

Village of Key Biscayne Police Officers and Firefighters Retirement Plan

ACTUARIAL VALUATION REPORT
AS OF OCTOBER 1, 2015

ANNUAL EMPLOYER CONTRIBUTION IS DETERMINED BY THIS VALUATION FOR THE
FISCAL YEAR ENDING SEPTEMBER 30, 2017



May 24, 2016

Board of Trustees
Key Biscayne Police Officers &
Firefighters Retirement Plan
Key Biscayne, Florida

Dear Board Members:

The results of the October 1, 2015 Annual Actuarial Valuation of the Village of Key Biscayne Police Officers and Firefighters Retirement Plan are presented in this report.

This report was prepared at the request of the Board and is intended for use by the Retirement Plan and those designated or approved by the Board. This report may be provided to parties other than the Plan only in its entirety and only with the permission of the Board.

The purpose of the valuation is to measure the Plan's funding progress, to determine the employer contribution rate for the fiscal year ending September 30, 2017, and to determine the actuarial information for Governmental Accounting Standards Board (GASB) Statement No. 67. This report also includes estimated GASB Statement No. 67 information for the fiscal year ending September 30, 2016. This report should not be relied on for any purpose other than the purpose described herein. Determinations of financial results associated with the benefits described in this report, for purposes other than those identified above may be significantly different.

The contribution rate shown on page 1 may be considered as a minimum contribution rate that complies with the Board's funding policy. Users of this report should be aware that contributions made at that rate do not guarantee benefit security. Given the importance of benefit security to any retirement system, we suggest that contributions to the System in excess of those presented in this report be considered.

The findings in this report are based on data or other information through September 30, 2015. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. The scope of an actuarial valuation does not include an analysis of the potential range of such future measurements.

This valuation assumed the continuing ability of the plan sponsor to make the contributions necessary to fund this plan. A determination regarding whether or not the plan sponsor is actually able to do so is outside our scope of expertise and was not performed.

The valuation was based upon information furnished by the Plan Administrator concerning Retirement Plan benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We checked for internal and year-to-year consistency, but did not otherwise audit the data. We are not responsible for the accuracy or completeness of the information provided by the Plan Administrator.

In addition, this report was prepared using certain assumptions prescribed by the Board as described in Section B.

This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge the information contained in this report is accurate and fairly presents the actuarial position of the Village of Key Biscayne Police Officers and Firefighters Retirement Plan as of the valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices, with the Actuarial Standards of Practice issued by the Actuarial Standards Board and with applicable statutes.

Peter N. Strong and Jeffrey Amrose are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. The signing actuaries are independent of the plan sponsor.

This actuarial valuation and/or cost determination was prepared and completed by me or under my direct supervision, and I acknowledge responsibility for the results. To the best of my knowledge, the results are complete and accurate. In my opinion, the techniques and assumptions used are reasonable, meet the requirements and intent of Part VII, Chapter 112, Florida Statutes, and are based on generally accepted actuarial principles and practices. There is no benefit or expense to be provided by the plan and/or paid from the plan's assets for which liabilities or current costs have not been established or otherwise taken into account in the valuation. All known events or trends which may require a material increase in plan costs or required contribution rates have been taken into account in the valuation.

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

Respectfully submitted,

GABRIEL, ROEDER, SMITH AND COMPANY

By: 
Peter N. Strong, FSA, MAAA, FCA
Enrolled Actuary No. 14-06975

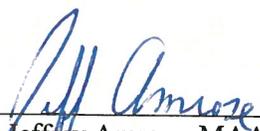
By: 
Jeffrey Amrose, MAAA
Enrolled Actuary No. 14-06599

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SECTION A
DISCUSSION OF VALUATION RESULTS

DISCUSSION OF VALUATION RESULTS

Comparison of Required Contributions

The required employer contribution developed in this year's valuation is compared below to last year's result. According to the Village's contribution policy, the required employer contribution is equal to the indicated percentages below multiplied by the actual pensionable payroll during the contribution year.

FIREFIGHTERS	For FYE 9/30/17 Based on 10/1/15 Valuation	For FYE 9/30/16 Based on 10/1/14 Valuation	Increase (Decrease)
Required Employer/State Contribution	\$ 517,939	\$ 512,202	\$ 5,737
As % of Covered Payroll	14.69 %	14.21 %	0.48 %
Estimated Credit for State Contribution	325,198	325,198 *	0
As % of Covered Payroll	9.22 %	9.02 %	0.20 %
Required Employer Contribution	192,741	187,004	5,737
As % of Covered Payroll	5.47 %	5.19 %	0.28 %

POLICE OFFICERS	For FYE 9/30/17 Based on 10/1/15 Valuation	For FYE 9/30/16 Based on 10/1/14 Valuation	Increase (Decrease)
Required Employer/State Contribution	\$ 416,937	\$ 425,457	\$ (8,520)
As % of Covered Payroll	19.39 %	19.03 %	0.36 %
Estimated Credit for State Contribution	131,055	337,765 *	(206,710)
As % of Covered Payroll	6.09 %	15.11 %	(9.02) %
Required Employer Contribution	285,882	87,692	198,190
As % of Covered Payroll	13.30 %	3.92 %	9.38 %

* Includes the estimated remaining accumulated excess state contribution reserve (now held as a prepaid reserve) as of October 1, 2015 of \$206,710 for Police Officers. The State Contributions estimated in fiscal year 2016 have been updated to reflect the actual State revenue received in 2015. The actual required Village contribution for fiscal year 2016 should be adjusted to reflect the actual State revenue received in 2016.

The contribution has been adjusted for interest on the basis that employer contributions are made in equal biweekly payments. The required employer contribution has been computed under the assumption that the amount to be received by the State on behalf of police officers and firefighters in the fiscal years ending 2016 and

2017 is at least \$131,055 and \$325,198, respectively. If the actual amounts from the State fall below \$131,055 for police officers or \$325,198 for firefighters, then the Village must raise its contribution by the difference.

As noted by the headings, the current year's valuation results apply to the Village's fiscal year ending September 30, 2017. The actual employer contribution during the year ending September 30, 2015 was \$383,181, of which \$230,420 was credited as a fiscal year 2015 contribution and \$152,761 was set up as a prepaid contribution to be used toward the fiscal year 2016 contribution requirement. The actual amount of State Revenue recognized during the year ending September 30, 2015 was \$753,636 (including \$297,383 from the Excess State Contribution reserve). Total employer contributions were therefore equal to \$984,056, an amount which exceeded the required employer contribution of \$978,388.

Revisions in Benefits

There have been no revisions in benefits since the prior valuation.

Revision in Actuarial Assumptions or Methods

This valuation reflects the following changes in assumptions since the prior actuarial valuation:

- The assumed investment rate of return is lowered from 7.85% to 7.80% (net of investment expenses). This rate is being lowered by 5 basis points (0.05%) per year until it reaches the target rate of 7.50% as of October 1, 2021.
- The mortality table is being updated from the 1983 Group Annuity Mortality Table to the RP 2000 Combined Healthy Participant Mortality Table with a provision for projecting future mortality improvements after the year 2000 using Scale BB. This assumption change is being phased in over a ten-year period beginning October 1, 2012, so 40% of this mortality table change has been recognized as of October 1, 2015.

These assumption changes resulted in an increase in the required Village contribution of 0.78% of covered payroll for firefighters and 0.83% of covered payroll for police officers.

A change in the mortality assumption to use the same mortality rates used in the actuarial valuation of the Florida Retirement System (FRS) will be required in next year's actuarial valuation report. This change is expected to cause an increase in the annual required employer contribution of approximately \$25,000 to \$30,000

and a reduction in the funded ratio of about 1%. If this assumption had been implemented effective in this year's actuarial valuation, the Village contribution requirements for both groups would have remained under the 14.0% of covered payroll contribution caps. However, the unfunded liability for Police Officers would have exceeded the \$1,776,000 UAL cap by approximately \$26,000.

Annual Required Contribution Cap

The Village's annual contribution into the Plan is capped at 14% of covered payroll. Any amount over 14% of covered payroll is the responsibility of the members. Since the required Village contribution for the fiscal year ending September 30, 2017 in this report is 5.47% of covered payroll for Firefighters and 13.30% of covered payroll for Police Officers, there will be no automatic increase in the member contribution rate in the fiscal year ending September 30, 2017.

Unfunded Actuarial Liability (UAL) Cap

The UAL as of October 1, 2015 is \$1,151,316 for Firefighters and \$1,657,551 for Police Officers (\$2,808,867 combined). Based on the Village Ordinance, the overall UAL cap is \$4.8 million - \$3,024,000 for Firefighters and \$1,776,000 for Police Officers. The allocation of the UAL cap to Firefighters and Police Officers was based on the 2013 valuation results prior to reflecting any plan changes. Since the actual UAL's do not exceed the caps as of October 1, 2015, there is no automatic reduction in the benefit multiplier or increase in member contributions required this year.

For Police Officers, given how close the UAL is to the UAL cap, the UAL may exceed the cap in the near future as the mortality and investment return assumptions continue to be phased in, unless there are offsetting experience gains. This would either trigger a reduction in the future benefit multiplier or require additional member contributions to fund the difference between the actual UAL and the UAL cap.

Actuarial Experience

There was a net actuarial experience gain of \$384,267 during the year ending September 30, 2015. This was primarily due to lower than expected increases in pay. The average increase in base pay for firefighters was (0.4)% (versus 5.3% expected). The average increase in base pay for police officers was 1.6% (versus 4.7%

expected). These gains were offset somewhat by lower than expected asset returns. The actual recognized investment return on the actuarial (smoothed) value of assets was 7.4% (versus 7.85% assumed). The actual return on the market value of assets during the year was (0.3)%. The net experience gain caused the required contribution to decrease by 0.69% of covered payroll for firefighters and by 0.44% of covered payroll for police officers.

Funded Ratio

The funded ratio this year is 90.9% compared to 89.0% last year. The funded ratio this year for firefighters is 93.8% compared to 91.8% last year. The funded ratio this year for police officers is 86.7% compared to 84.7% last year. The funded ratio this year prior to recognizing the changes in actuarial assumptions was 92.0%. The funded ratio is equal to the actuarial value of assets divided by the actuarial accrued (past service) liability.

Analysis of Change in Employer Contribution

The components of change in the required employer contribution are as follows:

	<u>Firefighters</u>	<u>Police Officers</u>
Village contribution rate for fiscal year 2015	5.19 %	3.92 %
Payment on unfunded liability	(0.04)	0.24
Change in assumptions	0.78	0.83
Experience gain/loss	(0.69)	(0.44)
Change in administrative expense	0.19	0.21
Change in normal cost rate	0.24	(0.48)
Change in State revenue (as a % of Pay)	<u>(0.20)</u>	<u>9.02</u>
Village contribution rate for fiscal year 2016	5.47	13.30

Variability of Future Contribution Rates

The Actuarial Cost Method used to determine the contribution rate is intended to produce contribution rates which are generally level as a percent of payroll. Even so, when experience differs from the assumptions, as it often does, the employer's contribution rate can vary significantly from year-to-year.

Over time, if the year-to-year gains and losses offset each other, the contribution rate would be expected to return to the current level, but this does not always happen.

Relationship to Market Value

As of October 1, 2015, the actuarial value of assets exceeds the market value of assets by \$627,714. If the market value of assets had been the basis for the valuation, the required Village contribution rates would have been 6.43% for firefighters and 14.27% for police officers, and the funded ratios would have been 91.7% for firefighters and 84.7% for police officers. The unfunded liability for Police Officers would have been \$1,897,175, so the UAL cap for Police Officers of \$1,776,000 would have been exceeded.

Conclusion

The remainder of this Report includes detailed actuarial valuation results, financial information, miscellaneous information and statistics, and a summary of plan provisions.

CHAPTER REVENUE

Increments in Chapter revenue over that received in 1998 must first be used to fund the cost of compliance with minimum benefits. Once minimums are met, any subsequent additional Chapter revenue must be used to provide extra benefits.

As of the valuation date, all minimum Chapter requirements have been met.

Actuarial Confirmation of the Use of State Chapter Money			
	Fire	Police	Total
1. Amount Received for Previous Plan Year	\$ 325,198	\$ 131,055	\$ 456,253
2. Amount Applied to Funding in Previous Plan Year	325,198	131,055	456,253
3. Benefit Improvements Made in Previous Plan Year	0	0	0
4. Excess Funds for Previous Plan Year: (2) - (1) - (3)	0	0	0
5. Accumulated Excess at Beginning of Previous Year	0	504,093	504,093
6. Prior Excess Used in Previous Plan Year	0	504,093 *	504,093
7. Accumulated Excess as of Valuation Date (Available for Benefit Improvements)	0	0	0
8. Estimated Amount Received This Plan Year	325,198	131,055	456,253

* Of the \$504,093 in accumulated excess State reserve funds that were used during fiscal year 2015, \$297,383 was applied toward the contribution requirement for Police Officers for fiscal year 2015, and \$206,710 was placed in a prepaid employer contribution reserve to be used toward the fiscal year 2016 contribution requirement for Police Officers.

SECTION B
VALUATION RESULTS

PARTICIPANT DATA		
FIREFIGHTERS AND POLICE OFFICERS		
	October 1, 2015	October 1, 2014
ACTIVE MEMBERS		
Number	58	59
Covered Annual Payroll	\$ 5,457,747	\$ 5,615,610
Average Annual Payroll	\$ 94,099	\$ 95,180
Average Age	42.1	42.0
Average Past Service	11.9	11.3
Average Age at Hire	30.2	30.7
RETIREES & BENEFICIARIES & DROP		
Number	28	26
Annual Benefits	\$ 814,252	\$ 683,589
Average Annual Benefit	\$ 29,080	\$ 26,292
Average Age	64.2	64.5
DISABILITY RETIREES		
Number	2	2
Annual Benefits	\$ 136,190	\$ 136,190
Average Annual Benefit	\$ 68,095	\$ 68,095
Average Age	51.5	50.5
TERMINATED VESTED MEMBERS		
Number	4	5
Annual Benefits	\$ 170,349	\$ 201,901
Average Annual Benefit	\$ 42,587	\$ 40,380
Average Age	52.6	52.2

PARTICIPANT DATA		
FIREFIGHTERS		
	October 1, 2015	October 1, 2014
ACTIVE MEMBERS		
Number	33	34
Covered Annual Payroll	\$ 3,390,183	\$ 3,465,880
Average Annual Payroll	\$ 102,733	\$ 101,938
Average Age	42.4	41.1
Average Past Service	13.1	11.8
Average Age at Hire	29.3	29.3
RETIREEES & BENEFICIARIES & DROP		
Number	11	11
Annual Benefits	\$ 353,210	\$ 353,210
Average Annual Benefit	\$ 32,110	\$ 32,110
Average Age	65.0	64.0
DISABILITY RETIREEES		
Number	1	1
Annual Benefits	\$ 69,467	\$ 69,467
Average Annual Benefit	\$ 69,467	\$ 69,467
Average Age	45.2	44.2
TERMINATED VESTED MEMBERS		
Number	2	2
Annual Benefits	\$ 132,729	\$ 132,729
Average Annual Benefit	\$ 66,365	\$ 66,365
Average Age	57.5	56.5

PARTICIPANT DATA		
POLICE OFFICERS		
	October 1, 2015	October 1, 2014
ACTIVE MEMBERS		
Number	25	25
Covered Annual Payroll	\$ 2,067,564	\$ 2,149,730
Average Annual Payroll	\$ 82,703	\$ 85,989
Average Age	41.6	43.2
Average Past Service	10.3	10.8
Average Age at Hire	31.3	32.4
RETIREEES & BENEFICIARIES & DROP		
Number	17	15
Annual Benefits	\$ 461,042	\$ 330,379
Average Annual Benefit	\$ 27,120	\$ 22,025
Average Age	63.7	64.9
DISABILITY RETIREEES		
Number	1	1
Annual Benefits	\$ 66,723	\$ 66,723
Average Annual Benefit	\$ 66,723	\$ 66,723
Average Age	57.7	56.7
TERMINATED VESTED MEMBERS		
Number	2	3
Annual Benefits	\$ 37,620	\$ 69,172
Average Annual Benefit	\$ 18,810	\$ 23,057
Average Age	47.6	49.3

ACTUARIALLY DETERMINED CONTRIBUTION (ADC)			
FIREFIGHTERS			
A. Valuation Date	October 1, 2015 <i>Blended 40% New Assumptions & 60% Old Assumptions</i>	October 1, 2015 <i>Blended 30% New Assumptions & 70% Old Assumptions</i>	October 1, 2014
B. ADC to Be Paid During Fiscal Year Ending	9/30/2017	9/30/2017	9/30/2016
C. Assumed Date of Employer Contrib.	Biweekly	Biweekly	Biweekly
D. Annual Payment to Amortize Unfunded Actuarial Liability	\$ 223,784	\$ 207,216	\$ 236,095
E. Employer Normal Cost	255,604	246,462	237,699
F. ADC if Paid on the Valuation Date: D+E	479,388	453,678	473,794
G. ADC Adjusted for Frequency of Payments	498,101	471,497	492,403
H. ADC as % of Covered Payroll	14.69 %	13.91 %	14.21 %
I. Assumed Rate of Increase in Covered Payroll to Contribution Year	4.00 %	4.00 %	4.00 %
J. Covered Payroll for Contribution Year	3,525,790	3,525,790	3,604,515
K. ADC for Contribution Year: H x J	517,939	490,437	512,202
L. Credit for Baseline State Revenue	325,198	325,198	325,198 *
M. Required Village Contribution	192,741	165,239	187,004
N. Village Contribution as % of Payroll	5.47 %	4.69 %	5.19 %

* The State contribution has been updated from last year's valuation to reflect the actual State Revenue received in 2015. The actual required Village contribution for fiscal year 2016 should be adjusted to reflect the actual State Revenue received in 2016.

ACTUARIALLY DETERMINED CONTRIBUTION (ADC)			
POLICE OFFICERS			
A. Valuation Date	October 1, 2015 <i>Blended 40% New Assumptions & 60% Old Assumptions</i>	October 1, 2015 <i>Blended 30% New Assumptions & 70% Old Assumptions</i>	October 1, 2014
B. ADC to Be Paid During Fiscal Year Ending	9/30/2017	9/30/2017	9/30/2016
C. Assumed Date of Employer Contrib.	Biweekly	Biweekly	Biweekly
D. Annual Payment to Amortize Unfunded Actuarial Liability	\$ 220,876	\$ 210,119	\$ 222,534
E. Employer Normal Cost	164,945	159,077	171,047
F. ADC if Paid on the Valuation Date: D+E	385,821	369,196	393,581
G. ADC Adjusted for Frequency of Payments	400,882	383,697	409,040
H. ADC as % of Covered Payroll	19.39 %	18.56 %	19.03 %
I. Assumed Rate of Increase in Covered Payroll to Contribution Year	4.00 %	4.00 %	4.00 %
J. Covered Payroll for Contribution Year	2,150,267	2,150,267	2,235,719
K. ADC for Contribution Year: H x J	416,937	399,090	425,457
L. Credit for Baseline State Revenue *	131,055	131,055	337,765
M. Required Village Contribution	285,882	268,035	87,692
N. Village Contribution as % of Payroll	13.30 %	12.47 %	3.92 %

* Reflects full use of the \$504,093 accumulated excess state contribution reserve (\$297,383 was applied in fiscal year 2015 and \$206,710 was added to a prepaid contribution reserve to be applied in fiscal year 2016).

ACTUARIAL VALUE OF BENEFITS AND ASSETS FIREFIGHTERS AND POLICE OFFICERS			
A. Valuation Date	October 1, 2015 <i>Blended 40% New Assumptions & 60% Old Assumptions</i>	October 1, 2015 <i>Blended 30% New Assumptions & 70% Old Assumptions</i>	October 1, 2014
B. Actuarial Present Value of All Projected Benefits for			
1. Active Members			
a. Service Retirement Benefits	\$ 22,893,809	\$ 22,572,851	\$ 21,978,472
b. Vesting Benefits	562,069	553,576	633,888
c. Disability Benefits	1,567,052	1,546,336	1,633,847
d. Preretirement Death Benefits	284,464	295,088	304,199
e. Return of Member Contributions	49,310	49,520	49,474
f. Total	<u>25,356,704</u>	<u>25,017,371</u>	<u>24,599,880</u>
2. Inactive Members			
a. Service Retirees & Beneficiaries	8,667,166	8,579,804	7,065,544
b. Disability Retirees	1,557,626	1,544,370	1,559,829
c. Terminated Vested Members	1,465,161	1,445,841	1,779,447
d. Total	<u>11,689,953</u>	<u>11,570,015</u>	<u>10,404,820</u>
3. Total for All Members	37,046,657	36,587,386	35,004,700
C. Actuarial Accrued (Past Service) Liability	31,002,356	30,659,783	28,735,686
D. Actuarial Value of Accumulated Plan Benefits	30,770,164	30,425,972	28,581,061
E. Plan Assets			
1. Market Value	27,565,775	27,565,775	27,023,091
2. Actuarial Value	28,193,489	28,193,489	25,566,947
F. Unfunded Actuarial Accrued Liability: C - E2	2,808,867	2,466,294	3,168,739
G. Actuarial Present Value of Projected Covered Payroll	38,018,375	37,910,872	40,046,100
H. Actuarial Present Value of Projected Member Contributions	3,991,929	3,980,641	4,204,840
I. Accumulated Contributions of Active Members	5,812,527	5,812,527	5,574,832
J. Funded Ratio: E2 / C	90.9%	92.0%	89.0%

ACTUARIAL VALUE OF BENEFITS AND ASSETS FIREFIGHTERS			
A. Valuation Date	October 1, 2015 <i>Blended 40% New Assumptions & 60% Old Assumptions</i>	October 1, 2015 <i>Blended 30% New Assumptions & 70% Old Assumptions</i>	October 1, 2014
B. Actuarial Present Value of All Projected Benefits for			
1. Active Members			
a. Service Retirement Benefits	\$ 14,808,788	\$ 14,613,070	\$ 13,515,989
b. Vesting Benefits	409,557	403,390	472,147
c. Disability Benefits	837,991	827,316	886,396
d. Preretirement Death Benefits	155,234	160,724	167,921
e. Return of Member Contributions	22,000	22,116	29,012
f. Total	<u>16,233,570</u>	<u>16,026,616</u>	<u>15,071,465</u>
2. Inactive Members			
a. Service Retirees & Beneficiaries	3,751,737	3,711,556	3,765,679
b. Disability Retirees	800,809	792,508	800,388
c. Terminated Vested Members	1,235,109	1,219,683	1,218,147
d. Total	<u>5,787,655</u>	<u>5,723,747</u>	<u>5,784,214</u>
3. Total for All Members	22,021,225	21,750,363	20,855,679
C. Actuarial Accrued (Past Service) Liability	18,582,188	18,376,779	17,210,447
D. Plan Assets			
1. Market Value	17,042,782	17,042,782	16,700,694
2. Actuarial Value	17,430,872	17,430,872	15,800,774
E. Unfunded Actuarial Accrued Liability: C - D2	1,151,316	945,907	1,409,673
F. Actuarial Present Value of Projected Covered Payroll	22,283,491	22,223,120	24,257,112
G. Actuarial Present Value of Projected Member Contributions	2,339,766	2,333,427	2,546,996
H. Accumulated Contributions of Active Members	3,611,764	3,611,764	3,270,458
I. Funded Ratio: D2 / C	93.8%	94.9%	91.8%

ACTUARIAL VALUE OF BENEFITS AND ASSETS POLICE OFFICERS			
A. Valuation Date	October 1, 2015 <i>Blended 40% New Assumptions & 60% Old Assumptions</i>	October 1, 2015 <i>Blended 30% New Assumptions & 70% Old Assumptions</i>	October 1, 2014
B. Actuarial Present Value of All Projected Benefits for			
1. Active Members			
a. Service Retirement Benefits	\$ 8,085,021	\$ 7,959,781	\$ 8,462,483
b. Vesting Benefits	152,512	150,186	161,741
c. Disability Benefits	729,061	719,020	747,451
d. Preretirement Death Benefits	129,230	134,364	136,278
e. Return of Member Contributions	27,310	27,404	20,462
f. Total	<u>9,123,134</u>	<u>8,990,755</u>	<u>9,528,415</u>
2. Inactive Members			
a. Service Retirees & Beneficiaries	4,915,429	4,868,248	3,299,865
b. Disability Retirees	756,817	751,862	759,441
c. Terminated Vested Members	230,052	226,158	561,300
d. Total	<u>5,902,298</u>	<u>5,846,268</u>	<u>4,620,606</u>
3. Total for All Members	15,025,432	14,837,023	14,149,021
C. Actuarial Accrued (Past Service) Liability	12,420,168	12,283,004	11,525,239
D. Plan Assets			
1. Market Value	10,522,993	10,522,993	10,322,397
2. Actuarial Value	10,762,617	10,762,617	9,766,173
E. Unfunded Actuarial Accrued Liability: C - D2	1,657,551	1,520,387	1,759,066
F. Actuarial Present Value of Projected Covered Payroll	15,734,884	15,687,752	15,788,988
G. Actuarial Present Value of Projected Member Contributions	1,652,163	1,647,214	1,657,844
H. Accumulated Contributions of Active Members	2,200,763	2,200,763	2,304,374
I. Funded Ratio: D2 / C	86.7%	87.6%	84.7%

CALCULATION OF EMPLOYER NORMAL COST FIREFIGHTERS AND POLICE OFFICERS			
A. Valuation Date	October 1, 2015 <i>Blended 40% New Assumptions & 60% Old Assumptions</i>	October 1, 2015 <i>Blended 30% New Assumptions & 70% Old Assumptions</i>	October 1, 2014
B. Normal Cost for			
1. Service Retirement Benefits	\$ 667,641	\$ 654,366	\$ 672,750
2. Vesting Benefits	58,163	57,472	58,208
3. Disability Benefits	135,199	133,569	140,752
4. Preretirement Death Benefits	12,522	12,963	13,338
5. Return of Member Contributions	33,968	34,113	35,341
6. Total for Future Benefits	907,493	892,483	920,389
7. Assumed Amount for Administrative Expenses	86,119	86,119	77,996
8. Total Normal Cost	993,612	978,602	998,385
C. Expected Member Contribution	573,063	573,063	589,639
D. Employer Normal Cost: B8-C	420,549	405,539	408,746
E. Employer Normal Cost as a % of Covered Payroll	7.71%	7.43%	7.28%

CALCULATION OF EMPLOYER NORMAL COST FIREFIGHTERS			
A. Valuation Date	October 1, 2015 <i>Blended 40% New Assumptions & 60% Old Assumptions</i>	October 1, 2015 <i>Blended 30% New Assumptions & 70% Old Assumptions</i>	October 1, 2014
B. Normal Cost for			
1. Service Retirement Benefits	\$ 408,273	\$ 400,277	\$ 401,702
2. Vesting Benefits	43,576	43,066	43,765
3. Disability Benefits	80,372	79,417	81,024
4. Preretirement Death Benefits	7,070	7,306	7,461
5. Return of Member Contributions	<u>19,172</u>	<u>19,255</u>	<u>19,632</u>
6. Total for Future Benefits	558,463	549,321	553,584
7. Assumed Amount for Administrative Expenses	<u>53,110</u>	<u>53,110</u>	<u>48,032</u>
8. Total Normal Cost	611,573	602,431	601,616
C. Expected Member Contribution	355,969	355,969	363,917
D. Employer Normal Cost: B8-C	255,604	246,462	237,699
E. Employer Normal Cost as a % of Covered Payroll	7.54%	7.27%	6.86%

**CALCULATION OF EMPLOYER NORMAL COST
POLICE OFFICERS**

A. Valuation Date	October 1, 2015 <i>Blended 40% New Assumptions & 60% Old Assumptions</i>	October 1, 2015 <i>Blended 30% New Assumptions & 70% Old Assumptions</i>	October 1, 2014
B. Normal Cost for			
1. Service Retirement Benefits	\$ 259,368	\$ 254,089	\$ 271,048
2. Vesting Benefits	14,587	14,406	14,443
3. Disability Benefits	54,827	54,152	59,728
4. Preretirement Death Benefits	5,452	5,657	5,877
5. Return of Member Contributions	<u>14,796</u>	<u>14,858</u>	<u>15,709</u>
6. Total for Future Benefits	349,030	343,162	366,805
7. Assumed Amount for Administrative Expenses	<u>33,009</u>	<u>33,009</u>	<u>29,964</u>
8. Total Normal Cost	382,039	376,171	396,769
C. Expected Member Contribution	217,094	217,094	225,722
D. Employer Normal Cost: B8-C	164,945	159,077	171,047
E. Employer Normal Cost as a % of Covered Payroll	7.98%	7.69%	7.96%

LIQUIDATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY

A. UAAL Amortization Period and Payments -- Firefighters

Initial UAAL*			Current UAAL			
Date	Source	Amount	Years Remaining	Amount	Payment	
					Before Changes	After Changes
10/1/2005	New Method	\$2,718,288	13	\$2,352,934	\$ 273,756	\$ 273,127
10/1/2006	Exp. (Gain)/Loss	(174,574)	13	(151,111)	(17,581)	(17,541)
10/1/2007	Exp. (Gain)/Loss	(181,011)	13	(156,682)	(18,229)	(18,188)
10/1/2007	Plan Amendment	689,424	13	596,763	69,431	69,272
10/1/2008	Exp. (Gain)/Loss	683,999	13	592,066	68,885	68,727
10/1/2009	Exp. (Gain)/Loss	337,566	13	292,195	33,996	33,918
10/1/2010	Exp. (Gain)/Loss	(301,456)	13	(260,939)	(30,359)	(30,290)
10/1/2011	Exp. (Gain)/Loss	(265,762)	13	(230,043)	(26,765)	(26,703)
10/1/2011	Assumption Change	879,367	13	761,176	88,560	88,357
10/1/2012	Exp. (Gain)/Loss	(138,729)	13	(120,083)	(13,971)	(13,939)
10/1/2012	Assumption Change	201,899	13	174,764	20,333	20,286
10/1/2013	Exp. (Gain)/Loss	(244,975)	13	(212,049)	(24,671)	(24,615)
10/1/2013	Assumption Change	212,654	13	184,072	21,416	21,367
10/1/2013	Plan Amendment	(2,649,794)	28	(2,482,496)	(205,451)	(204,604)
10/1/2014	Exp. (Gain)/Loss	(314,721)	29	(307,108)	(25,165)	(25,059)
10/1/2014	Assumption Change	192,959	29	188,291	15,429	15,364
10/1/2015	Exp. (Gain)/Loss	(275,843)	30	(275,843)	(22,398)	(22,302)
10/1/2015	Assumption Change	205,409	30	205,409	N/A	16,607
				1,151,316	207,216	223,784

*As of date of asset split = 10/1/2013 or date of origination if later

B. Amortization Schedule -- Firefighters

The UFAAL is being amortized as a level dollar amount over the number of years remaining in the amortization period. The expected amortization schedule is as follows:

Amortization Schedule	
Year	Expected UAAL
2015	\$ 1,151,316
2016	999,869
2017	836,619
2018	660,637
2019	470,927
2020	266,420
2022	-

C. UAAL Amortization Period and Payments – Police Officers

Initial UAAL*			Current UAAL			
Date	Source	Amount	Years Remaining	Amount	Payment	
					Before Changes	After Changes
10/1/2005	New Method	\$ 1,697,934	13	\$ 1,542,997	\$ 179,523	\$ 179,110
10/1/2006	Exp. (Gain)/Loss	(109,044)	13	(99,093)	(11,529)	(11,503)
10/1/2007	Exp. (Gain)/Loss	(113,066)	13	(102,749)	(11,955)	(11,927)
10/1/2007	Plan Amendment	430,637	13	391,342	45,531	45,427
10/1/2008	Exp. (Gain)/Loss	427,248	13	388,262	45,173	45,069
10/1/2009	Exp. (Gain)/Loss	210,855	13	191,615	22,294	22,243
10/1/2010	Exp. (Gain)/Loss	(188,300)	13	(171,118)	(19,909)	(19,863)
10/1/2011	Exp. (Gain)/Loss	(166,003)	13	(150,856)	(17,552)	(17,511)
10/1/2011	Assumption Change	549,281	13	499,160	58,076	57,942
10/1/2012	Exp. (Gain)/Loss	(86,655)	13	(78,748)	(9,162)	(9,141)
10/1/2012	Assumption Change	126,113	13	114,606	13,334	13,303
10/1/2013	Exp. (Gain)/Loss	(153,020)	13	(139,057)	(16,179)	(16,142)
10/1/2013	Assumption Change	132,830	13	120,709	14,044	14,012
10/1/2013	Plan Amendment	(1,007,873)	28	(978,313)	(80,965)	(80,631)
10/1/2014	Exp. (Gain)/Loss	(30,179)	29	(29,593)	(2,425)	(2,415)
10/1/2014	Assumption Change	132,214	29	129,647	10,624	10,579
10/1/2015	Exp. (Gain)/Loss	(108,424)	30	(108,424)	(8,804)	(8,766)
10/1/2015	Assumption Change	137,164	30	137,164	N/A	11,090
				1,657,551	210,119	220,876

*As of date of asset split = 10/1/2013 or date of origination if later

D. Amortization Schedule – Police Officers

The UFAAL is being amortized as a level dollar amount over the number of years remaining in the amortization period. The expected amortization schedule is as follows:

Amortization Schedule	
Year	Expected UAAL
2015	\$ 1,657,551
2016	1,548,741
2017	1,431,438
2018	1,304,986
2019	1,168,671
2020	1,021,723
2025	96,094
2026	-

ACTUARIAL GAINS AND LOSSES

The assumptions used to anticipate mortality, employment turnover, investment income, expenses, salary increases, and other factors have been based on long range trends and expectations. Actual experience can vary from these expectations. The variance is measured by the gain and loss for the period involved. If significant long term experience reveals consistent deviation from what has been expected and that deviation is expected to continue, the assumptions should be modified. The net actuarial gain (loss) for the past year has been computed as follows:

	Total	Firefighters	Police Officers
1. Last Year's UAAL	\$ 3,168,739	\$ 1,409,673	\$ 1,759,066
2. Last Year's Employer Normal Cost	408,746	237,699	171,047
3. Last Year's Contributions (Village and State*)	984,056	544,217	439,839
4. Interest at the Assumed Rate on:			
a. 1 and 2 for one year	280,833	129,319	151,514
b. 3 from dates paid	23,701	10,724	12,977
c. a - b	257,132	118,595	138,537
5. This Year's Expected UAAL before any changes: 1 + 2 - 3 + 4c	2,850,561	1,221,750	1,628,811
6. Change in UAAL due to changes in benefits or assumptions	342,573	205,409	137,164
7. This Year's Expected UAAL: (5) + (6)	3,193,134	1,427,159	1,765,975
8. This Year's Actual UAAL	2,808,867	1,151,316	1,657,551
9. Net Actuarial Gain (Loss): (7) - (8)	384,267	275,843	108,424
10. Gain (Loss) due to investments	(110,998)	(68,524)	(42,474)
11. Gain (Loss) due to other sources	495,265	344,367	150,898

* Including \$297,383 of prior excess Chapter 185 State Revenue, which was applied toward the contribution requirement for Police Officers for fiscal year 2015.

Actuarial gains/(losses) in previous years have been as follows:

Year Ending	Gain (Loss)
9/30/2003	\$ (101,019)
9/30/2004	154,345
9/30/2005	420,933
9/30/2006	239,898
9/30/2007	250,274
9/30/2008	(969,816)
9/30/2009	(486,402)
9/30/2010	446,069
9/30/2011	404,348
9/30/2012	218,115
9/30/2013	397,995
9/20/2014	344,900
9/30/2015	384,267

The fund earnings and salary increase assumptions have considerable impact on the cost of the Plan so it is important that they are in line with actual experience. The following table shows the actual fund earnings and salary increase rates compared to the assumed rates for the last few years:

Year Ending	Investment Return		Salary Increases	
	Actual	Assumed	Actual	Assumed
9/30/1998	4.6 %	9.0 %	NA %	6.0 %
9/30/1999	9.2	9.0	13.8	6.0
9/30/2000	7.1	9.0	14.9	6.0
9/30/2001	(25.1)	9.0	7.8	6.0
9/30/2002	(5.0)	9.0	11.1	6.0
9/30/2003	2.7	9.0	9.4	6.0
9/30/2004	4.3	9.0	15.8	6.0
9/30/2005	5.5	9.0	3.2	6.0
9/30/2006	7.2	8.5	8.6	7.7
9/30/2007	9.5	8.5	7.6	7.5
9/30/2008	5.0	8.5	12.6	7.7
9/30/2009	4.7	8.5	6.0	7.7
9/30/2010	5.0	8.5	1.1	7.7
9/30/2011	4.9	8.5	1.5	7.8
9/30/2012	4.7	8.0	4.6	7.7
9/30/2013	8.3	7.95	4.3	7.6
9/30/2014	9.3	7.9	7.0	4.9
9/30/2015	7.4	7.85	0.4	5.1
Averages	3.5 %	NA	7.5 %	NA

The actual investment return rates shown above are based on the actuarial value of assets. The actual salary increase rates shown above are the increases received by those active members who were included in the actuarial valuation both at the beginning and at the end of each year.

Actual (A) Compared to Expected (E) Decrements Among Active Employees													
Year Ended	Number Added During Year		Service & DROP Retirement		Disability Retirement		Death		Terminations				Active Members End of Year
	A	E	A	E	A	E	A	E	Vested	Other	Totals		
									A	A	A	E	
9/30/2002	5	5	1	0	0	0	1	0	0	3	3	3	57
9/30/2003	9	5	2	0	0	0	0	0	1	2	3	3	61
9/30/2004	15	10	0	0	0	0	0	0	4	6	10	3	66
9/30/2005	6	4	0	0	0	0	0	0	1	3	4	3	68
9/30/2006	7	11	2	0	0	0	0	0	3	6	9	3	64
9/30/2007	11	10	1	0	0	0	0	0	2	7	9	2	65
9/30/2008	4	3	0	0	0	0	0	0	0	3	3	3	66
9/30/2009	2	1	0	0	0	0	0	0	0	1	1	3	67
9/30/2010	1	3	3	0	0	0	0	0	0	0	0	3	65
9/30/2011	0	0	0	0	0	0	0	0	0	0	0	2	65
9/30/2012	0	2	1	7	0	0	0	0	0	1	1	2	63
9/30/2013	5	8	5	11	2	0	0	0	1	0	1	2	60
9/30/2014	7	8	6	4	0	0	0	0	1	1	2	2	59
9/30/2015	3	4	2	1	0	0	0	0	0	2	2	3	58
9/30/2016				2		0		0				3	
14 Yr Totals	75	74	23	23	2	0	1	0	13	35	48	37	

* Totals are through current Plan Year only.

RECENT HISTORY OF VALUATION RESULTS							
Valuation Date	Number of		Covered Annual Payroll	Actuarial Value of Assets	UFAAL	Employer Normal Cost	
	Active Members	Inactive Members				Amount	% of Payroll
10/1/98	54	0	\$ 2,767,854	\$ 436,085	\$ 0	\$ 1,420	0.05 %
10/1/99	53	3	3,050,178	909,074	0	2,500	0.08
10/1/00	56	4	3,472,773	1,296,095	0	42,866	1.23
10/1/01	57	4	3,732,996	1,824,306	0	358,278	9.60
10/1/02	57	6	3,984,900	2,360,957	0	441,532	11.08
10/1/03	61	9	4,278,629	3,309,812	0	488,833	11.42
10/1/04	66	11	5,091,213	4,400,914	0	744,133	14.62
10/1/05	68	11	5,320,018	5,703,772	3,675,960	486,957	9.15
10/1/06	64	14	5,355,088	7,255,222	3,527,604	524,414	9.79
10/1/07	65	16	5,740,991	9,017,393	3,318,314	521,654	9.09
10/1/2007 (AIS)	65	16	5,740,991	9,017,393	4,271,543	577,058	10.05
10/1/08	66	16	6,365,246	10,682,895	5,366,586	611,486	9.61
10/1/09	67	16	6,808,421	12,548,462	5,947,362	678,462	9.97
10/1/10	65	19	6,663,025	14,625,108	5,659,823	662,950	9.95
10/1/11	65	19	6,761,983	16,807,725	6,736,711	778,420	11.51
10/1/12	63	19	6,782,023	19,111,769	7,035,237	760,736	11.22
10/1/2013 (AIS)	60	27	5,533,655	22,254,243	3,517,831	431,033	7.79
10/1/14	59	33	5,615,610	25,566,947	3,168,739	408,746	7.28
10/1/15	58	34	5,457,747	28,193,489	2,808,867	420,549	7.71

RECENT HISTORY OF REQUIRED AND ACTUAL CONTRIBUTIONS										
Valuation Date	End of Year To Which Valuation Applies	Required Contributions						Actual Contributions Credited		
		Employer & State		State Credit		Net Remaining *		Employer	State	Total
		Amount	% of Payroll	Amount	% of Payroll	Amount	% of Payroll			
NA	9/30/98	\$ -	0.00 %	\$ 0	0.00 %	\$ 0	0.00 %	\$ 0	\$ 32,525	\$ 32,525
10/1/98	9/30/99	1,497	0.05	32,525	1.17	0	0.00	0	32,525	32,525
10/1/99	9/30/00	2,636	0.09	32,525	1.07	0	0.00	0	0	0
10/1/00	9/30/01	45,199	1.30	66,797	1.92	0	0.00	34,272	99,322	133,594
10/1/01	9/30/02	377,777	10.12	32,525	0.87	345,252	9.25	300,382	32,525	332,907
10/1/02	9/30/03	465,562	11.68	32,525	0.82	433,037	10.86	397,275	68,287	465,562
10/1/03	9/30/04	515,437	12.05	32,525	0.77	482,912	11.28	477,606	96,559	574,165
10/1/04	9/30/05	764,420	15.41	158,284	3.19	606,136	12.22	593,609	158,284	751,893
10/1/05	9/30/06	729,857	13.72	158,284	2.98	571,573	10.74	571,573	158,284	729,857
10/1/05	9/30/07	773,701	13.72	158,284	2.81	615,417	10.91	615,417	158,284	773,701
10/1/06	9/30/08	839,400	14.27	158,284	2.79	651,737	11.48	681,116	158,284	839,400
10/1/07**	9/30/09	920,120	15.12	280,602	4.61	639,518	10.51	726,568	232,357	958,925
10/1/08	9/30/10	968,173	15.32	280,602	4.44	687,571	11.16	705,275	280,602	985,877
10/1/09	9/30/11	1,152,543	15.97	232,357	3.22	920,186	12.75	760,594	280,602	1,041,196
10/1/10	9/30/12	1,125,811	15.94	280,602	3.97	845,209	11.97	743,502	280,602	1,024,104
10/1/11	9/30/13	1,307,389	18.24	280,602	3.91	1,026,787	14.33	889,034	280,602	1,169,636
10/1/12	9/30/14	1,314,139	18.28	280,602	3.90	1,033,537	14.38	870,531	475,709	1,346,240
10/1/13**	9/30/15	978,388	17.00	773,092	13.43	205,296	3.57	230,420	753,636	984,056
10/1/14	9/30/16	937,659	16.06	662,963	11.35	274,696	4.71	---	---	---
10/1/15	9/30/17	934,876	16.47	456,253	8.04	478,623	8.43	---	---	---

Note: The required contribution dollar amounts shown above are estimates only. The contribution made is based on the percentage of the actual payroll amount for the fiscal year.

* To be paid by Employer

** After Plan Changes

ACTUARIAL ASSUMPTIONS AND METHODS

Valuation Methods

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

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

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

Financing of Unfunded Actuarial Accrued Liabilities - Unfunded Actuarial Accrued Liabilities (full funding credit if assets exceed liabilities) were amortized by level (principal & interest combined) dollar contributions over a reasonable period of future years.

Actuarial Value of Assets - The Actuarial Value of Assets phase in the difference between the expected actuarial value and actual market value of assets at the rate of 20% per year. The Actuarial Value of Assets will be further adjusted to the extent necessary to fall within the corridor whose lower limit is 80% of the Market Value of plan assets and whose upper limit is 120% of the Market Value of plan assets. During periods when investment performance exceeds the assumed rate, Actuarial Value of Assets will tend to be less than Market Value. During periods when investment performance is less than assumed rate, Actuarial Value of Assets will tend to be greater than Market Value.

Valuation Assumptions

The actuarial assumptions used in the valuation are shown in this Section. Both the economic and demographic decrement assumptions were established following the Experience Study Report as of June 10, 2014.

Economic Assumptions

The investment return rate assumed in the valuations is 7.80% per year, compounded annually (net after investment expenses). The investment rate is being lowered by 0.05% each year until the rate is 7.50%.

The **Wage Inflation Rate** assumed in this valuation was 3.50% per year. The Wage Inflation Rate is defined to be the portion of total pay increases for an individual that are due to macro-economic forces including productivity, price inflation, and labor market conditions. The wage inflation rate does not include pay changes related to individual merit and seniority effects.

The assumed **real rate of return** over wage inflation is defined to be the portion of total investment return that is more than the assumed wage inflation rate. Considering other economic assumptions, the 7.80% investment return rate translates to an assumed real rate of return over wage inflation of 4.30%.

The active member population is assumed to remain constant. For purposes of financing the unfunded liabilities, no payroll growth is assumed (the unfunded liability is being amortized as a level dollar amount). The short term payroll growth assumption for projecting covered payroll to the contribution year is 4.00%.

Pay increase assumptions for individual active members are shown below. Part of the assumption for each age is for merit and/or seniority increase, and 3.5% recognizes wage inflation, including price inflation, productivity increases, and other macroeconomic forces.

The rates of salary increase used for individual members are in accordance with the following table. This assumption is used to project a member's current salary to the salaries upon which benefits will be based.

% Increase in Salary -- Firefighters			
Years of Service	Merit and Seniority	Base Wage Inflation	Total Increase
1-5	5.75%	3.50%	9.25%
6-9	3.00%	3.50%	6.50%
10-13	1.60%	3.50%	5.10%
14+	0.50%	3.50%	4.00%

% Increase in Salary -- Police Officers			
Years of Service	Merit and Seniority	Base Wage Inflation	Total Increase
1-5	4.25%	3.50%	7.75%
6-8	2.50%	3.50%	6.00%
9-12	1.50%	3.50%	5.00%
13+	0.00%	3.50%	3.50%

Demographic Assumptions

The mortality table was a blend of 60% of the 1983 Group Annuity Mortality table for Males and Females and 40% of the RP-2000 Combined Healthy Participant Mortality Tables for males and females with a provision for projecting future mortality improvements to all future years from the year 2000 using Scale BB. Below are samples of the two tables, respectively.

1983 Group Annuity Mortality (60% this year)

Sample Attained Ages	Probability of Dying Next Year		Future Life Expectancy (years)	
	Men	Women	Men	Women
	50	0.39 %	0.16 %	29.23
55	0.61	0.25	24.87	30.28
60	0.92	0.42	20.68	25.71
65	1.56	0.71	16.73	21.33
70	2.75	1.24	13.22	17.17
75	4.46	2.40	10.20	13.42
80	7.41	4.29	7.68	10.24

**RP 2000 Combined Healthy Participant with Mortality Improvement Projected Using Scale BB
(40% this year)**

Sample Attained Ages (in 2015)	Probability of Dying Next Year		Future Life Expectancy (years)	
	Men	Women	Men	Women
50	0.20 %	0.16 %	35.47	37.90
55	0.35	0.25	30.34	32.75
60	0.61	0.43	25.40	27.73
65	1.06	0.81	20.73	22.97
70	1.77	1.40	16.42	18.57
75	3.02	2.35	12.54	14.60
80	5.13	3.83	9.21	11.10

This assumption is used to measure the probabilities of each benefit payment being made after retirement. For active members, the probabilities of dying before retirement were based upon the same mortality table as members dying after retirement.

For disabled retirees, the regular mortality tables are set forward 5 years in ages to reflect impaired longevity.

The rate of retirement is 100% in the first year of eligibility for normal retirement for the 52 & 25 and Rule of 75 retirement eligibility conditions. The rates of retirement for each year of eligibility for normal retirement under the 55 & 10 eligibility condition are as follows:

Firefighters: 55 & 10

Number of Years After First Eligibility for Normal Retirement	Probability of Normal Retirement
0	20 %
1	15 %
2-3	30 %
4-6	20 %
Over 6	100 %

Police Officers: 55 & 10

Number of Years After First Eligibility for Normal Retirement	Probability of Normal Retirement
0-1	20 %
2-6	10 %
Over 6	100 %

Rates of retirement for each year of eligibility for early retirement are as follows:

Number of Years After First Eligibility for Early Retirement	Probability of Early Retirement
0	10.00 %
1	10.00 %
2	0.90 %
3	0.75 %
4	0.60 %

Rates of separation from active membership were as shown below (rates do not apply to members eligible to retire and do not include separation on account of death or disability). This assumption measures the probabilities of members separating from employment for reasons other than death, disability, or retirement.

Firefighters

Years of Service	% of Active Members Separating Within Next Year
Less Than 3	15.0 %
3-9	5.5
10 or more	1.0

Police Officers

Years of Service	% of Active Members Separating Within Next Year
Less Than 3	17.0 %
3	14.0
4-9	3.0
10 or more	0.5

Rates of disability among active members. (75% of future disability retirements are assumed to be service-connected.)

Sample Ages	% Becoming Disabled within Next Year
20	0.14 %
25	0.15
30	0.18
35	0.23
40	0.30
45	0.51
50	1.00
55	1.55

Miscellaneous and Technical Assumptions

<i>Administrative & Investment Expenses</i>	The investment return assumption is intended to be the return net of investment expenses. Annual administrative expenses are assumed to be equal to the average of the expenses over the previous 2 years. Assumed administrative expenses are added to the Normal Cost.
<i>Benefit Service</i>	Exact fractional service is used to determine the amount of benefit payable.
<i>Decrement Operation</i>	Disability and mortality decrements operate during retirement eligibility.
<i>Decrement Timing</i>	Decrements of all types are assumed to occur at the beginning of the year.
<i>Eligibility Testing</i>	Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
<i>Forfeitures</i>	For vested separations from service, it is assumed that 0% of members separating will withdraw their contributions and forfeit an employer financed benefit. It was further assumed that the liability at termination is the greater of the vested deferred benefit (if any) or the member's accumulated contributions.
<i>Incidence of Contributions</i>	Contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report, and the actual payroll payable at the time contributions are made.
<i>Marriage Assumption</i>	100% of males and 100% of females are assumed to be married for purposes of death-in-service benefits. Male spouses are assumed to be three years older than female spouses for active member valuation purposes.
<i>Normal Form of Benefit</i>	A ten-year certain and life benefit is the normal form of benefit.
<i>Pay Increase Timing</i>	Middle of fiscal year. This is equivalent to assuming that reported pays represent amounts paid to members during the year ended on the valuation date.
<i>Service Credit Accruals</i>	It is assumed that members accrue one year of service credit per year.

GLOSSARY

<i>Actuarial Accrued Liability (AAL)</i>	The difference between the Actuarial Present Value of Future Benefits, and the Actuarial Present Value of Future Normal Costs.
<i>Actuarial Assumptions</i>	Assumptions about future plan experience that affect costs or liabilities, such as: mortality, withdrawal, disablement, and retirement; future increases in salary; future rates of investment earnings; future investment and administrative expenses; characteristics of members not specified in the data, such as marital status; characteristics of future members; future elections made by members; and other items.
<i>Actuarial Cost Method</i>	A procedure for allocating the Actuarial Present Value of Future Benefits between the Actuarial Present Value of Future Normal Costs and the Actuarial Accrued Liability.
<i>Actuarial Equivalent</i>	Of equal Actuarial Present Value, determined as of a given date and based on a given set of Actuarial Assumptions.
<i>Actuarial Present Value (APV)</i>	The amount of funds required to provide a payment or series of payments in the future. It is determined by discounting the future payments with an assumed interest rate and with the assumed probability each payment will be made.
<i>Actuarial Present Value of Future Benefits (APVFB)</i>	The Actuarial Present Value of amounts which are expected to be paid at various future times to active members, retired members, beneficiaries receiving benefits, and inactive, nonretired members entitled to either a refund or a future retirement benefit. Expressed another way, it is the value that would have to be invested on the valuation date so that the amount invested plus investment earnings would provide sufficient assets to pay all projected benefits and expenses when due.
<i>Actuarial Valuation</i>	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 plan. An Actuarial Valuation for a governmental retirement system typically also includes calculations of items needed for compliance with GASB No. 67.
<i>Actuarial Value of Assets</i>	The value of the assets as of a given date, used by the actuary for valuation purposes. This may be the market or fair value of plan assets or a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the actuarially required contribution.

<i>Amortization Method</i>	A method for determining the Amortization Payment. The most common methods used are level dollar and level percentage of payroll. Under the Level Dollar method, the Amortization Payment is one of a stream of payments, all equal, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the Amortization Payment is one of a stream of increasing payments, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the stream of payments increases at the rate at which total covered payroll of all active members is assumed to increase.
<i>Amortization Payment</i>	That portion of the plan contribution which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.
<i>Amortization Period</i>	The period used in calculating the Amortization Payment.
<i>Actuarially Determined Contribution</i>	The employer's periodic required contributions, expressed as a dollar amount or a percentage of covered plan compensation. The required contribution consists of the Employer Normal Cost and Amortization Payment.
<i>Closed Amortization Period</i>	A specific number of years that is reduced by one each year, and declines to zero with the passage of time. For example if the amortization period is initially set at 30 years, it is 29 years at the end of one year, 28 years at the end of two years, etc.
<i>Employer Normal Cost</i>	The portion of the Normal Cost to be paid by the employer. This is equal to the Normal Cost less expected member contributions.
<i>Equivalent Single Amortization Period</i>	For plans that do not establish separate amortization bases (separate components of the UAAL), this is the same as the Amortization Period. For plans that do establish separate amortization bases, this is the period over which the UAAL would be amortized if all amortization bases were combined upon the current UAAL payment.
<i>Experience Gain/Loss</i>	A measure of the difference between actual experience and that expected based upon a set of Actuarial Assumptions, during the period between two actuarial valuations. To the extent that actual experience differs from that assumed, Unfunded Actuarial Accrued Liabilities emerge which may be larger or smaller than projected. Gains are due to favorable experience, e.g., the assets earn more than projected, salaries do not increase as fast as assumed, members retire later than assumed, etc. Favorable experience means actual results produce actuarial liabilities not as large as projected by the actuarial assumptions. On the other hand, losses are the result of unfavorable experience, i.e., actual results that produce Unfunded Actuarial Accrued Liabilities which are larger than projected.

<i>Funded Ratio</i>	The ratio of the Actuarial Value of Assets to the Actuarial Accrued Liability.
<i>GASB</i>	Governmental Accounting Standards Board.
<i>GASB No. 67 and GASB No. 68</i>	These are the governmental accounting standards that set the accounting rules for public retirement systems and the employers that sponsor or contribute to them. Statement No. 68 sets the accounting rules for the employers that sponsor or contribute to public retirement systems, while Statement No. 67 sets the rules for the systems themselves.
<i>Normal Cost</i>	The annual cost assigned, under the Actuarial Cost Method, to the current plan year.
<i>Open Amortization Period</i>	An open amortization period is one which is used to determine the Amortization Payment but which does not change over time. In other words, if the initial period is set as 30 years, the same 30-year period is used in determining the Amortization Period each year. In theory, if an Open Amortization Period is used to amortize the Unfunded Actuarial Accrued Liability, the UAAL will never completely disappear, but will become smaller each year, either as a dollar amount or in relation to covered payroll.
<i>Unfunded Actuarial Accrued Liability</i>	The difference between the Actuarial Accrued Liability and Actuarial Value of Assets.
<i>Valuation Date</i>	The date as of which the Actuarial Present Value of Future Benefits are determined. The benefits expected to be paid in the future are discounted to this date.

SECTION C
PENSION FUND INFORMATION

Statement of Plan Assets at Market Value

<u>Item</u>	<u>September 30</u>	
	<u>2015</u>	<u>2014</u>
A. Cash and Cash Equivalents (Operating Cash)	\$ -	\$ -
B. Receivables:		
1. Member Contributions	\$ -	\$ -
2. Employer Contributions	-	-
3. State Contributions	456,253	76,284
4. Investment Income and Other Receivables	23,542	-
5. Prepaid Expenses	-	-
6. Total Receivables	<u>\$ 479,795</u>	<u>\$ 76,284</u>
C. Investments		
1. Short Term Investments	\$ 220,175	\$ 916,319
2. Domestic Equities	14,271,829	15,342,496
3. International Equities	2,936,440	2,424,675
4. Domestic Fixed Income	8,410,424	7,297,713
5. International Fixed Income	813,100	836,703
6. Real Estate	816,767	-
7. Private Equity	-	690,604
8. ICMA (DROP Accounts)	708,987	522,942
9. Total Investments	<u>\$ 28,177,722</u>	<u>\$ 28,031,452</u>
D. Liabilities		
1. Prepaid Village Contribution	\$ (152,761)	\$ (30,326)
2. Benefits/Refunds Payable	-	-
3. Accrued Expenses and Other Payables	<u>(23,284)</u>	<u>(27,284)</u>
4. Total Liabilities	<u>\$ (176,045)</u>	<u>\$ (57,610)</u>
E. Total Market Value of Assets Available for Benefits	\$ 28,481,472	\$ 28,050,126
F. Reserves		
1. State Contribution Reserve	\$ -	\$ (504,093)
2. Prepaid Contribution from State Reserve	(206,710)	-
3. Share Plan	-	-
4. DROP Accounts	<u>(708,987)</u>	<u>(522,942)</u>
5. Total Reserves	<u>\$ (915,697)</u>	<u>\$ (1,027,035)</u>
G. Market Value Net of Reserves	\$ 27,565,775	\$ 27,023,091
H. Allocation of Investments (Excluding ICMA DROP Accounts)		
1. Short Term Investments	0.8%	3.3%
2. Domestic Equities	52.0%	55.8%
3. International Equities	10.7%	8.8%
4. Domestic Fixed Income	30.6%	26.5%
5. International Fixed Income	3.0%	3.1%
6. Real Estate	2.9%	0.0%
7. Private Equity	<u>0.0%</u>	<u>2.5%</u>
8. Total Investments	<u>100.0%</u>	<u>100.0%</u>

Reconciliation of Plan Assets

Item	September 30	
	2015	2014
A. Market Value of Assets at Beginning of Year	\$ 28,050,126	\$ 24,135,259
B. Revenues and Expenditures		
1. Contributions		
a. Employee Contributions	\$ 579,425	\$ 635,645
b. Employer Contributions (recognized)	230,420	870,531
c. State Contributions	456,253	475,709
d. Buyback	-	3,833
e. Total	\$ 1,266,098	\$ 1,985,718
2. Investment Income		
a. Interest, Dividends, and Other Income	\$ 1,231,583	\$ 676,213
b. Earnings on ICMA DROP Accounts	(25,138)	11,613
c. Net Realized Gains/(Losses)	1,040,467	250,866
d. Net Unrealized Gains/(Losses)	(2,235,372)	1,691,662
e. Investment Expenses	(98,428)	(58,449)
f. Net Investment Income	\$ (86,888)	\$ 2,571,905
3. Benefits and Refunds		
a. Refunds	\$ (8,759)	\$ (99,486)
b. Regular Monthly Benefits	(434,224)	(335,618)
c. DROP Plan Payments	(219,274)	(52,470)
d. Contributions to Share Plan	-	(68,553)
e. Total	\$ (662,257)	\$ (556,127)
4. Administrative and Miscellaneous Expenses	\$ (85,607)	\$ (86,629)
C. Market Value of Assets at End of Year	\$ 28,481,472	\$ 28,050,126
D. Reserves		
1. State Contribution Reserve	\$ -	\$ (504,093)
2. Prepaid Contribution from State Reserve	(206,710)	-
3. Share Plan	-	-
4. DROP Accounts	(708,987)	(522,942)
5. Total Reserves	\$ (915,697)	\$ (1,027,035)
E. Market Value Net of Reserves	\$ 27,565,775	\$ 27,023,091

ACTUARIAL VALUE OF ASSETS

	Year Ending September 30					
	2014	2015	2016	2017	2018	2019
A. Beginning of Year Assets						
1. Market Value	\$ 24,135,259	\$ 28,050,126	\$ -	\$ -	\$ -	\$ -
2. Actuarial Value	23,054,700	26,593,982	-	-	-	-
B. Net of Contributions						
Less Disbursements	1,342,962	518,234	-	-	-	-
C. Actual Net Investment Earnings	2,571,905	(86,888)	-	-	-	-
D. Expected Investment Earnings	1,874,368	2,107,968	-	-	-	-
E. Excess of Actual Over Expected Investment Earnings: C - D	697,537	(2,194,856)	-	-	-	-
F. Recognition of Excess Earnings Over 5 Years						
1. From This Year	139,507	(438,971)	-	-	-	-
2. From One Year Ago	220,061	139,507	(438,971)	-	-	-
3. From Two Years Ago	269,526	220,061	139,507	(438,971)	-	-
4. From Three Years Ago	(301,121)	269,526	220,061	139,507	(438,971)	-
5. From Four Years Ago	(6,021)	(301,121)	269,526	220,061	139,509	(438,972)
6. Total	321,952	(110,998)	190,123	(79,403)	(299,462)	(438,972)
G. End of Year Assets						
1. Market Value	28,050,126	28,481,472	-	-	-	-
2. Actuarial Value:						
A2 + B + D + F6	26,593,982	29,109,186	-	-	-	-
3. Final Actuarial Value Within 80% to 120% Of Market Value	26,593,982	29,109,186	-	-	-	-
4. Less: State and DROP Reserves	1,027,035	915,697	-	-	-	-
5. Final Actuarial Value	25,566,947	28,193,489	-	-	-	-

ASSET ALLOCATION			
A. Valuation Date	October 1, 2015		
	<i>Total</i>	<i>Firefighters</i>	<i>Police Officers</i>
B. Net Market Value of Assets as of October 1, 2014	27,023,091	16,700,694	10,322,397
C. Contributions (All)	1,563,481	894,244	669,237
D. Investment Return	(61,750)	(38,122)	(23,628)
E. Benefit Payments (All)	(873,440)	(461,185)	(412,255)
F. Expenses	<u>(85,607)</u>	<u>(52,849)</u>	<u>(32,758)</u>
G. Net Market Value of Assets as of October 1, 2015	27,565,775	17,042,782	10,522,993
H. Actuarial Value of Assets as of October 1, 2015	28,193,489	17,430,872	10,762,617

RECONCILIATION OF DROP ACCOUNTS			
	Total	Firefighters	Police Officers
Value at beginning of year	\$ 522,942	\$ 317,502	\$ 205,440
Payments credited to accounts	430,457	249,696	180,761
Investment Earnings credited	(25,138)	(16,649)	(8,489)
Withdrawals from accounts	<u>(219,274)</u>	<u>(219,274)</u>	<u>0</u>
Value at end of year	708,987	331,275	377,712

INVESTMENT RATE OF RETURN

The investment rate of return has been calculated on the following bases:

- Basis 1** - Interest, dividends, realized gains (losses) and unrealized appreciation (depreciation) divided by the weighted average of the market value of the fund during the year. This figure is normally called the Total Rate of Return.
- Basis 2** - Investment earnings recognized in the Actuarial Value of Assets divided by the weighted average of the Actuarial Value of Assets during the year.
- Basis 3** - Actual return on the market value of assets including interest, dividends, realized gains (losses) and unrealized appreciation (depreciation) divided by the Actuarial Value of Assets as of the beginning of the year adjusted for non-investment related cash flows.

Year Ended	Investment Rate of Return		
	Basis 1 *	Basis 2	Basis 3
9/30/98	5.6	4.6	4.6 %
9/30/99	9.7	9.2	9.2
9/30/00	8.1	7.1	7.1
9/30/01	(24.4)	(25.1)	(25.1)
9/30/02	(11.7)	(5.0)	(10.7)
9/30/03	14.3	2.7	11.4
9/30/04	8.9	4.3	8.0
9/30/05	9.3	5.5	9.2
9/30/06	7.6	7.2	7.7
9/30/07	13.4	9.5	13.7
9/30/08	(11.8)	5.0	(12.3)
9/30/09	4.1	4.7	3.7
9/30/10	9.2	5.0	8.3
9/30/11	(1.1)	4.9	(1.1)
9/30/12	17.3	4.7	15.4
9/30/13	13.3	8.3	13.3
9/30/14	10.4	9.3	10.8
9/30/15	(0.3)	7.4	(0.3)
Average Compounded Rate of Return for Number of Years Shown	4.0 %	3.5 %	3.5 %
Average Compounded Rate of Return for Last 5 Years	7.7 %	6.9 %	7.4 %

* Net rates after 2004.

SECTION D
FINANCIAL ACCOUNTING INFORMATION

FASB NO. 35 INFORMATION		
A. Valuation Date	October 1, 2015	October 1, 2014
B. Actuarial Present Value of Accumulated Plan Benefits		
1. Vested Benefits		
a. Members Currently Receiving Payments	\$ 10,224,792	\$ 8,625,373
b. Terminated Vested Members	1,465,161	1,779,447
c. Other Members	<u>18,763,428</u>	<u>17,890,866</u>
d. Total	30,453,381	28,295,686
2. Non-Vested Benefits	316,783	285,375
3. Total Actuarial Present Value of Accumulated Plan Benefits: 1d + 2	30,770,164	28,581,061
4. Accumulated Contributions of Active Members	5,812,527	5,574,832
C. Changes in the Actuarial Present Value of Accumulated Plan Benefits		
1. Total Value at Beginning of Year	28,581,061	25,094,398
2. Increase (Decrease) During the Period Attributable to:		
a. Plan Amendment	-	-
b. Change in Actuarial Assumptions*	344,192	568,889
c. Latest Member Data, Benefits Accumulated and Decrease in the Discount Period	2,718,351	3,694,746
d. Benefits Paid (net basis)	<u>(873,440)</u>	<u>(776,972)</u>
e. Net Increase	2,189,103	3,486,663
3. Total Value at End of Period	30,770,164	28,581,061
D. Market Value of Assets	27,565,775	27,023,091
E. Actuarial Assumptions - See page entitled Actuarial Assumptions and Methods		

**Including effect of experience study assumption changes*

**SCHEDULE OF CHANGES IN THE EMPLOYER'S
NET PENSION LIABILITY AND RELATED RATIOS
GASB Statement No. 67**

Fiscal year ending September 30,	2016*	2015	2014
Total pension liability			
Service Cost	\$ 892,483	\$ 905,151	\$ 1,325,960
Interest	2,636,774	2,423,657	2,505,808
Benefit Changes	-	-	(4,253,914)
Difference between actual & expected experience	(678,816)	413,544	(40,185)
Assumption Changes	368,994	351,602	(96,578)
Benefit Payments	(1,067,867)	(653,498)	(447,084)
Refunds	(17,127)	(8,759)	(99,486)
Other (release of excess state reserves)	(206,710)	(297,383)	-
Net Change in Total Pension Liability	1,927,731	3,134,314	(1,105,479)
Total Pension Liability - Beginning	33,239,492	30,105,178	31,210,657
Total Pension Liability - Ending (a)	\$ 35,167,223	\$ 33,239,492	\$ 30,105,178
Plan Fiduciary Net Position			
Contributions - Employer (from Village)	\$ 121,935	\$ 383,181	\$ 844,637
Contributions - Employer (from State)	456,253	456,253	475,709
Contributions - Non-Employer Contributing Entity	-	-	-
Contributions - Member	573,063	579,425	639,478
Net Investment Income	2,298,030	(103,179)	2,632,785
Benefit Payments	(1,067,867)	(653,498)	(447,084)
Refunds	(17,127)	(8,759)	(99,486)
Administrative Expense	(86,119)	(85,607)	(86,629)
Other	-	-	-
Net Change in Plan Fiduciary Net Position	2,278,168	567,816	3,959,410
Plan Fiduciary Net Position - Beginning	29,642,944	29,075,128	25,115,718
Plan Fiduciary Net Position - Ending (b)	\$ 31,921,112	\$ 29,642,944	\$ 29,075,128
Net Pension Liability - Ending (a) - (b)	3,246,111	3,596,548	1,030,050
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	90.77 %	89.18 %	96.58 %
Covered Employee Payroll	\$ 5,500,000	\$ 7,830,225	\$ 7,905,232
Net Pension Liability as a Percentage of Covered Employee Payroll	59.02 %	45.93 %	13.03 %

*** These figures are estimates only. Actual figures will be provided after the end of the fiscal year.**

SCHEDULE OF THE EMPLOYER'S NET PENSION LIABILITY
GASB Statement No. 67

FY Ending September 30,	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability	Plan Fiduciary Net Position as a % of Total Pension Liability	Covered Employee Payroll	Net Pension Liability as a % of Covered Employee Payroll
2014	\$ 30,105,178	\$ 29,075,128	\$ 1,030,050	96.58%	\$ 7,905,232	13.03%
2015	33,239,492	29,642,944	3,596,548	89.18%	7,830,225	45.93%
2016*	35,167,223	31,921,112	3,246,111	90.77%	5,500,000	59.02%

*** These figures are estimates only. Actual figures will be provided after the end of the fiscal year.**

NOTES TO SCHEDULE OF THE EMPLOYER'S NET PENSION LIABILITY
GASB Statement No. 67

Valuation Date: October 1, 2015
Measurement Date: September 30, 2016

Methods and Assumptions Used to Determine Contribution Rates:

Actuarial Cost Method	Entry Age Normal
Inflation	3.5%
Salary Increases	3.5% to 9.25% depending on age, including inflation
Investment Rate of Return	7.80%
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition.
Mortality	40% RP-2000 Combined Healthy Participant Mortality Table for males and females with mortality improvement projected to all future years after 2000 using Scale BB; 60% 1983 Group Annuity Mortality Table for males and females.

Other Information:

Notes See Discussion of Valuation Results in Section A.

SCHEDULE OF CONTRIBUTIONS
GASB Statement No. 67

<u>FY Ending</u> <u>September 30,</u>	<u>Actuarially</u> <u>Determined</u> <u>Contribution</u>	<u>Actual</u> <u>Contribution</u>	<u>Contribution</u> <u>Deficiency</u> <u>(Excess)</u>	<u>Covered</u> <u>Employee</u> <u>Payroll</u>	<u>Actual Contribution</u> <u>as a % of Covered</u> <u>Employee Payroll</u>
2014	\$ 1,106,628	\$ 1,320,346	\$ (213,718)	\$ 7,905,232	16.70%
2015	934,532	839,434 *	95,098	7,830,225	10.72%
2016**	937,659	578,188 *	359,471	5,500,000	10.51%

* The contribution deficiencies for the fiscal years ending September 30, 2015 and September 30, 2016 were made up by the release of excess State contribution reserve funds and the use of prepaid employer contributions.

** These figures are estimates only. Actual figures will be provided after the end of the fiscal year.

NOTES TO SCHEDULE OF CONTRIBUTIONS
GASB Statement No. 67

Valuation Date: October 1, 2014
Notes Actuarially determined contribution rates are calculated as of October 1, which is two year(s) prior to the end of the fiscal year in which contributions are reported.

Methods and Assumptions Used to Determine Contribution Rates:

Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Dollar, Closed
Remaining Amortization Period	11 years (single equivalent period)
Asset Valuation Method	5-year smoothed market
Inflation	3.5%
Salary Increases	3.5% to 9.25% depending on age, including inflation
Investment Rate of Return	7.85%
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition
Mortality	30% RP-2000 Combined Healthy Participant Mortality Table for males and females with mortality improvement projected to all future years after 2000 using Scale BB; 70% 1983 Group Annuity Mortality Table for males and females

Other Information:

Notes See Discussion of Valuation Results in the October 1, 2014 Valuation Report.

SINGLE DISCOUNT RATE
GASB Statement No. 67

A single discount rate of 7.80% was used to measure the total pension liability. This single discount rate was based on the expected rate of return on pension plan investments of 7.80%. The projection of cash flows used to determine this single discount rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the difference between the total actuarially determined contribution rates and the member rate. Based on these assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments (7.80%) was applied to all periods of projected benefit payments to determine the total pension liability.

Regarding the sensitivity of the net pension liability to changes in the single discount rate, the following presents the plan's net pension liability, calculated using a single discount rate of 7.80%, as well as what the plan's net pension liability would be if it were calculated using a single discount rate that is 1-percentage-point lower or 1-percentage-point higher:

Sensitivity of the Net Pension Liability to the Single Discount Rate Assumption*

1% Decrease 6.80%	Current Single Discount Rate Assumption 7.80%	1% Increase 8.80%
\$ 6,977,547	\$ 3,246,111	\$ 91,536

*** These figures are estimates only. Actual figures will be provided after the end of the fiscal year.**

SECTION E
MISCELLANEOUS INFORMATION

RECONCILIATION OF MEMBERSHIP DATA		
	From10/01/14 To 10/01/15	From10/01/13 To 10/01/14
A. Active Members		
1. Number Included in Last Valuation	59	60
2. New Members Included in Current Valuation	3	7
3. Non-Vested Employment Terminations	(2)	(1)
4. Vested Employment Terminations	0	(1)
5. Service Retirements	(1)	(1)
6. DROP Retirements	(1)	(5)
7. Disability Retirements	0	0
8. Deaths	0	0
9. Number Included in This Valuation	<u>58</u>	<u>59</u>
B. Terminated Vested Members		
1. Number Included in Last Valuation	5	5
2. Additions from Active Members	0	1
3. Lump Sum Payments/Refund of Contributions	0	(1)
4. Payments Commenced	(1)	0
5. Deaths	0	0
6. Other--Return to Actives	0	0
7. Number Included in This Valuation	<u>4</u>	<u>5</u>
C. DROP Participants		
1. Number Included in Last Valuation	11	8
2. Additions from Active Members	1	5
3. Payments Commenced	(2)	(2)
4. Deaths	0	0
5. Other-Data Correction	0	0
6. Number Included in This Valuation	<u>10</u>	<u>11</u>
D. Service Retirees, Disability Retirees and Beneficiaries		
1. Number Included in Last Valuation	17	14
2. Additions from Active Members	1	1
3. Additions from Terminated Vested Members	1	0
4. Additions From DROP Members	2	2
5. Deaths Resulting in No Further Payments	(1)	0
6. Deaths Resulting in New Survivor Benefits	0	0
7. End of Certain Period - No Further Payments	0	0
8. Other-Data Correction	0	0
9. Number Included in This Valuation	<u>20</u>	<u>17</u>

SCHEDULE OF ACTIVE PARTICIPANTS DATA

Years of Service to Valuation Date										
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20 & Up	Totals
Age Group										
15-24 NO.	1	0	1	0	0	0	0	0	0	2
TOT PAY	56,730	0	55,873	0	0	0	0	0	0	112,603
AVG PAY	56,730	0	55,873	0	0	0	0	0	0	56,302
25-29 NO.	0	3	0	1	0	0	0	0	0	4
TOT PAY	0	174,925	0	63,275	0	0	0	0	0	238,200
AVG PAY	0	58,308	0	63,275	0	0	0	0	0	59,550
30-34 NO.	1	0	0	0	0	7	1	0	0	9
TOT PAY	55,078	0	0	0	0	550,295	93,487	0	0	698,860
AVG PAY	55,078	0	0	0	0	78,614	93,487	0	0	77,651
35-39 NO.	0	0	0	0	0	5	2	0	0	7
TOT PAY	0	0	0	0	0	434,065	227,634	0	0	661,699
AVG PAY	0	0	0	0	0	86,813	113,817	0	0	94,528
40-44 NO.	0	0	0	0	0	2	2	0	2	6
TOT PAY	0	0	0	0	0	122,394	169,799	0	335,652	627,845
AVG PAY	0	0	0	0	0	61,197	84,900	0	167,826	104,641
45-49 NO.	1	1	0	1	0	2	0	2	7	14
TOT PAY	52,455	55,187	0	64,597	0	150,646	0	215,046	799,882	1,337,813
AVG PAY	52,455	55,187	0	64,597	0	75,323	0	107,523	114,269	95,558
50-54 NO.	0	1	1	0	0	1	3	0	7	13
TOT PAY	0	53,443	61,583	0	0	85,157	257,142	0	885,544	1,342,869
AVG PAY	0	53,443	61,583	0	0	85,157	85,714	0	126,506	103,298
55-59 NO.	0	0	0	0	0	0	2	0	1	3
TOT PAY	0	0	0	0	0	0	180,816	0	125,480	306,296
AVG PAY	0	0	0	0	0	0	90,408	0	125,480	102,099
60 & Up	0	0	0	0	0	0	0	0	0	0
TOT PAY	0	0	0	0	0	0	0	0	0	0
AVG PAY	0	0	0	0	0	0	0	0	0	0
TOT NO.	3	5	2	2	0	17	10	2	17	58
TOT AMT	164,263	283,555	117,456	127,872	0	1,342,557	928,878	215,046	2,146,558	5,326,185
AVG AMT	54,754	56,711	58,728	63,936	0	78,974	92,888	107,523	126,268	91,831

SCHEDULE OF NON-ACTIVE PARTICIPANTS DATA								
Age	Vested		Disabled		Retired		Other	
	Nbr	Benefits	Nbr	Benefits	Nbr	Benefits	Nbr	Benefits
Under 20								
20 - 24								
25 - 29								
30 - 34								
35 - 39								
40 - 44								
45 - 49	2	37,620	1	69,467				
50 - 54	1	23,229			1	84,360		
55 - 59			1	66,723	7	264,514		
60 - 64	1	109,500			9	261,789		
65 - 69					5	109,032		
70 - 74					4	64,794		
75 - 79					1	20,847		
80 - 84					1	8,916		
85 - 89								
90 - 94								
95 - 99								
100 & Over								
Total	4	170,349	2	136,190	28	814,252	0	0
Average Age		53		51		64		

SECTION F
SUMMARY OF PLAN PROVISIONS

VILLAGE OF KEY BISCAYNE POLICE OFFICERS AND FIREFIGHTERS RETIREMENT PLAN

SUMMARY OF PLAN PROVISIONS

A. Ordinances

Plan established under the Code of Ordinances for the Village of Key Biscayne, Florida, Chapter 23, Article II, and was most recently amended under Ordinance No. 2015-2 passed and adopted on April 14, 2015. The Plan is also governed by certain provisions of Chapters 175 and 185, Florida Statutes, Part VII, Chapter 112, Florida Statutes (F.S.) and the Internal Revenue Code.

B. Effective Date

October 1, 1997

C. Plan Year

October 1 through September 30

D. Type of Plan

Qualified, governmental defined benefit retirement plan; for GASB purposes it is a single employer plan.

E. Eligibility Requirements

All full-time police officers and firefighters employed on the Effective Date made an irrevocable election of whether or not to become members. All those hired after the Effective Date become members as a condition of employment.

F. Credited Service

Service is measured as the total number of years and fractional parts of years of employment as a police officer or firefighter while making member contributions. No credit is permitted for service prior to August 1, 1993. In addition, no service is credited for any periods of employment for which the member received a refund of employee contributions.

G. Compensation/Salary

Base pay plus any educational incentives mandated by the State of Florida.

H. Average Final Compensation (AFC)

The average of Compensation over the highest 5 years out of the last 10 years of Credited Service immediately preceding retirement or termination. Lump sum payments of unused leave pay are not included.

I. Normal Retirement

Eligibility: A member may retire on the first day of the month coincident with or next following the earlier of:

- (1) age 55 with 10 years of Credited Service, or
- (2) age 52 with 25 years of Credited Service.
- (3) When the sum of age and Credited Service is equal to 75 years.

Benefit: Police Officers: for service credited through August 25, 2014, 3.0% of AFC multiplied by years of Credited Service; for service after this date, 2.75% of AFC multiplied by years of Credited Service.

For Firefighters: for service credited through March 10, 2014, 3.0% of AFC for the first 15 years and 4.0% of AFC in excess of 15 years; for service after this date, 2.75% of AFC multiplied by years of Credited Service.

The maximum benefit shall be the lesser of \$90,000 or 90% of AFC. The cap for employees who have reached the 90% of \$90,000 cap prior to the effective date is the accrued benefit as of March 10, 2014 for Firefighters and as of August 25, 2014 for Police Officers. Irrespective of this benefit cap, the minimum benefit for all members shall be no less than 2.0% of AFC multiplied by all years of Credited Service.

Benefits for Firefighters who had attained eligibility for Normal Retirement as of March 11, 2014 and for Police Officers who attained eligibility for Normal Retirement as of August 26, 2014 are not affected by the above reductions.

Normal Form of Benefit: 10 Years Certain and Life thereafter; other options are also available.

COLA: None

Supplemental Benefit: Retired members, or their beneficiaries, will be paid their accumulated account balance from the Share Plan in the form of a lump sum upon retirement, disability, or death.

J. Early Retirement

Eligibility: A member may elect to retire earlier than the Normal Retirement Eligibility upon attainment of age 50 with 5 years of Credited Service and approval of the City.

Benefit: The Normal Retirement Benefit is reduced by 3.0% for each year by which the Early Retirement date precedes what would have been the member's Normal Retirement date if the member had remained employed.

Normal Form of Benefit: 10 Years Certain and Life thereafter; other options are also available.

COLA: None

Supplemental

Benefit: Retired members, or their beneficiaries, will be paid their accumulated account balance from the Share Plan in the form of a lump sum upon retirement, disability, or death.

K. Delayed Retirement

Same as Normal Retirement taking into account compensation earned and service credited until the date of actual retirement.

L. Service Connected Disability

Eligibility: Any member who becomes totally and permanently disabled and unable to render useful and efficient service to the City as a result of an act occurring in the performance of service for the City is immediately eligible for a disability benefit.

Benefit: Accrued Normal Retirement Benefit taking into account compensation earned and service credited until the date of disability with a minimum benefit of 70% of AFC (subject to the \$90,000 maximum benefit cap).

Normal Form: 10 Years Certain and Life thereafter.

COLA: None

Supplemental

Benefit: Retired members, or their beneficiaries, will be paid their accumulated account balance from the Share Plan in the form of a lump sum upon retirement, disability, or death.

M. Non-Service Connected Disability

Eligibility: Any member with 5 or more years of Credited Service who becomes totally and permanently disabled and unable to render useful and efficient service to the City is immediately eligible for a disability benefit.

Benefit: Accrued Normal Retirement Benefit taking into account compensation earned and service credited until the date of disability with a minimum benefit of 50% of AFC (subject to the \$90,000 maximum benefit cap).

Normal Form: 10 Years Certain and Life thereafter.

COLA: None

Supplemental

Benefit: Retired members, or their beneficiaries, will be paid their accumulated account balance from the Share Plan in the form of a lump sum upon retirement, disability, or death.

N. Death in the Line of Duty

Eligibility: Members who have not reached Normal Retirement are eligible for survivor benefits after the completion of 10 or more years of Credited Service.

Benefit: The survivor benefit payable to the designated beneficiary is a monthly benefit which can be derived from the single sum value of the member's deferred Normal Retirement Benefit accrued as of the date of death.

Normal Form of Benefit: Payable for the life of the beneficiary; with 10 years guaranteed.

COLA: None

The beneficiary of a member with less than 10 years of Credited Service who had not reached Normal Retirement at the time of death will receive a refund of the member's accumulated contributions without interest.

The beneficiary of a member who dies while employed beyond their Normal Retirement date will be paid the member's monthly accrued Normal Retirement benefit as of the date of death. The benefit is payable for 10 years.

Supplemental Benefit: Beneficiaries of all vested members who die prior to retirement will be paid the member's accumulated account balance from the Share Plan in the form of a lump sum.

O. Other Pre-Retirement Death

Eligibility: Members who have not reached Normal Retirement are eligible for survivor benefits after the completion of 10 or more years of Credited Service.

Benefit: The survivor benefit payable to the designated beneficiary is a monthly benefit which can be derived from the single sum value of the member's deferred Normal Retirement Benefit accrued as of the date of death.

Normal Form of Benefit: Payable for the life of the beneficiary; with 10 years guaranteed.

COLA: None

The beneficiary of a member with less than 10 years of Credited Service who had not reached Normal Retirement at the time of death will receive a refund of the member's accumulated contributions without interest.

The beneficiary of a member who dies while employed beyond their Normal Retirement date will be paid the member's monthly accrued Normal Retirement benefit as of the date of death. The benefit is payable for 10 years.

Supplemental Benefit: Beneficiaries of all vested members who die prior to retirement will be paid the member's accumulated account balance from the Share Plan in the form of a lump sum.

P. Post Retirement Death

Benefit determined by the form of benefit elected upon retirement.

Q. Optional Forms

In lieu of electing the Normal Form of benefit, the optional forms of benefits available to all retirees are a Single Life Annuity option or the 50%, 75% or 100% Joint and Survivor options. A Social Security option is also available for members retiring prior to the time they are eligible for Social Security retirement benefits.

R. Vested Termination

Eligibility: A member has earned a non-forfeitable right to Plan benefits after the completion of 5 years of Credited Service (See vesting table below).

Vesting is determined in accordance with the following table.

YEARS OF CREDITED SERVICE	% OF NORMAL RETIREMENT BENEFITS
Less Than 5	0%
5 or more	100%

Benefit: The benefit is the member's accrued Normal Retirement Benefit as of the date of termination. Benefit begins on the member's Normal Retirement date. Alternatively, members with 5 or more years of Credited Service may elect to receive benefits any time after age 50. The benefit will be reduced for Early Retirement, when applicable.

Plan members with less than 5 years of Credited Service will receive a refund of the member's accumulated contributions without interest.

Normal Form of Benefit: 10 Years Certain and Life thereafter; other options are also available.

COLA: None

Supplemental Benefit: Upon actual retirement, vested members will be paid their accumulated account balance from the Share Plan in the form of a lump sum.

S. Refunds

Eligibility: All members terminating employment with less than 5 years of Credited Service are eligible. Optionally, vested members (those with 5 or more years of credited service) may elect a refund in lieu of the vested benefits otherwise due.

Benefit: Refund of the member's contributions without interest.

T. Member Contributions

10.5% of Compensation.

U. Employer Contributions

Chapters 175 and 185 Premium Tax Distributions and any additional amount determined by the actuary needed to fund the plan properly according to State laws.

V. Cost of Living Increases

Not Applicable

W. 13th Check

Not Applicable

X. Deferred Retirement Option Plan

Eligibility: Participants that have met one of the following criteria are eligible for the DROP:

- (1) age 55 with 10 years of Credited Service, or
- (2) age 52 with 25 years of Credited Service, or
- (3) When the sum of age and Credited Service is equal to 75 years.

Benefit: The member's Credited Service and FAC are frozen upon entry into the DROP. The monthly retirement benefit as described under Normal Retirement is calculated based upon the frozen Credited Service and FAC.

Maximum

DROP Period: Participation in the DROP is limited to five years.

Interest

Credited: The member's DROP account is credited with interest based upon the irrevocable investment election made at the time of DROP entry.

Normal Form

of Benefit: Options include a lump sum or equal periodic payments.

COLA:

None.

Y. Other Ancillary Benefits

There are no ancillary retirement type benefits not required by statutes but which might be deemed a Village of Key Biscayne Police Officers and Firefighters Retirement Plan liability if continued beyond the availability of funding by the current funding source.

Z. Changes from Previous Valuation

None.