City of Rochester

County of Oakland

State of Michigan

Comprehensive Financial Plan

September 14, 2020

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2020 Comprehensive Financial Plan

This 2020 Comprehensive Financial Plan (the "Plan") is being prepared pursuant to Public Act 34, Public Acts of Michigan, 2001, as amended ("Act 4"). In accordance with Section 518 of Act 34, the City of Rochester (the "City") is planning to issue bonds to finance a portion of the City's unfunded pension liability for the City's Municipal Employees Retirement System ("MERS") pension plan, as further described in this Plan.

Act 34 requires the City take certain steps in order to be eligible to issue bonds to fund a portion of its pension liability, including:

1. The closure of its defined benefit pension plan, which the City Council approved on June 10, 2013, with an effective date of July 1, 2013.
2. The preparation, approval, and public posting of this Plan analyzing the funding of the City's retirement plan.
3. Publication of a Notice of Intent to issue bonds, and expiration of the right of referendum.
4. Obtaining a credit rating from a nationally recognized rating agency in the "A" rating category or higher.
5. Certifying the City has funded its defined benefit plans' annual actuarially determined contribution for the most recently available 3 audited financial statement years.
6. Certifying the City is compliant with the reporting requirements in accordance with the Protecting Local Government Retirement and Benefits Act, Public Act 2020, of 2017.
7. Provide evidence that it has the legal debt capacity to issue the proposed bonds.
8. Have applied for and obtained approval form the Michigan Department of Treasury to issue the bonds.

The Plan provided herein will provide a general overview of the City's pension / retirement, the historical and proposed funding for these plans, as well as analysis of the estimated benefit of issuing limited tax general obligation bonds to fund a portion of the City's unfunded pension liability as authorized by Act 34.

PENSION PLAN OVERVIEW

Defined Benefit Plan – MERS

The City of Rochester participates in the Municipal Employees' System of Michigan ("MERS"), an agent multiple employer-defined benefit plan. The plan provides certain retirement, disability and death benefits to Plan members and beneficiaries.

MERS is an agent multiple employer, statewide public employee pension plan established by the Michigan Legislature under Public Act 35 of 1945 and administered by a nine-member retirement board. MERS issues a publicly available financial report that includes financial statements and required supplementary information. This report may be obtained by accessing the MERS website at www.mersofmich.com.

On June 10, 2013, the City Council approved the closure of the MERS plan, for new hires effective July 1, 2013. The City offers a 451 plan for employees no longer eligible for the defined benefit plan.

Membership – Membership in the MERS plan is made up of Division 01 (Gnrl Other), Division 02 (Pol/Fire), Division 10 (Gnrl NonUnio), Division 11 (Gnrl Disptch), and Division 12 (Police Comnd) employees. A breakdown of the employees covered by the Plan as of the December 31, 2019 valuation is provided below.

Membership	01 Gnrl Other	02 Pol/ Fire	10 Gnrl NonUnio	11 Gnrl Disptch	12 Police Comnd	Total
Active Employees	8	14	7	3	2	**34**
Vested Former Employees	1	3	1	0	0	**5**
Retirees and Beneficiaries	15	11	23	3	3	**55**
Pending Refunds	1	0	4	0	0	**5**
Total	**25**	**28**	**35**	**6**	**5**	**99**

Source: 12/31/2019 MERS Annual Actuarial Valuation

Benefits – A member may retire with benefits without penalty after either attaining age 60 with 10 years of service or age 50 with 25 years of service. A member may retire with benefits with penalty at age 55 with 15 years of service.

Benefits are calculated at an annuity equal to 2.50% (2.25% for General Dispatch Division) of the three-year final average compensation times years of credited service, up to a maximum of 80%. The plan provides for an annual automatic 2.5% cost of living allowance increase (except for Division 12-Police Comnd). Vesting is required. There are no provisions for benefit changes after retirement.

Benefit terms, within the parameters established by MERS, are generally established and amended by authority of the City Council, usually after negotiation of these terms with the associated unions.

Contribution Rates – The City is required to contribute at least equal to the actuarially determined rate, as established by MERS Retirement Board. The actuarially determined rate is the estimated amount necessary to finance the cost of benefits earned by employees during the year (commonly referred to as "normal cost" with an additional amount to finance any unfunded accrued liability. The City's contributions for the fiscal year ended June 30, 2019 ranged from 11.89% to 13.39% based on annual payroll. The City establishes contribution rates paid by its covered employees. Covered employees contribute a percentage of their salary as follows:

Employee Contribution Rates	Percentage (%)
01 Gnrl Other	3% <; 5%>
02 Pol/Fire	5.00%
10 Gnrl NonUnion	5.00%
11 Gnrl Disptch	5.00%
12 Police Comnd	5.00%

Source: 12/31/2019 MERS Annual Actuarial Valuation

Funding - As of December 31, 2019, the MERS Plan had an unfunded liability as shown in the following table, based on actuarial value of assets and the market value of assets.

Pension Funding - MERS	Actuarial Value	Market Value
Actuarial Accrued Liability (AAL)	$24,732,318	$24,732,318
Value of Assets	$15,797,824	$15,592,333
Unfunded Actuarial Liability (UAL)	$8,934,494	$9,139,985
Funded Ratio	63.9%	63.0%
Covered Payroll	$2,068,447	$2,068,447
UAL as % of Covered Payroll	4.32%	4.42%

Source: December 31, 2019 MERS Annual Actuarial Valuation

The key actuarial assumptions used in determining the actuarial valuation of the City's MERS Plan as of December 31, 2019 included:

- 7.35% assumed investment rate of return
- A 5-year smoothing of investment returns
- Salary increases of 3.00%
- RP-2014 Group Annuity Mortality Table
- Fixed amortization policies

Since assumptions are intended to be long-term assumptions, the actual Plan experience will not match the actuarial assumptions. Therefore, with each annual actuarial valuation the annual required contributions may increase or decrease based on the actual prior year's actual experience.

For further details on the MERS assumptions, please see Appendix A or the following link:

http://www.mersofmich.com/Employer/Work-Scenarios/Unfunded-Liability

Detail on the City's historical funding for the MERS Plan is provided below:

Valuation Date December 31	Actuarial Accrued Liability	Valuation of Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2008	$ 17,061,907	$ 14,308,424	84%	$ 2,753,483
2009	17,011,159	14,553,451	86%	2,457,708
2010	18,010,543	14,752,580	82%	3,257,963
2011	18,846,897	14,782,634	78%	4,064,263
2012	19,134,118	14,670,568	77%	4,463,550
2013	19,950,097	14,760,263	74%	5,189,834
2014	20,701,731	14,776,302	71%	5,925,429
2015	21,982,643	14,779,151	67%	7,203,492
2016	22,324,208	14,932,151	67%	7,392,057
2017	22,404,362	15,343,263	68%	7,061,099
2018	23,203,635	15,468,281	67%	7,735,354
2019	24,732,318	15,797,824	64%	8,934,494

Source: December 31, 2019 MERS Annual Actuarial Valuation

Below is a history of City contributions for the MERS Plan:

Year Ended 12/31	City Annual Required Contribution	City Additional Contributions	Total City Contributions	% of
2008	308,542		308,542	100%
2009	302,116		302,116	100%
2010	329,329		329,329	100%
2011	369,146		369,146	100%
2012	393,307		393,307	100%
2013	440,057		440,057	100%
2014	487,578		487,578	100%
2015	533,424		533,424	100%
2016	598,218		598,218	100%
2017	673,100	39,456	712,556	106%
2018	734,364	114,996	849,360	116%
2019	773,718	169,518	943,236	122%

Source: December 31, 2019 MERS Annual Actuarial Valuation

Closure of Plan –As noted, on June 10, 2013 the City Council approved the closure of the MERS plan to new employees, effective July 1, 2013.

Cost Containment Measures

The City has taken various measures to reduce the City's pension liability and ongoing cost, as further described below.

- Effective July 1, 2013, final average compensation (FAC) caps were applied to all five MERS divisions.
- The City closed its MERS plan to new hires effective July 1, 2013.

Compliance with Protecting Local Government Retirement and Benefits Act

The City is fully compliant with the Protecting Local Government Retirement and Benefits Act 202 of 2017 ("Act 202"). Act 202 considers pension plans underfunded when the systems funding ratio is below 60% and the annual required contribution is greater than 10% of the governmental fund revenues.

POST EMPLOYMENT HEALTH CARE BENEFITS PLAN

The City provides post-retirement health care insurance coverage to eligible employees and their spouses. This is an agent multiple-employer defined benefit plan administered by ICMA RC. Eligible employees include all non-union employees and their spouses hired before June 30, 2011, the Department of Public Works union employees hired before June 30, 2012, and the police union employees hired before September 30, 2011, who retire from the City. Employees hired after the listed dates receive a contribution to a health retirement account, but no post-retirement healthcare benefit. Qualified employees are provided with 4% of the cost of single and/or spouse coverage premiums for each year of employment. Currently 34 retirees are receiving benefits. At the fund level, the expense is recognized by the City as the payments to the employees are made.

Benefits – The City provides healthcare, including prescription drug and vision benefits for retirees and their spouses. Benefits are provided by a third-party insurer.

Eligibility / Covered Employees – At the June 30, 2019 valuation date, the following employees were covered by the benefit terms:

Inactive plan members or beneficiaries currently receiving benefits:	55
Inactive plan members entitled to but not yet receiving benefits:	10
Active Plan Members	34
Total	99

Funding – As of June 30, 2019, the date of the most recent actuarial valuation, the Plan had net position as a percent of liability of 111.8% with net liability of $(1,260,399). Active service members are not required to make contributions to the plan. The City has no obligation to make contributions in advance but are being financed on a "pay-as-you-go" basis.

OPEB Funding		Value as of 6/30/2019
Actuarial Accrued Liability (AAL)	$	10,640,890
Value of Assets	$	11,901,289
Unfunded Actuarial Liability (UAL)		$(1,260,399)
Funded Ratio		112%

Source: June 30, 2019 Annual Actuarial Valuation

The main actuarial assumptions used in determining the actuarial valuation as of June 30, 2019 included:

Actuarial Cost Method	Entry-age normal
Inflation	2.30%
Salary Increases	2.50%
Investment Rate of Return	6.50%
Mortality	RP-2014 Mortality Tables
Health care trend rates	6.80% initially grading to 4.0% in 2079

Year Ended 6/30	City Annual Required Contribution	City Contributions	Percentage Contributed
2012	333,918	394,236	118.1%
2013	232,880	373,230	160.3%
2014	182,833	483,440	264.4%
2015	233,387	446,725	191.4%
2016	324,867	377,261	116.1%
2017	350,280	205,587	58.7%
2018	378,428	220,850	58.4%
2019	121,812	-	0.0%

Source: City of Rochester 2019 Annual Audit

Compliance with Protecting Local Government Retirement and Benefits Act

The City is fully compliant with the Protecting Local Government Retirement and Benefits Act 202 of 2017. Act 202 considers post-employment health care plans underfunded when the systems funding ratio is below 40% and the annual required contribution is greater than 12% of the governmental fund revenues.

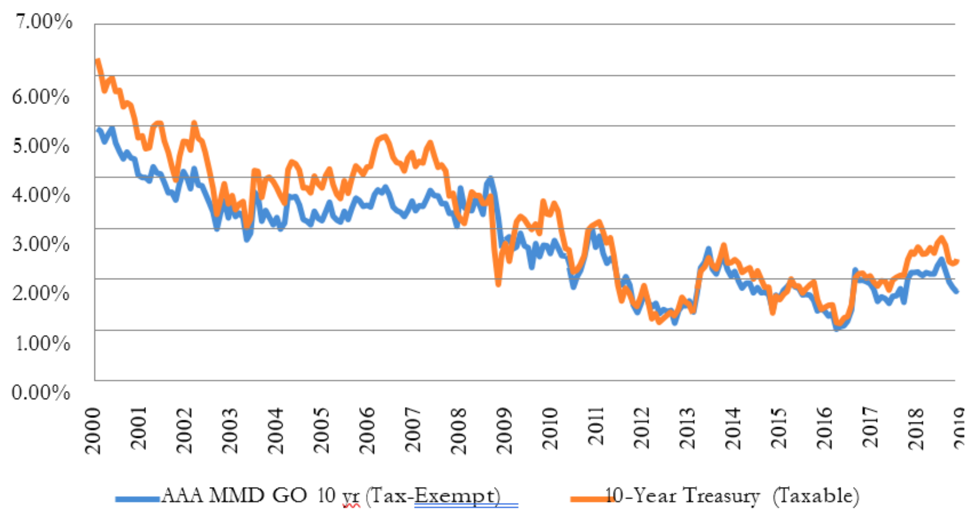
RATING REQUIREMENT

The City is in the process of obtaining a rating from one of the major credit rating agencies, and the rating will be received prior to sale of the bonds. The City understands that it must achieve a credit rating within the A category or higher from at least one rating agency in order to receive approval from the Department of Treasury and issue the Bonds. From the initial analysis using the rating agency published methodology, the City anticipates it will obtain the minimum rating required.

BOND ISSUANCE CONSIDERATIONS

The City anticipates issuing bonds as authorized by Act 34 to partially fund the unfunded pension liability for its MERS Plan. The chart below shows a history of 10- year US Treasury rates along with the 10-year tax-exempt national AAA rated MMD interest rates. Since interest rates are still at historically low levels, the City anticipates receiving favorable interest rates for the limited tax general obligation bonds to fund its pension obligation.

Historical Interest Rates (January 2000 – March 2019)



Determination of Bond Amount

Act 34 limits the amount the City can bond to achieve up to a maximum 95% funded level based on either the market value or actuarial value of assets. This is shown in greater detail on the Estimated Bond Amount table on the next page.

The annual required contribution the City makes for its defined benefit pension plans is comprised of two parts, the unfunded accrued liability and the normal cost component. The unfunded accrued liability is the portion of the pension liability that is not funded, while the normal cost is the cost of future benefits earned by employees in the current year. Under Act 34, only a portion of the unfunded accrued liability may be financed with bonds, to the 95% funding level as noted above.

The City is planning to issue an amount that will achieve an approximate 95% funding level for its MERS plan, based on either the market value of assets or the actuarial value of assets, to be determined prior to the bond sale. The sources and uses for these two different options are shown below. Also shown is the projected funding levels before and after the proposed bonds are issued.

The City understands that a more recent value of assets, determined within 150 days of closing, will need to be used if the bond amount is based on the market value of assets. The City is planning to issue the bonds using whichever methodology results in the highest funding amount in order to achieve the maximum funding level, while also achieving the required minimum net present value savings as provided by Act 34.

Estimated Bond Amount - 95% Funding		
	Based on UAL Using 12/31/19 Actuarial Value of Assets	Based on UAL Using 12/31/19 Market Value of Assets
(a) Actuarial Accrued Liability (AAL)	$24,732,318	$24,732,318
(b) Maximum % Funding Level for Bonding	95.0%	95.0%
(c) Maximum Funding Level for Bonding in Dollars (a x b)	$23,495,702	$23,495,702
(d) Less: Value of Assets*	$15,797,824	$15,592,333
(e) Unfunded Liability to be Bonded (c - d)	$7,697,878	$7,903,369
(f) Plus: Estimated Issuance Cost	$120,000	$120,000
(g) Estimated Bond Amount (e + f)	$7,817,878	$8,023,369
(h) Funding Level After Bonding (d + e / a)	$15,797,824	$15,592,333
(i) Funding Level Before Bonding (d / a)	63.9%	63.0%

Source: December 31, 2019 MERS Annual Actuarial Valuation

Legal Debt Limitation Compliance

As of June 30, 2019, the City's outstanding debt is shown below:

Dated Date	LONG-TERM DEBT	BALANCE	Final Maturity
2010	Oakland-Macomb Interceptor Bonds	$498,822	4/1/2031
2019	Oakland-Macomb Interceptor Bonds	$121,929	4/1/2030
2011	Oakland-Macomb Interceptor Bonds	$722,764	10/1/2033
2013	Oakland-Macomb Interceptor Bonds	$1,649,066	10/1/2033
2014	Oakland-Macomb Intereceptor Bonds	$190,980	10/1/2034
2015	Oakland-Macomb Interceptor Bonds	$512,440	4/1/2036
2017	Clinton River Water Resource Bonds	$1,042,291	10/1/2038
2015	Capital Improvement Parking Bonds	$10,235,000	5/1/2035
2019	State Revolving Fund Loan	$2,328,000	10/1/2040
2017	State Loan - Brownfield	$1,000,000	
2001	2001 Older Persons Commission Building	$285,000	
TOTAL DIRECT DEBT		$18,586,292	
	Less: Non-contractual Debt	-$8,066,292	
AMOUNT SUBJECT TO LEGAL DEBT MARGIN		$10,520,000	

Source: June 30, 2019 City of Rochester Annual Financial Audit

The City understands that the actual savings achieved depends on many factors, including the actual investment rate of return earned and the interest rate received on the bonds. Below is a table showing the estimated savings on a net present value basis for different combinations of bond interest rates and future projected investment rates of return. If future rates of return are lower than the 7.35% projected rate, the savings will be lower than projected in the analysis provided earlier. The table below assumes that the City will bond to achieve a 95% funded level based on the actuarial value of assets.

Actuarial Value of Assets

Summary of Savings — Nominal Savings

	Current IR	Current IR +50 BPS	Current IR -50 BPS
Expected UAL ROR (7.35%)	$ 4,165,223.82	$ 3,848,774.72	$ 4,473,351.70
Expected UAL ROR -100 BPS (6.35%)	$ 3,124,644.22	$ 2,808,195.12	$ 3,432,772.10
Expected UAL ROR -200 BPS (5.35%)	$ 2,618,518.42	$ 2,302,069.32	$ 2,926,646.30

Summary of Present Value Savings — Discounted to Arbitrage Yield

	Current IR	Current IR +50 BPS	Current IR -50 BPS
Expected UAL ROR (7.35%)	$ 3,695,175.73	$ 3,306,153.54	$ 4,101,921.57
Expected UAL ROR -100 BPS (6.35%)	$ 2,756,107.53	$ 2,392,986.13	$ 3,135,779.92
Expected UAL ROR -200 BPS (5.35%)	$ 2,296,672.60	$ 1,945,471.64	$ 2,663,888.12

Summary of Present Value Savings — Discounted to All-In TIC

	Current IR	Current IR +50 BPS	Current IR -50 BPS
Expected UAL ROR (7.35%)	$ 3,612,360.35	$ 3,232,705.16	$ 4,009,375.96
Expected UAL ROR -100 BPS (6.35%)	$ 2,691,200.09	$ 2,336,815.19	$ 3,061,797.41
Expected UAL ROR -200 BPS (5.35%)	$ 2,240,006.67	$ 1,897,254.15	$ 2,598,446.39

Actuarial Value of Assets

Summary of Savings — Nominal Savings

	Current IR	Current IR +50 BPS	Current IR -50 BPS
Expected UAL ROR (7.35%)	52.82%	48.81%	56.73%
Expected UAL ROR -100 BPS (6.35%)	39.63%	35.61%	43.54%
Expected UAL ROR -200 BPS (5.35%)	33.21%	29.20%	37.12%

Summary of Present Value Savings — Discounted to Arbitrage Yield

	Current IR	Current IR +50 BPS	Current IR -50 BPS
Expected UAL ROR (7.35%)	46.86%	41.93%	52.02%
Expected UAL ROR -100 BPS (6.35%)	34.95%	30.35%	39.77%
Expected UAL ROR -200 BPS (5.35%)	29.13%	24.67%	33.78%

Summary of Present Value Savings — Discounted to All-In TIC

	Current IR	Current IR +50 BPS	Current IR -50 BPS
Expected UAL ROR (7.35%)	45.81%	41.00%	50.85%
Expected UAL ROR -100 BPS (6.35%)	34.13%	29.64%	38.83%
Expected UAL ROR -200 BPS (5.35%)	28.41%	24.06%	32.95%

Market Value of Assets

Summary of Savings — Nominal Savings

	Current IR	Current IR +50 BPS	Current IR -50 BPS
Expected UAL ROR (7.35%)	$ 4,273,879.77	$ 3,949,831.17	$ 4,590,339.10
Expected UAL ROR -100 BPS (6.35%)	$ 3,198,546.87	$ 2,874,498.27	$ 3,515,006.20
Expected UAL ROR -200 BPS (5.35%)	$ 2,702,483.57	$ 2,378,434.97	$ 3,018,942.90

Summary of Present Value Savings — Discounted to Arbitrage Yield

	Current IR	Current IR +50 BPS	Current IR -50 BPS
Expected UAL ROR (7.35%)	$ 3,788,150.06	$ 3,388,338.69	$ 4,206,756.14
Expected UAL ROR -100 BPS (6.35%)	$ 2,819,514.23	$ 2,446,884.19	$ 3,209,664.73
Expected UAL ROR -200 BPS (5.35%)	$ 2,369,358.12	$ 2,008,414.32	$ 2,747,270.63

Summary of Present Value Savings — Discounted to All-In TIC

	Current IR	Current IR +50 BPS	Current IR -50 BPS
Expected UAL ROR (7.35%)	$ 3,704,038.86	$ 3,313,602.99	$ 4,112,822.95
Expected UAL ROR -100 BPS (6.35%)	$ 2,753,898.63	$ 2,389,996.91	$ 3,134,905.29
Expected UAL ROR -200 BPS (5.35%)	$ 2,311,694.86	$ 1,959,198.72	$ 2,680,757.74

Market Value of Assets

Summary of Savings — Nominal Savings

	Current IR	Current IR +50 BPS	Current IR -50 BPS
Expected UAL ROR (7.35%)	52.80%	48.79%	56.71%
Expected UAL ROR -100 BPS (6.35%)	39.51%	35.51%	43.42%
Expected UAL ROR -200 BPS (5.35%)	33.38%	29.38%	37.29%

Summary of Present Value Savings — Discounted to Arbitrage Yield

	Current IR	Current IR +50 BPS	Current IR -50 BPS
Expected UAL ROR (7.35%)	46.80%	41.86%	51.97%
Expected UAL ROR -100 BPS (6.35%)	34.83%	30.23%	39.65%
Expected UAL ROR -200 BPS (5.35%)	29.27%	24.81%	33.94%

Summary of Present Value Savings — Discounted to All-In TIC

	Current IR	Current IR +50 BPS	Current IR -50 BPS
Expected UAL ROR (7.35%)	45.76%	40.93%	50.81%
Expected UAL ROR -100 BPS (6.35%)	34.02%	29.52%	38.73%
Expected UAL ROR -200 BPS (5.35%)	28.56%	24.20%	33.12%

Historical Rate of Returns on Investments

Below is a comparison of the current investment rate of return with the returns of the MERS system for the past one, five, ten, and fifteen years as of December 31, 2019:

MERS Historical Rate of Returns	
Assumed Rate of Return	**7.75%**
One Year Average (2018)	-3.51%
Five Year Average (2014-2018)	5.40%
Ten Year Average (2009-2018)	8.75%
Fifteen Year Average (2004-2018)	7.10%

Source: MERS A Look Behind the Scenes of Your Retirement Plan, June 2020

DESCRIPTION OF ACTION REQUIRED TO MEET OBLIGATIONS

The City allocates pension costs to the various departments that receive benefits based on historical staff membership in the Plans. Similarly, the annual debt service for the Bonds to fund the pension obligations will be allocated proportionately to the departments that receive pension benefits. Revenue sources for the funds that will be allocated portions of the annual bond payments include annual operating levies, state shared revenues, utilities, and other sources of annual revenue.

The City Manager completes an annual budget by fund and presents it to the City Council for approval. The annual debt service amounts for each fund within the budget will be included in the annual budget process to be presented and approved by the City Council annually. The bonds to fund the pension obligations will carry the City's limited tax general obligation full faith and credit pledge; therefore, the annual debt service will be legally required to be part of the City's total budget.

PLAN COMPLIANCE

As outlined in Act 34, the Plan contains the following elements:

- An analysis of the current and future obligations with respect to each retirement program of the City. The City defined benefit plan is closed to new hires. Information regarding the defined benefit plan was obtained from MERS and GRS Retirement Consulting as shown on pages 2-__.
- An analysis of current amount of future obligation with respect to the post-employment health care plan.
- Evidence that the issuance coupled with any other legally available funds, is sufficient to eliminate the unfunded pension liability. The unfunded pension liability for the MERS Plan is expected to be partially funded from bond proceeds. The remaining UAL will be funded as it has been historically, through the various funds that receive the pension benefits. The schedules showing this are on pages ____.
- A description of actions required to satisfy the debt service amortization schedule. The pension obligation bonds are a limited tax general obligation of the City, paid from various City funds. A description of actions the City takes to allocate costs to its various funds, create the annual budget and obtain budget approval from the City Council is contained on page ___ herein.
- Certifications. The various certifications required by Act 34 are included on page ___.

Act 34 also requires the Plan be prepared and made available to the public. Accordingly, the City has prepared this Plan, which has been approved by the City Council on_____, 2020, and has been made available in the City's clerk office for public review. It has also been posted and made available to the public on the City's website at [www.rochestermi.org.](http://www.rochestermi.org)

CERTIFICATIONS

The City has prepared this Comprehensive Financial Plan for Pension Benefits as required under Act 34 for the issuance of General Obligation Bonds to fund pension liability. In preparing this plan, information has been obtained from the Municipal Employees Retirement. The City believes the information provided by these firms to be reliable.

I certify the following:

- This Comprehensive Financial Plan is complete and accurate to the best of my knowledge and belief.
- The City's most recent audit report indicates the sum of all the City's defined benefit plans' actual contributions for the most recent 3 fiscal years are 100% or greater than the sum of all the City's defined benefit plans' actuarially determined contributions for the most recent 3 fiscal years.
- The City is compliant on any reporting requirements in accordance with the Protecting Local Government Retirement and Benefits Public Act 202 of 2017.

Dated: ____________________________

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