
Killeen Firefighter's Relief and Retirement Fund

Actuarial Report for City's Compliance with GASB Statement No. 68 for the Fiscal Year Ending September 30, 2019

January 6, 2020



Rudd and Wisdom, Inc.

Rudd and Wisdom, Inc.

CONSULTING ACTUARIES

Mitchell L. Bilbe, F.S.A.
Evan L. Dial, F.S.A.
Philip S. Dial, F.S.A.
Philip J. Ellis, A.S.A.
Charles V. Faerber, F.S.A., A.C.A.S.
Mark R. Fenlaw, F.S.A.
Brandon L. Fuller, F.S.A.

Shannon R. Hatfield, A.S.A.
Christopher S. Johnson, F.S.A.
Oliver B. Kiel, F.S.A.
Dustin J. Kim, A.S.A.
Edward A. Mire, F.S.A.
Rebecca B. Morris, A.S.A.
Amanda L. Murphy, F.S.A.

Michael J. Muth, F.S.A.
Khiem Ngo, F.S.A., A.C.A.S.
Timothy B. Seifert, A.S.A.
Chelsea E. Stewart, A.S.A.
Raymond W. Tilotta
Ronald W. Tobleman, F.S.A.
David G. Wilkes, F.S.A.

January 6, 2020

Via E-Mail: killeenfirerr@yahoo.com

Board of Trustees
Killeen Firefighter's Relief and
Retirement Fund
c/o Ms. Jennifer Hanna
P.O. Box 1250
Conroe, Texas 77305

Re: GASB No. 68 Report for the Killeen
Firefighter's Relief and Retirement Fund for the
City's Fiscal Year Ending September 30, 2019

Dear Board Members:

At your request, we have prepared an actuarial report providing actuarial information for the Killeen Firefighter's Relief and Retirement Fund (the Fund) for the city's fiscal year ending September 30, 2019 based on a measurement date of September 30, 2018 in accordance with Governmental Accounting Standards Board (GASB) Statement No. 68, *Accounting and Financial Reporting for Pensions*. This information will be used in the preparation of the city's September 30, 2019 financial report.

The disclosures, pension expense, and net pension liability in this report are based on (1) the Fund's actuarial valuation as of September 30, 2018, including the actuarial assumptions and census data summarized in our report to the board of trustees dated May 14, 2019, and (2) the statement of changes in plan fiduciary net position for the Fund's audited September 30, 2018 financial report.

Governmental Accounting Standards

In June 2012, the GASB issued GASB Statement No. 68, *Accounting and Financial Reporting for Pensions*, which amended GASB Statement No. 27 effective for fiscal years beginning after June 15, 2014. For the City of Killeen, GASB 68 first applied in the fiscal year ending September 30, 2015. GASB 68 says the total pension liability should be determined by (a) an actuarial valuation as of the measurement date or (b) the use of update procedures to roll forward to the measurement date amounts from an actuarial valuation as of a date no more than 30 months and one day earlier than the employer's most recent fiscal year end. For this report, the September 30, 2018 actuarial valuation is as of the measurement date.

Variability in Future Actuarial Measurement

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; and
- Changes in plan provisions or applicable law.

We have not been asked to perform and have not performed any stochastic or deterministic sensitivity analyses of the potential ranges of such future measurements, except as required by GASB 68. If you have an interest in the results of any other such analysis, please let us know.

Required Supplementary Information

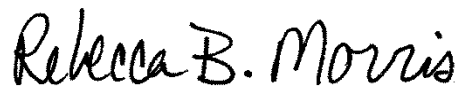
The schedules of required supplementary information (RSI) in Section II of the report do not include the one described in paragraph 46(c) of GASB 68 because the Fund does not have actuarially determined contributions. Similarly there is not a schedule for the RSI described in paragraph 46(d), since the city's contributions are not statutorily or contractually established.

We hereby certify that we are members of the American Academy of Actuaries who meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. We do not have any relationship with the Fund or with the city which might impair, or appear to impair, the objectivity of our services for the Fund.

Sincerely,



Mark R. Fenlaw, F.S.A.



Rebecca B. Morris, A.S.A.

MRF/RBM:nlg

Enclosure

TABLE OF CONTENTS

Page No.

Section I:	Information to Comply with GASB Statement No. 68	
	A. General Information about the Retirement Plan.....	4
	B. Net Pension Liability	6
	C. Changes in the Net Pension Liability	8
	D. Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions	8
Section II:	Schedules of Required Supplementary Information	
	A. Changes in the Net Pension Liability and Related Ratios.....	10
	B. Employer Contributions	11
Section III:	Amortization Schedules	12

Section I – Information to Comply with GASB Statement No. 68

A. General Information about the Retirement Plan

1. Plan Description

The city contributes to the retirement plan for firefighters in the Killeen Fire Department known as the Killeen Firefighter's Relief and Retirement Fund (the Fund). The Fund is a single employer, contributory, defined benefit plan. The benefit provisions of the Fund are authorized by the Texas Local Fire Fighters' Retirement Act (TLFFRA). TLFFRA provides the authority and procedure to amend benefit provisions. The plan is administered by the Board of Trustees of the Killeen Firefighter's Relief and Retirement Fund. The city does not have access to nor can it utilize assets within the retirement plan trust. The Fund issues a stand-alone report pursuant to GASB Statement No. 67, which may be obtained by writing the Killeen Firefighter's Relief and Retirement Fund at P.O. Box 497, Conroe, Texas 77305. See that report for all information about the plan fiduciary net position.

2. Benefits Provided

Firefighters in the Killeen Fire Department are covered by the Killeen Firefighter's Relief and Retirement Fund which provides service retirement, death, disability, and termination benefits. These benefits fully vest after 20 years of credited service. Firefighters may retire at age 50 with 25 years or at age 55 with 20 years of service. A partially vested benefit is provided for firefighters who terminate employment with at least 10 but less than 20 years of service. If a terminated firefighter has a fully or partially vested benefit, he may retire starting on the date he would have satisfied service retirement eligibility if he had remained a Killeen firefighter. The present plan provides a monthly normal service retirement benefit, payable in a Joint and Two-Thirds to Spouse form of annuity, equal to 58.40% of Highest 60-Month Average Salary plus 2.275% of Highest 60-Month Average Salary for each year of service in excess of 20.

A retiring firefighter who is at least 3.5 years beyond first becoming eligible for service retirement has the option to elect the Retroactive Deferred Retirement Option Plan (RETRO DROP) which will provide a lump sum benefit and a reduced monthly benefit. The reduced monthly benefit is based on the service and Highest 60-Monthly Average Salary as if he had terminated employment on his selected RETRO DROP benefit calculation date, which is no earlier than the later of the date which is 3.5 years following his earliest eligibility for retirement and the date two years prior to the date he actual retires. Upon retirement, the member will receive, in addition to his monthly retirement benefit, a lump sum equal to the sum of (1) the amount of monthly contributions the member has made to the fund after the RETRO DROP benefit calculation date plus (2) the total of the monthly retirement benefits the member would have received between the RETRO DROP benefit calculation date and the date he retired under the plan. There are no account balances. The lump sum is calculated at the time of retirement and distributed as soon as administratively possible.

There is no provision for automatic postretirement benefit increases. The Fund has the authority to provide, and has periodically in the past provided, ad hoc postretirement benefit increases.

3. Members Covered by the Fund

In the September 30, 2018 actuarial valuation, the following numbers of members were covered by the Fund:

Retirees and beneficiaries currently receiving benefits	72
Inactive employees entitled to but not yet receiving benefits	10
Active employees and volunteers	<u>225</u>
	307

4. Funding Policy

The contribution provisions of the Fund are authorized by TLFFRA. TLFFRA provides the authority and procedure to change the amount of contributions determined as a percentage of pay by each firefighter and a percentage of payroll by the city and as a dollar amount for volunteer firefighters by the city.

The funding policy of the Killeen Firefighter's Relief and Retirement Fund requires contributions equal to 11% of pay by the firefighters, the rate elected by the firefighters according to TLFFRA. The city currently contributes 13% of pay for each active firefighter according to the annual city budget process, but with an unwritten understanding between the city and the Fund's board that the rate will not be reduced. The actuarial valuation includes the assumption that the city contribution rate will be 13% over the unfunded liability amortization period. The costs of administering the plan are paid from the Fund assets.

Ultimately, the funding policy also depends upon the total return of the Fund's assets, which varies from year to year. Investment policy decisions are established and maintained by the board of trustees. The board selects and employs investment managers with the advice of their investment consultant who is completely independent of the investment managers. For the year ending September 30, 2018, the money-weighted rate of return on pension plan investments was 8.94%. This measurement of the investment performance is net of investment-related expenses, reflecting the effect of the timing of the contributions received and the benefits paid during the year.

While the contribution requirements are not actuarially determined, state law requires that each change in plan benefits adopted by the Fund must first be approved by an eligible actuary, certifying that the contribution commitment by the firefighters and the assumed city contribution rate together provide an adequate contribution arrangement. Using the entry age actuarial cost method, the plan's normal cost contribution rate is determined as a percentage of payroll. The excess of the total contribution rate over the normal cost contribution rate is used to amortize the plan's unfunded actuarial accrued liability (UAAL). The number of years needed to amortize the plan's UAAL is actuarially determined using an open, level percentage of payroll method.

B. Net Pension Liability

The City of Killeen's net pension liability was measured as September 30, 2018, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of September 30, 2018.

Total pension liability	\$ 61,961,337
Plan fiduciary net position	<u>43,947,221</u>
City's net pension liability	\$ 18,014,116

Plan fiduciary net position as a percentage of the total pension liability	70.9%
--	-------

1. Actuarial Assumptions

The total pension liability in the September 30, 2018 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	3%
Salary increases	3%, plus promotion, step and longevity increases that vary by service
Investment rate of return	7.5%, net of pension plan investment expense, including inflation

Mortality rates were based on the PubS-2010 (public safety) below-median income mortality tables for employees and for retirees (sex distinct), projected for mortality improvement generationally using projection scale MP-2018.

The long-term expected rate of return on pension plan investments is reviewed for each biennial actuarial valuation and was determined using a building-block method in which expected future net real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These components are combined to produce the long-term expected rate of return by weighting the expected future net real rates of return by the target asset allocation percentage (currently resulting in 4.54%) and by adding expected inflation (3%). In addition, the final 7.5% assumption was selected by rounding down. The target allocation and expected arithmetic net real rates of return for each major asset class are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Net Real Rate of Return
Equities		
Large cap domestic	30.0%	5.99%
Small/mid cap domestic	10.0	6.74
International developed	15.0	6.38
Fixed Income		
Domestic core	18.5	1.41
Direct lending	6.5	1.49
Global	5.0	1.68
Alternatives		
Tactical strategies	5.0	7.09
Real estate	5.0	3.59
Balanced fund	5.0	2.81
Cash	0.0	0.24
Total	100.0%	
Weighted Average		4.54%

2. Discount Rate

The discount rate used to measure the total pension liability was 7.5%. No projection of cash flows was used to determine the discount rate because the September 30, 2016 actuarial valuation showed that expected contributions would pay the normal cost and amortize the unfunded actuarial accrued liability (UAAL) in 40 years. Because of the 40-year amortization period of the UAAL, the pension plan's fiduciary net position is expected to be available to make all projected future benefit payments of current active and inactive members. Therefore, the long-term expected rate of return on pension plan investments of 7.5% was applied to all periods of projected benefit payments as the discount rate to determine the total pension liability.

3. Sensitivity of the Net Pension Liability to Changes in the Discount Rate

The following presents the net pension liability of the City of Killeen, calculated using the discount rate of 7.5%, as well as what the city's net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.5%) or 1-percentage-point higher (8.5%) than the current rate:

	1% Decrease (6.5%)	Current Discount Rate (7.5%)	1% Increase (8.5%)
City's Net Pension Liability	\$27,180,402	\$18,014,116	\$10,490,632

4. Plan Fiduciary Net Position

The plan fiduciary net position reported above is the same as reported by the Fund. Detailed information about the plan fiduciary net position is available in the Fund's separately issued audited financial statements, which are reported using the economic resources measurement focus and the accrual basis of accounting in conformity with accounting principles generally accepted in the United States of America. Revenues are recorded when earned, and expenses are recorded when a liability is incurred, regardless of the timing of the related cash flows. Investments are reported at fair value, the price that would be recognized to sell an asset in an orderly transaction between market participants at the measurement date.

C. Changes in the Net Pension Liability

	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) – (b)
Amounts as of September 30, 2018¹	\$ 56,501,748	\$ 39,884,563	\$ 16,617,185
Changes for the year:			
Service cost	2,113,543		2,113,543
Interest	4,434,845		4,434,845
Differences between expected and actual experience	(527,995)		(527,995)
Contributions by the city		1,817,845	(1,817,845)
Contributions by the firefighter		1,538,179	(1,538,179)
Net investment income		3,585,949	(3,585,949)
Benefit payments	(2,782,964)	(2,782,964)	0
Administrative expenses		(96,351)	96,351
Assumption changes	2,222,160		2,222,160
Other	0		0
Net changes	<u>5,459,589</u>	<u>4,062,658</u>	<u>1,396,931</u>
Amounts as of September 30, 2019²	\$ 61,961,337	\$ 43,947,221	\$ 18,014,116

¹ Measurements for the fiscal year ended September 30, 2018 were taken as of September 30, 2017.

² Measurements for the fiscal year ended September 30, 2019 were taken as of September 30, 2018.

D. Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

For the year ended September 30, 2019, the city's GASB 68 pension expense was \$2,227,072. Amounts recognized in the fiscal year represent changes between the current and prior measurement dates.

1. Components of Pension Expense for the Fiscal Year Ended September 30, 2019

Components of Pension Expense	
Service cost	\$ 2,113,543
Interest	4,434,845
Firefighter contributions	(1,538,179)
Projected earnings on pension plan investments	(3,109,526)
Amortization of differences between projected and actual earnings on plan investments	251,431
Amortization of changes of assumptions	250,338
Amortization of differences between expected and actual experience	(271,731)
Pension plan administrative expenses	96,351
Other	0
Total pension expense	\$ 2,227,072

2. Deferred Outflows of Resources and Deferred Inflows of Resources to Be Recognized in Pension Expense in Future Years

	Deferred Outflows of Resources	Deferred Inflows of Resources
Net difference between projected and actual earnings on pension plan investments	\$ 0	\$ 976,755
Changes of assumptions	2,449,344	166,137
Differences between expected and actual experience	0	2,383,353
Total	\$ 2,449,344	\$ 3,526,245

Amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

Year Ended September 30	Net of Deferred Outflows Minus Deferred Inflows
2020	\$ 166,125
2021	(621,676)
2022	(490,099)
2023	(116,677)
2024	(21,393)
Thereafter	6,819
Total	\$ (1,076,901)

The total of the contributions by the city to the Fund contributed subsequent to the measurement date of the net pension liability, September 30, 2018, through September 30, 2019 is a deferred outflow of resources that will be recognized as a reduction in the net pension liability in the fiscal year ending September 30, 2020. **This amount will be provided by the city.**

Section II – Schedules of Required Supplementary Information

A. Schedule of Changes in the City's Net Pension Liability and Related Ratios for the Last 10 Fiscal Years¹

	Fiscal Year Ending				
	9/30/2019	9/30/2018	9/30/2017	9/30/2016	9/30/2015
1. Total Pension Liability					
a. Service cost	\$ 2,113,543	\$ 2,047,015	\$ 1,891,004	\$ 1,827,057	\$ 1,830,207
b. Interest	4,434,845	4,185,617	4,132,431	3,854,103	3,548,068
c. Changes of benefit provisions	0	0	0	0	0
d. Differences between expected and actual experience	(527,995)	0	(2,575,843)	0	0
e. Changes of assumptions	2,222,160	0	(224,913)	0	779,646
f. Benefit payments	<u>(2,782,964)</u>	<u>(3,383,661)</u>	<u>(2,001,167)</u>	<u>(2,306,409)</u>	<u>(2,105,453)</u>
g. Net Change	5,459,589	2,848,971	1,221,512	3,374,751	4,052,468
h. Beginning	56,501,748	53,652,777	52,431,265	49,056,514	45,004,046²
i. Ending	\$ 61,961,337	\$ 56,501,748³	\$ 53,652,777	\$ 52,431,265³	\$ 49,056,514
2. Plan Fiduciary Net Position					
a. Contributions by the city	\$ 1,817,845	\$ 1,873,368	\$ 1,770,872	\$ 1,696,664	\$ 1,541,096
b. Firefighter contributions	1,538,179	1,585,161	1,483,972	1,419,132	1,284,686
c. Net investment income	3,585,949	4,603,775	3,110,934	(1,444,977)	1,972,592
d. Benefit payments	(2,782,964)	(3,383,661)	(2,001,167)	(2,306,409)	(2,105,453)
e. Administrative expenses	<u>(96,351)</u>	<u>(136,910)</u>	<u>(94,483)</u>	<u>(135,909)</u>	<u>(130,049)</u>
f. Net Change	4,062,658	4,541,733	4,270,128	(771,499)	2,562,872
g. Beginning	39,884,563	35,342,830	31,072,702	31,844,201	29,281,329
h. Ending	\$ 43,947,221	\$ 39,884,563	\$ 35,342,830	\$ 31,072,702	\$ 31,844,201
3. City's Net Pension Liability [Item 1(i) – 2(h)]	\$ 18,014,116	\$ 16,617,185	\$ 18,309,947	\$ 21,358,563	\$ 17,212,313
4. Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	70.9%	70.6%	65.9%	59.3%	64.9%
5. Covered Payroll⁵	\$ 13,983,445	\$ 14,410,555	\$ 13,490,655	\$ 12,901,200	\$ 11,678,964
6. City's Net Pension Liability as a Percentage of Covered Payroll	128.8%	115.3%	135.7%	165.6%	147.4%

Notes to Schedule:

¹ Until a full 10-year trend is compiled, only available information is shown. The measurement date is September 30, 12 months prior to the fiscal year end.

² Determined from the ending total pension liability as of September 30, 2014, but based on the actuarial assumptions for the September 30, 2012 actuarial valuation, using the roll back procedure allowed for the initial year of implementing GASB 68.

³ Determined from the beginning of year total pension liability, using the roll forward procedure allowed by GASB 68.

⁴ Contributions by the firefighters divided by their contribution rate.

B. Schedule of City Contributions for the Last 10 Fiscal Years¹

- ¹ A schedule of city contributions is not required because the city contributions to the Fund are neither actuarially determined nor statutorily or contractually established.

Section III – Amortization Schedules**A. Increase (Decrease) in Pension Expense Arising from the Recognition of Differences between Projected and Actual Earnings on Pension Plan Investments**

Fiscal Year Difference Occurred	Differences between Projected and Actual Earnings	Amortization Period	Recognized Outflow (Inflow) of Resources						
			Fiscal Year Recognized						
			2019	2020	2021	2022	2023	2024	Thereafter
2015	\$ 319,584	5 yrs	\$ 63,916	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
2016	3,939,000	5 yrs	787,800	787,800	0	0	0	0	0
2017	(657,881)	5 yrs	(131,576)	(131,576)	(131,577)	0	0	0	0
2018	(1,867,110)	5 yrs	(373,422)	(373,422)	(373,422)	(373,422)	0	0	0
2019	(476,423)	5 yrs	(95,287)	(95,284)	(95,284)	(95,284)	(95,284)	0	0

Net increase (decrease) for A \$ 251,431

B. Increase (Decrease) in Pension Expense Arising from the Recognition of Changes in Assumptions

Fiscal Year Difference Occurred	Recognition of Changes in Assumptions	Amortization Period	Recognized Outflow (Inflow) of Resources						
			Fiscal Year Recognized						
			2019	2020	2021	2022	2023	2024	Thereafter
2015	\$ 779,646	11.038 yrs	\$ 70,633	\$ 70,633	\$ 70,633	\$ 70,633	\$ 70,633	\$ 70,633	\$ 73,316
2016	0		0	0	0	0	0	0	0
2017	(224,913)	11.48 yrs	(19,592)	(19,592)	(19,592)	(19,592)	(19,592)	(19,592)	(68,177)
2018	0		0	0	0	0	0	0	0
2019	2,222,160	11.15 yrs	199,297	199,297	199,297	199,297	199,297	199,297	1,026,378

Net increase (decrease) for B \$ 250,338

C. Increase (Decrease) in Pension Expense Arising from the Recognition of Differences between Expected and Actual Experience

Fiscal Year Difference Occurred	Differences between Expected and Actual Experience	Amortization Period	Recognized Outflow (Inflow) of Resources						
			Fiscal Year Recognized						
			2019	2020	2021	2022	2023	2024	Thereafter
2015	\$ 0		\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
2016	0		0	0	0	0	0	0	0
2017	(2,575,843)	11.48 yrs	(224,377)	(224,377)	(224,377)	(224,377)	(224,377)	(224,377)	(780,827)
2018	0		0	0	0	0	0	0	0
2019	(527,995)	11.15 yrs	(47,354)	(47,354)	(47,354)	(47,354)	(47,354)	(47,354)	(243,871)

Net increase (decrease) for C \$ (271,731)

Net for future years (A+B+C) \$ 166,125 \$ (621,676) \$ (490,099) \$ (116,677) \$ (21,393) \$ 6,819