# KILLEEN FIREFIGHTER'S RELIEF AND RETIREMENT FUND

# ACTUARIAL VALUATION AS OF SEPTEMBER 30, 2012

MAY 9, 2013

# Rudd and Wisdom, Inc.

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May 9, 2013

**Board of Trustees** Killeen Firefighter's Relief and Retirement Fund c/o Ms. Jennifer Hanna P.O. Box 497 Conroe, Texas 77305

#### Members of the Board of Trustees:

At the request of the Board of Trustees of the Killeen Firefighter's Relief and Retirement Fund, we have prepared this report of the results of an actuarial valuation of the fund as of September 30, 2012. This valuation was prepared to determine whether the fund has an adequate contribution arrangement. Section I of our report summarizes the valuation results and describes the data sources and assumptions used in the valuation. Section II shows the key results of the valuation and describes the reasons for the change in the amortization period from the previous valuation that we prepared. Section III explains special study considerations. The necessary information for the fund's compliance with Governmental Accounting Standards Board (GASB) Statement No. 25 and the city's compliance with GASB Statement No. 27 is included as Exhibits 14 and 15.

We certify that we are members of the American Academy of Actuaries who meet Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained in this report.

Sincerely,

Mark R. Fenlaw Mark R. Fenlaw, F.S.A.

Rebecca B. Morris, A.S.A.

Relecca B. Morris

MRF;RBM:bb

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#### **Section I**

# Killeen Firefighter's Relief and Retirement Fund Valuation Summary

An actuarial valuation of the assets and liabilities of the Killeen Firefighter's Relief and Retirement Fund as of September 30, 2012 has been completed. The valuation was based on the Present Plan (plan effective July 1, 2007) and the provisions of the Texas Local Fire Fighters' Retirement Act (TLFFRA) which were in effect on September 30, 2012. Section II shows the key results of the actuarial valuation as of September 30, 2012 and discusses the significant changes since the prior valuation that we prepared as of September 30, 2010.

This valuation reflects an actuarially assumed total contribution rate of 23.00%, comprised of 10.00% by the firefighters and 13.00% by the city. The total contribution rate of 23.00% exceeds the normal cost rate of 16.85%, leaving 6.15% available to amortize the unfunded actuarial accrued liability (UAAL) of \$13,613,668. Assuming that the total payroll increases at the rate of 4.00% per year in the future, the contributions in excess of the normal cost **will amortize the UAAL in 36 years.** 

In order for a retirement plan to have an adequate contribution arrangement, contributions must be made that are sufficient to pay the plan's normal cost and to amortize the plan's UAAL over a reasonable period of time. Based on the Texas State Pension Review Board guidelines, our professional judgment, and the actuarial assumptions and methods used in making this valuation, we consider periods of 15 years to 25 years to be preferable and 40 years to be the maximum acceptable period. Since the total contributions are sufficient to pay the fund's normal cost and to amortize the fund's UAAL within the maximum acceptable period, we are of the opinion that the fund, based on present levels of benefits and contributions, has an adequate contribution arrangement. Section III presents considerations for special studies of benefit improvements.

## **Projected Actuarial Valuation Results**

In addition to completing this actuarial valuation, we estimated the amortization periods as of September 30, 2014 and as of September 30, 2016 by making projections from the September 30, 2012 actuarial valuation. These projections examine the effect on the amortization period in the next two actuarial valuations of the actuarial investment gains and losses that the fund experienced in the four years prior to the valuation date (losses in 2009 and 2011 and gains in 2010 and 2012) that have been only partially recognized as of September 30, 2012. As shown in Exhibit 6, a smoothing method is used to determine the actuarial value of assets (AVA) for this valuation. This method phases in over a five-year period any investment gains or losses (net actual investment return greater or less than the actuarially assumed investment return) that the fund has had. The AVA used in this current valuation is deferring recognition of various portions of the gains and losses in 2009, 2010, 2011, and 2012 that the fund experienced. The AVA used in this valuation is \$27,528,834. The market value of assets is \$26,974,697. The \$554,137 difference between the market value and the AVA is the net of the deferred gains and losses that will be recognized in the next two actuarial valuations.

For the purpose of projecting the amortization period through 2016 we used several scenarios of various assumed annual rates of investment return, net of expenses, over the 2013-2016 projection period. The projected amortization periods will not be the same as the actual amortization periods from completed future actuarial valuations but are the result of projected future actuarial valuation results based on the completed September 30, 2012 actuarial valuation. These projections show the expected effects over the next four years after the valuation date (1) of the recognition of the portions of the past investment gains and losses over the past four years that are deferred as of September 30, 2012, and (2) of investment returns over the next four years following September 30, 2012 different from the 7.75% assumption used in this valuation.

		Scenario								
	1	2	3	4	5	6				
Assumed Investment Return										
for Fiscal Year										
2012-2013	7.75%	22.00%	7.75%	15.00%	7.75%	15.00%				
2013-2014	7.75	22.00	7.75	5.00	7.75	5.00				
2014-2015	7.75	7.75	7.75	7.75	7.75	7.75				
2015-2016	7.75	7.75	7.75	7.75	7.75	7.75				
2016-2017 and later	7.75	7.75	7.75	7.75	7.75	7.75				
Amortization Period in Years as of September 30: 2012 (actual) 2014 (projected) 2016 (projected)	36.1 36.4 35.3	36.1 24.8 12.6	36.1 25.9 24.4	36.1 23.7 21.0	36.1 20.2 18.6	36.1 18.7 16.2				
Number of Actives 2014	193	193	237	237	237	237				
Total Contribution Rate as of October 2013	23%	23%	23%	23%	24%	24%				

The projected future September 30, 2014 valuation in Scenario 1 reveals that instead of decreasing by the expected two years from 36.1 years to 34.1 years, the amortization period is projected to increase to 36.4 years primarily due to the significant loss from 2011 being more than twice the sum of the gains from 2010 and 2012. The primary conclusion from Scenario 1 is that the remaining deferred 2011 loss as of September 30, 2012 will prevent the amortization period from decreasing as of September 30, 2014 without an investment gain in the two years between those two dates.

Is it realistic to expect that the market value rate of return could be high enough in 2013 and 2014 to lower the amortization period below 25 years? Scenario 2 in the table helps answer this question by showing the projected amortization periods in the next two valuations based on an annual assumed investment experience of 22% over the next two plan years, with the assumed 7.75% each year thereafter. Those are the minimum equal rates of return in the next two years required to get the amortization period under 25 years as of September 30, 2014.

However, you have indicated that current plans for increased staffing could result in 44 more budgeted positions. Scenario 3 isolates the effects of such an increase, assuming an increase to 237 firefighters would be fully reflected beginning September 30, 2014. Compared to Scenario 1, the amortization periods in Scenario 3 are about 10 to 11 years less. However, that increase in number alone would not bring the amortization period below 25 years as of September 30, 2014. Scenario 4 shows that with a 15% return this year and a 5% return next year, the amortization period would be under 24 years as of September 30, 2014.

One other potential change to consider would be an increase in the total contribution rate. Scenarios 5 and 6 are comparable to Scenarios 3 and 4, showing that a 1% increase in the city contribution rate would result in a reduction in the amortization period of about five years if the number of active firefighters increases to 237 by September 30, 2014. Scenarios 5 and 6 are based on the increase in city contribution rate becoming effective October 1, 2013.

We do not know what the investment experience will be for each of the next four plan years. However, these scenarios, except for Scenario 2, present a range of plausible investment experience scenarios for the next valuations assuming no changes in benefits. The key uncertainties, in addition to the investment experience, will be the increase in the number of firefighters and whether the total contribution rate will be increased.

Variations in experience from the underlying assumptions, other than investment return, will cause the actual amortization periods to be different from the periods shown above. In addition, the future investment experience in each of the next four years could be better or worse than the assumed rates shown. However, the primary conclusion from the scenarios is that it is unlikely the amortization period in the next two actuarial valuations will be significantly below 25 years without an increase both in the number of firefighters and in contributions. However, if the city and firefighters were to begin contributing a total of 24% of pay in October 2013 and the total number of firefighters were to increase to 237 by October 2014, then the September 30, 2014 amortization period would probably be well under 25 years.

# **Participant and Asset Data**

We have relied on and based our valuation on the active firefighter data, pensioner data, and asset data provided on behalf of the board of trustees by Ms. Jennifer Hanna, plan administrator for the board. We have not audited the data provided but have reviewed it for reasonableness and consistency relative to the data provided for the September 30, 2010 actuarial valuation. Exhibit 1 is a distribution of the active paid firefighters by age and service. The salaries used for projecting future contributions and benefits in the valuation were based on the actual pay for the 2012 plan year since there was no general pay increase in October 2012. The total of these salaries is our assumed annualized covered payroll for the plan year beginning October 1, 2012 and is used in the valuation

to determine the UAAL amortization period. The averages of the assumed salaries for the 2013 plan year are shown in Exhibit 1.

Exhibit 2 contains summary information on the pensioners. The monthly benefit payments are generally based on the amounts paid October 31, 2012. Exhibit 2A is a reconciliation of firefighters and pensioners from September 30, 2010 to September 30, 2012. Exhibit 3 shows a breakdown of the dollar level of the monthly benefits for retirees and surviving spouses. Exhibit 4 shows a historical comparison of the actuarial accrued liability and the actuarial value of assets.

The summary of assets contained in Exhibit 5 is based on the September 30, 2012 market value of assets contained in the 2012 Annual Report to the Texas Fire Fighters' Pension Commission. This exhibit also shows a comparison of the market values and actuarial values of assets as of September 30, 2010 and September 30, 2012. Exhibit 6 shows the development of the actuarial value of assets. Exhibit 7 shows a historical comparison between the market value and actuarial value of assets. A comparison of the market value asset allocation by asset class as of September 30, 2010 and September 30, 2012 is shown in Exhibit 8.

# Assumptions

We selected actuarial assumptions we considered to be appropriate for the fund with respect to future rates of investment return, withdrawal, death, disability, service retirement, salary increases of firefighters and aggregate future firefighter payroll increases for this valuation. Significant actuarial assumptions used in the valuation are:

- 1. 7.75% annual investment return (interest rate) net of investment-related expenses;
- 2. 4.00% general annual pay (salary) increase plus an average of 1.80% per year for pay increases due to promotions and longevity over a 30-year career;
- 3. Retirement rates which result in an average expected age at retirement of 55.3; and
- 4. RP-2000 Mortality Tables projected to 2014.

The following actuarial assumption and method changes have been made and are compared to those used in the September 30, 2010 valuation:

- 1. The investment return assumption was changed from 7.75% net of all expenses to 7.75% net of investment-related expenses. An accompanying change in assumptions was to reflect general and administrative expenses assumed to be paid by the fund by increasing the normal cost percent as a percent of aggregate payroll. In the past we have used an investment return assumption that was net of all expenses, including general and administrative expenses. See footnote 2 on page 6 for more detail.
- 2. Prior valuations used mortality assumptions that assumed all active and retired firefighters were male and all spouses were female. We changed in this valuation to begin using the actual gender of each firefighter, retiree, and spouse. This change had virtually no effect on the aggregate results.

A summary of all the assumptions and methods used in the valuation is shown in Exhibits 9, 10 and 11. In our opinion, the assumptions used, both in the aggregate and individually, are reasonably related to the experience of the fund and to reasonable expectations. The assumptions represent a reasonable estimate of anticipated experience

of the fund over the long-term future, and their selection complies with the applicable actuarial standards of practice.

# **Supporting Exhibits**

Exhibit 12 contains definitions of terms used in this actuarial valuation report. Exhibit 13 summarizes the plan provisions of the Present Plan. The disclosures in accordance with GASB Statement No. 25 are enclosed as Exhibit 14. This information will be needed for the fund's financial statements. The disclosures in accordance with GASB Statement No. 27 are enclosed as Exhibit 15. The GASB 27 disclosures will be needed for the city's financial statements.

# 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 current economic or demographic assumptions;
- Increases or decreases expected as part of the natural operation of the methodology used for these measurements;
- Changes in economic or demographic assumptions; and
- Changes in plan provisions.

Analysis of the potential range of such future measurements resulting from the possible sources of measurement variability is typically outside the scope of an actuarial valuation. However, we provided projected amortization periods for the next two biennial actuarial valuations under six scenarios. Additional or other sensitivity analysis could be performed in a subsequent report if desired by the board of trustees.

Respectfully submitted, RUDD AND WISDOM, INC.

Mark R. Fenlaw

Mark R. Fenlaw

Fellow, Society of Actuaries

Member, American Academy of Actuaries

Rebecca B. Morris

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### **Section II**

# Killeen Firefighter's Relief and Retirement Fund Detailed Results of the Actuarial Valuation

	Sep	otember 30, 2010 <sup>1</sup>	September 30, 2012		
<ol> <li>Actuarial present value of future benefits</li> <li>Those now receiving benefits or former firefighters entitled to receive benefits</li> </ol>					
i. Paid ii. Volunteer	\$	15,271,284 81,470	\$	16,462,441 79,529	
<ul><li>b. Active firefighters</li><li>i. Paid</li><li>ii. Volunteer</li></ul>		42,690,272 59,488		46,102,087 46,572	
c. Total	\$	58,102,514	\$	62,690,629	
2. Actuarial present value of future normal cost contributions	\$	20,940,568	\$	21,548,127	
3. Actuarial accrued liability (Item 1c – Item 2)	\$	37,161,946	\$	41,142,502	
4. Actuarial value of assets	\$	23,980,822	\$	27,528,834	
5. Unfunded actuarial accrued liability (UAAL) (Item 3 - Item 4)	\$	13,181,124	\$	13,613,668	
<ul><li>6. Contributions (percent of payroll)</li><li>a. Firefighters</li><li>b. City of Killeen</li><li>c. Total</li></ul>		10.00% 13.00% 23.00%		10.00% <u>13.00</u> % 23.00%	
7. Normal cost (percent of payroll) <sup>2</sup>		15.71%		16.85%	
8. Percent of payroll available to amortize the UAAL (Item 6c - Item 7)		7.29%		6.15%	
9. Annualized covered payroll	\$	10,564,186	\$	11,025,643	
10. Present annual amount available to amortize the UAAL (Item 8 x Item 9)	\$	770,129	\$	678,077	
11. Years to amortize the UAAL <sup>3</sup>		27.0		36.1	
12. GASB 27 funded ratio (Item 4 ÷ Item 3)		64.5%		66.9%	

<sup>&</sup>lt;sup>1</sup> All items are from the September 30, 2010 actuarial valuation and reflect the Present Plan.

In the September 30, 2010 valuation, the 7.75% investment return assumption was net of all expenses, including general and administrative expenses. In the September 30, 2012 valuation, the 7.75% investment return assumption is net of investment-related expenses. General and administrative expenses are reflected as a percent of aggregate payroll, with the normal cost percent increased by 0.88%.

<sup>&</sup>lt;sup>3</sup> Calculated reflecting the city's commitment to contribute \$16,010 annually for volunteer firefighters and pensioners plus \$102 per active volunteer annually. These contributions are assumed to pay the annual normal cost for active volunteers and to pay for the benefits for the current volunteer pensioners.

# **Change in Amortization Period**

The amortization period, based on the Present Plan provisions, was determined in the actuarial valuation as of September 30, 2010 to be 27.0 years. Since two years have passed since that valuation date, a 25.0-year amortization period would be expected if all actuarial assumptions had been exactly met, no unexpected changes had occurred in the firefighter and pensioner data, and no changes in assumptions or methods had been made. The amortization period is now 36.1 years based on the same plan provisions. The actual experience occurring between September 30, 2010 and September 30, 2012 differed from the expected experience, and in combination with the changes in assumptions, the resulting amortization period was 36.1 years, which is 11.1 years more than the expected 25.0-year period for the following reasons:

- 1. The average annual rate of investment return, net of all expenses, on the market value of assets during the two plan years 2011 and 2012 was 4.9%. However, the actuarial value of assets (AVA) used in the valuation and the determination of the amortization period is based on an adjusted market value. The average annual rate of return on the AVA, net of all expenses, for plan years 2011 and 2012 was 3.2% compared to the assumed rate of return of 7.75%. This caused an **increase** in the amortization period of 8.2 years.
- 2. The aggregate payroll increased at an average rate of 2.2% per year instead of the assumed increase of 4.0%, which caused the amortization period to **increase** by 2.4 years.
- 3. The net result of all experience other than the investment experience and the aggregate payroll experience had the combined effect of **decreasing** the amortization period by 7.4 years. This was primarily the result of some favorable experience, including no general pay increases and fewer-than-expected retirements, in the last two plan years since the prior valuation.
- 4. The net result of the changes in actuarial assumptions had the effect of **increasing** the amortization period by 7.9 years.

#### Section III

# Killeen Firefighter's Relief and Retirement Fund Special Studies

The results of this actuarial valuation as of September 30, 2012 reveal that the fund, based on the Present Plan of benefits, has an adequate contribution arrangement. As disclosed in both Sections I and II, the amortization period of the UAAL is 36 years. With an amortization period of 36 years, we are not willing to give the actuarial approval required by the provisions of Section 7 of the Texas Local Fire Fighters' Retirement Act (TLFFRA), shown below, to increase benefits unless there is an adequate increase in the total contributions. In recent years, we have been willing to approve increases in benefits that would usually increase the amortization period to 25 years.

Benefit improvements may be made to the plan in accordance with Section 7 of TLFFRA, as amended June 15, 2007. Section 7(a), 7(b) and 7(c) are shown below.

- "(a) The board of trustees of a retirement system may change the benefits or eligibility requirements for benefits payable from the retirement system, may provide for reinstatement by a member of service credit previously forfeited, and may adopt or change other requirements for the payment of benefits, except as otherwise prohibited by this Act.
- (b) Before a board of trustees chooses to adopt or change a benefit or requirement for payment of benefits under this section, the proposed addition or change must be approved by:
  - (1) an eligible actuary selected by the board; and
  - a majority of the participating members of the retirement system voting by secret ballot at an election held for that purpose at which at least 50 percent of all participating members of the retirement system vote.
- (c) To be eligible to approve an addition or change under this section, an actuary must be either a fellow of the Society of Actuaries or a member of the American Academy of Actuaries."

We are not able to approve any increases in benefits at this time because the amortization period of the UAAL exceeds 25 years. The results of projections we made based on our September 30, 2012 actuarial valuation of the fund, shown on page 2, indicated that even without any increases in benefits, the adverse investment experience in 2011 is expected to keep the amortization period above 35 years for the next two actuarial valuations. The plans by the city to significantly increase the number of active firefighters by September 30, 2014 will have a very positive effect on the actuarial condition of the fund as of that date. However, in order to make it more likely that the amortization period will be below 25 years by the September 30, 2014 actuarial valuation, the board should consider either increases in the contribution rate by the city, by the firefighters, or by both in order to be able to afford any benefit improvements. We are available to work with the board to study the effects of any changes the board may want to consider.

Exhibit 1

Killeen Firefighter's Relief and Retirement Fund

Distribution of Paid Firefighters by Age and Service on September 30, 2012

with Average Annual Salary

Years						Age					
of	Under								60 or		Average
<u>Service</u>	25	<u>25-29</u>	<u>30-34</u>	<u>35-39</u>	<u>40-44</u>	<u>45-49</u>	<u>50-54</u>	<u>55-59</u>	<u>Over</u>	<u>Total</u>	Salary
0	5	2	1	0	0	0	0	0	0	8	\$ 39,000
1	4	4	2	2	0	0	0	0	0	12	40,305
2	2	0	1	0	0	0	0	0	0	3	42,080
3	3	4	4	1	0	0	0	0	0	12	46,606
4	1	3	3	0	0	0	0	0	0	7	49,048
5	1	7	8	3	2	0	0	0	0	21	50,462
6	0	9	8	7	3	0	0	0	0	27	52,225
7	0	7	6	4	0	0	0	0	0	17	56,416
8	0	4	7	1	0	0	0	0	0	12	55,371
9	0	1	1	3	1	0	0	0	0	6	59,353
10	0	0	3	3	0	0	0	0	0	6	62,357
11	0	0	2	1	2	1	0	0	0	6	63,309
12	0	0	0	3	1	1	0	0	0	5	70,873
13	0	0	4	2 2	3	0	0	0	0	9	69,899
14	0	0	0	2	2	0	0	0	0	4	71,519
15	0	0	0	1	2	1	0	0	0	4	63,758
16	0	0	0	0	1	0	1	0	0	2	68,393
17	0	0	0	2	1	2	1	0	0	6	72,156
18	0	0	0	0	1	3	0	0	0	4	74,331
19	0	0	0	1	0	0	0	1	0	2	66,181
20-24	0	0	0	0	1	1	3	1	0	6	73,257
25-29	0	0	0	0	0	1	3	1	0	5	76,486
30-34	0	0	0	0	0	0	4	2	1	7	70,279
35+	_0	0	0	0	0	0	_0	1	_1	2	79,913
Totals	16	41	50	36	20	10	12	6	2	193	\$ 57,128

Average

Salary \$42,115 \$51,417 \$53,710 \$59,826 \$65,045 \$66,656 \$71,520 \$71,979 \$73,440 \$57,128

Average Age 35.2 Average Years of Service 9.6 Average Age at Hire 25.6

Exhibit 1A

Killeen Firefighter's Relief and Retirement Fund

Distribution of Volunteer Firefighters by Age and Service on September 30, 2012

Years					Attaine	ed Age				
of	Under								60 or	
<u>Service</u>	25	<u>25-29</u>	<u>30-34</u>	<u>35-39</u>	<u>40-44</u>	<u>45-49</u>	<u>50-54</u>	<u>55-59</u>	<u>Over</u>	<u>Total</u>
0	1	2	2	0	0	0	0	0	0	E
0	1		2	0	0	0	0	0	0	5
1	0	0	1	0	0	0	0	0	0	1
2	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	1	0	0	0	1
6	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	1	0	0	0	0	1
8	0	0	0	0	0	0	1	0	0	1
9	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0
13 14	0	0	0	0	0	0	0	0	0	0
14	U	U	U	U	U	U	U	U	U	U
15	0	0	0	0	0	0	1	0	0	1
16	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0
20-24	0	0	0	0	0	0	1	0	0	1
25-29	0	0	0	0	0	0	0	0	0	0
30-34	0	0	0	0	0	0	0	0	0	0
35-39	0	0	0	0	0	0	0	0	0	0
40-44	0	_0	_0	_0	_0	_0	_0	_0	0	_0
<del>1</del> U- <del>11</del>	_0	_0	_0						_0	
Totals	1	2	3	0	1	1	3	0	0	11

Exhibit 1B

Killeen Firefighter's Relief and Retirement Fund
Firefighters with Both Paid and Volunteer Service
(Estimated Service as of September 30, 2012)

	Estimated Service							
Name	Paid Service	Volunteer Service	Total					
Charles Brown	36 yrs, 0 mos	0 yrs, 11 mos	36 yrs, 11 mos					
Doug Emberton	7 yrs, 0 mos*	1 yrs, 0 mos	8 yrs, 0 mos*					
Ethan Gingerich	16 yrs, 4 mos	0 yrs, 7 mos	16 yrs, 11mos					
Michael Neujahr	10 yrs, 8 mos	2 yrs, 7 mos	13 yrs, 3 mos					
Jerry Sutton	26 yrs, 9 mos	0 yrs, 10 mos	27 yrs, 7 mos					

<sup>\*</sup> Service shown does not include a break in service.

Exhibit 2

Killeen Firefighter's Relief and Retirement Fund
Summary of Pensioner Data

	Pensioner Data Used in September 30, 2012 Valuation				
Type of Benefit	Number of Recipients	Total Monthly Benefit Payments			
Paid Firefighter Pensioners Service Retirement Disability Retirement Vested Terminated (Deferred) Surviving Spouse Surviving Child Total	38 0 4 9 0 51	\$108,515 0 6,002 15,154 0 \$129,671			
Volunteer Firefighter Pensioners Service Retirement Disability Retirement Vested Terminated (Deferred) Surviving Spouse Surviving Child Total Total Pensioners	3 0 0 4 <u>0</u> 7	\$ 465 0 0 428 0 \$ 893 \$130,564			

	Comparison of Pensioner Count by Type as of The Prior and Current Actuarial Valuations							
	September 30,			September 30,				
Type of Benefit	2010	New	Ceased	2012				
Paid Firefighter Pensioners Service Retirement Disability Retirement Vested Terminated (Deferred) Surviving Spouse Surviving Child Total	34 0 7 7 0 48	+6 0 0 +2 -0 +8	-2 0 -3 0 0 -5	38 0 4 9 0 51				
Volunteer Firefighter Pensioners Service Retirement Disability Retirement Vested Terminated (Deferred) Surviving Spouse Surviving Child Total	3 0 0 5 <u>0</u> 8	$ \begin{array}{c} +1 \\ 0 \\ 0 \\ +1 \\ \underline{0} \\ +2 \end{array} $	-1 0 0 -2 <u>0</u> -3	3 0 0 4 <u>0</u> 7				
Total Pensioners	56	+9	-7	58				

Exhibit 2A

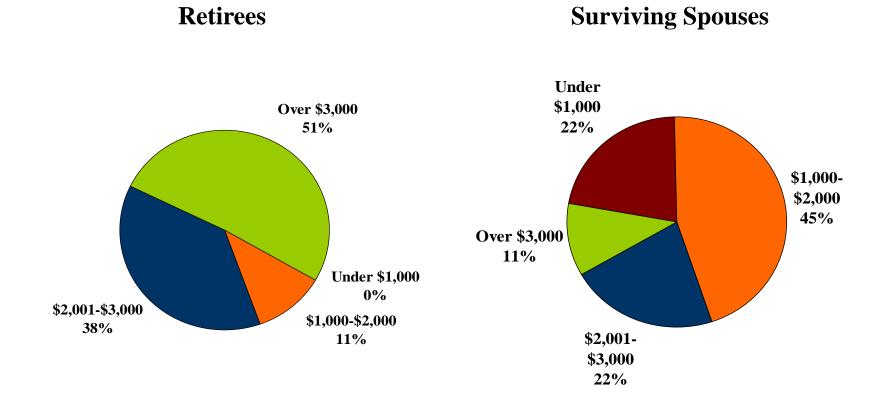
Killeen Firefighter's Relief and Retirement Fund
Firefighter and Pensioner Reconciliation

	Firefighters	Volunteer Firefighters	Current Payment Status	Vested Terminated Firefighters	Total
1. As of September 30, 2010	184	18	49	7 1	258
2. Change of status a. retirement b. disability c. death d. survivor payment begins e. withdrawal f. vested termination g. volunteer to paid h. new QDRO i. net changes	(3) 0 0 0 (9) 0 0 0 (12)	(1) 0 0 0 (8) 0 0 0 (9)	7 <sup>2</sup> 0 (5) 3 0 0 0 0 5	$(3)^{1}$ $0$ $0$ $0$ $0$ $0$ $0$ $0$ $0$ $0$ $0$	0 0 (5) 3 (17) 0 0 0 (19)
3. New firefighters	_21	_2	_0	_0	_23
4. As of September 30, 2012	193	11	54 <sup>2</sup>	4	262

Includes one potential alternate payee according to the terms of a Qualified Domestic Relations Order (QDRO) for a vested terminated member.

<sup>&</sup>lt;sup>2</sup> Includes an alternate payee according to the terms of a QDRO for a retired member.

Killeen Firefighter's Relief and Retirement Fund Breakdown of Paid Firefighter Pensioners by Monthly Benefit Amounts as of September 30, 2012



1.5

Killeen Firefighter's Relief and Retirement Fund Historical Comparison of Actuarial Accrued Liability for Active Firefighters and Pensioners (Present Plan Valuations as of September 30)

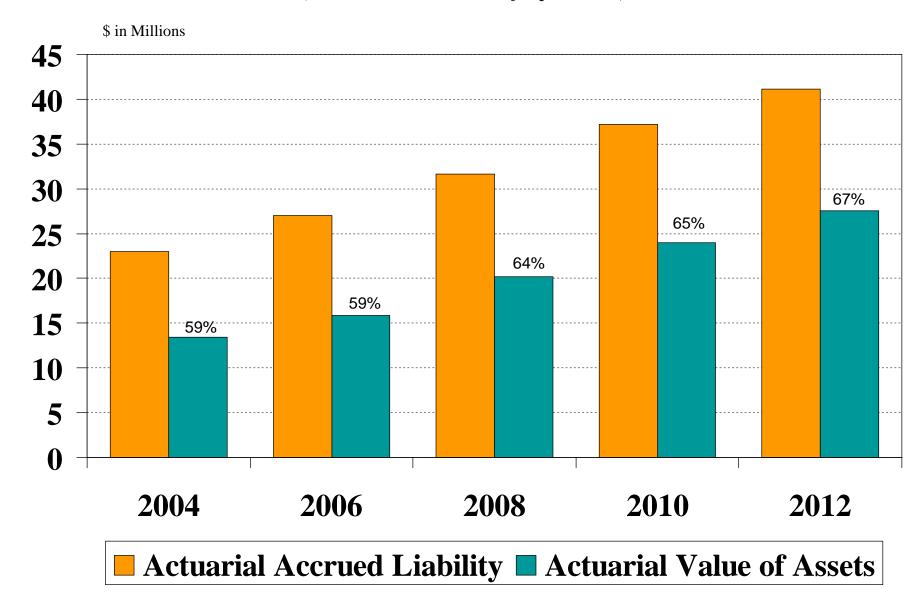


Exhibit 5

Killeen Firefighter's Relief and Retirement Fund
Summary of Asset Data

Asset Type	Market Value of Assets as of September 30, 2012	Allocation as a Percent of Grand Total
Equities Large Cap Small/Mid Cap National Resources International Total Equities	\$ 4,163,065 1,415,873 1,758,288 4,222,810 11,560,036	15.43% 5.25 6.52 <u>15.65</u> 42.85
Fixed Income	11,482,280	42.57
Alternatives	3,533,858	13.10
Cash Net of Payables	398,523	1.48
Grand Total	\$26,974,697	100.00%

Comparison of Asset Values as of the Prior and Current Actuarial Valuation Dates									
Market Value Actuarial Value	September 30, 2010 \$22,679,965 \$23,980,822	September 30, 2012 \$26,974,697 \$27,528,834							

Exhibit 6

Killeen Firefighter's Relief and Retirement Fund
Development of Actuarial Value of Assets

Calculation of Actuarial Investment Gain/(Loss)	Fund Year Ending September 30						
Based on Market Value for Fund Years		2012	2011		2010		2009
Market Value of Assets as of beginning of year	\$ 23	3,831,864	\$ 22,679,695	5 \$	\$ 19,675,517		7,349,439
Firefighter Contributions		1,094,959	1,084,620	)	1,039,779		974,385
City Contributions		1,439,762	1,425,767		1,368,243		1,282,647
4. Benefit Payments and Contribution Refunds		1,708,809)	(1,412,27	7)	(1,396,334)		(1,309,811)
Expected Investment Return*	1,878,376		1,799,434	<u> </u>	1,613,730		1,425,115
Expected Market Value of Assets as of end of year	\$ 20	6,536,152	\$ 25,577,239	\$	22,300,935	\$ 1	9,721,775
Actual Market Value of Assets as of end of year	2	<u>6,974,697</u>	23,831,864	<u> </u>	22,679,695	_1	9,675,517
Actuarial Investment Gain/(Loss)	\$	438,545	\$ (1,745,375	) \$	378,760	\$	(46,258)
Market Value Rate of Return Net of Expenses		9.56%	0.23%	ó	9.88%		7.74%
Rate of Actuarial Investment Gain/(Loss)		1.81%	(7.52)	%	1.88%		(0.26)%
	Based on Market Value for Fund Years  Market Value of Assets as of beginning of year Firefighter Contributions City Contributions Benefit Payments and Contribution Refunds Expected Investment Return* Expected Market Value of Assets as of end of year Actual Market Value of Assets as of end of year	Based on Market Value for Fund Years  Market Value of Assets as of beginning of year \$ 2 Firefighter Contributions City Contributions Benefit Payments and Contribution Refunds ( Expected Investment Return*  Expected Market Value of Assets as of end of year \$ 2 Actual Market Value of Assets as of end of year 4 Actuarial Investment Gain/(Loss) \$ Market Value Rate of Return Net of Expenses	Based on Market Value for Fund Years2012Market Value of Assets as of beginning of year\$ 23,831,864Firefighter Contributions1,094,959City Contributions1,439,762Benefit Payments and Contribution Refunds(1,708,809)Expected Investment Return*1,878,376Expected Market Value of Assets as of end of year\$ 26,536,152Actuarial Market Value of Assets as of end of year26,974,697Actuarial Investment Gain/(Loss)\$ 438,545Market Value Rate of Return Net of Expenses9.56%	Based on Market Value for Fund Years         2012         2011           Market Value of Assets as of beginning of year         \$ 23,831,864         \$ 22,679,695           Firefighter Contributions         1,094,959         1,084,620           City Contributions         1,439,762         1,425,767           Benefit Payments and Contribution Refunds         (1,708,809)         (1,412,277           Expected Investment Return*         1,878,376         1,799,432           Expected Market Value of Assets as of end of year         \$ 26,536,152         \$ 25,577,239           Actual Market Value of Assets as of end of year         26,974,697         23,831,864           Actuarial Investment Gain/(Loss)         \$ 438,545         \$ (1,745,375)           Market Value Rate of Return Net of Expenses         9.56%         0.23%	Based on Market Value for Fund Years         2012         2011           Market Value of Assets as of beginning of year         \$ 23,831,864         \$ 22,679,695         \$           Firefighter Contributions         1,094,959         1,084,620           City Contributions         1,439,762         1,425,767           Benefit Payments and Contribution Refunds         (1,708,809)         (1,412,277)           Expected Investment Return*         1,878,376         1,799,434           Expected Market Value of Assets as of end of year         \$ 26,536,152         \$ 25,577,239         \$           Actual Market Value of Assets as of end of year         26,974,697         23,831,864	Based on Market Value for Fund Years         2012         2011         2010           Market Value of Assets as of beginning of year         \$ 23,831,864         \$ 22,679,695         \$ 19,675,517           Firefighter Contributions         1,094,959         1,084,620         1,039,779           City Contributions         1,439,762         1,425,767         1,368,243           Benefit Payments and Contribution Refunds         (1,708,809)         (1,412,277)         (1,396,334)           Expected Investment Return*         1,878,376         1,799,434         1,613,730           Expected Market Value of Assets as of end of year         \$ 26,536,152         \$ 25,577,239         \$ 22,300,935           Actuarial Investment Gain/(Loss)         \$ 438,545         \$ (1,745,375)         \$ 378,760           Market Value Rate of Return Net of Expenses         9.56%         0.23%         9.88%	Based on Market Value for Fund Years         2012         2011         2010           Market Value of Assets as of beginning of year         \$ 23,831,864         \$ 22,679,695         \$ 19,675,517         \$ 1           Firefighter Contributions         1,094,959         1,084,620         1,039,779           City Contributions         1,439,762         1,425,767         1,368,243           Benefit Payments and Contribution Refunds         (1,708,809)         (1,412,277)         (1,396,334)           Expected Investment Return*         1,878,376         1,799,434         1,613,730           Expected Market Value of Assets as of end of year         \$ 26,536,152         \$ 25,577,239         \$ 22,300,935         \$ 1           Actuarial Investment Gain/(Loss)         \$ 438,545         \$ (1,745,375)         \$ 378,760         \$           Market Value Rate of Return Net of Expenses         9.56%         0.23%         9.88%

<sup>\*</sup> Assuming (1) uniform distribution of contributions and payments during the fund years and (2) expected rate of return of 8% before 2011 and 7.75% for fund years 2011 and 2012.

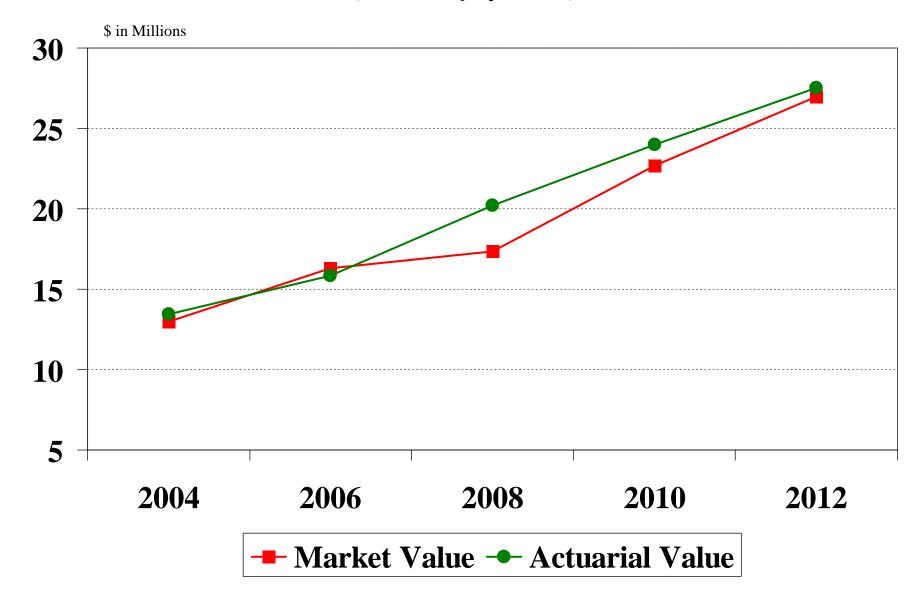
Deferred A	ctuarial Investment Gains	s/(Losses) to be Recog	nized in Future Years
Fund	Investment	Deferral	Deferred Gain/(Loss)
Year	Gain/(Loss)	Percentage	as of 9/30/2012
2012	\$ 438,545	80%	\$ 350,836
2011	(1,745,375)	60%	(1,047,225)
2010	378,760	40%	151,504
2009	(46,258)	20%	(9,252)
Total			\$ (554,137)
2009	· · · · · · · · · · · · · · · · · · ·		(9,252)

# Actuarial Value of Assets as of September 30, 2012

11. Market Value of Assets as of September 30, 2012	\$26,974,697
12. Deferred Gain/(Loss) to be recognized in future	(554,137)
13. Preliminary Value (Item 11 – Item 12)	\$27,528,834
14. Corridor for Actuarial Value of Assets	
a. 80% of Market Value as of September 30, 2012 (minimum)	\$21,579,758
b. 120% of Market Value as of September 30, 2012 (maximum)	\$32,369,636
15. Actuarial Value as of September 30, 2012	\$27,528,834
16. Write up/(down) of assets (Item 15 – Item 11)	\$ 554,137

Exhibit 7

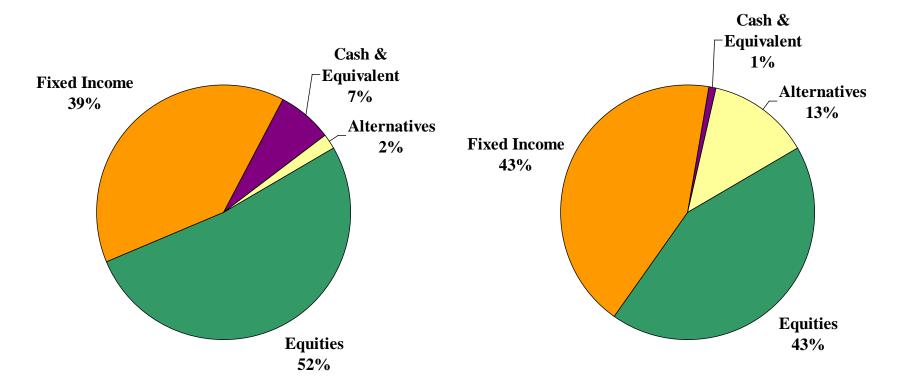
# Killeen Firefighter's Relief and Retirement Fund Historical Comparison of Market and Actuarial Value of Assets (Valuation as of September 30)



Killeen Firefighter's Relief and Retirement Fund Comparison of Market Value Asset Investment Allocation as of the Prior and Current Actuarial Valuation Dates

# **September 30, 2010**

# **September 30, 2012**



# Killeen Firefighter's Relief and Retirement Fund Actuarial Methods and Assumptions

1. Actuarial Cost Method Entry age actuarial cost method\*

2. Amortization of Unfunded Actuarial Accrued Liability

The unfunded actuarial accrued liability is assumed to be amortized with level percentage of payroll contributions (total contribution rate less normal cost contribution rate) based on payroll growth of 4.00% per year.

3. Actuarial Value of Assets Method

All assets are valued at market value with an adjustment made to uniformly spread actuarial gains or losses (as measured by actual market value investment return vs. expected market value investment return) over a five-year period. The total adjustment amount shall be limited as necessary such that the actuarial value of assets shall not be less than 80% of market value nor greater than 120% of market value. See Exhibit 6.

4. Investment Return Assumption Net of Investment-Related Expenses

7.75% per year

5. Inflation

4.00% per year

6. Mortality Rates

(a) Pre-retirement(b) Post-retirement(c) Post-disability

RP-2000 Combined Healthy Mortality Table projected to 2014 for males and for females (sex distinct) for all three categories

7. Pay (Salary) Increase Assumption

4.0% per year in addition to 1.80% per year average pay increases due to promotion and longevity over a 30-year career. See Exhibit 11.

8. Retirement Rates

30% per year of paid firefighters eligible to retire at ages 50-51, 15% per year at ages 52-55, 25% per year at ages 56-69, with a rate of 100% at age 70, resulting in an average retirement age of 55.3; 100% of volunteer firefighters eligible to retire, resulting in an average retirement age of 56.9.

9. RETRO DROP Benefits

(a) Percent of Firefighters Eligible Electing this Option

0% of service retirements eligible to elect at least a 12-month lump sum

(b) Months Assumed for Lump Sum

Maximum they are eligible for, up to 24 months

10. Withdrawal Rates

See Exhibit 11.

<sup>\*</sup> Under this method the actuarial present value of projected benefits for each firefighter included in the valuation is allocated as a level percentage of the earnings of the firefighter between age at hire and termination. Service is assumed to be continuous.

# Exhibit 9 (continued)

# Killeen Firefighter's Relief and Retirement Fund Actuarial Methods and Assumptions

11. Disability Rates	See Exhibit 10.
12. Reduction in Benefit after 2½ Years of Disability Retirement	No reduction in benefit $75\%$ 50% reduction in benefit $20$ Benefit terminated $\underline{5}$ 100%
13. Percent Married	80% of the firefighters are assumed to be married at retirement, disability, or death while employed and have a spouse two years younger
14. Payment Form for Retirement Benefits Due to Service Retirement, Disability Retirement, or Vested Termination	<ul> <li>Joint and 2/3 to surviving spouse for the 80% assumed to be married</li> <li>Life annuity for the 20% assumed to be single</li> <li>To the extent optional forms of payment are elected and the amounts are determined under an actuarial basis which differs from the basis used in the valuation, actuarial gains or losses will occur. These gains or losses are expected to be very small and will be recognized through the valuation process for those retiring since the prior valuation who made an optional election.</li> </ul>
15. Surviving Child's Death Benefit	None are assumed as a result of future deaths
16. Increase in Future Pay-Related Benefits Due to Definition of Average Salary	0.5%
<ul><li>17. City's Assumed Contributions</li><li>a. Paid firefighters</li><li>b. Volunteer firefighters</li></ul>	13.00% of covered payroll \$16,010 per year plus \$102 per year per active volunteer are assumed to pay the annual normal cost for active volunteers and to pay the benefits for the current volunteer pensioners.
18. Paid Firefighter Contributions	10.00% of covered pay
19. Covered Payroll for First Year Following Valuation Date	Actual (or annualized) pay for the fiscal year ending 9/30/2012 for the actives included in the valuation without adjustment (since there was no general pay increase effective October 2012) to reflect expected pay for the fiscal year ending 9/30/2013.
20. General and Administrative Expenses Paid by the Fund	The normal cost contribution rate as a percent of payroll is assumed to be 0.88% of payroll higher to reflect these expenses.

Exhibit 10

Killeen Firefighter's Relief and Retirement Fund
Mortality Rates and Disability Rates per 1,000 Active Members

Attained	Male Mort	ality Rates	Disabili	ty Rates*
Age	On-Duty	Off-Duty	On-Duty	Off-Duty
20	0.125	0.139	0.07	0.07
21	0.130	0.147	0.07	0.07
22	0.134	0.154	0.08	0.08
23	0.139	0.163	0.08	0.08
24	0.143	0.170	0.09	0.09
25	0.147	0.180	0.09	0.09
26	0.153	0.194	0.10	0.10
27	0.153	0.203	0.11	0.11
28	0.154	0.212	0.12	0.12
29	0.153	0.231	0.14	0.14
30	0.159	0.255	0.15	0.15
31	0.172	0.293	0.17	0.17
32	0.186	0.338	0.20	0.20
33	0.200	0.388	0.22	0.22
34	0.216	0.438	0.24	0.24
35	0.227	0.494	0.26	0.26
36	0.236	0.548	0.27	0.27
37	0.237	0.606	0.28	0.28
38	0.237	0.649	0.31	0.31
39	0.231	0.694	0.36	0.36
40	0.218	0.746	0.46	0.46
41	0.211	0.795	0.57	0.57
42	0.203	0.853	0.66	0.66
43	0.200	0.913	0.74	0.74
44	0.195	0.985	0.86	0.86
45	0.186	1.070	1.04	1.04
46	0.185	1.142	1.27	1.27
47	0.179	1.224	1.49	1.49
48	0.171	1.313	1.67	1.67
49	0.169	1.400	1.81	1.81
50	0.162	1.496	1.89	1.89
51	0.170	1.702	1.96	1.96
52	0.168	1.843	2.02	2.02
53	0.171	2.027	2.12	2.12
54	0.174	2.235	2.28	2.28
55	0.186	2.584		
56	0.208	3.049		
57	0.227	3.464		
58	0.248	3.959		
59	0.261	4.482		

<sup>\*</sup> Applicable when not eligible for service retirement.

Exhibit 11

Killeen Firefighter's Relief and Retirement Fund
Withdrawal Rates per 1,000 Active Members
Salary Rate of Increase from Year t-1 to Year t

Withdrawal Rates			Salary Increase		
Years of	Paid	Volunteer	Years of		
Service	Rate	Rate	Service	Rate	
0	89	163	1	11.28%	
1	80	146	2	11.28	
2	71	130	3	11.28	
3	63	115	4	11.28	
4	55	100	5	11.28	
5	47	86	6	7.12	
6	41	74	7	7.12	
7	36	65	8	7.12	
8	32	58	9	7.12	
9	29	52	10	7.12	
10	25	45	11	5.04	
11	21	38	12	5.04	
12	18	32	13	5.04	
13	16	29	14	5.04	
14	14	26	15	5.04	
15	14	25	16	4.00	
16	14	24	17	4.00	
17	12	22	18	4.00	
18	11	21	19	4.00	
19	11	20	20	4.00	
20 & Over	0	0	21	4.00	
			22	4.00	
			23	4.00	
			24	4.00	
			25	4.00	
			26	4.00	
			27	4.00	
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			34	4.00	
			35	4.00	
			36	4.00	
			37	4.00	
			38	4.00	
			39	4.00	
			40	4.00	

# Killeen Firefighter's Relief and Retirement Fund Definitions

1. Actuarial Accrued Liability That portion, as determined by the particular actuarial cost

method used, of the Actuarial Present Value of future pension plan benefits as of the Valuation Date that is not provided for by the Actuarial Present Value of future

Normal Costs.

2. Actuarial Assumptions Assumptions as to the occurrence of future events

affecting pension costs, such as: mortality, termination, disablement and retirement; changes in compensation; rates of investment earnings and asset appreciation; and

other relevant items.

3. Actuarially Equivalent Of equal Actuarial Present Value, determined as of a

given date with each value based on the same set of

Actuarial Assumptions.

4. Actuarial Gain (Loss) A measure of the difference between actual experience

and that expected based on the Actuarial Assumptions during the period between two Actuarial Valuation dates, as determined in accordance with the particular actuarial

cost method used.

5. Actuarial Present Value The value of an amount or series of amounts payable or

receivable at various times, determined as of a given date (the Valuation Date) by the application of the Actuarial

Assumptions.

6. Actuarial Valuation The determination, as of a Valuation Date, of the Normal

Cost, Actuarial Accrued Liability, Actuarial Value of Assets and related Actuarial Present Values for a pension

plan.

7. Actuarial Value of Assets The value of cash, investments and other property

belonging to a pension plan, as determined by a method and used by the actuary for the purpose of an Actuarial

Valuation.

8. Entry Age Actuarial Cost

Method

An actuarial cost method under which the Actuarial Present Value of the Projected Benefits of each individual included in the Actuarial Valuation is allocated as a level percentage of earnings between entry age and assumed termination. The portion of this Actuarial Present Value

# Exhibit 12 (continued)

# Killeen Firefighter's Relief and Retirement Fund Definitions

allocated to a valuation year is called the Normal Cost. The portion of this Actuarial Present Value not provided for at a Valuation Date by the Actuarial Present Value of future Normal Costs is called the Actuarial Accrued Liability. Under this method, Actuarial Gains (Losses), as they occur, reduce (increase) the Unfunded Actuarial Accrued Liability.

9. Plan Year

A 12-month period beginning October 1 and ending September 30.

10. Normal Cost

That portion of the Actuarial Present Value of pension plan benefits that is allocated to a valuation year by the actuarial cost method.

11. Projected Benefits

Those pension plan benefit amounts that are expected to be paid at various future times according to the Actuarial Assumptions, taking into account such items as the effect of advancement in age and past and anticipated future qualified service.

12. Overfunded Actuarial Accrued Liability

The excess, if any, of the Actuarial Value of Assets over the Actuarial Accrued Liability.

13. Unfunded Actuarial Accrued Liability

The excess, if any, of the Actuarial Accrued Liability over the Actuarial Value of Assets.

14. Valuation Date

The date upon which the Normal Cost, Actuarial Accrued Liability and Actuarial Value of Assets are determined. Generally, the Valuation Date will coincide with the ending of a Plan Year.

15. Years to Amortize the Unfunded Actuarial Accrued Liability

The period is determined in each Actuarial Valuation as the number of years, beginning with the Valuation Date, to amortize the Unfunded Actuarial Accrued Liability with a level percent of payroll that is the difference between the expected total contribution rate and the Normal Cost contribution rate.

# Killeen Firefighter's Relief and Retirement Fund Summary of Present Plan

1.	Monthly Retirement Benefit for Paid Firefighters as a Percentage of Highest 60-Month Average Salary  (a) For service and duty-related disability retirement benefit  (b) For duty-related death benefit to surviving spouse	58.40% 38.93%
2.	Additional Monthly Retirement Benefit for Paid Firefighters as a Percentage of Highest 60-Month Average Salary for Each Year of Service in Excess of 20 Years of Service  (a) For service and duty-related disability retirement benefit  (b) For duty-related death benefit to surviving spouse	2.275% 1.517%
3.	Service Retirement Eligibility for Paid Firefighters	Age 50 with 25 Years or Age 55 with 20 Years
4.	RETRO DROP Eligibility  (a) Earliest RETRO DROP benefit calculation date	3.5 Years after Service Retirement Eligibility
	(b) Maximum RETRO DROP benefit accumulation date	24 Months
5.	<ul> <li>Vested Termination Benefit</li> <li>(a) Eligibility for paid firefighters</li> <li>(b) Percent vested with 10 years</li> <li>(c) Additional percent vested for each year above 10 years</li> <li>(d) Percent vested with 20 or more years</li> <li>(e) Benefit is deferred to date person would have satisfied service retirement eligibility date</li> <li>(f) Benefit is percent vested times service retirement benefit</li> </ul>	10 years 50% 5% 100%
6.	<ul> <li>Monthly Duty-Related Death Benefit for Children of Paid Firefighters as a Percentage of Highest 60-Month Average Salary</li> <li>(a) Where the spouse is receiving a benefit</li> <li>(b) Where the spouse is not receiving a benefit or there is no spouse</li> </ul>	7.79% 38.93%
7.	Contributions for Paid Firefighters As a Percentage of Payroll by: <ul><li>(a) Paid firefighters</li><li>(b) City of Killeen</li></ul>	10.00% 13.00%
8.	Monthly Benefits for Volunteer Firefighters <ul> <li>(a) Service retirement benefit</li> <li>(b) Duty-related disability retirement benefit</li> <li>(c) Duty-related spouse survivor benefit</li> <li>(d) Duty-related child survivor benefit: <ul> <li>i. Where the spouse is receiving a benefit</li> <li>ii. Where the spouse is not receiving a benefit</li> </ul> </li> </ul>	\$155.00 \$155.00 \$105.00 \$37.20 \$105.00

## Exhibit 13 (continued)

# Killeen Firefighter's Relief and Retirement Fund Summary of Present Plan Provisions

9. Service Retirement Eligibility for Volunteer Firefighters Age 55 with 20 Years

10. Vested Terminated Benefit Eligibility for Volunteer Firefighters (Benefit Deferred to Age 55)

20 Years

11. Contributions by City of Killeen for Volunteer Firefighters

(a) Annual amount for each active volunteer

\$102.00

(b) Additional annual amount

\$16.010.00

- 12. A prorated benefit is provided for firefighters with both paid and volunteer service.
- 13. The normal form of annuity payment at retirement is a Joint and Two-Thirds to Surviving Spouse, and payment is the last day of each month. A Joint and 75% to Surviving Spouse Option and Joint and 100% to Surviving Spouse Option are available as optional forms of a service retirement benefit. A Social Security Leveling Option is also available.
- 14. Off-duty death benefits are provided for paid firefighters with more than 20 years of service with the same formula as for a duty-related death [Items 1(b) and 2(b)].
- 15 Salary used to determine the Highest 60-Month Average Salary for paid firefighters includes regular pay, longevity and overtime pay and excludes a lump sum distribution upon termination for unused sick leave or vacation. The average is based on the highest 130 biweekly pay periods during active participation in the fund.
- 16. Refund of paid firefighters' accumulated contributions without interest will be made to paid firefighters who terminate employment and either are not eligible for any other benefit from the fund or request a refund from the fund.

# Killeen Firefighter's Relief and Retirement Fund Disclosures in Accordance with GASB Statement No. 25 Required Supplementary Information for the Fund's Financial Statement for Fiscal Year Ending September 30, 2013

# I. Schedule of Funding Progress

Actuarial Valuation	Actuarial Value of Assets	Entry Age Actuarial Accrued Liability (AAL)	Unfunded AAL (UAAL)	Funded Ratio	Annual Covered Payroll <sup>1</sup>	UAAL as a Percentage of Covered Payroll
Date  09/30/04 <sup>2,3</sup> 09/30/06 <sup>2,3</sup> 09/30/08 <sup>2,4</sup> 09/30/10 <sup>2,4</sup>	(a)	(b)	(b - a)	(a/b)	(c)	((b - a)/c)
	\$13,458,288	\$22,964,558	\$ 9,506,270	58.6%	\$5,473,090	173.7%
	15,842,065	26,998,706	11,156,641	58.7	8,245,812	135.3
	20,223,436	31,663,825	11,440,389	63.9	9,534,549	120.0
	23,980,822	37,161,946	13,181,124	64.5	10,564,186	124.8

<sup>&</sup>lt;sup>1</sup> The covered payroll is based on estimated annualized salaries for the year following the valuation date.

# **II. Schedule of Employer Contributions**

			Percentage of
Reporting			Required
Year Ended	Annual Required	Actual	Contribution
September 30	Contribution (ARC)	Contribution	Contributed <sup>2</sup>
2008	\$ 1,237,149	\$ 1,254,330	101%
2009	1,282,647 <sup>1</sup>	1,282,647	100
2010	1,368,243 <sup>1</sup>	1,368,243	100
2011	1,425,767 <sup>1</sup>	1,425,767	100
2012	1,439,762 <sup>1</sup>	1,439,762	100
2013	3	<u> </u>	

<sup>&</sup>lt;sup>1</sup> The annual required contribution (ARC) is equal to the actual city contributions equal to the budgeted contribution rate times the actual covered payroll for paid firefighters plus \$16,010 for volunteer firefighters plus \$102 per active volunteer firefighter.

<sup>&</sup>lt;sup>2</sup> Economic and demographic assumptions were revised.

<sup>&</sup>lt;sup>3</sup> Reflects plan benefit provisions effective April 1, 1999 and amended October 1, 1999.

<sup>&</sup>lt;sup>4</sup> Reflects plan benefit provisions effective July 1, 2007

The percentage of the ARC contributed should be determined by dividing the actual contribution by the ARC.

The ARC for this year is 13.63% of payroll for the fiscal year plus \$16,010 plus \$102 per active volunteer firefighter.

# **Exhibit 14 (continued)**

# Killeen Firefighter's Relief and Retirement Fund Disclosures in Accordance with GASB Statement No. 25 Required Supplementary Information for the Fund's Financial Statement for Fiscal Year Ending September 30, 2013

# III. Notes to Required Supplementary Information

The information presented in the required supplementary schedules was determined as part of the actuarial valuations at the dates indicated. Additional information as of the latest actuarial valuation follows.

Valuation date

Actuarial cost method

Amortization method

Amortization period

Asset valuation method

Asset valuation method

Asset valuation method

Market value smoothed by a 5-year deferred recognition method with a 80%/120% corridor on market

### Actuarial assumptions:

- Investment rate of return, net of investment expenses	7.75% per year
- Inflation	4.00% per year
- Projected salary increases	
- general salary increase	4.00% per year
<ul> <li>promotion and longevity increase</li> </ul>	0% to 7% per year

- total increase
- Payroll growth rate

4.00% to 11.28% per year
4.00% per year

- Postretirement cost-of-living adjustments

None

# IV. Actuarial Information Needed for Notes to the Financial Statement as Required by Paragraph 32 of GASB 25

# A. Plan Description

The Board of Trustees of the Killeen Firefighter's Relief and Retirement Fund is the administrator of a single-employer defined benefit pension plan.

## Exhibit 14 (continued)

# Killeen Firefighter's Relief and Retirement Fund Disclosures in Accordance with GASB Statement No. 25 Required Supplementary Information for the Fund's Financial Statement for Fiscal Year Ending September 30, 2013

Both paid and volunteer firefighters in the Killeen Fire Department are covered by the Killeen Firefighter's Relief and Retirement Fund. The table below summarizes the membership of the fund as of September 30, 2012.

		<u>September 30, 2012</u>
1.	Retirees and beneficiaries currently receiving benefits and terminated employees entitled to benefits but not yet receiving them	58
2.	Current members a. Fully vested b. Partially vested c. Nonvested	21 48 <u>135</u>
3.	Total	262

The Killeen Firefighter's Relief and Retirement Fund provides service retirement, death, disability and withdrawal benefits for both paid and volunteer firefighters. These benefits fully vest after 20 years of credited service. A partially vested benefit is provided for paid firefighters with at least 10 years of service. Paid firefighters may retire at the earlier of age 55 with 20 years of service or age 50 with 25 years of service. Volunteer firefighters may retire at age 55 with 20 years of service. The plan effective July 1, 2007 provides a monthly benefit for paid firefighters at retirement, 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 years. The monthly benefit for volunteer firefighters at retirement is equal to \$155.00 per month payable in a Joint and Two-Thirds to Spouse form of annuity.

There is no provision for automatic postretirement benefit increases. The fund has the authority to provide, and has periodically in the past provided for, ad hoc postretirement benefit increases. The benefit provisions of this plan are authorized by the Texas Local Fire Fighters' Retirement Act (TLFFRA). TLFFRA provides the authority and procedure to amend benefit provisions.

# Exhibit 14 (continued)

# Killeen Firefighter's Relief and Retirement Fund Disclosures in Accordance with GASB Statement No. 25 Required Supplementary Information for the Fund's Financial Statement for Fiscal Year Ending September 30, 2013

# B. Contributions Required and Contributions Made

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

While the contribution requirements are not actuarially determined, state law requires that each plan of benefits adopted by the fund must be approved by an eligible actuary. The actuary certifies that the contribution commitment by the firefighters and the city provides 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), and the number of years needed to amortize the plan's UAAL is determined using a level percentage of payroll method.

The costs of administering the plan are financed from the fund.

The funding policy of the Killeen Firefighter's Relief and Retirement Fund currently requires contributions equal to 10% of pay by the paid firefighters and 13% of payroll by the City of Killeen. Contributions by the city of \$102 per year per active volunteer and \$16,010 per year for all active and retired volunteers are also required.

Killeen Firefighter's Relief and Retirement Fund Disclosures in Accordance with GASB Statement No. 27 Notes to the Financial Statements for the City of Killeen for the Fiscal Year Ending September 30, 2013

#### I. Annual Pension Cost

For the fiscal year ending September 30, 2013, the City of Killeen's Annual Pension Cost (APC) was \$\_\_\_\_\_\_ for the Killeen Firefighter's Relief and Retirement Fund, as described below in footnote 5 of Trend Information. Based on the results of the September 30, 2012 actuarial valuation of the plan effective July 1, 2007, the board's actuary found that the fund has an adequate contribution arrangement based on the current level of the firefighter and City of Killeen contribution rates. The funding policy of the fund requires the paid firefighters to contribute 10% of pay, and the city contributes 13% of pay. The city also contributes \$102 per year per active volunteer firefighter and \$16,010 per year for all active and retired volunteer firefighters.

The annual required contributions (ARC) by the city for the fiscal year ending September 30, 2013 were based on the results of the September 30, 2012 actuarial valuation and were determined in compliance with the Governmental Accounting Standards Board (GASB) Statement No. 27 parameters. The actuarial methods and assumptions used for the two most recent valuations are shown below:

Valuation date	9/30/2010	9/30/2012
Actuarial cost method	Entry age	Entry age
Amortization method	Level percent of payroll, open	Level percent of payroll, open
Amortization period for ARC	27 years	30 years
Asset valuation method	5-year adjusted market value	5-year adjusted market value
Actuarial assumptions		
<ul> <li>Investment rate of return</li> </ul>	7.75% per year	7.75% per year
<ul><li>Inflation</li></ul>	4.00% per year	4.00% per year
<ul> <li>Projected salary increases</li> </ul>		
<ul> <li>general salary increase</li> </ul>	4.00% per year	4.00% per year
<ul> <li>promotion and longevity increase</li> </ul>	0% to 7% per year	0% to 7% per year
<ul><li>total increase</li></ul>	4% to 11.3% per year	4% to 11.3% per year
<ul> <li>Payroll growth rate</li> </ul>	4.00% per year	4.00% per year
<ul> <li>Postretirement cost-of-living adjustments</li> </ul>	None	None
ARC	13.00%	13.63%
Fiscal years ending September 30	2011 and 2012	2013 and 2014

# **Exhibit 15 (continued)**

Killeen Firefighter's Relief and Retirement Fund Disclosures in Accordance with GASB Statement No. 27 Notes to the Financial Statements for the City of Killeen for the Fiscal Year Ending September 30, 2013

### **II. Trend Information**

Fiscal Year Ending	Annual Pension Cost (APC)	Actual City Contributions	Percentage of APC Contributed	Net Pension Obligation (NPO)
09/30/11 09/30/12 09/30/13	\$1,425,767 <sup>1</sup> \$5	\$1,425,767 <sup>2</sup> \$2 \$2	100% <sup>3</sup> 100 <sup>3</sup> —— <sup>3</sup>	\$ 0 <sup>4</sup> 0 <sup>4</sup> 

<sup>&</sup>lt;sup>1</sup> The APC is equal to the annual required contributions (ARC) (which is 13% of payroll for the fiscal year plus \$16,010 plus \$102 per active volunteer firefighter during the fiscal year). The actual city contributions are equal to both the ARC and the APC.

# **III. Schedule of Funding Progress**

Actuarial Valuation Date	Actuarial Value of Assets (a)	Entry Age Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a/b)	Annual Covered Payroll <sup>1</sup> (c)	UAAL as a Percentage of Covered Payroll ((b - a)/c)
09/30/04 <sup>2,3</sup> 09/30/06 <sup>2,3</sup> 09/30/08 <sup>2,4</sup> 09/30/10 <sup>2,4</sup> 09/30/12 <sup>4</sup>	15,842,065 20,223,436	\$22,964,558 26,998,706 31,663,825 37,161,946 41,142,502	\$ 9,506,270 11,156,641 11,440,389 13,181,124 13,613,668	58.6% 58.7 63.9 64.5 66.9	\$5,473,090 8,245,812 9,534,549 10,564,186 11,025,643	173.7% 135.3 120.0 124.8 123.5

<sup>&</sup>lt;sup>1</sup> The covered payroll is based on estimated annualized salaries for the year following the valuation date.

<sup>&</sup>lt;sup>2</sup> The city should disclose the actual city contributions made to the fund during each fiscal year.

<sup>&</sup>lt;sup>3</sup> The percentage of APC contributed should be determined by dividing the actual city contributions by the APC.

<sup>&</sup>lt;sup>4</sup> The Net Pension Obligation (NPO) as of the end of the fiscal year is equal to the NPO reported in the financial statement for that fiscal year.

<sup>&</sup>lt;sup>5</sup> The city should disclose the contributions the city would have made if it had contributed 13.63% of payroll for the fiscal year plus \$16,010 plus \$102 per active volunteer firefighter during the fiscal year, the ARC and the APC for the year ending 9/30/2013.

<sup>6.</sup> Since this would be the first year the city would have made contributions less than the APC, the net pension obligation would be the APC minus the actual contributions.

<sup>&</sup>lt;sup>2</sup> Economic and demographic assumptions were revised.

<sup>&</sup>lt;sup>3</sup> Reflects plan benefit provisions effective April 1, 1999 and amended October 1, 1999.

<sup>&</sup>lt;sup>4</sup> Reflects plan benefit provisions effective July 1, 2007

## **Exhibit 15 (continued)**

Killeen Firefighter's Relief and Retirement Fund Disclosures in Accordance with GASB Statement No. 27 Notes to the Financial Statements for the City of Killeen for the Fiscal Year Ending September 30, 2013

# IV. Actuarial Information Needed for Notes to the Financial Statement as Required by Paragraph 20 of GASB 27

# A. Plan Description

The Board of Trustees of the Killeen Firefighter's Relief and Retirement Fund is the administrator of a single-employer defined benefit pension plan. The pension fund is a trust fund. Both paid and volunteer firefighters in the Killeen Fire Department are covered by the Killeen Firefighter's Relief and Retirement Fund.

The Killeen Firefighter's Relief and Retirement Fund provides service retirement, death, disability and withdrawal benefits for both paid and volunteer firefighters. These benefits fully vest after 20 years of credited service. A partially vested benefit is provided for paid firefighters with at least 10 years of service. Paid firefighters may retire at the earlier of age 55 with 20 years of service or age 50 with 25 years of service. Volunteer firefighters may retire at age 55 with 20 years of service. The plan effective July 1, 2007 provides a monthly benefit for paid firefighters at retirement, 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 years. The monthly benefit for volunteer firefighters at retirement is equal to \$155.00 per month payable in a Joint and Two-Thirds to Spouse form of annuity.

There is no provision for automatic postretirement benefit increases. The fund has the authority to provide, and has periodically in the past provided for, ad hoc postretirement benefit increases. The benefit provisions of this plan are authorized by the Texas Local Fire Fighters' Retirement Act (TLFFRA). TLFFRA provides the authority and procedure to amend benefit provisions.

# B. Contributions Required and Contributions Made

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

While the contribution requirements are not actuarially determined, state law requires that each plan of benefits adopted by the fund must be approved by an eligible actuary. The actuary certifies that the contribution commitment by the firefighters and the city provides an adequate contribution arrangement at the time of adoption of each plan.

## **Exhibit 15 (continued)**

Killeen Firefighter's Relief and Retirement Fund Disclosures in Accordance with GASB Statement No. 27 Notes to the Financial Statements for the City of Killeen for the Fiscal Year Ending September 30, 2013

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 determined using a level percentage of payroll method.

The costs of administering the plan are financed from the fund.

The funding policy of the Killeen Firefighter's Relief and Retirement Fund currently requires contributions equal to 10% of pay by the paid firefighters and 13% of payroll by the City of Killeen. Contributions by the city of \$102 per year per active volunteer and \$16,010 per year for all active and retired volunteers are also required.