

# MUNICIPAL EMPLOYEES' RETIREMENT SYSTEM OF MICHIGAN ANNUAL ACTUARIAL VALUATION REPORT DECEMBER 31, 2013 ALLEGAN CRC (0301)



Spring, 2014

Allegan CRC

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, 2013. The report includes the determination of liabilities and contribution rates resulting from the participation of Allegan CRC (0301) in the Municipal Employees' Retirement System of Michigan ("MERS"). MERS is an independent public nonprofit organization that has partnered with Michigan municipalities for more than 65 years, helping them provide safe, secure retirement plans for their employees. Allegan CRC 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, 2013 annual actuarial valuation is to:

- · measure funding progress,
- establish contribution requirements for the fiscal year beginning January 1, 2015, and
- provide actuarial information in connection with applicable Governmental Accounting Standards Board 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, 2013 furnished by MERS' administrative staff. 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. Tegrit Group 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 Retirement Board. 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-2013AnnualActuarialValuation-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).

Our advice 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 related third parties such as the auditor for the municipality). Tegrit Group 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 MERS at: <a href="http://www.mersofmich.com/MERS/About-MERS/Contact-Us">http://www.mersofmich.com/MERS/About-MERS/Contact-Us</a>

Sincerely,

Alan Sonnanstine, MAAA, ASA Cathy Nagy, MAAA, FSA Jim Koss, MAAA, ASA Rebecca Stouffer, MAAA, ASA

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### **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 trusts 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:

	12/31/2013	12/31/2012
Funded Ratio	68%	71%

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.

As a result of the plan's funding policy, the funded ratio is expected to approach 100% over time. How quickly a plan attains the 100% goal depends on many factors such as:

- The current funded ratio,
- The future experience of the plan, and
- 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 minimum required employer contributions are shown on the following page. Employee contributions, if any, are shown in Table 2, and are in addition to the required employer contribution on the next page.

	Percentage	Monthly \$ Based on Valuation Payroll					
Valuation Date:	12/31/2013	12/31/2012	12	/31/2013	12/31/2012		
Fiscal Year Beginning:	January 1, 2015	January 1, 2014	Janu	ary 1, 2015	January 1, 2014		
Division	,						
01 - General	-	21.88%	\$	31,156	\$	27,070	
10 - SIrd	-	31.53%		9,949		9,188	
11 - Non-Union	-	22.25%		4,508		4,558	
12 - All Employees Post 12/	5.23%			578			
Municipality Total			\$	46,191	\$	40,816	

You may contribute more than the minimum required contributions, as these additional contributions will earn investment income, and later you may have to contribute less than otherwise. 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 contributions for the entire employer would be \$ 81,414, instead of \$ 46,191.
- To accelerate to a 100% funding ratio in 20 years, estimated monthly contributions for the entire employer would be \$ 51,931, instead of \$ 46,191.

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), and
- Experience of the plan (investment experience and demographic experience); this is the difference between actual experience of the plan and the actuarial assumptions.

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 the Investment Markets

At this time, MERS maintains the 8% annual return assumption in the belief that over the long-term this is achievable. For example, MERS' 30 year return was 9.3% on December 31, 2013. The MERS portfolio returned 14.8% in 2013; the two year (12.9%), three year (9.2%), four year (10.4%), and five year (11.7%) returns all exceed the 8% annual return assumption. It has now been five years since the peak of the financial crisis and the stock market decline still weighs down MERS' medium term returns. This was a one in fifty year event comparable only to the Stock Market Crash of 1929 during the Great Depression. The stock market and economy have stabilized since 2008 and are on the long road to recovery. MERS regularly monitors the investment return assumption to make sure it is reasonable compared to long term expectations.

The actuarial value of assets, used to determine both your funded ratio and your required employer contribution, is based on a 10-year smoothed value of assets. Only a portion (six-tenths, for 2008 - 2013) of the 2008 investment market losses was recognized in this actuarial valuation report. This reduces the volatility of the valuation results, which affects your required employer contribution and funded ratio.

As of December 31, 2013 the actuarial value of assets is 106% of market value. This means that meeting the actuarial assumption in the next few years will require average annual market returns that exceed the 8% investment return assumption.

If the December 31, 2013 valuation results were based on market value on that date instead of 10-year smoothed funding value: i) the funded percent of your entire municipality would be 64% (instead of 68%); and ii) your total employer contribution requirement for the fiscal year starting January 1, 2015 would be \$ 608,652 (instead of \$ 554,292).

The asset smoothing method is a powerful tool for reducing the volatility of your required employer contributions. However, if the current 6% difference between the smoothed value and the market value of assets is not made up, the result would be gradual increases in your employer contribution requirement over the next few years (to around the levels described above).

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

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.

In the table below, we show the impact of varying one actuarial assumption: the future annual rate of investment return. Lower investment returns would result in higher required employer contributions, and vice-versa.

Other assumptions are also important in determining the required employer contributions.

### For example:

- Smaller than projected pay increases would lower required employer contributions.
- Reductions in the number of active employees would lower required contribution dollars, but would usually increase the contribution rate expressed as a percentage of payroll.
- Retirements at earlier ages than projected would usually increase required employer contributions.
- More non-vested terminations of employment than projected would decrease required contributions.
- More disabilities or survivor (death) benefits than projected would increase required contributions.
- Longer lifetimes after retirement than projected would increase required employer contributions.

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, 2013 valuation, and are for the municipality in total, not by division.

	Assumed Future Annual Smoothed Rate of Investment Return								
	Lower Future A	al Returns		Valuation ssumption	Higher Returns				
12/31/2013 Valuation Results	6%		7%		8%		9%		
Accrued Liability	\$ 25,750,378	\$	23,330,165	\$	21,261,541	\$	19,481,812		
Valuation Assets	\$ 14,397,783	\$	14,397,783	\$	14,397,783	\$	14,397,783		
Unfunded Accrued Liability	\$ 11,352,595	\$	8,932,382	\$	6,863,758	\$	5,084,029		
Funded Ratio	56%		62%		68%		74%		
Monthly Normal Cost	\$ 21,498	<b> </b>   \$	15,540	\$	10,954	\$	7,413		
Monthly Amortization Payment	\$ 47,861	\$	41,775	\$	35,237	\$	28,228		
Total Employer Contribution <sup>1</sup>	\$ 69,359	\$	57,315	\$	46,191	\$	35,641		

<sup>1</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.

# **Employer Contribution Details For the Fiscal Year Beginning January 1, 2015**

Table 1

	Amort.	Employer Contributions <sup>1</sup>					
Division	Period for Unfund. Liab. <sup>4,5</sup>	Normal Cost	Unfunded Accrued Liability	Total Required Employer Contribut.	Blended Employer Contribut. <sup>7</sup>	GASB ARC <sup>6</sup>	Member Contribut. Conversion Factor <sup>2</sup>
Percentage of Payroll							
01 - General	25	-	-	-	23.12%		
10 - SIrd	25	-	-	-	23.12%		
11 - Non-Union	25	-	-	-	23.12%		
12 - All Employees Post	25	5.32%	-0.09%	5.23%	23.12%		
Estimated Monthly	İ						
Contribution <sup>3</sup>							
01 - General	25	\$ 7,760	\$ 23,396	\$ 31,156			
10 - SIrd	25	1,608	8,341	9,949			
11 - Non-Union	25	998	3,510	4,508			
12 - All Employees Post	25	588	(10)	578			0.74%
Total Municipality		\$ 10,954	\$ 35,237	\$ 46,191			
Estimated Annual	İ						
Contribution <sup>3</sup>		\$ 131,448	\$ 422,844	\$ 554,292			

<sup>&</sup>lt;sup>1</sup> The above Employer contribution requirements are in addition to the Member contributions, if any, shown in Table 2.

#### Please see the Comments on the Investment Markets.

<sup>&</sup>lt;sup>2</sup> If Member contributions are increased/decreased by 1.00% of pay, the Employer contribution requirement will decrease/increase by the Member Contribution Conversion Factor.

<sup>&</sup>lt;sup>3</sup> For divisions that are open to new hires, estimated contributions are based on valuation payroll. Actual contributions will be based on actual reported monthly pays, and will be different from the above amounts (usually higher). For divisions that will have no new hires, 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 <u>Appendix</u>.

<sup>&</sup>lt;sup>4</sup> If projected assets exceed projected liabilities as of the beginning of the January 1, 2015 fiscal year, the negative unfunded accrued liability is amortized (spread) over 10 years. 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>&</sup>lt;sup>5</sup> If the division is closed to new hires, with new hires not covered by MERS Defined Benefit Plan or Hybrid Plan provisions, the amortization period will decrease as follows: Under Amortization Option A, the period will decrease by 2 years each valuation year, until a minimum 5-year amortization is attained. Under Amortization Option B, the period will decrease by 2 years each valuation year, until reaching 15 years. Thereafter, the period will reduce by 1 year each valuation year, until a minimum 5-year amortization is attained. This will result in amortization payments that increase faster than the usual 4.5% each year. If the division is closed to new hires, with new hires (and transfers) covered by MERS Defined Benefit Plan or Hybrid Plan provisions, the standard open division amortization period will apply.

<sup>&</sup>lt;sup>6</sup> For reporting and disclosure purposes under Statement Nos. 25 and 27 of the Governmental Accounting Standards Board, the annual required contribution (ARC) for this division is based on a 30 year level dollar amortization.

<sup>&</sup>lt;sup>7</sup> For linked divisions, the employer will be invoiced the Total Required Employer Contribution 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 800-767-2308.

# **Benefit Provisions**

### Table 2

01 - General: Closed to new hires, linked to Division 12							
	2013 Valuation	2012 Valuation					
Benefit Multiplier:	2.25% Multiplier (80% max)	2.25% Multiplier (80% max)					
Normal Retirement Age:	60	60					
Vesting:	10 years	10 years					
Early Retirement (Unreduced):	55/25	55/25					
Early Retirement (Reduced):	50/25	50/25					
	55/15	55/15					
Final Average Compensation:	3 years	3 years					
Member Contributions:	4.70%	4.70%					
Act 88:	Yes (Adopted 2/15/1971)	Yes (Adopted 2/15/1971)					

10 - SIrd: Closed to new hires, linked to Division 12							
	2013 Valuation	2012 Valuation					
Benefit Multiplier:	2.25% Multiplier (80% max)	2.25% Multiplier (80% max)					
Normal Retirement Age:	60	60					
Vesting:	10 years	10 years					
Early Retirement (Unreduced):	55/25	55/25					
Early Retirement (Reduced):	50/25	50/25					
	55/15	55/15					
Final Average Compensation:	3 years	3 years					
Member Contributions:	4.70%	4.70%					
Act 88:	Yes (Adopted 2/15/1971)	Yes (Adopted 2/15/1971)					

11 - Non-Union: Closed to new hires, linked to Division 12								
	2013 Valuation 2012 Valuation							
Benefit Multiplier:	2.25% Multiplier (80% max)	2.25% Multiplier (80% max)						
Normal Retirement Age:	60	60						
Vesting:	10 years	10 years						
Early Retirement (Unreduced):	55/25	55/25						
Early Retirement (Reduced):	50/25	50/25						
	55/15	55/15						
Final Average Compensation:	3 years	3 years						
Member Contributions:	4.70%	4.70%						
Act 88:	Yes (Adopted 2/15/1971)	Yes (Adopted 2/15/1971)						

# Table 2 (continued)

12 - All Employees Post 12/31/2012: Open Division, linked to Division 01, 10, 11							
	2013 Valuation	2012 Valuation					
Benefit Multiplier:	2.25% Multiplier (80% max)	-					
Normal Retirement Age:	60	-					
Vesting:	10 years	-					
Early Retirement (Unreduced):	55/25	-					
Early Retirement (Reduced):	50/25	-					
	55/15						
Final Average Compensation:	3 years	-					
Member Contributions:	6%	-					
Act 88:	Yes (Adopted 2/15/1971)						

# **Membership Summary**

Table 3

	2013 Valuation			2012 Valuation			2013 Valuation		
Division	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 - General									
Active Members	38	\$	1,670,880	36	\$	1,484,609	49.7	14.6	14.6
Vested Former Members	3		29,341	2		17,252	56.4	13.0	13.0
Retirees and Beneficiaries	50		989,467	50	İ	986,641	71.0		
10 - SIrd									
Active Members	7	\$	357,819	7	\$	349,676	47.9	13.4	13.4
Vested Former Members	0		0	0		0	0.0	0.0	0.0
Retirees and Beneficiaries	16		399,833	16		399,835	70.8		
11 - Non-Union									
Active Members	3	\$	257,925	3	\$	245,800	50.9	22.0	22.0
Vested Former Members	0		0	0		0	0.0	0.0	0.0
Retirees and Beneficiaries	2		93,340	2		93,340	68.2		
12 - All Employees Post 1									
Active Members	3	\$	132,521		\$		39.7	0.4	0.4
Vested Former Members	0		0				0.0	0.0	0.0
Retirees and Beneficiaries	0		0				0.0		
Total Municipality					Г				
Active Members	51	\$	2,419,145	46	\$	2,080,085	48.9	14.0	14.0
Vested Former Members	3		29,341	2		17,252	56.4	13.0	13.0
Retirees and Beneficiaries	<u>68</u>		1,482,640	<u>68</u>		1,479,816	70.9		
Total Particpants	122			116					

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

 $<sup>^{2}\,</sup>$  Description can be found under Miscellaneous and Technical Assumptions in the  $\underline{\text{Appendix}}.$ 

# **Reported Assets (Market Value)**

Table 4

	2013 Va	luation	2012 Valuation			
	Employer and		Employer and			
Division	Retiree <sup>1</sup>	Employee <sup>2</sup>	Employee <sup>2</sup> Retiree <sup>1</sup>			
01 - General	\$ 8,094,742	\$ 1,209,007	\$ 7,566,735	\$ 1,096,765		
10 - SIrd	2,660,532	233,361	2,595,942	170,001		
11 - Non-Union	1,130,759	223,993	1,002,556	211,638		
12 - All Employees Post 12/31/2012	3,322	3,561				
Municipality Total	\$ 11,889,355	\$ 1,669,922	\$ 11,165,233	\$ 1,478,404		
Combined Reserves	\$ 13,5	59,277	\$ 12,643,637			

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

The December 31, 2013 valuation assets are equal to 1.061840 times the reported market value of assets (compared to 1.143563 as of December 31, 2012). The derivation of valuation assets is described, and detailed calculations of valuation assets are shown, in the <a href="https://example.com/appendix">Appendix</a>.

<sup>&</sup>lt;sup>2</sup> Reserve for Employee Contributions

### **Flow of Valuation Assets**

Table 5

Year	Contributions		Contributions		Member		
Ended 12/31	Employer	Member	Investment Income	Benefit	Contrib. Refunds	Net Transfers	Valuation Asset Balance
12/31	Employer	Mellibei	IIICOIIIE	Payments	Refullus	Hallsleis	Dalatice
2003	\$ 28,021	\$ 132,642	\$ 875,357	\$ (629,758)	\$ 0	\$ 0	\$ 12,761,760
2004	130,160		837,530	(661,540)	(3,423)	0	13,195,275
2005	164,878	136,548	833,272	(699,734)	0	18,814	13,649,053
2006	202,082	131,850	1,089,634	(782,599)	(6,479)	0	14,283,541
2007	232,312	135,324	1,155,982	(825,865)	(57,599)	39,159	14,962,854
2008	266,631	140,905	635,711	(905,049)	0	20,098	15,121,150
2009	275,858	126,787	559,642	(1,017,804)	0	0	15,065,633
2010	306,808	118,982	694,909	(1,151,050)	0	0	15,035,282
2011	323,762	107,108	652,470	(1,305,425)	(11,433)	0	14,801,764
2012	378,332	104,238	568,174	(1,393,713)	0	0	14,458,795
							j
2013	446,578	109,774	785,426	(1,483,870)	0	81,080	14,397,783

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

# Actuarial Accrued Liabilities and Valuation Assets As of December 31, 2013

Table 6

Division	Actu	arial Accrued Liability	1	ation Assets <sup>1</sup>	Percent Funded	(0	Jnfunded verfunded) Accrued Liabilities
01 - General							
Active Members	\$	4,792,877	\$	1,116,470	23.3%	\$	3,676,407
Vested Former Members		231,188		78,928	34.1%		152,260
Retirees And Beneficiaries		9,387,415		8,670,085	92.4%		717,330
Pending Refunds		<u>13,610</u>		<u>13,610</u>	100.0%		<u>0</u>
Total	\$	14,425,090	\$	9,879,093	68.5%	\$	4,545,997
10 - SIrd	ĺ						
Active Members	\$	904,038	\$	233,361	25.8%	\$	670,677
Vested Former Members	İ	0		0	0.0%		0
Retirees And Beneficiaries	İ	3,799,172		2,839,490	74.7%		959,682
Pending Refunds		<u>0</u>		<u>0</u>	0.0%		<u>0</u>
Total	\$	4,703,210	\$	3,072,851	65.3%	\$	1,630,359
11 - Non-Union	Ì						
Active Members	\$	1,148,751	\$	460,220	40.1%	\$	688,531
Vested Former Members		0		0	0.0%		. 0
Retirees And Beneficiaries		978,310		978,310	100.0%		0
Pending Refunds		0		0	0.0%		0
Total	\$	2,127,061	\$	1,438,530	67.6%	\$	688,531
12 - All Employees Post 12/31/2012		, ,		,,			,
Active Members	\$	6,180	\$	7,309	118.3%	\$	(1,129)
Vested Former Members		0		0	0.0%		0
Retirees And Beneficiaries		0		0	0.0%		0
Pending Refunds		<u>0</u>		0	0.0%		<u>0</u>
Total	\$	6,180	\$	7,309	118.3%	\$	(1,129)
Total Municipality	<u> </u>	-,		,			( , - ,
Active Members	\$	6,851,846	\$	1,817,360	26.5%	\$	5,034,486
Vested Former Members		231,188		78,928	34.1%		152,260
Retirees and Beneficiaries		14,164,897		12,487,885	88.2%		1,677,012
Pending Refunds		<u>13,610</u>		<u>13,610</u>	100.0%		0
Total Participants	\$	21,261,541	\$	14,397,783	67.7%	\$	6,863,758
The following results show the combined accrued liabilities and assets for each set of linked divisions. These results are already included in the table above.							
Linked Divisions 12, 01, 10, 11							
Active Members	\$	6,851,846	\$	1,817,360	26.5%	\$	5,034,486
Vested Former Members		231,188		78,928	34.1%	•	152,260
Retirees and Beneficiaries	i	14,164,897		12,487,885	88.2%		1,677,012
Pending Refunds		13,610		13,610	100.0%		<u>0</u>
Total	\$	21,261,541	\$	14,397,783	67.7%	\$	6,863,758

<sup>&</sup>lt;sup>1</sup> Includes both employer and member assets.

### Please see the Comments on the Investment Markets.

See the MERS Fiscal Responsibility Policy on the MERS website at:

http://www.mersofmich.com/Portals/0/Assets/PageResources/MERS/PlanDocument/Pension/sec\_43c.pdf.

# **Actuarial Accrued Liabilities - Comparative Schedule**

Table 7

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities	UAL as Percent of Annual Payroll
4000	ф 0.470.445	ф 44.040.054	4040/	Φ (0.470.505)	
1999	\$ 9,170,445	\$ 11,346,951	124%	\$ (2,176,505)	
2000	10,629,053	12,077,635	114%	(1,448,581)	
2001	11,221,940	12,483,042	111%	(1,261,102)	
2002	12,370,024	12,355,498	100%	14,526	1%
2003	12,914,970	12,761,760	99%	153,210	6%
2004	14,453,113	13,195,275	91%	1,257,838	46%
2005	15,269,350	13,649,053	89%	1,620,297	58%
2006	15,911,593	14,283,541	90%	1,628,052	60%
2007	17,515,567	14,962,854	85%	2,552,713	92%
2008	18,652,044	15,121,150	81%	3,530,894	121%
2009	19,117,084	15,065,633	79%	4,051,451	155%
2010	19,850,984	15,035,282	76%	4,815,702	204%
2011	20,463,223	14,801,764	72%	5,661,459	262%
2012	20,508,865	14,458,795	71%	6,050,070	291%
2013	21,261,541	14,397,783	68%	6,863,758	284%

Notes: Actuarial assumptions were revised for the 2000, 2004, 2008, 2009, 2010, 2011, and 2012 actuarial valuations.

### GASB 25 and GASB 27 Information

The following information has been prepared to provide the information necessary to comply with GASB Statements Number 25 and 27. Statement 25 is effective for fiscal years beginning after June 15, 1996 and Statement 27 is effective for fiscal years beginning after June 15, 1997.

All entries and the annual employer contribution amount were based on the actuarial methods and assumptions used in the December 31, 2013 actuarial valuation. The entry age normal actuarial method was used to determine the disclosure entries.

### **GASB 25 Information (as of 12/31/2013)**

Actuarial Accrued Liability		
Retirees and beneficiaries currently receiving benefits	\$	14,164,897
Terminated employees (vested former members) not yet receiving benefits		231,188
Non-Vested terminated employees (pending refunds of accumulated member contributions)		13,610
Current employees -		
Accumulated employee contributions including allocated investment income		1,577,385
Employer financed		<u>5,274,461</u>
Total Actuarial Accrued Liability	\$	21,261,541
Net Assets Available for Benefits at Actuarial Value	\$	14,397,783
(Market Value is 13,559,277)		
Unfunded (Overfunded) Actuarial Accrued Liability	\$	6,863,758
GASB 27 Information (as of 12/31/2013)		
Fiscal Year Beginning	Jar	nuary 1, 2015
Annual Required Contribution (ARC)	\$	554,292 <sup>1</sup>

<sup>1</sup> Based on valuation payroll (based on projected fiscal year payroll for divisions that will have no new hires). For divisions that are open to new hires the actual required contribution will be based on current monthly payroll (during the fiscal year beginning January 1, 2015) times the computed employer contribution rate(s) shown in Table 1. The ARC shown here is the sum of the ARC's calculated separately for each division.

## GASB 27 Information (Used in the 12/31/2013 Annual Actuarial Valuation)

# Amortization Factors Used to Compute Employer Contribution Requirements Used for Funding Calculations and Most ARC Calculations (see below) (Payments Increase 4.5% per Year)

Amortization Factor Used - Underfunded or Overfunded Liabilities (5 years)	0.221706
Amortization Factor Used - Underfunded or Overfunded Liabilities (6 years)	0.187731
Amortization Factor Used - Underfunded or Overfunded Liabilities (7 years)	0.163488
Amortization Factor Used - Underfunded or Overfunded Liabilities (8 years)	0.145330
Amortization Factor Used - Underfunded or Overfunded Liabilities (9 years)	0.131227
Amortization Factor Used - Underfunded or Overfunded Liabilities (10 years)	0.119963
Amortization Factor Used - Underfunded or Overfunded Liabilities (11 years)	0.110763
Amortization Factor Used - Underfunded or Overfunded Liabilities (12 years)	0.103112
Amortization Factor Used - Underfunded or Overfunded Liabilities (13 years)	0.096652
Amortization Factor Used - Underfunded or Overfunded Liabilities (14 years)	0.091128
Amortization Factor Used - Underfunded or Overfunded Liabilities (15 years)	0.086353
Amortization Factor Used - Underfunded or Overfunded Liabilities (16 years)	0.082185
Amortization Factor Used - Underfunded or Overfunded Liabilities (17 years)	0.078519
Amortization Factor Used - Underfunded or Overfunded Liabilities (18 years)	0.075270
Amortization Factor Used - Underfunded or Overfunded Liabilities (19 years)	0.072372
Amortization Factor Used - Underfunded or Overfunded Liabilities (20 years)	0.069773
Amortization Factor Used - Underfunded or Overfunded Liabilities (21 years)	0.067430
Amortization Factor Used - Underfunded or Overfunded Liabilities (22 years)	0.065308
Amortization Factor Used - Underfunded or Overfunded Liabilities (23 years)	0.063378
Amortization Factor Used - Underfunded or Overfunded Liabilities (24 years)	0.061616
Amortization Factor Used - Underfunded or Overfunded Liabilities (25 years)	0.060002

# Amortization Factor Used to Compute the GASB Annual Required Contribution (ARC) For Divisions that are Closed to New Hires

(and new hires are not covered by MERS DB or Hybrid provisions in a linked division)
If Division is Less than 100% Funded, and Uses a Funding Period over 15 Years

Amortization Factor Used - Underfunded Liabilities (30 year level \$) 0.085453

Assumptions: Continuous Payments; Interest at 8% Per Year

# **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 - General	
1/1/2010	E Cola Adoption Date 01-01-2010
1/1/2010	E Cola Increase Amount 15
1/1/2010	E Cola Increase Type Flat Amount
1/1/2010	Flexible E \$15.00 Monthly COLA Adopted (01/01/2010)
1/1/2009	Flexible E \$10.00 Monthly COLA Adopted (01/01/2009)
1/1/2008	Flexible E \$10.00 Monthly COLA Adopted (01/01/2008)
9/1/2007	Benefit FAC-3 (3 Year Final Average Compensation)
1/1/2007	Flexible E \$15.00 Monthly COLA Adopted (01/01/2007)
1/1/2006	Flexible E \$20.00 Monthly COLA Adopted (01/01/2006)
1/1/2005	Flexible E \$20.00 Monthly COLA Adopted (01/01/2005)
4/1/2004	Benefit B-3 (80% max)
4/1/2004	Member Contribution Rate 4.70%
1/1/2004	Flexible E \$20.00 Monthly COLA Adopted (01/01/2004)
1/1/2003	Flexible E \$30.00 Monthly COLA Adopted (01/01/2003)
1/1/2002	Flexible E \$30.00 Monthly COLA Adopted (01/01/2002)
1/1/2001	Flexible E \$20.00 Monthly COLA Adopted (01/01/2001)
1/1/2000	Flexible E \$15.00 Monthly COLA Adopted (01/01/2000)
1/1/1999	Flexible E \$10.00 Monthly COLA Adopted (01/01/1999)
1/1/1998	Benefit F55 (With 25 Years of Service)
1/1/1998	Flexible E \$20.00 Monthly COLA Adopted (01/01/1998)
1/1/1995	E 2% COLA Adopted (01/01/1995)
1/1/1993	E 2% COLA Adopted (01/01/1993)
1/1/1992	Benefit B-2
1/1/1992	E 2% COLA Adopted (01/01/1992)
1/1/1991	E 2% COLA Adopted (01/01/1991)
4/1/1977	Benefit C-1 (Old)
2/28/1975	Exclude Temporary Employees
2/15/1971	Covered by Act 88
7/1/1946	10 Year Vesting
7/1/1946	Benefit FAC-5 (5 Year Final Average Compensation)
7/1/1946	Benefit C (Old)
7/1/1946	Member Contribution Rate 3.00% Under \$4,200.00 - Then 5.00%
7/1/1946	Fiscal Month - January
10 - SIrd	
1/1/2010	Flexible E \$15.00 Monthly COLA Adopted (01/01/2010)
1/1/2010	E Cola Adoption Date 01-01-2010
1/1/2010	E Cola Increase Amount 15
1/1/2010	E Cola Increase Type Flat Amount
1/1/2009	Flexible E \$10.00 Monthly COLA Adopted (01/01/2009)

10 - SIrd	
1/1/2008	Flexible E \$10.00 Monthly COLA Adopted (01/01/2008)
3/1/2007	Benefit B-3 (80% max)
1/1/2007	Flexible E \$15.00 Monthly COLA Adopted (01/01/2007)
1/1/2006	Flexible E \$20.00 Monthly COLA Adopted (01/01/2006)
1/1/2005	Flexible E \$20.00 Monthly COLA Adopted (01/01/2005)
1/1/2004	Flexible E \$20.00 Monthly COLA Adopted (01/01/2004)
1/1/2003	Flexible E \$30.00 Monthly COLA Adopted (01/01/2003)
1/1/2002	Member Contribution Rate 4.70%
1/1/2002	Benefit F55 (With 25 Years of Service)
1/1/2002	Flexible E \$30.00 Monthly COLA Adopted (01/01/2002)
1/1/2001	Flexible E \$20.00 Monthly COLA Adopted (01/01/2001)
1/1/2000	Benefit FAC-3 (3 Year Final Average Compensation)
1/1/2000	Flexible E \$15.00 Monthly COLA Adopted (01/01/2000)
1/1/1999	Flexible E \$10.00 Monthly COLA Adopted (01/01/1999)
1/1/1998	Flexible E \$20.00 Monthly COLA Adopted (01/01/1998)
1/1/1995	E 2% COLA Adopted (01/01/1995)
1/1/1993	E 2% COLA Adopted (01/01/1993)
1/1/1992	10 Year Vesting
1/1/1992	Benefit FAC-5 (5 Year Final Average Compensation)
1/1/1992	Benefit B-2
1/1/1992	Member Contribution Rate 3.00% Under \$4,200.00 - Then 5.00%
1/1/1992	E 2% COLA Adopted (01/01/1992)
1/1/1991	E 2% COLA Adopted (01/01/1991)
2/28/1975	Exclude Temporary Employees
2/15/1971	Covered by Act 88
7/1/1946	Fiscal Month - January

# 11 - Non-Union

1/1/2009	Flexible E \$10.00 Monthly COLA Adopted (01/01/2009)
1/1/2009	E Cola Adoption Date 01-01-2009
1/1/2009	E Cola Increase Amount 10
1/1/2009	E Cola Increase Type Flat Amount
1/1/2008	Flexible E \$10.00 Monthly COLA Adopted (01/01/2008)
1/1/2007	Flexible E \$15.00 Monthly COLA Adopted (01/01/2007)
1/1/2006	Flexible E \$20.00 Monthly COLA Adopted (01/01/2006)
6/1/2004	10 Year Vesting
6/1/2004	Benefit FAC-3 (3 Year Final Average Compensation)
6/1/2004	Benefit B-3 (80% max)
6/1/2004	Member Contribution Rate 4.70%
6/1/2004	Benefit F55 (With 25 Years of Service)
2/28/1975	Exclude Temporary Employees
2/15/1971	Covered by Act 88
7/1/1946	Fiscal Month - January

# 12 - All Employees Post 12/31/2012

1/1/2013	Exclude Temporary Employees requiring less than 12 months
1/1/2013	10 Year Vesting
1/1/2013	Benefit FAC-3 (3 Year Final Average Compensation)
1/1/2013	Benefit B-3 (80% max)
1/1/2013	Defined as a day of work 88 hours per month
1/1/2013	Member Contribution Rate 6.00%
1/1/2013	Benefit F55 (With 25 Years of Service)
2/15/1971	Covered by Act 88
7/1/1946	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 <u>Appendix</u>. Some actuarial assumptions are specific to this municipality and its divisions. These are listed below.

### **Increase in Final Average Compensation**

Division	FAC Increase Assumption
All Divisions	5.00%

### **Withdrawal Rate Scaling Factor**

Division	Withdrawal Rate Scaling Factor
All Divisions	100%

### **Miscellaneous and Technical Assumptions**

Loads - None.