



MUNICIPAL EMPLOYEES' RETIREMENT SYSTEM OF MICHIGAN
ANNUAL ACTUARIAL VALUATION REPORT DECEMBER 31, 2017
FLUSHING, CHTR TWP OF (2515)



Spring, 2018

Flushing, Chtr Twp of

In care of:

Municipal Employees' Retirement System of Michigan
1134 Municipal Way
Lansing, Michigan 48917

This report presents the results of the Annual Actuarial Valuation, prepared as of December 31, 2017. The report includes the determination of liabilities and contribution rates resulting from the participation of Flushing, Chtr Twp of (2515) in the Municipal Employees' Retirement System of Michigan ("MERS"). MERS is an independent, professional retirement services company that was created to administer retirement plans for Michigan municipalities on a not-for-profit basis. This report contains the minimum actuarially determined contribution requirement, in alignment with the MERS Plan Documents, funding policy and Michigan Constitution. Flushing, Chtr Twp of is responsible for the employer contributions needed to provide MERS benefits for its employees and former employees under the Michigan Constitution and the MERS Plan Document.

The purpose of the December 31, 2017 annual actuarial valuation is to:

- Measure funding progress
- Establish contribution requirements for the fiscal year beginning April 1, 2019
- Provide actuarial information in connection with applicable Governmental Accounting Standards Board (GASB) statements

This valuation report should not be relied upon for any other purpose. Reliance on information contained in this report by anyone for anything other than the intended purpose could be misleading.

The valuation uses financial data, plan provision data, and participant data as of December 31, 2017 furnished by MERS. In accordance with Actuarial Standards of Practice No. 23, the data was checked for internal and year to year consistency as well as general reasonableness, but was not otherwise audited. CBIZ Retirement Plan Services does not assume responsibility for the accuracy or completeness of the data used in this valuation.

The actuarial assumptions and methods are adopted by the MERS Retirement Board, and are reviewed every five years in an Experience Study. The most recent study was completed in 2015. Please refer to the division-specific assumptions described in table(s) in this report, and to the Appendix on the MERS website at:

www.mersofmich.com/Portals/0/Assets/Resources/AAV-Appendix/MERS-2017AnnualActuarialValuation-Appendix.pdf.



The actuarial assumptions used for this valuation produce results that we believe are reasonable.

To the best of our knowledge, this report is complete and accurate, was prepared in conformity with generally recognized actuarial principles and practices, with the Actuarial Standards of Practice issued by the Actuarial Standards Board, and is in compliance with Act No. 220 of the Public Acts of 1996, as amended, and the MERS Plan Document as revised. All of the undersigned are members of the American Academy of Actuaries (MAAA), and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. The Retirement Board of the Municipal Employees' Retirement System of Michigan confirms that the System provides for payment of the required employer contribution as described in Section 20m of Act No. 314 of 1965 (MCL 38.1140m).

This information is purely actuarial in nature. It is not intended to serve as a substitute for legal, accounting or investment advice.

This report was prepared at the request of the Retirement Board and may be provided only in its entirety by the municipality to other interested parties (MERS customarily provides the full report on request to associated third parties such as the auditor for the municipality). CBIZ Retirement Plan Services is not responsible for the consequences of any unauthorized use.

You should notify MERS if you disagree with anything contained in the report or are aware of any information that would affect the results of the report that have not been communicated to us. If you have reason to believe that the plan provisions are incorrectly described, that important plan provisions relevant to this valuation are not described, that conditions have changed since the calculations were made, that the information provided in this report is inaccurate or is in anyway incomplete, or if you need further information in order to make an informed decision on the subject matter in this report, please contact your Regional Manager at 1.800.767.MERS (6377).

Sincerely,

Cathy Nagy, MAAA, FSA
Jim Koss, MAAA, ASA
Curtis Powell, MAAA, EA

TABLE OF CONTENTS

	Page
Executive Summary	5
Employer Contribution Details	14
Table 1	
Benefit Provisions	15
Table 2	
Participant Summary	16
Table 3	
Reported Assets (Market Value)	17
Table 4	
Flow of Valuation Assets	18
Table 5	
Actuarial Accrued Liabilities and Valuation Assets	19
Table 6	
Actuarial Accrued Liabilities - Comparative Schedule	20
Table 7	
Division-Based Comparative Schedules	21
Tables 8 and 9	
Division-Based Layered Amortization Schedule	24
Table 10	
GASB 68 Information	27
Benefit Provision History	29
Plan Provisions, Actuarial Assumptions, and Actuarial Funding Method	31

Executive Summary

Funded Ratio and Required Employer Contributions

The MERS Defined Benefit Plan is an agent multiple-employer plan, meaning that assets are pooled for investment purposes but separate accounts are maintained for each individual employer. Each municipality is responsible for their own plan liabilities; MERS does not borrow from one municipality's account to pay for another.

The funded ratio of a plan is the percentage of the dollar value of the accrued benefits that is covered by the actuarial value of assets.

Your Funded Ratio:

	12/31/2017 *	12/31/2016
Funded Ratio	66%	65%

* Reflects assets from Surplus divisions, if any.

Michigan Law requires that pension plans be pre-funded, meaning money is set aside now to pay for future benefits. Pension plans are usually funded by employer and employee contributions, and investment income.

How quickly a plan attains the 100% funding goal depends on many factors such as:

- The current funded ratio
- The future experience of the plan
- The amortization period

It is more important to look at the trend in the funded ratio over a period of time than at a particular point in time.

Your Required Employer Contributions:

Your computed employer contributions are shown in the following table. Employee contributions, if any, are in addition to the computed employer contributions. Changes to the assumptions and methods based on the 2015 Experience Study were first reflected in the December 31, 2015 valuations. The impact of these changes is being phased-in over a 5 year period. The phase-in allows the employer to spread the impact of the new assumptions over 5 fiscal years. This valuation reflects the third year of the phase-in.

Your minimum required contribution is the amount in the "Phase-in" columns. By default, MERS will invoice you the phased-in contribution amount, but strongly encourages you to contribute more than the minimum required contribution. If for 2018 your municipality is making employer contributions based on rates without the phase-in applied, contact MERS to ensure the No Phase-in rate is used again for 2019 and not the defaulted phase-in rates.

	Percentage of Payroll				Monthly \$ Based on Projected Payroll			
	Phase-in	No Phase-in	Phase-in	No Phase-in	Phase-in	No Phase-in	Phase-in	No Phase-in
Valuation Date:	12/31/2017	12/31/2017	12/31/2016	12/31/2016	12/31/2017	12/31/2017	12/31/2016	12/31/2016
Fiscal Year Beginning:	April 1, 2019	April 1, 2019	April 1, 2018	April 1, 2018	April 1, 2019	April 1, 2019	April 1, 2018	April 1, 2018
Division								
01 - Teamsters-Union	58.71%	60.97%	56.74%	60.23%	\$ 9,492	\$ 9,858	\$ 8,919	\$ 9,468
02 - Plc Offcrs	-	-	13.71%	14.89%	3,943	4,149	3,592	3,901
20 - Command	7.47%	12.04%	9.84%	16.90%	510	822	653	1,121
Municipality Total					\$ 13,945	\$ 14,829	\$ 13,164	\$ 14,490

Employee contribution rates reflected in the valuations are shown below:

Valuation Date:	Employee Contribution Rate	
	12/31/2017	12/31/2016
Division		
01 - Teamsters-Union	8.00%	8.00%
02 - Plc Offcrs	8.00%	8.00%
20 - Command	6.00%	4.00%

The employer may contribute more than the minimum required contributions, as these additional contributions will earn investment income and may result in lower future contribution requirements. Employers making contributions in excess of the minimum requirements may elect to apply the excess contribution immediately to a particular division, or segregate the excess into one or more of what MERS calls "Surplus" divisions. An election in the first case would immediately reduce any unfunded accrued liability and lower the amortization payments throughout the remaining amortization period. An election to set up Surplus divisions would not immediately lower future contributions, however the

assets from the Surplus divisions could be transferred to an unfunded division in the future to reduce the unfunded liability in future years, or to be used to pay all or a portion of the minimum required contribution in a future year. For purposes of this report, the assets in any Surplus division have been included in the municipality's total assets, unfunded accrued liability and funded status, however, these assets are not used in calculating the minimum required contribution.

MERS strongly encourages employers to contribute more than the minimum contribution shown above.

Assuming that experience of the plan meets actuarial assumptions:

- To accelerate to a 100% funding ratio in 10 years, estimated monthly employer contributions for the fiscal year beginning in 2019 for the entire employer would be \$23,631, instead of \$14,829.

If you are interested in making additional contributions, please contact MERS and they can assist you with evaluating your options.

How and Why Do These Numbers Change?

In a defined benefit plan, contributions vary from one annual actuarial valuation to the next as a result of the following:

- Changes in benefit provisions (see Table 2)
- Changes in actuarial assumptions and methods (see the [Appendix](#))
- Experience of the plan (investment experience and demographic experience); this is the difference between actual experience of the plan and the actuarial assumptions. For example:
 - o Lower actual investment returns would result in higher required employer contributions, and vice-versa.
 - o Smaller than assumed pay increases would lower required employer contributions.
 - o Reductions in the number of active employees would lower required contribution dollars, but would usually increase the contribution rate expressed as a percentage of (the now lower) payroll.
 - o Retirements at earlier ages than assumed would usually increase required employer contributions.
 - o More non-vested terminations of employment than assumed would decrease required contributions.
 - o More disabilities or survivor (death) benefits than assumed would increase required contributions.
 - o Longer lifetimes after retirement than assumed would increase required employer contributions.

Actuarial valuations do not affect the ultimate cost of the plan; the benefit payments (current and future) determine the cost of the plan. Actuarial valuations only affect the timing of the contributions into the plan. Because assumptions are for the long term, plan experience will not match the actuarial

assumptions in any given year (except by coincidence). Each annual actuarial valuation will adjust the required employer contributions up or down based on the prior year's actual experience.

Comments on Investment Return Assumption and Asset Smoothing

A defined benefit plan is funded by employer contributions, participant contributions, and investment earnings. Investment earnings have historically provided **more than half** of the funding. The larger the share of benefits being provided from investment returns, the smaller the required contributions, and vice versa. Determining the contributions required to prefund the promised retirement benefits requires an assumption of what investment earnings are expected to add to the fund over a long period of time. This is called the **Investment Return Assumption**.

The MERS Investment Return Assumption is **7.75%** per year. This, along with all of our other actuarial assumptions, is reviewed every five years in an Experience Study that compares the assumptions used against actual experience and recommends adjustments if necessary. If your municipality would like to explore contributions at lower investment return assumptions, please review the budget projection scenarios later in this report.

To avoid dramatic spikes and dips in annual contribution requirements due to short term fluctuations in asset markets, MERS applies a technique called **asset smoothing**. This spreads out each year's investment gains or losses over the prior year and the following four years. This smoothing method is used to determine your actuarial value of assets (valuation assets), which is then used to determine both your funded ratio and your required contributions. The (smoothed) **actuarial rate of return for 2017 was 6.08%, while the actual market rate of return was 13.07%**. To see historical details of the market rate of return, compared to the smoothed actuarial rate of return, refer to this report's [Appendix](#), or visit our [Defined Benefit resource page](#) on the MERS website.

As of December 31, 2017 the actuarial value of assets is 101% of market value due to asset smoothing. This means that meeting the actuarial assumption in the next few years will require average annual market returns that exceed the 7.75% investment return assumption, or contribution requirements will continue to increase.

If the December 31, 2017 valuation results were based on market value instead of the actuarial value:

- The funded percent of your entire municipality would be 65% (instead of 66%); and
- Your total employer contribution requirement for the fiscal year starting April 1, 2019 would be \$181,356 (instead of \$177,948).

Risk Characteristics of Defined Benefit Plans

It is important to understand that Defined Benefit retirement plans, the plan sponsor, and the plan participants are exposed to certain risks. While risks cannot be eliminated entirely, they can be managed through various strategies. Below are a few examples of risk (this is not an all-inclusive list):

- Economic - investment return, wage inflation, etc.
- Demographic - longevity, disability, retirement, etc.
- Plan Sponsor and Employees - contribution volatility, attract/retain employees, etc.

The MERS Retirement Board adopts certain assumptions and methods to manage the economic and demographic risks, and the contribution volatility risks. For example, the investment risk is the largest economic risk and is managed by having a balanced portfolio and a clearly defined investment strategy. Demographic risks are managed by preparing special studies called experience studies on a regular basis to determine if the assumptions used are reasonable compared to the experience. An Experience Study is completed every five years to review the assumptions and methods. The next Experience Study will be completed in 2020.

Risk can also be managed through a plan design that provides benefits that are sustainable in the long run.

The Actuarial Standards Board has issued Actuarial Standards of Practice (ASOP) No. 51. This standard will be effective for any actuarial work with a measurement date on or after November 1, 2018. This means, the December 31, 2018 and later annual actuarial valuation reports for MERS will have to comply with this standard. This standard will require the actuary to identify risks that, in the actuary's professional judgment may significantly impact the plan's future financial condition. The actuary will have to assess the potential effects of the identified risks on the plan's future financial condition. The assessment may or may not be based on numerical calculations. However, the assessment should reflect the specifics of the plan (i.e. funded status, plan demographics, funding policy, etc.). If the actuary concludes that numerical calculations are necessary to assess the risk, the actuary can use various methods to quantify the risk such as scenario tests, sensitivity tests, stress tests, etc.

Some of these risk assessment measures have already been incorporated in the MERS annual valuation reports. For example, the projections of funded percentage and employer contributions shown on the following pages could be used to gauge the risk associated with long term investment rates of return different than the assumed 7.75% annual rate. A history of the municipality's funded percentage as shown in Table 7, could indicate the trend in funded status over time.

Alternate Scenarios to Estimate the Potential Volatility of Results ("What If Scenarios")

The calculations in this report are based on assumptions about long-term economic and demographic behavior. These assumptions will never materialize in a given year, except by coincidence. Therefore

the results will vary from one year to the next. The volatility of the results depends upon the characteristics of the plan. For example:

- Open divisions that have substantial assets compared to their active employee payroll will have more volatile employer contribution rates due to investment return fluctuations.
- Open divisions that have substantial accrued liability compared to their active employee payroll will have more volatile employer contribution rates due to demographic experience fluctuations.
- Small divisions will have more volatile contribution patterns than larger divisions because statistical fluctuations are relatively larger among small populations.
- Shorter amortization periods result in more volatile contribution patterns.

The analysis in this section is intended to review the potential volatility of the actuarial valuation results. It is important to note that calculations in this report are mathematical estimates based upon assumptions regarding future events, which may or may not materialize. Actuarial calculations can and do vary from one valuation to the next, sometimes significantly depending on the group's size.

Many assumptions are important in determining the required employer contributions. In the table below, we show the impact of varying the Investment Return Assumption. Lower investment returns would result in higher required employer contributions, and vice-versa.

The relative impact of each investment return scenario below will vary from year to year, as the participant demographics change. The impact of each scenario should be analyzed for a given year, not from year to year. The results in the table are based on the December 31, 2017 valuation, and are for the municipality in total, not by division. These results do not reflect a 5-year phase in of the impact of the new actuarial assumptions.

	Assumed Future Annual Smoothed Investment Return Assumption			
	Lower Future Annual Returns		Valuation Assumption	Higher Returns
	5.75%	6.75%	7.75%	8.75%
12/31/2017 Valuation Results				
Accrued Liability	\$ 7,341,288	\$ 6,591,811	\$ 5,955,291	\$ 5,411,011
Valuation Assets ¹	\$ 3,931,698	\$ 3,931,698	\$ 3,931,698	\$ 3,931,698
Unfunded Accrued Liability	\$ 3,409,590	\$ 2,660,113	\$ 2,023,593	\$ 1,479,313
Funded Ratio	54%	60%	66%	73%
Monthly Normal Cost	\$ 6,421	\$ 4,442	\$ 2,937	\$ 1,798
Monthly Amortization Payment	\$ 16,726	\$ 14,288	\$ 11,892	\$ 9,059
Total Employer Contribution²	\$ 23,147	\$ 18,730	\$ 14,829	\$ 11,355

¹ The Valuation Assets include assets from Surplus divisions, if any.

² If assets exceed accrued liabilities for a division, the division's amortization payment is negative and is used to reduce the division's employer contribution requirement. If the overfunding credit is larger than the normal cost, the division's full credit is included in the municipality's amortization payment above but the division's total contribution requirement is zero. This can cause the displayed normal cost and amortization payment to not add up to the displayed total employer contribution.

Projection Scenarios

The next two pages show projections of the plan's funded ratio and computed employer contributions under the actuarial assumptions used in the valuation and alternate assumed long-term investment return assumption scenarios. All four projections take into account the past investment losses that will continue to affect the actuarial rate of return in the short term. Under the 7.75% scenarios in the table on the next page, two sets of projections are shown:

- Based on the phase-in over 5 fiscal years (beginning in 2017) of the increased contribution requirements associated with the new actuarial assumptions. This projects your minimum required contribution.
- Based on no phase-in of the increased contribution requirements.

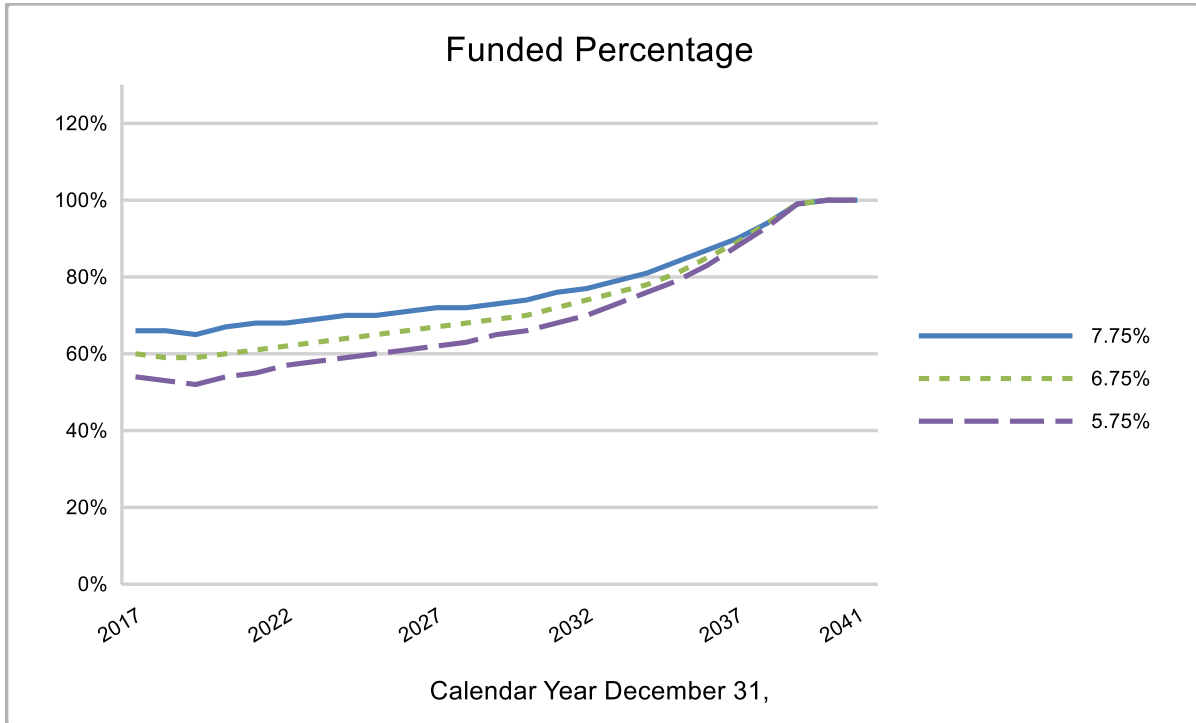
The 7.75% scenarios provide an estimate of computed employer contributions based on current actuarial assumptions, and a projected 7.75% market return. The other two scenarios may be useful if the municipality chooses to budget more conservatively, and make contributions in addition to the minimum requirements. The 6.75% and 5.75% projections provide an indication of the potential required employer contribution if MERS were to realize annual investment returns of 6.75% and 5.75% over the long-term.

The projections are shown both in tabular and graphical form in total for the employer. The tables show projections for six years. The graphs show projections for twenty five years.

Valuation Year Ending 12/31	Fiscal Year Beginning 4/1	Actuarial Accrued Liability	Valuation Assets ²	Funded Percentage	Computed Annual Employer Contribution
7.75%¹					
WITH 5-YEAR PHASE-IN					
2017	2019	\$ 5,955,291	\$ 3,931,698	66%	\$ 167,340
2018	2020	6,130,000	4,050,000	66%	184,000
2019	2021	6,280,000	4,090,000	65%	201,000
2020	2022	6,410,000	4,250,000	66%	203,000
2021	2023	6,530,000	4,410,000	68%	205,000
2022	2024	6,650,000	4,530,000	68%	211,000
NO 5-YEAR PHASE-IN					
2017	2019	\$ 5,955,291	\$ 3,931,698	66%	\$ 177,948
2018	2020	6,130,000	4,050,000	66%	188,000
2019	2021	6,280,000	4,100,000	65%	200,000
2020	2022	6,410,000	4,260,000	67%	202,000
2021	2023	6,530,000	4,430,000	68%	204,000
2022	2024	6,650,000	4,550,000	68%	209,000
6.75%¹					
NO 5-YEAR PHASE-IN					
2017	2019	\$ 6,591,811	\$ 3,931,698	60%	\$ 224,760
2018	2020	6,770,000	4,010,000	59%	240,000
2019	2021	6,920,000	4,050,000	59%	252,000
2020	2022	7,050,000	4,230,000	60%	255,000
2021	2023	7,170,000	4,400,000	61%	258,000
2022	2024	7,290,000	4,530,000	62%	265,000
5.75%¹					
NO 5-YEAR PHASE-IN					
2017	2019	\$ 7,341,288	\$ 3,931,698	54%	\$ 277,764
2018	2020	7,530,000	3,970,000	53%	296,000
2019	2021	7,680,000	4,010,000	52%	310,000
2020	2022	7,810,000	4,200,000	54%	314,000
2021	2023	7,930,000	4,390,000	55%	318,000
2022	2024	8,040,000	4,540,000	57%	325,000

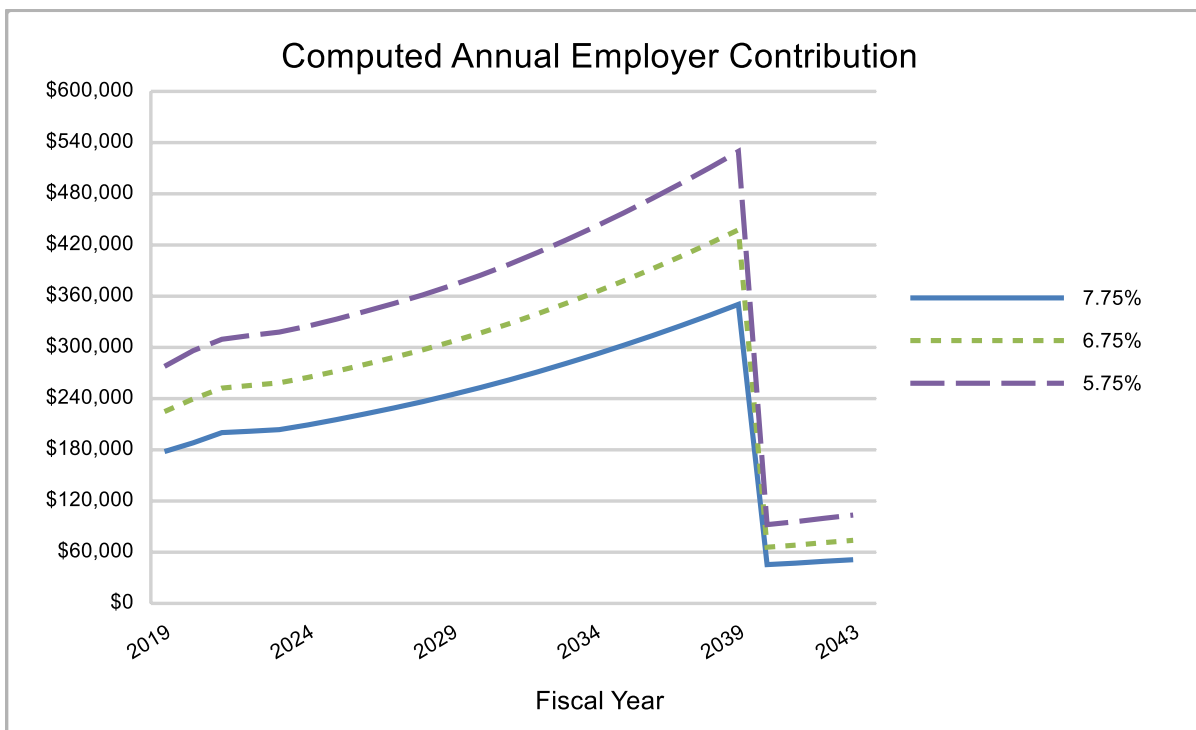
¹ Represents both the interest rate for discounting liabilities and the future investment return assumption on the Market Value of assets.

² Valuation Assets do not include assets from Surplus divisions, if any.



Notes:

All projected funded percentages are shown with no phase-in.



Notes:

All projected contributions are shown with no phase-in.

Employer Contribution Details For the Fiscal Year Beginning April 1, 2019

Table 1

Division	Total Normal Cost	Employee Contribut. Rate	Employer Contributions ¹			Computed Employer Contribut. With Phase-In	Blended ER Rate No Phase-In ⁵	Blended ER Rate With Phase-In ⁵	Employee Contribut. Conversion Factor ²
			Employer Normal Cost	Payment of the Unfunded Accrued Liability ⁴	Computed Employer Contribut. No Phase-In				
Percentage of Payroll									
01 - Teamsters-Union	15.13%	8.00%	7.13%	53.84%	60.97%	58.71%			0.88%
02 - Plc Offcrs	13.24%	8.00%	-	-	-	-			
20 - Command	14.55%	6.00%	8.55%	3.49%	12.04%	7.47%			0.51%
Estimated Monthly Contribution³									
01 - Teamsters-Union			\$ 1,153	\$ 8,705	\$ 9,858	\$ 9,492			
02 - Plc Offcrs			1,200	2,949	4,149	3,943			
20 - Command			584	238	822	510			
Total Municipality			\$ 2,937	\$ 11,892	\$ 14,829	\$ 13,945			
Estimated Annual Contribution³			\$ 35,244	\$ 142,704	\$ 177,948	\$ 167,340			

¹ The above employer contribution requirements are in addition to the employee contributions, if any.

² If employee contributions are increased/decreased by 1.00% of pay, the employer contribution requirement will decrease/increase by the Employee Contribution Conversion Factor. The conversion factor is usually under 1%, because employee contributions may be refunded at termination of employment, and not used to fund retirement pensions. Employer contributions will all be used to fund pensions.

³ For divisions that are open to new hires, estimated contributions are based on projected fiscal year payroll. Actual contributions will be based on actual reported monthly pays, and will be different from the above amounts. For divisions that will have no new hires (i.e. closed divisions), invoices will be based on the above dollar amounts which are based on projected fiscal year payroll. See description of Open Divisions and Closed Divisions in the [Appendix](#).

⁴ If projected assets exceed projected liabilities as of the beginning of the April 1, 2019 fiscal year, the negative unfunded accrued liability is treated as overfunding credit and is used to reduce the contribution. This amortization is used to reduce the employer contribution rate. Note that if the overfunding credit is larger than the normal cost, the full credit is shown above but the total contribution requirement is zero. This will cause the displayed normal cost and unfunded accrued liability contributions to not add across.

⁵ For linked divisions, the employer will be invoiced the Computed Employer Contribution with Phase-in rate shown above for each linked division (a contribution rate for the open division; a contribution dollar for the closed-but-linked division), unless the employer elects to contribute the Blended Employer Contribution rate shown above, by contacting MERS at 800-767-MERS (6377).

Please see the Comments on Asset Smoothing in the Executive Summary of this report.

Benefit Provisions

Table 2

01 - Teamsters-Union: Open Division		
	2017 Valuation	2016 Valuation
Benefit Multiplier:	Bridged Benefit: 3.00% Multiplier (80% max) Frozen FAC; to 2.50% Multiplier (80% max)	Bridged Benefit: 3.00% Multiplier (80% max) Frozen FAC; to 2.50% Multiplier (80% max)
Bridged Benefit Date:	12/31/2011	12/31/2011
Normal Retirement Age:	60	60
Vesting:	8 years	8 years
Early Retirement (Unreduced):	55/15	55/15
Early Retirement (Reduced):	50/25	50/25
Final Average Compensation:	3 years	3 years
Employee Contributions:	8%	8%
Act 88:	Yes (Adopted 11/9/2006)	Yes (Adopted 11/9/2006)
02 - Plc Offcrs: Closed to new hires		
	2017 Valuation	2016 Valuation
Benefit Multiplier:	Bridged Benefit: 3.00% Multiplier (80% max) Frozen FAC; to 2.50% Multiplier (80% max)	Bridged Benefit: 3.00% Multiplier (80% max) Frozen FAC; to 2.50% Multiplier (80% max)
Bridged Benefit Date:	05/31/2012	05/31/2012
Normal Retirement Age:	60	60
Vesting:	10 years	10 years
Early Retirement (Unreduced):	50/25	50/25
Early Retirement (Reduced):	55/15	55/15
Final Average Compensation:	3 years	3 years
Employee Contributions:	8%	8%
DC Plan for New Hires:	4/1/2017	
Act 88:	Yes (Adopted 11/9/2006)	Yes (Adopted 11/9/2006)
20 - Command: Open Division		
	2017 Valuation	2016 Valuation
Benefit Multiplier:	Bridged Benefit: 3.00% Multiplier (80% max) Frozen FAC; to 2.50% Multiplier (80% max)	Bridged Benefit: 3.00% Multiplier (80% max) Frozen FAC; to 2.50% Multiplier (80% max)
Bridged Benefit Date:	04/30/2013	04/30/2013
Normal Retirement Age:	60	60
Vesting:	10 years	10 years
Early Retirement (Unreduced):	50/25	50/25
Early Retirement (Reduced):	55/15	55/15
Final Average Compensation:	3 years	3 years
COLA for Future Retirees:	2.50% (Non-Compound)	2.50% (Non-Compound)
Employee Contributions:	6%	4%
Act 88:	Yes (Adopted 11/9/2006)	Yes (Adopted 11/9/2006)

Participant Summary

Table 3

Division	2017 Valuation		2016 Valuation		2017 Valuation		
	Number	Annual Payroll ¹	Number	Annual Payroll ¹	Average Age	Average Benefit Service ²	Average Eligibility Service ²
01 - Teamsters-Union							
Active Employees	4	\$ 178,588	4	\$ 173,621	50.9	14.6	20.1
Vested Former Employees	1	402	1	402	33.6	1.3	7.0
Retirees and Beneficiaries	11	215,614	11	215,614	74.8		
02 - Plc Offcrrs							
Active Employees	5	\$ 301,375	5	\$ 289,280	49.4	18.6	18.6
Vested Former Employees	3	15,729	3	15,729	48.5	4.3	15.9
Retirees and Beneficiaries	1	46,547	1	46,547	56.1		
20 - Command							
Active Employees	1	\$ 75,423	1	\$ 73,236	59.4	27.6	27.6
Vested Former Employees	0	0	0	0	0.0	0.0	0.0
Retirees and Beneficiaries	1	64,725	1	63,348	62.0		
Total Municipality							
Active Employees	10	\$ 555,386	10	\$ 536,137	51.0	17.9	20.1
Vested Former Employees	4	16,131	4	16,131	44.8	3.6	13.7
Retirees and Beneficiaries	13	326,886	13	325,509	72.4		
Total Participants	27		27				

¹ Annual payroll for active employees; annual deferred benefits payable for vested former employees; annual benefits being paid for retirees and beneficiaries.

² Description can be found under Miscellaneous and Technical Assumptions in the [Appendix](#).

Reported Assets (Market Value)

Table 4

Division	2017 Valuation		2016 Valuation	
	Employer and Retiree ¹	Employee ²	Employer and Retiree ¹	Employee ²
01 - Teamsters-Union	\$ 755,385	\$ 95,189	\$ 725,332	\$ 79,503
02 - Plc Offcra	1,270,745	275,910	1,106,369	238,729
20 - Command	1,433,012	57,445	1,259,618	52,565
Municipality Total	\$ 3,459,142	\$ 428,544	\$ 3,091,319	\$ 370,797
Combined Assets	\$3,887,686		\$3,462,116	

¹ Reserve for Employer Contributions and Benefit Payments

² Reserve for Employee Contributions

The December 31, 2017 valuation assets (actuarial value of assets) are equal to 1.011321 times the reported market value of assets (compared to 1.077095 as of December 31, 2016). The derivation of valuation assets is described, and detailed calculations of valuation assets are shown, in the [Appendix](#).

Flow of Valuation Assets

Table 5

Year Ended 12/31	Employer Contributions		Employee Contributions	Investment Income (Valuation Assets)	Benefit Payments	Employee Contribution Refunds	Net Transfers	Valuation Asset Balance
	Required	Additional						
2007	\$ 345,709		\$ 10,932	\$ 173,770	\$ (64,687)	\$ (4,759)	\$ 0	\$ 2,596,038
2008	342,728		12,603	166,926	(75,406)	0	12,068	3,054,957
2009	150,044		29,253	151,549	(218,140)	0	0	3,167,663
2010	126,100		30,544	171,030	(295,873)	0	77,683	3,277,147
2011	132,330	\$ 230,000	22,376	189,992	(343,208)	0	0	3,508,637
2012	192,628	0	20,957	138,746	(389,268)	0	0	3,471,700
2013	88,014	50,000	17,389	183,505	(391,141)	0	0	3,419,467
2014	143,520	111,396	38,841	193,859	(394,135)	0	0	3,512,948
2015	190,342	80,000	30,456	172,476	(397,129)	(14,877)	0	3,574,216
2016	198,317	75,529	37,417	186,679	(343,130)	0	0	3,729,028
2017	199,676	51,400	42,352	225,881	(325,509)	0	8,870	3,931,698

Notes:

Transfers in and out are usually related to the transfer of participants between municipalities, and to employer and employee payments for service credit purchases (if any) that the governing body has approved.

Additional employer contributions, if any, are shown separately starting in 2011. Prior to 2011, additional contributions are combined with the required employer contributions.

The investment income column reflects the recognized investment income based on Valuation Assets. It does not reflect the market value investment return in any given year.

The Valuation Assets include assets from Surplus divisions, if any.

Actuarial Accrued Liabilities and Valuation Assets As of December 31, 2017

Table 6

Division	Actuarial Accrued Liability	Valuation Assets ¹	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
01 - Teamsters-Union				
Active Employees	\$ 557,639	\$ 95,189	17.1%	\$ 462,450
Vested Former Employees	581	0	0.0%	581
Retirees And Beneficiaries	1,773,343	765,014	43.1%	1,008,329
Pending Refunds	0	0	0.0%	0
Total	\$ 2,331,563	\$ 860,203	36.9%	\$ 1,471,360
02 - Plc Offrs				
Active Employees	\$ 1,423,774	\$ 930,132	65.3%	\$ 493,642
Vested Former Employees	90,147	90,147	100.0%	0
Retirees And Beneficiaries	543,886	543,886	100.0%	0
Pending Refunds	0	0	0.0%	0
Total	\$ 2,057,807	\$ 1,564,165	76.0%	\$ 493,642
20 - Command				
Active Employees	\$ 722,607	\$ 664,016	91.9%	\$ 58,591
Vested Former Employees	0	0	0.0%	0
Retirees And Beneficiaries	843,314	843,314	100.0%	0
Pending Refunds	0	0	0.0%	0
Total	\$ 1,565,921	\$ 1,507,330	96.3%	\$ 58,591
Total Municipality				
Active Employees	\$ 2,704,020	\$ 1,689,337	62.5%	\$ 1,014,683
Vested Former Employees	90,728	90,147	99.4%	581
Retirees and Beneficiaries	3,160,543	2,152,214	68.1%	1,008,329
Pending Refunds	0	0	0.0%	0
Total	\$ 5,955,291	\$ 3,931,698	66.0%	\$ 2,023,593

¹ Includes both employer and employee assets.

Please see the Comments on Asset Smoothing in the Executive Summary of this report.

Actuarial Accrued Liabilities - Comparative Schedule

Table 7

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2003	\$ 1,035,184	\$ 719,144	69%	\$ 316,040
2004	2,463,464	1,501,446	61%	962,018
2005	3,086,437	1,765,298	57%	1,321,139
2006	4,195,751	2,135,073	51%	2,060,678
2007	4,378,201	2,596,038	59%	1,782,163
2008	4,997,997	3,054,957	61%	1,943,040
2009	5,166,921	3,167,663	61%	1,999,258
2010	5,588,191	3,277,147	59%	2,311,044
2011	5,908,136	3,508,637	59%	2,399,499
2012	6,113,489	3,471,700	57%	2,641,789
2013	6,027,706	3,419,467	57%	2,608,239
2014	6,069,132	3,512,948	58%	2,556,184
2015	6,380,643	3,574,216	56%	2,806,427
2016	5,761,639	3,729,028	65%	2,032,611
2017	5,955,291	3,931,698	66%	2,023,593

Notes: Actuarial assumptions were revised for the 2004, 2008, 2009, 2010, 2011, 2012 and 2015 actuarial valuations.
The Valuation Assets include assets from Surplus divisions, if any.

Division 01 - Teamsters-Union

Table 8-01: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2007	\$ 2,017,857	\$ 1,156,319	57%	\$ 861,538
2008	2,193,588	1,361,323	62%	832,265
2009	2,244,320	1,254,937	56%	989,383
2010	2,238,290	1,106,952	49%	1,131,338
2011	2,263,503	1,113,253	49%	1,150,250
2012	2,277,874	1,014,159	45%	1,263,715
2013	2,185,832	955,306	44%	1,230,526
2014	2,191,410	936,206	43%	1,255,204
2015	2,300,908	889,971	39%	1,410,937
2016	2,315,076	866,884	37%	1,448,192
2017	2,331,563	860,203	37%	1,471,360

Notes: Actuarial assumptions were revised for the 2008, 2009, 2010, 2011, 2012 and 2015 actuarial valuations.

Table 9-01: Computed Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Computed Employer Contribution ¹	Employee Contribution Rate ²
	Number	Annual Payroll		
2007	15	\$ 492,827	24.41%	0.00%
2008	9	317,102	29.04%	0.00%
2009	4	149,381	50.78%	0.00%
2010	4	149,564	54.76%	0.00%
2011	4	155,159	56.69%	0.00%
2012	4	160,257	63.67%	0.00%
2013	4	164,216	55.48%	3.00%
2014	4	159,559	58.30%	3.00%
2015	4	162,992	65.81%	3.00%
2016	4	173,621	60.23%	8.00%
2017	4	178,588	60.97%	8.00%

¹ For open divisions, a percent of pay contribution is shown. For closed divisions, a monthly dollar contribution is shown.

² For each valuation year, the computed employer contribution is based on the employee rate. If the employee rate changes during the applicable fiscal year, the computed employer contribution will be adjusted.

Note: The contributions shown in Table 9 for the 12/31/2015 through 12/31/2019 valuations do **not** reflect the phase-in of the increased contribution requirements associated with the new actuarial assumptions. The full contribution without phase-in is shown in Table 9 above. The contribution requirements including the 5-year phase-in are shown on page 6.

See the Benefit Provision History on page 29 for past benefit provision changes.

Division 02 - Plc Offcrs

Table 8-02: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2007	\$ 911,443	\$ 599,221	66%	\$ 312,222
2008	1,029,667	705,732	69%	323,935
2009	1,049,960	843,390	80%	206,570
2010	1,176,289	1,025,954	87%	150,335
2011	1,311,033	1,171,399	89%	139,634
2012	1,439,429	1,222,480	85%	216,949
2013	1,410,344	1,251,231	89%	159,113
2014	1,374,271	1,307,136	95%	67,135
2015	1,752,934	1,372,139	78%	380,795
2016	1,878,567	1,448,798	77%	429,769
2017	2,057,807	1,564,165	76%	493,642

Notes: Actuarial assumptions were revised for the 2008, 2009, 2010, 2011, 2012 and 2015 actuarial valuations.

Table 9-02: Computed Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Computed Employer Contribution ¹	Employee Contribution Rate ²
	Number	Annual Payroll		
2007	7	\$ 371,452	16.03%	2.00%
2008	7	374,144	17.39%	2.00%
2009	6	355,858	9.97%	8.00%
2010	5	302,810	9.68%	8.00%
2011	3	189,678	11.97%	8.00%
2012	3	199,547	14.49%	8.00%
2013	5	292,043	8.22%	8.00%
2014	5	290,909	6.56%	8.00%
2015	5	300,971	13.64%	8.00%
2016	5	289,280	14.89%	8.00%
2017	5	301,375	\$ 4,149	8.00%

¹ For open divisions, a percent of pay contribution is shown. For closed divisions, a monthly dollar contribution is shown.

² For each valuation year, the computed employer contribution is based on the employee rate. If the employee rate changes during the applicable fiscal year, the computed employer contribution will be adjusted.

Note: The contributions shown in Table 9 for the 12/31/2015 through 12/31/2019 valuations do **not** reflect the phase-in of the increased contribution requirements associated with the new actuarial assumptions. The full contribution without phase-in is shown in Table 9 above. The contribution requirements including the 5-year phase-in are shown on page 6.

See the Benefit Provision History on page 29 for past benefit provision changes.

Division 20 - Command

Table 8-20: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2007	\$ 1,448,901	\$ 840,498	58%	\$ 608,403
2008	1,774,742	987,902	56%	786,840
2009	1,872,641	1,069,336	57%	803,305
2010	2,173,612	1,144,241	53%	1,029,371
2011	2,333,600	1,223,985	53%	1,109,615
2012	2,396,186	1,235,061	52%	1,161,125
2013	2,431,530	1,212,930	50%	1,218,600
2014	2,503,451	1,269,606	51%	1,233,845
2015	2,326,801	1,312,106	56%	1,014,695
2016	1,567,996	1,413,346	90%	154,650
2017	1,565,921	1,507,330	96%	58,591

Notes: Actuarial assumptions were revised for the 2008, 2009, 2010, 2011, 2012 and 2015 actuarial valuations.

Table 9-20: Computed Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Computed Employer Contribution ¹	Employee Contribution Rate ²
	Number	Annual Payroll		
2007	3	\$ 217,375	27.98%	2.00%
2008	3	252,979	30.57%	2.00%
2009	2	142,570	44.18%	2.00%
2010	1	72,449	91.32%	2.00%
2011	1	86,778	82.46%	2.00%
2012	1	89,153	90.97%	2.00%
2013	1	69,263	117.81%	2.00%
2014	1	70,824	115.18%	2.00%
2015	1	74,399	94.49%	2.00%
2016	1	73,236	16.90%	4.00%
2017	1	75,423	12.04%	6.00%

¹ For open divisions, a percent of pay contribution is shown. For closed divisions, a monthly dollar contribution is shown.

² For each valuation year, the computed employer contribution is based on the employee rate. If the employee rate changes during the applicable fiscal year, the computed employer contribution will be adjusted.

Note: The contributions shown in Table 9 for the 12/31/2015 through 12/31/2019 valuations do **not** reflect the phase-in of the increased contribution requirements associated with the new actuarial assumptions. The full contribution without phase-in is shown in Table 9 above. The contribution requirements including the 5-year phase-in are shown on page 6.

See the Benefit Provision History on page 29 for past benefit provision changes.

Division 01 - Teamsters-Union

Table 10-01: Layered Amortization Schedule

Type of UAL	Date Established	Original Balance ¹	Original Amortization Period ²	Amounts for Fiscal Year Beginning 4/1/2019		
				Outstanding UAL Balance ³	Remaining Amortization Period ²	Annual Amortization Payment
Initial	12/31/2015	\$ 1,410,937	23	\$ 1,469,143	21	\$ 103,260
(Gain)/Loss	12/31/2016	12,198	22	13,482	21	948
Plan Amendments	12/31/2016	(6,171)	22	(6,813)	21	(480)
(Gain)/Loss	12/31/2017	9,479	21	10,406	21	732
Total				\$ 1,486,218		\$ 104,460

¹ For each type of UAL (layer), this is the original balance as of the date the layer was established.

² According to the MERS amortization policy, each type of UAL (layer) is amortized over a specific period (see [Appendix](#) on MERS website).

³ This is the remaining balance as of the valuation date, projected to the beginning of the fiscal year shown above.

The unfunded accrued liability (UAL) as of December 31, 2017 (see Table 6) is projected to the beginning of the fiscal year for which the contributions are being calculated. This allows the 2017 valuation to take into account the expected future contributions that are based on past valuations. Each type of UAL (layer) is amortized over the appropriate period. Please see the [Appendix](#) on the MERS website for a detailed description of the amortization policy.

Division 02 - Plc Offcrs

Table 10-02: Layered Amortization Schedule

Type of UAL	Date Established	Original Balance ¹	Original Amortization Period ²	Amounts for Fiscal Year Beginning 4/1/2019		
				Outstanding UAL Balance ³	Remaining Amortization Period ²	Annual Amortization Payment
Initial	12/31/2015	\$ 380,795	23	\$ 417,949	21	\$ 29,376
(Gain)/Loss	12/31/2016	25,040	22	27,676	21	1,944
(Gain)/Loss	12/31/2017	52,668	21	57,819	21	4,068
Total				\$ 503,444		\$ 35,388

¹ For each type of UAL (layer), this is the original balance as of the date the layer was established.

² According to the MERS amortization policy, each type of UAL (layer) is amortized over a specific period (see [Appendix](#) on MERS website).

³ This is the remaining balance as of the valuation date, projected to the beginning of the fiscal year shown above.

The unfunded accrued liability (UAL) as of December 31, 2017 (see Table 6) is projected to the beginning of the fiscal year for which the contributions are being calculated. This allows the 2017 valuation to take into account the expected future contributions that are based on past valuations. Each type of UAL (layer) is amortized over the appropriate period. Please see the [Appendix](#) on the MERS website for a detailed description of the amortization policy.

Division 20 - Command

Table 10-20: Layered Amortization Schedule

Type of UAL	Date Established	Original Balance ¹	Original Amortization Period ²	Amounts for Fiscal Year Beginning 4/1/2019		
				Outstanding UAL Balance ³	Remaining Amortization Period ²	Annual Amortization Payment
Initial	12/31/2015	\$ 1,014,695	23	\$ 1,024,117	21	\$ 71,976
(Gain)/Loss	12/31/2016	(859,572)	22	(949,948)	21	(66,768)
Plan Amendments	12/31/2016	4,588	22	5,066	21	360
(Gain)/Loss	12/31/2017	(40,161)	21	(44,089)	21	(3,096)
Plan Amendments	12/31/2017	4,967	21	5,453	21	384
Total				\$ 40,599		\$ 2,856

¹ For each type of UAL (layer), this is the original balance as of the date the layer was established.

² According to the MERS amortization policy, each type of UAL (layer) is amortized over a specific period (see [Appendix](#) on MERS website).

³ This is the remaining balance as of the valuation date, projected to the beginning of the fiscal year shown above.

The unfunded accrued liability (UAL) as of December 31, 2017 (see Table 6) is projected to the beginning of the fiscal year for which the contributions are being calculated. This allows the 2017 valuation to take into account the expected future contributions that are based on past valuations. Each type of UAL (layer) is amortized over the appropriate period. Please see the [Appendix](#) on the MERS website for a detailed description of the amortization policy.

GASB 68 Information

The following information has been prepared to provide some of the information necessary to complete GASB Statement No. 68 disclosures. Statement 68 is effective for fiscal years beginning after June 15, 2014. Additional resources, including an Implementation Guide, are available at www.mersofmich.com.

Actuarial Valuation Date:	12/31/2017
Measurement Date of Total Pension Liability (TPL):	12/31/2017

At 12/31/2017, the following employees were covered by the benefit terms:

Inactive employees or beneficiaries currently receiving benefits:	13
Inactive employees entitled to but not yet receiving benefits:	4
Active employees:	<u>10</u>
	27

Covered employee payroll: (Needed for Required Supplementary Information)	\$	555,386
---	----	---------

Average expected remaining service lives of all employees (active and inactive):		2
--	--	---

Total Pension Liability as of 12/31/2016 measurement date:	\$	5,619,533
--	----	-----------

Total Pension Liability as of 12/31/2017 measurement date:	\$	5,811,248
--	----	-----------

Service Cost for the year ending on the 12/31/2017 measurement date:	\$	74,089
--	----	--------

Change in the Total Pension Liability due to:

- Benefit changes ¹ :	\$	4,874
- Differences between expected and actual experience ² :	\$	(1,245)
- Changes in assumptions ² :	\$	0

¹ A change in liability due to benefit changes is immediately recognized when calculating pension expense for the year.

² Changes in liability due to differences between actual and expected experience, and changes in assumptions, are recognized in pension expense over the average remaining service lives of all employees.

Sensitivity of the Net Pension Liability to changes in the discount rate:

	1% Decrease (7.00%)	Current Discount Rate (8.00%)	1% Increase (9.00%)
Change in Net Pension Liability as of 12/31/2017:	\$ 611,734	-	\$ (523,808)

Note: The current discount rate shown for GASB 68 purposes is higher than the MERS assumed rate of return. This is because for GASB 68 purposes, the discount rate must be gross of administrative expenses, whereas for funding purposes it is net of administrative expenses.

GASB 68 Information

This page is for those municipalities who need to “roll-forward” their total pension liability due to the timing of completion of the actuarial valuation in relation to their fiscal year-end.

The following information has been prepared to provide some of the information necessary to complete GASB Statement No. 68 disclosures. Statement 68 is effective for fiscal years beginning after June 15, 2014. Additional resources, including an Implementation Guide, are available at www.mersofmich.com.

Actuarial Valuation Date:	12/31/2017
Measurement Date of Total Pension Liability (TPL):	12/31/2018

At 12/31/2017, the following employees were covered by the benefit terms:

Inactive employees or beneficiaries currently receiving benefits:	13
Inactive employees entitled to but not yet receiving benefits:	4
Active employees:	<u>10</u>
	<u>27</u>

Covered employee payroll: (Needed for Required Supplementary Information)	\$	555,386
Average expected remaining service lives of all employees (active and inactive):		2

Total Pension Liability as of 12/31/2017 measurement date:	\$	5,794,512
Total Pension Liability as of 12/31/2018 measurement date:	\$	5,988,260
Service Cost for the year ending on the 12/31/2018 measurement date:	\$	74,506
Change in the Total Pension Liability due to:		
- Benefit changes ¹ :	\$	5,582
- Differences between expected and actual experience ² :	\$	12,811
- Changes in assumptions ² :	\$	0

¹ A change in liability due to benefit changes is immediately recognized when calculating pension expense for the year.

² Changes in liability due to differences between actual and expected experience, and changes in assumptions, are recognized in pension expense over the average remaining service lives of all employees.

Sensitivity of the Net Pension Liability to changes in the discount rate:

	1% Decrease (7.00%)	Current Discount Rate (8.00%)	1% Increase (9.00%)
Change in Net Pension Liability as of 12/31/2018:	\$ 615,469	-	\$ (527,740)

Note: The current discount rate shown for GASB 68 purposes is higher than the MERS assumed rate of return. This is because for GASB 68 purposes, the discount rate must be gross of administrative expenses, whereas for funding purposes it is net of administrative expenses.

Benefit Provision History

The following benefit provision history is provided by MERS. Any corrections to this history or discrepancies between this information and information displayed elsewhere in the valuation report should be reported to MERS. All provisions are listed by date of adoption.

01 - Teamsters-Union

12/1/2016	Service Credit Purchase Estimates - Yes
4/1/2016	Participant Contribution Rate 8%
1/1/2012	Day of work defined as 150 Hours a Month for All employees.
1/1/2012	Benefit B-4 (80% max)
1/1/2012	Member Contribution Rate 3.00%
12/31/2011	Frozen FAC
11/9/2006	Covered by Act 88
4/1/2006	3.0% Multiplier (80% max)
4/1/2004	Day of work defined as 7 Hours a Day for All employees.
4/1/2004	Benefit FAC-3 (3 Year Final Average Compensation)
4/1/2004	8 Year Vesting
4/1/2004	Benefit B-4 (80% max)
4/1/2004	Benefit F55 (With 15 Years of Service)
4/1/2004	Member Contribution Rate 0.00%
4/1/1996	Fiscal Month - April
	Defined Benefit Normal Retirement Age - 60
	Early Reduced (.5%) at Age 50 with 25 Years or Age 55 with 15 Years

02 - Plc Offcrrs

4/1/2017	DC Adoption Date 04-01-2017
12/1/2016	Service Credit Purchase Estimates - Yes
6/1/2012	Day of work defined as 150 Hours a Month for All employees.
6/1/2012	Benefit B-4 (80% max)
5/31/2012	Frozen FAC
4/1/2009	Member Contribution Rate 8.00%
11/9/2006	Covered by Act 88
4/1/2006	3.0% Multiplier (80% max)
4/1/1996	Benefit FAC-3 (3 Year Final Average Compensation)
4/1/1996	10 Year Vesting
4/1/1996	Benefit B-4 (80% max)
4/1/1996	Benefit F50 (With 25 Years of Service)
4/1/1996	Member Contribution Rate 2.00%
4/1/1996	Fiscal Month - April
	Defined Benefit Normal Retirement Age - 60
	Early Reduced (.5%) at Age 50 with 25 Years or Age 55 with 15 Years

20 - Command

6/1/2017	Participant Contribution Rate 6%
12/1/2016	Service Credit Purchase Estimates - Yes
6/1/2016	Participant Contribution Rate 4%

20 - Command

5/1/2013	Day of work defined as 150 Hours a Month for All employees.
5/1/2013	Benefit B-4 (80% max)
4/30/2013	Frozen FAC
1/1/2007	E2 2.5% COLA for future retirees (04/01/2006)
11/9/2006	Covered by Act 88
4/1/2006	3.0% Multiplier (80% max)
1/1/2005	Benefit FAC-3 (3 Year Final Average Compensation)
1/1/2005	10 Year Vesting
1/1/2005	3.2% Multiplier (80% max)
1/1/2005	Benefit F50 (With 25 Years of Service)
1/1/2005	Member Contribution Rate 2.00%
4/1/1996	Fiscal Month - April
	Defined Benefit Normal Retirement Age - 60
	Early Reduced (.5%) at Age 50 with 25 Years or Age 55 with 15 Years

Plan Provisions, Actuarial Assumptions, and Actuarial Funding Method

Details on MERS plan provisions, actuarial assumptions, and actuarial methodology can be found in the [Appendix](#). Some actuarial assumptions are specific to this municipality and its divisions. These are listed below.

Increase in Final Average Compensation

Division	FAC Increase Assumption
All Divisions	1.00%

Withdrawal Rate Scaling Factor

Division	Withdrawal Rate Scaling Factor
All Divisions	100%

Miscellaneous and Technical Assumptions

Loads – None.

Amortization Policy for Closed Divisions

Closed Division	Amortization Option
All Closed Divisions	Non-Accelerated Amortization

Please see the [Appendix](#) on the MERS website for a detailed description of the amortization options available for closed divisions within an open municipality.