETE, CONTRACTOR SHALL COMPACT SUBGRADE.
 - HMA SURFACE, REIN. AND PAVT. REM. SHALL INCLUDE REMOVAL OF EXISTING CONCRETE FOUNDATIONS AND UNDERDRAIN.
- QUANTITY NOTES:**
- LANDSCAPE RESTORATION
 - COUNTY ARPA FUND (50%)



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Planners
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Birmingham, MI 48009
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F (313) 962-5088
www.giffelswebster.com

Engineer: S.A.R.
Manager: J.R.W.
Designer: A.F.N.
Quality Control: J.P.K.

811 Know what's below. Call before you dig.

Downloaded For:

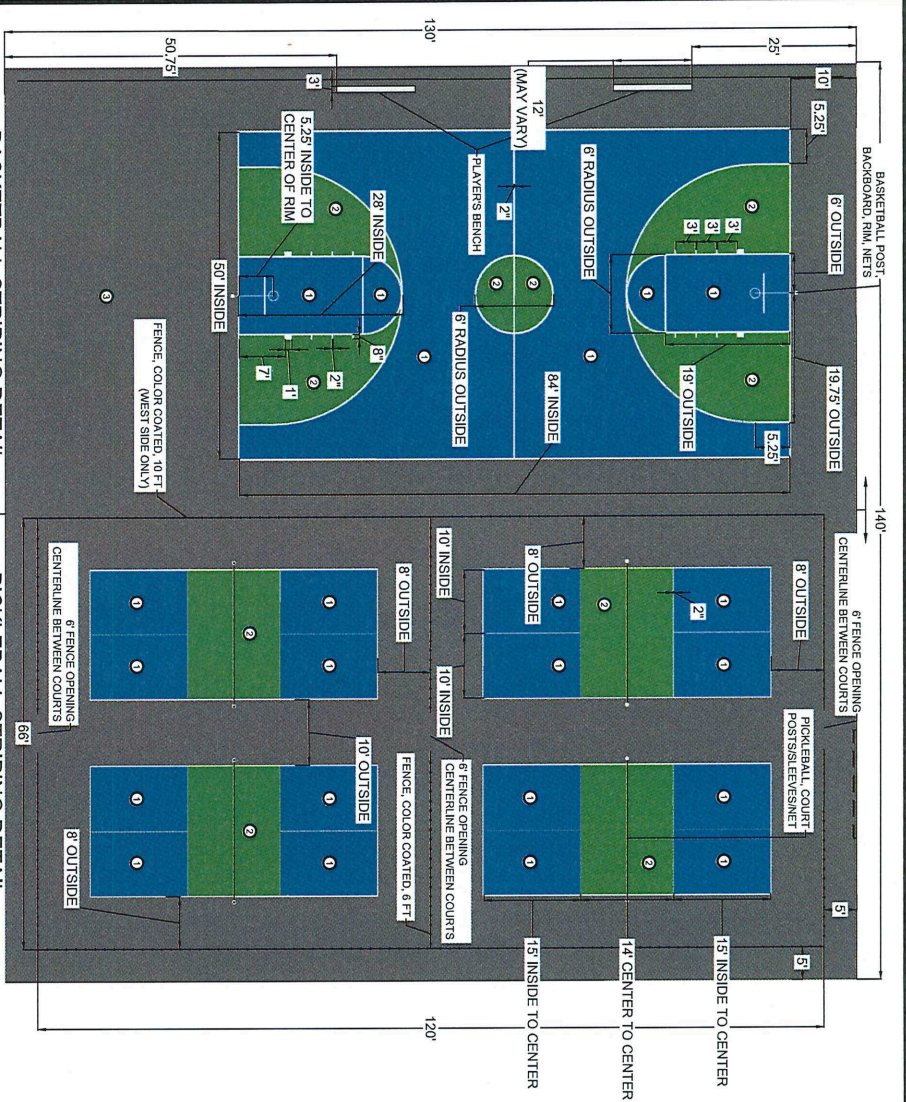
CITY OF FERRINDALE
300 EAST NINE MILE FERRINDALE, MI 48220 (248)546-2519

DATE	ISSUE

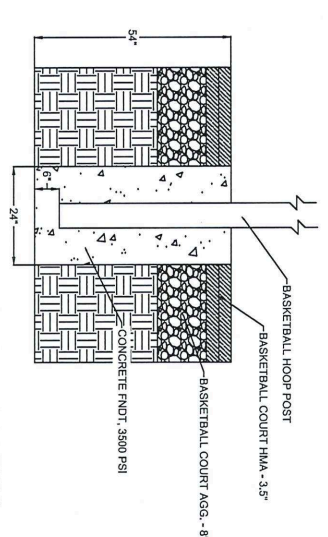
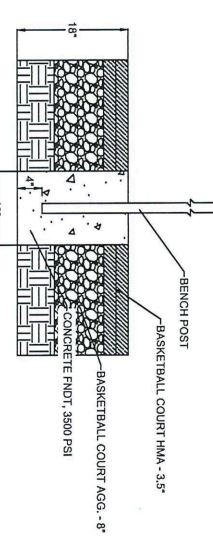
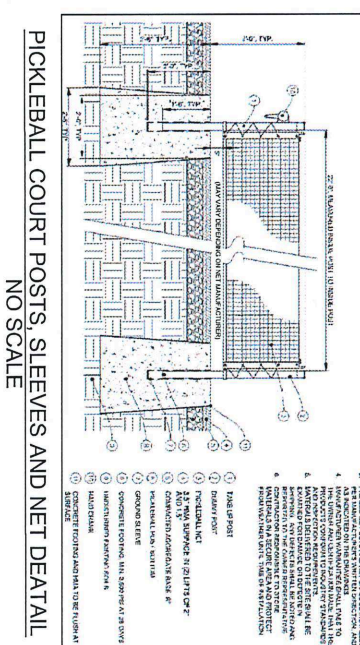
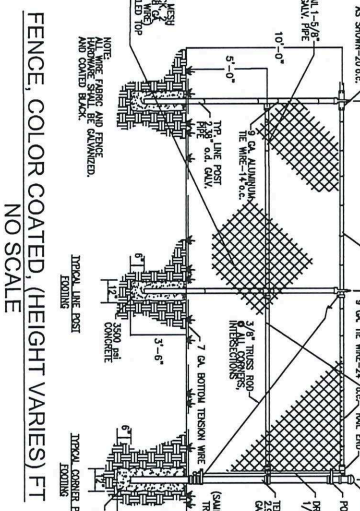
MULTI-USE COURT

2024 MARTIN PARK IMPROVEMENTS
CITY OF FERRINDALE
OAKLAND COUNTY
MICHIGAN

Date: 01.04.24
Scale: AS SHOWN
Sheet: 5 of 12
Project: 19034_14
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- COLOR COATING NOTES:**
1. ALL CONTRAST STRIPING SHALL BE 2" WIDE
 2. THE DIMENSIONS OF EACH COURT SHALL BE MEASURED FROM THE OUTSIDE EDGE OF THE CONTRAST STRIPING
 3. ALL COLOR COATINGS AND STRIPING SHALL BE APPLIED IN ACCORDANCE WITH THE SPECIFICATIONS
 4. ALL FOUNDATIONS SHALL BE INSTALLED EITHER AFTER THE LEVELING COURSE OF HMA OR THE WEARING COURSE OF HMA. FOUNDATIONS SHALL BE CUT THROUGH THE HMA WITH CIRCULAR SAWCUT.
- FOUNDATION NOTES:**
1. INSTALL BASKETBALL HOOP FOUNDATION PER MANUFACTURERS SPECIFICATIONS
 2. INSTALL PLAYERS BENCH(S) FOUNDATION DETAIL PER MANUFACTURERS SPECIFICATIONS
 3. FOUNDATION SIZE AND NUMBER FOR PLAYERS BENCH(S) MAY VARY DEPENDING ON THE SPECIFIED BENCH
- STRIPING LEGEND:**
- 1 BLUE
 - 2 GREEN
 - 3 GRAY
- NOTE:** CITY TO SELECT FINAL COLORS PER SELECTED MANUFACTURERS COLOR PALETTE



ESTIMATED QUANTITIES (THIS SHEET)	QTY UNIT	ESTIMATED QUANTITIES (THIS SHEET)	QTY UNIT
PLAYERS BENCH PURCHASE AND INSTALL	2 EA	PICKLEBALL NETS, POSTS, FNDTS, COMPLETE	4 EA
BASKETBALL COURT SURFACING AND STRIPING	9100 SFT	FENCE COLOR COATED	320 LFT
BASKETBALL COURT SURFACING AND STRIPING	9100 SFT	PICKLEBALL COURT SURFACING AND STRIPING	9100 SFT

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f (313) 952-5068
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Encoder: S.A.R.
Manager: J.R.W.
Designer: A.F.N.
Quality Control: J.P.K.

Know what's below.
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DATE: _____ ISSUE: _____

Developed For:
CITY OF FERRDALE
300 EAST NINE MILE
FERRDALE, MI 48220
(248)546-2519

SURFACING & STRIPING PLAN

2024 MARTIN PARK IMPROVEMENTS
CITY OF FERRDALE
OAKLAND COUNTY
MICHIGAN

Date: 01.04.24
Scale: NONE
Sheet: 6 of 12
Project: 19034.14

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10. Nichols Drain

AGENDA

DRAINAGE BOARD FOR THE NICHOLS RELIEF DRAIN

April 23, 2024

1. Call meeting to order
2. Approve minutes of meeting of September 27, 2022
3. Public Comments
4. Present Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$79,589
5. Other business
6. Approve pro rata payment to Drainage Board members
7. Adjourn

**MINUTES OF THE MEETING OF THE DRAINAGE BOARD
FOR THE NICHOLS RELIEF DRAIN**

September 27, 2022

A meeting of the Drainage Board for the Nichols Relief Drain was held in the office of the Oakland County Water Resources Commissioner, Public Works Building, One Public Works Drive, Waterford, Michigan at 2:00 p.m. on the 27th day of September 2022.

The meeting was called to order by the Chairperson.

PRESENT: Jim Nash, Oakland County Water Resources Commissioner

Gwen Markham, Chairperson of the Finance Committee, Oakland County Board of Commissioners

David Woodward, Chairperson of the Oakland County Board of Commissioners

ABSENT: None.

Minutes of the meeting held July 27, 2021, were presented for consideration. It was moved by Markham, supported by Woodward, that the minutes be approved.

ADOPTED: Yeas - 3
Nays - 0

Chairperson Nash asked if there were any public comments. There were none.

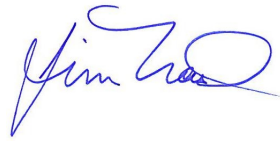
A memorandum Geoff Wilson, P.E., Assistant Chief Engineer, dated September 27, 2022, requesting the Board to authorize Pipeline Management to proceed with services outlined in the proposal dated September 10, 2022, though their existing as-needed services contract with a not-to-exceed budget of \$40,000 was presented. It was moved by Markham, supported by Woodward, to authorize Pipeline Management to proceed with services outlined in the proposal dated September 10, 2022, though their existing as-needed services contract with a not-to-exceed budget of \$40,000 as presented.

ADOPTED: Yeas - 3
Nays - 0

It was moved by Nash, supported by Markham, to certify attendance and authorize pro rata payment of \$25 per day to Ms. Markham and Mr. Woodward.

ADOPTED: Yeas - 3
Nays - 0

There being no further business, the meeting was adjourned.

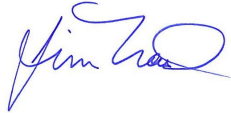


Jim Nash, Chairperson

STATE OF MICHIGAN)
)SS.
COUNTY OF OAKLAND)

I, the undersigned, do hereby certify that the foregoing is a true and complete copy of the minutes of the Drainage Board for the Nichols Relief Drain, Oakland County, Michigan, held on the 27th day of September 2022, and that the minutes are on file in the office of the Oakland County Water Resources Commissioner and are available to the public.

I further certify that the notice of the meeting was posted at least 18 hours in advance of the meeting at the office of the Oakland County Water Resources Commissioner which is the principal office of the Drainage Board for the Nichols Relief Drain Drainage District.



Jim Nash, Chairperson

Dated: September 27, 2022

OAKLAND COUNTY WATER RESOURCES COMMISSIONER
MAINTENANCE ASSESSMENT RECOMMENDATION FOR THE
Nichols Relief Drain

Assessment for current fund deficit and estimated maintenance expenses for fiscal years: 2024 through 2026

Date last assessment approved:	11/17/20	
Last Assessment:		\$173,009
Current Available Cash*:		(\$6,989)

Expenditure History:	Fiscal Year	Amount
	2017	\$9,256
	2018	\$9,798
	2019	\$30,953
	2020	\$27,549
	2021	\$66,486
	2022	\$23,962
	2023	\$30,334

Estimated Expenditures:	Year	Amount
	2024	\$24,200
	2025	\$24,200
	2026	\$24,200
	Total	\$72,600

Recommended Assessment:

Current Cash Deficit	\$6,989
Total Anticipated Expenses 2024 - 2026	\$72,600

TOTAL RECOMMENDED ASSESSMENT \$79,589

Prepared by: Andrea Craft Date: 04/11/2024
 Andrea Craft - Engineering Systems Coordinator

Approved by: _____ Date: _____
 Geoff Wilson, P.E. - Chief Engineer

Approved by: _____ Date: _____
 Gary Nigro, P.E. - Manager

Note: Current Available Cash as of February 29, 2024, Fiscal Services Division Report.
 *(Less \$40,000 previously collected for special maintenance expenses, but not yet spent)

**SPECIAL ASSESSMENT ROLL FOR THE MAINTENANCE
OF THE NICHOLS RELIEF DRAIN**

Public Corporation	*Percentage of Apportionment	Total Amount of Assessment	Payment #1	Payment #2	Payment #3
Charter Township of Bloomfield	69.6936%	\$ 55,468.44	\$ 55,468.44	-	-
County of Oakland, on account of drainage to county highways	27.4046%	\$ 21,811.05	\$ 21,811.05	-	-
State of Michigan	2.9018%	\$ 2,309.51	\$ 2,309.51	-	-
Total	100.000%	\$ 79,589.00	\$ 79,589.00	\$ -	\$ -

*Apportionment based on Final Order of Apportionment dated 12/15/1967.

Assessment Payment Due Date(s): Payment #1 05/31/2024

I hereby certify that I have prepared the Special Assessment Roll for the Maintenance of the Nichols Relief Drain for the fiscal years 2024- 2026 in accordance with the direction of the Drainage Board and the statutory provisions applicable thereto.

Jim Nash
Chairman of the Drainage Board for the Nichols Relief Drain

The foregoing Special Assessment Roll for the maintenance of the Nichols Relief Drain was approved by the Drainage Board on _____ .

Jim Nash
Chairman of the Drainage Board for the Nichols Relief Drain

11. Robert A. Reid Drain

AGENDA

DRAINAGE BOARD FOR THE ROBERT A. REID DRAIN

April 23, 2024

1. Call meeting to order
2. Approve minutes of meeting of April 28, 2020
3. Public Comments
4. Present Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$24,486
5. Other business
6. Approve pro rata payment to Drainage Board members
7. Adjourn

**MINUTES OF THE MEETING OF THE DRAINAGE BOARD
FOR THE ROBERT A. REID DRAIN**

April 28, 2020

A meeting of the Drainage Board for the Robert A. Reid Drain was held at 2:00 p.m. on the 28th day of April, 2020. The meeting was conducted via GoToMeeting in accordance with the Governor's Executive Order 2020-48 due to the ongoing COVID-19 pandemic. Commissioner Nash read a brief statement regarding the current health crisis and its impact on the Chapter 20 meetings, which can be found in its entirety under "Drainage District Policy".

The meeting was called to order by the Chairperson.

PRESENT: Jim Nash, Oakland County Water Resources Commissioner

Helaine Zack, Chairperson of the Finance Committee, Oakland County Board of Commissioners

ABSENT: David Woodward, Chairperson of the Oakland County Board of Commissioners

Minutes of the meeting held February 25, 2020 were presented for consideration. It was moved by Zack, supported by Nash, that the minutes be approved.

ADOPTED: Yeas - 2
Nays - 0

Chairperson Nash asked if there were any public comments. There were none.

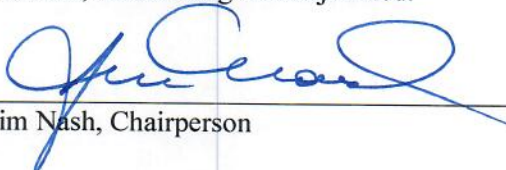
A request for reimbursement of the Drain Revolving Fund in the amount of \$9,068.13 (as attached) was presented. It was moved by Zack, supported by Nash, to reimburse the Drain Revolving Fund in the amount of \$9,068.13.

ADOPTED: Yeas - 2
Nays - 0

It was moved by Nash, supported by Zack, to certify attendance and authorize pro rata payment of \$25 per day to Ms. Zack.

ADOPTED: Yeas - 2
Nays - 0

There being no further business, the meeting was adjourned.

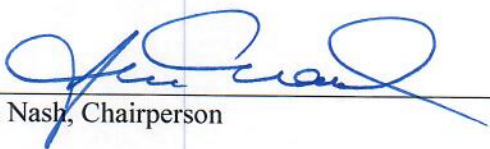


Jim Nash, Chairperson

STATE OF MICHIGAN)
)SS.
COUNTY OF OAKLAND)

I, the undersigned, do hereby certify that the foregoing is a true and complete copy of the minutes of the Drainage Board of the Robert A. Reid Drain, Oakland County, Michigan, held on the 28th day of April, 2020, and that the minutes are on file in the office of the Oakland County Water Resources Commissioner and are available to the public.

I further certify that the notice of the meeting was posted at least 18 hours in advance of the meeting at the office of the Oakland County Water Resources Commissioner which is the principal office of the Drainage Board for the Robert A. Reid Drain Drainage District.



Jim Nash, Chairperson

Dated: May 13, 2020

OAKLAND COUNTY WATER RESOURCES COMMISSIONER
MAINTENANCE ASSESSMENT RECOMMENDATION FOR THE
Robert A. Reid Drain

Assessment for current fund deficit and estimated maintenance expenses for fiscal years: 2024 through 2026

Date last assessment approved:	02/25/20	
Last Assessment:		\$41,926
Current Available Cash:		(\$4,086)

Expenditure History:	Fiscal Year	Amount
	2017	\$10,198
	2018	\$11,897
	2019	\$1,744
	2020	\$21,295
	2021	\$2,258
	2022	\$3,827
	2023	\$2,696

Estimated Expenditures:	Year	Amount
	2024	\$6,800
	2025	\$6,800
	2026	\$6,800
	Total	\$20,400

Recommended Assessment:

Current Cash Deficit	\$4,086
Total Anticipated Expenses 2024 - 2026	\$20,400

TOTAL RECOMMENDED ASSESSMENT \$24,486

Prepared by: Andrea Craft Date: 04/11/2024
 Andrea Craft - Engineering Systems Coordinator

Approved by: _____ Date: _____
 Geoff Wilson, P.E. - Chief Engineer

Approved by: _____ Date: _____
 Gary Nigro, P.E. - Manager

Note: Current Available Cash as of February 29, 2024, Fiscal Services Division Report.

**SPECIAL ASSESSMENT ROLL FOR THE MAINTENANCE
OF THE ROBERT A. REID DRAIN**

Public Corporation	*Percentage of Apportionment	Total Amount of Assessment	Payment #1	Payment #2	Payment #3
Charter Township of Bloomfield	62.4800%	\$ 15,298.85	\$ 15,298.85	-	-
County of Oakland, on account of drainage to county highways	37.5200%	\$ 9,187.15	\$ 9,187.15	-	-
Total	100.000%	\$ 24,486.00	\$ 24,486.00	\$ -	\$ -

*Apportionment based on Final Order of Apportionment dated 12/17/1996.

Assessment Payment Due Date(s): Payment #1 05/31/2024

I hereby certify that I have prepared the Special Assessment Roll for the Maintenance of the Robert A. Reid Drain for the fiscal years 2024- 2026 in accordance with the direction of the Drainage Board and the statutory provisions applicable thereto.

Jim Nash
Chairman of the Drainage Board for the Robert A. Reid Drain

The foregoing Special Assessment Roll for the maintenance of the Robert A. Reid Drain was approved by the Drainage Board on _____.

Jim Nash
Chairman of the Drainage Board for the Robert A. Reid Drain

12. Blue Heron Drain

AGENDA

DRAINAGE BOARD FOR BLUE HERON DRAIN

April 23, 2024

1. Call meeting to order
2. Approve minutes of meeting of June 22, 2021
3. Public Comments
4. Present Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$5,400
5. Other business
6. Approve pro rata payment to Drainage Board members
7. Adjourn

**MINUTES OF THE MEETING OF THE DRAINAGE BOARD
FOR THE BLUE HERON DRAIN**

June 22, 2021

A meeting of the Drainage Board for the Blue Heron Drain was held at 2:00 p.m. on the 22nd day of June, 2021. Due to the COVID-19 pandemic, the meeting was conducted electronically via GoToMeeting in accordance with PA 254 of 2020, as may be amended from time to time and/or as otherwise provided by law.

The meeting was called to order by the Chairperson. The Board indicated where they were physically located at the time of the meeting as follows:

PRESENT: Jim Nash, Oakland County Water Resources Commissioner, participating from Farmington Hills, Michigan.

Gwen Markham, Chairperson of the Finance Committee, Oakland County Board of Commissioners, participating from Novi, Michigan.

ABSENT: David Woodward, Chairperson of the Oakland County Board of Commissioners.

Minutes of the meeting held October 22, 2019 were presented for consideration. It was moved by Markham, supported by Nash, that the minutes be approved.

ROLL CALL VOTE:

NASH: AYE

MARKHAM: AYE

Chairperson Nash asked if there were any public comments. There were none.

A Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$4,846 for the Blue Heron Drain (as attached) were presented. It was moved by Markham, supported by Nash, to adopt the Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$4,846 as presented.

ROLL CALL VOTE:

NASH: AYE

MARKHAM: AYE

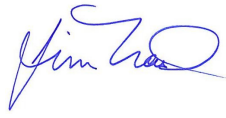
It was moved by Nash, supported by Markham, to certify attendance and authorize pro rata payment of \$25 per day to Ms. Markham.

ROLL CALL VOTE:

NASH: AYE

MARKHAM: AYE

There being no further business, the meeting was adjourned.

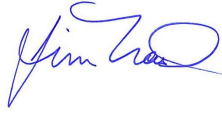
A handwritten signature in blue ink, appearing to read "Jim Nash".

Jim Nash, Chairperson

STATE OF MICHIGAN)
)SS.
COUNTY OF OAKLAND)

I, the undersigned, do hereby certify that the foregoing is a true and complete copy of the minutes of the Drainage Board for the Blue Heron Drain, Oakland County, Michigan, held on the 22nd day of June, 2021, and that the minutes are on file in the office of the Oakland County Water Resources Commissioner and are available to the public.

I further certify that the notice of the meeting was posted at least 18 hours in advance of the meeting at the office of the Oakland County Water Resources Commissioner which is the principal office of the Drainage Board for the Blue Heron Drain.



Jim Nash, Chairperson

Dated: June 22, 2021

OAKLAND COUNTY WATER RESOURCES COMMISSIONER
MAINTENANCE ASSESSMENT RECOMMENDATION FOR THE
Blue Heron Drain

Assessment for estimated maintenance expenses for fiscal years: 2024 through 2026

Date last assessment approved: 06/22/21
 Last Assessment: \$4,846
 Current Available Cash: \$243

Expenditure History:	Fiscal Year	Amount
	2017	\$1,193
	2018	\$1,506
	2019	\$1,389
	2020	\$2,256
	2021	\$1,796
	2022	\$1,497
	2023	\$1,381

Estimated Expenditures:	Year	Amount
	2024	\$1,800
	2025	\$1,800
	2026	\$1,800
	Total	\$5,400

Recommended Assessment:

Total Anticipated Expenses 2024 - 2026 \$5,400

TOTAL RECOMMENDED ASSESSMENT \$5,400

Prepared by: Andrea Craft Date: 04/11/2024
 Andrea Craft - Engineering Systems Coordinator

Approved by: _____ Date: _____
 Geoff Wilson, P.E. - Chief Engineer

Approved by: _____ Date: _____
 Gary Nigro, P.E. - Manager

Note: Current Available Cash as of February 29, 2024, Fiscal Services Division Report.

**SPECIAL ASSESSMENT ROLL FOR THE MAINTENANCE
OF THE BLUE HERON DRAIN**

Public Corporation	*Percentage of Apportionment	Total Amount of Assessment	Payment #1	Payment #2	Payment #3
Charter Township of West Bloomfield	79.1100%	\$ 4,271.94	\$ 4,271.94	-	-
County of Oakland on account of drainage to county highways	20.8900%	\$ 1,128.06	\$ 1,128.06	-	-
Total	100.000%	\$ 5,400.00	\$ 5,400.00	\$ -	\$ -

*Apportionment based on Final Order of Apportionment dated 5/26/1998.

Assessment Payment Due Date(s): Payment #1 05/31/2024

I hereby certify that I have prepared the Special Assessment Roll for the Maintenance of the Blue Heron Drain for the fiscal years 2024- 2026 in accordance with the direction of the Drainage Board and the statutory provisions applicable thereto.

Jim Nash
Chairman of the Drainage Board for the Blue Heron Drain

The foregoing Special Assessment Roll for the maintenance of the Blue Heron Drain was approved by the Drainage Board on _____ .

Jim Nash
Chairman of the Drainage Board for the Blue Heron Drain

13. Donohue Drain

AGENDA

DRAINAGE BOARD FOR THE DONOHUE DRAIN

April 23, 2024

1. Call meeting to order
2. Approve minutes of meeting of September 21, 2021
3. Public Comments
4. Present Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$7,192
5. Other business
6. Approve pro rata payment to Drainage Board members
7. Adjourn

**MINUTES OF THE MEETING OF THE DRAINAGE BOARD
FOR THE DONOHUE DRAIN**

September 21, 2021

A meeting of the Drainage Board for the Donohue Drain was held in the office of the Oakland County Water Resources Commissioner, Public Works Building, One Public Works Drive, Waterford, Michigan at 2:00 p.m. on the 21st day of September, 2021.

The meeting was called to order by the Chairperson.

PRESENT: Jim Nash, Oakland County Water Resources Commissioner

David Woodward, Chairperson of the Oakland County Board of Commissioners

Gwen Markham, Chairperson of the Finance Committee, Oakland County Board of Commissioners

ABSENT: None

Minutes of the meeting held June 22, 2021 were presented for consideration. It was moved by Markham, supported by Woodward, that the minutes be approved.

ADOPTED: Yeas - 3
Nays - 0

Chairperson Nash asked if there were any public comments. There were none.

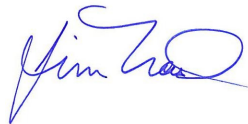
A request for approval of payment of invoices in the amount of \$5,440.42 (as attached) was presented. It was moved by Markham, supported by Woodward, to approve the payment of invoices in the amount of \$5,440.42.

ADOPTED: Yeas - 3
Nays - 0

It was moved by Nash, supported by Markham, to certify attendance and authorize pro rata payment of \$25 per day to Ms. Markham and Mr. Woodward.

ADOPTED: Yeas - 3
Nays - 0

There being no further business, the meeting was adjourned.

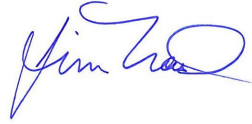


Jim Nash, Chairperson

STATE OF MICHIGAN)
)SS.
COUNTY OF OAKLAND)

I, the undersigned, do hereby certify that the foregoing is a true and complete copy of the minutes of the Drainage Board for the Donohue Drain, Oakland County, Michigan, held on the 21st day of September, 2021, and that the minutes are on file in the office of the Oakland County Water Resources Commissioner and are available to the public.

I further certify that the notice of the meeting was posted at least 18 hours in advance of the meeting at the office of the Oakland County Water Resources Commissioner which is the principal office of the Drainage Board for the Donohue Drain Drainage District.



Jim Nash, Chairperson

Dated: September 21, 2021

OAKLAND COUNTY WATER RESOURCES COMMISSIONER
MAINTENANCE ASSESSMENT RECOMMENDATION FOR THE
Donohue Drain

Assessment for estimated maintenance expenses for fiscal years: 2024 through 2026

Date last assessment approved: 06/22/21
 Last Assessment: \$11,400
 Current Available Cash: \$6,408

Expenditure History:	Fiscal Year	Amount
	2017	\$1,567
	2018	\$4,923
	2019	\$739
	2020	\$4,467
	2021	\$6,295
	2022	\$298
	2023	\$1,078

Estimated Expenditures:	Year	Amount
	2024	\$3,400
	2025	\$3,400
	2026	\$3,400
	Total	\$10,200

Recommended Assessment:

Total Anticipated Expenses 2024 - 2026 \$10,200
 Less Amount Exceeding Minimum Fund Balance* (\$3,008)

TOTAL RECOMMENDED ASSESSMENT \$7,192

Prepared by: Andrea Craft Date: 04/11/2024
 Andrea Craft - Engineering Systems Coordinator

Approved by: _____ Date: _____
 Geoff Wilson, P.E. - Chief Engineer

Approved by: _____ Date: _____
 Gary Nigro, P.E. - Manager

Note: Current Available Cash as of February 29, 2024, Fiscal Services Division Report.
 *(Minimum fund balance is equal to one year of maintenance)

**SPECIAL ASSESSMENT ROLL FOR THE MAINTENANCE
OF THE DONOHUE DRAIN**

Public Corporation	*Percentage of Apportionment	Total Amount of Assessment	Payment #1	Payment #2	Payment #3
Charter Township of West Bloomfield	89.2800%	\$ 6,421.02	\$ 6,421.02	-	-
County of Oakland on account of drainage to county highways	10.7200%	\$ 770.98	\$ 770.98	-	-
Total	100.000%	\$ 7,192.00	\$ 7,192.00	\$ -	\$ -

*Apportionment based on Final Order of Apportionment dated 5/19/2009.

Assessment Payment Due Date(s): Payment #1 05/31/2024

I hereby certify that I have prepared the Special Assessment Roll for the Maintenance of the Donohue Drain for the fiscal years 2024- 2026 in accordance with the direction of the Drainage Board and the statutory provisions applicable thereto.

Jim Nash
Chairman of the Drainage Board for the Donohue Drain

The foregoing Special Assessment Roll for the maintenance of the Donohue Drain was approved by the Drainage Board on _____.

Jim Nash
Chairman of the Drainage Board for the Donohue Drain

14. Hayes Drain

AGENDA

DRAINAGE BOARD FOR THE HAYES DRAIN

April 23, 2024

1. Call meeting to order
2. Approve minutes of meeting of June 22, 2021
3. Public Comments
4. Present Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$6,900
5. Other business
6. Approve pro rata payment to Drainage Board members
7. Adjourn

**MINUTES OF THE MEETING OF THE DRAINAGE BOARD
FOR THE HAYES DRAIN**

June 22, 2021

A meeting of the Drainage Board for the Hayes Drain was held at 2:00 p.m. on the 22nd day of June, 2021. Due to the COVID-19 pandemic, the meeting was conducted electronically via GoToMeeting in accordance with PA 254 of 2020, as may be amended from time to time and/or as otherwise provided by law.

The meeting was called to order by the Chairperson. The Board indicated where they were physically located at the time of the meeting as follows:

PRESENT: Jim Nash, Oakland County Water Resources Commissioner, participating from Farmington Hills, Michigan.

Gwen Markham, Chairperson of the Finance Committee, Oakland County Board of Commissioners, participating from Novi, Michigan.

ABSENT: David Woodward, Chairperson of the Oakland County Board of Commissioners.

Minutes of the meeting held October 22, 2019 were presented for consideration. It was moved by Markham, supported by Nash, that the minutes be approved.

ROLL CALL VOTE:

NASH: AYE

MARKHAM: AYE

Chairperson Nash asked if there were any public comments. There were none.

A Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$6,300 for the Hayes Drain (as attached) were presented. It was moved by Markham, supported by Nash, to adopt the Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$6,300 as presented.

ROLL CALL VOTE:

NASH: AYE

MARKHAM: AYE


It was moved by Nash, supported by Markham, to certify attendance and authorize pro rata payment of \$25 per day to Ms. Markham.

ROLL CALL VOTE:

NASH: AYE

MARKHAM: AYE

There being no further business, the meeting was adjourned.


A handwritten signature in blue ink, appearing to read "Jim Nash". The signature is fluid and cursive, with a large loop at the end.

Jim Nash, Chairperson

STATE OF MICHIGAN)
)SS.
COUNTY OF OAKLAND)

I, the undersigned, do hereby certify that the foregoing is a true and complete copy of the minutes of the Drainage Board for the Hayes Drain, Oakland County, Michigan, held on the 22nd day of June, 2021, and that the minutes are on file in the office of the Oakland County Water Resources Commissioner and are available to the public.

I further certify that the notice of the meeting was posted at least 18 hours in advance of the meeting at the office of the Oakland County Water Resources Commissioner which is the principal office of the Drainage Board for the Hayes Drain.



Jim Nash, Chairperson

Dated: June 22, 2021

OAKLAND COUNTY WATER RESOURCES COMMISSIONER
MAINTENANCE ASSESSMENT RECOMMENDATION FOR THE
Hayes Drain

Assessment for estimated maintenance expenses for fiscal years: 2024 through 2026

Date last assessment approved: 06/22/21
 Last Assessment: \$6,300
 Current Available Cash: \$1,951

Expenditure History:	Fiscal Year	Amount
	2017	\$1,653
	2018	\$1,525
	2019	\$1,987
	2020	\$2,321
	2021	\$3,291
	2022	\$1,684
	2023	\$2,034

Estimated Expenditures:	Year	Amount
	2024	\$2,300
	2025	\$2,300
	2026	\$2,300
	Total	\$6,900

Recommended Assessment:

Total Anticipated Expenses 2024 - 2026 \$6,900

TOTAL RECOMMENDED ASSESSMENT \$6,900

Prepared by: Andrea Craft Date: 04/11/2024
 Andrea Craft - Engineering Systems Coordinator

Approved by: _____ Date: _____
 Geoff Wilson, P.E. - Chief Engineer

Approved by: _____ Date: _____
 Gary Nigro, P.E. - Manager

Note: Current Available Cash as of February 29, 2024, Fiscal Services Division Report.

**SPECIAL ASSESSMENT ROLL FOR THE MAINTENANCE
OF THE HAYES DRAIN**

Public Corporation	*Percentage of Apportionment	Total Amount of Assessment	Payment #1	Payment #2	Payment #3
Charter Township of Commerce	20.2200%	\$ 1,395.18	\$ 1,395.18	-	-
Charter Township of West Bloomfield	77.3600%	\$ 5,337.84	\$ 5,337.84	-	-
County of Oakland on account of drainage to county highways	2.4200%	\$ 166.98	\$ 166.98	-	-
Total	100.000%	\$ 6,900.00	\$ 6,900.00	\$ -	\$ -

*Apportionment based on Final Order of Apportionment dated 4/14/1976.

Assessment Payment Due Date(s): Payment #1 05/31/2024

I hereby certify that I have prepared the Special Assessment Roll for the Maintenance of the Hayes Drain for the fiscal years 2024- 2026 in accordance with the direction of the Drainage Board and the statutory provisions applicable thereto.

Jim Nash
Chairman of the Drainage Board for the Hayes Drain

The foregoing Special Assessment Roll for the maintenance of the Hayes Drain was approved by the Drainage Board on _____ .

Jim Nash
Chairman of the Drainage Board for the Hayes Drain

15. Korzon Drain

AGENDA

DRAINAGE BOARD FOR THE KORZON DRAIN

April 23, 2024

1. Call meeting to order
2. Approve minutes of meeting of November 17, 2020
3. Public Comments
4. Present Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$3,711
5. Other business
6. Approve pro rata payment to Drainage Board Members
7. Adjourn

**MINUTES OF THE MEETING OF THE DRAINAGE BOARD
FOR THE KORZON DRAIN**

November 17, 2020

A meeting of the Drainage Board for the Korzon Drain was held at 2:00 p.m. on the 17th of November, 2020. The meeting was conducted electronically via GoToMeeting in accordance with PA 228 of 2020.

The meeting was called to order by the Chairperson. The Board indicated where they were physically located at the time of the meeting as follows:

PRESENT: Jim Nash, Oakland County Water Resources Commissioner, participating from Farmington Hills, Michigan.

David Woodward, Chairperson of the Oakland County Board of Commissioners, participating from Royal Oak, Michigan.

Helaine Zack, Chairperson of the Finance Committee, Oakland County Board of Commissioners, participating from Huntington Woods, Michigan.

Minutes of the meeting held November 17, 2015 were presented for consideration. It was moved by Zack, supported by Woodward, that the minutes be approved.

ADOPTED: Yeas - 3
Nays - 0

Chairperson Nash asked if there were any public comments. There were none.

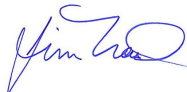
A Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$8,400 for the Korzon Drain (as attached) were presented. It was moved by Zack, supported by Woodward, to adopt the Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$8,400 as presented.

ADOPTED: Yeas - 3
Nays - 0

It was moved by Nash, supported by Zack, to certify attendance and authorize pro rata payment of \$25 per day to Ms. Zack and Mr. Woodward.

ADOPTED: Yeas - 3
Nays - 0

There being no further business, the meeting was adjourned.

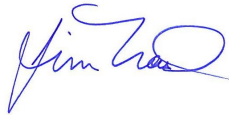


Jim Nash, Chairperson

STATE OF MICHIGAN)
)SS.
COUNTY OF OAKLAND)

I, the undersigned, do hereby certify that the foregoing is a true and complete copy of the minutes of the Drainage Board of the Korzon Drain, Oakland County, Michigan, held on the 17th day of November, 2020, and that the minutes are on file in the office of the Oakland County Water Resources Commissioner and are available to the public.

I further certify that the notice of the meeting was posted at least 18 hours in advance of the meeting at the office of the Oakland County Water Resources Commissioner which is the principal office of the Drainage Board for the Korzon Drain Drainage District.



Jim Nash, Chairperson

Dated: November 30 , 2020

**OAKLAND COUNTY WATER RESOURCES COMMISSIONER
MAINTENANCE ASSESSMENT RECOMMENDATION FOR THE**

Korzon Drain

Assessment for estimated maintenance expenses for fiscal years: 2024 through 2026

Date last assessment approved: 11/17/20
 Last Assessment: \$8,400
 Current Available Cash: \$5,489

Expenditure History:	Fiscal Year	Amount
	2017	\$1,482
	2018	\$2,780
	2019	\$2,110
	2020	\$814
	2021	\$430
	2022	\$2,911
	2023	\$951

Estimated Expenditures:	Year	Amount
	2024	\$2,300
	2025	\$2,300
	2026	\$2,300
	Total	\$6,900

Recommended Assessment:

Total Anticipated Expenses 2024 - 2026	\$6,900
Less Amount Exceeding Minimum Fund Balance*	(\$3,189)
TOTAL RECOMMENDED ASSESSMENT	\$3,711

Prepared by: Andrea Craft Date: 04/11/2024
 Andrea Craft - Engineering Systems Coordinator

Approved by: _____ Date: _____
 Geoff Wilson, P.E. - Chief Engineer

Approved by: _____ Date: _____
 Gary Nigro, P.E. - Manager

Note: Current Available Cash as of February 29, 2024, Fiscal Services Division Report.
 *(Minimum fund balance is equal to one year of maintenance)

**SPECIAL ASSESSMENT ROLL FOR THE MAINTENANCE
OF THE KORZON DRAIN**

Public Corporation	*Percentage of Apportionment	Total Amount of Assessment	Payment #1	Payment #2	Payment #3
Charter Township of Bloomfield	86.1760%	\$ 3,197.99	\$ 3,197.99	-	-
County of Oakland on account of drainage to county highways	13.8240%	\$ 513.01	\$ 513.01	-	-
Total	100.000%	\$ 3,711.00	\$ 3,711.00	\$ -	\$ -

*Apportionment based on Final Order of Apportionment dated 7/26/1994.

Assessment Payment Due Date(s): Payment #1 05/31/2024

I hereby certify that I have prepared the Special Assessment Roll for the Maintenance of the Korzon Drain for the fiscal years 2024- 2026 in accordance with the direction of the Drainage Board and the statutory provisions applicable thereto.

Jim Nash
Chairman of the Drainage Board for the Korzon Drain

The foregoing Special Assessment Roll for the maintenance of the Korzon Drain was approved by the Drainage Board on _____ .

Jim Nash
Chairman of the Drainage Board for the Korzon Drain

16. Mullen Drain

AGENDA

DRAINAGE BOARD FOR THE MULLEN DRAIN

April 23, 2024

1. Call meeting to order
2. Approve minutes of meeting of June 22, 2021
3. Public Comments
4. Present Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$8,366
5. Other business
6. Approve pro rata payment to Drainage Board members
7. Adjourn

**MINUTES OF THE MEETING OF THE DRAINAGE BOARD
FOR THE MULLEN DRAIN**

June 22, 2021

A meeting of the Drainage Board for the Mullen Drain was held at 2:00 p.m. on the 22nd day of June, 2021. Due to the COVID-19 pandemic, the meeting was conducted electronically via GoToMeeting in accordance with PA 254 of 2020, as may be amended from time to time and/or as otherwise provided by law.

The meeting was called to order by the Chairperson. The Board indicated where they were physically located at the time of the meeting as follows:

PRESENT: Jim Nash, Oakland County Water Resources Commissioner, participating from Farmington Hills, Michigan.

Gwen Markham, Chairperson of the Finance Committee, Oakland County Board of Commissioners, participating from Novi, Michigan.

ABSENT: David Woodward, Chairperson of the Oakland County Board of Commissioners.

Minutes of the meeting held January 27, 2015 were presented for consideration. It was moved by Markham, supported by Nash, that the minutes be approved.

ROLL CALL VOTE:

NASH: AYE

MARKHAM: AYE

Chairperson Nash asked if there were any public comments. There were none.

A Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$23,155 for the Mullen Drain (as attached) were presented. It was moved by Markham, supported by Nash, to adopt the Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$23,155 as presented.

ROLL CALL VOTE:

NASH: AYE

MARKHAM: AYE

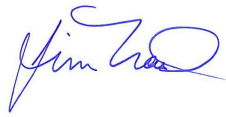
It was moved by Nash, supported by Markham, to certify attendance and authorize pro rata payment of \$25 per day to Ms. Markham.

ROLL CALL VOTE:

NASH: AYE

MARKHAM: AYE

There being no further business, the meeting was adjourned.

A handwritten signature in blue ink, appearing to read "Jim Nash". The signature is fluid and cursive, with a large loop at the end.

Jim Nash, Chairperson

STATE OF MICHIGAN)
)SS.
COUNTY OF OAKLAND)

I, the undersigned, do hereby certify that the foregoing is a true and complete copy of the minutes of the Drainage Board for the Mullen Drain, Oakland County, Michigan, held on the 22nd day of June, 2021, and that the minutes are on file in the office of the Oakland County Water Resources Commissioner and are available to the public.

I further certify that the notice of the meeting was posted at least 18 hours in advance of the meeting at the office of the Oakland County Water Resources Commissioner which is the principal office of the Drainage Board for the Mullen Drain.



Jim Nash, Chairperson

Dated: June 22, 2021

OAKLAND COUNTY WATER RESOURCES COMMISSIONER
MAINTENANCE ASSESSMENT RECOMMENDATION FOR THE
Mullen Drain

Assessment for current fund deficit and estimated maintenance expenses for fiscal years: 2024 through 2026

Date last assessment approved:	06/22/21	
Last Assessment:		\$23,155
Current Available Cash*:		(\$566)

Expenditure History:	Fiscal Year	Amount
	2017	\$858
	2018	\$2,137
	2019	\$2,271
	2020	\$2,355
	2021	\$1,546
	2022	\$4,583
	2023	\$2,454

Estimated Expenditures:	Year	Amount
	2024	\$2,600
	2025	\$2,600
	2026	\$2,600
	Total	\$7,800

Recommended Assessment:

Current Cash Deficit	\$566
Total Anticipated Expenses 2024 - 2026	\$7,800

TOTAL RECOMMENDED ASSESSMENT \$8,366

Prepared by: Andrea Craft Date: 04/11/2024
 Andrea Craft - Engineering Systems Coordinator

Approved by: _____ Date: _____
 Geoff Wilson, P.E. - Chief Engineer

Approved by: _____ Date: _____
 Gary Nigro, P.E. - Manager

Note: Current Available Cash as of February 29, 2024, Fiscal Services Division Report.
 *(Less \$14,100 previously collected for special maintenance expenses, but not yet spent)

**SPECIAL ASSESSMENT ROLL FOR THE MAINTENANCE
OF THE MULLEN DRAIN**

Public Corporation	*Percentage of Apportionment	Total Amount of Assessment	Payment #1	Payment #2	Payment #3
Charter Township of West Bloomfield	73.33165%	\$ 6,134.93	\$ 6,134.93	-	-
County of Oakland on account of drainage to county highways	26.66835%	\$ 2,231.07	\$ 2,231.07	-	-
Total	100.000%	\$ 8,366.00	\$ 8,366.00	\$ -	\$ -

*Apportionment based on Final Order of Apportionment dated 2/3/1969.

Assessment Payment Due Date(s): Payment #1 05/31/2024

I hereby certify that I have prepared the Special Assessment Roll for the Maintenance of the Mullen Drain for the fiscal years 2024- 2026 in accordance with the direction of the Drainage Board and the statutory provisions applicable thereto.

Jim Nash
Chairman of the Drainage Board for the Mullen Drain

The foregoing Special Assessment Roll for the maintenance of the Mullen Drain was approved by the Drainage Board on _____ .

Jim Nash
Chairman of the Drainage Board for the Mullen Drain

17. Powers Drain

AGENDA

DRAINAGE BOARD FOR THE POWERS DRAIN

April 23, 2024

1. Call meeting to order
2. Approve minutes of meeting of June 22, 2021
3. Public Comments
4. Present Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$4,500
5. Other business
6. Approve pro rata payment to Drainage Board members
7. Adjourn

**MINUTES OF THE MEETING OF THE DRAINAGE BOARD
FOR THE POWERS DRAIN**

June 22, 2021

A meeting of the Drainage Board for the Powers Drain was held at 2:00 p.m. on the 22nd day of June, 2021. Due to the COVID-19 pandemic, the meeting was conducted electronically via GoToMeeting in accordance with PA 254 of 2020, as may be amended from time to time and/or as otherwise provided by law.

The meeting was called to order by the Chairperson. The Board indicated where they were physically located at the time of the meeting as follows:

PRESENT: Jim Nash, Oakland County Water Resources Commissioner, participating from Farmington Hills, Michigan.

Gwen Markham, Chairperson of the Finance Committee, Oakland County Board of Commissioners, participating from Novi, Michigan.

ABSENT: David Woodward, Chairperson of the Oakland County Board of Commissioners.

Minutes of the meeting held October 22, 2019 were presented for consideration. It was moved by Markham, supported by Nash, that the minutes be approved.

ROLL CALL VOTE:

NASH: AYE

MARKHAM: AYE

Chairperson Nash asked if there were any public comments. There were none.

A Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$7,000 for the Powers Drain (as attached) were presented. It was moved by Markham, supported by Nash, to adopt the Maintenance Assessment Recommendation and Special Assessment Roll in the amount of \$7,000 as presented.

ROLL CALL VOTE:

NASH: AYE

MARKHAM: AYE

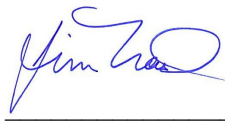
It was moved by Nash, supported by Markham, to certify attendance and authorize pro rata payment of \$25 per day to Ms. Markham.

ROLL CALL VOTE:

NASH: AYE

MARKHAM: AYE

There being no further business, the meeting was adjourned.

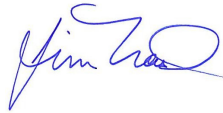
A handwritten signature in blue ink, appearing to read "Jim Nash".

Jim Nash, Chairperson

STATE OF MICHIGAN)
)SS.
COUNTY OF OAKLAND)

I, the undersigned, do hereby certify that the foregoing is a true and complete copy of the minutes of the Drainage Board for the Powers Drain, Oakland County, Michigan, held on the 22nd day of June, 2021, and that the minutes are on file in the office of the Oakland County Water Resources Commissioner and are available to the public.

I further certify that the notice of the meeting was posted at least 18 hours in advance of the meeting at the office of the Oakland County Water Resources Commissioner which is the principal office of the Drainage Board for the Powers Drain.



Jim Nash, Chairperson

Dated: June 22, 2021

OAKLAND COUNTY WATER RESOURCES COMMISSIONER
MAINTENANCE ASSESSMENT RECOMMENDATION FOR THE
Powers Drain

Assessment for estimated maintenance expenses for fiscal years: 2024 through 2026

Date last assessment approved: 06/22/21
 Last Assessment: \$7,000
 Current Available Cash*: \$1,422

Expenditure History:	Fiscal Year	Amount
	2017	\$767
	2018	\$1,112
	2019	\$1,349
	2020	\$1,507
	2021	\$1,542
	2022	\$1,128
	2023	\$1,326

Estimated Expenditures:	Year	Amount
	2024	\$1,500
	2025	\$1,500
	2026	\$1,500
	Total	\$4,500

Recommended Assessment:

Total Anticipated Expenses 2024 - 2026 \$4,500

TOTAL RECOMMENDED ASSESSMENT \$4,500

Prepared by: Andrea Craft Date: 04/11/2024
 Andrea Craft - Engineering Systems Coordinator

Approved by: _____ Date: _____
 Geoff Wilson, P.E. - Chief Engineer

Approved by: _____ Date: _____
 Gary Nigro, P.E. - Manager

Note: Current Available Cash as of February 29, 2024, Fiscal Services Division Report.
 *(Less \$2,500 previously collected for special maintenance expenses, but not yet spent)

**SPECIAL ASSESSMENT ROLL FOR THE MAINTENANCE
OF THE POWERS DRAIN**

Public Corporation	*Percentage of Apportionment	Total Amount of Assessment	Payment #1	Payment #2	Payment #3
Charter Township of West Bloomfield	80.4604%	\$ 3,620.72	\$ 3,620.72	-	-
County of Oakland on account of drainage to county highways	19.5396%	\$ 879.28	\$ 879.28	-	-
Total	100.000%	\$ 4,500.00	\$ 4,500.00	\$ -	\$ -

*Apportionment based on Final Order of Apportionment dated 1/20/1970.

Assessment Payment Due Date(s): Payment #1 05/31/2024

I hereby certify that I have prepared the Special Assessment Roll for the Maintenance of the Powers Drain for the fiscal years 2024- 2026 in accordance with the direction of the Drainage Board and the statutory provisions applicable thereto.

Jim Nash
Chairman of the Drainage Board for the Powers Drain

The foregoing Special Assessment Roll for the maintenance of the Powers Drain was approved by the Drainage Board on _____.

Jim Nash
Chairman of the Drainage Board for the Powers Drain