



MUNICIPAL EMPLOYEES' RETIREMENT SYSTEM OF MICHIGAN
ANNUAL ACTUARIAL VALUATION REPORT DECEMBER 31, 2012
LAPEER CO (4403)

Spring, 2013

Lapeer 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, 2012. The report includes the determination of liabilities and contribution rates resulting from the participation of Lapeer Co (4403) 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. Lapeer 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, 2012 annual actuarial valuation is to (i) measure funding progress, (ii) establish contribution requirements for the fiscal year beginning January 1, 2014, and (iii) provide actuarial information in connection with applicable Governmental Accounting Standards Board statements. This valuation report should not be relied upon for any other purpose.

The valuation uses financial data, plan provision data, and participant data as of December 31, 2012 furnished by MERS' administrative staff. The data was checked for internal and year to year consistency as well as general reasonableness, but was not otherwise audited. The MERS of Michigan Actuarial Services Department 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. For this annual valuation, the Retirement Board adopted some revised actuarial assumptions. 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-2012AnnualActuarialValuation-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 employees of MERS, 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).

Please review the Comments on the Investment Markets.

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).

Please contact MERS at <http://www.mersofmich.com/MERS/About-MERS/Contact-Us> if you have any questions.

Sincerely,

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

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Executive Summary

Required Employer Contributions

The computed minimum required employer contributions to the retirement system for the fiscal years beginning January 1, 2014 (2012 Valuation) and January 1, 2013 (2011 Valuation) are as follows:

Division	Percentage of Payroll		Monthly \$ Based on Valuation Payroll	
	2012 Valuation	2011 Valuation	2012 Valuation	2011 Valuation
02 - POLC Sheriff	12.73%	12.05%	\$ 38,423	\$ 35,787
04 - S.T.A.R.S.	7.78%	7.75%	47,267	46,571
06 - CMH Union	8.71%	8.57%	17,414	17,225
10 - AFSCME	9.73%	8.62%	10,026	8,897
11 - Gnrl Non Union	7.22%	6.39%	14,044	12,719
12 - Gnrl Teamsters	8.64%	8.17%	17,068	15,996
13 - Elected & Appt. Dept	6.40%	5.09%	5,510	4,488
20 - COAM/POAM Disp	11.55%	11.21%	6,822	6,591
40 - MCF Non Union	13.98%	13.32%	50,812	49,505
60 - CMH Non Union	8.85%	8.23%	4,030	3,684
Municipality Total			\$ 211,416	\$ 201,463

The above employer contribution requirements are in addition to the member contributions, if any, shown in Table 2.

It is important to note that the contribution rates shown above are not expected to remain at present levels indefinitely. If future experience were to match the valuation assumptions exactly, the computed employer rates for divisions that are open to new hires would trend over time toward the long-term cost of system benefits, known as the Normal Cost (see Table 1). For underfunded divisions that are closed to new hires and are not linked to an open division, the computed employer dollar contribution would increase 5%-9% annually for 15 years under the Option B amortization policy (for divisions first reflected as closed in the 2012 valuation). Under the Option A amortization policy, the annual increases would be larger but would only continue for 10 years.

Contribution rates will change from one year to the next as a result of changes in benefit provisions, changes in the actuarial assumptions, and experience of the plan (investment experience and demographic experience).

The 2012 valuation reflects changes in actuarial assumptions and/or methods (see the [Appendix](#)). For benefit provision changes see Table 2.

2012 System Experience

Based on the smoothed Actuarial Value of Assets (Valuation Assets), the recognized rate of investment return for MERS overall was 5.4% (less than the 8% actuarial assumption). On average this will result in increases in computed employer contributions.

Demographic experience varied by division. This reflects what actually happened to participants (active members, retirees, and vested former members) compared to what was projected by the actuarial assumptions.

2012 Funded Position

The ratio of the Valuation Assets to the Actuarial Accrued Liability for Lapeer Co in aggregate is 91%; last year's ratio was 92%.

Comments on the Investment Markets

The dramatic price declines across the world financial markets in 2008 led to increased volatility unlike any experienced in decades. From 2009 to 2012, financial markets experienced price appreciation driven largely by government monetary policy and a rebound in economic activities; although at a slower pace than historic past recession recoveries. MERS' portfolio recovered with average annual investment returns of over 10%. While investors world-wide continue to focus on economic concerns and market volatility, equity markets have rebounded, particularly in the United States. The S&P has rebounded 109% from the March 9, 2009 bottom to December 31, 2012.

At this time, MERS maintains the 8% annual return assumption on investments in the belief that over the long term this is achievable. For example, MERS' 30 year return was 9.3% on December 31, 2012. MERS regularly monitors the investment return assumption to make sure it is reasonable compared to long term expectations.

The actuarial value of assets (funding value), used to determine both your funded status and your required employer contribution, is based on a 10-year smoothed value of assets. Only a portion (five-tenths, for 2008 - 2012) 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 actuarial funded percentage.

As of December 31, 2012 the actuarial value of assets is 114% of market value (down from 121% in 2011). 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, 2012 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 79% (instead of 91%); and ii) your total employer contribution requirement for the fiscal year starting January 1, 2014 would be \$ 3,185,556 (instead of \$ 2,536,992). If the investment markets do not fully make up for the 2008 losses, employer contribution requirements may rise. MERS' investment strategy employs diversification using various asset categories (stocks, bonds, and to a smaller extent real estate, commodities and private equity) to capture as much of the upside return as possible while managing acceptable risk. If contribution increases do become necessary, MERS would attempt to implement them incrementally.

Remember that only five-tenths of the 2008 market losses are reflected in this actuarial valuation report. As was true for past market downturns, MERS expects the markets to continue to rebound. By the time the 2008 market losses would be fully recognized (over the following 5 years), future market gains are expected to partly or fully offset 2008 market losses. This smoothing method is a powerful tool for reducing the volatility of your required employer contributions. However, if the financial markets do not rebound, the result would be gradual increases in your employer contribution requirement over the next 5 years (as described above).

Employer Contribution Details For the Fiscal Year Beginning January 1, 2014

Table 1

Division	Amort. Period for Unfund. Liab. ^{4,5}	Employer Contributions ¹			Blended Employer Contribut. ⁷	GASB ARC ⁶	Member Contribut. Conversion Factor ²
		Normal Cost	Unfunded Accrued Liability	Total Required Employer Contribut.			
Percentage of Payroll							
02 - POLC Sheriff	26	7.91%	4.82%	12.73%			
04 - S.T.A.R.S.	26	6.93%	0.85%	7.78%			
06 - CMH Union	26	8.26%	0.45%	8.71%			
10 - AFSCME	26	8.24%	1.49%	9.73%			
11 - Gnrl Non Union	26	8.25%	-1.03%	7.22%			
12 - Gnrl Teamsters	26	7.82%	0.82%	8.64%			
13 - Elected & Appt. De	26	7.54%	-1.14%	6.40%			
20 - COAM/POAM Disp	26	9.02%	2.53%	11.55%			
40 - MCF Non Union	26	9.50%	4.48%	13.98%			
60 - CMH Non Union	26	7.52%	1.33%	8.85%			
Estimated Monthly Contribution³							
02 - POLC Sheriff	26	\$ 23,875	\$ 14,548	\$ 38,423			0.78%
04 - S.T.A.R.S.	26	42,103	5,164	47,267			0.83%
06 - CMH Union	26	16,514	900	17,414			0.82%
10 - AFSCME	26	8,491	1,535	10,026			0.80%
11 - Gnrl Non Union	26	16,048	(2,004)	14,044			0.81%
12 - Gnrl Teamsters	26	15,448	1,620	17,068			0.82%
13 - Elected & Appt. De	26	6,491	(981)	5,510			0.75%
20 - COAM/POAM Disp	26	5,328	1,494	6,822			0.83%
40 - MCF Non Union	26	34,529	16,283	50,812			0.77%
60 - CMH Non Union	26	3,424	606	4,030			0.74%
Total Municipality		\$ 172,251	\$ 39,165	\$ 211,416			
Estimated Annual Contribution³		\$ 2,067,012	\$ 469,980	\$ 2,536,992			

¹ The above Employer contribution requirements are in addition to the Member contributions, if any, shown in Table 2.

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

³ 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 [Appendix](#).

⁴ If projected assets exceed projected liabilities as of the beginning of the January 1, 2014 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.

⁵ 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.

- ⁶ 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.
- ⁷ 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.

Please see the Comments on the Investment Markets.

Benefit Provisions

Table 2

02 - POLC Sheriff: Open Division

	2012 Valuation	2011 Valuation
Benefit Multiplier:	2.50% Multiplier (80% max)	Benefit B-4 (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
Member Contributions:	2.49%	2.49%
Act 88:	Yes (Adopted 10/30/1970)	Yes (Adopted 10/30/1970)

04 - S.T.A.R.S.: Open Division

	2012 Valuation	2011 Valuation
Benefit Multiplier:	2.00% Multiplier (no max)	Benefit B-2
Normal Retirement Age:	60	60
Vesting:	10 years	10 years
Early Retirement (Unreduced):	-	-
Early Retirement (Reduced):	50/25	50/25
	55/15	55/15
Final Average Compensation:	5 years	5 years
Member Contributions:	0%	0%
Act 88:	Yes (Adopted 10/30/1970)	Yes (Adopted 10/30/1970)

06 - CMH Union: Open Division

	2012 Valuation	2011 Valuation
Benefit Multiplier:	2.25% Multiplier (80% max)	Benefit B-3 (80% max)
Normal Retirement Age:	60	60
Vesting:	10 years	10 years
Early Retirement (Unreduced):	-	-
Early Retirement (Reduced):	50/25	50/25
	55/15	55/15
Final Average Compensation:	5 years	5 years
Member Contributions:	0%	0%
Act 88:	Yes (Adopted 10/30/1970)	Yes (Adopted 10/30/1970)

Table 2 (continued)**10 - AFSCME: Open Division**

	2012 Valuation	2011 Valuation
Benefit Multiplier:	2.25% Multiplier (80% max)	Benefit B-3 (80% max)
Normal Retirement Age:	60	60
Vesting:	10 years	10 years
Early Retirement (Unreduced):	-	-
Early Retirement (Reduced):	50/25 55/15	50/25 55/15
Final Average Compensation:	5 years	5 years
Member Contributions:	0%	0%
Act 88:	Yes (Adopted 10/30/1970)	Yes (Adopted 10/30/1970)

11 - Gnrl Non Union: Open Division

	2012 Valuation	2011 Valuation
Benefit Multiplier:	2.25% Multiplier (80% max)	Benefit B-3 (80% max)
Normal Retirement Age:	60	60
Vesting:	10 years	10 years
Early Retirement (Unreduced):	-	-
Early Retirement (Reduced):	50/25 55/15	50/25 55/15
Final Average Compensation:	5 years	5 years
Member Contributions:	0%	0%
Act 88:	Yes (Adopted 10/30/1970)	Yes (Adopted 10/30/1970)

12 - Gnrl Teamsters: Open Division

	2012 Valuation	2011 Valuation
Benefit Multiplier:	2.25% Multiplier (80% max)	Benefit B-3 (80% max)
Normal Retirement Age:	60	60
Vesting:	10 years	10 years
Early Retirement (Unreduced):	-	-
Early Retirement (Reduced):	50/25 55/15	50/25 55/15
Final Average Compensation:	5 years	5 years
Member Contributions:	0%	0%
Act 88:	Yes (Adopted 10/30/1970)	Yes (Adopted 10/30/1970)

13 - Elected & Appt. Dept Heads: Open Division

	2012 Valuation	2011 Valuation
Benefit Multiplier:	2.50% Multiplier (80% max)	Benefit B-4 (80% max)
Normal Retirement Age:	60	60
Vesting:	10 years	10 years
Early Retirement (Unreduced):	-	-
Early Retirement (Reduced):	50/25 55/15	50/25 55/15
Final Average Compensation:	5 years	5 years
Member Contributions:	2.53%	2.53%
Act 88:	Yes (Adopted 10/30/1970)	Yes (Adopted 10/30/1970)

Table 2 (continued)**20 - COAM/POAM Disp: Open Division**

	2012 Valuation	2011 Valuation
Benefit Multiplier:	2.25% Multiplier (80% max)	Benefit B-3 (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
Member Contributions:	0%	0%
Act 88:	Yes (Adopted 10/30/1970)	Yes (Adopted 10/30/1970)

40 - MCF Non Union: Open Division

	2012 Valuation	2011 Valuation
Benefit Multiplier:	2.50% Multiplier (80% max)	Benefit B-4 (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:	5 years	5 years
Member Contributions:	0%	0%
Act 88:	Yes (Adopted 10/30/1970)	Yes (Adopted 10/30/1970)

60 - CMH Non Union: Open Division

	2012 Valuation	2011 Valuation
Benefit Multiplier:	2.25% Multiplier (80% max)	Benefit B-3 (80% max)
Normal Retirement Age:	60	60
Vesting:	10 years	10 years
Early Retirement (Unreduced):	-	-
Early Retirement (Reduced):	50/25	50/25
	55/15	55/15
Final Average Compensation:	5 years	5 years
Member Contributions:	0%	0%
Act 88:	Yes (Adopted 10/30/1970)	Yes (Adopted 10/30/1970)

Membership Summary

Table 3

Division	2012 Valuation		2011 Valuation		2012 Valuation		
	Number	Annual Payroll ¹	Number	Annual Payroll ¹	Average Age	Average Benefit Service ²	Average Eligibility Service ²
02 - POLC Sheriff							
Active Members	73	\$ 3,622,005	73	\$ 3,563,819	44.9	14.1	14.1
Vested Former Members	13	64,169	12	51,865	40.9	5.2	14.5
Retirees and Beneficiaries	44	969,960	44	969,960	65.0		
04 - S.T.A.R.S.							
Active Members	306	\$ 7,290,485	304	\$ 7,210,900	36.3	6.0	6.1
Vested Former Members	23	109,883	23	96,539	50.6	12.7	13.9
Retirees and Beneficiaries	63	379,204	65	367,029	71.6		
06 - CMH Union							
Active Members	63	\$ 2,399,198	62	\$ 2,411,865	45.2	9.9	10.4
Vested Former Members	9	54,907	6	29,765	52.8	8.7	13.0
Retirees and Beneficiaries	14	187,347	12	140,445	64.6		
10 - AFSCME							
Active Members	35	\$ 1,236,547	36	\$ 1,238,602	51.3	13.1	13.1
Vested Former Members	21	167,411	23	176,648	51.7	11.5	12.9
Retirees and Beneficiaries	37	347,584	34	313,271	67.9		
11 - Gnrl Non Union							
Active Members	52	\$ 2,334,269	53	\$ 2,388,523	48.6	14.2	14.5
Vested Former Members	8	109,253	8	109,253	48.0	13.0	13.7
Retirees and Beneficiaries	23	292,380	21	228,139	71.8		
12 - Gnrl Teamsters							
Active Members	66	\$ 2,370,512	66	\$ 2,349,500	47.5	15.1	15.1
Vested Former Members	11	109,569	10	92,156	46.6	12.7	13.7
Retirees and Beneficiaries	39	406,309	39	408,203	74.6		
13 - Elected & Appt. Dept							
Active Members	23	\$ 1,033,001	24	\$ 1,058,033	58.9	18.5	20.2
Vested Former Members	4	28,878	4	28,878	51.0	7.3	16.2
Retirees and Beneficiaries	20	337,640	19	309,914	74.2		
20 - COAM/POAM Disp							
Active Members	16	\$ 708,848	16	\$ 705,498	45.2	12.1	12.6
Vested Former Members	1	2,857	1	2,857	30.0	3.4	10.2
Retirees and Beneficiaries	2	48,957	2	48,957	59.5		
40 - MCF Non Union							
Active Members	93	\$ 4,361,594	95	\$ 4,459,948	46.2	10.3	10.4
Vested Former Members	12	124,497	11	112,468	51.8	10.5	11.6
Retirees and Beneficiaries	43	623,695	37	515,950	68.8		

Table 3 (continued)

Division	2012 Valuation		2011 Valuation		2012 Valuation		
	Number	Annual Payroll ¹	Number	Annual Payroll ¹	Average Age	Average Benefit Service ²	Average Eligibility Service ²
60 - CMH Non Union							
Active Members	9	\$ 546,357	9	\$ 537,109	52.4	18.5	18.5
Vested Former Members	4	42,830	4	42,830	51.5	11.2	16.7
Retirees and Beneficiaries	5	130,400	5	130,400	70.6		
Total Municipality							
Active Members	736	\$ 25,902,816	738	\$ 25,923,797	42.9	10.1	10.3
Vested Former Members	106	814,254	102	743,259	49.2	10.6	13.6
Retirees and Beneficiaries	290	3,723,476	278	3,432,268	69.9		
Total Participants	1132		1118				

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

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

Reported Assets (Market Value)

Table 4

Division	2012 Valuation		2011 Valuation	
	Employer and Retiree ¹	Employee ²	Employer and Retiree ¹	Employee ²
02 - POLC Sheriff	\$ 13,821,000	\$ 1,198,799	\$ 12,872,197	\$ 1,106,814
04 - S.T.A.R.S.	7,508,865	265,071	6,594,940	289,506
06 - CMH Union	5,186,554	65,483	4,595,549	70,651
10 - AFSCME	5,714,949	61,549	5,362,173	61,463
11 - Gnrl Non Union	7,762,719	37,224	7,137,190	61,553
12 - Gnrl Teamsters	7,954,232	53,381	7,343,634	53,306
13 - Elected & Appt. Dept Heads	6,259,776	328,230	5,824,454	287,936
20 - COAM/POAM Disp	1,491,992	0	1,316,554	0
40 - MCF Non Union	10,528,956	87,716	9,480,751	107,383
60 - CMH Non Union	2,548,846	13,527	2,365,152	13,508
Municipality Total	\$ 68,777,889	\$ 2,110,980	\$ 62,892,594	\$ 2,052,120
Combined Reserves	\$ 70,888,869		\$ 64,944,714	

¹ Reserve for Employer Contributions and Benefit Payments

² Reserve for Employee Contributions

The December 31, 2012 valuation assets are equal to 1.143563 times the reported market value of assets (compared to 1.205815 as of December 31, 2011). The derivation of valuation assets is described, and detailed calculations of valuation assets are shown, in the [Appendix](#).

Flow of Valuation Assets

Table 5

Year Ended 12/31	Contributions		Investment Income	Benefit Payments	Member Contrib. Refunds	Net Transfers	Valuation Asset Balance
	Employer	Member					
2002	\$ 1,827,043	\$ 95,710	\$ 1,476,581	\$ (1,144,287)	\$ (2,467)	\$ 2,001	\$ 37,275,307
2003	2,040,153	83,626	2,917,071	(1,200,532)	(7,607)	(787,268)	40,320,750
2004	2,931,706	83,750	2,915,459	(1,358,297)	(10,950)	(276,600)	44,605,818
2005	2,351,688	139,535	2,965,938	(1,635,943)	(1,110)	58,595	48,484,521
2006	4,689,470	233,928	4,031,129	(1,879,765)	(11,276)	0	55,548,007
2007	3,268,463	153,907	4,504,185	(2,144,291)	(8,522)	0	61,321,749
2008	2,820,446	121,929	2,983,475	(2,357,504)	(5,875)	0	64,884,220
2009	3,356,569	127,565	3,719,493	(2,592,458)	(7,466)	0	69,487,923
2010	2,701,704	120,400	4,108,154	(2,887,422)	(3,985)	0	73,526,774
2011	3,669,334	118,290	4,243,170	(3,227,971)	(18,286)	0	78,311,311
2012	2,482,412	118,808	3,720,946	(3,576,831)	(2,462)	11,703	81,065,887

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, 2012

Table 6

Division	Actuarial Accrued Liability	Valuation Assets ¹	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
02 - POLC Sheriff				
Active Members	\$ 9,824,374	\$ 6,859,470	69.8%	\$ 2,964,904
Vested Former Members	201,944	201,944	100.0%	0
Retirees And Beneficiaries	10,059,773	10,059,773	100.0%	0
Pending Refunds	<u>54,899</u>	<u>54,899</u>	100.0%	<u>0</u>
Total	\$ 20,140,990	\$ 17,176,086	85.3%	\$ 2,964,904
04 - S.T.A.R.S.				
Active Members	\$ 5,999,523	\$ 4,941,948	82.4%	\$ 1,057,575
Vested Former Members	738,670	738,670	100.0%	0
Retirees And Beneficiaries	3,168,884	3,168,884	100.0%	0
Pending Refunds	<u>40,484</u>	<u>40,484</u>	100.0%	<u>0</u>
Total	\$ 9,947,561	\$ 8,889,986	89.4%	\$ 1,057,575
06 - CMH Union				
Active Members	\$ 3,961,086	\$ 3,780,622	95.4%	\$ 180,464
Vested Former Members	362,622	362,622	100.0%	0
Retirees And Beneficiaries	1,856,233	1,856,233	100.0%	0
Pending Refunds	<u>6,558</u>	<u>6,558</u>	100.0%	<u>0</u>
Total	\$ 6,186,499	\$ 6,006,035	97.1%	\$ 180,464
10 - AFSCME				
Active Members	\$ 2,758,919	\$ 2,457,126	89.1%	\$ 301,793
Vested Former Members	955,182	955,182	100.0%	0
Retirees And Beneficiaries	3,185,462	3,185,462	100.0%	0
Pending Refunds	<u>8,019</u>	<u>8,019</u>	100.0%	<u>0</u>
Total	\$ 6,907,582	\$ 6,605,789	95.6%	\$ 301,793
11 - Gnrl Non Union				
Active Members	\$ 5,407,685	\$ 5,638,363	104.3%	\$ (230,678)
Vested Former Members	557,905	557,905	100.0%	0
Retirees And Beneficiaries	2,722,746	2,722,746	100.0%	0
Pending Refunds	<u>712</u>	<u>712</u>	100.0%	<u>0</u>
Total	\$ 8,689,048	\$ 8,919,726	102.7%	\$ (230,678)
12 - Gnrl Teamsters				
Active Members	\$ 5,572,165	\$ 5,252,093	94.3%	\$ 320,072
Vested Former Members	484,040	484,040	100.0%	0
Retirees And Beneficiaries	3,421,077	3,421,077	100.0%	0
Pending Refunds	<u>0</u>	<u>0</u>	0.0%	<u>0</u>
Total	\$ 9,477,282	\$ 9,157,210	96.6%	\$ 320,072

Table 6 (continued)

Division	Actuarial Accrued Liability	Valuation Assets ¹	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
13 - Elected & Appt. Dept Heads				
Active Members	\$ 4,118,140	\$ 4,235,234	102.8%	\$ (117,094)
Vested Former Members	176,073	176,073	100.0%	0
Retirees And Beneficiaries	3,120,621	3,120,621	100.0%	0
Pending Refunds	<u>1,872</u>	<u>1,872</u>	100.0%	<u>0</u>
Total	\$ 7,416,706	\$ 7,533,800	101.6%	\$ (117,094)
20 - COAM/POAM Disp				
Active Members	\$ 1,454,680	\$ 1,150,458	79.1%	\$ 304,222
Vested Former Members	2,789	2,789	100.0%	0
Retirees And Beneficiaries	552,940	552,940	100.0%	0
Pending Refunds	<u>0</u>	<u>0</u>	0.0%	<u>0</u>
Total	\$ 2,010,409	\$ 1,706,187	84.9%	\$ 304,222
40 - MCF Non Union				
Active Members	\$ 8,927,108	\$ 5,613,486	62.9%	\$ 3,313,622
Vested Former Members	821,354	821,354	100.0%	0
Retirees And Beneficiaries	5,704,886	5,704,886	100.0%	0
Pending Refunds	<u>1,107</u>	<u>1,107</u>	100.0%	<u>0</u>
Total	\$ 15,454,455	\$ 12,140,833	78.6%	\$ 3,313,622
60 - CMH Non Union				
Active Members	\$ 1,582,576	\$ 1,461,118	92.3%	\$ 121,458
Vested Former Members	306,023	306,023	100.0%	0
Retirees And Beneficiaries	1,163,094	1,163,094	100.0%	0
Pending Refunds	<u>0</u>	<u>0</u>	0.0%	<u>0</u>
Total	\$ 3,051,693	\$ 2,930,235	96.0%	\$ 121,458
Total Municipality				
Active Members	\$ 49,606,256	\$ 41,389,918	83.4%	\$ 8,216,338
Vested Former Members	4,606,602	4,606,602	100.0%	0
Retirees and Beneficiaries	34,955,716	34,955,716	100.0%	0
Pending Refunds	<u>113,651</u>	<u>113,651</u>	100.0%	<u>0</u>
Total Participants	\$ 89,282,225	\$ 81,065,887	90.8%	\$ 8,216,338

¹ 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
1998	\$ 30,510,544	\$ 24,273,909	80%	\$ 6,236,635	39%
1999	30,235,070	28,451,502	94%	1,783,568	11%
2000	35,717,216	31,832,139	89%	3,885,077	22%
2001	43,599,768	35,020,726	80%	8,579,042	42%
2002	47,793,702	37,275,307	78%	10,518,395	48%
2003	49,842,139	40,320,750	81%	9,521,389	43%
2004	53,364,956	44,605,818	84%	8,759,138	40%
2005	57,449,535	48,484,521	84%	8,965,014	41%
2006	62,191,494	55,548,007	89%	6,643,487	29%
2007	67,484,457	61,321,749	91%	6,162,708	26%
2008	72,924,490	64,884,220	89%	8,040,270	33%
2009	75,451,001	69,487,923	92%	5,963,078	23%
2010	79,860,857	73,526,774	92%	6,334,083	26%
2011	85,385,423	78,311,311	92%	7,074,112	27%
2012	89,282,225	81,065,887	91%	8,216,338	32%

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, 2012 actuarial valuation. The entry age normal actuarial method was used to determine the disclosure entries.

GASB 25 Information (as of 12/31/2012)

Actuarial Accrued Liability		
Retirees and beneficiaries currently receiving benefits	\$	34,955,716
Terminated employees (vested former members) not yet receiving benefits		4,606,602
Non-Vested terminated employees (pending refunds of accumulated member contributions)		113,651
Current employees -		
Accumulated employee contributions including allocated investment income		1,771,987
Employer financed		<u>47,834,269</u>
Total Actuarial Accrued Liability	\$	89,282,225
Net Assets Available for Benefits at Actuarial Value	\$	<u>81,065,887</u>
(Market Value is 70,888,869)		
Unfunded (Overfunded) Actuarial Accrued Liability	\$	8,216,338

GASB 27 Information (as of 12/31/2012)

Fiscal Year Beginning		January 1, 2014
Annual Required Contribution (ARC)	\$	2,536,992 ¹

¹ 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, 2014) 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 12/31/2012 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 - Underfunded or Overfunded Liabilities (26 years)	0.058519

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
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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.

02 - POLC Sheriff

1/1/1999	Benefit B-4 (80% max)
1/1/1999	Member Contribution Rate 2.49%
1/1/1994	Benefit B-3 (80% max)
1/1/1991	Benefit B-2
1/1/1991	Benefit F50 (With 25 Years of Service)
1/1/1988	Benefit C-2/Base B-1
6/1/1985	Member Contribution Rate 0.00%
1/1/1981	Member Contribution Rate 5.00%
1/1/1981	Benefit F55 (With 25 Years of Service)
4/6/1978	Exclude Temporary Employees
1/1/1973	Benefit C-1 (Old)
10/30/1970	Covered by Act 88
6/1/1966	10 Year Vesting
6/1/1966	Benefit FAC-5 (5 Year Final Average Compensation)
6/1/1966	Benefit C (Old)
6/1/1966	Member Contribution Rate 3.00% Under \$4,200.00 - Then 5.00%
	Fiscal Month - January

04 - S.T.A.R.S.

5/1/2007	Member Contribution Rate 0.00%
10/1/2005	Benefit B-2
10/1/2005	Member Contribution Rate 2.33%
1/1/1987	Member Contribution Rate 0.00%
1/1/1973	Benefit C-1 (Old)
10/30/1970	Covered by Act 88
6/1/1966	10 Year Vesting
6/1/1966	Benefit FAC-5 (5 Year Final Average Compensation)
6/1/1966	Benefit C (Old)
6/1/1966	Member Contribution Rate 3.00% Under \$4,200.00 - Then 5.00%
6/1/1966	Fiscal Month - January

06 - CMH Union

4/1/2003	Benefit B-3 (80% max)
5/1/2001	Member Contribution Rate 0.00%
1/1/2001	Member Contribution Rate 4.14%
1/1/2000	Member Contribution Rate 4.41%
1/1/1999	Member Contribution Rate 0.23%
11/1/1998	10 Year Vesting
11/1/1998	Benefit FAC-5 (5 Year Final Average Compensation)
11/1/1998	Benefit B-2
11/1/1998	Member Contribution Rate 0.00%

Benefit Provision History

06 - CMH Union

4/6/1978 Exclude Temporary Employees
 10/30/1970 Covered by Act 88
 Fiscal Month - January

10 - AFSCME

1/1/2000 Benefit B-3 (80% max)
 3/1/1991 Benefit B-2
 1/1/1986 10 Year Vesting
 1/1/1986 Benefit FAC-5 (5 Year Final Average Compensation)
 1/1/1986 Member Contribution Rate 0.00%
 10/30/1970 Covered by Act 88
 Fiscal Month - January

11 - Gnrl Non Union

12/31/2000 Benefit B-3 (80% max)
 12/1/1990 Benefit B-2
 1/1/1986 10 Year Vesting
 1/1/1986 Benefit FAC-5 (5 Year Final Average Compensation)
 1/1/1986 Member Contribution Rate 0.00%
 4/6/1978 Exclude Temporary Employees
 10/30/1970 Covered by Act 88
 Fiscal Month - January

12 - Gnrl Teamsters

1/1/2000 Benefit B-3 (80% max)
 1/1/1991 Benefit B-2
 1/1/1986 10 Year Vesting
 1/1/1986 Benefit FAC-5 (5 Year Final Average Compensation)
 1/1/1986 Member Contribution Rate 0.00%
 4/6/1978 Exclude Temporary Employees
 10/30/1970 Covered by Act 88
 Fiscal Month - January

13 - Elected & Appt. Dept Heads

1/1/2005 Benefit B-4 (80% max)
 1/1/2005 Member Contribution Rate 2.53%
 1/1/2001 Benefit B-3 (80% max)
 12/1/1990 Benefit B-2
 6/1/1985 10 Year Vesting
 6/1/1985 Benefit FAC-5 (5 Year Final Average Compensation)
 6/1/1985 Member Contribution Rate 0.00%
 4/6/1978 Exclude Temporary Employees
 10/30/1970 Covered by Act 88
 Fiscal Month - January

Benefit Provision History

20 - COAM/POAM Disp

12/31/2000	10 Year Vesting
12/31/2000	Benefit FAC-5 (5 Year Final Average Compensation)
12/31/2000	Benefit B-3 (80% max)
12/31/2000	Member Contribution Rate 0.00%
12/31/2000	Benefit F50 (With 25 Years of Service)
4/6/1978	Exclude Temporary Employees
10/30/1970	Covered by Act 88
	Fiscal Month - January

40 - MCF Non Union

1/1/2008	Benefit B-4 (80% max)
1/1/1999	Benefit B-3 (80% max)
1/1/1999	Benefit F55 (With 25 Years of Service)
1/1/1991	10 Year Vesting
1/1/1991	Benefit FAC-5 (5 Year Final Average Compensation)
1/1/1991	Benefit B-2
1/1/1991	Member Contribution Rate 0.00%
1/1/1991	Benefit F55 (With 30 Years of Service)
10/30/1970	Covered by Act 88
6/1/1966	Fiscal Month - January

60 - CMH Non Union

5/1/2001	Benefit B-3 (80% max)
11/1/1998	10 Year Vesting
11/1/1998	Benefit FAC-5 (5 Year Final Average Compensation)
11/1/1998	Benefit B-2
11/1/1998	Member Contribution Rate 0.00%
4/6/1978	Exclude Temporary Employees
10/30/1970	Covered by Act 88
	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
All Divisions	3.00%

Withdrawal Rate Scaling Factor

Division	Withdrawal Rate Scaling Factor
All Divisions	120%

Miscellaneous and Technical Assumptions

Loads – None.