City of Kalamazoo
Postretirement Welfare Benefits Plan

Actuarial Valuation Report
as of January 1, 2019

Table of Contents

July 1, 2019

Mr. Steve Vicenzi
Director of Management Services/CFO
City of Kalamazoo
241 W. South Street
Kalamazoo, Michigan 49007-4796

Dear Mr. Vicenzi:

Submitted in this report are the results of an Actuarial Valuation of the assets and liabilities associated with the employer financed retiree health benefits provided by the City of Kalamazoo. The date of the valuation was January 1, 2019 effective for the 2019 calendar year.

This report was prepared at the request of the City of Kalamazoo and is intended for use by the City of Kalamazoo and those designated or approved by the City. This report may be provided to parties other than the City of Kalamazoo only in its entirety and only with the permission of the City. GRS is not responsible for unauthorized use of this report.

The actuarial calculations were prepared for purposes of measuring the Plan's funding progress, and to determine the employer contribution rate for calendar year 2019. This report should not be relied on for any other purpose other than the purpose described herein. Determinations of the liability associated with the benefits described in this report for purposes other than satisfying the City of Kalamazoo's financial reporting requirements may be significantly different than the values shown in this report. This report is does not satisfy Governmental Accounting Standards Board (GASB) Statement Nos. 74 and No. 75. Please refer to a separate report which incorporates GASB Statement No. 74 and/or No. 75.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of the actuary's assignment, the actuary did not perform an analysis of the potential range of such measurements.

The findings in this report are based on data and other information through December 31, 2018. The valuation was based upon information furnished by the City of Kalamazoo, concerning retiree health benefits, financial transactions, plan provisions and individual members. We checked for internal and year-to-year consistency with the last valuation, but did not audit the data. We are not responsible for the accuracy or completeness of the information provided by the City of Kalamazoo.

In addition, this report was prepared using certain assumptions approved by the City as described in the section of this report entitled Actuarial Cost Method and Actuarial Assumptions.

To the best of our knowledge, the information contained in this report is accurate and fairly presents the actuarial position of the City of Kalamazoo Postretirement Welfare Benefits Plan as of the valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices and with the Actuarial Standards of Practice issued by the Actuarial Standards Board. James D. Anderson and Michael D. Kosciuk are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

The signing actuaries are independent of the plan sponsor.

Gabriel, Roeder, Smith & Company will be pleased to review this valuation report with the City and to answer any questions pertaining to the valuation.

Respectfully submitted,

James D. Anderson

James D. Anderson, FSA, EA, FCA, MAAA

Michael D. Kosciuk, ASA, EA, ACA, MAAA

JDA/MDK:sc

Executive Summary

Executive Summary

Actuarially Computed Employer Contribution

For fiscal years beginning after June 15, 2016, GASB Statement No. 74 replaced GASB Statement No. 43. Similarly, for fiscal years beginning after June 15, 2017, GASB Statement No. 75 replaced GASB Statement No. 45. Each year a separate GASB report will be issued to comply with the actuarial requirement of GASB Statement Nos. 74 and 75. As such, there will no longer be an "Annual Required Contribution" calculated in the valuation report. The report determines the "Actuarially Computed Employer Contribution."

We have calculated the Actuarially Computed Employer Contribution for the calendar year beginning January 1, 2019. Below is a summary of the results. The Actuarially Computed Employer Contributions and estimated retiree claims shown below are net of any premium payments expected to be made by retirees (retiree cost sharing).

	Actuarially Computed Employer Contribution	Estimated Claims Paid for Retirees
2019 Calendar Year	$8,012,819	$ 9,955,217

For additional details please see the Section titled "Valuation Results."

Liabilities and Assets

1. Present Value of Future Benefit Payments	$180,326,737
2. Actuarial Accrued Liability	172,641,123
3. Smoothed Plan Assets	97,263,276
4. Unfunded Actuarial Accrued Liability (2) – (3)	75,377,847
5. Funded Ratio (3)/(2)*	56.3%

* *The funded ratio on a market value basis is 52.7%.*

The Present Value of Future Benefit Payments (PVFB) is the present value of all benefits projected to be paid from the plan for past and future service. The Actuarial Accrued Liability is the portion of the PVFB allocated to past service by the Plan's funding method (see the Section titled "Actuarial Cost Method and Actuarial Assumptions").

SECTION A

VALUATION RESULTS

Valuation Results – Total Plan

Development of the Actuarially Computed Employer Contribution

Contributions for	2019 Calendar Year
Employer Normal Cost	$1,286,891
Amortization of Unfunded Actuarial Accrued Liability	6,725,928
Actuarially Computed Employer Contribution	$8,012,819

The unfunded actuarial accrued liabilities were amortized as a level dollar amount over a period of 23 years for the 2019 calendar year.

Determination of Unfunded Actuarial Accrued Liabilities as of January 1, 2019

A. Present Value of Future Benefits	
i) Retirees and Beneficiaries*	$133,498,116
ii) Vested Terminated Members	0
iii) Active Members	46,828,621
Total Present Value of Future Benefits	$180,326,737
B. Present Value of Future Normal Costs	7,685,614
C. Actuarial Accrued Liability (A.-B.)	172,641,123
D. Actuarial Value of Assets	97,263,276
E. Unfunded Actuarial Accrued Liability (C.-D.)	75,377,847
F. Funded Ratio (D./C.)	56.3%

** Includes additional liability due to Early Retirement Incentive (ERI) Retirees currently waiving retiree health care through the City, but assumed to return to coverage at a later date.*

The long-term rate of investment return used in this valuation was 7.50%.

Experience Gain/(Loss)

Gains/(Losses) During the Year Ended December 31, 2018
Resulting from Differences Between Assumed and Actual Experience

A. Derivation of Actuarial Gain/(Loss):

1. Unfunded Actuarial Accrued Liability (UAAL) - Previous Valuation	$77,502,722
2. Total Normal Cost (employer) for Year Ending 12/31/2018	1,307,243
3. Total Contributions (employer) for Year Ending 12/31/2018	3,500,000
4. Interest on:	
a. UAAL: Discount Rate* x (1)	5,812,704
b. Normal Cost and Contributions: Discount Rate/2 x [(2) - (3)]	(82,228)
c. Net Total: (a) + (b)	5,730,476
5. Change in UAAL due to Benefit Changes	(83,225)
6. Change in UAAL due to Assumptions	-
7. Expected UAAL Current Year: (1) + (2) - (3) + (4c) + (5) + (6)	80,957,216
8. Actual UAAL Current Year	75,377,847
9. Experience Gain/(Loss): (7) - (8)	5,579,369

B. Approximate Portion of Gain/(Loss) due to Investments	$(1,582,055)
C. Approximate Portion of Gain/(Loss) due to Liabilities: (A.9) - (B)	7,161,424

** Based on a discount rate of 7.50%.*

Type of Activity

	Gain/(Loss)
1. **Premiums and Trends.** Gains and losses resulting from actual premiums and trends in valuation year versus that assumed from prior valuation.	$ 4,329,598
2. **Investment Income.** If there is greater investment income than assumed, there is a gain. If less income, a loss.	(1,582,055)
3. **Demographic and Other^.** Gains and losses resulting from demographic experience, data adjustments, timing of financial transactions, etc.	2,831,826
4. **Composite Gain/(Loss) During Year.**	$ 5,579,369

Development of Valuation Assets

Year Ended December 31:	2017	2018	2019	2020	2021	2022
A. Valuation Assets Beginning of Year	$ 95,305,474	$ 97,683,404				
B. Market Value End of Year	104,231,266	90,936,245				
C. Market Value Beginning of Year	95,379,078	104,231,266				
D. Non-Investment Net Cash Flow	(5,859,581)	(5,941,521)				
E. Investment Income						
E1. Market Total: B - C - D	14,711,769	(7,353,500)				
E2. Amount for Immediate Recognition (7.5%)	6,928,176	7,103,448				
E3. Amount for Phased-In Recognition: E1-E2	7,783,593	(14,456,948)				
F. Phased-In Recognition of Investment Income						
F1. Current Year: 0.2 x E3	1,556,719	(2,891,390)				
F2. First Prior Year	815,756	1,556,719	$ (2,891,390)			
F3. Second Prior Year	(1,063,140)	815,756	1,556,719	$ (2,891,390)		
F4. Third Prior Year	0	(1,063,140)	815,756	1,556,719	$ (2,891,390)	
F5. Fourth Prior Year	0	0	(1,063,139)	815,755	1,556,717	$ (2,891,388)
F6. Total Phased-In Recognition	1,309,335	(1,582,055)	(1,582,054)	(518,916)	(1,334,673)	(2,891,388)
G. Valuation Assets End of Year: A + D + E2 + F6	97,683,404	97,263,276				
H. Difference between Market & Valuation Assets: B - G	6,547,862	(6,327,031)	(4,744,977)	(4,226,061)	(2,891,388)	0
I. Valuation Asset Recognized Rate of Return	8.92%	5.83%				
J. Market Value Recognized Rate of Return	15.91%	(7.26)%				

In the year of implementation (2015), the Valuation Assets Beginning of Year was set equal to the Market Value at the Beginning of Year.

The Valuation Assets recognizes assumed investment income (line E2) fully each year. Differences between actual and assumed investment income (line E3) are phased-in over a closed 5-year period. During periods when investment performance exceeds the assumed rate, Valuation Assets will tend to be less than Market Value. During periods when investment performance is less than the assumed rate, Valuation Assets will tend to be greater than Market Value. The Valuation Assets are unbiased with respect to Market Value. At any time, it may be either greater or less than Market Value. If assumed rates are exactly realized for 4 consecutive years, it will become equal to Market Value.

Comments

COMMENT A: The Actuarially Computed Employer Contribution and liabilities calculated have decreased since the prior valuation results, dated August 17, 2018.

Factors contributing to this decrease include, but are not limited to:

- More favorable health plan experience than projected; and
- Gains due to more removals of OPEB-eligible active members than expected and more retiree deaths than expected, which were partially offset by losses due to new retirements; and
- Changes to the benefits for some groups of future retirees.

Factors offsetting this increase include, but are not limited to:

- Lower employer contribution levels ($3,500,000 – fixed contribution amount) than the calculated $8,111,777; and
- Less favorable investment experience than expected.

The ratio of the Funding Value to Market Value of Assets was 107% at the end of 2018. Over the next four years, if experience matches expectations, the funded status will decrease and the Actuarially Computed Employer Contribution will increase as net investment losses are recognized.

COMMENT B: The following benefit changes were reflected in this valuation:

- The retiree cost share was increased from $102.58/month to $106.92/month;
- The spouse cost share was increased from $143.60/month to $149.69/month;
- All City Non-Union members are vested at 5 years of service and are eligible to retire at age 62 with 5 years of service; and
- Members who are eligible for retiree medical benefits pay an increasing contribution rate based on the following schedule.

Employment Group	Date of Retirement	Maximum Contribution Rate above Contribution Rate at Time of Retirement
KMEA	On or after 7/1/2020	80%
KPSA	12/1/2017 – 11/30/2021	75%
KPSA	On or after 12/1/2021	95%
CSO and KPSOA	12/1/2017 – 11/30/2018	75%
CSO and KPSOA	12/1/2018 – 11/30/2019	80%
CSO and KPSOA	12/1/2019 – 11/30/2020	85%
CSO and KPSOA	12/1/2020 – 11/30/2021	90%
CSO and KPSOA	On or after 12/1/2021	95%

These changes served to decrease accrued liabilities by $83,225.

Comments (Continued)

COMMENT C: One of the key assumptions used in any valuation of the cost of postemployment benefits is the rate of return on the assets that will be used to pay Plan benefits. Higher assumed investment returns will result in a lower Actuarially Computed Employer Contribution. Lower returns will tend to increase the Actuarially Computed Employer Contribution. We have calculated the liability and the resulting Actuarially Computed Employer Contribution using an assumed long-term rate of investment return of 7.50%.

An experience study is scheduled for completion before the December 31, 2019 valuation, with expected changes to mortality and other assumptions.

COMMENT D: The health plan closed to new hires for most groups at various dates between 2009 and 2011 (see section titled "Summary of Benefits" for more details). The Unfunded Actuarial Accrued Liabilities (UAAL) are financed over a closed 23-year period using a level dollar amortization method. A shorter amortization period would increase the Actuarially Computed Employer Contribution.

COMMENT E: The City of Kalamazoo's existing transit operations became part of the Central County Transportation Authority (CCTA) effective October 1, 2016. The details of the spinoff are covered under the Comprehensive Transition Agreement, effective October 19, 2015. For purposes of this valuation Retiree Health Care Coverage, for the CCTA group (formerly Metro Transit) under the City Plan, was assumed to continue past the 36-month term described in the Transition Agreement.

COMMENT F: The "Cadillac" tax is a 40% excise tax paid by the coverage provider (employer and/or insurer) on the value of health plan costs in excess of certain thresholds, effective in 2022. The initial thresholds are $10,200 for single coverage or $27,500 for family coverage. Many plans are below the thresholds today, but are likely to exceed them in the next decade. The thresholds will be indexed at CPI-U, which is lower than the medical inflation rates affecting the cost of the plans. There is considerable uncertainty about how the tax would be applied, and considerable latitude in grouping of participants for tax purposes. Combining early retiree and Medicare eligible retiree costs is allowed and can keep plans under the thresholds for a longer period of time. For this valuation, there was no load applied to the health care liabilities to approximate the cost for future excise tax, based on the current plan provisions and assumptions. We have not identified any other specific provision of health care reform that would be expected to have a significant impact on the measured obligation. As additional guidance on the legislation is issued, we will review and monitor the impact.

COMMENT G: The GASB issued Statement Nos. 74 and 75 for OPEB valuations similar to the new pension standards. GASB Statement No. 74 for the plan OPEB disclosures is effective for fiscal years beginning after June 15, 2016. GASB Statement No. 75 for employer OPEB disclosures is effective for employer fiscal years beginning after June 15, 2017. Information necessary for GASB Statement Nos. 74 and 75 will be issued in a separate report.

Comments (Concluded)

COMMENT H: Unless otherwise indicated, a funded status measurement presented in this report is based upon the actuarial accrued liability and the actuarial value of assets. Unless otherwise indicated, with regard to any funded status measurements presented in this report:

- The measurement is inappropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations, and
- The measurement is inappropriate for assessing the need for or the amount of future employer contributions.

COMMENT I: Michigan Public Act 202 of 2017 created new reporting and other requirements for local units of government. As such, we can work with the City of Kalamazoo Postretirement Welfare Benefits Plan to facilitate compliance.

SECTION B

RETIREE PREMIUM RATE DEVELOPMENT

Retiree Premium Rate Development

Background

We understand that currently, eligible City retirees (and eligible spouses) receive benefits from a number of health care plans, including the self-insured Blue Cross Blue Shield (BCBS) Traditional plans and the self-insured Community Blue PPO plans.

Rate Development

For the self-insured medical plans, initial per capita costs were developed separately for pre-65 and post-65 retirees using medical and prescription drug claims experience from October 2015 to September 2018 from BCBS in conjunction with exposure data for the active and retired members of the health care program. These medical and prescription drug claims were projected on an incurred claim basis, adjusted for plan design changes (including changes to Medicare Part B coverage for current and future retirees); large claims are loaded for administrative and stop-loss expenses.

The initial medical and drug premium rates used in the valuation are a weighted average cost of the 3-year experience period (10/2015 – 9/2018) to smooth out any large year-to-year fluctuations.

Most retiree plans are closed to future retirees. The plans that remain open include suffixes 0022, 0023, 0025, 0026, 0030, 0031, 0036, 0037, 0049, 0050, 0053, 0054, 0055, and 0056. Depending on age (pre-65 or post-65) and active group membership, future retirees will be placed into one of these suffixes. We have developed separate premium rates for these future retirees in order to reflect the benefit differences.

Retiree Premium Rate Development

Age graded and sex distinct premiums are utilized by this valuation. The initial costs developed by the preceding process are appropriate for the unique age and sex distribution currently existing. Over the future years covered by this valuation, the age and sex distribution will most likely change. Therefore, our process "distributes" the average premium over all age/sex combinations and assigns a unique premium for each combination. The age/sex specific premiums more accurately reflect the health care costs in the retired population over the projection period.

The tables below show the resulting combined medical and prescription drug one-person monthly premiums at select ages. The premium (or per capita costs) rates shown below were used in this valuation of the Plan and reflect the use of age grading.

For Those Not Eligible for Medicare (Pre-65)				
	Future Retirees		Current Retirees	
Age	Male	Female	Male	Female
40	$ 336.94	$ 547.51	$ 357.38	$ 580.71
50	546.18	672.84	579.30	713.65
60	928.26	914.02	984.55	969.44
64	1,128.79	1,065.27	1,197.24	1,129.87

For Those Eligible for Medicare (Post-65)				
	Future Retirees		Current Retirees	
Age	Male	Female	Male	Female
65	$ 531.43	$ 501.25	$ 617.75	$ 582.66
75	621.77	606.71	722.76	705.26
85	657.49	665.23	764.28	773.28

James E. Pranschke is a Member of the American Academy of Actuaries (MAAA) and meets the Qualification Standards of the American Academy of Actuaries to certify the per capita retiree health care rates shown above.

James E. Pranschke

James E. Pranschke, FSA, FCA, MAAA

SECTION C

SUMMARY OF BENEFITS

Summary of Benefit Provisions for the
Post-Retirement Welfare Benefits Plan

Group Name AFSCME employees - City of Kalamazoo

(A) Leaving Employment as a Result of	(B) Eligibility for Pension Benefit	(C) Eligibility for Retiree Health Benefit (if different from pension benefit)	(D) When do Retiree Health Benefits Commence?	(E) Coverage Provided by Employer: Retiree	(F) Coverage Provided by Employer: Spouse	(G) Retiree Health Care Provider(s)	(H) Type of Insurance	(I) Third Party Administrator	(J) Retiree Share of Cost for: Retiree	(K) Retiree Share of Cost for: Spouse (while Retiree is alive)	(L) Retiree Share of Cost for: Spouse (after Retiree's death)
Normal Retirement (Unreduced pension benefits)	Age 57 with 25 years of service,	Retiree & spouse if hired < 1/1/09	Upon retirement	Medical, Drug, Life	Medical & Drug	Community Blue-BCBS	PPO	BCBS	$106.92/mo See Comment A	$149.69/mo See Comment A	100% after one year
	age 60 with 20 years of service,	Retiree only if hired 1/1/09-9/12/11	Upon retirement	Medical, Drug, Life	n/a	Community Blue-BCBS	PPO	BCBS	$106.92/mo See Comment A	n/a	n/a
	or age 62 with 9 years. (10 years if hired after 10/2/16)	Healthcare savings program if hired after 9/12/11 (% of employer contributions based on vesting)	Upon retirement	Life							
Early Retirement (Reduced pension benefits)	Age 55 with at least 15 years of service, then for each year increase in age, years of service can reduce by one year, to age 61 with 9 years of service. (10 years if hired after 10/2/16)	None. If hired < 9/12/11, must receive FULL pension benefit for retiree health	n/a	Life							
		Healthcare savings program if hired after 9/12/11 & eligible to draw a pension (% of employer contributions based on vesting)	Upon retirement	Life							
Deferred Vested Termination	At age 62 with at least 9 years (10 years if hired after 10/2/16)	None. If hired < 9/12/11, must receive FULL pension benefit for retiree health	n/a								
		Healthcare savings program if hired after 9/12/11 & eligible to draw a pension (% of employer contributions based on vesting)	Upon retirement								
Non-Duty Disability	After 9 years of service (10 years if hired after 10/2/16)	Must meet normal age & service requirements:	Upon Pension Board Approval if eligible								
		Retiree & spouse if hired < 1/1/09	Pension Board Approval	Medical, Drug, Life	Medical & Drug	Community Blue-BCBS	PPO	BCBS	$106.92/mo See Comment A	$149.69/mo See Comment A	100% after one year
		Retiree only if hired 1/1/09-9/12/11	Pension Board Approval	Medical, Drug, Life	n/a	Community Blue-BCBS	PPO	BCBS	$106.92/mo See Comment A	n/a	n/a
		Healthcare savings program if hired after 9/12/11 & eligible to draw a pension (% of employer contributions based on vesting)	Pension Board Approval	Life							
Duty Disability	Given credit to voluntary age & service requirements	Retiree & spouse if hired < 1/1/09	Pension Board Approval	Medical, Drug, Life	Medical & Drug	Community Blue-BCBS	PPO	BCBS	$106.92/mo See Comment A	$149.69/mo See Comment A	100% after one year
		Retiree only if hired 1/1/09-9/12/11	Pension Board Approval	Medical, Drug, Life	n/a	Community Blue-BCBS	PPO	BCBS	$106.92/mo See Comment A	n/a	n/a
		Healthcare savings program if hired after 9/12/11 & eligible to draw a pension (100% vesting in full account value)	Pension Board Approval	Life							
Non-Duty Death-in-Service	If vested	If age or service eligible	Day prior to death		Medical & Drug	Community Blue-BCBS	PPO	BCBS			100% after one year
Duty Death-in-Service	Same as Duty Disability										

Comment A: Employees retiring effective 10/1/16 and later at 57 years of age and 25 years of service will pay the same as active employees to a maximum of 50% above the contribution the retiree paid during the last month of the retiree's employment. Persons retiring with less than 25 years of service will pay the same increases as active employees to a maximum of 50% above the contribution paid at the time of retirement.
Comment B: Retirees are eligible for a $1,000 lump sum death benefit, the plan is fully-insured.
Comment C: Retirees are not reimbursed by the City for Medicare Part A or Part B Premiums. Post-Medicare retiree cost-sharing remains the same as pre-65.
Comment D: There are retirees currently opting out of the retiree health care plan, they may re-enroll at open enrollment or with a qualifying insurance event, there is no stipend for waiving coverage.
Comment E: There are retirees whose benefit is not described above, data was provided individually by the City for the valuation.
Comment F: This is a brief summary of the City of Kalamazoo's Postretirement Welfare Plan Benefit provisions. In the event that any description contained herein differs from the actual eligibility or benefit, the appropriate employee contract or governing document will prevail.

Summary of Benefit Provisions for the Post-Retirement Welfare Benefits Plan

Group Name CSO Union (KPSOA non-sworn) employees - City of Kalamazoo

(A) Leaving Employment as a Result of	(B) Eligibility for Pension Benefit	(C) Eligibility for Retiree Health Benefit (if different from pension benefit)	(D) When do Retiree Health Benefits Commence?	(E) Coverage Provided by Employer: Retiree	(F) Coverage Provided by Employer: Spouse	(G) Retiree Health Care Provider(s)	(H) Type of Insurance	(I) Third Party Administrator	(J) Retiree Share of Cost for: Retiree	(K) Retiree Share of Cost for: Spouse (while Retiree is alive)	(L) Retiree Share of Cost for: Spouse (after Retiree's death)
Normal Retirement (Unreduced pension benefits)	Age 57 with 25 years of service, or age 62 with 10 years.	Retiree & spouse if hired < 9/7/11	Upon retirement	Medical, Drug, Life	Medical & Drug	Community Blue-BCBS	PPO	BCBS	$106.92/mo See Comment A	$149.69/mo See Comment A	100% after one year
		Healthcare savings program if hired after 9/6/11 & eligible to draw a pension (% of employer contributions based on vesting)	Upon retirement	Life							
Early Retirement (Reduced pension benefits)	Age 55 with at least 15 years of service	Retiree & spouse if hired < 9/7/11	When they would have completed 25 years of service	Medical, Drug, Life	Medical & Drug	Community Blue-BCBS	PPO	BCBS	$106.92/mo See Comment A	$149.69/mo See Comment A	100% after one year
		Healthcare savings program if hired after 9/6/11 & eligible to draw a pension (% of employer contributions based on vesting)	Upon retirement	Life							
Deferred Vested Termination	At age 62 with at least 10 years	None for retiree & spouse if hired < 9/7/11	n/a								
		Healthcare savings program if hired after 9/6/11 & eligible to draw a pension (% of employer contributions based on vesting)	Upon retirement								
Non-Duty Disability	After 10 years of service	Must meet normal age & service requirements:	Upon Pension Board Approval if eligible								
		Retiree & spouse if hired < 9/7/11	Pension Board Approval	Medical, Drug, Life	Medical & Drug	Community Blue-BCBS	PPO	BCBS	$106.92/mo See Comment A	$149.69/mo See Comment A	100% after one year
		Healthcare savings program if hired after 9/6/11 & eligible to draw a pension (% of employer contributions based on vesting)	Pension Board Approval	Life							
Duty Disability	Given credit to voluntary age & service requirements	Retiree & spouse if hired < 9/7/11	Pension Board Approval	Medical, Drug, Life	Medical & Drug	Community Blue-BCBS	PPO	BCBS	$106.92/mo See Comment A	$149.69/mo See Comment A	100% after one year
		Healthcare savings program if hired after 9/6/11 (based on 25 years vesting = 100% of account value)	Pension Board Approval	Life							
Non-Duty Death-in-Service	If vested	If age or service eligible	Day prior to death		Medical & Drug	Community Blue-BCBS	PPO	BCBS			100% after one year
Duty Death-in-Service	Same as Duty Disability										

Comment A: The retiree pays the active contribution rates in the year they retire. For retirements on or after 1/1/2007, the retiree will receive the same coverage as active employees and continue to pay the increasing active contribution rate to a maximum of 50% above the contribution rate at the time of retirement. For retirements 12/1/2017 - 11/30/2018, the retiree will receive the same coverage as active employees and continue to pay the increasing active contribution rate to a maximum of 75% above the contribution rate at the time of retirement.
For retirements 12/1/2018 - 11/30/2019, the retiree will receive the same coverage as active employees and continue to pay the increasing active contribution rate to a maximum of 80% above the contribution rate at the time of retirement.
For retirements 12/1/2019 - 11/30/2020, the retiree will receive the same coverage as active employees and continue to pay the increasing active contribution rate to a maximum of 85% above the contribution rate at the time of retirement.
For retirements 12/1/2020 - 11/30/2021, the retiree will receive the same coverage as active employees and continue to pay the increasing active contribution rate to a maximum of 90% above the contribution rate at the time of retirement.
For retirements on or after 12/1/2021 , the retiree will receive the same coverage as active employees and continue to pay the increasing active contribution rate to a maximum of 95% above the contribution rate at the time of retirement.
Comment B: Retirees are eligible for a $1,000 lump sum death benefit, the plan is fully-insured.
Comment C: Retirees are not reimbursed by the City for Medicare Part A or Part B Premiums. Post-Medicare retiree cost-sharing remains the same as pre-65.
Comment D: There are retirees currently opting out of the retiree health care plan, they may re-enroll at open enrollment or with a qualifying insurance event, there is no stipend for waiving coverage.
Comment E: There are retirees whose benefit is not described above, data was provided individually by the City for the valuation.
Comment F: This is a brief summary of the City of Kalamazoo's Postretirement Welfare Plan Benefit provisions. In the event that any description contained herein differs from the actual eligibility or benefit, the appropriate employee contract or governing document will prevail.

Summary of Benefit Provisions for the
Post-Retirement Welfare Benefits Plan

Group Name Non-Union Employees - City of Kalamazoo (Including CCTA Transit Exempt Employees)

(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)
				Coverage Provided by Employer					Retiree Share of Cost for		
Leaving Employment as a Result of	Eligibility for Pension Benefit	Eligibility for Retiree Health Benefit (if different from pension benefit)	When do Retiree Health Benefits Commence?	Retiree	Spouse	Retiree Health Care Provider(s)	Type of Insurance	Third Party Administrator	Retiree	Spouse (while Retiree is alive)	Spouse (after Retiree's death)
Normal Retirement	Age 57 with 25 years of service,	Retiree & spouse if hired < 6/1/09	Upon retirement	Medical, Drug, Life	Medical & Drug	Community Blue-BCBS	PPO	BCBS	$106.92/mo See Comment A	$149.69/mo See Comment A	100% after one year
(Unreduced pension benefits)	or age 62 with 5 years (10 years for CCTA)	Healthcare savings program if hired after 6/1/09 (% of employer contributions based on vesting)	Upon retirement	Life							
Early Retirement	Age 55 with at least 15 years of service	Retiree & spouse if hired < 6/1/09	Upon retirement	Medical, Drug, Life	Medical & Drug	Community Blue-BCBS	PPO	BCBS	$106.92/mo See Comment A	$149.69/mo See Comment A	100% after one year
(Reduced pension benefits)	then for each year increase in age, years of service can reduce by one year to age 62 with 5 years of service (if hired before 9/1/10) and to age 60 with 5 years (if hired on or after 9/1/10)	Healthcare savings program if hired after 6/1/09 (% of employer contributions based on vesting)	Upon retirement	Life							
Deferred Vested Termination	At age 62 with at least 5 years (10 years for CCTA)	None for retiree & spouse if hired < 6/1/09	n/a								
		Healthcare savings program if hired after 6/1/09 (% of employer contributions based on vesting)	Upon retirement								
Non-Duty Disability	After 5 years of service (10 years for CCTA)	Must meet normal age & service requirements:	Upon Pension Board Approval if eligible								
		Retiree & spouse if hired < 6/1/09	Pension Board Approval	Medical, Drug, Life	Medical & Drug	Community Blue-BCBS	PPO	BCBS	$106.92/mo See Comment A	$149.69/mo See Comment A	100% after one year
		Healthcare savings program if hired after 6/1/09 (% of employer contributions based on vesting)	Pension Board Approval	Life							
Duty Disability	Given credit to voluntary age & service requirements	Retiree & spouse if hired < 6/1/09	Pension Board Approval	Medical, Drug, Life	Medical & Drug	Community Blue-BCBS	PPO	BCBS	$106.92/mo See Comment A	$149.69/mo See Comment A	100% after one year
		Healthcare savings program if hired after 6/1/09 (% of employer contributions based on vesting)	Pension Board Approval	Life							
Non-Duty Death-in-Service	If vested	If age or service eligible	Day prior to death		Medical & Drug	Community Blue-BCBS	PPO	BCBS			100% after one year
Duty Death-in-Service	Same as Duty Disability										

Comment A: The retiree will receive the same coverage as active employees and continue to pay the increasing active contribution rate to a maximum of 50% above the contribution rate paid in the last month of employment.
Comment B: Retirees are eligible for a $1,000 lump sum death benefit, the plan is fully-insured.
Comment C: Retirees are not reimbursed by the City for Medicare Part A or Part B Premiums. Post-Medicare retiree cost-sharing remains the same as pre-65.
Comment D: There are retirees currently opting out of the retiree health care plan, they may re-enroll at open enrollment or with a qualifying insurance event, there is no stipend for waiving coverage.
Comment E: There are retirees whose benefit is not described above, data was provided individually by the City for the valuation.
Comment F: This is a brief summary of the City of Kalamazoo's Postretirement Welfare Plan Benefit provisions. In the event that any description contained herein differs from the actual eligibility or benefit, the appropriate employee contract or governing document will prevail.

Summary of Benefit Provisions for the Post-Retirement Welfare Benefits Plan

Group Name Public Safety (sworn employees) - KPSA & KPSOA - City of Kalamazoo

(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)
				Coverage Provided by Employer					**Retiree Share of Cost for**		
Leaving Employment as a Result of	**Eligibility for Pension Benefit**	**Eligibility for Retiree Health Benefit (if different from pension benefit)**	**When do Retiree Health Benefits Commence?**	**Retiree**	**Spouse**	**Retiree Health Care Provider(s)**	**Type of Insurance**	**Third Party Administrator**	**Retiree**	**Spouse (while Retiree is alive)**	**Spouse (after Retiree's death)**
Normal Retirement (Unreduced pension benefits)	25 years of service or age 50 with 10 years.	Retiree & spouse if hired < 9/7/11	Upon retirement	Medical, Drug, Life	Medical & Drug	Community Blue-BCBS	PPO	BCBS	\$106.92/mo See Comment A	\$149.69/mo See Comment A	100% after one year
		Healthcare savings program if hired after 9/6/11 & eligible to draw a pension (% of employer contributions based on vesting)	Upon retirement	Life							
Early Retirement (Reduced pension benefits)	20 years of service	Retiree & spouse if hired < 9/7/11	When they would have completed 25 years of service	Medical, Drug, Life	Medical & Drug	Community Blue-BCBS	PPO	BCBS	\$106.92/mo See Comment A	\$149.69/mo See Comment A	100% after one year
		Healthcare savings program if hired after 9/6/11 & eligible to draw a pension (% of employer contributions based on vesting)	Upon retirement	Life							
Deferred Vested Termination	At age 50 with at least 10 years	None for retiree & spouse if hired < 9/7/11	n/a								
		Healthcare savings program if hired after 9/6/11 & eligible to draw a pension (% of employer contributions based on vesting)	Upon retirement								
Non-Duty Disability	After 10 years of service	Must meet normal age & service requirements:	Upon Pension Board Approval if eligible								
		Retiree & spouse if hired < 9/7/11	Pension Board Approval	Medical, Drug, Life	Medical & Drug	Community Blue-BCBS	PPO	BCBS	\$106.92/mo See Comment A	\$149.69/mo See Comment A	100% after one year
		Healthcare savings program if hired after 9/6/11 & eligible to draw a pension (% of employer contributions based on vesting)	Pension Board Approval	Life							
Duty Disability	Given credit needed to reach 25 years of service	Retiree & spouse if hired < 9/7/11	Pension Board Approval	Medical, Drug, Life	Medical & Drug	Community Blue-BCBS	PPO	BCBS	\$106.92/mo See Comment A	\$149.69/mo See Comment A	100% after one year
		Healthcare savings program if hired after 9/6/11 (based on 25 years vesting = 100% of account value)	Pension Board Approval	Life							
Non-Duty Death-in-Service	If vested	If age or service eligible	Day prior to death		Medical & Drug	Community Blue-BCBS	PPO	BCBS			100% after one year
Duty Death-in-Service	Same as Duty Disability										

Comment A: The retiree pays the active contribution rates in the year they retire. For retirements on or after 1/1/2007, the retiree will recevie the same coverage as active employees and continue to pay the increasing active contribution rate to a maximum of 50% above the contribution rate at the time of retirement. For KPSA retirements 12/1/2017 - 11/30/2021, the retiree will receive the same coverage as active employees and continue to pay the increasing active contribution rate to a maximum of 75% above the contribution rate at the time of retirement.

For KPSA retirements on or after 12/1/2021 , the retiree will receive the same coverage as active employees and continue to pay the increasing active contribution rate to a maximum of 95% above the contribution rate at the time of retirement.

For KPSOA (sworn) retirements 12/1/2017 - 11/30/2018, the retiree will receive the same coverage as active employees and continue to pay the increasing active contribution rate to a maximum of 75% above the contribution rate at the time of retirement.

For KPSOA (sworn) retirements 12/1/2018 - 11/30/2019, the retiree will receive the same coverage as active employees and continue to pay the increasing active contribution rate to a maximum of 80% above the contribution rate at the time of retirement.

For KPSOA (sworn) retirements 12/1/2019 - 11/30/2020, the retiree will receive the same coverage as active employees and continue to pay the increasing active contribution rate to a maximum of 85% above the contribution rate at the time of retirement.

For KPSOA (sworn) retirements 12/1/2020 - 11/30/2021, the retiree will receive the same coverage as active employees and continue to pay the increasing active contribution rate to a maximum of 90% above the contribution rate at the time of retirement.

For KPSOA (sworn) retirements on or after 12/1/2021 , the retiree will receive the same coverage as active employees and continue to pay the increasing active contribution rate to a maximum of 95% above the contribution rate at the time of retirement.

Comment B: Retirees are eligible for a \$1,000 lump sum death benefit, the plan is fully-insured.

Comment C: Retirees after 1/1/2010 and certain existing retirees are reimbursed for Medicare Part B premiums. Certain retirees electing the incentive are also eligibile for reimbursement of late enrollment penalties. Post-Medicare retiree cost-sharing remains the same as pre-65.

Comment D: There are retirees currently opting out of the retiree health care plan, they may re-enroll at open enrollment or with a qualifying insurance event, there is no stipend for waiving coverage.

Comment E: There are retirees whose benefit is not described above, data was provided individually by the City for the valuation.

Comment F: This is a brief summary of the City of Kalamazoo's Postretirement Welfare Plan Benefit provisions. In the event that any description contained herein differs from the actual eligibility or benefit, the appropriate employee contract or governing document will prevail.

Summary of Benefit Provisions for the Post-Retirement Welfare Benefits Plan

Group Name ATU Union Employees - CCTA

(A) Leaving Employment as a Result of	(B) Eligibility for Pension Benefit	(C) Eligibility for Retiree Health Benefit (if different from pension benefit)	(D) When do Retiree Health Benefits Commence?	(E) Coverage Provided by Employer: Retiree	(F) Coverage Provided by Employer: Spouse	(G) Retiree Health Care Provider(s)	(H) Type of Insurance	(I) Third Party Administrator	(J) Retiree Share of Cost for: Retiree	(K) Retiree Share of Cost for: Spouse (while Retiree is alive)	(L) Retiree Share of Cost for: Spouse (after Retiree's death)
Normal Retirement (Unreduced pension benefits)	Age 57 with 25 years of service, or age 62 with 10 years.	Retiree & spouse if hired < 9/7/11	Upon retirement	Medical, Drug, Life	Medical & Drug	Community Blue-BCBS	PPO	BCBS	$106.92/mo See Comment A	$149.69/mo See Comment A	100% after one year
		Healthcare savings program if hired after 9/6/11 & eligible to draw a pension (% of employer contributions based on vesting)	Upon retirement	Life							
Early Retirement (Reduced pension benefits)	Age 55 with at least 15 years of service, then for each year increase in age, years of service can reduce by one year, to age 60 with 10 years of service.	None if hired < 9/7/11. Must receive full pension benefit for retiree health, unless -	n/a	Life							
		retired before age 62 without retiree health eligibility, may enroll in retiree health supplemental coverage for retiree only at age 65	Age 65, if elected	Medical, Drug, Life	Medical & Drug	Community Blue-BCBS	PPO	BCBS	$106.92/mo See Comment A	n/a	n/a
		Healthcare savings program if hired after 9/6/11 & eligible to draw a pension (% of employer contributions based on vesting)	Upon retirement								
Deferred Vested Termination	Age 62 with at least 10 years	None if hired before < 9/7/11. Must receive full pension benefit for retiree health, unless -	n/a	Life							
		retired before age 62 without retiree health eligibility, may enroll in retiree health supplemental coverage for retiree only at age 65	Age 65, if elected	Medical, Drug, Life	Medical & Drug	Community Blue-BCBS	PPO	BCBS	$106.92/mo See Comment A	n/a	n/a
		Healthcare savings program if hired after 9/6/11 & eligible to draw a pension (% of employer contributions based on vesting)	Upon retirement								
Non-Duty Disability	After 10 years of service	Must meet normal age & service requirements:	Upon Pension Board Approval if eligible								
		Retiree & spouse if hired < 9/7/11	Pension Board Approval	Medical, Drug, Life	Medical & Drug	Community Blue-BCBS	PPO	BCBS	$106.92/mo See Comment A	$149.69/mo See Comment A	100% after one year
		Healthcare savings program if hired after 9/6/11 & eligible to draw a pension (% of employer contributions based on vesting)	Pension Board Approval	Life							
Duty Disability	Given credit to voluntary age & service requirements	Retiree & spouse if hired < 9/7/11	Pension Board Approval	Medical, Drug, Life	Medical & Drug	Community Blue-BCBS	PPO	BCBS	$106.92/mo See Comment A	$149.69/mo See Comment A	100% after one year
		Healthcare savings program if hired after 9/6/11 & eligible to draw a pension (100% vesting in full account value)	Pension Board Approval	Life							
Non-Duty Death-in-Service	If vested	If age or service eligible	Day prior to death		Medical & Drug	Community Blue-BCBS	PPO	BCBS			100% after one year
Duty Death-in-Service	Same as Duty Disability										

Comment A: The retiree pays the active contribution rates in the year they retire. For retirements on or after 2/14/2007, the retiree will receive the same coverage as active employees and continue to pay the increasing active contribution rate to a maximum of 50% above the contribution rate at the time of retirement. For retirements on or after 12/1/2017, the retiree will receive the same coverage as active employees and continue to pay the increasing active contribution rate to a maximum of 75% above the contribution rate at the time of retirement.
Comment B: Retirees are eligible for a $1,000 lump sum death benefit, the plan is fully-insured.
Comment C: Retirees are not reimbursed by the City for Medicare Part A or Part B Premiums. Post-Medicare retiree cost-sharing remains the same as pre-65.
Comment D: There are retirees currently opting out of the retiree health care plan, they may re-enroll at open enrollment or with a qualifying insurance event, there is no stipend for waiving coverage.
Comment E: There are retirees whose benefit is not described above, data was provided individually by the City for the valuation.
Comment F: This is a brief summary of the City of Kalamazoo's Postretirement Welfare Plan Benefit provisions. In the event that any description contained herein differs from the actual eligibility or benefit, the appropriate employee contract or governing document will prevail.

Summary of Benefit Provisions for the Post-Retirement Welfare Benefits Plan

Group Name KMEA Union Employees - City of Kalamazoo

(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)
				Coverage Provided by Employer					**Retiree Share of Cost for**		
Leaving Employment as a Result of	**Eligibility for Pension Benefit**	**Eligibility for Retiree Health Benefit (if different from pension benefit)**	**When do Retiree Health Benefits Commence?**	**Retiree**	**Spouse**	**Retiree Health Care Provider(s)**	**Type of Insurance**	**Third Party Administrator**	**Retiree**	**Spouse (while Retiree is alive)**	**Spouse (after Retiree's death)**
Normal Retirement (Unreduced pension benefits)	Age 57 with 25 years of service, or age 62 with 10 years.	Retiree & spouse if hired < 6/1/09	Upon retirement	Medical, Drug, Life	Medical & Drug	Community Blue-BCBS	PPO	BCBS	$106.92/mo See Comment A	$149.69/mo See Comment A	100% after one year
		Healthcare savings program if hired after 6/1/09 & eligible to draw a pension (% of employer contributions based on vesting)	Upon retirement	Life							
Early Retirement (Reduced pension benefits)	Age 55 with at least 15 years of service then for each year increase in age, years of service can reduce by one year to age of service can reduce by one year to age 62 with 8 years of service (if hired before 1/1/09) and to age 60 with 10 years (if hired on or after 1/1/09)	None if hired < 6/1/09. Must receive full pension benefit for retiree health unless -	n/a	Life							
		Retiree & spouse if retired between ages 57 and 65; or -	Upon retirement	Medical, Drug, Life	Medical & Drug	Community Blue-BCBS	PPO	BCBS	$106.92/mo See Comment A	$149.69/mo See Comment A	100% after one year
		Retiree only if retired before age 57	Age 65, if elected	Medical, Drug, Life	Medical & Drug	Community Blue-BCBS	PPO	BCBS	$106.92/mo See Comment A	n/a	n/a
		Healthcare savings program if hired after 6/1/09 & eligible to draw a pension (% of employer contributions based on vesting)									
Deferred Vested Termination	At age 62 with at least 10 years (8 years if hired before 1/1/09)	None for retiree & spouse if hired before 6/1/09	n/a								
		Healthcare savings program if hired after 6/1/09 & eligible to draw a pension (% of employer contributions based on vesting)	Upon retirement								
Non-Duty Disability	After 10 years of service (8 years if hired before 1/1/09)	Must meet normal age & service requirements:	Upon Pension Board Approval if eligible								
		Retiree & spouse if hired < 6/1/09	Pension Board Approval	Medical, Drug, Life	Medical & Drug	Community Blue-BCBS	PPO	BCBS	$106.92/mo See Comment A	$149.69/mo See Comment A	100% after one year
		Healthcare savings program if hired after 6/1/09 & eligible to draw a pension (% of employer contributions based on vesting)	Pension Board Approval	Life							
Duty Disability	Given credit to voluntary age & service requirements	Retiree & spouse if hired < 6/1/09	Pension Board Approval	Medical, Drug, Life	Medical & Drug	Community Blue-BCBS	PPO	BCBS	$106.92/mo See Comment A	$149.69/mo See Comment A	100% after one year
		Healthcare savings program if hired after 6/1/09 & eligible to draw a pension (100% vesting in full account value)	Pension Board Approval	Life							
Non-Duty Death-in-Service	If vested	If age or service eligible	Day prior to death		Medical & Drug	Community Blue-BCBS	PPO	BCBS			100% after one year
Duty Death-in-Service	Same as Duty Disability										

Comment A: The retiree pays the active contribution rates in the year they retire. For retirements on or after 1/1/2002, the retiree will receive the same coverage as active employees and continue to pay the increasing active contribution rate to a maximum of 50% above the contribution rate at the time of retirement. For retirements 12/1/2017 - 6/30/2020, the retiree will receive the same coverage as active employees and continue to pay the increasing active contribution rate to a maximum of 75% above the contribution rate at the time of retirement. For retirements on or after 7/1/2020, the retiree will receive the same coverage as active employees and continue to pay the increasing active contribution rate to a maximum of 80% above the contribution rate at the time of retirement.

Comment C: Retirees are not reimbursed by the City for Medicare Part A or Part B Premiums. Post-Medicare retiree cost-sharing remains the same as pre-65.

Comment D: There are retirees currently opting out of the retiree health care plan, they may re-enroll at open enrollment or with a qualifying insurance event, there is no stipend for waiving coverage. For retirements on or after 1/1/2018, if the retiree waives coverage, they can't opt back in at a later date.

Comment E: There are retirees whose benefit is not described above, data was provided individually by the City for the valuation.

Comment F: This is a brief summary of the City of Kalamazoo's Postretirement Welfare Plan Benefit provisions. In the event that any description contained herein differs from the actual eligibility or benefit, the appropriate employee contract or governing document will prevail.

SECTION D

SUMMARY OF THE INFORMATION SUBMITTED FOR THE VALUATION

Reported Financial Information
for the Year Ended December 31, 2018 (Market Value)

Revenues and Expenditures During the Year

Revenues:		
a. Retiree contributions	$ 970,429	
b. Employer contributions	3,500,000	
c. Interest and dividends	2,946,863	
d. Net Appreciation in Fair Value of Investments	(9,956,988)	
e. Total		$(2,539,696)
Expenditures:		
a. Benefits paid	10,304,964	
b. Administrative expenses	106,986	
c. Investment expenses	343,375	
d. Total		10,755,325
Reserve Increase:		
Total revenues minus total expenditures		(13,295,021)

Assets and Reserves

Assets:		**Reserves for Employer Contributions:**	
a. Cash or equivalents	$ 16,492	a. General Fund	$ 90,936,245
b. Receivables net of payables	(2,445,995)	b. Metro Fund	0
c. Stocks	63,668,596	c. Water Fund	0
d. Fixed income	24,813,994	d. Wastewater Fund	0
e. Real Estate Investment Fund	4,883,158		
f. Funding Value Adjustment	0		
Total	$90,936,245	Total	$90,936,245

Active Members as of January 1, 2019
by Age and Years of Service *

	Years of Service to Valuation Date							Totals
Age	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.
20-24								
25-29		2						2
30-34		9	10					19
35-39			30	5				35
40-44		3	11	18	12			44
45-49		1	7	22	42	6		78
50-54		2	5	12	24	8	3	54
55-59			4	11	15	7	6	43
60-64		1	3	8	9	5	2	28
65 & Over			1	3	1			5
Totals		**18**	**71**	**79**	**103**	**26**	**11**	**308**

** Excludes 374 individuals who are not eligible for retiree health insurance at retirement. A Health Savings Account is available instead. Retiree life insurance was valued for all 682 active members.*

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age:	48.1	years
Service:	19.0	years

Inactive Members as of January 1, 2019
by Age and Coverage Type

Number of Retiree Health Contracts*

	Opt-Out/ Ineligible	One-Person Coverage	Two-Person Coverage	Total
Male	112	163	350	625
Female	176	118	55	349
Total	288	281	405	974

** Members receiving more than one pension were only counted once for purposes of OPEB benefits.*

Notes:

Opt-Out/Ineligible: *Includes 42 retirees who waived coverage but are assumed to begin drawing benefits in the future.*

One-Person Coverage: *Includes surviving spouses who receive City paid coverage for one year following the member's death.*

Two-Person Coverage: *Includes family coverage.*

	Number of Those Covered^	
Age	**Retiree Health**	**Life Insurance**
0-44	0	3
45-49	11	19
50-54	36	58
55-59	76	97
60-64	137	155
65-69	137	166
70-74	115	121
75-79	81	91
80-84	47	52
85-89	32	31
90-94	12	12
95 +	2	2
Totals	686	807

^ *669 appear in both the Retiree Health and Life Insurance Counts.*

Number of Terminated Vested Contracts

Terminated vested members are not eligible for Plan benefits.

SECTION E

ACTUARIAL COST METHOD AND ACTUARIAL ASSUMPTIONS

Actuarial Methods

The actuarial assumptions used for this report were based upon the results of an Experience Study for the City of Kalamazoo Employees Retirement System covering the period January 1, 2009 through December 31, 2013. A report dated February 19, 2015 presented the results of this Experience Study.

Actuarial Cost Method. Normal cost and the allocation of benefit values between service rendered before and after the valuation date was determined using an **Individual Entry-Age Actuarial Cost Method** having the following characteristics:

(i) the annual normal cost for each individual active member, payable from the date of employment to the date of retirement, is sufficient to accumulate the value of the member's benefit at the time of retirement; and
(ii) each annual normal cost is a constant percentage of the member's year by year projected covered pay.

Actuarial gains (losses), as they occur, reduce (increase) the Unfunded Actuarial Accrued Liability.

Financing of Unfunded Actuarial Accrued Liabilities. Unfunded Actuarial Accrued Liability (UAAL) (full funding credit if assets exceed liabilities) were amortized as a level dollar over a 23-year period.

Amortization of Unfunded Actuarial Accrued Liability. The following amortization factor was used in developing the Actuarially Computed Employer Contribution for the year shown:

	2019 Calendar Year
City of Kalamazoo (Level Dollar)	11.2071

Asset Valuation Method. Last year's valuation assets are increased by contributions and expected investment income on last year's valuation assets and non-investment net cash flow and reduced by refunds, benefit payments and expenses. To this amount is added the phased-in recognition of investment income. The phased-in recognition is the sum over the five years ending on the valuation date of 20% of the difference between each year's expected return and actual market return.

Actuarial Assumptions

Investment Return. The rate of investment return is compounded annually net of investment expenses.

Investment Return	7.50%
Wage Inflation	3.50%
Price Inflation	2.50%
Spread Between Investment Return and Wage Inflation	4.00%
Spread Between Investment Return and Price Inflation	5.00%

The rates of salary increase used for individual members are in accordance with the following table.

The annual rate of pay increases consists of two parts:

(i) a long-term rate of pay inflation equal to 3.50%; and

(ii) merit and longevity increases which vary according to age or length of service. These rates are illustrated below:

Years of Service	KMEA	AFSCME	All Exempt	Non-Sworn Public Safety	CCTA Union	Public Safety
1	6.0%	8.0%	6.0%	8.0%	7.0%	12.0%
2	5.0	3.0	6.0	7.0	7.0	12.0
3	4.0	3.0	0.5	6.0	6.0	5.5
4	2.0	2.0	0.5	4.0	5.0	4.5
5	1.0	2.0	0.5	3.0	4.0	4.5
6	1.0	1.0	0.3	1.5	0.0	4.0
7	1.0	0.0	0.3	1.5	0.0	4.0
8	1.0	0.0	0.3	1.5	0.0	4.0
9	0.0	0.0	0.3	1.5	0.0	1.5
10	0.0	0.0	0.3	1.5	0.0	1.3
11	0.0	0.0	0.3	0.5	0.0	1.0
12	0.0	0.0	0.3	0.3	0.0	1.0
13	0.0	0.0	0.3	0.3	0.0	0.5
14	0.0	0.0	0.3	0.3	0.0	0.5
thereafter	0.0	0.0	0.3	0.3	0.0	0.5

Actuarial Assumptions (Continued)

The mortality table used was the RP-2000 Mortality Combined Healthy Tables, projected 20 years with U.S. Projection Scale BB.

	Value at Retirement of $1 Monthly for Life*		Future Life Expectancy (years)	
Ages	**Men**	**Women**	**Men**	**Women**
50	$144.67	$147.85	32.99	35.59
55	137.49	141.58	28.37	30.90
60	128.51	133.44	23.94	26.34
65	117.58	123.33	19.74	21.98
70	104.59	111.45	15.83	17.93
75	89.73	97.95	12.26	14.25
80	73.73	83.02	9.13	10.95

**Values are before post-retirement increases are reflected.*

This assumption is used to measure the probabilities of members dying before retirement and the probabilities of each benefit payment being made after retirement. Rates for disabled members were set-forward seven years.

Actuarial Assumptions (Continued)

The rates of retirement used to measure the probability of eligible members retiring during the next year were as follows:

Retirement Ages	KMEA	AFSCME	All Exempt	Non-Sworn Public Safety	CCTA Union
55	2%	6%	10%	10%	10%
56	2	7	10	10	10
57	5	10	25	25	25
58	5	7	25	25	25
59	7	6	20	20	20
60	15	30	25	25	25
61	15	20	30	30	30
62	50	60	30	30	30
63	15	25	15	15	15
64	10	25	15	15	15
65	100	100	100	100	100

Years of Service	Public Safety
20	2%
21	4
22	4
23	2
24	2
25	70
26	30
27	45
28	25
29	25
30	100

Retirement probabilities were applied for General and CCTA members after both attaining age 55 and completing 15 years of service, or age 62 with 10 years of service (5 years for General Exempt, 5 years for Transit Exempt hired before 9/1/2010, 9 years for AFSCME and 8 years for KMEA hired before 1/1/2009). AFSCME members are also considered eligible for retirement at age 60 with 20 or more years of service. Retirement probabilities were applied for Public Safety members upon completion of 20 years of service with 100% retirement probability assumed at age 60 with 10 years of service.

Actuarial Assumptions (Continued)

Rates of separation from active membership were as shown below (rates do not apply to members eligible to retire and do not include separation on account of death or disability). This assumption measures the probabilities of members remaining in employment.

		% of Active Members Separating within Next Year					
Sample Ages	Years of Service	KMEA	AFSCME	All Exempt	Non-Sworn Public Safety	CCTA Union	Public Safety
	0	15.0%	15.0%	15.0%	15.0%	15.0%	6.0%
	1	14.0	14.0	14.0	14.0	14.0	4.0
	2	9.0	9.0	9.0	9.0	9.0	3.0
	3	8.0	8.0	8.0	8.0	8.0	2.5
	4	7.0	7.0	7.0	7.0	7.0	2.5
25	5 or Over	7.4	7.4	7.4	7.4	7.4	2.2
30		5.8	5.8	5.8	5.8	5.8	2.0
35		5.0	5.0	5.0	5.0	5.0	1.4
40		4.0	4.0	4.0	4.0	4.0	1.1
45		3.3	3.3	3.3	3.3	3.3	0.8
50		2.5	2.5	2.5	2.5	2.5	0.6
55		2.0	2.0	2.0	2.0	2.0	0.4
60		2.0	2.0	2.0	2.0	2.0	0.4

Actuarial Assumptions (Continued)

Disability Rates

Disability rates are used in the valuation to estimate the incidence of member disability in future years.

The assumed rates of disablement at various ages are shown below:

	% of Active Members Becoming Disabled Within Next Year	
Sample Ages	Public Safety CCTA Union AFSCME	KMEA All Exempt CSO
20	0.23%	0.04%
25	0.27	0.04
30	0.32	0.04
35	0.40	0.04
40	0.55	0.10
45	0.76	0.13
50	1.45	0.25
55	2.84	0.45
60	0.00	0.71

Actuarial Assumptions (Concluded)

Health care cost trend rates are displayed in the following table:

Year After Valuation	Health Care Trend Inflation Rates
	Medical and Drug
1	8.25%
2	7.50
3	7.00
4	6.50
5	6.00
6	5.50
7	5.00
8	4.50
9	4.00
10 +	3.50

Health Care Coverage at Retirement as described in the table below, shows the assumed portion of future retirees currently waiving coverage, electing one-person or two-person/family coverage, or opting-out of coverage entirely. It was also assumed active employees currently opting-out of health care would elect health care based on the following table:

	One-Person	Two-Person/Family		Opt-Out
		Electing	Continuing*	
All Groups	25%	70%	100%	5%

** Continuation period for surviving spouses is one year.*

***Current Waivers*:**

Non-ERI retirees who are opting-out of health care were assumed to continue opting-out of health care indefinitely. If current non-ERI retirees choose to opt-back-in for coverage, if allowed, there would be a loss in future valuations.

ERI retirees currently waiving coverage are assumed to return to coverage at age 62.

Miscellaneous and Technical Assumptions

Administrative Expenses	No explicit assumption has been made for administrative expenses.
Decrement Operation	Death-in-service decrement does not operate until member becomes vested. Withdrawal does not operate during retirement eligibility.
Decrement Timing	Decrements are assumed to occur at the middle of the fiscal year.
Decrement Relativity	Decrement Rates are used directly from the experience study of the pension retirement system, without adjustment for multiple decrement effects.
Eligibility Testing	Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
Incidence of Contributions	Contributions are assumed to be received continuously throughout the year based upon the computed dollar amount shown in this report.
Marriage Assumption	100% of males and 100% of females are assumed to be married at time of in-service death. Male spouses are assumed to be three years older than female spouses for active valuation purposes.
Excise Tax Liability	No Loads.
Surviving Spouse Benefit	Surviving spouses of active and retired members of the plan are given one year of benefit at the cost the retiree has to pay, after one year the spouse must pay 100% of premium. Liabilities have been loaded 1.00% to account for this benefit.
Medicare Coverage	Assumed to be available for all covered employees on attainment of age 65. Disabled retirees were assumed to be eligible for Medicare coverage at age 65.

Appendix A

Glossary

Glossary

Accrued Service. The service credited under the plan which was rendered before the date of the actuarial valuation.

Actuarial Accrued Liability. The difference between (i) the actuarial present value of future plan benefits, and (ii) the actuarial present value of future normal cost. Sometimes referred to as "accrued liability" or "past service liability."

Actuarial Assumptions. Estimates of future plan experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.

Actuarial Cost Method. A mathematical budgeting procedure for allocating the dollar amount of the "actuarial present value of future plan benefits" between the actuarial present value of future normal cost and the actuarial accrued liability. Sometimes referred to as the "actuarial funding method."

Actuarial Equivalent. A single amount or series of amounts of equal value to another single amount or series of amounts, computed on the basis of the rate(s) of interest and mortality tables used by the plan.

Actuarial Present Value. The amount of funds presently required to provide a payment or series of payments in the future. It is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Actuarially Computed Employer Contribution. The Actuarially Computed Employer Contribution is the normal cost plus the portion of the unfunded actuarial accrued liability to be amortized in the current period. The Actuarially Computed Employer Contribution is an amount that is actuarially determined in accordance with the requirements so that, if paid on an ongoing basis, it would be expected to provide sufficient resources to fund both the normal cost for each year and the amortized unfunded actuarial accrued liability.

Amortization. Paying off an interest-bearing liability by means of periodic payments of interest and principal, as opposed to paying it off with a lump sum payment.

Governmental Accounting Standards Board (GASB). GASB is the private, nonpartisan, nonprofit organization that works to create and improve the rules U.S. state and local governments follow when accounting for their finances and reporting them to the public.

Implicit Rate Subsidy. It is common practice for employers to allow retirees to continue in the employer's group health insurance plan (which also covers active employees), often charging the retiree some portion of the premium charged for active employees. Under the theory that retirees have higher utilization of services, the difference between the true cost of providing retiree coverage and what the retiree is being charged is known as the implicit rate subsidy.

Glossary

Medical Trend Rate (Health Care Inflation). The increase in the cost of providing health care benefits over time. Trend includes such elements as pure price inflation, changes in utilization, advances in medical technology, and cost shifting.

Normal Cost. The annual cost assigned, under the actuarial funding method, to current and subsequent plan years. Sometimes referred to as “current service cost.” Any payment toward the unfunded actuarial accrued liability is not part of the normal cost.

Other Postemployment Benefits (OPEB). OPEB are postemployment benefits other than pensions. OPEB generally takes the form of health insurance, dental, vision, prescription drugs, life insurance or other health care benefits.

Reserve Account. An account used to indicate that funds have been set aside for a specific purpose and are not generally available for other uses.

Unfunded Actuarial Accrued Liability. The difference between the actuarial accrued liability and valuation assets. Sometimes referred to as “unfunded actuarial accrued liability.”

Valuation Assets. The value of current plan assets recognized for valuation purposes.

Appendix B

Valuation Results by Fund

Valuation Results by Fund

The purpose of this appendix is to segregate the results of the January 1, 2019 valuation of Postretirement Welfare Benefits for the City of Kalamazoo by OPEB fund.

The Actuarially Computed Employer Contribution (ACEC) is developed on a Plan-wide basis, and could be significantly different than the results as determined for each individual fund.

The following ***additional data*** was provided by the City for use in this study:

- Allocation percentages for Funding Sources within General-PublicWorks
  - 15%: General-PublicWorks
  - 45%: Major Streets
  - 30%: Local Streets
  - 10%: Solid Waste
- Asset Allocation Method: Use of equal funded ratio for each fund.
- General-Public Works results are grouped under the "General" heading.

Restatement of January 1, 2019 Valuation Results by Fund

Fund:	Total	Total Governmental					Wastewater	Water	CCTA
Governmental Sub-Fund:			General&	Major Streets	Local Streets	Solid Waste			
Development of the Actuarially Computed Employer Contribution									
Contributions for Calendar Year 2019									
1. Employer Normal Cost	$ 1,286,891	$ 1,089,509	$ 1,055,693	$ 17,903	$ 11,935	$ 3,978	$ 58,918	$ 40,962	$ 97,502
2. Amortization of Unfunded Actuarial Accrued Liability^	6,725,928	4,827,299	4,571,341	135,507	90,338	30,113	805,186	608,253	485,190
3. Actuarial Computed Employer Contribution (ACEC)	$ 8,012,819	$ 5,916,808	$ 5,627,034	$ 153,410	$ 102,273	$ 34,091	$ 864,104	$ 649,215	$ 582,692
Determination of Unfunded Actuarial Accrued Liability as of January 1, 2019									
4. Present Value of Future Benefits									
i. Retirees and Beneficiaries*	$133,498,116	$ 93,751,206	$ 89,452,501	$2,275,784	$1,517,190	$505,731	$17,293,907	$13,348,105	$ 9,104,898
ii. Vested Terminated Members	0	0	0	0	0	0	0	0	0
iii. Active Members	46,828,621	36,832,104	34,396,324	1,289,531	859,687	286,562	3,659,957	2,480,269	3,856,291
iv. Total Present Value of Future Benefits (4.i. + 4.ii. + 4.iii.)	$180,326,737	$130,583,310	$123,848,825	$3,565,315	$2,376,877	$792,293	$20,953,864	$15,828,374	$12,961,189
5. Present Value of Future Normal Costs	$ 7,685,614	$ 6,676,190	$ 6,511,640	$ 87,116	$ 58,077	$ 19,357	$ 286,348	$ 215,747	$ 507,329
6. Actuarial Accrued Liability (4.iv. - 5.)	$172,641,123	$ 123,907,120	$117,337,185	$3,478,199	$2,318,800	$772,936	$20,667,516	$15,612,627	$12,453,860
7. Actuarial Value of Assets	$ 97,263,276	$ 69,807,311	$ 66,105,915	$1,959,563	$1,306,375	$435,458	$11,643,751	$ 8,795,907	$ 7,016,307
8. Unfunded Actuarial Accrued Liability (6. - 7.)	$ 75,377,847	$ 54,099,809	$ 51,231,270	$1,518,636	$ 1,012,425	$ 337,478	$ 9,023,765	$ 6,816,720	$ 5,437,553
9. Funded Ratio (7. / 6.)	56.3%	56.3%	56.3%	56.3%	56.3%	56.3%	56.3%	56.3%	56.3%

^ A 23-year amortization period is utilized for the 2019 calendar year.

** Includes additional liability due to Early Retirement Incentive (ERI) retirees currently waiving retiree health care through the City, but assumed to return to coverage at a later date.*

& Includes "General-PublicWorks."

Note: The results displayed above were developed using the census/claims data, benefits, and actuarial methods/assumptions used in the January 1, 2019 valuation, including an interest rate of 7.50%.

GRS Retirement Consulting

800.521.0498 | P: 248.799.9000 | F: 248.799.9020 | www.grsconsulting.com

July 1, 2019

Mr. Steve Vicenzi
Director of Management Services/CFO
City of Kalamazoo
241 W. South Street
Kalamazoo, Michigan 49007-4796

Re: City of Kalamazoo Postretirement Welfare Benefits Plan

Dear Mr. Vicenzi:

Enclosed are five copies of our report of the actuarial valuation of the City of Kalamazoo Postretirement Welfare Benefits Plan.

Respectfully submitted,

James D. Anderson, FSA, EA, FCA, MAAA

JDA:sc
Enclosure

cc: Stevens, Kirinovic & Tucker PC (1 report copy)
Attn: Mr. Aaron Stevens

Electronic Copies:
Melissa Fuller, City of Kalamazoo
Lora Ross, City of Kalamazoo
Jennifer Clark, City of Kalamazoo
Aaron Stevens, Stevens, Kirinovic & Tucker PC
Sean McBride, CCTA
Greg Vlietstra, CCTA