

**GRAND TRAVERSE COUNTY BOARD OF COMMISSIONERS  
STUDY SESSION  
Wednesday, January 23, 2019  
8:00 a.m.**

**Governmental Center, Commission Chambers  
400 Boardman Avenue  
Traverse City, Michigan 49684**

A Study Session is held for review and discussion of information only. This study session is being held to hold a discussion with MERS representatives regarding the status of the pension obligation.

*If you are planning to attend and you have a disability requiring any special assistance at the meeting, please notify the County Clerk immediately at 922-4760.*

**AGENDA**

1. OPENING CEREMONIES OR EXERCISES
2. ROLL CALL
3. FIRST PUBLIC COMMENT

Any person shall be permitted to address a meeting of the Board of Commissioners which is required to be open to the public under the provision of the Michigan Open Meetings Act. Public Comment shall be carried out in accordance with the following Board Rules and Procedures:

Any person wishing to address the Board shall state his or her name and address.

No person shall be allowed to speak more than once on the same matter, excluding time needed to answer Commissioners' questions, if any. The Chairperson shall control the amount of time each person shall be allowed to speak, which shall not exceed three (3) minutes. The Chairperson may, at his or her discretion, extend the amount of time any person is allowed to speak.

Public comment will be solicited during the two public comment periods noted in Rule 5.4, Order of Business. However, public comment will generally be received at any time during the meeting regarding a specific topic currently under discussion by the board. Members of the public wishing to comment should raise their hand or pass a note to the clerk in order to be recognized, and shall not address the board until called upon by the chairperson. Please be respectful and refrain from personal or political attacks.

4. DISCUSSION:
  - Municipal Employees' Retirement System (MERS) Presentation  
(Tony Radjenovich, Regional Manager)
  - MERS Annual Actuarial Valuation Report (December 31, 2017) ..... 2
  - Amortization Extension Agreement – MERS..... 97
5. SECOND PUBLIC COMMENT (Refer to Rules under Public Comment above)
6. ADJOURNMENT



**MUNICIPAL EMPLOYEES' RETIREMENT SYSTEM OF MICHIGAN**  
ANNUAL ACTUARIAL VALUATION REPORT DECEMBER 31, 2017  
GRAND TRAVERSE CO (2803)



Spring, 2018

Grand Traverse Co

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 Grand Traverse Co (2803) 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. Grand Traverse Co 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 January 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](http://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

---

	<b>Page</b>
Executive Summary	5
Employer Contribution Details Table 1	15
Benefit Provisions Table 2	18
Participant Summary Table 3	27
Reported Assets (Market Value) Table 4	30
Flow of Valuation Assets Table 5	31
Actuarial Accrued Liabilities and Valuation Assets Table 6	32
Actuarial Accrued Liabilities - Comparative Schedule Table 7	36
Division-Based Comparative Schedules Tables 8 and 9	37
Division-Based Layered Amortization Schedule Table 10	58
GASB 68 Information	78
Benefit Provision History	80
Plan Provisions, Actuarial Assumptions, and Actuarial Funding Method	95

## 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
<b>Funded Ratio</b>	52%	45%

\* 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:	January 1, 2019	January 1, 2019	January 1, 2018	January 1, 2018	January 1, 2019	January 1, 2019	January 1, 2018	January 1, 2018
<b>Division</b>								
01 - Gnrl Tmstr	-	-	-	-	\$ 36,772	\$ 38,608	\$ 63,148	\$ 67,849
02 - Deputies POAM	-	-	-	-	49,862	51,734	69,198	73,179
10 - Elctd Empl	-	-	-	-	27,570	28,736	36,597	39,129
11 - Gnrl NonCntrct	-	-	-	-	10,818	11,252	17,263	18,616
12 - AFSCME	-	-	-	-	5,889	6,181	10,879	11,737
13 - Circuit Ct	-	-	-	-	37,994	39,724	38,291	41,264
14 - Hlth Dept Un	-	-	-	-	12,888	13,834	17,391	19,362
15 - Dist Crt Tmstr	-	-	-	-	16,292	17,060	24,256	25,888
16 - TPOAM	-	-	-	-	2,998	5,616	7,788	8,334
17 - Cirt Crt Spvs	-	-	-	-	8,666	8,972	8,331	8,862
18 - Exempt	-	-	-	-	55,508	57,582	89,882	95,312
20 - Teamstrs Cmmnd	-	-	-	-	43,383	44,911	58,727	62,012
21 - Dispatch Unit	-	-	-	-	2,435	2,507	2,470	2,590
23 - COAM Srgts	-	-	-	-	20,210	21,322	32,475	34,713
81 - COA from div 11	-	-	-	-	0	0		
82 - COA from div 12	-	-	-	-	0	0		
83 - COA from div 18	-	-	-	-	0	0		
84 - DPW from div 01	-	-	-	-	7,226	7,596		
85 - DPW from div 11	-	-	-	-	109	137		
86 - DPW from div 18	-	-	-	-	4,754	5,030		
<b>Municipality Total</b>					<b>\$ 343,374</b>	<b>\$ 360,802</b>	<b>\$ 476,696</b>	<b>\$ 508,847</b>

Divisions 01, 02, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 21, 23, 81, 82, 83, 84, 85 and 86 adopted an alternate amortization policy as allowed by the MERS Board at the September 2016 meeting, (this policy is different than the standard MERS amortization policy) based on the results of a study prepared by the actuaries. This alternate amortization policy may have resulted in a decrease in the employer contribution since the last annual valuation.

Employee contribution rates reflected in the valuations are shown below:

Valuation Date:	Employee Contribution Rate	
	12/31/2017	12/31/2016
<b>Division</b>		
01 - Gnrl Tmstr	6.00%	0.00%
02 - Deputies POAM	2.00%	2.00%
10 - Elctd Empl	6.00%	10.00%
11 - Gnrl NonCntrct	6.00%	10.00%
12 - AFSCME	6.00%	0.00%
13 - Circuit Ct	0.00%	0.00%
14 - Hlth Dept Un	6.00%	0.00%
15 - Dist Crt Tmstr	6.00%	0.00%
16 - TPOAM	3.00%	0.67%
17 - Cirt Crt Spvs	0.00%	0.00%
18 - Exempt	6.00%	10.00%
20 - Teamstrs Cmmnd	0.00%	0.00%
21 - Dispatch Unit	0.00%	0.00%
23 - COAM Srgts	0.00%	0.00%
81 - COA from div 11	6.00%	0.00%
82 - COA from div 12	6.00%	0.00%
83 - COA from div 18	6.00%	0.00%
84 - DPW from div 01	0.00%	0.00%
85 - DPW from div 11	6.00%	0.00%
86 - DPW from div 18	6.00%	0.00%

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 \$481,604, instead of \$360,802.

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 51% (instead of 52%); and
- Your total employer contribution requirement for the fiscal year starting January 1, 2019 would be \$4,386,588 (instead of \$4,329,624).

## 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%
<b>12/31/2017 Valuation Results</b>				
Accrued Liability	\$ 118,659,654	\$ 106,825,043	\$ 96,848,144	\$ 88,369,580
Valuation Assets <sup>1</sup>	\$ 50,265,368	\$ 50,265,368	\$ 50,265,368	\$ 50,265,368
Unfunded Accrued Liability	\$ 68,394,286	\$ 56,559,675	\$ 46,582,776	\$ 38,104,212
<b>Funded Ratio</b>	42%	47%	52%	57%
Monthly Normal Cost	\$ 44,160	\$ 33,029	\$ 24,755	\$ 18,542
Monthly Amortization Payment	\$ 466,369	\$ 411,534	\$ 334,586	\$ 313,450
<b>Total Employer Contribution<sup>2</sup></b>	\$ 510,529	\$ 444,752	\$ 360,802	\$ 334,851

<sup>1</sup> The Valuation Assets include assets from Surplus divisions, if any.

<sup>2</sup> 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.

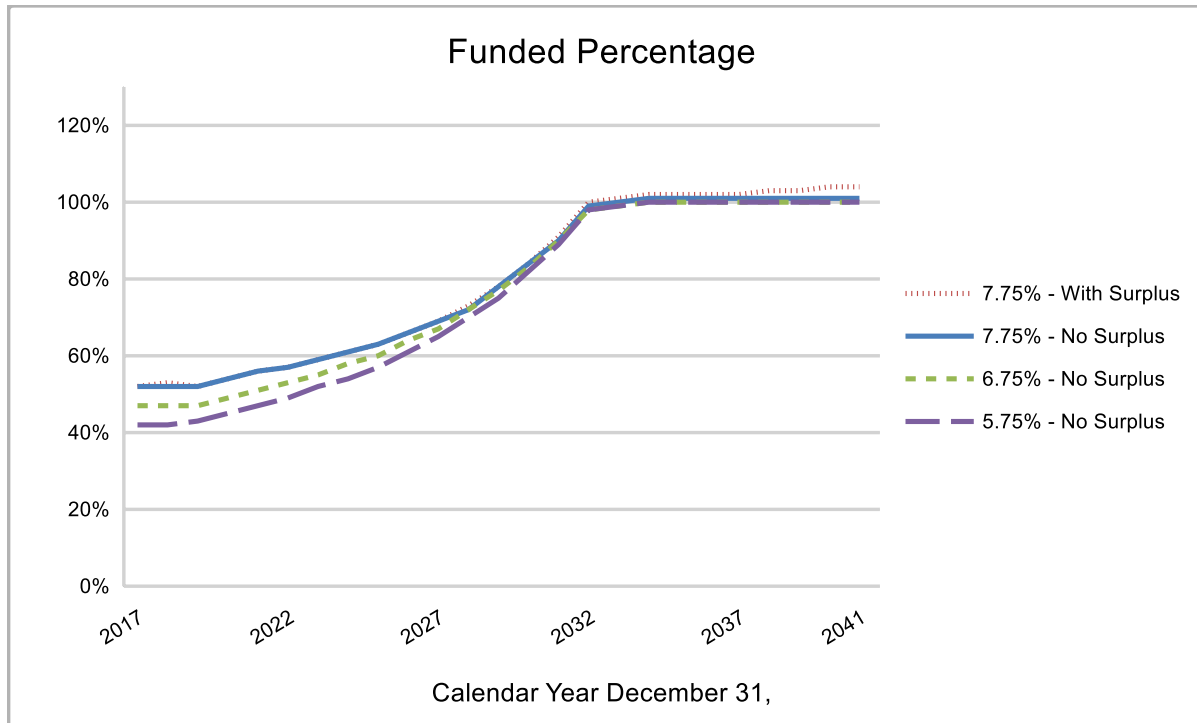
Your municipality includes one or more Surplus divisions. The assets in a Surplus division may be used to reduce future employer contributions or to accelerate the date by which the municipality becomes 100% funded. The timing and use of these Surplus assets is discretionary.

The Funded Percentage graph shows projections of funded status under the 7.75% investment return assumption, both including the Surplus assets (contributed as of the valuation date), and without the Surplus assets. The graph including the Surplus assets assumes these Surplus assets grow with interest and are not used to lower future employer contributions. We modeled the projections including the Surplus assets in this fashion because the use of these assets is discretionary by the employer and we do not know when and how the employer will use them. Once the employer uses these Surplus assets, any future employer contributions are expected to be lower than those shown in the projections.

Valuation Year Ending 12/31	Fiscal Year Beginning 1/1	Actuarial Accrued Liability	Valuation Assets <sup>2</sup>	Funded Percentage	Computed Annual Employer Contribution
<b>7.75%<sup>1</sup></b>					
<b>WITH 5-YEAR PHASE-IN</b>					
2017	2019	\$ 96,848,144	\$ 50,009,518	52%	\$ 4,120,488
2018	2020	97,200,000	51,000,000	52%	4,590,000
2019	2021	97,400,000	50,600,000	52%	4,970,000
2020	2022	97,500,000	52,100,000	53%	5,060,000
2021	2023	97,300,000	53,700,000	55%	5,160,000
2022	2024	96,900,000	54,900,000	57%	5,330,000
<b>NO 5-YEAR PHASE-IN</b>					
2017	2019	\$ 96,848,144	\$ 50,009,518	52%	\$ 4,329,624
2018	2020	97,200,000	51,000,000	52%	4,670,000
2019	2021	97,400,000	50,800,000	52%	4,940,000
2020	2022	97,500,000	52,400,000	54%	5,020,000
2021	2023	97,300,000	54,000,000	56%	5,120,000
2022	2024	96,900,000	55,200,000	57%	5,280,000
<b>6.75%<sup>1</sup></b>					
<b>NO 5-YEAR PHASE-IN</b>					
2017	2019	\$ 106,825,043	\$ 50,009,518	47%	\$ 5,337,024
2018	2020	107,100,000	50,500,000	47%	5,490,000
2019	2021	107,100,000	50,800,000	47%	5,780,000
2020	2022	106,900,000	52,700,000	49%	5,880,000
2021	2023	106,600,000	54,800,000	51%	6,010,000
2022	2024	105,900,000	56,400,000	53%	6,200,000
<b>5.75%<sup>1</sup></b>					
<b>NO 5-YEAR PHASE-IN</b>					
2017	2019	\$ 118,659,654	\$ 50,009,518	42%	\$ 6,126,348
2018	2020	118,700,000	50,000,000	42%	6,330,000
2019	2021	118,500,000	50,600,000	43%	6,640,000
2020	2022	118,100,000	52,900,000	45%	6,770,000
2021	2023	117,400,000	55,300,000	47%	6,910,000
2022	2024	116,500,000	57,300,000	49%	7,130,000

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

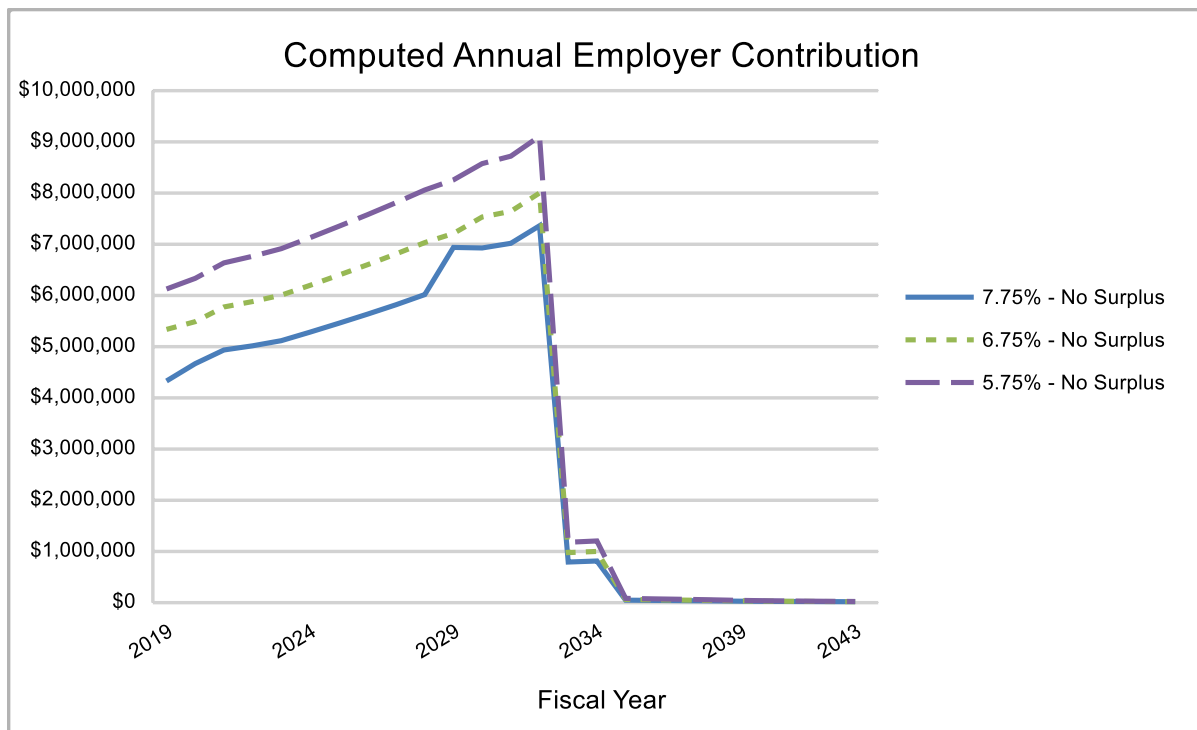
<sup>2</sup> Valuation Assets do not include assets from Surplus divisions, if any.



**Notes:**

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

Assumes assets from Surplus divisions will not be used to lower employer contributions during the projection period.



**Notes:**

All projected contributions are shown with no phase-in.

Projected employer contributions do not reflect the use of any assets from the Surplus divisions.

## Employer Contribution Details For the Fiscal Year Beginning January 1, 2019

Table 1

Division	Total Normal Cost	Employee Contribut. Rate	Employer Contributions <sup>1</sup>			Computed Employer Contribut. With Phase-In	Blended ER Rate No Phase-In <sup>5</sup>	Blended ER Rate With Phase-In <sup>5</sup>	Employee Contribut. Conversion Factor <sup>2</sup>
			Employer Normal Cost	Payment of the Unfunded Accrued Liability <sup>4</sup>	Computed Employer Contribut. No Phase-In				
Percentage of Payroll									
01 - Gnrl Tmstr	6.98%	6.00%	-	-	-	-			
02 - Deputies POAM	14.01%	2.00%	-	-	-	-			
10 - Elctd Empl	7.77%	6.00%	-	-	-	-			
11 - Gnrl NonCntrct	7.13%	6.00%	-	-	-	-			
12 - AFSCME	6.27%	6.00%	-	-	-	-			
13 - Circuit Ct	14.08%	0.00%	-	-	-	-			
14 - Hlth Dept Un	6.21%	6.00%	-	-	-	-			
15 - Dist Crt Tmstr	6.19%	6.00%	-	-	-	-			
16 - TPOAM	5.25%	3.00%	-	-	-	-			
17 - Cirtct Crt Spvs	12.31%	0.00%	-	-	-	-			
18 - Exempt	7.48%	6.00%	-	-	-	-			
20 - Teamstrs Cmmnd	15.41%	0.00%	-	-	-	-			
21 - Dispatch Unit	0.00%	0.00%	-	-	-	-			
23 - COAM Srgts	13.41%	0.00%	-	-	-	-			
81 - COA from div 11	0.00%	6.00%	-	-	-	-			
82 - COA from div 12	0.00%	6.00%	-	-	-	-			
83 - COA from div 18	0.00%	6.00%	-	-	-	-			
84 - DPW from div 01	12.03%	0.00%	-	-	-	-			
85 - DPW from div 11	0.00%	6.00%	-	-	-	-			
86 - DPW from div 18	7.14%	6.00%	-	-	-	-			
Estimated Monthly Contribution <sup>3</sup>									
01 - Gnrl Tmstr			\$ 71	\$ 38,537	\$ 38,608	\$ 36,772			
02 - Deputies POAM			2,502	49,232	51,734	49,862			
10 - Elctd Empl			170	28,566	28,736	27,570			



Table 1 (continued)

Division	Total Normal Cost	Employee Contribut. Rate	Employer Contributions <sup>1</sup>			Computed Employer Contribut. With Phase-In	Blended ER Rate No Phase-In <sup>5</sup>	Blended ER Rate With Phase-In <sup>5</sup>	Employee Contribut. Conversion Factor <sup>2</sup>
			Employer Normal Cost	Payment of the Unfunded Accrued Liability <sup>4</sup>	Computed Employer Contribut. No Phase-In				
11 - Gnrl NonCntrct			98	11,154	11,252	10,818			
12 - AFSCME			11	6,170	6,181	5,889			
13 - Circuit Ct			13,136	26,588	39,724	37,994			
14 - Hlth Dept Un			19	13,815	13,834	12,888			
15 - Dist Crt Tmstr			9	17,051	17,060	16,292			
16 - TPOAM			84	5,532	5,616	2,998			
17 - Cirt Crt Spvs			1,425	7,547	8,972	8,666			
18 - Exempt			274	57,308	57,582	55,508			
20 - Teamstrs Cmmnd			1,809	43,102	44,911	43,383			
21 - Dispatch Unit			0	2,507	2,507	2,435			
23 - COAM Srgts			3,832	17,490	21,322	20,210			
81 - COA from div 11			0	(617)	0	0			
82 - COA from div 12			0	(23)	0	0			
83 - COA from div 18			0	(821)	0	0			
84 - DPW from div 01			1,274	6,322	7,596	7,226			
85 - DPW from div 11			0	137	137	109			
86 - DPW from div 18			41	4,989	5,030	4,754			
<b>Total Municipality</b>			<b>\$ 24,755</b>	<b>\$ 334,586</b>	<b>\$ 360,802</b>	<b>\$ 343,374</b>			
<b>Estimated Annual Contribution<sup>3</sup></b>			<b>\$ 297,060</b>	<b>\$ 4,015,032</b>	<b>\$ 4,329,624</b>	<b>\$ 4,120,488</b>			

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

<sup>2</sup> 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.

<sup>3</sup> 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](#).

<sup>4</sup> If projected assets exceed projected liabilities as of the beginning of the January 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.

<sup>5</sup> 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 - Gnrl Tmstr: Closed to new hires

	2017 Valuation	2016 Valuation
<b>Benefit Multiplier:</b>	Bridged Benefit: 2.50% Multiplier (80% max) Frozen FAC; to 1.25% Multiplier (no max)	2.50% Multiplier (80% max)
<b>Bridged Benefit Date:</b>	11/30/2017	
<b>Normal Retirement Age:</b>	60	60
<b>Vesting:</b>	6 years	6 years
<b>Early Retirement (Unreduced):</b>	55/25	55/25
<b>Early Retirement (Reduced):</b>	50/25	50/25
	55/15	55/15
<b>Final Average Compensation:</b>	3 years	3 years
<b>COLA for Future Retirees:</b>	2.50% (Non-compound) before 11/30/2017, 0.00% after 11/30/2017	2.50% (Non-Compound)
<b>Employee Contributions:</b>	6%	0%
<b>DC Plan for New Hires:</b>	6/1/2000	6/1/2000
<b>Act 88:</b>	Yes (Adopted 4/6/1967)	Yes (Adopted 4/6/1967)

### 02 - Deputies POAM: Closed to new hires

	2017 Valuation	2016 Valuation
<b>Benefit Multiplier:</b>	2.80% to Age 65 (80% max); 2.50% after Age 65 (80% max)	2.80% to Age 65 (80% max); 2.50% after Age 65 (80% max)
<b>Normal Retirement Age:</b>	60	60
<b>Vesting:</b>	10 years	10 years
<b>Early Retirement (Unreduced):</b>	50/25	50/25
<b>Early Retirement (Reduced):</b>	55/15	55/15
<b>Final Average Compensation:</b>	3 years	3 years
<b>COLA for Future Retirees:</b>	2.50% (Non-Compound)	2.50% (Non-Compound)
<b>Employee Contributions:</b>	2%	2%
<b>DC Plan for New Hires:</b>	7/1/2000	7/1/2000
<b>Act 88:</b>	Yes (Adopted 4/6/1967)	Yes (Adopted 4/6/1967)

Table 2 (continued)

**10 - Elctd Empl: Closed to new hires**

	2017 Valuation	2016 Valuation
<b>Benefit Multiplier:</b>	Bridged Benefit: 2.50% Multiplier (80% max) Frozen FAC; to 1.25% Multiplier (no max)	Bridged Benefit: 2.50% Multiplier (80% max) Frozen FAC; to 1.25% Multiplier (no max)
<b>Bridged Benefit Date:</b>	12/30/2016	12/30/2016
<b>Normal Retirement Age:</b>	60	60
<b>Vesting:</b>	6 years	6 years
<b>Early Retirement (Unreduced):</b>	50/25	50/25
<b>Early Retirement (Reduced):</b>	55/15	55/15
<b>Final Average Compensation:</b>	3 years	3 years
<b>COLA for Future Retirees:</b>	2.50% (Non-Compound)	2.50% (Non-Compound)
<b>Employee Contributions:</b>	6%	10%
<b>DC Plan for New Hires:</b>	6/1/2000	6/1/2000
<b>Act 88:</b>	Yes (Adopted 4/6/1967)	Yes (Adopted 4/6/1967)

**11 - Gnrl NonCntrct: Closed to new hires**

	2017 Valuation	2016 Valuation
<b>Benefit Multiplier:</b>	Bridged Benefit: 2.50% Multiplier (80% max) Frozen FAC; to 1.25% Multiplier (no max)	Bridged Benefit: 2.50% Multiplier (80% max) Frozen FAC; to 1.25% Multiplier (no max)
<b>Bridged Benefit Date:</b>	12/30/2016	12/30/2016
<b>Normal Retirement Age:</b>	60	60
<b>Vesting:</b>	8 years	8 years
<b>Early Retirement (Unreduced):</b>	55/25	55/25
<b>Early Retirement (Reduced):</b>	50/25	50/25
	55/15	55/15
<b>Final Average Compensation:</b>	5 years	5 years
<b>COLA for Future Retirees:</b>	2.50% (Non-Compound)	2.50% (Non-Compound)
<b>Employee Contributions:</b>	6%	10%
<b>DC Plan for New Hires:</b>	5/1/2000	5/1/2000
<b>Act 88:</b>	Yes (Adopted 4/6/1967)	Yes (Adopted 4/6/1967)

Table 2 (continued)

**12 - AFSCME: Closed to new hires**

	2017 Valuation	2016 Valuation
<b>Benefit Multiplier:</b>	Bridged Benefit: 2.50% Multiplier (80% max) Frozen FAC; to 1.25% Multiplier (no max)	2.50% Multiplier (80% max)
<b>Bridged Benefit Date:</b>	02/28/2017	
<b>Normal Retirement Age:</b>	60	60
<b>Vesting:</b>	8 years	8 years
<b>Early Retirement (Unreduced):</b>	55/25	55/25
<b>Early Retirement (Reduced):</b>	50/25	50/25
	55/15	55/15
<b>Final Average Compensation:</b>	3 years	3 years
<b>COLA for Future Retirees:</b>	2.50% (Non-compound) before 2/28/2017, 0.00% after 2/28/2017	2.50% (Non-Compound)
<b>Employee Contributions:</b>	6%	0%
<b>DC Plan for New Hires:</b>	5/1/2000	5/1/2000
<b>Act 88:</b>	Yes (Adopted 4/6/1967)	Yes (Adopted 4/6/1967)

**13 - Circuit Ct: Closed to new hires**

	2017 Valuation	2016 Valuation
<b>Benefit Multiplier:</b>	2.50% Multiplier (80% max)	2.50% Multiplier (80% max)
<b>Normal Retirement Age:</b>	60	60
<b>Vesting:</b>	6 years	6 years
<b>Early Retirement (Unreduced):</b>	55/25	55/25
<b>Early Retirement (Reduced):</b>	50/25	50/25
	55/15	55/15
<b>Final Average Compensation:</b>	3 years	3 years
<b>COLA for Future Retirees:</b>	2.50% (Non-Compound)	2.50% (Non-Compound)
<b>Employee Contributions:</b>	0%	0%
<b>DC Plan for New Hires:</b>	1/1/2016	1/1/2016
<b>Act 88:</b>	Yes (Adopted 4/6/1967)	Yes (Adopted 4/6/1967)

Table 2 (continued)

**14 - Hlth Dept Un: Closed to new hires**

	2017 Valuation	2016 Valuation
<b>Benefit Multiplier:</b>	Bridged Benefit: 2.50% Multiplier (80% max) Frozen FAC; to 1.25% Multiplier (no max)	2.50% Multiplier (80% max)
<b>Bridged Benefit Date:</b>	11/30/2017	
<b>Normal Retirement Age:</b>	60	60
<b>Vesting:</b>	6 years	6 years
<b>Early Retirement (Unreduced):</b>	55/25	55/25
<b>Early Retirement (Reduced):</b>	50/25	50/25
	55/15	55/15
<b>Final Average Compensation:</b>	5 years	5 years
<b>COLA for Future Retirees:</b>	2.50% (Non-compound) before 11/30/2017, 0.00% after 11/30/2017	2.50% (Non-Compound)
<b>Employee Contributions:</b>	6%	0%
<b>DC Plan for New Hires:</b>	5/1/2000	5/1/2000
<b>Act 88:</b>	Yes (Adopted 4/6/1967)	Yes (Adopted 4/6/1967)

**15 - Dist Crt Tmstr: Closed to new hires**

	2017 Valuation	2016 Valuation
<b>Benefit Multiplier:</b>	Bridged Benefit: 2.50% Multiplier (80% max) Frozen FAC; to 1.25% Multiplier (no max)	2.50% Multiplier (80% max)
<b>Bridged Benefit Date:</b>	11/30/2017	
<b>Normal Retirement Age:</b>	60	60
<b>Vesting:</b>	6 years	6 years
<b>Early Retirement (Unreduced):</b>	55/25	55/25
<b>Early Retirement (Reduced):</b>	50/25	50/25
	55/15	55/15
<b>Final Average Compensation:</b>	3 years	3 years
<b>COLA for Future Retirees:</b>	2.50% (Non-compound) before 11/30/2017, 0.00% after 11/30/2017	2.50% (Non-Compound)
<b>Employee Contributions:</b>	6%	0%
<b>DC Plan for New Hires:</b>	6/1/2000	6/1/2000
<b>Act 88:</b>	Yes (Adopted 4/6/1967)	Yes (Adopted 4/6/1967)

Table 2 (continued)

**16 - TPOAM: Closed to new hires**

	2017 Valuation	2016 Valuation
<b>Benefit Multiplier:</b>	Bridged Benefit: 2.50% to Age 65 (80% max), 2.25% after Age 65 (80% Max), Frozen FAC; to 1.25% Multiplier (no max)	2.50% to Age 65 (80% max); 2.25% after Age 65 (80% max)
<b>Bridged Benefit Date:</b>	12/31/2017	
<b>Normal Retirement Age:</b>	60	60
<b>Vesting:</b>	8 years	8 years
<b>Early Retirement (Unreduced):</b>	55/25	55/25
<b>Early Retirement (Reduced):</b>	50/25	50/25
	55/15	55/15
<b>Final Average Compensation:</b>	5 years	5 years
<b>Employee Contributions:</b>	3%	0.67%
<b>DC Plan for New Hires:</b>	6/1/2000	6/1/2000
<b>Act 88:</b>	Yes (Adopted 4/6/1967)	Yes (Adopted 4/6/1967)

**17 - Cirt Crt Spvs: Closed to new hires**

	2017 Valuation	2016 Valuation
<b>Benefit Multiplier:</b>	2.50% Multiplier (80% max)	2.50% Multiplier (80% max)
<b>Normal Retirement Age:</b>	60	60
<b>Vesting:</b>	6 years	6 years
<b>Early Retirement (Unreduced):</b>	55/25	55/25
<b>Early Retirement (Reduced):</b>	50/25	50/25
	55/15	55/15
<b>Final Average Compensation:</b>	5 years	5 years
<b>COLA for Future Retirees:</b>	2.50% (Non-Compound)	2.50% (Non-Compound)
<b>Employee Contributions:</b>	0%	0%
<b>DC Plan for New Hires:</b>	1/1/2016	1/1/2016
<b>Act 88:</b>	Yes (Adopted 4/6/1967)	Yes (Adopted 4/6/1967)

**18 - Exempt: Closed to new hires**

	2017 Valuation	2016 Valuation
<b>Benefit Multiplier:</b>	Bridged Benefit: 2.50% Multiplier (80% max) Frozen FAC; to 1.25% Multiplier (no max)	Bridged Benefit: 2.50% Multiplier (80% max) Frozen FAC; to 1.25% Multiplier (no max)
<b>Bridged Benefit Date:</b>	12/30/2016	12/30/2016
<b>Normal Retirement Age:</b>	60	60
<b>Vesting:</b>	8 years	8 years
<b>Early Retirement (Unreduced):</b>	55/25	55/25
<b>Early Retirement (Reduced):</b>	50/25	50/25
	55/15	55/15
<b>Final Average Compensation:</b>	3 years	3 years
<b>COLA for Future Retirees:</b>	2.50% (Non-Compound)	2.50% (Non-Compound)
<b>Employee Contributions:</b>	6%	10%
<b>DC Plan for New Hires:</b>	5/1/2000	5/1/2000
<b>Act 88:</b>	Yes (Adopted 4/6/1967)	Yes (Adopted 4/6/1967)

Table 2 (continued)

**20 - Teamstrs Cmmnd: Closed to new hires**

	2017 Valuation	2016 Valuation
Benefit Multiplier:	2.80% Multiplier (80% max)	2.80% Multiplier (80% max)
Normal Retirement Age:	60	60
Vesting:	10 years	10 years
Early Retirement (Unreduced):	25 and Out	25 and Out
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:	0%	0%
DC Plan for New Hires:	6/1/2000	6/1/2000
Act 88:	Yes (Adopted 4/6/1967)	Yes (Adopted 4/6/1967)

**21 - Dispatch Unit: Closed to new hires**

	2017 Valuation	2016 Valuation
Benefit Multiplier:	2.25% Multiplier (80% max)	2.25% Multiplier (80% max)
Normal Retirement Age:	60	60
Vesting:	8 years	8 years
Early Retirement (Unreduced):	55/25	55/25
Early Retirement (Reduced):	50/25	50/25
	55/15	55/15
Final Average Compensation:	5 years	5 years
Employee Contributions:	0%	0%
DC Plan for New Hires:	6/1/2000	6/1/2000
Act 88:	Yes (Adopted 4/6/1967)	Yes (Adopted 4/6/1967)

**23 - COAM Srgts: Closed to new hires**

	2017 Valuation	2016 Valuation
Benefit Multiplier:	2.80% Multiplier (80% max)	2.80% Multiplier (80% max)
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:	5 years	5 years
COLA for Future Retirees:	2.50% (Non-Compound)	2.50% (Non-Compound)
Employee Contributions:	0%	0%
DC Plan for New Hires:	6/1/2000	6/1/2000
Act 88:	Yes (Adopted 4/6/1967)	Yes (Adopted 4/6/1967)



Table 2 (continued)

**81 - COA from div 11: Closed to new hires**

	2017 Valuation	2016 Valuation
<b>Benefit Multiplier:</b>	Bridged Benefit: 2.50% Multiplier (80% max) Frozen FAC; to 1.25% Multiplier (no max)	-
<b>Bridged Benefit Date:</b>	12/30/2016	
<b>Normal Retirement Age:</b>	60	-
<b>Vesting:</b>	8 years	-
<b>Early Retirement (Unreduced):</b>	55/25	-
<b>Early Retirement (Reduced):</b>	50/25	-
	55/15	
<b>Final Average Compensation:</b>	5 years	-
<b>COLA for Future Retirees:</b>	2.50% (Non-Compound)	
<b>Employee Contributions:</b>	6%	-
<b>DC Plan for New Hires:</b>	12/1/2017	
<b>Act 88:</b>	Yes (Adopted 4/6/1967)	

**82 - COA from div 12: Closed to new hires**

	2017 Valuation	2016 Valuation
<b>Benefit Multiplier:</b>	Bridged Benefit: 2.50% Multiplier (80% max) Frozen FAC; to 1.25% Multiplier (no max)	-
<b>Bridged Benefit Date:</b>	02/28/2017	
<b>Normal Retirement Age:</b>	60	-
<b>Vesting:</b>	8 years	-
<b>Early Retirement (Unreduced):</b>	55/25	-
<b>Early Retirement (Reduced):</b>	50/25	-
	55/15	
<b>Final Average Compensation:</b>	3 years	-
<b>COLA for Future Retirees:</b>	2.50% (Non-Compound)	
<b>Employee Contributions:</b>	6%	-
<b>DC Plan for New Hires:</b>	12/1/2017	
<b>Act 88:</b>	Yes (Adopted 4/6/1967)	

Table 2 (continued)

**83 - COA from div 18: Closed to new hires**

	2017 Valuation	2016 Valuation
<b>Benefit Multiplier:</b>	Bridged Benefit: 2.50% Multiplier (80% max) Frozen FAC; to 1.25% Multiplier (no max)	-
<b>Bridged Benefit Date:</b>	12/30/2016	
<b>Normal Retirement Age:</b>	60	-
<b>Vesting:</b>	8 years	-
<b>Early Retirement (Unreduced):</b>	55/25	-
<b>Early Retirement (Reduced):</b>	50/25	-
	55/15	
<b>Final Average Compensation:</b>	3 years	-
<b>COLA for Future Retirees:</b>	2.50% (Non-Compound)	
<b>Employee Contributions:</b>	6%	-
<b>DC Plan for New Hires:</b>	12/1/2017	
<b>Act 88:</b>	Yes (Adopted 4/6/1967)	

**84 - DPW from div 01: Closed to new hires**

	2017 Valuation	2016 Valuation
<b>Benefit Multiplier:</b>	2.50% Multiplier (80% max)	-
<b>Normal Retirement Age:</b>	60	-
<b>Vesting:</b>	6 years	-
<b>Early Retirement (Unreduced):</b>	55/25	-
<b>Early Retirement (Reduced):</b>	50/25	-
	55/15	
<b>Final Average Compensation:</b>	3 years	-
<b>COLA for Future Retirees:</b>	2.50% (Non-Compound)	
<b>Employee Contributions:</b>	0%	-
<b>DC Plan for New Hires:</b>	12/1/2017	
<b>Act 88:</b>	Yes (Adopted 4/6/1967)	

**85 - DPW from div 11: Closed to new hires**

	2017 Valuation	2016 Valuation
<b>Benefit Multiplier:</b>	Bridged Benefit: 2.50% Multiplier (80% max) Frozen FAC; to 1.25% Multiplier (no max)	-
<b>Bridged Benefit Date:</b>	12/30/2016	
<b>Normal Retirement Age:</b>	60	-
<b>Vesting:</b>	8 years	-
<b>Early Retirement (Unreduced):</b>	55/25	-
<b>Early Retirement (Reduced):</b>	50/25	-
	55/15	
<b>Final Average Compensation:</b>	5 years	-
<b>COLA for Future Retirees:</b>	2.50% (Non-Compound)	
<b>Employee Contributions:</b>	6%	-
<b>DC Plan for New Hires:</b>	12/1/2017	
<b>Act 88:</b>	Yes (Adopted 4/6/1967)	

**Table 2** (continued)**86 - DPW from div 18: Closed to new hires**

	2017 Valuation	2016 Valuation
<b>Benefit Multiplier:</b>	Bridged Benefit: 2.50% Multiplier (80% max) Frozen FAC; to 1.25% Multiplier (no max)	-
<b>Bridged Benefit Date:</b>	12/30/2016	-
<b>Normal Retirement Age:</b>	60	-
<b>Vesting:</b>	8 years	-
<b>Early Retirement (Unreduced):</b>	55/25	-
<b>Early Retirement (Reduced):</b>	50/25	-
	55/15	-
<b>Final Average Compensation:</b>	3 years	-
<b>COLA for Future Retirees:</b>	2.50% (Non-Compound)	-
<b>Employee Contributions:</b>	6%	-
<b>DC Plan for New Hires:</b>	12/1/2017	-
<b>Act 88:</b>	Yes (Adopted 4/6/1967)	-

## Participant Summary

**Table 3**

Division	2017 Valuation		2016 Valuation		2017 Valuation		
	Number	Annual Payroll <sup>1</sup>	Number	Annual Payroll <sup>1</sup>	Average Age	Average Benefit Service <sup>2</sup>	Average Eligibility Service <sup>2</sup>
01 - Gnrl Tmstr							
Active Employees	2	\$ 88,650	5	\$ 255,896	56.8	15.0	15.3
Vested Former Employees	9	58,796	9	58,796	54.3	8.3	14.3
Retirees and Beneficiaries	66	976,395	72	1,043,169	72.0		
02 - Deputies POAM							
Active Employees	4	\$ 241,901	4	\$ 245,141	45.2	18.2	18.2
Vested Former Employees	3	45,015	3	45,015	43.6	10.9	12.8
Retirees and Beneficiaries	31	929,935	32	931,651	67.6		
10 - Elctd Empl							
Active Employees	2	\$ 160,992	2	\$ 160,757	60.4	24.5	24.5
Vested Former Employees	1	1,434	1	1,434	54.8	8.0	8.0
Retirees and Beneficiaries	20	633,812	21	629,306	73.9		
11 - Gnrl NonCntrct							
Active Employees	2	\$ 101,589	2	\$ 98,670	47.0	17.8	17.8
Vested Former Employees	1	3,024	5	28,883	52.5	4.8	23.5
Retirees and Beneficiaries	23	368,451	29	436,541	71.8		
12 - AFSCME							
Active Employees	1	\$ 49,852	1	\$ 60,452	54.6	21.1	21.1
Vested Former Employees	2	28,816	3	52,257	50.5	10.8	15.0
Retirees and Beneficiaries	6	174,363	6	171,671	67.1		
13 - Circuit Ct							
Active Employees	25	\$ 1,174,378	29	\$ 1,360,158	48.3	10.5	11.9
Vested Former Employees	6	70,266	6	78,308	50.5	10.5	11.4
Retirees and Beneficiaries	27	597,151	23	505,869	67.5		
14 - Hlth Dept Un							
Active Employees	3	\$ 142,735	3	\$ 147,031	56.1	25.0	25.0
Vested Former Employees	8	40,627	8	40,627	54.0	6.4	13.8
Retirees and Beneficiaries	27	387,047	27	380,529	69.2		
15 - Dist Crt Tmstr							
Active Employees	1	\$ 57,585	1	\$ 55,969	46.1	23.7	23.7
Vested Former Employees	2	24,298	2	24,298	51.6	11.1	11.1
Retirees and Beneficiaries	15	388,334	15	380,724	65.6		
16 - TPOAM							
Active Employees	1	\$ 42,985	2	\$ 84,602	46.4	25.3	25.3
Vested Former Employees	3	24,515	3	24,515	56.4	11.3	13.6
Retirees and Beneficiaries	6	139,535	5	113,155	67.5		

**Table 3 (continued)**

Division	2017 Valuation		2016 Valuation		2017 Valuation		
	Number	Annual Payroll <sup>1</sup>	Number	Annual Payroll <sup>1</sup>	Average Age	Average Benefit Service <sup>2</sup>	Average Eligibility Service <sup>2</sup>
17 - Cirt Crt Spvs							
Active Employees	2	\$ 143,762	2	\$ 135,322	50.8	19.3	19.3
Vested Former Employees	0	0	0	0	0.0	0.0	0.0
Retirees and Beneficiaries	4	107,601	4	106,356	69.1		
18 - Exempt							
Active Employees	4	\$ 250,136	5	\$ 302,472	55.3	23.0	23.0
Vested Former Employees	1	23,169	2	33,294	56.0	18.3	18.3
Retirees and Beneficiaries	33	1,157,878	37	1,329,858	67.1		
20 - Teamstrs Cmmnd							
Active Employees	2	\$ 161,807	2	\$ 155,506	45.9	22.1	22.7
Vested Former Employees	0	0	0	0	0.0	0.0	0.0
Retirees and Beneficiaries	13	698,107	13	688,310	66.1		
21 - Dispatch Unit							
Active Employees	0	\$ 0	0	\$ 0	0.0	0.0	0.0
Vested Former Employees	1	26,811	1	26,811	57.5	21.5	21.5
Retirees and Beneficiaries	4	37,230	4	37,230	68.7		
23 - COAM Srgts							
Active Employees	5	\$ 380,402	6	\$ 454,873	49.3	23.1	23.1
Vested Former Employees	1	46,760	0	0	46.6	22.1	22.1
Retirees and Beneficiaries	7	275,088	7	273,042	68.0		
81 - COA from div 11							
Active Employees	0	\$ 0		\$	0.0	0.0	0.0
Vested Former Employees	2	11,395			57.3	9.5	9.7
Retirees and Beneficiaries	5	56,954			67.5		
82 - COA from div 12							
Active Employees	0	\$ 0		\$	0.0	0.0	0.0
Vested Former Employees	1	23,441			42.3	16.6	17.0
Retirees and Beneficiaries	0	0			0.0		
83 - COA from div 18							
Active Employees	0	\$ 0		\$	0.0	0.0	0.0
Vested Former Employees	0	0			0.0	0.0	0.0
Retirees and Beneficiaries	1	53,447			64.8		
84 - DPW from div 01							
Active Employees	3	\$ 141,542		\$	51.8	25.1	25.1
Vested Former Employees	0	0			0.0	0.0	0.0
Retirees and Beneficiaries	3	70,258			65.4		
85 - DPW from div 11							
Active Employees	0	\$ 0		\$	0.0	0.0	0.0
Vested Former Employees	0	0			0.0	0.0	0.0
Retirees and Beneficiaries	2	21,922			77.1		

**Table 3 (continued)**

Division	2017 Valuation		2016 Valuation		2017 Valuation		
	Number	Annual Payroll <sup>1</sup>	Number	Annual Payroll <sup>1</sup>	Average Age	Average Benefit Service <sup>2</sup>	Average Eligibility Service <sup>2</sup>
86 - DPW from div 18							
Active Employees	1	\$ 55,025		\$	57.1	25.7	25.7
Vested Former Employees	0	0			0.0	0.0	0.0
Retirees and Beneficiaries	4	132,619			64.2		
<b>Total Municipality</b>							
<b>Active Employees</b>	<b>58</b>	<b>\$ 3,193,341</b>	<b>64</b>	<b>\$ 3,516,849</b>	<b>50.1</b>	<b>17.0</b>	<b>17.6</b>
<b>Vested Former Employees</b>	<b>41</b>	<b>428,367</b>	<b>43</b>	<b>414,238</b>	<b>52.5</b>	<b>10.0</b>	<b>13.9</b>
<b>Retirees and Beneficiaries</b>	<b>297</b>	<b>7,206,127</b>	<b>295</b>	<b>7,027,411</b>	<b>69.3</b>		
<b>Total Participants</b>	<b>396</b>		<b>402</b>				

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

<sup>2</sup> 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 <sup>1</sup>	Employee <sup>2</sup>	Employer and Retiree <sup>1</sup>	Employee <sup>2</sup>
01 - Gnrl Tmstr	\$ 5,581,364	\$ 598	\$ 5,546,552	\$ 56
02 - Deputies POAM	4,531,570	101,920	3,522,872	95,425
10 - Elctd Empl	3,517,416	9,813	2,966,730	0
11 - Gnrl NonCntrct	2,044,465	5,918	2,427,854	7,874
12 - AFSCME	1,428,265	2,565	1,226,435	0
13 - Circuit Ct	6,534,398	0	5,531,793	1,802
14 - Hlth Dept Un	3,329,227	865	3,098,533	0
15 - Dist Crt Tmstr	2,268,741	14,289	1,893,115	13,504
16 - TPOAM	947,409	9,736	790,325	13,433
17 - Cirt Crt Spvs	679,373	0	522,980	0
18 - Exempt	6,840,309	14,584	6,678,008	0
20 - Teamstrs Cmmnd	3,854,959	5,128	2,895,381	5,039
21 - Dispatch Unit	357,379	0	329,439	0
23 - COAM Srgts	3,582,770	32,438	2,836,017	31,877
81 - COA from div 11	846,489	0		
82 - COA from div 12	79,038	0		
83 - COA from div 18	687,150	0		
84 - DPW from div 01	990,976	944		
85 - DPW from div 11	131,202	0		
86 - DPW from div 18	1,015,224	3,177		
S1 - Surplus Unassoc.	252,986	0		
<b>Municipality Total</b>	<b>\$ 49,500,710</b>	<b>\$ 201,975</b>	<b>\$ 40,266,034</b>	<b>\$ 169,010</b>
<b>Combined Assets</b>	<b>\$49,702,685</b>		<b>\$40,435,044</b>	

<sup>1</sup> Reserve for Employer Contributions and Benefit Payments

<sup>2</sup> 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](#).

Assets in the Surplus division(s) are employer assets that have been reserved to be used by the employer at some point in the future to stabilize increases in contributions. These assets are not used in calculating the employer contribution for the fiscal year beginning January 1, 2019.

## 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	\$ 3,275,854		\$ 10,516	\$ 2,946,194	\$ (4,440,906)	\$ 0	\$ 0	\$ 38,487,034
2008	3,441,339		10,208	1,735,368	(4,564,382)	0	0	39,109,567
2009	3,572,015		11,169	1,530,820	(4,775,061)	0	0	39,448,510
2010	3,960,432		11,704	2,058,865	(4,832,231)	0	0	40,647,280
2011	3,962,869	\$ 0	10,903	2,029,332	(5,004,129)	(11,734)	0	41,634,521
2012	3,879,285	0	10,039	1,769,653	(5,382,916)	0	0	41,910,582
2013	3,964,682	0	8,727	2,339,803	(5,789,889)	0	1	42,433,906
2014	4,258,800	0	8,176	2,352,134	(6,008,142)	0	0	43,044,874
2015	4,479,187	0	6,978	2,054,023	(6,270,104)	0	0	43,314,958
2016	4,782,033	0	5,907	2,101,238	(6,651,752)	0	0	43,552,384
2017	5,170,991	5,843,015	44,783	2,840,459	(7,186,264)	0	0	50,265,368

**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 <sup>1</sup>	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
01 - Gnrl Tmstr				
Active Employees	\$ 311,665	\$ 598	0.2%	\$ 311,067
Vested Former Employees	525,016	0	0.0%	525,016
Retirees And Beneficiaries	10,149,301	5,644,557	55.6%	4,504,744
Pending Refunds	0	0	0.0%	0
Total	<b>\$ 10,985,982</b>	<b>\$ 5,645,155</b>	<b>51.4%</b>	<b>\$ 5,340,827</b>
02 - Deputies POAM				
Active Employees	\$ 1,321,691	\$ 78,191	5.9%	\$ 1,243,500
Vested Former Employees	153,695	22,167	14.4%	131,528
Retirees And Beneficiaries	9,990,108	4,584,026	45.9%	5,406,082
Pending Refunds	1,562	1,562	100.0%	0
Total	<b>\$ 11,467,056</b>	<b>\$ 4,685,946</b>	<b>40.9%</b>	<b>\$ 6,781,110</b>
10 - Elctd Empl				
Active Employees	\$ 1,011,889	\$ 9,813	1.0%	\$ 1,002,076
Vested Former Employees	12,530	0	0.0%	12,530
Retirees And Beneficiaries	6,466,275	3,557,348	55.0%	2,908,927
Pending Refunds	0	0	0.0%	0
Total	<b>\$ 7,490,694</b>	<b>\$ 3,567,161</b>	<b>47.6%</b>	<b>\$ 3,923,533</b>
11 - Gnrl NonCntrct				
Active Employees	\$ 240,966	\$ 5,918	2.5%	\$ 235,048
Vested Former Employees	18,217	0	0.0%	18,217
Retirees And Beneficiaries	3,386,580	2,067,677	61.1%	1,318,903
Pending Refunds	0	0	0.0%	0
Total	<b>\$ 3,645,763</b>	<b>\$ 2,073,595</b>	<b>56.9%</b>	<b>\$ 1,572,168</b>
12 - AFSCME				
Active Employees	\$ 258,829	\$ 2,565	1.0%	\$ 256,264
Vested Former Employees	191,239	0	0.0%	191,239
Retirees And Beneficiaries	1,960,873	1,444,463	73.7%	516,410
Pending Refunds	0	0	0.0%	0
Total	<b>\$ 2,410,941</b>	<b>\$ 1,447,028</b>	<b>60.0%</b>	<b>\$ 963,913</b>
13 - Circuit Ct				
Active Employees	\$ 3,297,932	\$ 0	0.0%	\$ 3,297,932
Vested Former Employees	524,098	0	0.0%	524,098
Retirees And Beneficiaries	6,732,031	6,608,374	98.2%	123,657
Pending Refunds	0	0	0.0%	0
Total	<b>\$ 10,554,061</b>	<b>\$ 6,608,374</b>	<b>62.6%</b>	<b>\$ 3,945,687</b>

Table 6 (continued)

Division	Actuarial Accrued Liability	Valuation Assets <sup>1</sup>	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
14 - Hlth Dept Un				
Active Employees	\$ 858,480	\$ 865	0.1%	\$ 857,615
Vested Former Employees	326,941	0	0.0%	326,941
Retirees And Beneficiaries	4,017,918	3,366,927	83.8%	650,991
Pending Refunds	0	0	0.0%	0
Total	<b>\$ 5,203,339</b>	<b>\$ 3,367,792</b>	<b>64.7%</b>	<b>\$ 1,835,547</b>
15 - Dist Crt Tmstr				
Active Employees	\$ 211,023	\$ 14,289	6.8%	\$ 196,734
Vested Former Employees	143,779	0	0.0%	143,779
Retirees And Beneficiaries	4,319,647	2,294,587	53.1%	2,025,060
Pending Refunds	0	0	0.0%	0
Total	<b>\$ 4,674,449</b>	<b>\$ 2,308,876</b>	<b>49.4%</b>	<b>\$ 2,365,573</b>
16 - TPOAM				
Active Employees	\$ 132,597	\$ 4,240	3.2%	\$ 128,357
Vested Former Employees	191,188	5,430	2.8%	185,758
Retirees And Beneficiaries	1,398,675	958,311	68.5%	440,364
Pending Refunds	0	0	0.0%	0
Total	<b>\$ 1,722,460</b>	<b>\$ 967,981</b>	<b>56.2%</b>	<b>\$ 754,479</b>
17 - Cirt Crt Spvs				
Active Employees	\$ 697,493	\$ 0	0.0%	\$ 697,493
Vested Former Employees	0	0	0.0%	0
Retirees And Beneficiaries	1,110,797	687,064	61.9%	423,733
Pending Refunds	0	0	0.0%	0
Total	<b>\$ 1,808,290</b>	<b>\$ 687,064</b>	<b>38.0%</b>	<b>\$ 1,121,226</b>
18 - Exempt				
Active Employees	\$ 1,256,237	\$ 14,584	1.2%	\$ 1,241,653
Vested Former Employees	220,739	0	0.0%	220,739
Retirees And Beneficiaries	13,357,969	6,917,913	51.8%	6,440,056
Pending Refunds	0	0	0.0%	0
Total	<b>\$ 14,834,945</b>	<b>\$ 6,932,497</b>	<b>46.7%</b>	<b>\$ 7,902,448</b>
20 - Teamstrs Cmmnd				
Active Employees	\$ 1,309,309	\$ 5,128	0.4%	\$ 1,304,181
Vested Former Employees	0	0	0.0%	0
Retirees And Beneficiaries	8,515,408	3,898,659	45.8%	4,616,749
Pending Refunds	0	0	0.0%	0
Total	<b>\$ 9,824,717</b>	<b>\$ 3,903,787</b>	<b>39.7%</b>	<b>\$ 5,920,930</b>
21 - Dispatch Unit				
Active Employees	\$ 0	\$ 0	0.0%	\$ 0
Vested Former Employees	238,116	0	0.0%	238,116
Retirees And Beneficiaries	386,241	361,425	93.6%	24,816
Pending Refunds	0	0	0.0%	0
Total	<b>\$ 624,357</b>	<b>\$ 361,425</b>	<b>57.9%</b>	<b>\$ 262,932</b>

**Table 6 (continued)**

<b>Division</b>	<b>Actuarial Accrued Liability</b>	<b>Valuation Assets<sup>1</sup></b>	<b>Percent Funded</b>	<b>Unfunded (Overfunded) Accrued Liabilities</b>
<b>23 - COAM Srgts</b>				
Active Employees	\$ 2,838,989	\$ 297,802	10.5%	\$ 2,541,187
Vested Former Employees	218,974	218,974	100.0%	0
Retirees And Beneficiaries	3,139,360	3,139,360	100.0%	0
Pending Refunds	0	0	0.0%	0
<b>Total</b>	<b>\$ 6,197,323</b>	<b>\$ 3,656,136</b>	<b>59.0%</b>	<b>\$ 2,541,187</b>
<b>81 - COA from div 11</b>				
Active Employees	\$ 0	\$ 56,156	0.0%	\$ (56,156)
Vested Former Employees	123,670	123,670	100.0%	0
Retirees And Beneficiaries	676,246	676,246	100.0%	0
Pending Refunds	0	0	0.0%	0
<b>Total</b>	<b>\$ 799,916</b>	<b>\$ 856,072</b>	<b>107.0%</b>	<b>\$ (56,156)</b>
<b>82 - COA from div 12</b>				
Active Employees	\$ 0	\$ 2,082	0.0%	\$ (2,082)
Vested Former Employees	77,851	77,851	100.0%	0
Retirees And Beneficiaries	0	0	0.0%	0
Pending Refunds	0	0	0.0%	0
<b>Total</b>	<b>\$ 77,851</b>	<b>\$ 79,933</b>	<b>102.7%</b>	<b>\$ (2,082)</b>
<b>83 - COA from div 18</b>				
Active Employees	\$ 0	\$ 74,750	0.0%	\$ (74,750)
Vested Former Employees	0	0	0.0%	0
Retirees And Beneficiaries	620,179	620,179	100.0%	0
Pending Refunds	0	0	0.0%	0
<b>Total</b>	<b>\$ 620,179</b>	<b>\$ 694,929</b>	<b>112.1%</b>	<b>\$ (74,750)</b>
<b>84 - DPW from div 01</b>				
Active Employees	\$ 1,061,226	\$ 179,076	16.9%	\$ 882,150
Vested Former Employees	0	0	0.0%	0
Retirees And Beneficiaries	824,074	824,074	100.0%	0
Pending Refunds	0	0	0.0%	0
<b>Total</b>	<b>\$ 1,885,300</b>	<b>\$ 1,003,150</b>	<b>53.2%</b>	<b>\$ 882,150</b>
<b>85 - DPW from div 11</b>				
Active Employees	\$ 0	\$ 0	0.0%	\$ 0
Vested Former Employees	0	0	0.0%	0
Retirees And Beneficiaries	180,359	132,687	73.6%	47,672
Pending Refunds	0	0	0.0%	0
<b>Total</b>	<b>\$ 180,359</b>	<b>\$ 132,687</b>	<b>73.6%</b>	<b>\$ 47,672</b>
<b>86 - DPW from div 18</b>				
Active Employees	\$ 197,938	\$ 3,177	1.6%	\$ 194,761
Vested Former Employees	0	0	0.0%	0
Retirees And Beneficiaries	1,642,224	1,026,753	62.5%	615,471
Pending Refunds	0	0	0.0%	0
<b>Total</b>	<b>\$ 1,840,162</b>	<b>\$ 1,029,930</b>	<b>56.0%</b>	<b>\$ 810,232</b>

**Table 6** (continued)

Division	Actuarial Accrued Liability	Valuation Assets <sup>1</sup>	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
S1 - Surplus Unassoc. Total	\$ 0	\$ 255,850		\$ (255,850)
<b>Total Municipality</b>				
Active Employees	\$ 15,006,264	\$ 749,234	5.0%	\$ 14,257,030
Vested Former Employees	2,966,053	448,092	15.1%	2,517,961
Retirees and Beneficiaries	78,874,265	48,810,630	61.9%	30,063,635
Pending Refunds	1,562	1,562	100.0%	0
Surplus Assets	0	255,850		(255,850)
<b>Total</b>	<b>\$ 96,848,144</b>	<b>\$ 50,265,368</b>	<b>51.9%</b>	<b>\$ 46,582,776</b>

<sup>1</sup> 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	\$ 73,682,260	\$ 40,355,536	55%	\$ 33,326,724
2004	78,893,261	42,747,512	54%	36,145,749
2005	71,993,673	35,193,962	49%	36,799,711
2006	74,170,541	36,695,376	49%	37,475,165
2007	76,407,968	38,487,034	50%	37,920,934
2008	78,874,560	39,109,567	50%	39,764,993
2009	79,212,816	39,448,510	50%	39,764,306
2010	80,396,593	40,647,280	51%	39,749,313
2011	82,943,903	41,634,521	50%	41,309,382
2012	85,327,602	41,910,582	49%	43,417,020
2013	86,837,752	42,433,906	49%	44,403,846
2014	88,858,803	43,044,874	48%	45,813,929
2015	95,902,694	43,314,958	45%	52,587,736
2016	97,374,366	43,552,384	45%	53,821,982
2017	96,848,144	50,265,368	52%	46,582,776

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 - Gnrl Tmstr

**Table 8-01: Actuarial Accrued Liabilities - Comparative Schedule**

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2007	\$ 10,776,575	\$ 6,342,148	59%	\$ 4,434,427
2008	10,908,406	6,302,740	58%	4,605,666
2009	11,561,373	6,558,152	57%	5,003,221
2010	11,424,423	6,582,556	58%	4,841,867
2011	11,843,656	6,610,874	56%	5,232,782
2012	11,985,994	6,465,882	54%	5,520,112
2013	11,897,652	6,279,954	53%	5,617,698
2014	12,160,082	6,235,590	51%	5,924,492
2015	13,011,160	6,090,891	47%	6,920,269
2016	13,080,775	5,974,224	46%	7,106,551
2017	10,985,982	5,645,155	51%	5,340,827

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 <sup>1</sup>	Employee Contribution Rate <sup>2</sup>
	Number	Annual Payroll		
2007	19	\$ 782,807	\$ 36,492	0.00%
2008	18	742,412	\$ 39,788	0.00%
2009	22	934,425	\$ 47,989	0.00%
2010	20	825,902	\$ 40,777	0.00%
2011	15	597,424	\$ 41,363	0.00%
2012	9	403,625	\$ 43,390	0.00%
2013	9	423,524	\$ 46,314	0.00%
2014	8	385,382	\$ 51,150	0.00%
2015	7	349,024	\$ 64,070	0.00%
2016	5	255,896	\$ 67,849	0.00%
2017	2	88,650	\$ 38,608	6.00%

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

<sup>2</sup> 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 80 for past benefit provision changes.

## Division 02 - Deputies POAM

Table 8-02: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2007	\$ 10,572,996	\$ 4,033,073	38%	\$ 6,539,923
2008	10,768,703	4,004,514	37%	6,764,189
2009	10,701,502	3,953,427	37%	6,748,075
2010	10,980,374	4,031,566	37%	6,948,808
2011	10,751,233	3,998,449	37%	6,752,784
2012	10,428,948	3,943,303	38%	6,485,645
2013	10,447,819	3,954,931	38%	6,492,888
2014	10,652,829	3,970,351	37%	6,682,478
2015	11,374,551	3,941,607	35%	7,432,944
2016	11,597,058	3,897,250	34%	7,699,808
2017	11,467,056	4,685,946	41%	6,781,110

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 <sup>1</sup>	Employee Contribution Rate <sup>2</sup>
	Number	Annual Payroll		
2007	10	\$ 487,534	\$ 46,144	2.00%
2008	10	482,715	\$ 51,723	2.00%
2009	10	522,685	\$ 56,122	2.00%
2010	11	571,704	\$ 52,616	2.00%
2011	9	495,997	\$ 50,263	2.00%
2012	7	395,897	\$ 49,597	2.00%
2013	7	394,590	\$ 52,281	2.00%
2014	6	337,678	\$ 56,306	2.00%
2015	5	285,527	\$ 67,487	2.00%
2016	4	245,141	\$ 73,179	2.00%
2017	4	241,901	\$ 51,734	2.00%

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

<sup>2</sup> 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 80 for past benefit provision changes.

## Division 10 - Elctd Empl

Table 8-10: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2007	\$ 5,586,194	\$ 3,135,031	56%	\$ 2,451,163
2008	5,855,103	3,246,390	55%	2,608,713
2009	5,851,512	3,258,709	56%	2,592,803
2010	5,877,052	3,332,315	57%	2,544,737
2011	5,986,353	3,397,920	57%	2,588,433
2012	6,461,568	3,408,607	53%	3,052,961
2013	7,035,577	3,453,063	49%	3,582,514
2014	7,132,459	3,352,964	47%	3,779,495
2015	7,612,292	3,266,739	43%	4,345,553
2016	7,494,558	3,195,450	43%	4,299,108
2017	7,490,694	3,567,161	48%	3,923,533

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

Table 9-10: Computed Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Computed Employer Contribution <sup>1</sup>	Employee Contribution Rate <sup>2</sup>
	Number	Annual Payroll		
2007	9	\$ 462,111	\$ 19,587	0.00%
2008	7	371,560	\$ 21,757	0.00%
2009	7	375,221	\$ 23,076	0.00%
2010	7	377,111	\$ 20,561	0.00%
2011	7	389,161	\$ 21,006	0.00%
2012	4	117,947	\$ 22,944	0.00%
2013	5	227,538	\$ 29,513	0.00%
2014	4	217,407	\$ 32,182	0.00%
2015	3	189,936	\$ 39,796	0.00%
2016	2	160,757	\$ 39,129	10.00%
2017	2	160,992	\$ 28,736	6.00%

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

<sup>2</sup> 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 80 for past benefit provision changes.



## Division 11 - Gnrl NonCntrct

Table 8-11: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2007	\$ 5,268,503	\$ 3,581,712	68%	\$ 1,686,791
2008	5,214,604	3,457,474	66%	1,757,130
2009	4,588,290	3,084,926	67%	1,503,364
2010	4,669,757	3,095,343	66%	1,574,414
2011	4,751,136	3,100,329	65%	1,650,807
2012	4,839,552	3,025,879	63%	1,813,673
2013	4,261,412	2,859,952	67%	1,401,460
2014	4,388,006	2,853,180	65%	1,534,826
2015	4,787,844	2,752,200	58%	2,035,644
2016	4,674,825	2,623,510	56%	2,051,315
2017	3,645,763	2,073,595	57%	1,572,168

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

Table 9-11: Computed Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Computed Employer Contribution <sup>1</sup>	Employee Contribution Rate <sup>2</sup>
	Number	Annual Payroll		
2007	18	\$ 632,422	\$ 16,535	0.00%
2008	17	604,821	\$ 17,705	0.00%
2009	11	379,478	\$ 14,348	0.00%
2010	11	394,718	\$ 14,172	0.00%
2011	11	405,460	\$ 14,629	0.00%
2012	9	357,294	\$ 16,227	0.00%
2013	7	251,095	\$ 12,413	0.00%
2014	5	186,656	\$ 14,055	0.00%
2015	3	128,160	\$ 19,106	0.00%
2016	2	98,670	\$ 18,616	10.00%
2017	2	101,589	\$ 11,252	6.00%

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

<sup>2</sup> 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 80 for past benefit provision changes.

## Division 12 - AFSCME

Table 8-12: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2007	\$ 2,282,388	\$ 1,052,495	46%	\$ 1,229,893
2008	2,290,121	1,095,951	48%	1,194,170
2009	2,332,887	1,152,786	49%	1,180,101
2010	2,312,927	1,215,057	53%	1,097,870
2011	2,396,865	1,275,124	53%	1,121,741
2012	2,468,177	1,308,809	53%	1,159,368
2013	2,289,091	1,223,109	53%	1,065,982
2014	2,384,378	1,276,646	54%	1,107,732
2015	2,665,636	1,301,609	49%	1,364,027
2016	2,552,861	1,320,987	52%	1,231,874
2017	2,410,941	1,447,028	60%	963,913

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

Table 9-12: Computed Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Computed Employer Contribution <sup>1</sup>	Employee Contribution Rate <sup>2</sup>
	Number	Annual Payroll		
2007	5	\$ 249,754	\$ 10,325	0.00%
2008	4	197,272	\$ 10,118	0.00%
2009	4	204,505	\$ 10,933	0.00%
2010	3	154,836	\$ 8,753	0.00%
2011	3	152,730	\$ 8,929	0.00%
2012	3	163,927	\$ 9,698	0.00%
2013	3	160,508	\$ 9,443	0.00%
2014	3	164,905	\$ 10,296	0.00%
2015	2	116,912	\$ 13,138	0.00%
2016	1	60,452	\$ 11,737	0.00%
2017	1	49,852	\$ 6,181	6.00%

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

<sup>2</sup> 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 80 for past benefit provision changes.

## Division 13 - Circuit Ct

Table 8-13: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2007	\$ 5,373,383	\$ 3,558,283	66%	\$ 1,815,100
2008	5,855,965	3,852,685	66%	2,003,280
2009	5,928,418	4,139,444	70%	1,788,974
2010	6,330,011	4,489,559	71%	1,840,452
2011	6,926,998	4,816,949	70%	2,110,049
2012	7,523,644	5,033,501	67%	2,490,143
2013	8,057,792	5,295,395	66%	2,762,397
2014	8,566,719	5,547,677	65%	3,019,042
2015	9,852,045	5,847,083	59%	4,004,962
2016	10,084,874	5,960,208	59%	4,124,666
2017	10,554,061	6,608,374	63%	3,945,687

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

Table 9-13: Computed Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Computed Employer Contribution <sup>1</sup>	Employee Contribution Rate <sup>2</sup>
	Number	Annual Payroll		
2007	32	\$ 1,365,238	20.14%	0.00%
2008	32	1,341,226	21.24%	0.00%
2009	33	1,388,691	20.55%	0.00%
2010	33	1,421,621	20.40%	0.00%
2011	33	1,468,692	21.53%	0.00%
2012	32	1,439,084	24.31%	0.00%
2013	33	1,486,735	24.91%	0.00%
2014	32	1,461,683	26.21%	0.00%
2015	33	1,518,027	\$ 41,748	0.00%
2016	29	1,360,158	\$ 41,264	0.00%
2017	25	1,174,378	\$ 39,724	0.00%

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

<sup>2</sup> 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 80 for past benefit provision changes.

## Division 14 - Hlth Dept Un

**Table 8-14: Actuarial Accrued Liabilities - Comparative Schedule**

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2007	\$ 4,088,601	\$ 3,220,180	79%	\$ 868,421
2008	4,178,965	3,255,428	78%	923,537
2009	4,368,790	3,250,291	74%	1,118,499
2010	4,487,813	3,289,310	73%	1,198,503
2011	4,598,531	3,318,801	72%	1,279,730
2012	4,730,638	3,350,845	71%	1,379,793
2013	4,678,265	3,273,583	70%	1,404,682
2014	4,796,527	3,319,338	69%	1,477,189
2015	5,154,471	3,333,945	65%	1,820,526
2016	5,310,907	3,337,414	63%	1,973,493
2017	5,203,339	3,367,792	65%	1,835,547

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

**Table 9-14: Computed Employer Contributions - Comparative Schedule**

Valuation Date December 31	Active Employees		Computed Employer Contribution <sup>1</sup>	Employee Contribution Rate <sup>2</sup>
	Number	Annual Payroll		
2007	8	\$ 353,192	\$ 8,507	0.00%
2008	7	336,964	\$ 9,563	0.00%
2009	8	372,920	\$ 11,990	0.00%
2010	8	382,349	\$ 11,401	0.00%
2011	8	378,675	\$ 11,600	0.00%
2012	8	384,699	\$ 12,747	0.00%
2013	6	297,266	\$ 12,553	0.00%
2014	6	299,002	\$ 13,826	0.00%
2015	6	291,538	\$ 18,009	0.00%
2016	3	147,031	\$ 19,362	0.00%
2017	3	142,735	\$ 13,834	6.00%

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

<sup>2</sup> 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 80 for past benefit provision changes.

## Division 15 - Dist Crt Tmstr

Table 8-15: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2007	\$ 4,179,916	\$ 1,876,802	45%	\$ 2,303,114
2008	4,345,638	1,929,905	44%	2,415,733
2009	4,378,954	1,959,589	45%	2,419,365
2010	4,447,711	2,007,391	45%	2,440,320
2011	4,562,462	2,005,979	44%	2,556,483
2012	4,805,945	2,047,895	43%	2,758,050
2013	4,885,373	2,025,622	42%	2,859,751
2014	4,405,308	2,039,735	46%	2,365,573
2015	4,695,651	2,090,027	45%	2,605,624
2016	4,808,098	2,053,610	43%	2,754,488
2017	4,674,449	2,308,876	49%	2,365,573

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

Table 9-15: Computed Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Computed Employer Contribution <sup>1</sup>	Employee Contribution Rate <sup>2</sup>
	Number	Annual Payroll		
2007	7	\$ 314,080	\$ 17,462	0.00%
2008	6	270,936	\$ 19,274	0.00%
2009	6	278,420	\$ 20,999	0.00%
2010	3	151,218	\$ 17,746	0.00%
2011	2	103,794	\$ 18,469	0.00%
2012	3	158,033	\$ 21,402	0.00%
2013	2	106,549	\$ 22,507	0.00%
2014	2	108,664	\$ 19,379	0.00%
2015	2	109,408	\$ 23,584	0.00%
2016	1	55,969	\$ 25,888	0.00%
2017	1	57,585	\$ 17,060	6.00%

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

<sup>2</sup> 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 80 for past benefit provision changes.

## Division 16 - TPOAM

**Table 8-16: Actuarial Accrued Liabilities - Comparative Schedule**

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2007	\$ 1,357,561	\$ 771,009	57%	\$ 586,552
2008	1,376,310	755,555	55%	620,755
2009	1,355,375	735,807	54%	619,568
2010	1,384,227	742,329	54%	641,898
2011	1,386,916	748,754	54%	638,162
2012	1,435,199	755,765	53%	679,434
2013	1,481,340	774,752	52%	706,588
2014	1,524,294	801,609	53%	722,685
2015	1,632,107	829,760	51%	802,347
2016	1,716,719	865,724	50%	850,995
2017	1,722,460	967,981	56%	754,479

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

**Table 9-16: Computed Employer Contributions - Comparative Schedule**

Valuation Date December 31	Active Employees		Computed Employer Contribution <sup>1</sup>	Employee Contribution Rate <sup>2</sup>
	Number	Annual Payroll		
2007	3	\$ 114,315	\$ 4,491	0.67%
2008	3	115,116	\$ 5,095	0.67%
2009	3	114,927	\$ 5,469	0.67%
2010	3	119,413	\$ 5,168	0.67%
2011	3	114,418	\$ 5,095	0.67%
2012	3	123,280	\$ 5,693	0.67%
2013	3	124,884	\$ 6,094	0.67%
2014	3	125,763	\$ 6,444	0.67%
2015	3	126,371	\$ 7,705	0.67%
2016	2	84,602	\$ 8,334	0.67%
2017	1	42,985	\$ 5,616	3.00%

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

<sup>2</sup> 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 80 for past benefit provision changes.

## Division 17 - Cirt Crt Spvs

Table 8-17: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2007	\$ 1,084,737	\$ 420,151	39%	\$ 664,586
2008	1,157,970	417,108	36%	740,862
2009	1,122,402	404,473	36%	717,929
2010	1,144,315	392,431	34%	751,884
2011	1,210,823	383,712	32%	827,111
2012	1,227,042	372,388	30%	854,654
2013	1,292,392	374,062	29%	918,330
2014	1,353,047	402,061	30%	950,986
2015	1,480,074	430,894	29%	1,049,180
2016	1,741,484	563,299	32%	1,178,185
2017	1,808,290	687,064	38%	1,121,226

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

Table 9-17: Computed Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Computed Employer Contribution <sup>1</sup>	Employee Contribution Rate <sup>2</sup>
	Number	Annual Payroll		
2007	2	\$ 123,366	42.53%	0.00%
2008	2	143,931	40.37%	0.00%
2009	2	138,804	40.50%	0.00%
2010	2	141,259	41.42%	0.00%
2011	2	150,819	42.43%	0.00%
2012	2	150,258	46.52%	0.00%
2013	2	153,755	48.56%	0.00%
2014	2	156,144	49.39%	0.00%
2015	2	154,620	\$ 7,786	0.00%
2016	2	135,322	\$ 8,862	0.00%
2017	2	143,762	\$ 8,972	0.00%

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

<sup>2</sup> 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 80 for past benefit provision changes.

## Division 18 - Exempt

**Table 8-18: Actuarial Accrued Liabilities - Comparative Schedule**

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2007	\$ 13,891,203	\$ 5,511,952	40%	\$ 8,379,251
2008	14,556,448	5,726,358	39%	8,830,090
2009	14,671,925	5,798,178	40%	8,873,747
2010	14,518,888	6,087,943	42%	8,430,945
2011	14,915,469	6,363,824	43%	8,551,645
2012	15,545,517	6,460,995	42%	9,084,522
2013	16,316,956	6,935,825	43%	9,381,131
2014	16,727,760	7,071,840	42%	9,655,920
2015	17,749,384	7,109,819	40%	10,639,565
2016	17,666,935	7,192,849	41%	10,474,086
2017	14,834,945	6,932,497	47%	7,902,448

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

**Table 9-18: Computed Employer Contributions - Comparative Schedule**

Valuation Date December 31	Active Employees		Computed Employer Contribution <sup>1</sup>	Employee Contribution Rate <sup>2</sup>
	Number	Annual Payroll		
2007	11	\$ 705,350	\$ 60,054	0.00%
2008	11	713,776	\$ 68,134	0.00%
2009	11	728,561	\$ 74,212	0.00%
2010	11	744,729	\$ 63,760	0.00%
2011	10	684,084	\$ 64,433	0.00%
2012	10	638,225	\$ 71,024	0.00%
2013	10	606,125	\$ 75,876	0.00%
2014	9	559,302	\$ 81,750	0.00%
2015	6	377,885	\$ 95,708	0.00%
2016	5	302,472	\$ 95,312	10.00%
2017	4	250,136	\$ 57,582	6.00%

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

<sup>2</sup> 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 80 for past benefit provision changes.



## Division 20 - Teamstrs Cmmnd

Table 8-20: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2007	\$ 7,104,058	\$ 2,514,066	35%	\$ 4,589,992
2008	7,267,593	2,548,858	35%	4,718,735
2009	7,284,269	2,587,174	36%	4,697,095
2010	7,569,203	2,693,042	36%	4,876,161
2011	8,083,133	2,839,694	35%	5,243,439
2012	8,157,784	2,850,447	35%	5,307,337
2013	8,417,028	2,932,435	35%	5,484,593
2014	9,021,193	3,061,484	34%	5,959,709
2015	9,591,454	3,051,129	32%	6,540,325
2016	9,689,864	3,124,028	32%	6,565,836
2017	9,824,717	3,903,787	40%	5,920,930

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 <sup>1</sup>	Employee Contribution Rate <sup>2</sup>
	Number	Annual Payroll		
2007	3	\$ 212,697	\$ 30,911	0.00%
2008	3	213,221	\$ 34,625	0.00%
2009	3	227,017	\$ 37,988	0.00%
2010	2	148,104	\$ 34,478	0.00%
2011	3	231,913	\$ 38,302	0.00%
2012	3	232,699	\$ 40,241	0.00%
2013	2	152,793	\$ 42,841	0.00%
2014	2	150,444	\$ 49,611	0.00%
2015	2	153,234	\$ 58,839	0.00%
2016	2	155,506	\$ 62,012	0.00%
2017	2	161,807	\$ 44,911	0.00%

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

<sup>2</sup> 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 80 for past benefit provision changes.

## Division 21 - Dispatch Unit

**Table 8-21: Actuarial Accrued Liabilities - Comparative Schedule**

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2007	\$ 622,337	\$ 455,035	73%	\$ 167,302
2008	640,145	445,711	70%	194,434
2009	631,722	429,357	68%	202,365
2010	630,291	421,358	67%	208,933
2011	638,318	413,117	65%	225,201
2012	650,554	403,880	62%	246,674
2013	442,488	402,032	91%	40,456
2014	432,045	403,429	93%	28,616
2015	398,071	374,066	94%	24,005
2016	612,056	354,837	58%	257,219
2017	624,357	361,425	58%	262,932

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

**Table 9-21: Computed Employer Contributions - Comparative Schedule**

Valuation Date December 31	Active Employees		Computed Employer Contribution <sup>1</sup>	Employee Contribution Rate <sup>2</sup>
	Number	Annual Payroll		
2007	1	\$ 51,067	\$ 1,467	0.00%
2008	1	53,406	\$ 1,763	0.00%
2009	1	54,185	\$ 1,941	0.00%
2010	1	52,561	\$ 1,806	0.00%
2011	1	52,940	\$ 1,919	0.00%
2012	1	55,422	\$ 2,175	0.00%
2013	0	0	\$ 126	0.00%
2014	0	0	\$ 236	0.00%
2015	0	0	\$ 202	0.00%
2016	0	0	\$ 2,590	0.00%
2017	0	0	\$ 2,507	0.00%

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

<sup>2</sup> 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 80 for past benefit provision changes.

## Division 23 - COAM Srgts

Table 8-23: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2007	\$ 4,219,516	\$ 2,015,097	48%	\$ 2,204,419
2008	4,458,589	2,070,890	46%	2,387,699
2009	4,435,397	2,136,197	48%	2,299,200
2010	4,619,601	2,267,080	49%	2,352,521
2011	4,892,010	2,360,995	48%	2,531,015
2012	5,067,040	2,482,386	49%	2,584,654
2013	5,334,567	2,649,191	50%	2,685,376
2014	5,314,156	2,708,970	51%	2,605,186
2015	5,897,954	2,895,189	49%	3,002,765
2016	6,343,352	3,088,994	49%	3,254,358
2017	6,197,323	3,656,136	59%	2,541,187

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

Table 9-23: Computed Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Computed Employer Contribution <sup>1</sup>	Employee Contribution Rate <sup>2</sup>
	Number	Annual Payroll		
2007	7	\$ 392,485	\$ 17,057	0.00%
2008	7	407,318	\$ 20,338	0.00%
2009	7	428,381	\$ 20,598	0.00%
2010	7	443,320	\$ 21,101	0.00%
2011	7	450,709	\$ 22,051	0.00%
2012	7	454,547	\$ 23,311	0.00%
2013	7	463,887	\$ 25,197	0.00%
2014	6	404,907	\$ 24,938	0.00%
2015	6	413,351	\$ 30,835	0.00%
2016	6	454,873	\$ 34,713	0.00%
2017	5	380,402	\$ 21,322	0.00%

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

<sup>2</sup> 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 80 for past benefit provision changes.

## Division 81 - COA from div 11

**Table 8-81: Actuarial Accrued Liabilities - Comparative Schedule**

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2017	\$ 799,916	\$ 856,072	107%	\$ (56,156)

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

**Table 9-81: Computed Employer Contributions - Comparative Schedule**

Valuation Date December 31	Active Employees		Computed Employer Contribution <sup>1</sup>	Employee Contribution Rate <sup>2</sup>
	Number	Annual Payroll		
2017	0	\$ 0	\$ 0	6.00%

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

<sup>2</sup> 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 80 for past benefit provision changes.

## Division 82 - COA from div 12

**Table 8-82: Actuarial Accrued Liabilities - Comparative Schedule**

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2017	\$ 77,851	\$ 79,933	103%	\$ (2,082)

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

**Table 9-82: Computed Employer Contributions - Comparative Schedule**

Valuation Date December 31	Active Employees		Computed Employer Contribution <sup>1</sup>	Employee Contribution Rate <sup>2</sup>
	Number	Annual Payroll		
2017	0	\$ 0	\$ 0	6.00%

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

<sup>2</sup> 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 80 for past benefit provision changes.

## Division 83 - COA from div 18

**Table 8-83: Actuarial Accrued Liabilities - Comparative Schedule**

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2017	\$ 620,179	\$ 694,929	112%	\$ (74,750)

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

**Table 9-83: Computed Employer Contributions - Comparative Schedule**

Valuation Date December 31	Active Employees		Computed Employer Contribution <sup>1</sup>	Employee Contribution Rate <sup>2</sup>
	Number	Annual Payroll		
2017	0	\$ 0	\$ 0	6.00%

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

<sup>2</sup> 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 80 for past benefit provision changes.

## Division 84 - DPW from div 01

**Table 8-84: Actuarial Accrued Liabilities - Comparative Schedule**

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2017	\$ 1,885,300	\$ 1,003,150	53%	\$ 882,150

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

**Table 9-84: Computed Employer Contributions - Comparative Schedule**

Valuation Date December 31	Active Employees		Computed Employer Contribution <sup>1</sup>	Employee Contribution Rate <sup>2</sup>
	Number	Annual Payroll		
2017	3	\$ 141,542	\$ 7,596	0.00%

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

<sup>2</sup> 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 80 for past benefit provision changes.

## Division 85 - DPW from div 11

**Table 8-85: Actuarial Accrued Liabilities - Comparative Schedule**

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2017	\$ 180,359	\$ 132,687	74%	\$ 47,672

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

**Table 9-85: Computed Employer Contributions - Comparative Schedule**

Valuation Date December 31	Active Employees		Computed Employer Contribution <sup>1</sup>	Employee Contribution Rate <sup>2</sup>
	Number	Annual Payroll		
2017	0	\$ 0	\$ 137	6.00%

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

<sup>2</sup> 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 80 for past benefit provision changes.



## Division 86 - DPW from div 18

**Table 8-86: Actuarial Accrued Liabilities - Comparative Schedule**

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2017	\$ 1,840,162	\$ 1,029,930	56%	\$ 810,232

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

**Table 9-86: Computed Employer Contributions - Comparative Schedule**

Valuation Date December 31	Active Employees		Computed Employer Contribution <sup>1</sup>	Employee Contribution Rate <sup>2</sup>
	Number	Annual Payroll		
2017	1	\$ 55,025	\$ 5,030	6.00%

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

<sup>2</sup> 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 80 for past benefit provision changes.

**Division S1 - Surplus Unassoc.**

---

**Table 8-S1: Comparative Schedule**

Valuation Date December 31	Valuation Assets
2017	\$ 255,850

## Division 01 - Gnrl Tmstr

Table 10-01: Layered Amortization Schedule

Type of UAL	Date Established	Original Balance <sup>1</sup>	Original Amortization Period <sup>2</sup>	Amounts for Fiscal Year Beginning 1/1/2019		
				Outstanding UAL Balance <sup>3</sup>	Remaining Amortization Period <sup>2</sup>	Annual Amortization Payment
Initial <sup>4</sup>	12/31/2015	\$ 5,928,594	15	\$ 5,466,227	14	\$ 512,172
(Gain)/Loss	12/31/2016	204,889	11	211,941	10	25,920
Assumptions	12/31/2017	(8,277)	10	(8,918)	10	(1,092)
(Gain)/Loss	12/31/2017	(505,001)	10	(544,139)	10	(66,552)
Plan Amendments	12/31/2017	(60,700)	10	(65,404)	10	(8,004)
<b>Total</b>				<b>\$ 5,059,707</b>		<b>\$ 462,444</b>

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

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

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

<sup>4</sup> This division adopted an alternate amortization policy as allowed by the MERS Board at the September 2016 meeting (this policy is different than the standard MERS amortization policy) based on the results of a study prepared by the actuaries.

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 - Deputies POAM

**Table 10-02: Layered Amortization Schedule**

Type of UAL	Date Established	Original Balance <sup>1</sup>	Original Amortization Period <sup>2</sup>	Amounts for Fiscal Year Beginning 1/1/2019		
				Outstanding UAL Balance <sup>3</sup>	Remaining Amortization Period <sup>2</sup>	Annual Amortization Payment
Initial <sup>4</sup>	12/31/2015	\$ 7,432,944	12	\$ 6,823,335	14	\$ 639,336
(Gain)/Loss	12/31/2016	355,859	11	368,102	10	45,024
(Gain)/Loss	12/31/2017	(710,032)	10	(765,059)	10	(93,576)
<b>Total</b>				<b>\$ 6,426,378</b>		<b>\$ 590,784</b>

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

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

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

<sup>4</sup> This division adopted an alternate amortization policy as allowed by the MERS Board at the September 2016 meeting (this policy is different than the standard MERS amortization policy) based on the results of a study prepared by the actuaries.

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 10 - Elctd Empl

**Table 10-10: Layered Amortization Schedule**

Type of UAL	Date Established	Original Balance <sup>1</sup>	Original Amortization Period <sup>2</sup>	Amounts for Fiscal Year Beginning 1/1/2019		
				Outstanding UAL Balance <sup>3</sup>	Remaining Amortization Period <sup>2</sup>	Annual Amortization Payment
Initial <sup>4</sup>	12/31/2015	\$ 4,345,553	12	\$ 4,001,745	14	\$ 374,952
(Gain)/Loss	12/31/2016	151,855	11	157,080	10	19,212
Plan Amendments	12/31/2016	(159,817)	11	(165,315)	10	(20,220)
(Gain)/Loss	12/31/2017	(240,683)	10	(259,336)	10	(31,716)
Plan Amendments	12/31/2017	4,277	10	4,608	10	564
<b>Total</b>				<b>\$ 3,738,782</b>		<b>\$ 342,792</b>

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

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

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

<sup>4</sup> This division adopted an alternate amortization policy as allowed by the MERS Board at the September 2016 meeting (this policy is different than the standard MERS amortization policy) based on the results of a study prepared by the actuaries.

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 11 - Gnrl NonCntrect

Table 10-11: Layered Amortization Schedule

Type of UAL	Date Established	Original Balance <sup>1</sup>	Original Amortization Period <sup>2</sup>	Amounts for Fiscal Year Beginning 1/1/2019		
				Outstanding UAL Balance <sup>3</sup>	Remaining Amortization Period <sup>2</sup>	Annual Amortization Payment
Initial <sup>4</sup>	12/31/2015	\$ 1,914,523	15	\$ 1,823,892	14	\$ 170,892
(Gain)/Loss	12/31/2016	177,029	11	183,116	10	22,404
Plan Amendments	12/31/2016	(160,771)	11	(166,302)	10	(20,340)
(Gain)/Loss	12/31/2017	(308,940)	10	(332,883)	10	(40,716)
Plan Amendments	12/31/2017	12,156	10	13,098	10	1,608
<b>Total</b>				<b>\$ 1,520,921</b>		<b>\$ 133,848</b>

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

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

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

<sup>4</sup> This division adopted an alternate amortization policy as allowed by the MERS Board at the September 2016 meeting (this policy is different than the standard MERS amortization policy) based on the results of a study prepared by the actuaries.

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 12 - AFSCME

Table 10-12: Layered Amortization Schedule

Type of UAL	Date Established	Original Balance <sup>1</sup>	Original Amortization Period <sup>2</sup>	Amounts for Fiscal Year Beginning 1/1/2019		
				Outstanding UAL Balance <sup>3</sup>	Remaining Amortization Period <sup>2</sup>	Annual Amortization Payment
Initial <sup>4</sup>	12/31/2015	\$ 1,364,027	12	\$ 1,260,264	14	\$ 118,080
(Gain)/Loss	12/31/2016	(124,542)	11	(128,821)	10	(15,756)
Assumptions	12/31/2017	(6,381)	10	(6,876)	10	(840)
(Gain)/Loss	12/31/2017	(172,843)	10	(186,238)	10	(22,776)
Plan Amendments	12/31/2017	(35,450)	10	(38,197)	10	(4,668)
<b>Total</b>				<b>\$ 900,132</b>		<b>\$ 74,040</b>

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

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

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

<sup>4</sup> This division adopted an alternate amortization policy as allowed by the MERS Board at the September 2016 meeting (this policy is different than the standard MERS amortization policy) based on the results of a study prepared by the actuaries.

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 13 - Circuit Ct

**Table 10-13: Layered Amortization Schedule**

Type of UAL	Date Established	Original Balance <sup>1</sup>	Original Amortization Period <sup>2</sup>	Amounts for Fiscal Year Beginning 1/1/2019		
				Outstanding UAL Balance <sup>3</sup>	Remaining Amortization Period <sup>2</sup>	Annual Amortization Payment
Initial <sup>4</sup>	12/31/2015	\$ 4,004,962	21	\$ 4,161,152	17	\$ 337,968
(Gain)/Loss	12/31/2016	(20,037)	19	(21,581)	17	(1,752)
(Gain)/Loss	12/31/2017	(196,065)	17	(211,260)	17	(17,160)
<b>Total</b>				<b>\$ 3,928,311</b>		<b>\$ 319,056</b>

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

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

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

<sup>4</sup> This division adopted an alternate amortization policy as allowed by the MERS Board at the September 2016 meeting (this policy is different than the standard MERS amortization policy) based on the results of a study prepared by the actuaries.

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 14 - Hlth Dept Un

Table 10-14: Layered Amortization Schedule

Type of UAL	Date Established	Original Balance <sup>1</sup>	Original Amortization Period <sup>2</sup>	Amounts for Fiscal Year Beginning 1/1/2019		
				Outstanding UAL Balance <sup>3</sup>	Remaining Amortization Period <sup>2</sup>	Annual Amortization Payment
Initial <sup>4</sup>	12/31/2015	\$ 1,820,526	12	\$ 1,692,551	14	\$ 158,592
(Gain)/Loss	12/31/2016	151,791	11	157,006	10	19,200
Assumptions	12/31/2017	(26,463)	10	(28,514)	10	(3,492)
(Gain)/Loss	12/31/2017	48,172	10	51,905	10	6,348
Plan Amendments	12/31/2017	(112,812)	10	(121,555)	10	(14,868)
<b>Total</b>				<b>\$ 1,751,393</b>		<b>\$ 165,780</b>

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

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

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

<sup>4</sup> This division adopted an alternate amortization policy as allowed by the MERS Board at the September 2016 meeting (this policy is different than the standard MERS amortization policy) based on the results of a study prepared by the actuaries.

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 15 - Dist Crt Tmstr

Table 10-15: Layered Amortization Schedule

Type of UAL	Date Established	Original Balance <sup>1</sup>	Original Amortization Period <sup>2</sup>	Amounts for Fiscal Year Beginning 1/1/2019		
				Outstanding UAL Balance <sup>3</sup>	Remaining Amortization Period <sup>2</sup>	Annual Amortization Payment
Initial <sup>4</sup>	12/31/2015	\$ 2,605,624	12	\$ 2,395,950	14	\$ 224,496
(Gain)/Loss	12/31/2016	175,733	11	181,775	10	22,236
Assumptions	12/31/2017	(9,521)	10	(10,259)	10	(1,260)
(Gain)/Loss	12/31/2017	(177,377)	10	(191,124)	10	(23,376)
Plan Amendments	12/31/2017	(132,684)	10	(142,967)	10	(17,484)
<b>Total</b>				<b>\$ 2,233,375</b>		<b>\$ 204,612</b>

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

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

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

<sup>4</sup> This division adopted an alternate amortization policy as allowed by the MERS Board at the September 2016 meeting (this policy is different than the standard MERS amortization policy) based on the results of a study prepared by the actuaries.

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 16 - TPOAM

Table 10-16: Layered Amortization Schedule

Type of UAL	Date Established	Original Balance <sup>1</sup>	Original Amortization Period <sup>2</sup>	Amounts for Fiscal Year Beginning 1/1/2019		
				Outstanding UAL Balance <sup>3</sup>	Remaining Amortization Period <sup>2</sup>	Annual Amortization Payment
Initial <sup>4</sup>	12/31/2015	\$ 802,347	12	\$ 738,229	14	\$ 69,168
(Gain)/Loss	12/31/2016	56,432	11	58,367	10	7,140
(Gain)/Loss	12/31/2017	1,965	10	2,117	10	264
Plan Amendments	12/31/2017	(77,290)	10	(83,280)	10	(10,188)
<b>Total</b>				<b>\$ 715,433</b>		<b>\$ 66,384</b>

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

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

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

<sup>4</sup> This division adopted an alternate amortization policy as allowed by the MERS Board at the September 2016 meeting (this policy is different than the standard MERS amortization policy) based on the results of a study prepared by the actuaries.

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 17 - Cirt Crt Spvs

**Table 10-17: Layered Amortization Schedule**

Type of UAL	Date Established	Original Balance <sup>1</sup>	Original Amortization Period <sup>2</sup>	Amounts for Fiscal Year Beginning 1/1/2019		
				Outstanding UAL Balance <sup>3</sup>	Remaining Amortization Period <sup>2</sup>	Annual Amortization Payment
Initial <sup>4</sup>	12/31/2015	\$ 1,049,180	21	\$ 1,075,780	17	\$ 87,372
(Gain)/Loss	12/31/2016	106,649	19	114,849	17	9,324
(Gain)/Loss	12/31/2017	(70,038)	17	(75,466)	17	(6,132)
<b>Total</b>				<b>\$ 1,115,163</b>		<b>\$ 90,564</b>

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

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

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

<sup>4</sup> This division adopted an alternate amortization policy as allowed by the MERS Board at the September 2016 meeting (this policy is different than the standard MERS amortization policy) based on the results of a study prepared by the actuaries.

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 18 - Exempt

**Table 10-18: Layered Amortization Schedule**

Type of UAL	Date Established	Original Balance <sup>1</sup>	Original Amortization Period <sup>2</sup>	Amounts for Fiscal Year Beginning 1/1/2019		
				Outstanding UAL Balance <sup>3</sup>	Remaining Amortization Period <sup>2</sup>	Annual Amortization Payment
Initial <sup>4</sup>	12/31/2015	\$ 9,393,672	15	\$ 8,832,288	14	\$ 827,568
(Gain)/Loss	12/31/2016	347,519	11	359,471	10	43,968
Plan Amendments	12/31/2016	(363,571)	11	(376,073)	10	(45,996)
(Gain)/Loss	12/31/2017	(1,050,238)	10	(1,131,631)	10	(138,420)
Plan Amendments	12/31/2017	4,354	10	4,691	10	576
<b>Total</b>				<b>\$ 7,688,746</b>		<b>\$ 687,696</b>

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

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

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

<sup>4</sup> This division adopted an alternate amortization policy as allowed by the MERS Board at the September 2016 meeting (this policy is different than the standard MERS amortization policy) based on the results of a study prepared by the actuaries.

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 - Teamstrs Cmmnd

**Table 10-20: Layered Amortization Schedule**

Type of UAL	Date Established	Original Balance <sup>1</sup>	Original Amortization Period <sup>2</sup>	Amounts for Fiscal Year Beginning 1/1/2019		
				Outstanding UAL Balance <sup>3</sup>	Remaining Amortization Period <sup>2</sup>	Annual Amortization Payment
Initial <sup>4</sup>	12/31/2015	\$ 6,540,325	12	\$ 5,996,857	14	\$ 561,900
(Gain)/Loss	12/31/2016	111,436	11	115,274	10	14,100
(Gain)/Loss	12/31/2017	(445,921)	10	(480,480)	10	(58,776)
<b>Total</b>				<b>\$ 5,631,651</b>		<b>\$ 517,224</b>

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

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

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

<sup>4</sup> This division adopted an alternate amortization policy as allowed by the MERS Board at the September 2016 meeting (this policy is different than the standard MERS amortization policy) based on the results of a study prepared by the actuaries.

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 21 - Dispatch Unit

**Table 10-21: Layered Amortization Schedule**

Type of UAL	Date Established	Original Balance <sup>1</sup>	Original Amortization Period <sup>2</sup>	Amounts for Fiscal Year Beginning 1/1/2019		
				Outstanding UAL Balance <sup>3</sup>	Remaining Amortization Period <sup>2</sup>	Annual Amortization Payment
Initial <sup>4</sup>	12/31/2015	\$ 24,005	12	\$ 21,299	14	\$ 1,992
(Gain)/Loss	12/31/2016	234,294	11	242,352	10	29,640
(Gain)/Loss	12/31/2017	(11,704)	10	(12,611)	10	(1,548)
<b>Total</b>				<b>\$ 251,040</b>		<b>\$ 30,084</b>

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

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

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

<sup>4</sup> This division adopted an alternate amortization policy as allowed by the MERS Board at the September 2016 meeting (this policy is different than the standard MERS amortization policy) based on the results of a study prepared by the actuaries.

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 23 - COAM Srgts

**Table 10-23: Layered Amortization Schedule**

Type of UAL	Date Established	Original Balance <sup>1</sup>	Original Amortization Period <sup>2</sup>	Amounts for Fiscal Year Beginning 1/1/2019		
				Outstanding UAL Balance <sup>3</sup>	Remaining Amortization Period <sup>2</sup>	Annual Amortization Payment
Initial <sup>4</sup>	12/31/2015	\$ 3,002,765	12	\$ 2,772,142	14	\$ 259,740
(Gain)/Loss	12/31/2016	270,710	11	280,021	10	34,248
(Gain)/Loss	12/31/2017	(638,177)	10	(687,636)	10	(84,108)
<b>Total</b>				<b>\$ 2,364,527</b>		<b>\$ 209,880</b>

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

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

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

<sup>4</sup> This division adopted an alternate amortization policy as allowed by the MERS Board at the September 2016 meeting (this policy is different than the standard MERS amortization policy) based on the results of a study prepared by the actuaries.

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 81 - COA from div 11

**Table 10-81: Layered Amortization Schedule**

Type of UAL	Date Established	Original Balance <sup>1</sup>	Original Amortization Period <sup>2</sup>	Amounts for Fiscal Year Beginning 1/1/2019		
				Outstanding UAL Balance <sup>3</sup>	Remaining Amortization Period <sup>2</sup>	Annual Amortization Payment
(Gain)/Loss	12/31/2017	\$ (56,156)	10	\$ (60,508)	10	\$ (7,404)
<b>Total</b>				<b>\$ (60,508)</b>		<b>\$ (7,404)</b>

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

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

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

<sup>4</sup> This division adopted an alternate amortization policy as allowed by the MERS Board at the September 2016 meeting (this policy is different than the standard MERS amortization policy) based on the results of a study prepared by the actuaries.

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 82 - COA from div 12

Table 10-82: Layered Amortization Schedule

Type of UAL	Date Established	Original Balance <sup>1</sup>	Original Amortization Period <sup>2</sup>	Amounts for Fiscal Year Beginning 1/1/2019		
				Outstanding UAL Balance <sup>3</sup>	Remaining Amortization Period <sup>2</sup>	Annual Amortization Payment
(Gain)/Loss	12/31/2017	\$ (2,082)	10	\$ (2,243)	10	\$ (276)
<b>Total</b>				<b>\$ (2,243)</b>		<b>\$ (276)</b>

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

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

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

<sup>4</sup> This division adopted an alternate amortization policy as allowed by the MERS Board at the September 2016 meeting (this policy is different than the standard MERS amortization policy) based on the results of a study prepared by the actuaries.

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 83 - COA from div 18

Table 10-83: Layered Amortization Schedule

Type of UAL	Date Established	Original Balance <sup>1</sup>	Original Amortization Period <sup>2</sup>	Amounts for Fiscal Year Beginning 1/1/2019		
				Outstanding UAL Balance <sup>3</sup>	Remaining Amortization Period <sup>2</sup>	Annual Amortization Payment
(Gain)/Loss	12/31/2017	\$ (74,750)	10	\$ (80,543)	10	\$ (9,852)
<b>Total</b>				<b>\$ (80,543)</b>		<b>\$ (9,852)</b>

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

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

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

<sup>4</sup> This division adopted an alternate amortization policy as allowed by the MERS Board at the September 2016 meeting (this policy is different than the standard MERS amortization policy) based on the results of a study prepared by the actuaries.

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 84 - DPW from div 01

Table 10-84: Layered Amortization Schedule

Type of UAL	Date Established	Original Balance <sup>1</sup>	Original Amortization Period <sup>2</sup>	Amounts for Fiscal Year Beginning 1/1/2019		
				Outstanding UAL Balance <sup>3</sup>	Remaining Amortization Period <sup>2</sup>	Annual Amortization Payment
Initial <sup>4</sup>	12/31/2015	\$ 991,675	15	\$ 914,334	14	\$ 85,668
(Gain)/Loss	12/31/2016	34,272	11	35,451	10	4,332
(Gain)/Loss	12/31/2017	(107,218)	10	(115,527)	10	(14,136)
<b>Total</b>				<b>\$ 834,258</b>		<b>\$ 75,864</b>

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

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

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

<sup>4</sup> This division adopted an alternate amortization policy as allowed by the MERS Board at the September 2016 meeting (this policy is different than the standard MERS amortization policy) based on the results of a study prepared by the actuaries.

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 85 - DPW from div 11

Table 10-85: Layered Amortization Schedule

Type of UAL	Date Established	Original Balance <sup>1</sup>	Original Amortization Period <sup>2</sup>	Amounts for Fiscal Year Beginning 1/1/2019		
				Outstanding UAL Balance <sup>3</sup>	Remaining Amortization Period <sup>2</sup>	Annual Amortization Payment
Initial <sup>4</sup>	12/31/2015	\$ 121,121	15	\$ 115,422	14	\$ 10,812
(Gain)/Loss	12/31/2016	11,200	11	11,585	10	1,416
Plan Amendments	12/31/2016	(10,171)	11	(10,521)	10	(1,284)
(Gain)/Loss	12/31/2017	(70,594)	10	(76,065)	10	(9,300)
<b>Total</b>				<b>\$ 40,421</b>		<b>\$ 1,644</b>

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

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

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

<sup>4</sup> This division adopted an alternate amortization policy as allowed by the MERS Board at the September 2016 meeting (this policy is different than the standard MERS amortization policy) based on the results of a study prepared by the actuaries.

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 86 - DPW from div 18

Table 10-86: Layered Amortization Schedule

Type of UAL	Date Established	Original Balance <sup>1</sup>	Original Amortization Period <sup>2</sup>	Amounts for Fiscal Year Beginning 1/1/2019		
				Outstanding UAL Balance <sup>3</sup>	Remaining Amortization Period <sup>2</sup>	Annual Amortization Payment
Initial <sup>4</sup>	12/31/2015	\$ 1,245,893	15	\$ 1,171,425	14	\$ 109,764
(Gain)/Loss	12/31/2016	46,092	11	47,677	10	5,832
Plan Amendments	12/31/2016	(48,221)	11	(49,879)	10	(6,096)
(Gain)/Loss	12/31/2017	(376,595)	10	(405,781)	10	(49,632)
<b>Total</b>				<b>\$ 763,442</b>		<b>\$ 59,868</b>

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

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

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

<sup>4</sup> This division adopted an alternate amortization policy as allowed by the MERS Board at the September 2016 meeting (this policy is different than the standard MERS amortization policy) based on the results of a study prepared by the actuaries.

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](http://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:	297
Inactive employees entitled to but not yet receiving benefits:	41
Active employees:	<u>58</u>
	396

Covered employee payroll: (Needed for Required Supplementary Information) \$ 3,193,341

Average expected remaining service lives of all employees (active and inactive): 1

Total Pension Liability as of 12/31/2016 measurement date: \$ 95,069,406

Total Pension Liability as of 12/31/2017 measurement date: \$ 94,600,146

Service Cost for the year ending on the 12/31/2017 measurement date: \$ 381,791

Change in the Total Pension Liability due to:

- Benefit changes <sup>1</sup> :	\$ (385,510)
- Differences between expected and actual experience <sup>2</sup> :	\$ (563,553)
- Changes in assumptions <sup>2</sup> :	\$ (49,104)

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

<sup>2</sup> 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:	\$ 9,572,137	-	\$ (8,150,303)

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](http://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:	297
Inactive employees entitled to but not yet receiving benefits:	41
Active employees:	<u>58</u>
	396

Covered employee payroll: (Needed for Required Supplementary Information)	\$ 3,193,341
Average expected remaining service lives of all employees (active and inactive):	1

Total Pension Liability as of 12/31/2017 measurement date:	\$ 95,780,941
Total Pension Liability as of 12/31/2018 measurement date:	\$ 95,012,108
Service Cost for the year ending on the 12/31/2018 measurement date:	\$ 375,255
Change in the Total Pension Liability due to:	
- Benefit changes <sup>1</sup> :	\$ (440,519)
- Differences between expected and actual experience <sup>2</sup> :	\$ (1,143,899)
- Changes in assumptions <sup>2</sup> :	\$ (53,751)

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

<sup>2</sup> 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:	\$ 9,432,145	-	\$ (8,049,208)

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 - Gnrl Tmstr

12/1/2017	1.25% multiplier
12/1/2017	Participant Contribution Rate 6%
12/1/2017	Non Standard Compensation Definition
11/30/2017	Frozen FAC
1/1/2017	Extended Amortization to 16 yrs (based off 2016 AAV)
12/1/2016	Service Credit Purchase Estimates - Yes
5/1/2013	Option B Yes
10/1/2008	Day of work defined as 75 Hours a Month for All employees.
10/1/2008	Exclude Temporary Employees requiring less than 12 months
2/1/2004	Temporary 20 Years & Out (02/01/2004 - 08/03/2004)
2/1/2004	Temporary 3% Multiplier to Age 65 / B-4 at Age 65 (80% max) (02/01/2004 - 08/03/2004)
1/1/2001	E 2% COLA Adopted (01/01/2001)
6/1/2000	DC Adoption Date 06-01-2000
6/1/2000	Temporary 18 Years & Out (06/01/2000 - 10/03/2000)
6/1/2000	Temporary 3% Multiplier to Age 65 / B-4 at Age 65 (80% max) (06/01/2000 - 10/03/2000)
1/1/2000	E 2% COLA Adopted (01/01/2000)
1/1/1999	Flexible E 2% COLA Adopted (01/01/1999)
1/1/1999	Benefit FAC-3 (3 Year Final Average Compensation)
1/1/1994	Benefit B-4 (80% max)
3/31/1993	Blanket Resolution (All Service)
1/1/1993	E2 2.5% COLA for future retirees (01/01/1993)
1/1/1993	Temporary Benefit B-4 (80% max) (01/01/1993 - 03/02/1993)
12/1/1992	6 Year Vesting
1/1/1992	E 2% COLA Adopted (01/01/1992)
1/1/1991	Flexible E 2% COLA Adopted (01/01/1991)
12/1/1990	Benefit B-2
1/1/1990	E 2% COLA Adopted (01/01/1990)
1/1/1989	E 2% COLA Adopted (01/01/1989)
1/1/1988	Benefit C-2/Base B-1
1/1/1988	E 2% COLA Adopted (01/01/1988)
1/1/1985	Member Contribution Rate 0.00%
1/1/1982	Benefit C-1 (Old)
1/1/1982	Benefit F55 (With 25 Years of Service)
6/27/1978	Exclude Temporary Employees
4/6/1967	Covered by Act 88
1/1/1966	10 Year Vesting
1/1/1966	Benefit C (Old)
1/1/1966	Member Contribution Rate 3.00% Under \$4,200.00 - Then 5.00%
1/1/1966	Benefit FAC-5 (5 Year Final Average Compensation)
	Defined Benefit Normal Retirement Age - 60

**01 - Gnrl Tmstr**

Early Reduced (.5%) at Age 50 with 25 Years or Age 55 with 15 Years  
Fiscal Month - January

**02 - Deputies POAM**

1/1/2017	Extended Amortization to 16 yrs (based off 2016 AAV)
12/1/2016	Service Credit Purchase Estimates - Yes
5/1/2013	Option B Yes
10/1/2008	Day of work defined as 75 Hours a Month for All employees.
10/1/2008	Exclude Temporary Employees requiring less than 12 months
11/1/2005	Temporary 18 Years & Out (11/01/2005 - 05/01/2006)
11/1/2005	Temporary 3% Multiplier to Age 65 / B-4 at Age 65 (80% max) (11/01/2005 - 05/01/2006)
5/1/2002	Temporary 18 Years & Out (05/01/2002 - 11/03/2002)
5/1/2002	Temporary 3% Multiplier to Age 65 / B-4 at Age 65 (80% max) (05/01/2002 - 11/03/2002)
1/1/2001	E 2% COLA Adopted (01/01/2001)
9/1/2000	Temporary 18 Years & Out (09/01/2000 - 11/03/2000)
9/1/2000	Temporary 3% Multiplier to Age 65 / B-4 at Age 65 (80% max) (09/01/2000 - 11/03/2000)
7/1/2000	DC Adoption Date 07-01-2000
1/1/2000	E 2% COLA Adopted (01/01/2000)
1/1/2000	E2 2.5% COLA for future retirees (01/01/1996)
1/1/1999	2.8% Multiplier to Age 65 / B-4 at Age 65 (80% max)
1/1/1999	Member Contribution Rate 2.00%
1/1/1999	Flexible E 2% COLA Adopted (01/01/1999)
1/1/1999	E2 2.3% COLA for future retirees (01/01/1996)
1/1/1996	Benefit B-4 (80% max)
1/1/1996	E2 2.5% COLA for future retirees (01/01/1996)
9/1/1994	Benefit F50 (With 25 Years of Service)
3/31/1993	Blanket Resolution (All Service)
1/1/1993	Benefit FAC-3 (3 Year Final Average Compensation)
1/1/1992	E 2% COLA Adopted (01/01/1992)
1/1/1991	Benefit B-3 (80% max)
1/1/1991	Flexible E 2% COLA Adopted (01/01/1991)
1/1/1990	E 2% COLA Adopted (01/01/1990)
1/1/1989	E 2% COLA Adopted (01/01/1989)
1/1/1988	Benefit C-2/Base B-1
1/1/1988	E 2% COLA Adopted (01/01/1988)
9/1/1984	Member Contribution Rate 0.00%
1/1/1982	Benefit C-1 (Old)
1/1/1982	Benefit F55 (With 25 Years of Service)
6/27/1978	Exclude Temporary Employees
4/6/1967	Covered by Act 88
1/1/1966	Benefit FAC-5 (5 Year Final Average Compensation)
1/1/1966	10 Year Vesting
1/1/1966	Benefit C (Old)
1/1/1966	Member Contribution Rate 3.00% Under \$4,200.00 - Then 5.00%
	Defined Benefit Normal Retirement Age - 60
	Early Reduced (.5%) at Age 50 with 25 Years or Age 55 with 15 Years

**02 - Deputies POAM**

Fiscal Month - January

**10 - Elctd Empl**

1/1/2018	Participant Contribution Rate 6%
6/1/2017	Participant Contribution Rate 3.5%
1/1/2017	Extended Amortization to 16 yrs (based off 2016 AAV)
1/1/2017	1.25% multiplier
1/1/2017	Participant Contribution Rate 10%
12/30/2016	Frozen FAC
12/1/2016	Service Credit Purchase Estimates - Yes
5/1/2013	Option B Yes
10/1/2008	Day of work defined as 75 Hours a Month for All employees.
10/1/2008	Exclude Temporary Employees requiring less than 12 months
1/1/2001	Benefit F50 (With 25 Years of Service)
1/1/2001	E 2% COLA Adopted (01/01/2001)
6/1/2000	DC Adoption Date 06-01-2000
1/1/2000	E 2% COLA Adopted (01/01/2000)
1/1/2000	E2 2.5% COLA for future retirees (01/01/1996)
1/1/1999	Flexible E 2% COLA Adopted (01/01/1999)
1/1/1999	E2 2.3% COLA for future retirees (01/01/1996)
12/1/1998	6 Year Vesting
1/1/1996	E2 2.5% COLA for future retirees (01/01/1996)
12/1/1995	Benefit FAC-3 (3 Year Final Average Compensation)
1/1/1994	Benefit B-4 (80% max)
3/31/1993	Blanket Resolution (All Service)
12/1/1992	Benefit B-3 (80% max)
1/1/1992	E 2% COLA Adopted (01/01/1992)
1/1/1991	Flexible E 2% COLA Adopted (01/01/1991)
1/1/1990	8 Year Vesting
1/1/1990	Benefit F55 (With 25 Years of Service)
1/1/1990	E 2% COLA Adopted (01/01/1990)
1/1/1989	E 2% COLA Adopted (01/01/1989)
1/1/1988	10 Year Vesting
1/1/1988	Benefit C-2/Base B-1
1/1/1988	E 2% COLA Adopted (01/01/1988)
1/1/1985	Benefit FAC-5 (5 Year Final Average Compensation)
1/1/1985	Member Contribution Rate 0.00%
6/27/1978	Exclude Temporary Employees
4/6/1967	Covered by Act 88
	Defined Benefit Normal Retirement Age - 60
	Early Reduced (.5%) at Age 50 with 25 Years or Age 55 with 15 Years
	Fiscal Month - January

**11 - Gnrl NonCntct**

1/1/2018	Participant Contribution Rate 6%
----------	----------------------------------

**11 - Gnrl NonCntrct**

6/1/2017	Participant Contribution Rate 3.5%
1/1/2017	Extended Amortization to 16 yrs (based off 2016 AAV)
1/1/2017	1.25% multiplier
1/1/2017	Participant Contribution Rate 10%
12/30/2016	Frozen FAC
12/1/2016	Service Credit Purchase Estimates - Yes
5/1/2013	Option B Yes
10/1/2008	Day of work defined as 75 Hours a Month for All employees.
10/1/2008	Exclude Temporary Employees requiring less than 12 months
11/1/2001	Temporary 22 Years & Out (11/01/2001 - 01/03/2002)
11/1/2001	Temporary 3% Multiplier to Age 65 / B-4 at Age 65 (80% max) (11/01/2001 - 01/03/2002)
1/1/2001	E 2% COLA Adopted (01/01/2001)
5/1/2000	Temporary 18 Years & Out (05/01/2000 - 10/03/2000)
5/1/2000	Temporary 3% Multiplier to Age 65 / B-4 at Age 65 (80% max) (05/01/2000 - 10/03/2000)
5/1/2000	DC Adoption Date 05-01-2000
1/1/2000	E 2% COLA Adopted (01/01/2000)
1/1/1999	Flexible E 2% COLA Adopted (01/01/1999)
1/1/1999	E2 2.5% COLA for future retirees (01/01/1999)
12/1/1993	Benefit B-4 (80% max)
3/31/1993	Blanket Resolution (All Service)
1/5/1993	Temporary Benefit B-4 (80% max) (01/05/1993 - 07/01/1993)
12/1/1992	Benefit B-3 (80% max)
1/1/1992	E 2% COLA Adopted (01/01/1992)
1/1/1991	Flexible E 2% COLA Adopted (01/01/1991)
1/1/1990	8 Year Vesting
1/1/1990	Benefit F55 (With 25 Years of Service)
1/1/1990	E 2% COLA Adopted (01/01/1990)
1/1/1989	E 2% COLA Adopted (01/01/1989)
1/1/1988	Benefit FAC-5 (5 Year Final Average Compensation)
1/1/1988	Member Contribution Rate 0.00%
1/1/1988	E 2% COLA Adopted (01/01/1988)
6/27/1978	Exclude Temporary Employees
4/6/1967	Covered by Act 88
	Defined Benefit Normal Retirement Age - 60
	Early Reduced (.5%) at Age 50 with 25 Years or Age 55 with 15 Years
	Fiscal Month - January

**12 - AFSCME**

3/1/2017	1.25% multiplier
3/1/2017	Participant Contribution Rate 6%
2/28/2017	Frozen FAC
1/1/2017	Non Standard Compensation Definition
1/1/2017	Extended Amortization to 16 yrs (based off 2016 AAV)
12/1/2016	Service Credit Purchase Estimates - Yes
5/1/2013	Option B Yes
10/1/2008	Day of work defined as 75 Hours a Month for All employees.

**12 - AFSCME**

10/1/2008	Exclude Temporary Employees requiring less than 12 months
1/1/2003	Temporary 20 Years & Out (01/01/2003 - 07/03/2003)
1/1/2003	Temporary 3% Multiplier to Age 65 / B-4 at Age 65 (80% max) (01/01/2003 - 07/03/2003)
1/1/2001	Benefit FAC-3 (3 Year Final Average Compensation)
1/1/2001	E 2% COLA Adopted (01/01/2001)
5/1/2000	Temporary 18 Years & Out (05/01/2000 - 09/03/2000)
5/1/2000	Temporary 3% Multiplier to Age 65 / B-4 at Age 65 (80% max) (05/01/2000 - 09/03/2000)
5/1/2000	DC Adoption Date 05-01-2000
1/1/2000	Flexible E 2% COLA Adopted (01/01/2000)
1/1/2000	E2 2.5% COLA Bridged to 0% effective 3/1/2017
1/1/1999	Flexible E 2% COLA Adopted (01/01/1999)
1/1/1995	8 Year Vesting
12/1/1994	Benefit B-4 (80% max)
12/1/1993	2.25% Multiplier (no max)
3/31/1993	Blanket Resolution (All Service)
1/1/1992	E 2% COLA Adopted (01/01/1992)
1/1/1991	Flexible E 2% COLA Adopted (01/01/1991)
1/1/1990	E 2% COLA Adopted (01/01/1990)
1/1/1989	E 2% COLA Adopted (01/01/1989)
1/1/1988	Benefit FAC-5 (5 Year Final Average Compensation)
1/1/1988	10 Year Vesting
1/1/1988	Benefit C-1 (Old)
1/1/1988	Benefit F55 (With 25 Years of Service)
1/1/1988	E 2% COLA Adopted (01/01/1988)
1/1/1985	Member Contribution Rate 0.00%
4/6/1967	Covered by Act 88
	Defined Benefit Normal Retirement Age - 60
	Early Reduced (.5%) at Age 50 with 25 Years or Age 55 with 15 Years
	Fiscal Month - January

**13 - Circuit Ct**

1/1/2017	Extended Amortization to 16 yrs (based off 2016 AAV)
12/1/2016	Service Credit Purchase Estimates - Yes
1/1/2016	DC Adoption Date 01-01-2016
10/1/2008	Day of work defined as 75 Hours a Month for All employees.
10/1/2008	Exclude Temporary Employees requiring less than 12 months
1/1/2001	E 2% COLA Adopted (01/01/2001)
1/1/2000	E 2% COLA Adopted (01/01/2000)
1/1/1999	Flexible E 2% COLA Adopted (01/01/1999)
1/1/1999	E2 2.5% COLA for future retirees (01/01/1999)
1/1/1999	Benefit FAC-3 (3 Year Final Average Compensation)
1/1/1997	Benefit B-4 (80% max)
1/1/1994	6 Year Vesting
1/1/1994	Benefit B-3 (80% max)
3/31/1993	Blanket Resolution (All Service)
1/1/1992	Benefit F55 (With 25 Years of Service)

**13 - Circuit Ct**

1/1/1992	Member Contribution Rate 0.00%
1/1/1992	Benefit FAC-5 (5 Year Final Average Compensation)
1/1/1992	10 Year Vesting
1/1/1992	Benefit C-1 (Old)
6/27/1978	Exclude Temporary Employees
4/6/1967	Covered by Act 88
	Early Reduced (.5%) at Age 50 with 25 Years or Age 55 with 15 Years
	Fiscal Month - January
	Defined Benefit Normal Retirement Age - 60

**14 - Hlth Dept Un**

12/1/2017	Non Standard Compensation Definition
12/1/2017	1.25% multiplier
12/1/2017	Participant Contribution Rate 6%
11/30/2017	Frozen FAC
1/1/2017	Extended Amortization to 16 yrs (based off 2016 AAV)
12/1/2016	Service Credit Purchase Estimates - Yes
5/1/2013	Option B Yes
10/1/2008	Day of work defined as 75 Hours a Month for All employees.
10/1/2008	Exclude Temporary Employees requiring less than 12 months
1/1/2001	E 2% COLA Adopted (01/01/2001)
5/1/2000	Temporary 18 Years & Out (05/01/2000 - 10/03/2000)
5/1/2000	Temporary 3% Multiplier to Age 65 / B-4 at Age 65 (80% max) (05/01/2000 - 10/03/2000)
5/1/2000	DC Adoption Date 05-01-2000
1/1/2000	E 2% COLA Adopted (01/01/2000)
1/1/2000	E2 2.5% COLA for future retirees (07/01/1997)
1/1/1999	Flexible E 2% COLA Adopted (01/01/1999)
1/1/1999	E2 1.9% COLA for future retirees (07/01/1997)
1/1/1998	E2 2.5% COLA for future retirees (07/01/1997)
12/1/1993	Benefit B-4 (80% max)
3/31/1993	Blanket Resolution (All Service)
6/1/1991	6 Year Vesting
1/1/1991	Benefit FAC-5 (5 Year Final Average Compensation)
1/1/1991	10 Year Vesting
1/1/1991	Benefit B-2
1/1/1991	Benefit F55 (With 25 Years of Service)
1/1/1991	Flexible E 2% COLA Adopted (01/01/1991)
1/1/1984	Member Contribution Rate 0.00%
6/27/1978	Exclude Temporary Employees
4/6/1967	Covered by Act 88
	Defined Benefit Normal Retirement Age - 60
	Early Reduced (.5%) at Age 50 with 25 Years or Age 55 with 15 Years
	Fiscal Month - January

**15 - Dist Crt Tmstr**

12/1/2017	Non Standard Compensation Definition
12/1/2017	1.25% multiplier
12/1/2017	Participant Contribution Rate 6%
11/30/2017	Frozen FAC
1/1/2017	Extended Amortization to 16 yrs (based off 2016 AAV)
12/1/2016	Service Credit Purchase Estimates - Yes
5/1/2013	Option B Yes
10/1/2008	Day of work defined as 75 Hours a Month for All employees.
10/1/2008	Exclude Temporary Employees requiring less than 12 months
7/1/2004	Temporary 18 Years & Out (07/01/2004 - 01/03/2005)
7/1/2004	Temporary 3% Multiplier to Age 65 / B-4 at Age 65 (80% max) (07/01/2004 - 01/03/2005)
1/1/2001	Benefit FAC-3 (3 Year Final Average Compensation)
7/1/2000	Temporary 18 Years & Out (07/01/2000 - 11/03/2000)
7/1/2000	Temporary 3% Multiplier to Age 65 / B-4 at Age 65 (80% max) (07/01/2000 - 11/03/2000)
6/1/2000	DC Adoption Date 06-01-2000
1/1/1999	Flexible E 2% COLA Adopted (01/01/1999)
1/1/1996	E2 2.5% COLA for future retirees (12/01/1995)
11/1/1995	Benefit B-4 (80% max)
7/1/1993	6 Year Vesting
3/31/1993	Blanket Resolution (All Service)
10/1/1990	Benefit C-1 (Old)
10/1/1990	Benefit F55 (With 25 Years of Service)
10/1/1990	Member Contribution Rate 0.00%
7/1/1990	Benefit FAC-5 (5 Year Final Average Compensation)
6/1/1990	8 Year Vesting
6/27/1978	Exclude Temporary Employees
4/6/1967	Covered by Act 88
	Defined Benefit Normal Retirement Age - 60
	Early Reduced (.5%) at Age 50 with 25 Years or Age 55 with 15 Years
	Fiscal Month - January

**16 - TPOAM**

1/1/2018	1.25% multiplier
1/1/2018	Participant Contribution Rate 3%
12/31/2017	Frozen FAC
1/1/2017	Extended Amortization to 16 yrs (based off 2016 AAV)
12/1/2016	Service Credit Purchase Estimates - Yes
5/1/2013	Option B Yes
10/1/2008	Day of work defined as 75 Hours a Month for All employees.
10/1/2008	Exclude Temporary Employees requiring less than 12 months
1/1/2002	B-4 to Age 65 / B-3 at Age 65 (80% max)
1/1/2002	Member Contribution Rate 0.67%
6/1/2000	Temporary 18 Years & Out (06/01/2000 - 09/03/2000)
6/1/2000	Temporary 3% Multiplier to Age 65 / B-3 at Age 65 (80% max) (06/01/2000 - 09/03/2000)
6/1/2000	DC Adoption Date 06-01-2000
1/1/1999	Flexible E 2% COLA Adopted (01/01/1999)



**16 - TPOAM**

12/1/1993	8 Year Vesting
12/1/1993	Benefit B-3 (80% max)
3/31/1993	Blanket Resolution (All Service)
1/1/1991	Benefit F55 (With 25 Years of Service)
1/1/1991	Flexible E 2% COLA Adopted (01/01/1991)
12/1/1990	Benefit FAC-5 (5 Year Final Average Compensation)
12/1/1990	10 Year Vesting
12/1/1990	Benefit C-2/Base B-1
12/1/1990	Member Contribution Rate 0.00%
6/27/1978	Exclude Temporary Employees
4/6/1967	Covered by Act 88
	Defined Benefit Normal Retirement Age - 60
	Early Reduced (.5%) at Age 50 with 25 Years or Age 55 with 15 Years
	Fiscal Month - January

**17 - Cirt Crt Spvs**

1/1/2017	Extended Amortization to 16 yrs (based off 2016 AAV)
12/1/2016	Service Credit Purchase Estimates - Yes
1/1/2016	DC Adoption Date 01-01-2016
10/1/2008	Day of work defined as 75 Hours a Month for All employees.
10/1/2008	Exclude Temporary Employees requiring less than 12 months
1/1/2001	E 2% COLA Adopted (01/01/2001)
1/1/2000	E 2% COLA Adopted (01/01/2000)
1/1/1999	Flexible E 2% COLA Adopted (01/01/1999)
4/1/1998	Temporary Benefit F50 (With 20 Years of Service) (04/01/1998 - 08/02/1998)
1/1/1996	E2 2.5% COLA for future retirees (04/01/1995)
4/1/1995	Benefit B-4 (80% max)
1/1/1994	Benefit FAC-5 (5 Year Final Average Compensation)
1/1/1994	6 Year Vesting
3/31/1993	Blanket Resolution (All Service)
10/1/1990	Benefit F55 (With 25 Years of Service)
10/1/1990	Member Contribution Rate 0.00%
6/27/1978	Exclude Temporary Employees
4/6/1967	Covered by Act 88
	Defined Benefit Normal Retirement Age - 60
	Early Reduced (.5%) at Age 50 with 25 Years or Age 55 with 15 Years
	Fiscal Month - January

**18 - Exempt**

1/1/2018	Participant Contribution Rate 6%
6/1/2017	Participant Contribution Rate 3.5%
1/1/2017	Extended Amortization to 16 yrs (based off 2016 AAV)
1/1/2017	1.25% multiplier
1/1/2017	Participant Contribution Rate 10%
12/30/2016	Frozen FAC



**18 - Exempt**

12/1/2016	Service Credit Purchase Estimates - Yes
5/1/2013	Option B Yes
10/1/2008	Day of work defined as 75 Hours a Month for All employees.
10/1/2008	Exclude Temporary Employees requiring less than 12 months
1/1/2005	Temporary 20 Years & Out (01/01/2005 - 07/03/2005)
1/1/2005	Temporary 3% Multiplier to Age 65 / B-4 at Age 65 (80% max) (01/01/2005 - 07/03/2005)
7/1/2000	Temporary 18 Years & Out (07/01/2000 - 01/03/2001)
7/1/2000	Temporary 3% Multiplier to Age 65 / B-4 at Age 65 (80% max) (07/01/2000 - 01/03/2001)
5/1/2000	DC Adoption Date 05-01-2000
1/1/2000	E2 2.5% COLA for future retirees (01/01/1996)
1/1/1999	Benefit FAC-3 (3 Year Final Average Compensation)
1/1/1999	E2 2.3% COLA for future retirees (01/01/1996)
1/1/1999	Flexible E 2% COLA Adopted (01/01/1999)
1/1/1996	E2 2.5% COLA for future retirees (01/01/1996)
12/1/1993	8 Year Vesting
12/1/1993	Benefit B-4 (80% max)
12/1/1993	Benefit F55 (With 25 Years of Service)
12/1/1993	Member Contribution Rate 0.00%
3/31/1993	Blanket Resolution (All Service)
1/1/1993	Benefit FAC-5 (5 Year Final Average Compensation)
1/1/1992	Flexible E 2% COLA Adopted (01/01/1992)
6/27/1978	Exclude Temporary Employees
4/6/1967	Covered by Act 88
	Defined Benefit Normal Retirement Age - 60
	Early Reduced (.5%) at Age 50 with 25 Years or Age 55 with 15 Years
	Fiscal Month - January

**20 - Teamstrs Cmmnd**

1/1/2017	Extended Amortization to 16 yrs (based off 2016 AAV)
12/1/2016	Service Credit Purchase Estimates - Yes
5/1/2013	Option B Yes
10/1/2008	Day of work defined as 75 Hours a Month for All employees.
10/1/2008	Exclude Temporary Employees requiring less than 12 months
7/1/2002	Temporary 20 Years & Out (07/01/2002 - 01/03/2003)
7/1/2002	Temporary 3% Multiplier to Age 65 / 2.8% Mult. at Age 65 (80% max) (07/01/2002 - 01/03/2003)
10/1/2000	Temporary 18 Years & Out (10/01/2000 - 12/03/2000)
10/1/2000	Temporary 3% Multiplier to Age 65 / 2.8% Mult. at Age 65 (80% max) (10/01/2000 - 12/03/2000)
6/1/2000	DC Adoption Date 06-01-2000
1/1/2000	E2 2.5% COLA for future retirees (07/01/1996)
1/1/2000	25 Years & Out
1/1/1999	E2 2.3% COLA for future retirees (07/01/1996)
1/1/1999	Flexible E 2% COLA Adopted (01/01/1999)
1/1/1998	2.8% Multiplier (80% max)
1/1/1997	E2 2.5% COLA for future retirees (07/01/1996)
7/1/1996	Benefit FAC-3 (3 Year Final Average Compensation)
12/1/1994	Benefit B-4 (80% max)

**20 - Teamstrs Cmmnd**

3/31/1993	Blanket Resolution (All Service)
12/1/1992	Benefit B-3 (80% max)
1/1/1991	Flexible E 2% COLA Adopted (01/01/1991)
1/1/1987	Benefit C-2/Base B-1
1/1/1987	Benefit F55 (With 25 Years of Service)
1/1/1987	Member Contribution Rate 0.00%
1/1/1987	Benefit FAC-5 (5 Year Final Average Compensation)
1/1/1987	10 Year Vesting
6/27/1978	Exclude Temporary Employees
4/6/1967	Covered by Act 88
	Early Reduced (.5%) at Age 50 with 25 Years or Age 55 with 15 Years
	Defined Benefit Normal Retirement Age - 60
	Fiscal Month - January

**21 - Dispatch Unit**

1/1/2017	Extended Amortization to 16 yrs (based off 2016 AAV)
12/1/2016	Service Credit Purchase Estimates - Yes
5/1/2013	Option B Yes
10/1/2008	Exclude Temporary Employees requiring less than 12 months
10/1/2008	Day of work defined as 75 Hours a Month for All employees.
1/1/2005	Temporary 20 Years & Out (01/01/2005 - 07/03/2005)
1/1/2005	Temporary 3% Multiplier to Age 65 / B-4 at Age 65 (80% max) (01/01/2005 - 07/03/2005)
6/1/2000	Temporary 18 Years & Out (06/01/2000 - 10/03/2000)
6/1/2000	Temporary 3% Multiplier to Age 65 / B-3 at Age 65 (80% max) (06/01/2000 - 10/03/2000)
6/1/2000	DC Adoption Date 06-01-2000
1/1/1999	Flexible E 2% COLA Adopted (01/01/1999)
12/1/1993	8 Year Vesting
3/31/1993	Blanket Resolution (All Service)
10/1/1992	Benefit B-3 (80% max)
1/1/1991	Flexible E 2% COLA Adopted (01/01/1991)
10/1/1990	Benefit FAC-5 (5 Year Final Average Compensation)
10/1/1990	10 Year Vesting
10/1/1990	Benefit F55 (With 25 Years of Service)
10/1/1990	Member Contribution Rate 0.00%
6/27/1978	Exclude Temporary Employees
4/6/1967	Covered by Act 88
	Defined Benefit Normal Retirement Age - 60
	Early Reduced (.5%) at Age 50 with 25 Years or Age 55 with 15 Years
	Fiscal Month - January

**23 - COAM Srgts**

1/1/2017	Extended Amortization to 16 yrs (based off 2016 AAV)
12/1/2016	Service Credit Purchase Estimates - Yes
5/1/2013	Option B Yes
10/1/2008	Day of work defined as 75 Hours a Month for All employees.

**23 - COAM Srgts**

10/1/2008	Exclude Temporary Employees requiring less than 12 months
9/1/2003	Temporary 18 Years & Out (09/01/2003 - 12/03/2003)
9/1/2003	Temporary 3% Multiplier to Age 65 / 2.8% Mult. at Age 65 (80% max) (09/01/2003 - 12/03/2003)
6/1/2000	Temporary 18 Years & Out (06/01/2000 - 08/03/2000)
6/1/2000	Temporary 3% Multiplier to Age 65 / 2.8% Mult. at Age 65 (80% max) (06/01/2000 - 08/03/2000)
6/1/2000	DC Adoption Date 06-01-2000
1/1/1999	2.8% Multiplier (80% max)
1/1/1999	Flexible E 2% COLA Adopted (01/01/1999)
1/1/1995	Benefit F50 (With 25 Years of Service)
1/1/1994	E2 2.5% COLA for future retirees (12/01/1993)
12/1/1993	Benefit B-4 (80% max)
12/1/1993	Benefit F55 (With 25 Years of Service)
12/1/1993	Member Contribution Rate 0.00%
3/31/1993	Blanket Resolution (All Service)
12/1/1990	Benefit FAC-5 (5 Year Final Average Compensation)
12/1/1990	10 Year Vesting
12/1/1990	Benefit B-3 (80% max)
6/27/1978	Exclude Temporary Employees
4/6/1967	Covered by Act 88
	Defined Benefit Normal Retirement Age - 60
	Early Reduced (.5%) at Age 50 with 25 Years or Age 55 with 15 Years
	Fiscal Month - January

**81 - COA from div 11**

1/1/2018	Participant Contribution Rate 6%
12/1/2017	Exclude Temporary Employees requiring less than 12 months
12/1/2017	8 Year Vesting
12/1/2017	Defined Benefit Normal Retirement Age - 60
12/1/2017	Service Credit Purchase Estimates - Yes
12/1/2017	Early Reduced (.5%) at Age 50 with 25 Years or Age 55 with 15 Years
12/1/2017	Participant Contribution Rate 3.5%
12/1/2017	DC Adoption Date 12-01-2017
12/1/2017	Day of work defined as 75 Hours a Month for All employees.
12/1/2017	Benefit FAC-5 (5 Year Final Average Compensation)
1/1/2017	Extended Amortization to 16 yrs (based off 2016 AAV)
1/1/2017	1.25% multiplier
12/30/2016	Frozen FAC
5/1/2013	Option B Yes
11/1/2001	Temporary 22 Years & Out (11/01/2001 - 01/03/2002)
11/1/2001	Temporary 3% Multiplier to Age 65 / B-4 at Age 65 (80% max) (11/01/2001 - 01/03/2002)
5/1/2000	Temporary 18 Years & Out (05/01/2000 - 10/03/2000)
5/1/2000	Temporary 3% Multiplier to Age 65 / B-4 at Age 65 (80% max) (05/01/2000 - 10/03/2000)
1/1/1999	E2 2.5% COLA for future retirees (1/1/1999)
12/1/1993	Benefit B-4 (80% max)
3/31/1993	Blanket Resolution (All Service)
1/5/1993	Temporary Benefit B-4 (80% max) (01/05/1993 - 07/01/1993)

**81 - COA from div 11**

12/1/1992 Benefit B-3 (80% max)  
 1/1/1990 Benefit F55 (With 25 Years of Service)  
 4/6/1967 Covered by Act 88  
 Fiscal Month - January

**82 - COA from div 12**

12/1/2017 Day of work defined as 75 Hours a Month for All employees.  
 12/1/2017 Benefit FAC-3 (3 Year Final Average Compensation)  
 12/1/2017 Exclude Temporary Employees requiring less than 12 months  
 12/1/2017 Defined Benefit Normal Retirement Age - 60  
 12/1/2017 Service Credit Purchase Estimates - Yes  
 12/1/2017 Early Reduced (.5%) at Age 50 with 25 Years or Age 55 with 15 Years  
 12/1/2017 Participant Contribution Rate 6%  
 12/1/2017 DC Adoption Date 12-01-2017  
 12/1/2017 8 Year Vesting  
 3/1/2017 1.25% multiplier  
 2/28/2017 Frozen FAC  
 1/1/2017 Non Standard Compensation Definition  
 1/1/2017 Extended Amortization to 16 yrs (based off 2016 AAV)  
 5/1/2013 Option B Yes  
 1/1/2003 Temporary 20 Years & Out (01/01/2003 - 07/03/2003)  
 1/1/2003 Temporary 3% Multiplier to Age 65 / B-4 at Age 65 (80% max) (01/01/2003 - 07/03/2003)  
 5/1/2000 Temporary 18 Years & Out (05/01/2000 - 09/03/2000)  
 5/1/2000 Temporary 3% Multiplier to Age 65 / B-4 at Age 65 (80% max) (05/01/2000 - 09/03/2000)  
 1/1/2000 E2 2.5% COLA Bridged to 0% effective 3/1/2017  
 12/1/1994 Benefit B-4 (80% max)  
 12/1/1993 2.25% Multiplier (no max)  
 3/31/1993 Blanket Resolution (All Service)  
 1/1/1988 Benefit C (Old)  
 1/1/1988 Benefit F55 (With 25 Years of Service)  
 4/6/1967 Covered by Act 88  
 Fiscal Month - January

**83 - COA from div 18**

1/1/2018 Participant Contribution Rate 6%  
 12/1/2017 Day of work defined as 75 Hours a Month for All employees.  
 12/1/2017 Benefit FAC-3 (3 Year Final Average Compensation)  
 12/1/2017 Exclude Temporary Employees requiring less than 12 months  
 12/1/2017 8 Year Vesting  
 12/1/2017 Defined Benefit Normal Retirement Age - 60  
 12/1/2017 Service Credit Purchase Estimates - Yes  
 12/1/2017 Early Reduced (.5%) at Age 50 with 25 Years or Age 55 with 15 Years  
 12/1/2017 Participant Contribution Rate 3.5%  
 12/1/2017 DC Adoption Date 12-01-2017  
 1/1/2017 Extended Amortization to 16 yrs (based off 2016 AAV)

**83 - COA from div 18**

1/1/2017	1.25% multiplier
12/30/2016	Frozen FAC
5/1/2013	Option B Yes
1/1/2005	Temporary 20 Years & Out (01/01/2005 - 07/03/2005)
1/1/2005	Temporary 3% Multiplier to Age 65 / B-4 at Age 65 (80% max) (01/01/2005 - 07/03/2005)
7/1/2000	Temporary 18 Years & Out (07/01/2000 - 01/03/2001)
7/1/2000	Temporary 3% Multiplier to Age 65 / B-4 at Age 65 (80% max) (07/01/2000 - 01/03/2001)
1/1/2000	E2 2.5% COLA for future retirees (1/1/1996)
1/1/1999	E2 2.3% COLA for future retirees (1/1/1996)
1/1/1996	E2 2.5% COLA for future retirees (1/1/1996)
12/1/1993	Benefit B-4 (80% max)
12/1/1993	Benefit F55 (With 25 Years of Service)
3/31/1993	Blanket Resolution (All Service)
4/6/1967	Covered by Act 88
	Fiscal Month - January

**84 - DPW from div 01**

12/1/2017	Day of work defined as 75 Hours a Month for All employees.
12/1/2017	Benefit FAC-3 (3 Year Final Average Compensation)
12/1/2017	Exclude Temporary Employees requiring less than 12 months
12/1/2017	6 Year Vesting
12/1/2017	Defined Benefit Normal Retirement Age - 60
12/1/2017	Service Credit Purchase Estimates - Yes
12/1/2017	Early Reduced (.5%) at Age 50 with 25 Years or Age 55 with 15 Years
12/1/2017	Participant Contribution Rate 0%
12/1/2017	DC Adoption Date 12-01-2017
1/1/2017	Extended Amortization to 16 yrs (based off 2016 AAV)
5/1/2013	Option B Yes
2/1/2004	Temporary 20 Years & Out (02/01/2004 - 08/03/2004)
2/1/2004	Temporary 3% Multiplier to Age 65 / B-4 at Age 65 (80% max) (02/01/2004 - 08/03/2004)
6/1/2000	Temporary 18 Years & Out (06/01/2000 - 10/03/2000)
6/1/2000	Temporary 3% Multiplier to Age 65 / B-4 at Age 65 (80% max) (06/01/2000 - 10/03/2000)
1/1/1994	Benefit B-4 (80% max)
3/31/1993	Blanket Resolution (All Service)
1/1/1993	Temporary Benefit B-4 (80% max) (01/01/1993 - 03/02/1993)
1/1/1993	E2 2.5% COLA for future retirees (1/1/1993)
12/1/1990	Benefit B-2
1/1/1988	Benefit C-2/Base B-1
1/1/1982	Benefit C-1 (Old)
1/1/1982	Benefit F55 (With 25 Years of Service)
4/6/1967	Covered by Act 88
1/1/1966	Benefit C (Old)
	Fiscal Month - January

**85 - DPW from div 11**

1/1/2018	Participant Contribution Rate 6%
12/1/2017	Day of work defined as 75 Hours a Month for All employees.
12/1/2017	Benefit FAC-5 (5 Year Final Average Compensation)
12/1/2017	Exclude Temporary Employees requiring less than 12 months
12/1/2017	8 Year Vesting
12/1/2017	Defined Benefit Normal Retirement Age - 60
12/1/2017	Service Credit Purchase Estimates - Yes
12/1/2017	Participant Contribution Rate 3.5%
12/1/2017	DC Adoption Date 12-01-2017
1/1/2017	Extended Amortization to 16 yrs (based off 2016 AAV)
1/1/2017	1.25% multiplier
12/30/2016	Frozen FAC
5/1/2013	Option B Yes
11/1/2001	Temporary 22 Years & Out (11/01/2001 - 01/03/2002)
11/1/2001	Temporary 3% Multiplier to Age 65 / B-4 at Age 65 (80% max) (11/01/2001 - 01/03/2002)
5/1/2000	Temporary 18 Years & Out (05/01/2000 - 10/03/2000)
5/1/2000	Temporary 3% Multiplier to Age 65 / B-4 at Age 65 (80% max) (05/01/2000 - 10/03/2000)
1/1/1999	E2 2.5% COLA for future retirees (1/1/1999)
12/1/1993	Benefit B-4 (80% max)
3/31/1993	Blanket Resolution (All Service)
1/5/1993	Temporary Benefit B-4 (80% max) (01/05/1993 - 07/01/1993)
12/1/1992	Benefit B-3 (80% max)
1/1/1990	Early Reduced (.5%) at Age 50 with 25 Years or Age 55 with 15 Years
1/1/1990	Benefit F55 (With 25 Years of Service)
4/6/1967	Covered by Act 88
	Fiscal Month - January

**86 - DPW from div 18**

1/1/2018	Participant Contribution Rate 6%
12/1/2017	Day of work defined as 75 Hours a Month for All employees.
12/1/2017	Benefit FAC-3 (3 Year Final Average Compensation)
12/1/2017	Exclude Temporary Employees requiring less than 12 months
12/1/2017	8 Year Vesting
12/1/2017	Defined Benefit Normal Retirement Age - 60
12/1/2017	Service Credit Purchase Estimates - Yes
12/1/2017	Participant Contribution Rate 3.5%
12/1/2017	DC Adoption Date 12-01-2017
1/1/2017	Extended Amortization to 16 yrs (based off 2016 AAV)
1/1/2017	1.25% multiplier
12/30/2016	Frozen FAC
5/1/2013	Option B Yes
1/1/2005	Temporary 20 Years & Out (01/01/2005 - 07/03/2005)
1/1/2005	Temporary 3% Multiplier to Age 65 / B-4 at Age 65 (80% max) (01/01/2005 - 07/03/2005)
7/1/2000	Temporary 18 Years & Out (07/01/2000 - 01/03/2001)
7/1/2000	Temporary 3% Multiplier to Age 65 / B-4 at Age 65 (80% max) (07/01/2000 - 01/03/2001)
1/1/2000	E2 2.5% COLA for future retirees (1/1/1996)

**86 - DPW from div 18**

1/1/1999	E2 2.5% COLA for future retirees (1/1/1996)
1/1/1996	E2 2.5% COLA for future retirees (1/1/1996)
12/1/1993	Benefit B-4 (80% max)
12/1/1993	Benefit F55 (With 25 Years of Service)
3/31/1993	Blanket Resolution (All Service)
4/6/1967	Covered by Act 88
	Early Reduced (.5%) at Age 50 with 25 Years or Age 55 with 15 Years
	Fiscal Month - January

## 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
01 - Gnrl Tmstr	0.00%
02 - Deputies POAM	2.00%
10 - Elctd Empl	2.00%
11 - Gnrl NonCntct	2.00%
12 - AFSCME	0.00%
13 - Circuit Ct	2.00%
14 - Hlth Dept Un	0.00%
15 - Dist Crt Tmstr	0.00%
16 - TPOAM	2.00%
17 - Cirt Crt Spvs	2.00%
18 - Exempt	2.00%
20 - Teamstrs Cmmnd	2.00%
23 - COAM Srgts	2.00%
84 - DPW from div 01	2.00%
86 - DPW from div 18	2.00%

### Withdrawal Rate Scaling Factor

Division	Withdrawal Rate Scaling Factor
All Divisions	120%

### Miscellaneous and Technical Assumptions

Loads – None.

### Amortization Policy for Closed Divisions

Closed Division	Amortization Option
All Closed Divisions	Accelerated to 15-Year 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.



## Amortization Extension Agreement

This Amortization Extension Agreement ("Agreement") is entered into between the Municipal Employees' Retirement System of Michigan ("MERS") and Grand Traverse County ("Employer") (together, "Parties") to memorialize the agreement and representations of the parties concerning an extension of the period of Employer's amortization schedule.

Accordingly, the Parties agree as follows:

1. **UAL Defined:** As used in this Agreement, the term UAL shall mean the outstanding balance remaining as of 12/31/2016 (date of last annual valuation) of the Employer's unfunded accrued liability for provision of defined benefit pension benefits through MERS as determined by MERS' actuaries.
2. **Purpose:** In the exercise of its one-time opportunity to do so as provided by MERS, Employer has requested that MERS grant it an extension of the period in which its UAL is amortized to assist with the employer's need to address significant financial stress.
3. **MERS' Analysis:** In response to Employer's request and in accordance with MERS' procedures, MERS has discussed its conclusions with Employer, and Employer is in agreement with MERS' conclusions (report attached).
4. **Representations and Understandings of Employer:**
  - a. The information Employer provided to MERS in the course of and for purposes of MERS' analysis was complete and accurate to the best of Employer's ability.
  - b. The Employer understands that should the projection results lead to approval of an amortization extension, it is and remains within the sole and exclusive discretion of the MERS Retirement Board to change the agreed-upon amortization policy in the future if the Retirement Board deems it reasonable, necessary and/or prudent for the financial security of the pension benefits promised by the Employer to its employees who are participants of MERS and to whom the MERS Retirement Board owes a fiduciary duty. The parties hereto understand and agree that this discretionary authority of the MERS Retirement Board arises from, without being limited to, the following sources:
    - MCL 38.1536;
    - MCL 38.1539;
    - MCL 38.1140m
    - MERS Plan Document Section 71
    - MERS Plan Document Section 76
    - MERS Actuarial Policy
    - Constitution of Michigan of 1963, Article 9, Section 24
    - Michigan's common law of trusts
  - c. Employer understands that MERS has advised that compliance with the existing amortization schedule is preferred, and that extending amortization as requested is not in full conformity with MERS' goals of earliest full funding and intergenerational equity.
  - d. Employer has made and will continue to make payment of its retirement costs, including UAL toward full funding, a priority in its annual and long-term budgeting and planning processes.

- e. Employer understands that extending the amortization period for its current UAL has the effect of deferring current costs to the future, with the result that in the later years of the amortization, the Employer's UAL will be higher and the Employer's total required contributions will be higher than they would otherwise have been.
- f. Employer understands, with respect to its request and otherwise, that future required contributions depend on the actual investment and demographic experience, and not on the assumptions used to develop the projected contributions considered in this Agreement.

**5. Conclusion and Decision of MERS:** Based on the foregoing analysis and representations of Employer, MERS approves Employer's request with the following terms and conditions, with which Employer agrees:

- a. MERS shall extend Employer's amortization period with respect to its UAL as followed:
  - Division #01 – General Teamster: UAL to be extended from a 12-yr to 16 year amortization such that its UAL is projected to be fully amortized under current actuarial assumptions and demographic projections by 12/31/2033 (end of the applicable fiscal year).
  - Division #02 – Deputies POAM: UAL to be extended from a 12-yr to 16 year amortization such that its UAL is projected to be fully amortized under current actuarial assumptions and demographic projections by 12/31/2033 (end of the applicable fiscal year).
  - Division #10 – Elected Employees: UAL to be extended from a 12-yr to 16 year amortization such that its UAL is projected to be fully amortized under current actuarial assumptions and demographic projections by 12/31/2033 (end of the applicable fiscal year).
  - Division #11 – General Non-Contract: UAL to be extended from a 12-yr to 16 year amortization such that its UAL is projected to be fully amortized under current actuarial assumptions and demographic projections by 12/31/2033 (end of the applicable fiscal year).
  - Division #12 – AFSCME: UAL to be extended from a 12-yr to 16 year amortization such that its UAL is projected to be fully amortized under current actuarial assumptions and demographic projections by 12/31/2033 (end of the applicable fiscal year).
  - Division #14 – Health Dept. Union: UAL to be extended from a 12-yr to 16 year amortization such that its UAL is projected to be fully amortized under current actuarial assumptions and demographic projections by 12/31/2033 (end of the applicable fiscal year).
  - Division #15 – District Court Teamster: UAL to be extended from a 12-yr to 16 year amortization such that its UAL is projected to be fully amortized under current actuarial assumptions and demographic projections by 12/31/2033 (end of the applicable fiscal year).
  - Division #16 – TPOAM: UAL to be extended from a 12-yr to 16 year amortization such that its UAL is projected to be fully amortized under current actuarial assumptions and demographic projections by 12/31/2033 (end of the applicable fiscal year).
  - Division #18 – Exempt: UAL to be extended from a 12-yr to 16 year amortization such that its UAL is projected to be fully amortized under current actuarial assumptions and demographic projections by 12/31/2033 (end of the applicable fiscal year).

- Division #20 – Sheriff POLC: UAL to be extended from a 12-yr to 16 year amortization such that its UAL is projected to be fully amortized under current actuarial assumptions and demographic projections by 12/31/2033 (end of the applicable fiscal year).
  - Division #21 – Dispatch Unit: UAL to be extended from a 12-yr to 16 year amortization such that its UAL is projected to be fully amortized under current actuarial assumptions and demographic projections by 12/31/2033 (end of the applicable fiscal year).
  - Division #23 – Sergeants Teamsters: UAL to be extended from a 12-yr to 16 year amortization such that its UAL is projected to be fully amortized under current actuarial assumptions and demographic projections by 12/31/2033 (end of the applicable fiscal year).
- b. The extension stated above is based on the provisions in effect in the specified division(s) as of the most recent Annual Actuarial Valuation. The projection analysis also reflected the following provision changes adopted *since* the most recent Annual Valuation:
- Division #10: Effective January 1<sup>st</sup>, 2017 – Bridged benefit multiplier from 2.5% to 1.25%, increased employee contribution to 10%. Amended employee contribution effective 06/01/2017 to 3.5% & effective 01/01/2018 to 6%.
  - Division #11: Effective January 1<sup>st</sup>, 2017 – Bridged benefit multiplier from 2.5% to 1.25%, increased employee contribution to 10%. Amended employee contribution effective 06/01/2017 to 3.5% & effective 01/01/2018 to 6%.
  - Division #18: Effective January 1<sup>st</sup>, 2017 – Bridged benefit multiplier from 2.5% to 1.25%, increased employee contribution to 10%. Amended employee contribution effective 06/01/2017 to 3.5% & effective 01/01/2018 to 6%.
- c. The Employer understands that if changes are made to the benefit provisions used in the projection analysis, MERS may require that an updated analysis be prepared to ensure the continued sustainability of the plan as described in Section 4(b) of this Agreement.
- d. Employer agrees to submit an additional contribution to MERS toward its UAL of \$5,600,000 to be received by MERS no later than 12/31/2017. In the absence of receipt of this additional contribution by the date stated specified above, MERS reserves the right to void this agreement and adjust the amortization schedule and required employer contributions accordingly to ensure sustainability of the plan.
- e. For its required employer contribution, Employer agrees to pay, at a minimum, the amount set forth for each valuation year through 2032 in the "Employer Contribution Dollars" column set forth on page 3 of the CBIZ Retirement Plan Services' April 10, 2017 Report under the "Proposed: 16 Year Amortization" section ("CBIZ Report"), a copy of which is attached as Exhibit A and incorporated herein. Employer acknowledges that the "Employer Contribution Dollars" amounts assume that MERS' actuarial assumptions, as may be amended, are met, and that the additional contribution set forth in Section 5(d) is made. Should the Employer's Annual Actuarial Valuation in any valuation year through 2032 result in a required employer contribution that is larger than the amount in the CBIZ Report, the Employer agrees to pay the amount set forth in that Annual Actuarial Valuation, pursuant to the MERS Plan Document and applicable law. MERS and Employer acknowledge that the Employer Contribution Dollars in the CBIZ Report are inclusive of employer contributions for Employer Divisions 13 and 17.

- f. This Agreement has been authorized by formal action of Employer's governing body.
- g. Representatives of MERS presented and explained the actuarial analysis that forms the basis of this Agreement and the full impact of Employer's request to Employer on (insert date), and responded to all of Employer's questions to Employer's satisfaction.

Adopted by the Employer's governing body and MERS on this day of \_\_\_\_\_, 20\_\_\_\_

---

**FOR EMPLOYER**

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Printed name

\_\_\_\_\_  
Title

(Check one):

☐ Authorized designee of the governing body of the Employer

☐ Chief Judge of the Court

Date: \_\_\_\_\_

---

**FOR MERS**

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Printed name

\_\_\_\_\_  
Title

Date: \_\_\_\_\_

- f. This Agreement has been authorized by formal action of Employer's governing body.
- g. Representatives of MERS presented and explained the actuarial analysis that forms the basis of this Agreement and the full impact of Employer's request to Employer on (insert date), and responded to all of Employer's questions to Employer's satisfaction.

Adopted by the Employer's governing body and MERS on this day of \_\_\_\_\_, 20\_\_\_\_

**FOR EMPLOYER**

Carol J. Crawford  
Signature

CAROL J. CRAWFORD  
Printed name

CHAIRPERSON  
Title

(Check one)

☒ Authorized designee of the governing body of the Employer  
☐ Chief Judge of the Court

Date \_\_\_\_\_

**FOR MERS**

Charles A. DeRose  
Signature

CHARLES A. DEROSE  
Printed name

CEO  
Title

Date 7/3/17