Corpus Christi Fire Fighters' Retirement System

Actuarial Valuation as of December 31, 2014

September 17, 2015

Rudd and Wisdom, Inc.
CONSULTING ACTUARIES

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Board of Trustees
Corpus Christi Fire Fighters'
Retirement System
American Bank Plaza
711 N. Carancahua, Suite 724
Corpus Christi, Texas 78475

Members of the Board of Trustees:

At the request of the Board of Trustees of the Corpus Christi Fire Fighters' Retirement System, we have prepared this report of the results of the actuarial valuation of the system as of December 31, 2014. This valuation was prepared to determine whether the system has an adequate contribution arrangement.

In a separate report in March, we provided the necessary disclosures for the system's initial compliance with the new Governmental Accounting Standards Board (GASB) Statement No. 67 for the plan year ending December 31, 2014. Similarly, we will provide a separate report in the fall of 2015 containing the pension expense, net pension liability, and disclosure information for the city's initial compliance with the new GASB 68 for the fiscal year ending September 30, 2015. GASB 68 prescribes the city's accounting for your system, while this actuarial valuation report reflects the assumed continuation of the current funding policy.

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

Rebecca B. Morris, A.S.A.

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Section I

Valuation Summary

An actuarial valuation of the assets and liabilities of the Corpus Christi Fire Fighters' Retirement System as of December 31, 2014 has been completed. The valuation was based on the Present Plan (plan effective June 1, 2015) and the provisions of the Texas Local Fire Fighters' Retirement Act (TLFFRA) which were in effect on December 31, 2014. Section II shows the key results of the actuarial valuation as of December 31, 2014 and discusses the changes since the prior valuation that we prepared as of December 30, 2012.

This valuation reflects an actuarially assumed total contribution rate of 33.88%, comprised of 13.10% by the firefighters and a rate of 20.78% by the city. The total contribution rate of 33.88% exceeds the normal cost rate of 15.73%, leaving 18.15% available to amortize the unfunded actuarial accrued liability (UAAL) of $79,515,975. Assuming that the total payroll increases at the rate of 3.75% per year in the future, the contributions in excess of the normal cost **will amortize the UAAL in 23.1 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 system's normal cost and to amortize the system's UAAL within the maximum acceptable period, we are of the opinion that the system, based on present levels of benefits and contributions, **has an adequate contribution arrangement. Section III presents considerations for future benefit improvements.**

Projected Actuarial Valuation Results

In addition to completing this actuarial valuation, we estimated the amortization periods as of December 31, 2016 and as of December 31, 2018 by making projections from the December 31, 2014 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 system experienced in the four years prior to the valuation date (losses in 2011 and 2014 and gains in 2012 and 2013) that have been only partially recognized as of December 31, 2014. 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 system has had. The AVA used in this current valuation is deferring recognition of various portions of the gains and losses in 2011-2014 that the system experienced. The AVA used in this valuation is $126,273,629. The market value of assets is $130,814,419. The $4,540,790 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.

The theory behind the AVA method is to allow time for investment gains and losses to partially offset each other and thereby dampen the volatility associated with the progression of the market value of assets over time. In practice, the timing and amounts of investment gains and losses can result in irregular effects on the AVA in a given year. However, as intended, the pattern of the AVA is smoother over time than the pattern of the market value of assets, as seen in Exhibit 7.

For the purpose of projecting the amortization period through 2018, we used six scenarios of various assumed annual rates of investment return, net of investment-related expenses, over the 2015-2018 projection period. The projected amortization periods will not be the same as the actual amortization periods from completed future actuarial valuations but are projected future actuarial valuation results based on the completed December 31, 2014 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 investment gains and losses over the past four years that are deferred as of December 31, 2014 and (2) of investment returns over the next four years different from the 7.9% assumption used in this valuation.

	Scenario					
	1	2	3	4	5	6
Assumed Investment Return for Calendar Year						
2015	7.9%	10.0%	10.0%	0.0%	4.0%	-4.0%
2016	7.9	7.9	10.0	7.9	4.0	4.0
2017	7.9	7.9	7.9	7.9	4.0	4.0
2018	7.9	7.9	7.9	7.9	4.0	4.0
2019 and later	7.9	7.9	7.9	7.9	7.9	7.9
Amortization Period in Years as of December 31:						
2014 (actual)	23.1	23.1	23.1	23.1	23.1	23.1
2016 (projected)	19.3	18.8	18.6	21.2	20.6	22.6
2018 (projected)	17.0	16.0	15.4	20.7	21.4	25.7

The projected future December 31, 2016 valuation in Scenario 1 reveals that instead of decreasing by the expected two years from 23.1 years to 21.1 years, the amortization period is projected to decrease somewhat further to 19.3 years due to the deferred net gains as of December 31, 2014 being mostly recognized as of December 31, 2016. This result is not surprising when you consider that if the AVA were set equal to the MVA, recognizing all of the past gains and losses in this December 31, 2014 actuarial valuation, the amortization period would have been 21.0 years instead of 23.1 years. The primary conclusion from Scenario 1 is that the amortization period will decrease somewhat faster than expected because of the deferred net investment gains.

One of the characteristics of a fairly mature plan like yours is that the amortization period is relatively sensitive to investment gains and losses, despite their gradual recognition over five years. For example, Scenario 4 is the same as Scenario 1 except for a projected rate of return of 0% 2015. The one adverse year in 2015, without any investment gains or losses in the subsequent three years, results in a projected amortization period of 20.7 years as of December 31, 2018, which is 3.7 years greater than the projected amortization period of 17.0 years in Scenario 1.

We do not know what the investment experience will be for each of the next four fiscal years. However, these scenarios show the sensitivity of the UAAL amortization period in the next two biennial actuarial valuations, even with a modest gain with a 10% rate of return in 2015 or with a significant loss with a -4% rate of return in 2015. 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 fiscal years could be better or worse than the assumed rates shown. These scenarios present a range of plausible scenarios for the next two valuations assuming no changes in benefits.

The primary conclusion from the scenarios is that while the system has a cushion in the AVA that will accelerate the amortization of the UAAL, the system members should remember the long-term nature of the system and should be cautious in their expectations about benefit improvements both now and in the future due to the sensitivity of the amortization period to investment losses. We recommend a strategy for anticipating future benefit improvements in Section III.

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 the system's administrator, Ms. Gracie G. Flores. We have not audited the data provided but have reviewed it for reasonableness and consistency relative to the data provided for the December 31, 2012 actuarial valuation. Exhibit 1 is a distribution of the active 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 2014 calendar year without adjustment since there probably will be no general pay increase during 2015. The total of these salaries is our assumed annualized covered payroll for the plan year beginning January 1, 2015 and is used in the valuation to determine the UAAL amortization period. The averages of the assumed salaries for the 2015 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 December 31, 2014. Exhibit 2A is a reconciliation of firefighters and pensioners from December 31, 2012 to December 31, 2014. 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 December 31, 2014 market value of assets shown in the system's audited financial statements. This exhibit also shows a comparison of the market values and actuarial values of assets as of December 31, 2012 and December 31, 2014. Exhibit 5A contains the statement of changes in assets for the plan years ending December 31, 2013 and 2014. 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 December 31, 2012 and December 31, 2014 is shown in Exhibit 8.

Assumptions

As a part of each actuarial valuation, we review the actuarial assumptions used in the prior actuarial valuation. As a result of our review, we have selected actuarial assumptions we consider to be reasonable and appropriate estimates of future experience for the system for the long-term future. Their selection complies with the applicable actuarial standards of practice. Significant actuarial assumptions used in the valuation are:

1. 7.9% annual investment return net of investment-related expenses;
2. 3.75% annual general compensation increase plus an average of 1.82% 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 58.1; and
4. RP-2000 Combined Healthy Mortality Tables projected to 2024.

The following actuarial assumption changes have been made, and the new assumptions are compared to those used in the December 31, 2012 valuation:

1. We changed the investment return assumption from 8% to 7.9% and modified its components, increasing the assumed net real rate of return from 4.00% to 4.15% and lowering the assumed inflation rate from 4.00% to 3.75%. The increase in the assumed net real rate of return is due to somewhat higher gross real rate of return assumptions for some of the asset classes.

2. We changed the general compensation increase from 4% per year to 3.75%, making it the same as the underlying price inflation assumption. As a result, we also changed the aggregate payroll increase assumption from 4% per year to 3.75%. Because of the somewhat slower growth anticipated in our economy for the long-term future, we think that the 0.25% reduction in the long-term rate of inflation is appropriate.

3. The assumed mortality rates used in this valuation are somewhat lower and were changed to adjust for expected mortality improvement after the valuation date to 2024. The prior valuation used the same published mortality table but with rates adjusted for expected mortality improvement to 2014. This change is explained in more detail in a separate letter to the board dated August 19, 2015.

4. We reviewed the retirement experience of the system for the last six years and made changes to the assumed rates of retirement (a) to better fit the actual recent

experience and (b) to anticipate the effect of the new four-year RETRO DROP for those retiring at ages 60 and above. We believe the new retirement rates will result in a more reasonable assumption for the future than our previously assumed retirement rates. The change resulted in an increase in the average expected retirement age from 57.0 to 58.1.

5. The assumed pay increases due to promotion, step, and longevity increases were reviewed and revised to better fit the current pay structure for Corpus Christi firefighters. The 30-year career average of 1.82% per year is somewhat higher than in the prior valuation (1.47% per year), with the new assumed annual increases better reflecting the significant increases in the first two years of service, as well as being 0.5% higher with 11 to 15 years of service compared to the prior valuation but slightly lower at three to five years of service.

6. The general administrative expenses assumption was reviewed, and the average percent of payroll for the last four years rounded up to the next multiple of 0.05% was considered an appropriate expectation for the future. As a result, the assumption was increased from the prior assumption of 0.74% of payroll to 0.75% of payroll for this actuarial valuation.

The effects of these changes in assumptions on the UAAL amortization period are identified in Section II. A summary of all the assumptions and methods used in the valuation is shown in Exhibits 9 and 10. In our opinion, the assumptions used, both in the aggregate and individually, are reasonably related to the experience of the system and to reasonable expectations. The assumptions represent a reasonable estimate of anticipated experience of the system over the long-term future.

Changes in Plan Provisions

Since the completion of the December 31, 2012 actuarial valuation, the board of trustees authorized an actuarial study of several changes in benefit provisions. As a result of an election by the firefighters and adoption by the board of trustees, the changes below became effective June 1, 2015. The effect of these changes on the UAAL amortization period is identified in Section II.

1. The monthly benefit for each year of service over 20 years of Formula 1 was increased from $137 to $150 for future qualifying retiring firefighters.

2. The firefighters' contribution rate was increased from 12.2% to 13.1% of pay.

3. The maximum RETRO DROP period was increased from three to four years for those retiring at age 60 or above with at least 26 years of service.

4. The RETRO DROP benefit calculation language was amended to enable a person electing RETRO DROP to have his benefit computed under the terms of the plan in effect at his date of employment termination, even though the service and pay history used to compute the RETRO DROP benefits would be determined as of the RETRO DROP benefit calculation date.

Supporting Exhibits

Exhibit 11 contains definitions of terms used in this actuarial valuation report. Exhibit 12 summarizes the plan provisions of the Present Plan.

Actuarially Determined Contributions by the City

The new GASB 68 is all about accounting for pensions and does away with the concept of annually required contributions, referred to as the ARC. GASB made a point of separating their new accounting standard for public employee defined benefit plans from the actual funding of those plans. In other words, the city's GASB 68 pension expense will be very different from its actual contributions. That is why separate reports will be needed each year beginning in 2015 to provide the required GASB 68 actuarial information.

As a result of GASB getting out of the business of providing a funding standard, the Texas Pension Review Board (PRB) recommended in their report to the Texas Legislature at the end of 2014 that actuarial valuation reports for fixed contribution rate plans should disclose contribution levels required for a variety of appropriate amortization periods. Since the preferred range for the UAAL amortization period is 15 to 25 years in the PRB's guidelines for an actuarially adequate contribution arrangement, and since your plan's amortization period is 23.1 years, we have shown the city contribution rate that would have been required beginning January 1, 2015 for amortization periods of 15, 18, and 21 years based on this December 31, 2014 actuarial valuation.

UAAL Amortization Period	Actuarially Determined Contribution Rate by the City	Firefighter Contribution Rate	Total Contribution Rate
15 Years	26.92%	13.10%	40.02%
18 Years	23.96%	13.10%	37.06%
21 Years	21.88%	13.10%	34.98%

The Texas Legislature passed HB 3310 this year. One of its requirements is that each actuarial valuation must include a recommended contribution rate needed for an amortization period that does not exceed 30 years. Since the current funding policy of 13.10% of pay by the firefighters and 20.78% of pay by the city results in an amortization period of less than 30 years, we recommend the continuation of those contribution rates.

Response to the 2014 Actuarial Audit

The city engaged another actuarial firm in 2013 to conduct an actuarial audit or review of our work for the system. Their report to the city in 2014 included several recommendations for improving our work. We have incorporated a number of changes that correspond to the recommendations.

- We used a lower inflation assumption in the actuarial economic assumptions.
- We reviewed the demographic experience of the system and adjusted the assumed compensation increases and retirement rates.
- We corrected our valuation system to include each active's current accumulated contributions.
- We incorporated all five of the suggestions to improve the description of our assumptions and of the present plan provisions.

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.

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Section II

Key Results of the Actuarial Valuation

	December 31, 2012[1]	December 31, 2014
1. Actuarial present value of future benefits		
a. Those now receiving benefits or former firefighters entitled to receive benefits	$ 99,673,835	$ 103,561,541
b. Firefighters	135,471,932	147,139,843
c. Total	$ 235,145,767	$ 250,701,384
2. Actuarial present value of future normal cost contributions	$ 42,876,407	$ 44,911,780
3. Actuarial accrued liability (Item 1c – Item 2)	$ 192,269,360	$ 205,789,604
4. Actuarial value of assets	$ 105,753,324	$ 126,273,629
5. Unfunded actuarial accrued liability (UAAL) (Item 3 - Item 4)	$ 86,516,036	$ 79,515,975
6. Contributions (percent of pay)		
a. Firefighters	12.20%	13.10%
b. City of Corpus Christi	20.78%	20.78%
c. Total	32.98%	33.88%
7. Normal cost (percent of payroll) [2]	15.15%	15.73%
8. Percent of payroll available to amortize the UAAL (Item 6c - Item 7)	17.83%	18.15%
9. Annualized covered payroll	$ 29,459,098	$ 29,484,531
10. Present annual amount available to amortize the UAAL (Item 8 x Item 9)	$ 5,252,557	$ 5,351,442
11. Years to amortize the UAAL	26.7 years	23.1 years[3]
12. Funded ratio (Item 4 ÷ Item 3)[4]	55.0%	61.4%

[1] All items are from the December 31, 2012 actuarial valuation and reflect the plan then in effect.

[2] General and administrative expenses are reflected as a percent of aggregate payroll, with the normal cost percent increased by 0.74% in the December 31, 2012 actuarial valuation and 0.75% in the December 31, 2014 valuation.

[3] Calculated reflecting the increase in the firefighter contribution rate from 12.2% to 13.1% in June 2015.

[4] The funded ratio is not appropriate for assessing either the need for or the amount of future contributions or the adequacy of the assumed contribution rates. Using the market value of assets instead of the actuarial value of assets for Item 12 would have resulted in funded ratios of 56.6% as of December 31, 2012 and 63.6% as of December 31, 2014. **The best indicator of the system's health is Item 11.**

Change in Amortization Period

The amortization period, based on the prior plan provisions, was determined in the actuarial valuation as of December 31, 2012 to be 26.7 years. Since two years have passed since that valuation date, a 24.7-year amortization period would be expected if all actuarial assumptions had been exactly met, no changes had occurred (other than those expected) in the firefighter and pensioner data, and no changes in assumptions or benefits or contribution rates had been made. The amortization period is now 23.1 years based on the revised Present Plan provisions. The actual experience occurring between December 31, 2012 and December 31, 2014 differed from the expected experience, and in combination with the changes in assumptions and in plan provisions, the resulting amortization period was 23.1 years, which is 1.6 years less than the expected 24.7-year period for the following reasons:

1. The average annual rate of investment return, net of investment-related expenses, on the market value of assets during the two plan years 2013 and 2014 was 11.5%. 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 investment-related expenses, for plan years 2013 and 2014 was 11.2%, greater than the assumed rate of return for those years of 8%. This resulted in a **decrease** in the amortization period of 3.1 years.
2. The aggregate payroll hardly changed from two years earlier instead of increasing at the assumed 4.0% per year rate, which caused the amortization period to **increase** by 2.9 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 2.1 years. This was primarily the result of lower than assumed compensation increases and fewer retirements than expected.
4. The change in the economic assumptions (the general compensation increase and aggregate payroll increase assumptions from 4% to 3.75%, the investment return assumption from 8% to 7.9%, and the general administrative expenses recognition from 0.74% to 0.75% of payroll) had the combined effect of **increasing** the amortization period by 1.3 years.
5. The result of the change in the mortality assumption had the effect of **increasing** the amortization period by 1.1 year.
6. The change in the assumed retirement rates had the effect of **decreasing** the amortization period by 2.3 years.
7. The change in the assumed promotion, step, and longevity compensation increases had the effect of **increasing** the amortization period by 0.3 of a year.
8. The correction in our coding to reflect each active participant's current accumulated contributions caused the amortization period to **increase** by 0.3 of a year.
9. The package of changes in plan provisions effective June 1, 2015 had a combined effect of **no change** in the amortization period.

Section III

Benefit Improvements

The results of this actuarial valuation as of December 31, 2014 reveal that the system, 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 23.1 years. In order for benefit improvements to be made to the plan, they must be made in accordance with Section 7 of TLFFRA, as amended in May 2013. Sections 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
>
> (2) a majority of the participating members of the retirement system voting on the addition or change 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."

The board should be cautious in considering benefit improvements in the future due to the sensitivity of the UAAL amortization period to investment losses as shown in the four-year projections in Section I. We have a strategy for injecting caution in future benefit improvements. The idea is to coordinate periodic benefit improvements with a gradual lowering of the benefit improvement cap on the UAAL amortization period to a long-term goal such as 15 years, even though we have been using 25 years as the cap for the last 10 years. We recommend this approach primarily for the following reasons:

1. The Texas Pension Review Board (PRB) guidelines for an actuarially adequate contribution arrangement, and
2. The increasing scrutiny of public employee pension plans.

One approach for implementing this strategy for injecting caution in future benefit improvements would be to wait until the amortization period is below 23 years and then to approve benefit improvements that would increase the amortization period up to as

much as 23 years. In subsequent years, we would progressively lower the benefit improvement cap to 21 years, then 19 years, etc., coordinating periodic benefit improvements with the gradual lowering, until getting to a long-term goal such as 15 years. With this approach we would approve benefit improvements based on the December 31, 2016 actuarial valuation only if the amortization period is below 23 years.

This approach would both strengthen the actuarial condition of the system and better prepare for the possibility of adverse experience to the system in the future. The stronger actuarial condition of the system would be demonstrated by the progressively lower UAAL amortization period until getting to the lower end of the preferred range in the PRB guidelines (15 to 25 years). The kinds of future adverse experience that the system would be better prepared to withstand would be primarily adverse investment experience.

One of the challenges the board faces is balancing the goals of providing periodic benefit improvements and of managing all your responsibilities in a way that considers the long-term sustainability of the system. There are a number of stakeholders with different points of view. Firefighters approaching retirement would like to see increases in the benefit formula before they retire. Younger firefighters who hear about the very good benefits that new retirees are receiving may wonder if the system will be able to pay benefits like that when they retire. Pensioners may wonder when they will get any kind of ad hoc increase in their monthly benefit. The city has a vested interest in providing benefits that are well funded, at a level that is attractive for hiring and retaining good firefighters, and also affordable for the long term. The Legislature has a higher interest in public employee defined benefit plans than ever before. That's the reason for the PRB report to the Legislature at the end of 2014 and for the passage of HB 3310 in 2015. There are more critics of public employee defined benefit plans than ever before.

Many of the TLFFRA funds in the PRB report to the Legislature had amortization periods above 40 years (17, over 41% of the 41 TLFFRA funds) because they didn't have much of a cushion for adverse investment experience in 2000-2002 and 2008. The TLFFRA funds that are currently in good shape actuarially are often there because of the good fortune of an increase in the city contribution rate that has largely offset the adverse investment experience of 2000-2002 and 2008. The board should not rely only on increases in contribution rates in the future. Part of our responsibility as your system's actuarial firm is to be forward looking and to help the system with the challenges of balancing the desire for more benefits with the goal of long-term sustainability. We strongly believe that strengthening the actuarial condition of your system by gradually reducing the maximum amortization period for benefit improvements will facilitate both benefit improvements over the next few years and long-term sustainability. In addition, it will enhance the board's reputation as good fiduciaries and the system's reputation as thoughtful and balanced. An enhanced reputation could possibly help make the city more receptive to increasing their contribution rate at some point in the future.

Exhibit 1

Distribution of Firefighters by Age and Service on December 31, 2014 with Average Annual Salary

Years of Service	Age									Total	Average Salary
	Under 25	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60 or Over		
0	0	22	0	0	0	0	0	0	0	22	$38,000
1	0	4	2	0	0	0	0	0	0	6	54,079
2	6	16	5	1	0	0	0	0	0	28	55,296
3	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0
5	0	6	9	1	2	0	0	0	0	18	66,461
6	0	0	0	0	0	0	0	0	0	0	0
7	0	2	7	4	5	0	0	0	0	18	69,245
8	0	0	12	7	4	0	0	0	0	23	69,239
9	0	0	7	4	4	1	0	0	0	16	69,799
10	0	0	2	8	5	3	0	0	0	18	68,882
11	0	0	3	13	12	0	0	0	0	28	74,129
12	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	9	6	5	0	0	0	20	73,723
14	0	0	0	6	12	7	2	0	0	27	75,921
15	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	4	3	5	4	0	0	16	78,912
17	0	0	0	1	0	0	0	0	0	1	63,734
18	0	0	0	1	5	7	4	0	0	17	73,990
19	0	0	0	0	8	8	3	0	0	19	78,619
20-24	0	0	0	0	2	16	26	1	1	46	80,930
25-29	0	0	0	0	0	12	13	9	2	36	81,860
30-34	0	0	0	0	0	0	16	21	4	41	82,201
35-39	0	0	0	0	0	0	0	4	3	7	82,578
40-44	0	0	0	0	0	0	0	0	1	1	88,039
Totals	6	50	47	59	68	64	68	35	11	408	$72,266

Average Salary	$56,659	$67,565	$72,869	$79,297	$77,365	
	$49,062	$72,624	$79,934	$83,345	$72,266	

Average age	42.1
Average years of service	15.3
Average age at hire	26.8

Exhibit 2

Summary of Pensioner Data

Type of Benefit	Pensioner Data Used in December 31, 2014 Valuation	
	Number of Recipients	Total Monthly Benefit Payments
Service Retirement[1]	119	$373,433
Disability Retirement[1]		
Not Eligible for Service Retirement	53	114,514
Eligible for Service Retirement	65	227,378
Vested Terminated (Deferred)	13	32,929
Surviving Spouse	59	142,444
Surviving Child	1	1,904
Total	310	$892,602

[1] Includes alternate payees.

Type of Benefit	Comparison of Pensioner Count by Type as of The Prior and Current Actuarial Valuations			
	December 31, 2012	New[1]	Ceased	December 31, 2014
Service Retirement[1]	117	+10	-8	119
Disability Retirement[1]				
Not Eligible for Service Ret.	56	+1	-4	53
Eligible for Service Ret.	65	+2	-2	65
Vested Terminated (Deferred)	12	+1	0	13
Surviving Spouse	59	+9	-9	59
Surviving Child	4	0	-3	1
Total	313	+23	-26	310

[1] Includes alternate payees.

Exhibit 2A

Firefighter and Pensioner Reconciliation

	Firefighters	Current Payment Status	Vested Terminated Firefighters	Total
1. As of December 31, 2012	408	301 [1,2]	12	721
2. Change of status				
a. retirement	(10)	10	0	0
b. disability	(3)	3	0	0
c. death	0	(22)	0	(22)
d. survivor payment begins	0	9	0	9
e. withdrawal	(14)	0	0	(14)
f. vested termination	(1)	0	1	0
g. QDRO alternate payee	0	(1)	0	(1)
h. payment completed	0	(3)	0	(3)
i. net changes	(28)	(4)	1	(31)
3. New firefighters	28 [3]	0	0	28
4. As of December 31, 2014	408	297 [4,5]	13	718

[1] Includes 14 alternate payees.
[2] Excludes one alternate payee and one surviving child not separately included in the data; however, the benefit amounts are combined with the respective pensioners' amounts.
[3] Includes 22 John Does to partially reflect the new cadet class of 43 in the spring of 2015.
[4] Includes 13 alternate payees.
[5] Excludes one surviving child not separately included in the data; however, the benefit amount is combined with the respective pensioner's amount.

Exhibit 3

Breakdown of Pensioners by Monthly Benefit Amounts as of December 31, 2014

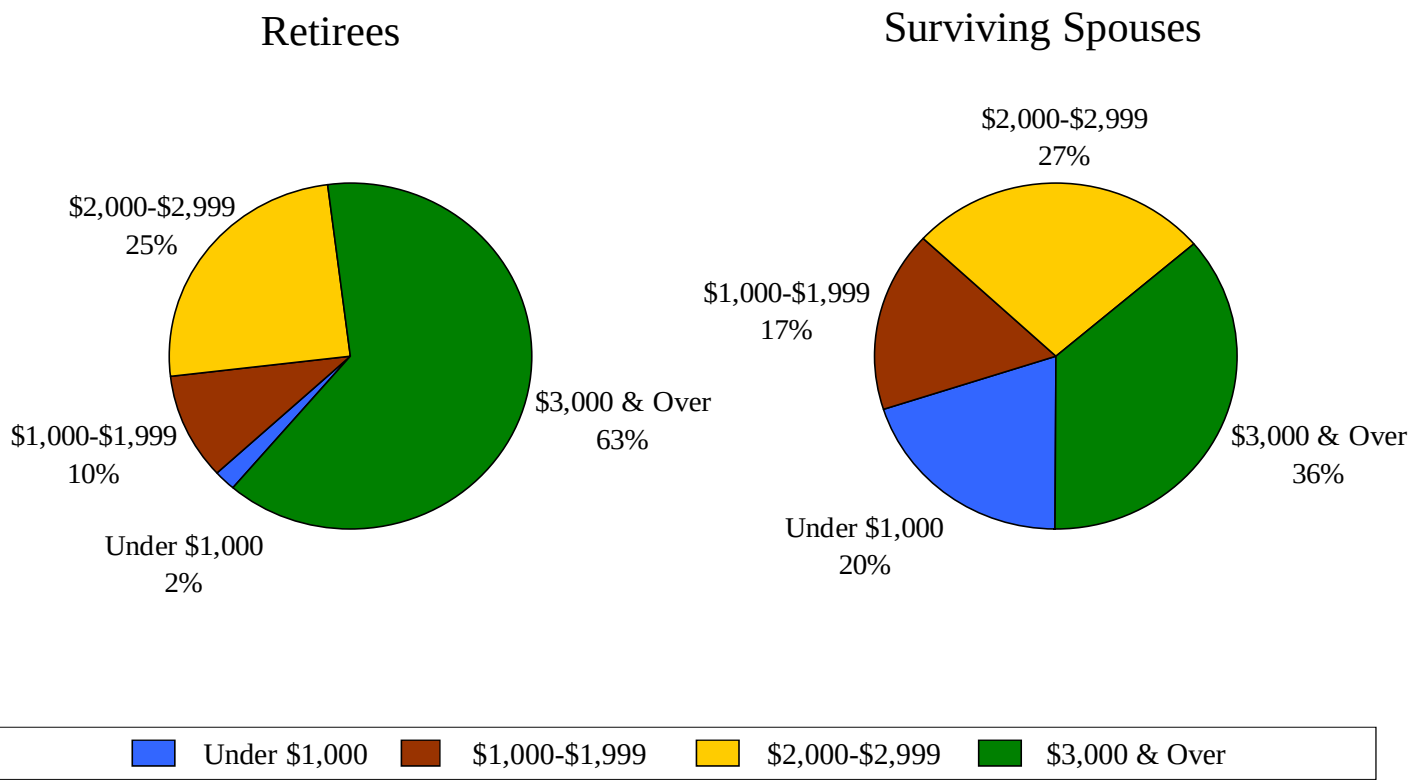


Exhibit 4

Historical Comparison of Actuarial Accrued Liability and Actuarial Value of Assets (Present Plan Valuations as of December 31)

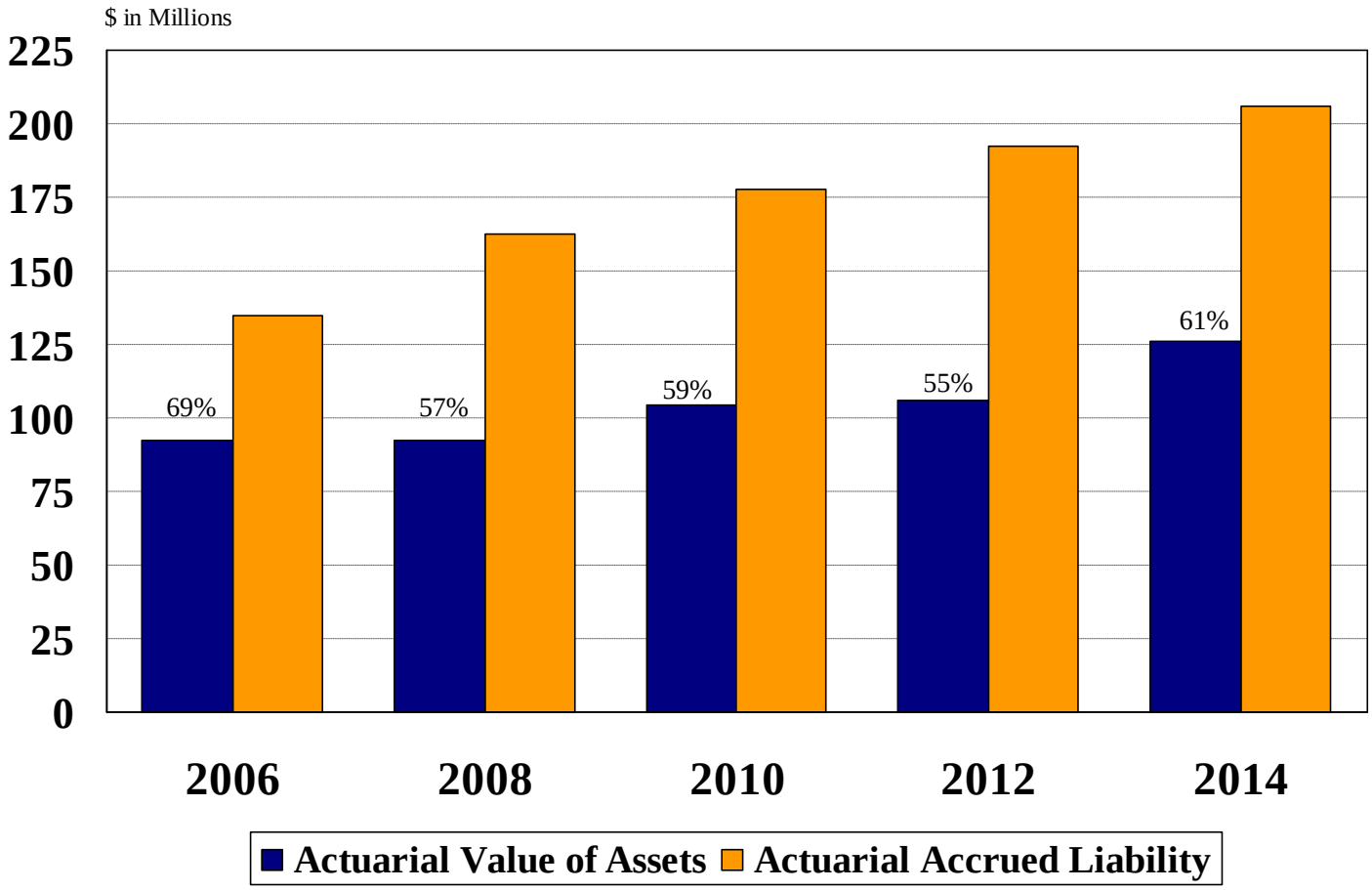


Exhibit 5

Summary of Asset Data

Asset Type	Market Value as of December 31, 2014	Allocation As a Percent of Grand Total
Equities		
Large Cap	$34,812,605	26.6%
Small Cap	13,570,250	10.4
International Developed	14,638,135	11.2
Emerging Markets	6,481,866	4.9
Total	69,502,856	53.1
Fixed Income	48,287,311	36.9
Real Estate	11,486,894	8.8
Cash and Equivalents	998,096	0.8
Investment Totals	130,275,157	99.6
Accrual Items		
Accrued Interest and Dividends	440,410	0.3
Receivables and Other	391,140	0.3
Payables	(292,288)	(0.2)
Total	539,262	0.4
Grand Total	$130,814,419	100.0%

Comparison of Asset Values as of the Prior and Current Actuarial Valuation Dates		
	December 31, 2012	December 31, 2014
Market Value	$108,857,871	$130,814,419
Actuarial Value	$105,753,324	$126,273,629
Actuarial Value as a Percent of Market Value	97.1%	96.5%

Exhibit 5A

Statement of Changes in Audited Assets for the Years Ended December 31, 2014 and 2013

	12/31/2014	12/31/2013
Additions		
1. Contributions		
a. Employer	$ 6,007,048	$ 6,140,906
b. Employees	3,526,756	3,605,346
c. Total	$ 9,533,804	$ 9,746,252
2. Investment Income		
a. Interest and dividends	$ 3,903,190	$ 3,829,115
b. Net appreciation in fair value	3,532,563	15,625,519
c. Total	$ 7,435,753	$ 19,454,634
3. Other Additions	0	0
Total Additions	**$ 16,969,557**	**$ 29,200,886**
Deductions		
4. Benefit Payments	$ 11,612,717	$ 11,195,430
5. Expenses		
a. Direct investment-related	$ 486,275	$ 466,000
b. General administrative	215,379	238,094
c. Total	$ 701,654	$ 704,094
Total Deductions	**$ 12,314,371**	**$ 11,899,524**
Net Increase in Assets	**$ 4,655,186**	**$ 17,301,362**
Market Value of Assets (Plan Net Position)		
Beginning of Year	$126,159,233	$108,857,871[1]
End of Year	$130,814,419	$126,159,233
Rate of Return		
Net of All Expenses	5.38%	17.34%
Net of Investment-Related Expenses	5.56%	17.58%
Gross	5.96%	18.05%
Direct Investment-Related Expenses	0.40%	0.47%

[1] Unaudited amount to be consistent with number used in the prior actuarial valuation.

Exhibit 6

Development of Actuarial Value of Assets

Calculation of Actuarial Investment Gain/(Loss) Based on Market Value for Plan Years Ending December 31				
	2014	2013	2012	2011
1. Market Value of Assets as of Beginning of Year	$126,159,233	$108,857,871	$98,089,891	$100,634,204
2. Firefighter Contributions	3,526,756	3,605,346	3,422,315	3,322,962
3. City Contributions	6,007,048	6,140,906	5,654,358	5,060,580
4. Benefit Payments and Administrative Expenses[1]	(11,828,096)	(11,433,524)	(11,847,958)	(11,136,431)
5. Expected Investment Return[2]	10,000,967	8,641,139	7,738,472	7,942,739
6. Expected Market Value of Assets as of End of Year	133,865,908	115,811,738	103,057,078	105,824,054
7. Actual Market Value of Assets as of End of Year	130,814,419	126,159,233	108,857,871	98,089,891
8. Actuarial Investment Gain/(Loss)	(3,051,489)	10,347,495	5,800,793	(7,734,163)
9. Market Value Rate of Return Net of Expenses	5.56%	17.58%	14.0%	0.2%
10. Rate of Actuarial Investment Gain/(Loss)	(2.44)%	9.58%	6.0%	(7.8)%

[1] Administrative expenses are included for 2013 and 2014 because the investment return assumption was net of investment-related expenses for those years. In 2011 and 2012, the investment return assumption was net of all expenses.

[2] Assuming uniform distribution of contributions and payments during the plan year; actuarially assumed investment return is 8% per year.

Plan Year	Investment Gain/(Loss)	Deferral Percentage	Deferred Gain/(Loss) as of 12/31/2014
2014	$(3,051,489)	80%	$ (2,441,191)
2013	10,347,495	60%	6,208,497
2012	5,800,793	40%	2,320,317
2011	(7,734,163)	20%	(1,546,833)
Total			$ 4,540,790

Actuarial Value of Assets as of December 31, 2014	
11. Market Value of Assets as of December 31, 2014	$ 130,814,419
12. Deferred Gain/(Loss) to be Recognized in Future	4,540,790
13. Preliminary Value (Item 11 – Item 12)	$ 126,273,629
14. Corridor for Actuarial Value of Assets	
a. 80% of Market Value as of December 31, 2014 (minimum)	$ 104,651,535
b. 120% of Market Value as of December 31, 2014 (maximum)	$ 156,977,303
15. Actuarial Value as of December 31, 2014	$ 126,273,629
16. Write Up/(Down) of Assets (Item 15 – Item 11)	$ (4,540,790)

Exhibit 7

Historical Comparison of Market and Actuarial Value of Assets (Valuation as of December 31)

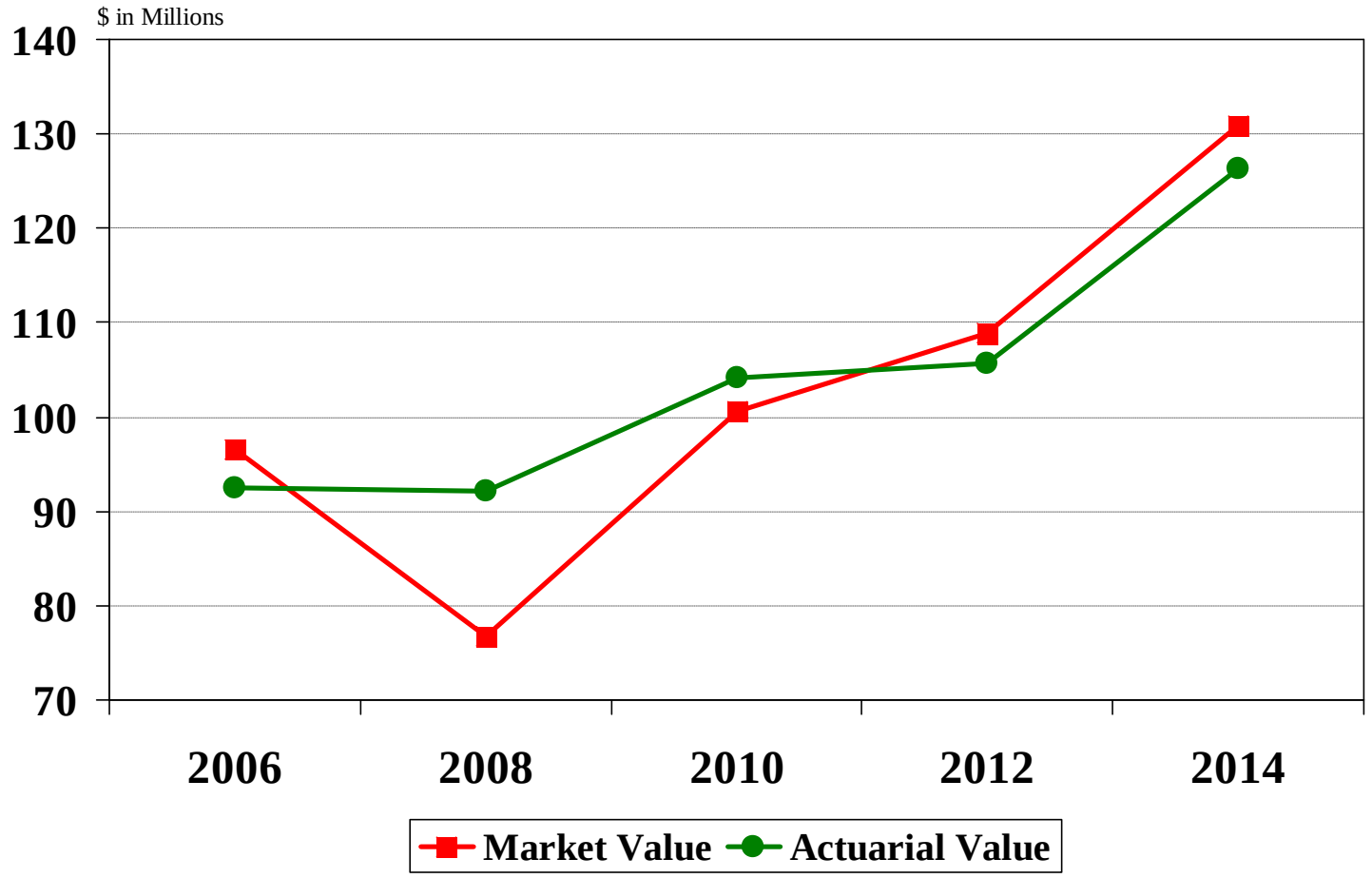
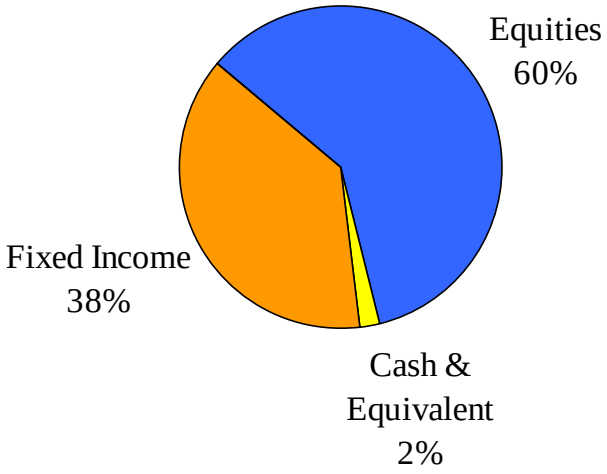


Exhibit 8

Comparison of Market Value Asset Allocation as of the Prior and Current Actuarial Valuation Dates

December 31, 2012



December 31, 2014

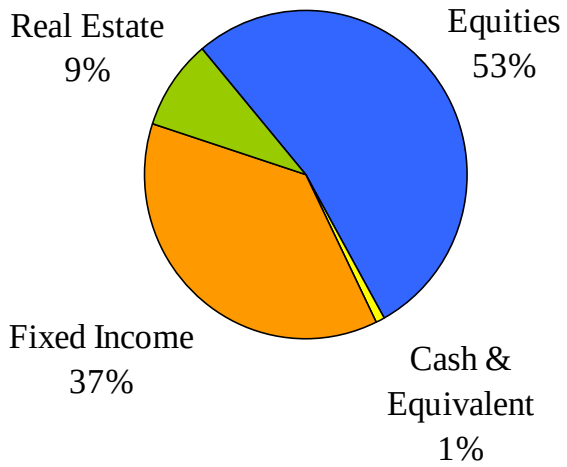


Exhibit 9

Actuarial Methods and Assumptions

A. Actuarial Methods

1. Actuarial Cost Method

The Entry Age Actuarial Cost Method is an actuarial cost method in which the actuarial present value of projected benefits of each active firefighter included in the valuation is allocated as a level percentage of compensation between age at hire and assumed termination. Each active firefighter's normal cost is the current annual contribution in a series of annual contributions which, if made throughout the firefighter's total period of employment, would fund his expected benefits. Each firefighter's normal cost is calculated to be a constant percentage of his expected compensation in each year of employment. The normal cost for the fund is the sum of the normal costs for each active firefighter for the year following the valuation date. The normal cost as a percent of payroll reflects that contributions are made biweekly.

The fund's actuarial accrued liability is the excess of the actuarial present value of projected benefits over the actuarial present value of all future remaining normal cost contributions. The unfunded actuarial accrued liability (UAAL) is the amount by which the actuarial accrued liability exceeds the actuarial value of assets. The UAAL is recalculated each time a valuation is performed. Experience gains and losses, which represent deviations of the UAAL from its expected value based on the prior valuation, are determined at each valuation and are amortized as part of the newly calculated UAAL.

2. Amortization Method

The UAAL is assumed to be amortized with level percentage of payroll contributions (total assumed contribution rate less normal cost contribution rate) based on assumed payroll growth of 3.75% per year. The actuarial determination of the amortization period reflects that contributions are made biweekly.

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.

B. Actuarial Assumptions

As a part of each actuarial valuation, we review the actuarial assumptions used in the prior actuarial valuation. The investment return assumption is reviewed using the building block approach that includes several asset allocations, assumed real rates of return for each asset class, an assumed rate of investment-related expenses, and an assumed rate of inflation, with all assumptions for the long-term future. Our economic assumptions are influenced both by long-term historical experience and by future expectations of investment consultants and economists, but we select the economic assumptions and discuss them with the board before completing the actuarial valuation.

We review the termination and retirement experience since the prior valuation and periodically look back more than two years. We also periodically review the average salaries by years of service to get insights into the promotion, step, and longevity compensation patterns for the purpose of reviewing our compensation increase assumption. For the mortality assumptions, we use an appropriate published mortality table with projections for improvement beyond the valuation date. We are guided in our review and selection of assumptions by the relevant actuarial standards of practice. As a result of our review, we have selected actuarial assumptions we consider to be reasonable and appropriate estimates of future experience for the system for the long-term future.

1. Investment Return

   7.9% per year net of investment-related expenses.

2. Inflation

   3.75% per year included in compensation increases and investment return assumptions.

3. Mortality Rates

   RP-2000 Combined Healthy Mortality Table projected to 2024 by scale AA for males and for females (sex distinct) for all three types of mortality: pre-retirement, post-retirement, and post-disability. We assume that projection to 2014 is appropriate mortality as of the valuation date and that projection from 2014 to 2024 is the assumed mortality improvement after the valuation date.

4. Compensation Increases

   General increases of 3.75% per year in addition promotion, step, and longevity increases that average 1.82% per year over a 30-year career. See Exhibit 10.

5. Retirement Rates

Age	Rate per Year for Paid Firefighters Eligible to Retire
54	5%
55	15
56	20
57	30
58	25
59	10
60	30
61	45
62	40
63-65	25
66	100

The average expected retirement age for paid firefighters not yet eligible to retire based on these rates is 58.1.

6. RETRO DROP Election

   a. Percent of firefighters eligible electing RETRO DROP: 100% 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 36 months for retirement before 60 and up to 48 months for retirement at ages 60 and above.

7. Withdrawal Rates

   See Exhibit 10.

8. Disability Rates

   See Exhibit 10.

9. Reduction in Benefit after 2½ Years of Disability Retirement

   45% weighted average reduction in benefit until eligible for normal service retirement.

10. Percent Married

    85% of the firefighters are assumed to be married at retirement, disability, or death while employed, with male firefighters having a spouse two years younger and female firefighters having a spouse two years older.

11. Payment Form for Retirement Benefits Due to Service Retirement, Disability Retirement, or Vested Termination

    - Joint and 100% to surviving spouse for the 85% assumed to be married
    - Life annuity for the 15% assumed to be single

    To the extent early retirement is 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 immaterial and will be recognized through the valuation process for those retiring since the prior valuation who made an early retirement election.

12. Surviving Child's Death Benefit

    None are assumed as a result of future deaths.

13. Firefighters' Contribution Rate

    13.10% of covered pay.

14. City's Assumed Contribution Rate

    20.78% of covered payroll for at least as long as the period required to amortize the unfunded actuarial accrued liability.

15. Covered Payroll for First Year Following Valuation Date

    Actual (or annualized) pay for 2014 without adjustment for each firefighter to reflect that there will probably be no pay increase effective in 2015.

16. General Administrative Expenses

    The expenses paid by fund assets for other than investment-related expenses are assumed to be 0.75% of payroll. The normal cost rate as a percent of payroll is assumed to be 0.75% of payroll higher to reflect these expenses.

Exhibit 10

Disability, Mortality, and Withdrawal Rates per 1,000 Active Members
Compensation Increases by Years of Service

Attained Age	Disability and Mortality Rates			Withdrawal Rates		Compensation Increases	
		Mortality		Years of		Years of	Increase
	Disability[1]	Male	Female	Service	Rate	Service	Percent
20	0.60	0.218	0.130	0	30	1	22.43%
21	0.60	0.231	0.126	1	27	2	12.05
22	0.60	0.243	0.129	2	24	3	9.98
23	0.60	0.260	0.134	3	21	4	9.98
24	0.60	0.275	0.140	4	18	5	9.98
25	0.60	0.295	0.148	5	16	6	4.79
26	0.62	0.327	0.160	6	14	7	4.79
27	0.64	0.339	0.167	7	12	8	4.79
28	0.66	0.348	0.176	8	11	9	4.79
29	0.70	0.365	0.186	9	10	10	4.79
30	0.76	0.394	0.207	10	8	11	5.31
31	0.80	0.442	0.253	11	7	12	5.31
32	0.84	0.498	0.289	12	6	13	5.31
33	0.88	0.559	0.317	13	5	14	5.31
34	0.96	0.622	0.342	14	5	15	5.31
35	1.04	0.685	0.364	15	5	16	3.75
36	1.12	0.746	0.385	16	5	17	3.75
37	1.18	0.802	0.405	17	4	18	3.75
38	1.26	0.834	0.426	18	4	19	3.75
39	1.40	0.863	0.451	19	4	20	3.75
40	2.34	0.890	0.491	20 & Over	0	21	3.75
41	2.58	0.919	0.539			22	3.75
42	2.80	0.955	0.593			23	3.75
43	3.02	0.996	0.652			24	3.75
44	3.44	1.046	0.716			25	3.75
45	3.86	1.102	0.763			26	3.75
46	4.28	1.152	0.810			27	3.75
47	4.70	1.206	0.857			28	3.75
48	5.10	1.263	0.927			29	3.75
49	6.06	1.322	1.002			30	3.75
50	7.00	1.383	1.111			31	3.75
51	7.96	1.545	1.258			32	3.75
52	8.90	1.642	1.439			33	3.75
53	9.86	1.796	1.652			34	3.75
54	12.54	1.968	1.904			35	3.75
55	0.00	2.287	2.241			36	3.75
56	0.00	2.716	2.674			37	3.75
57	0.00	3.110	3.084			38	3.75
58	0.00	3.580	3.478			39	3.75
59	0.00	4.037	3.938			40	3.75
60	0.00	4.581	4.482				
61	0.00	5.341	5.155				
62	0.00	6.093	5.902				
63	0.00	7.138	6.781				
64	0.00	8.042	7.642				

[1] Applicable when not eligible for service retirement.

Exhibit 11

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 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 January 1 and ending December 31.
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 end 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.

Exhibit 12

Summary of Present Plan

1. Normal Service and Disability Retirement Monthly Benefit is the greater of the Formula 1 Amount or the Formula 2 Amount	
(a) Formula 1 Amount is (i) plus (ii)	
(i) Percent of Highest 60-Month Average Pay	50.80%
(ii) Additional benefit for each year of service in excess of 20 years	$150.00
(b) Formula 2 Amount is for each year of service	$137.00
2. Normal Service Retirement Eligibility	Age 54 and 20 Years
3. Retroactive Deferred Retirement Option Plan (RETRO DROP) provides a reduced monthly benefit and a lump sum	
(a) Earliest RETRO DROP benefit calculation date	Age 54 and 20 Years
(b) Maximum RETRO DROP benefit accumulation period	
(i) Retirement before age 60	36 Months
(ii) Retirement at age 60 or above	48 Months
(c) Earliest employment termination date with maximum RETRO DROP accumulation period	
(i) Retirement before age 60	Age 57 and 23 Years
(ii) Retirement at age 60 or above	Age 60 and 26 Years
(d) RETRO DROP lump sum includes	
(i) Monthly benefits that would have been received between RETRO DROP benefit calculation date and termination of employment,	
(ii) accumulated contributions made by the firefighter after the RETRO DROP benefit calculation date, and	
(iii) no interest	
4. Actuarially Equivalent Early Retirement Eligibility (Reduced Benefit Begins Immediately)	10 Years
5. Vested Terminated Benefit	
(a) Eligibility	10 Years
(b) Percent vested with 10 years	50%
(c) Additional percent vested for each year above 10 years	5%
(d) Percent vested with 20 or more years	100%
(e) Benefit is deferred to date person would have satisfied normal service retirement eligibility	
(f) Benefit is percent vested times normal service benefit	

6. Disability Retirement Monthly Benefit for Firefighters Who Become Totally Disabled while Employed
   (a) For initial 30-month period, is (i) plus (ii)
      (i) Minimum monthly amount based on 20 years
      (ii) Additional monthly amount per year of service in excess of 20 years
   (b) Following initial 30-month period, is the greater of (i) and (ii)
      (i) Initial benefit reduced by the portion of the initial benefit equal to estimated annual residual earning capacity divided by annual base earnings
      (ii) Initial benefit multiplied by percentage of disability
   (c) Upon attaining eligibility for normal retirement, the member's vested retirement benefit becomes payable if the disability benefit has been reduced

7. Surviving Spouse Monthly Death Benefit for Firefighters Who Die while Employed
   (a) Minimum monthly amount based on 20 years
   (b) Additional monthly amount per year of service in excess of 20 years
   (c) Surviving spouse may elect RETRO DROP if firefighter was eligible for a service retirement benefit at time of death

8. The normal form of annuity payment at retirement is a Joint and 100% to Surviving Spouse, and payment is the last day of each month. The same benefit payable to the retired firefighter is payable to the surviving spouse as long as the spouse is alive (and does not remarry if the firefighter terminated employment as a firefighter prior to February 25, 1997). If there is no surviving spouse or the surviving spouse is ineligible, the death benefit shall be paid to the guardian of the deceased firefighter's dependent children, if any.

9. Pay used to determine the Highest 60-Month Average Pay includes all pay except for unused sick leave, unused vacation, unused comp time, or injury pay. The average is based on the 130 consecutive biweekly pay periods during which covered pay was highest. Any lump sum payment for a retroactive pay increase will be allocated to the applicable past biweekly pay periods and excluded from pay for the biweekly pay period in which it was actually paid.

10. Refund of firefighters' accumulated contributions without interest will be made to firefighters who terminate employment and either are not eligible for any other benefit from the system or request a refund from the system.

11. Contributions

(a) Firefighters (percent of covered pay)	13.10%
(b) City of Corpus Christi (percent of covered payroll)	20.78%