# City of North Miami Clair T. Singerman Employees Retirement System

ACTUARIAL VALUATION REPORT AS OF OCTOBER 1, 2017

ANNUAL EMPLOYER CONTRIBUTION FOR THE FISCAL YEAR ENDING SEPTEMBER 30, 2019







May 8, 2018

Board of Trustees Clair T. Singerman Employees Retirement System North Miami, Florida

**Dear Board Members:** 

The results of the October 1, 2017 Annual Actuarial Valuation of the City of North Miami Clair T. Singerman Employees Retirement System are presented in this report.

The computed 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 contribution rate in this report is determined using the actuarial assumptions and methods disclosed in Section B of this report. This report includes risk metrics in Section A but does not include a more robust assessment of the risks of future experience not meeting the actuarial assumptions. Additional assessment of risks was outside the scope of this assignment. We encourage a review and assessment of investment and other significant risks that may have a material effect on the Plan's financial condition.

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

The purpose of the valuation is to measure the System's funding progress, to determine the employer contribution rate for the fiscal year ending September 30, 2019, and to determine the actuarial information for Governmental Accounting Standards Board (GASB) Statement No. 67 for the fiscal year ending September 30, 2017. This report should not be relied on for any purpose other than the purposes 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 findings in this report are based on data or other information through September 30, 2017. 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 measurements.

Board of Trustees May 8, 2018 Page ii

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 System 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 audit the data. We are not responsible for the accuracy or completeness of the information provided by the Plan Administrator and the City.

In addition, this report was prepared using certain assumptions approved by the Board and prescribed by the Florida Statutes as described in the section of this report entitled Actuarial Assumptions and Methods. The investment return assumption was prescribed by the Board and the assumed mortality rates detailed in the Actuarial Assumptions and Methods section were prescribed by the Florida Statutes in accordance with Florida House Bill 1309 (codified in Chapter 2015-157).

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 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.

Jeffrey Amrose and Trisha 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 us or under our direct supervision, and we acknowledge responsibility for the results. To the best of our knowledge, the results are complete and accurate. In our 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 and Report with the Board of Trustees and to answer any questions pertaining to the valuation.

Respectfully submitted,

GABRIEL, ROEDER, SMITH AND COMPANY

Jeffrey Amrose, MAAA

Eńrolled Actuary No. 17-6599 Senior Consultant & Actuary Trisha Amrose, MAAA Enrolled Actuary No. 17-8010

Consultant & Actuary



#### **TABLE OF CONTENTS**

<u>Section</u>	<u>Title</u>		<u>Page</u>
A	Discuss	sion of Valuation Results	1
В	Valuati	ion Results	
	1.	Participant Data	5
	2.	Actuarially Determined Employer	
		Contribution	9
	3.	Actuarial Present Value of Benefits and Assets	12
	4.	Calculation of Employer Normal Cost	16
	5.	Liquidation of the Unfunded Actuarial	
		Accrued Liability	19
	6.	Actuarial Gains and Losses	23
	7.	Recent History of Required and Actual	
		Contributions	27
	8.	Recent History of UAAL and Funded Ratio	28
	9.	Actuarial Assumptions and Cost Method	29
	10.	Glossary of Terms	36
С	Pensio	n Fund Information	
	1.	Statement of Plan Assets at Market Value	39
	2.	Reconciliation of Plan Assets	40
	3.	Reconciliation of Plan Assets by Group	41
	4.	Actuarial Value of Assets	42
	5.	Investment Rate of Return	43
D	Financ	ial Accounting Information	
	1.	FASB No. 35	44
	2.	GASB No. 67	45
E	Miscel	laneous Information	
	1.	Reconciliation of Membership Data	51
	2.	Active Participant Scatter	52
	3.	Inactive Participant Scatters	53
F	Summa	ary of Plan Provisions	56



### **SECTION A**

**DISCUSSION OF VALUATION RESULTS** 

#### **DISCUSSION OF VALUATION RESULTS**

#### **Comparison of Required Employer Contributions**

A comparison of the required employer contribution developed in this valuation and the last valuation is as follows.

	For FYE 9/30/2019 Based on 10/1/2017 Valuation	For FYE 9/30/2018  Based on  10/1/2016  Valuation	Increase (Decrease)	
Actuarially Determined Employer Contribution As % of Covered Payroll	\$ 5,731,935	\$ 5,330,992	\$ 400,943	
	47.81 %	45.05 %	2.76 %	

The contribution has been adjusted for interest on the basis that payments are made on the first day of the fiscal year by both the City and the County.

The actual Employer contribution during the year ending September 30, 2017 was \$5,028,652. The required contribution was \$5,028,652 for that year based on a payment date of October 1, 2016 for the City contributions on behalf of general employees and police officers and October 1, 2016 for the County contribution on behalf of firefighters.

#### **Employer Contributions by Group**

Separate actuarial valuations have been performed for general employees, police officers and firefighters. Results are as follows:

	Actuarially Determined Employer Contribution for FYE 9/30/2019		
Group	Dollar Amount % of Payroll		
		, , , , , , , , , , , , , , , , , , ,	
General Employees	\$ 5,441,928	45.85 %	
Police Officers	95,741	79.14	
Firefighters	194,266	N/A	
	5,731,935	47.81	

#### **Revisions in Benefits**

There were no changes in benefits in the current valuation.



#### **Revisions in Actuarial Assumptions and Methods**

There have been the following revisions made to the actuarial assumptions and methods since the last actuarial valuation:

- The investment return assumption was changed from 7.05% to 6.95%, net of investment expenses. The assumed rate of investment return will continue to be lowered by 0.10% each year until reaching 6.75%.
- The amortization period for the unfunded actuarial accrued liability of the General Employees
  has been lowered to 15 years for any new bases and any existing bases that had over 15 years
  remaining as of October 1, 2017.
- The amortization period for the unfunded actuarial accrued liability of the Police Officers has been lowered to 5 years for any new bases and any existing bases that had over 5 years remaining as of October 1, 2017.

The assumption changes described above increased the Required Employer Contribution by \$260,054, or 2.17% of covered payroll.

#### **Actuarial Experience**

There was a net actuarial loss of \$695,587 for the year which means that actual experience was less favorable than expected. The loss was primarily due to greater than expected salary increases during the year for General Employees (9.7% actual average salary increases versus 4.3% assumed). The loss was partially offset by gains from investment earnings above the assumed rate of 7.05% in the prior valuation. The return on the actuarial valuation of assets was 7.5%, while the return on the market value of assets was 11.0%. The experience loss resulted in a 1.58% increase in the employer contribution rate.

#### **Funded Ratio**

This year's funded ratio is 88.6% compared to 87.6% last year. The funded ratio was 89.6% before the assumption changes described above. The ratio is equal to the actuarial value of assets divided by the actuarial accrued (past service) liability.

#### **Analysis of Change in Required Employer Contribution**

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

Contribution rate last year	45.05 %
Changes in assumptions	2.17
Payment on unfunded liability	(1.06)
Experience gain/loss	1.58
Change in administrative expense	0.09
Change in Normal Cost rate	(0.02)
Contribution rate this year	47.81



#### **Variability of Future Contribution Rates**

One consequence of a plan closure is that, in general, the annual payment on the unfunded accrued liability will continue to increase as a percentage of covered payroll, as such payroll decreases from year to year. Additionally, 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 increase at a rate that is inversely proportional to the rate of shrinking payroll, but this does not always happen.

The Market Value of Assets exceeds the Actuarial Value of Assets by \$1,909,655 as of the valuation date (see Section C). This difference will be gradually recognized in the absence of offsetting gains. In turn, the computed employer contribution rate will gradually decrease by approximately 1.9% of covered payroll (based on the current payroll level).

#### **Relationship to Market Value**

If Market Value had been the basis for the valuation, the Employer contribution rate would have been 45.93% and the funded ratio would have been 90.0%. In the absence of other gains and losses, the employer contribution rate should increase above that level over the next several years, as payroll declines.

#### Conclusion

The remainder of this Report includes detailed actuarial valuation results, information relating to the pension fund, financial accounting information, miscellaneous employee data 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.

As of the valuation date, the following minimum benefits of Chapter 185 have not been adopted: allow normal retirement at age 55 with ten years of service; change the normal form of benefit from a single life annuity to a ten year certain and life annuity; allow early retirement at age 50 with ten years of service; reduce the early retirement penalty to 3%; provide that the service connected disability benefit will be no less than the accrued pension; remove the 50% limit on the non-service disability benefit; provide a preretirement death benefit for all vested members equal to the accrued pension payable at what would have been the normal or early retirement date; and provide 100% vesting at ten years of service.

Actuarial Confirmation of the Use of State Chapter Money						
	748 Plan	691 Plan	Total			
<ol> <li>Base Amount Previous Plan Year (Excluding Amount Allocated to Share Plan)</li> </ol>	82,682	-	82,682			
2. Amount Received for Previous Plan Year	336,849	2,929	339,778			
3. Amount Allocated to Share Plan	146,314	1,272	147,586			
<ol> <li>Amount Received for Previous Plan Year After Share Plan Allocation (2) - (3)</li> </ol>	190,535	1,657	192,192			
5. Benefit Improvements Made in Prior Plan Year	-	-	-			
6. Excess Funds for Previous Plan Year (4) - (5) - (1)	107,853	1,657	109,510			
7. Accumulated Excess at Beginning of Previous Plan Year	486,112	31,872	517,984			
8. Prior Excess Used in Previous Plan Year	-	-	-			
9. Accumulated Excess as of Valuation Date (7) - (8) + (6)	593,965	33,529	627,494			
10. Base Amount This Plan Year (Excluding Amount						
Allocated to the Share Plan) (1) + (5)	82,682	-	82,682			

The Accumulated Excess shown in line 9 for the 691 Plan is being held in reserve and is subtracted from Plan assets (see Section C of this Report). The Base Amount in line 10 is the amount the employer may take as a credit against its required contribution; however, in no event may the employer take credit for more than the actual amount of Chapter revenue received.



### **SECTION B**

**VALUATION RESULTS** 

PARTICIPANT DATA ALL GROUPS COMBINED				
	October 1, 2017			ctober 1, 2016
ACTIVE MEMBERS	1			
Number Covered Annual Payroll Average Annual Payroll Average Age Average Past Service Average Age at Hire	\$	215 11,989,341 55,764 45.7 11.8 33.9	\$	233 11,834,735 50,793 44.8 10.6 34.2
RETIREES & BENEFICIARIES				
Number Annual Benefits Average Annual Benefit Average Age	\$ \$	229 6,843,188 29,883 70.1	\$ \$	227 6,654,043 29,313 69.6
DISABILITY RETIREES	,			
Number Annual Benefits Average Annual Benefit Average Age	\$ \$	2 81,176 40,588 60.9	\$ \$	3 82,706 27,569 67.9
TERMINATED VESTED MEMBERS			1	
Number Annual Benefits Average Annual Benefit Average Age	\$	5 177,252 35,450 56.3	\$	3 171,984 57,328 56.4



PARTICIPANT DATA GENERAL EMPLOYEES					
	October 1, 2017		00	ctober 1, 2016	
ACTIVE MEMBERS			-		
Number Covered Annual Payroll Average Annual Payroll Average Age Average Past Service Average Age at Hire	\$	214 11,868,360 55,460 45.7 11.6 34.1	\$ \$	232 11,716,205 50,501 44.7 10.5 34.2	
RETIREES & BENEFICIARIES					
Number Annual Benefits Average Annual Benefit Average Age	\$ \$	196 5,993,548 30,579 68.6	\$	192 5,802,737 30,223 68.0	
DISABILITY RETIREES			1		
Number Annual Benefits Average Annual Benefit Average Age	\$ \$	2 81,176 40,588 60.9	\$	3 82,706 27,569 67.9	
TERMINATED VESTED MEMBERS			<b>-</b>		
Number Annual Benefits Average Annual Benefit Average Age	\$	5 177,252 35,450 56.3	\$	3 171,984 57,328 56.4	



PARTICIPANT DATA POLICE OFFICERS				
	October 1, 2017		Oct	ober 1, 2016
ACTIVE MEMBERS				
Number Covered Annual Payroll Average Annual Payroll Average Age Average Past Service Average Age at Hire	\$	1 120,981 120,981 63.6 42.3 21.3	\$	1 118,530 118,530 62.6 41.3 21.3
RETIREES & BENEFICIARIES				
Number Annual Benefits Average Annual Benefit Average Age	\$ \$	19 426,215 22,432 77.0	\$ \$	21 427,881 20,375 76.7
DISABILITY RETIREES				
Number Annual Benefits Average Annual Benefit Average Age	\$	0 0 0 0.0	\$ \$	0 0 0 0.0
TERMINATED VESTED MEMBERS			•	
Number Annual Benefits Average Annual Benefit Average Age	\$ \$	0 0 0 0.0	\$ \$	0 0 0 0.0



PARTICIPANT DATA FIREFIGHTERS					
	Octo	ber 1, 2017	Octo	October 1, 2016	
ACTIVE MEMBERS					
Number		0		0	
Covered Annual Payroll	\$	0	\$	0	
Average Annual Payroll	\$	0	\$	0	
Average Age		0.0		0.0	
Average Past Service		0.0		0.0	
Average Age at Hire		0.0		0.0	
RETIREES & BENEFICIARIES			1		
Number		14		14	
Annual Benefits	\$	423,425	\$	423,425	
Average Annual Benefit	\$	30,245	\$	30,245	
Average Age		81.9		80.9	
DISABILITY RETIREES					
Number		0		0	
Annual Benefits	\$	0	\$	0	
Average Annual Benefit	\$ \$	0	\$ \$	0	
Average Age		0.0		0.0	
TERMINATED VESTED MEMBERS					
Number		0		0	
Annual Benefits	\$	0	\$	0	
Average Annual Benefit	\$	0	\$	0	
		_		0.0	
Average Annual Benefit Average Age	۶	0.0	,	•	



	ACTUARIALLY DETERMINED EMPLOYER CONTRIBUTION (ADEC) GENERAL EMPLOYEES						
A.	Valuation Date	October 1, 2017  After Changes	October 1, 2017  Before Changes	October 1, 2016			
В.	ADEC to Be Paid During Fiscal Year Ending	9/30/2019	9/30/2019	9/30/2018			
C.	Assumed Dates of Employer Contributions	10/1/2018	10/1/2018	10/1/2017			
D.	Annual Payment to Amortize Unfunded Actuarial Liability	\$ 3,873,177	\$ 3,710,210	\$ 3,594,551			
E.	Employer Normal Cost	1,215,115	1,175,421	1,151,433			
F.	ADEC as of the Valuation Date: D+E	5,088,292	4,885,631	4,745,984			
	Valuation Date	10/1/2017	10/1/2017	10/1/2016			
G.	ADEC if Paid on the First Day of the Next Fiscal Year First Day of Next Fiscal Year	5,441,928 10/1/2018	5,230,068 10/1/2018	5,080,575 10/1/2017			
Н.	ADEC if Paid Quarterly throughout the Next Fiscal Year	5,672,307	5,454,582	5,298,672			
1.	ADEC as % of Covered Payroll*	45.85 %	44.07 %	43.36 %			
J.	Assumed Rate of Increase in Covered Payroll to Contribution Year	0.00 %	0.00 %	0.00 %			
К.	Covered Payroll for Contribution Year	11,868,360	11,868,360	11,716,205			
L.	ADEC for Contribution Year: I x K*	5,441,928	5,230,068	5,080,575			

<sup>\*</sup> Assuming the contribution from Item G is paid on the first day of the next fiscal year.



ACTUARIALLY DETERMINED EMPLOYER CONTRIBUTION (ADEC) POLICE OFFICERS					
A. Valuation Date	October 1, 2017  After Changes	October 1, 2017  Before Changes	October 1, 2016		
B. ADEC to Be Paid During Fiscal Year Ending	9/30/2019	9/30/2019	9/30/2018		
C. Assumed Dates of Employer Contributions	10/1/2018	10/1/2018	10/1/2017		
D. Annual Payment to Amortize Unfunded Actuarial Liability	\$ 57,551	\$ 28,868	\$ 19,862		
E. Employer Normal Cost	31,968	31,301	31,647		
F. ADEC as of the Valuation Date: D+E  Valuation Date	89,519 10/1/2017	60,169 10/1/2017	51,509 <i>10/1/2016</i>		
G. ADEC if Paid on the First Day of the Next Fiscal Year First Day of Next Fiscal Year	95,741 10/1/2018	64,411 10/1/2018	55,140 10/1/2017		
H. ADEC if Paid Quarterly throughout the Next Fiscal Year	99,794	67,176	57,507		
I. ADEC as % of Covered PayrolI*	79.14 %	53.24 %	46.52 %		
J. Assumed Rate of Increase in Covered Payroll to Contribution Year	0.00 %	0.00 %	0.00 %		
K. Covered Payroll for Contribution Year	120,981	120,981	118,530		
L. ADEC for Contribution Year: I x K*	95,741	64,411	55,140		

 $<sup>\</sup>ensuremath{^{*}}$  Assuming the contribution from Item G is paid on the first day of the next fiscal year.



	ACTUARIALLY DETERMINED EMPLOYER CONTRIBUTION (ADEC) FIREFIGHTERS						
A.	Valuation Date	October 1, 2017  After Changes	October 1, 2017  Before Changes	October 1, 2016			
В.	ADEC to Be Paid During Fiscal Year Ending	9/30/2019	9/30/2019	9/30/2018			
C.	Assumed Dates of Employer Contributions	10/1/2018	10/1/2018	10/1/2017			
D.	Annual Payment to Amortize Unfunded Actuarial Liability	\$ 181,642	\$ 165,719	\$ 182,417			
E.	Employer Normal Cost	0	0	0			
F.	ADEC as of the Valuation Date: D+E, but not less than \$0	181,642	165,719	182,417			
	Valuation Date	10/1/2017	10/1/2017	10/1/2016			
G.	ADEC if Paid on the First Day of the Next Fiscal Year	194,266	177,402	195,277			
	First Day of Next Fiscal Year	10/1/2018	10/1/2018	10/1/2017			
Н.	ADEC if Paid Quarterly throughout the Next Fiscal Year	202,490	185,017	203,660			
1.	ADEC as % of Covered PayrolI*						
J.	Assumed Rate of Increase in Covered Payroll to Contribution Year	0.00 %	0.00 %	0.00 %			
K.	Covered Payroll for Contribution Year						
Li.	ADEC for Contribution Year*	194,266	177,402	195,277			

 $<sup>\</sup>boldsymbol{^*}$  Assuming the contribution from Item G is paid on the first day of the next fiscal year.



	ACTUARIAL VALUE OI	F BENEFITS AND ASSET	rs All employees	
	Valuation Date  Actuarial Present Value of All Projected	October 1, 2017 After Changes	October 1, 2017 Before Changes	October 1, 2016
	Benefits for  1. Active Members     a. Service Retirement Benefits     b. Vesting Benefits     c. Disability Benefits     d. Preretirement Death Benefits     e. Return of Member Contributions     f. Total	\$ 53,557,273 924,710 283,012 725,150 160,833 55,650,978	\$ 52,612,870 907,424 279,149 716,517 160,635 54,676,595	\$ 48,817,259 932,230 271,358 690,259 207,513 50,918,619
	Inactive Members     a. Service Retirees & Beneficiaries     b. Disability Retirees     c. Terminated Vested Members     d. Total	85,634,682 654,987 1,817,890 88,107,559	84,806,446 650,313 1,792,882 87,249,641	83,550,011 667,119 2,331,298 86,548,428
C.	<ol> <li>Total for All Members</li> <li>Actuarial Accrued (Past Service)</li> <li>Liability</li> </ol>	143,758,537 131,767,372	141,926,236 130,263,864	137,467,047 125,673,386
D.	Actuarial Value of Accumulated Plan Benefits per FASB No. 35	122,524,876	121,158,467	118,010,598
E.	Plan Assets  1. Market Value  2. Actuarial Value	118,615,028 116,705,372	118,615,028 116,705,372	108,259,843 110,067,733
F.	Unfunded Actuarial Accrued Liability (UAAL): C - E2	15,062,000	13,558,492	15,605,653
G.	Actuarial Present Value of Projected Covered Payroll	85,442,407	85,002,476	85,253,382
Н.	Actuarial Present Value of Projected Member Contributions	5,645,683	5,617,302	5,641,675
1.	Accumulated Contributions of Active Members	7,458,894	7,458,894	7,098,297



	ACTUARIAL VALUE OF BEN	IEFITS AND ASSETS C	GENERAL EMPLOYEES	
A.	Valuation Date	October 1, 2017  After Changes	October 1, 2017  Before Changes	October 1, 2016
В.	Actuarial Present Value of All Projected Benefits for 1. Active Members	, ,	, ,	
	<ul><li>a. Service Retirement Benefits</li><li>b. Vesting Benefits</li><li>c. Disability Benefits</li><li>d. Preretirement Death Benefits</li></ul>	\$ 51,830,715 924,710 283,012 712,774	\$ 50,903,461 907,424 279,149 704,201	\$ 47,142,271 932,230 271,358 679,430
	e. Return of Member Contributions f. Total	160,833 53,912,044	<u>160,635</u> 52,954,870	207,513 49,232,802
	<ol> <li>Inactive Members         <ul> <li>a. Service Retirees &amp; Beneficiaries</li> <li>b. Disability Retirees</li> <li>c. Terminated Vested Members</li> <li>d. Total</li> </ul> </li> </ol>	78,467,677 654,987 1,817,890 80,940,554	77,687,264 650,313 1,792,882 80,130,459	76,233,775 667,119 2,331,298 79,232,192
	3. Total for All Members	134,852,598	133,085,329	128,464,994
C.	Actuarial Accrued (Past Service) Liability	122,884,942	121,445,810	116,693,716
D.	Actuarial Value of Accumulated Plan Benefits per FASB No. 35	113,697,803	112,395,642	109,083,460
E.	Plan Assets  1. Market Value  2. Actuarial Value	110,281,375 108,505,888	110,281,375 108,505,888	99,942,945 101,611,946
F.	Unfunded Actuarial Accrued Liability (UAAL): C - E2	14,379,054	12,939,922	15,081,770
G.	Actuarial Present Value of Projected Covered Payroll	85,321,426	84,881,495	85,134,852
Н.	Actuarial Present Value of Projected Member Contributions	5,637,214	5,608,833	5,633,378
l.	Accumulated Contributions of Active Members	7,234,389	7,234,389	6,882,136



	ACTUARIAL VALUE OF BE	NEFITS AND ASSETS -	- POLICE OFFICERS	
A.	Valuation Date	October 1, 2017  After Changes	October 1, 2017  Before Changes	October 1, 2016
В.	Benefits for  1. Active Members	4 4 706 770	4 4 700 400	4 4 574 000
	a. Service Retirement Benefits b. Vesting Benefits c. Disability Benefits	\$ 1,726,558 - -	\$ 1,709,409 - -	\$ 1,674,988 - -
	d. Preretirement Death Benefits e. Return of Member Contributions f. Total	12,376 - - 1,738,934	12,316  1,721,725	10,829 
	<ol> <li>Inactive Members         <ul> <li>Service Retirees &amp; Beneficiaries</li> <li>Disability Retirees</li> <li>Terminated Vested Members</li> </ul> </li> </ol>	4,153,092	4,121,330	4,214,826
	d. Total  3. Total for All Members	4,153,092 5,892,026	4,121,330 5,843,055	4,214,826 5,900,643
C.	Actuarial Accrued (Past Service) Liability	5,868,517	5,820,202	5,878,260
D.	Actuarial Value of Accumulated Plan Benefits per FASB No. 35	5,813,160	5,764,973	5,825,728
E.	Plan Assets 1. Market Value 2. Actuarial Value	5,707,693 5,615,801	5,707,693 5,615,801	5,635,162 5,729,267
F.	Unfunded Actuarial Accrued Liability (UAAL): C - E2	252,716	204,401	148,993
G.	Actuarial Present Value of Projected Covered Payroll	120,981	120,981	118,530
Н.	Actuarial Present Value of Projected Member Contributions	8,469	8,469	8,297
I.	Accumulated Contributions of Active Members	224,505	224,505	216,161



	ACTUARIAL VALUE OF BE	NEFITS AND ASSETS -	- FIREFIGHTERS	
	Valuation Date  Actuarial Present Value of All Projected	October 1, 2017  After Changes	October 1, 2017 Before Changes	October 1, 2016
	Benefits for  1. Active Members a. Service Retirement Benefits b. Vesting Benefits c. Disability Benefits d. Preretirement Death Benefits e. Return of Member Contributions f. Total	\$ - - - - -	\$ - - - - -	\$ - - - - -
	<ol> <li>Inactive Members         <ul> <li>Service Retirees &amp; Beneficiaries</li> <li>Disability Retirees</li> <li>Terminated Vested Members</li> <li>Total</li> </ul> </li> </ol>	3,013,913 - - - 3,013,913	2,997,852 - - - 2,997,852	3,101,410 - - - 3,101,410
	3. Total for All Members	3,013,913	2,997,852	3,101,410
C.	Actuarial Accrued (Past Service) Liability	3,013,913	2,997,852	3,101,410
D.	Actuarial Value of Accumulated Plan Benefits per FASB No. 35	3,013,913	2,997,852	3,101,410
E.	Plan Assets 1. Market Value 2. Actuarial Value	2,625,960 2,583,683	2,625,960 2,583,683	2,681,736 2,726,520
F.	Unfunded Actuarial Accrued Liability (UAAL): C - E2	430,230	414,169	374,890
G.	Actuarial Present Value of Projected Covered Payroll	-	-	-
Н.	Actuarial Present Value of Projected Member Contributions	-	-	-
Ι.	Accumulated Contributions of Active Members	-	-	-



CALCULATION OF EMPLOYE	R NORMAL COST G	SENERAL EMPLOYEES	i
A. Valuation Date     B. Normal Cost for	October 1, 2017 After Changes	October 1, 2017 Before Changes	October 1, 2016
<ol> <li>Service Retirement Benefits</li> <li>Vesting Benefits</li> <li>Disability Benefits</li> <li>Preretirement Death Benefits</li> <li>Return of Member Contributions</li> <li>Total for Future Benefits</li> <li>Assumed Amount for Administrative Expenses</li> <li>Total Normal Cost</li> <li>Total as a % of Covered Payroll</li> </ol>	\$ 1,486,706 165,595 21,320 33,795 68,296 1,775,712 240,422 2,016,134 16.99%	\$ 1,450,217 162,884 21,063 33,290 68,564 1,736,018 240,422 1,976,440 16.65%	\$ 1,431,569 159,752 21,384 33,809 68,324 1,714,838 226,157 1,940,995 16.57%
C. Expected Member Contribution	801,019	801,019	789,562
D. Employer Normal Cost: B8-C	1,215,115	1,175,421	1,151,433
E. Employer Normal Cost as a % of Covered Payroll	10.24%	9.90%	9.83%



	CALCULATION OF EMP	LOYER NORMAL COST	POLICE OFFICERS	
	Valuation Date	October 1, 2017 After Changes	October 1, 2017  Before Changes	October 1, 2016
В.	<ol> <li>Service Retirement Benefits</li> <li>Vesting Benefits</li> <li>Disability Benefits</li> <li>Preretirement Death Benefits</li> <li>Return of Member Contributions</li> <li>Total for Future Benefits</li> <li>Assumed Amount for Administrative Expenses</li> <li>Total Normal Cost</li> <li>Total as a % of Covered Payroll</li> </ol>	\$ 20,958 1,987 187 227 953 24,312 16,125 40,437 33.42%	\$ 20,338 1,942 184 223 958 23,645 16,125 39,770 32.87%	\$ 19,918 1,902 180 219 939 23,158 16,786 39,944 33.70%
C. D.		8,469 31,968	8,469 31,301	8,297 31,647
E.	Employer Normal Cost as a % of Covered Payroll	26.42%	25.87%	26.70%



	CALCULATION OF EM	PLOYER I	NORMAL COS	ST FIRE	FIGHTERS		
A. B.	Valuation Date  Normal Cost for		er 1, 2017 Changes	l	per 1, 2017 re Changes	Octo	ober 1, 2016
Б.	<ol> <li>Service Retirement Benefits</li> <li>Vesting Benefits</li> <li>Disability Benefits</li> <li>Preretirement Death Benefits</li> <li>Return of Member Contributions</li> <li>Total for Future Benefits</li> <li>Assumed Amount for Administrative Expenses</li> <li>Total Normal Cost</li> <li>Total as a % of Covered Payroll</li> </ol>	\$ 	- - - - - - N/A	\$ 	- - - - - - N/A	\$ 	- - - - - - - N/A
C.	Expected Member Contribution Employer Normal Cost: B8-C		-		-		-
E.	Employer Normal Cost as a % of Covered Payroll		N/A		N/A		N/A



#### LIQUIDATION OF THE UNFUNDED ACTUARIAL ACCRUED LIABILITY

#### **GENERAL EMPLOYEES**

Original UAAL				Current UAAL				
Amortization Period				Years		Payment		
Date	Source *	(Years)	Amount	Remaining	Amount	After Changes	Before Change	
10/1/2005	Method Change	20	\$12,879,286	8	\$ 7,723,216	\$ 1,206,998	\$ 1,210,55	
10/1/2006	(Gain)/Loss	20	2,772,755	9	1,846,639	264,452	265,33	
10/1/2006	Assumption Change	20	5,079,016	9	3,382,595	484,412	486,02	
10/1/2007	(Gain)/Loss	20	453,113	10	311,859	41,420	41,57	
10/1/2007	Assumption Change	20	5,935,357	10	4,085,080	542,571	544,57	
10/1/2008	(Gain)/Loss	20	759,283	11	540,710	67,254	67,52	
10/1/2009	(Gain)/Loss	20	1,940,137	12	1,436,997	168,713	169,45	
10/1/2010	(Gain)/Loss	20	(5,847,029)	13	(4,469,671)	(498,630)	(500,99	
10/1/2010	Assumption Change	20	1,382,157	13	1,056,570	117,870	118,42	
10/1/2011	(Gain)/Loss	20	(6,442,703)	14	(5,185,681)	(552,763)	(555,56	
10/1/2012	(Gain)/Loss	20	326,498	15	285,607	29,228	29,38	
10/1/2013	(Gain)/Loss	20	757,216	15	697,613	71,391	69,21	
10/1/2013	Amendment	5	7,679,342	1	1,846,211	1,846,211	1,846,21	
10/1/2014	(Gain)/Loss	20	(2,525,432)	15	(2,295,654)	(234,928)	(220,40	
10/1/2015	(Gain)/Loss	20	423,505	15	395,595	40,484	36,87	
10/1/2015	Amendment	20	(5,669,879)	15	(5,296,225)	(541,993)	(493,61	
10/1/2016	(Gain)/Loss	20	1,751,094	15	1,713,772	175,380	155,47	
10/1/2016	Assumption Change	20	4,436,049	15	4,341,502	444,291	393,86	
10/1/2017	(Gain)/Loss	15	523,187	15	523,187	53,541	46,31	
10/1/2017	Assumption Change	15	1,439,132	15	1,439,132	147,275	N/	

<sup>\*</sup> Descriptions of the source of changes for bases other than (Gain)/Loss are described below.

#### 10/1/2005 Method Changes:

- 1. The funding method was changed from Aggregate to Entry Age Normal with a 20-year amortization period for general employees and a 5-year amortization period for police officers.
- 2. The asset valuation method was changed to the method shown in the report prepared by Stanley, Holcombe & Associates, Inc.
- 3. The mortality table was changed from the 1983 Group Annuity Mortality Table to the RP 2000 Generational Mortality Table.
- 4. The investment earnings assumption was changed from 9% per year up to retirement and 7% thereafter to 8.5% per year. The investment earnings assumption will be reduced from 8.5% to 8% in the next actuarial valuation as of October 1, 2006.
- 5. The retirement rates used were multiplied by 80%.



- 6. The salary increase assumption was changed from a flat 6% per year to a graded rate table based on service.
- 7. It was assumed that members will choose the option (lump sum without COLA or annuity with COLA) with the greater actuarial value.

10/1/2006 Assumption Change: The investment earnings assumption was changed from 8.5% per year to 8.0% per year.

10/1/2007 Assumption Change: The investment earnings assumption was changed from 8% per year to 7.5% per year.

10/1/2010 Assumption Change: The timing of expected pay increases was changed from end of year to mid-year timing.

10/1/2013 Amendment: The Plan was amended to provide an Employee Retirement Incentive Program (ERIP) which was offered to members who meet the Rule of 60, have at least ten years of City service, and are eligible for either normal or early retirement as of January 1, 2014. The ERIP provided a 4% benefit multiplier for the last 20 years of credited service. The lump sum form of payment was not available to ERIP retirees.

10/1/2015 Amendment: Ordinance No. 1397, adopted on March 8, 2016.

10/1/2016 Assumption Changes: Decreased the investment rate of return assumption to 7.05%. Salary increase rates, retirement rates, withdrawal rates, and disability rates have all been revised based on the experience study as of 10/1/2015. The mortality assumption was changed to the same rates used by FRS for Regular Class and Special Risk Class members in their July 1, 2016 actuarial valuation, as mandated by the Florida Statutes.

10/1/2017 Assumption Changes: Decreased the investment rate of return assumption to 6.95%. The amortization period for the unfunded actuarial accrued liability of the General Employees was lowered to 15 years for any new bases and any existing bases that had over 15 years remaining as of October 1, 2017. The amortization period for the unfunded actuarial accrued liability of the Police Officers was lowered to 5 years for any new bases and any existing bases that had over 5 years remaining as of October 1, 2017.

The Unfunded Actuarial Liability is being amortized as a level dollar amount over the number of years remaining in the amortization period.

Amortization Schedule General Employees				
Year	Expe	ected UAAL		
2017	\$	14,379,054		
2018		11,236,041		
2019		9,849,106		
2020		8,365,778		
2021		6,779,360		
2022		5,082,685		
2027		(1,869,767)		
2032		-		



#### LIQUIDATION OF THE UNFUNDED ACTUARIAL ACCRUED LIABILITY

#### **POLICE OFFICERS**

Original UAAL					Cur	rent UAAL	
		Amortization Period		Years			ment
Date	Category	(Years)	Amount	Remaining	Amount	After Changes	Before Changes
10/1/2016 10/1/2016	Credit* (Gain)/Loss	10 10	\$ (199,425) 94,833	5 5	\$ (228,157) 99,314	\$ (51,960) 22,617	\$ (32,782) 14,270
10/1/2016	Assumption Change (Gain)/Loss	_	272,023 48,369	5	284,875 48,369	64,876 11,015	40,932 6,448
	Assumption Change	_	48,315 \$ 264,115	5	48,315 \$ 252,716	11,003 \$ 57,551	N/A \$ 28,868

<sup>\*</sup> This base was established due to the timing of contributions.

The Unfunded Actuarial Liability is being amortized as a level dollar amount over the number of years remaining in the amortization period.

Amortization Schedu	ıle Police Officers	
Year	Expected UAAL	
2017	\$ 252,716	5
2018	208,721	L
2019	161,676	5
2020	111,362	2
2021	57,551	L
2022	-	-



#### LIQUIDATION OF THE UNFUNDED ACTUARIAL ACCRUED LIABILITY

#### **FIREFIGHTERS**

Pa	yment
After Changes	Before Changes
\$ 41,550	\$ 41,688
124,031	124,031
16,061	N/A
	\$ 41,550 124,031

The Unfunded Actuarial Liability is being amortized as a level dollar amount over the number of years remaining in the amortization period.

Amortization Schedule Firefighters									
Year	Expected UAAL								
2017	\$ 430,230								
2018	265,866								
2019	239,906								
2020	212,142								
2021	182,448								
2022	150,690								
2027	-								



#### **ACTUARIAL GAINS AND LOSSES**

When the actual plan experience differs from the actuarial assumptions, an actuarial gain or loss is the result. The net actuarial gain or loss for each group is computed as follows:

		General	Police	Fire	Total
1.	Last Year's UAAL	\$ 15,081,770	\$ 148,993	\$ 374,890	\$ 15,605,653
2.	Last Year's Employer Normal Cost	1,395,624	43,166	-	1,438,790
3.	Last Year's Contributions	4,878,389	46,403	103,860	5,028,652
4.	Interest at the Assumed Rate on:				
	a. 1 and 2 for one year	1,161,656	13,547	26,430	1,201,633
	b. 3 from dates paid	343,926	3,271	7,322	354,519
	c. Total: a - b	817,730	10,276	19,108	847,114
5.	This Year's Expected UAAL (Before				
	Changes): 1 + 2 - 3 + 4c	12,416,735	156,032	290,138	12,862,905
6.	Change in UAAL Due to Change in Benefits or Assumptions	1,439,132	48,315	16,061	1,503,508
7.	This Year's Expected UAAL (After Changes): 5 + 6	13,855,867	204,347	306,199	14,366,413
8.	Actual UAAL (After Changes)	14,379,054	252,716	430,230	15,062,000
9.	Net Actuarial Gain (Loss): 7 - 8	(523,187)	(48,369)	(124,031)	(695,587)
10.	Gain (Loss) due to Investments				477,414
11.	Gain (Loss) due to Other Causes				(1,173,001)



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 the actual experience. The following table shows the actual fund earnings and salary increase rates compared to the assumed rates for the last few years. The actual investment return rates shown below 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 valuations both at the beginning and end of each year.

	Annualized Inve	stment Return	Annualized Sa	lary Increases
Period	Actual	Assumed	Actual	Assumed
01/1/77 - 01/1/78	3.2 %	6.0 %	7.0 %	4.5 %
10/1/78 - 9/30/79	3.5	6.0	15.0	4.5
10/1/79 - 9/30/81	1.6	7.0	9.0	5.5
10/1/81 - 9/30/83	25.5	7.0	10.0	5.5
10/1/83 - 9/30/85	10.9	7.0	8.0	5.5
10/1/85 - 9/30/87	19.0	7.0	6.0	5.5
10/1/87 - 9/30/89	8.9	8.0	6.5	6.0
10/1/89 - 9/30/90	1.1	8.0	(1.5)	6.0
10/1/90 - 9/30/91	14.4	8.0	1.6	6.0
10/1/91 - 9/30/92	16.2	9.0	6.5	6.0
10/1/92 - 9/30/93	16.6	9.0	5.8	6.0
10/1/93 - 9/30/94	2.2	9.0	7.7	7.0 *
10/1/94 - 9/30/95	18.9	9.0	6.0	7.0 *
10/1/95 - 9/30/96	9.5	9.0	7.4	7.0 *
10/1/96 - 9/30/97	13.2	9.0	5.9	7.0 *
10/1/97 - 9/30/98	10.8	9.0	5.4(G)/4.1(P)	7.0 *
10/1/98 - 9/30/99	12.6	9.0	8.1(G)/8.2(P)	7.0 *
10/1/99 - 9/30/00	11.4	9.0	7.1(G)/2.8(P)	7.0 *
10/1/00 - 9/30/01	8.3	9.0	1.1(G)/0.3(P)	7.0 *
10/1/01 - 9/30/02	(3.0)	9.0	6.2(G)/5.5(P)	6.0
10/1/02 - 9/30/03	3.7	9.0	6.2(G)/5.4(P)	6.0
10/1/03 - 9/30/04	1.5	9.0	5.5(G)/7.7(P)	6.0
10/1/04 - 9/30/05	2.3	9.0	6.0(G)/8.6(P)	6.0
10/1/05 - 9/30/06	6.3	8.5	10.3(G)/16.1(P)	5.5(G)/5.4(P)
10/1/06 - 9/30/07	6.8	8.0	3.1(G)/3.6(P)	6.0(G)/5.4(P)
10/1/07 - 9/30/08	3.9	7.5	1.8(G)/0.0(P)	6.1(G)/5.4(P)
10/1/08 - 9/30/09	1.8	7.5	2.9(G)/1.2(P)	6.1(G)/5.4(P)
10/1/09 - 9/30/10	5.3	7.5	-1.5(G)/-0.3(P)	6.0(G)/5.4(P)
10/1/10 - 9/30/11	3.8	7.5	-8.2(G)/-16.0(P)	6.0(G)/5.4(P)
10/1/11 - 9/30/12	6.0	7.5	5.5(G)/10.8(P)	6.0(G)/5.4(P)
10/1/12 - 9/30/13	6.8	7.5	5.1(G)/5.5(P)	6.0(G)/5.4(P)
10/1/13 - 9/30/14	7.5	7.5	-0.2(G)/-3.4(P)	6.2(G)/5.4(P)
10/1/14 - 9/30/15	6.2	7.5	4.0(G)/6.6(P)	6.2(G)/5.4(P)
10/1/14 - 9/30/15	7.1	7.5 7.5	9.7(G)/2.3(P)	6.2(G)/5.4(P)
10/1/15 - 9/30/16	7.1	7.5 7.1		
10/1/10 - 9/30/1/	7.5	7.1	9.7(G)/2.1(P)	4.3(G)/3.0(P)
Average	8.5		4.3(G)/3.4(P) **	

<sup>\* 6%</sup> assumption for police officers and firefighters.

<sup>\*\*</sup> Average since 1997.



## Actual (A) Compared to Expected (E) Decrements Among Active General Employees

Year	Num Add Dur Ye	led ing	Serv Retire		Disab Retire	-	De	ath	Vested	Termir Other		tals	Active Members End of
Ended	Α	Ε	Α	E	Α	E	Α	E	Α	Α	Α	E	Year
9/30/2002	30	22	4	12	0	2	0	0	6	12	18	22	368
9/30/2003	23	32	11	16	0	2	0	0	5	16	21	22	359
9/30/2004	27	28	13	17	0	2	0	0	7	8	15	20	358
9/30/2005	25	31	12	17	1	2	0	1	1	17	18	18	352
9/30/2006	28	28	6	17	0	2	0	0	0	22	22	18	352
9/30/2007	38	24	4	15	0	2	0	0	11	9	20	17	366
9/30/2008	27	21	7	20	0	2	0	0	0	14	14	17	372
9/30/2009	8	18	9	23	0	2	0	0	3	6	9	17	362
9/30/2010	3	69	35	20	0	2	0	0	13	21	34	16	296
9/30/2011	15	25	18	19	0	2	0	0	1	6	7	12	286
9/30/2012	18	48	27	21	0	2	0	0	6	15	21	11	256
9/30/2013	25	17	11	16	0	1	0	0	2	4	6	10	264 *
9/30/2014	39	61	51	7	0	1	0	0	5	5	10	11	242
9/30/2015	38	40	4	8	0	1	0	0	9 ***	27 ***	36	14	240
9/30/2016	21	29	10	12	0	1	0	0	0	19	19	13	232
9/30/2017	0	0	6	12	0	0	0	0	6	6	12	13	214
9/30/2018				12		0		0				11	
16 Yr Totals ****	365	493	228	252	1	26	0	1	75	207	282	251	

- \* Before reflecting 48 ERIP retirees.
- \*\* Includes 48 ERIP retirees not previously reflected.
- \*\*\* Reflects 1 vested transfer and 11 nonvested transfers to FRS.
- \*\*\*\* Totals are through current Plan Year only.



# Actual (A) Compared to Expected (E) Decrements Among Active Police Officers

Year	Num Add Dur Ye	led ing		rvice ement	Disab Retire	-	De	ath	To Vested	erminati Other		tals	Active Members End of
Ended	Α	E	Α	E	Α	E	Α	Ε	Α	Α	Α	E	Year
9/30/2002	0	0	3	4	0	0	0	0	0	0	0	0	7
9/30/2003	0	0	1	2	0	0	0	0	0	0	0	0	6
9/30/2004	0	0	1	4	0	0	0	0	0	0	0	0	5
9/30/2005	0	0	2	3	0	0	0	0	0	0	0	0	3
9/30/2006	0	0	0	2	0	0	0	0	0	0	0	0	3
9/30/2007	0	0	0	3	0	0	0	0	0	0	0	0	3
9/30/2008	0	1	1	2	0	0	0	0	0	0	0	0	2
9/30/2009	0	1	1	2	0	0	0	0	0	0	0	0	1
9/30/2010	0	0	0	1	0	0	0	0	0	0	0	0	1
9/30/2011	0	0	0	1	0	0	0	0	0	0	0	0	1
9/30/2012	0	0	0	1	0	0	0	0	0	0	0	0	1
9/30/2013	0	0	0	1	0	0	0	0	0	0	0	0	1
9/30/2014	0	0	0	1	0	0	0	0	0	0	0	0	1
9/30/2015	0	0	0	1	0	0	0	0	0	0	0	0	1
9/30/2016	0	0	0	1	0	0	0	0	0	0	0	0	1
9/30/2017	0	0	0	1	0	0	0	0	0	0	0	0	1
9/30/2018		0		1		0		0				0	
16 Yr Totals *	0	2	9	30	0	0	0	0	0	0	0	0	

<sup>\*</sup> Totals are through current Plan Year only.



#### RECENT HISTORY OF REQUIRED AND ACTUAL CONTRIBUTIONS

Valuation	For FYE	Required Contribut Employer 8	•	Act	ual Contributions	S
Date	Ending	Amount	% of Payroll	Employer	State	Total
			•			
10/1/1991	9/30/1993	\$ 886,728	35.58 %	\$ 843,565	\$ 60,597	\$ 904,162
10/1/1991	9/30/1994	879,668	36.55	838,016	54,577	892,593
10/1/1993	9/30/1995	1,498,386	12.67	1,452,542	53,635	1,506,177
10/1/1993	9/30/1996	1,458,944	11.72	1,405,267	62,463	1,467,730
10/1/1995	9/30/1997	1,760,285	13.34	1,696,824 <sup>1</sup>	63,461	1,760,285
10/1/1995	9/30/1998	786,027	5.94	667,337	121,663	789,000
10/1/1997	9/30/1999	559,917	4.30	473,088	86,829	559,917
10/1/1997	9/30/2000	553,939	4.22	522,127	31,812	553,939
10/1/1999	9/30/2001	252,534	1.78	252,534	0	252,534
10/1/1999	9/30/2002	254,552	1.74	254,552	0	254,552
10/1/2001	9/30/2003	1,085,686	7.51	1,085,686	0	1,085,686
10/1/2001	9/30/2004	2,557,247	16.58	2,557,247	0	2,557,247
10/1/2002	9/30/2005	3,515,204	22.63	3,515,204	0	3,515,204
10/1/2004	9/30/2006	4,439,848	27.95	3,789,262	0	3,789,262
10/1/2005	9/30/2007	4,368,096	27.38	4,368,096	0	4,368,096
10/1/2006	9/30/2008	4,900,204	28.40	4,278,122 2	0	4,278,122
10/1/2007	9/30/2009	5,460,248	30.19 31.47	4,929,540 <sup>3</sup>	0	4,929,540
10/1/2008 10/1/2009	9/30/2010	5,731,132		5,731,132	_	5,731,132
10/1/2009	9/30/2011 9/30/2012	6,356,163	35.09 37.50	6,356,163 5,646,907	0	6,356,163 5,646,907
		5,568,079	37.50	5,040,907	U	5,040,907
10/1/2011	9/30/2013	4,525,712	34.07	4,525,712	0	4,525,712
10/1/2012	9/30/2014	4,131,869	33.10	4,196,181	0	4,196,181
10/1/2013	9/30/2015	5,598,011	52.85	5,598,011	0	5,598,011
10/1/2014	9/30/2016	5,993,388	52.04	5,993,388	0	5,993,388
10/1/2015	9/30/2017	5,028,652	43.28	5,028,652	0	5,028,652
10/1/2016	9/30/2018	5,330,992	45.05			
10/1/2017	9/30/2019	5,731,935	47.81			
_0, _, _01	-,00,2019	3,. 31,333	77.01			

 $<sup>^{\</sup>mathrm{1}}$  Does not include proceeds of Pension Obligation Bond in the amount of \$10,868,833.



<sup>&</sup>lt;sup>2</sup> Reflects the exclusion of \$622,082 of the County contribution receivable for the year ending September 30, 2007, and the inclusion of a \$646,704 County contribution receivable for the year ending September 30, 2008, as shown on the September 30, 2008 financial statements.

<sup>&</sup>lt;sup>3</sup> Reflects the exclusion of \$646,704 of the County contribution receivable for the year ending September 30, 2008, and the inclusion of a \$115,996 County contribution receivable for the year ending September 30, 2009.

#### **RECENT HISTORY OF UAAL AND FUNDED RATIO**

Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age Normal (b)	Liability (AAL) Accrued Liability (UAAL) Entry Age Normal Entry Age Normal		Annual Covered Payroll (c)	UAAL As % of Payroll (b-a)/(c)
10/1/1995	\$ 38,882,450	\$ 50,248,832	\$ 11,366,382	77.4 %	\$ 13,194,968	86.1 %
10/1/1997	52,072,871	52,298,792	225,921	99.6	13,043,842	1.7
10/1/1999	58,875,802	56,780,548	(2,095,254)	103.7	14,139,623	(14.8)
10/1/2001	62,110,336	59,943,465	(2,166,871)	103.6	14,453,082	(15.0)
10/1/2002	55,291,559	62,380,560	7,089,001	88.6	15,421,323	46.0
10/1/2003	53,926,829	64,432,281	10,505,452	83.7	15,530,805	67.6
10/1/2004	54,227,261	67,485,625	13,258,364	80.4	15,886,989	83.5
10/1/2005	60,623,796	75,784,482	15,160,686	80.0	15,952,834	95.0
10/1/2006	65,393,710	87,268,437	21,874,727	74.9	17,256,272	126.8
10/1/2007	71,450,969	98,986,010	27,535,040	72.2	18,089,097	152.2
10/1/2008	75,784,705	104,182,882	28,398,177	72.7	18,213,561	155.9
10/1/2009	78,535,899	109,631,323	31,095,424	71.6	18,114,099	171.7
10/1/2010	81,080,885	107,183,003	26,102,118	75.6	14,849,412	175.8
10/1/2011	85,534,546	102,996,257	17,461,711	83.0	13,284,175	131.4
10/1/2012	88,127,070	103,821,983	15,694,913	84.9	12,483,246	125.7
10/1/2013	93,681,544	116,495,470	22,813,926	80.4	10,592,994	215.4
10/1/2014	98,182,705	118,154,197	19,971,492	83.1	11,524,318	173.3
10/1/2015	103,126,258	115,328,753	12,202,495	89.4	11,618,974	105.0
10/1/2016	110,067,733	125,673,386	15,605,653	87.6	11,834,735	131.9
10/1/2017	116,705,372	131,767,372	15,062,000	88.6	11,989,341	125.6



#### **ACTUARIAL ASSUMPTIONS AND COST METHOD**

#### **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:

- 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 decrement assumptions were established following the Experience Study Report as of October 1, 2015. The covered group is too small to provide statistically significant experience on which to base the mortality assumption. Mortality is based on a commonly used mortality table and projection scale.

#### **Economic Assumptions**

**The investment return rate** assumed in the valuations is 6.95% per year, compounded annually (net after investment expenses).

**The Inflation Rate** assumed in this valuation is 2.5% per year. The Inflation Rate is defined to be the long term rate of annual increases in goods and services.

The assumed *real rate of return* over inflation is defined to be the portion of total investment return that is more than the assumed inflation rate. Considering other economic assumptions, the 6.95% investment return rate translates to an assumed real rate of return over wage inflation of 4.45%.



**Pay increase assumptions** for individual active members are shown below. Part of the assumption for each service year is for productivity, merit and/or seniority increases, and the other 2.5% recognizes inflation.

**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				
Years of	Merit and	Base	Total		
Service	Seniority	(Economic)	Increase		
0 - 2	3.5%	2.5%	6.0%		
3 - 5	2.5%	2.5%	5.0%		
6 - 9	2.0%	2.5%	4.5%		
10 - 14	1.5%	2.5%	4.0%		
15 - 19	1.0%	2.5%	3.5%		
20 and Higher	0.5%	2.5%	3.0%		

### **Demographic Assumptions**

The mortality table for General Employees is the RP-2000 Combined Healthy Participant Mortality Table (for pre-retirement mortality) and the RP-2000 Mortality Table for Annuitants (for post-retirement mortality) with future improvements in mortality projected to all future years using Scale BB. For females, the base mortality rates include a 100% white collar adjustment. For males, the base mortality rates include a 50% blue collar adjustment and a 50% white collar adjustment. These are the same rates used for Regular Class members of the Florida Retirement System (FRS) in their actuarial valuation as of July 1, 2016.

**FRS Healthy Post-Retirement Mortality for Regular Class Members** 

Sample Attained	Probability of  Dying Next Year  Men Women		Future Life Expectancy (years)		
Ages (in 2017)			Men	Women	
50	0.55 %	0.23 %	34.66	38.31	
55	0.60	0.32	30.03	33.29	
60	0.76	0.47	25.36	28.39	
65	1.15	0.74	20.84	23.65	
70	1.78	1.24	16.59	19.19	
75	2.97	2.09	12.73	15.11	
80	5.03	3.51	9.40	11.49	

This assumption is used to measure the probabilities of each benefit payment being made after retirement.



FRS Healthy Pre-Retirement Mortality for Regular Class Members

Sample	Probability of		Future Life		
Attained	Dying Next Year		Expectancy (years)		
Ages (in 2017)	Men Women		Men	Women	
50	0.21 %	0.15 %	35.58	38.66	
55	0.36	0.24	30.46	33.51	
60	0.61	0.39	25.53	28.49	
65	1.08	0.70	20.88	23.67	
70	1.78	1.24	16.59	19.19	
75	2.97	2.09	12.73	15.11	
80	5.03	3.51	9.40	11.49	

This assumption is used to measure the probabilities of active members dying prior to retirement. All deaths before retirement are assumed to be non-service connected.

For disabled retirees, the mortality table used was the RP-2000 mortality for disabled annuitants, set-back 4 years for males and set-forward 2 years for females, with no provision being made for future mortality improvements. These are the same rates used for Regular Class members of the Florida Retirement System (FRS) in their actuarial valuation as of July 1, 2016.

**FRS Disabled Mortality for Regular Class Members** 

Sample	Probability of		Future Life	
Attained	Dying Next Year		Expectane	cy (years)
Ages (in 2017)	Men Women		Men	Women
50	2.38 %	1.35 %	20.25	23.74
55	3.03	1.87	17.78	20.46
60	3.67	3.67 2.41		17.43
65	4.35	3.13	13.44	14.58
70	5.22	4.29	11.39	11.96
75	6.58	5.95	9.43	9.65
80	8.70	8.23	7.65	7.66

The mortality table for Police and Fire members is the RP-2000 Combined Healthy Participant Mortality Table (for pre-retirement mortality) and the RP-2000 Mortality Table for Annuitants (for post-retirement mortality) with future improvements in mortality projected to all future years using Scale BB. For females, the base mortality rates include a 100% white collar adjustment. For males, the base mortality rates include a 90% blue collar adjustment and a 10% white collar adjustment. These are the same rates used for Special Risk Class members of the Florida Retirement System (FRS) in their actuarial valuation as of July 1, 2016.



FRS Healthy Post-Retirement Mortality for Special Risk Class Members

Sample	Probability of		Future Life		
Attained	Dying Next Year		Expectancy (years)		
Ages (in 2017)	Men	Women	Men	Women	
50	0.54 %	0.23 %	33.90	38.31	
55	0.67	0.32	29.26	33.29	
60	0.90	0.47	24.68	28.39	
65	1.31	0.74	20.28	23.65	
70	2.01	1.24	16.15	19.19	
75	3.26	2.09	12.43	15.11	
80	5.37	3.51	9.23	11.49	

This assumption is used to measure the probabilities of each benefit payment being made after retirement.

FRS Healthy Pre-Retirement Mortality for Special Risk Class Members

Sample Attained	Probability of Dying Next Year		Future Life Expectancy (years)	
Ages (in 2017)	Men Women		Men	Women
50	0.23 %	0.15 %	34.89	38.66
55	0.39	0.24	29.77	33.51
60	0.71	0.71 0.39		28.49
65	1.23	0.70	20.33	23.67
70	2.01	1.24	16.15	19.19
75	3.26	2.09	12.43	15.11
80	5.37	3.51	9.23	11.49

This assumption is used to measure the probabilities of active members dying prior to retirement. All deaths before retirement are assumed to be non-service connected.

For disabled retirees, the mortality table used was 60% of the RP-2000 Mortality Table for Disabled Annuitants with ages set back 4 years for males and set forward 2 years for females, and 40% of the RP-2000 Annuitants Mortality Table with a White Collar adjustment with no age set back, both with no provision being made for future mortality improvements. These are the same rates used for Special Risk Class members of the Florida Retirement System (FRS) in their actuarial valuation as of July 1, 2016.

**FRS Disabled Mortality for Special Risk Class Members** 

Sample Attained	Probability of Dying Next Year		Future Expectane	
Ages (in 2017)	Men Women		Men	Women
50	1.67 %	0.91 %	23.74	27.06
55	2.03	1.26	20.77	23.37
60	2.47	2.47 1.67		19.90
65	3.07	2.24	15.15	16.62
70	3.90	3.18	12.52	13.58
75	5.30	4.60	10.02	10.86
80	7.59	6.66	7.80	8.48



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

Number of Years	
<b>After First Eligibility</b>	<b>Probability of Normal</b>
for Normal Retirement	Retirement
0	30 %
1	25
2	25
3	25
4	25
5	50
6	50
7	50
8	50
9	50
10+	100

The rate of retirement is 7% for each year of eligibility for early retirement under the early retirement eligibility at 14 years of service regardless of age. The rate of retirement is 10% for each year of eligibility for early retirement under the early retirement eligibility at age 55 with 10 years of service.

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

Sample	Years of	% of Active Members
Ages	Service	Separating Within Next Year
ALL	Under 1	13.0 %
	1	13.0
	2	13.0
	3	10.0
	4	10.0
	5	9.0
	6	9.0
	7	5.0
	8	4.5
	9	4.0
25 - 39	10 & Over	4.0
40 - 49		3.5
50 & Over		3.0



**Rates of disability** among active members. (50% of future disability retirements are assumed to be service-connected.)

Sample	% of Active Members Becoming			
Ages	Disabled Within Next Year			
20	0.01%			
25	0.01%			
30	0.01%			
35	0.01%			
40	0.02%			
45	0.03%			
50	0.05%			
55	0.10%			
60	0.17%			

Changes Since Prior Valuation – The investment return assumption was lowered from 7.05% to 6.95%. This rate will continue to be lowered by 0.1% each year until 6.75% is reached. In addition, the amortization period for the unfunded actuarial accrued liability of the General Employees has been lowered to 15 years for any new bases and for any existing bases that had over 15 years remaining as of October 1, 2017. The amortization period for the unfunded actuarial accrued liability of the Police Officers has been lowered to 5 years for any new bases and for any existing bases that had over 5 years remaining as of October 1, 2017.



#### **Miscellaneous and Technical Assumptions**

Administrative & Investment

**Expenses** 

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 two years. Assumed administrative expenses are added to the Normal Cost.

**Benefit Service** Exact fractional service is used to determine the amount of benefit

payable.

**COLA** For future retirees, benefits are assumed to increase at rates varying

from 1.5% to 3% per year, starting five years after retirement, based

on service as of November 10, 2015.

**Decrement Operation** Disability and mortality decrements operate during retirement

eligibility.

**Decrement Timing** Decrements of all types are assumed to occur at the beginning of the

year.

Eligibility Testing Eligibility for benefits is determined based upon the age nearest

birthday and service nearest whole year on the date the decrement is

assumed to occur.

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.

**Incidence of Contributions** Employer contributions are assumed to be made at the beginning of

the fiscal year for general employees and police officers and at the end of each calendar quarter for firefighters. Member 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.

Marriage Assumption 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.

**Normal Form of Benefit** A life annuity is the normal form of benefit.

Pay Increase Timing 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.

Service Credit Accruals It is assumed that members accrue one year of service credit per year.



#### **GLOSSARY**

Actuarial Accrued Liability (AAL)

The difference between the Actuarial Present Value of Future Benefits, and the Actuarial Present Value of Future Normal Costs.

**Actuarial Assumptions** 

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.

**Actuarial Cost Method** 

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.

**Actuarial Equivalent** 

Of equal Actuarial Present Value, determined as of a given date and based on a given set of Actuarial Assumptions.

Actuarial Present Value (APV)

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.

Actuarial Present Value of Future Benefits (APVFB)

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.

**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 plan. An Actuarial Valuation for a governmental retirement system typically also includes calculations of items needed for compliance with GASB No. 67.

**Actuarial Value of Assets** 

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 determined employer contribution (ADEC).



#### **Amortization Method**

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.

#### **Amortization Payment**

That portion of the plan contribution or ADEC which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.

#### **Amortization Period**

The period used in calculating the Amortization Payment.

# Actuarially Determined Employer Contribution (ADEC)

The employer's periodic required contributions, expressed as a dollar amount or a percentage of covered plan compensation. The ADEC consists of the Employer Normal Cost and Amortization Payment.

#### **Closed Amortization Period**

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.

#### **Employer Normal Cost**

The portion of the Normal Cost to be paid by the employer. This is equal to the Normal Cost less expected member contributions.

# Equivalent Single Amortization Period

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.

#### Experience Gain/Loss

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.

#### **Funded Ratio**

The ratio of the Actuarial Value of Assets to the Actuarial Accrued Liability.



**GASB** Governmental Accounting Standards Board.

GASB No. 67 and GASB No. 68 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.

**Normal Cost** The annual cost assigned, under the Actuarial Cost Method, to the

current plan year.

**Open Amortization Period** 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.

**Unfunded Actuarial Accrued** 

Liability

The difference between the Actuarial Accrued Liability and Actuarial

Value of Assets.

Valuation Date 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

	September 30	
ltem	2017	2016
A. Cash and Cash Equivalents (Operating Cash)	\$ -	\$ -
B. Receivables		
1. Member Contributions	\$ 15,308	\$ 16,471
2. City Contributions	-	-
3. County Contributions	-	-
4. State Contributions (from Share Plan)	33,529	31,872
5. Investment Income and Other Receivables	363,699	1,194,217
6. Total Receivables	\$ 412,536	\$ 1,242,560
C. Investments		
1. Short Term Investments	\$ 2,308,276	\$ 6,637,079
2. Domestic Equities	71,831,404	63,105,971
3. International Equities	-	-
4. Domestic Fixed Income	32,553,589	28,271,207
5. International Fixed Income	-	-
6. Real Estate	12,295,573	11,390,210
7. Private Equity		
8. Total Investments	\$ 118,988,842	\$ 109,404,467
D. Liabilities		
1. Benefits Payable	\$ (109,605)	\$ (3,870)
2. Accrued Expenses and Other Payables	(643,216)	(2,351,442)
3. Total Liabilities	\$ (752,821)	\$ (2,355,312)
E. Total Market Value of Assets Available for Benefits	\$ 118,648,557	\$ 108,291,715
F. State Contribution Reserve	\$ (33,529)	\$ (31,872)
G. Market Value of Assets Net State Contribution Reserve	\$ 118,615,028	\$ 108,259,843
H. Employee Contribution Refunds Payable to FRS Transfers	-	-
I. Market Value Net of Contribution Refunds Payable	\$ 118,615,028	\$ 108,259,843
J. Allocation of Investments		
1. Short Term Investments	1.9%	6.1%
2. Domestic Equities	60.4%	57.7%
3. International Equities	0.0%	0.0%
4. Domestic Fixed Income	27.4%	25.8%
5. International Fixed Income	0.0%	0.0%
6. Real Estate	10.3%	10.4%
7. Private Equity	0.0%	0.0%
8. Total Investments	100.0%	100.0%



# **Reconciliation of Plan Assets**

		September 30				
Item		2017		2016		
A. Market Value of Assets at Beginning of Year	\$	108,259,843	\$	97,789,726		
B. Adjustment to Match Financial Statements	\$	-	\$	-		
C. Revenues and Expenditures						
1. Contributions						
a. Member Contributions	\$	814,650	\$	894,501		
b. City Contributions		4,924,792		5,900,606		
c. County Contributions		103,860		92,782		
d. Total	\$	5,843,302	\$	6,887,889		
2. Investment Income						
a. Interest, Dividends, and Other Income	\$	1,569,724	\$	1,699,587		
b. Net Realized/Unrealized Gains/(Losses)*		10,979,022		9,826,898		
c. Investment Expenses		(477,254)		(442,096)		
d. Net Investment Income	\$	12,071,492	\$	11,084,389		
3. Benefits and Refunds						
a. Regular Monthly Benefits	\$	(7,015,062)	\$	(6,780,751)		
b. Refunds		(98,051)		(190,942)		
c. Lump Sum Benefits		(184,078)		(279,792)		
d. Total	\$	(7,297,191)	\$	(7,251,485)		
4. Administrative and Miscellaneous Expenses	\$	(262,418)	\$	(250,676)		
5. Employee Contribution Refunds Payable to FRS Transfers	\$	-	\$	-		
D. Market Value of Assets at End of Year	\$	118,615,028	\$	108,259,843		

<sup>\*</sup> The breakdown between realized and unrealized gains and (losses) was not provided.



# **Reconciliation of Plan Assets by Group**

		September 30, 2017								
	ltem		General		Police		Fire		Total	
A.	Market Value of Assets at Beginning of Year	\$	99,942,945	\$	5,635,162	\$	2,681,736	\$	108,259,843	
В.	Adjustment to Match Financial Statements	\$	-	\$	-	\$	-	\$	-	
C.	Revenues and Expenditures									
	1. Contributions									
	a. Member Contributions	\$	806,476	\$	8,174	\$	-	\$	814,650	
	b. City Contributions		4,878,389		46,403		-		4,924,792	
	c. County Contributions						103,860		103,860	
	d. Total	\$	5,684,865	\$	54,577	\$	103,860	\$	5,843,302	
	2. Investment Income									
	a. Interest, Dividends, and Other Income	\$	1,475,397	\$	60,025	\$	34,302	\$	1,569,724	
	<ul><li>b. Net Realized/Unrealized Gains/(Losses)</li></ul>		10,319,278		419,828		239,916		10,979,022	
	c. Investment Expenses		(448,576)		(18,249)		(10,429)		(477,254)	
	d. Net Investment Income	\$	11,346,099	\$	461,604	\$	263,789	\$	12,071,492	
	3. Benefits and Refunds									
	a. Regular Monthly Benefits and Lump Sums	\$	(6,347,834)	\$	(427,881)	\$	(423,425)	\$	(7,199,140)	
	b. Refunds		(98,051)				-		(98,051)	
	c. Total	\$	(6,445,885)	\$	(427,881)	\$	(423,425)	\$	(7,297,191)	
	4. Administrative and Miscellaneous Expenses	\$	(246,649)	\$	(15,769)	\$	-	\$	(262,418)	
D.	Market Value of Assets at End of Year	\$	110,281,375	\$	5,707,693	\$	2,625,960	\$	118,615,028	
Ε.	Percentage of Total		93.0%		4.8%		2.2%		100.0%	



#### **Actuarial Value of Assets**

September 30 Item 2017 2016 A. Beginning of Year Assets 1. Market Value 108,259,843 \$ 97,789,726 2. Actuarial Value 110,067,733 103,192,801 B. End of Year Market Value of Assets 118,615,028 108,259,843 C. Net of Contributions **Less Disbursements** (1,716,307)(614,272)D. Actual Net Investment Earnings\* 12,071,492 11,084,389 E. Expected Investment Earnings\* 7,876,532 7,941,177 F. Expected Actuarial Value End of Year 116,227,958 110,519,706 G. Market Value End of Year Less Expected Actuarial Value: B - F 2,387,070 (2,259,863)H. 20% of Difference 477,414 (451,973)I. End of Year Assets 1. Actuarial Value: F+H 116,705,372 110,067,733 2. Final Actuarial Value Within 80% to 120% of Market Value 116,705,372 110,067,733 J. Employee Contribution Refunds Payable to FRS Transfers 0 0 K. Net Valuation Assets 116,705,372 110,067,733 L. Recognized Investment Earnings 8,353,946 7,489,204 7.5% M. Recognized Rate of Return 7.1%

Note: Actuarial Value of Assets by group is distributed in the same ratio as market value.



<sup>\*</sup> Net of Investment Related Expenses.

Year Ending	Investment F	Rate of Return
September 30th	Market Value*	Actuarial Value
1990	1.1 %	1.1 %
1991	14.4	14.4
1992	16.2	16.2
1993	16.6	16.6
1994	2.2	2.2
1995	18.9	18.9
1996	12.4	9.5
1997	28.0	13.2
1998	0.8	10.8
1999	18.6	12.6
1999	10.0	12.0
2000	4.3	11.4
2001	(3.8)	8.3
2002	(7.2)	(3.0)
2003	13.7	3.7
2004	8.7	1.5
2005	0.0	2.2
2005	9.0	2.3
2006	7.0	6.3
2007	11.5	6.8
2008	(6.8)	3.9
2009	(1.8)	1.8
2010	7.9	5.3
2011	2.4	3.8
2012	16.7	6.0
2013	10.1	6.8
2014	10.6	7.5
2015	0.8	6.2
2016	11.0	7.1
2017	11.0	7.5
Average Returns:		
Last 5 Years	8.6 %	7.0 %
Last 10 Years	6.0 %	5.6 %
All Years	8.1 %	7.3 %

<sup>\*</sup> Net of investment expenses after 2005.

The above rates are based on financial information reported to the actuary. They may differ from figures that the investment consultant reports, in part because of differences in the handling of administrative and investment expenses, and in part because of differences in the handling of cash flows.



# **SECTION D**

FINANCIAL ACCOUNTING INFORMATION

	FASB	NO. 35 INFORM	ATION		
		General	Police	Fire	Total
Α.	Valuation Date	10/1/2017	10/1/2017	10/1/2017	10/1/2017
В.	Actuarial Present Value of Accumulated Plan Benefits				
	1. Vested Benefits				
	<ul><li>a. Members Currently Receiving Payments</li><li>b. Terminated Vested Members</li><li>c. Other Members</li></ul>	\$ 79,122,664 1,817,890 31,212,823	\$ 4,153,092 - 1,660,068	\$ 3,013,913 - 	\$ 86,289,669 1,817,890 32,872,891
	d. Total	112,153,377	5,813,160	3,013,913	120,980,450
	2. Non-Vested Benefits	1,544,426	-	-	1,544,426
	3. Total Actuarial Present Value of Accumulated Plan Benefits: 1d + 2	113,697,803	5,813,160	3,013,913	122,524,876
	4. Accumulated Contributions of Active Members	7,234,389	224,505	-	7,458,894
C.	Changes in the Actuarial Present Value of Accumulated Plan Benefits				
	1. Total Value at Beginning of Year	109,083,460	5,825,728	3,101,410	118,010,598
	2. Increase (Decrease) During the Period Attributable to:				
	<ul><li>a. Plan Amendment</li><li>b. Change in Actuarial Assumptions</li><li>c. Latest Member Data, Benefits</li><li>Accumulated, and Decrease in the</li></ul>	- 1,302,161	- 48,187	- 16,061	- 1,366,409
	Discount Period	9,758,067	367,126	319,867	10,445,060
	d. Benefits Paid	(6,445,885)	(427,881)	(423,425)	(7,297,191)
	e. Net Increase	4,614,343	(12,568)	(87,497)	4,514,278
	3. Total Value at End of Period	113,697,803	5,813,160	3,013,913	122,524,876
D.	Market Value of Assets	110,281,375	5,707,693	2,625,960	118,615,028
E.	Actuarial Assumptions - See page entitled Actuarial Assumptions and Methods				



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

Fiscal year ending September 30,	2017	2016	2015	2014
Total Pension Liability				
Service Cost	\$ 1,959,651	\$ 2,659,600	\$ 2,438,790	\$ 2,250,457
Interest	8,775,025	9,099,037	8,937,243	8,638,765
Benefit Changes	-	(6,839,780)	-	-
Difference between actual & expected experience	2,228,073	(1,266,151)	(2,263,638)	-
Assumption Changes	4,504,616	-	-	-
Benefit Payments	(7,225,538)	(7,034,144)	(6,863,520)	(6,939,695)
Refunds	(98,051)	(190,942)	(265,792)	(185,090)
Other (Increase in State Contribution Reserve)	1,657	1,423	1,253	1,253
Net Change in Total Pension Liability	10,145,433	(3,570,957)	1,984,336	3,765,690
Total Pension Liability - Beginning	118,702,482	122,273,439	120,289,103	116,523,413
Total Pension Liability - Ending (a)	\$ 128,847,915	\$ 118,702,482	\$ 122,273,439	\$ 120,289,103
Plan Fiduciary Net Position				
Contributions - Employer	\$ 4,924,792	\$ 5,900,606	\$ 5,452,219	\$ 4,024,959
Contributions - Employer (from State/Share Plan)	1,657	1,423	1,253	1,253
Contributions - Non-Employer Contributing Entity	103,860	92,782	145,792	171,222
Contributions - Member	788,484	920,667	853,456	789,599
Net Investment Income	12,071,492	11,084,389	548,641	9,493,224
Benefit Payments	(7,225,538)	(7,034,144)	(6,863,520)	(6,939,695)
Refunds	(98,051)	(190,942)	(265,792)	(185,090)
Administrative Expense	(262,418)	(250,675)	(235,209)	(284,291)
Other		<u>-</u>		
Net Change in Plan Fiduciary Net Position	10,304,278	10,524,106	(363,160)	7,071,181
Plan Fiduciary Net Position - Beginning	108,344,279	97,820,173	98,183,333	91,112,152
Plan Fiduciary Net Position - Ending (b)	\$ 118,648,557	\$ 108,344,279	\$ 97,820,173	\$ 98,183,333
Net Pension Liability - Ending (a) - (b)	10,199,358	10,358,203	24,453,266	22,105,770
Plan Fiduciary Net Position as a Percentage				
of Total Pension Liability	92.08 %	91.27 %	80.00 %	81.62 %
Covered Payroll*	\$ 11,834,735	\$ 11,618,974	\$ 12,192,229	\$ 11,279,986
Net Pension Liability as a Percentage				
of Covered Payroll	86.18 %	89.15 %	200.56 %	195.97 %

<sup>\*</sup> Estimated covered payroll.



# 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 Payroll	Net Pension Liability as a % of Covered Payroll
2014	\$ 120,289,103	\$ 98,183,333	\$22,105,770	81.62%	\$11,279,986	195.97%
2015	122,273,439	97,820,173	24,453,266	80.00%	12,192,229	200.56%
2016	118,702,482	108,344,279	10,358,203	91.27%	11,618,974	89.15%
2017	128,847,915	118,648,557	10,199,358	92.08%	11,834,735	86.18%



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

Valuation Date: October 1, 2016

Measurement Date: September 30, 2017

#### Methods and Assumptions Used to Determine Net Pension Liability:

Actuarial Cost Method Entry Age Normal

Inflation 2.50%

Salary Increases 3.00% to 6.00% depending on service

Investment Rate of Return 7.05%

Retirement Age Experience-based table of rates

Mortality The mortality table for General Employees is the RP-2000 Combined

Healthy Participant Mortality Table (for pre-retirement mortality) and the RP-2000 Mortality Table for Annuitants (for post-retirement mortality) with future improvements in mortality projected to all future years using Scale BB. For females, the base mortality rates include a 100% white collar adjustment. For males, the base mortality rates include a 50% blue collar adjustment and a 50% white collar adjustment. These are the same rates used for Regular Class members of the Florida Retirement System (FRS) in their

actuarial valuation as of July 1, 2016.

The mortality table for Police and Fire members is the RP-2000 Combined Healthy Participant Mortality Table (for pre-retirement mortality) and the RP-2000 Mortality Table for Annuitants (for post-retirement mortality) with future improvements in mortality projected to all future years using Scale BB. For females, the base mortality rates include a 100% white collar adjustment. For males, the base mortality rates include a 90% blue collar adjustment and a 10% white collar adjustment. These are the same rates used for Special Risk Class members of the Florida Retirement System (FRS) in their actuarial valuation as of July 1, 2016.

#### Other Information:

Notes See Discussion of Valuation Results in the October 1, 2016 Actuarial

Valuation Report. There were changes in actuarial assumptions adopted in connection with an Experience Study covering the ten

years ended September 30, 2015 dated August 5, 2016.



# SCHEDULE OF CONTRIBUTIONS GASB Statement No. 67

FY Ending September 30,	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered Payroll	Actual Contribution as a % of Covered Payroll
2014	\$ 4,196,181	\$ 4,196,181	\$ -	\$11,279,986	37.20%
2015	5,598,011	5,598,011	-	12,192,229	45.91%
2016	5,993,388	5,993,388	-	11,618,974	51.58%
2017	5,028,652	5,028,652	-	11,834,735	42.49%



# NOTES TO SCHEDULE OF CONTRIBUTIONS GASB Statement No. 67

Valuation Date: October 1, 2015

Notes Actuarially determined contributions are calculated as of October 1,

which is two years 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 General: Level Percentage of Payroll, Closed

Police and Fire: Level Dollar, Closed

Remaining Amortization Period 20 years

Asset Valuation Method Recognition of 20% of difference between market value of assets

and expected actuarial value of assets

Inflation 3.00%

Salary Increases 5.00% to 7.50% depending on service

Investment Rate of Return 7.50%

Retirement Age Experience-based table of rates

Mortality RP-2000 Combined Healthy Participant Mortality Table for males

and females with mortality improvements projected to all future

years after 2000 using Scale AA

Other Information:

Notes See Discussion of Valuation Results in the October 1, 2015 Actuarial

Valuation Report



# SINGLE DISCOUNT RATE GASB Statement No. 67

A single discount rate of 7.05% 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 7.05%. 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 (7.05%) 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 7.05%, 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

	Current Single Discount										
1% Decrease	<b>Rate Assumption</b>	1% Increase									
6.05%	7.05%	8.05%									
\$28.813.395	\$10.199.358	(\$1.662.037)									





**M**ISCELLANEOUS INFORMATION

	RECONCILIA	TION OF MEMBER	SHIP DATA		
			From 10/1/201	l6 to 10/1/2017	
		General	Police	Fire	Total
Α.	Active Members				
1.	Number Included in Last Valuation	232	1	0	233
2.	New Employees	0	0	0	0
3.	Non-Vested Employment Terminations	(6)	0	0	(6)
4.	Vested Employment Terminations	(5)	0	0	(5)
5.	Service & Early Retirements	(6)	0	0	(6)
6.	Disability Retirements	0	0	0	0
7.	Deaths	0	0	0	0
8.	Transfers	(1)	0	0	(1)
9.	Other - Inactive	0	0	0	0
10.	Number Included in This Valuation	214	1	0	215
В.	Terminated Vested Members				
				_	
l	Number Included in Last Valuation	3	0	0	3
ll .	Additions from Active Members	1	0	0	1
3.	Lump Sum Payments/Refund of Contributions	0	0	0	0
4.	Payments Commenced	0	0	0	0
5.	Deaths	0	0	0	0
6.	Other	1	0	0	1
7.	Number Included in This Valuation	5	0	0	5
C.	Service Retirees, Disability Retirees and Beneficia	aries			
1.	Number Included in Last Valuation	195	21	14	230
2.	Additions from Active Members	6	0	0	6
3.	Additions from Terminated Vested Members	0	0	0	0
4.	Deaths Resulting in No Further Payments	(3)	(2)	0	(5)
5.	Deaths Resulting in New Survivor Benefits	0	0	0	0
	End of Certain Period - No Further Payments	0	0	0	0
	Lump Sum Payments	0	0	0	0
8.	Number Included in This Valuation	198	19	14	231



# **ACTIVE PARTICIPANT SCATTER – GENERAL EMPLOYEES AND POLICE OFFICERS**

					Year	s of Service t	o Valuation	Date					
Age Group	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35 & Up	Totals
20-24 NO.	0	1	1	1	0	0	0	0	0	0	0	0	9
TOT PAY	0	45,890	37,018	31,573	0	0	0	0	0	0	0	0	114,481
AVG PAY	0	45,890	37,018	31,573	0	0	0	0	0	0	0	0	38,160
25-29 NO.	0	2	6	6	2	0	0	0	0	0	0	0	16
TOT PAY	0	66,699	281,123	267,046	62,160	0	0	0	0	0	0	0	677,028
AVG PAY	0	33,350	46,854	44,508	31,080	0	0	0	0	0	0	0	42,314
30-34 NO.	0	5	7	4	2	5	2	0	0	0	0	0	25
TOT PAY	0	172,634	301,543	151,463	96,656	193,954	97,988	0	0	0	0	0	1,014,238
AVG PAY	0	34,527	43,078	37,866	48,328	38,791	48,994	0	0	0	0	0	40,570
35-39 NO.	0	3	2	3	5	6	6	5	0	0	0	0	30
TOT PAY	0	93,011	144,878	108,626	418,170	511,340	297,778	356,402	0	0	0	0	1,930,205
AVG PAY	0	31,004	72,439	36,209	83,634	85,223	49,630	71,280	0	0	0	0	64,340
40-44 NO.	0	2	2	1	1	0	6	6	1	0	0	0	19
TOT PAY	0	184,480	64,858	49,405	35,062	0	469,941	384,561	55,776	0	0	0	1,244,083
AVG PAY	0	92,240	32,429	49,405	35,062	0	78,324	64,094	55,776	0	0	0	65,478
45-49 NO.	0	1	1	0	1	3	7	13	5	3	0	0	34
TOT PAY	0	26,452	27,546	0	65,373	174,881	317,133	708,301	324,502	160,272	0	0	1,804,460
AVG PAY	0	26,452	27,546	0	65,373	58,294	45,305	54,485	64,900	53,424	0	0	53,072
50-54 NO.	0	3	0	2	1	3	8	8	8	6	1	0	40
TOT PAY	0	103,295	0	85,070	64,788	128,660	402,318	417,492	449,530	-	114,079	0	2,132,632
AVG PAY	0	34,432	0	42,535	64,788	42,887	50,290	52,186	56,191	61,233	114,079	0	53,316
55-59 NO.	0	1	4	0	2	1	4	3	4	2	0	0	21
TOT PAY	0	89,237	344,756	0	100,041	34,634	180,982	172,620	257,655	147,899	0	0	1,327,824
AVG PAY	0	89,237	86,189	0	50,020	34,634	45,246	57,540	64,414	73,950	0	0	63,230
60-64 NO.	0	0	0	0	3	2	3	1	2	4	1	1	17
TOT PAY	0	0	0	0	164,640	134,500	106,517	50,628	91,217	190,008	38,106	119,193	894,809
AVG PAY	0	0	0	0	54,880	67,250	35,506	50,628	45,608	47,502	38,106	119,193	52,636
65 & Up NO.	0	0	0	2	1	0	4	2	1	0	0	0	10
TOT PAY	0	0	0	90,412	67,174	0	273,180	95,129	78,842	0	0	0	604,737
AVG PAY	0	0	0	45,206	67,174	0	68,295	47,564	78,842	0	0	0	60,474
TOT NO	^	40	23	19	18	20	40	20	21	15	2	4	245
TOT NO. TOT AMT	0	18 781 698	1,201,722		1,074,064	20 1,177,969	40 2,145,837	38 2,185,133	1,257,522	865,579	2 152,185	119,193	215 11,744,497
AVG AMT	0	43,428	52,249	41,242	59,670	58,898	53,646	57,504	59,882	57,705	76,093	119,193	54,626



# **INACTIVE PARTICIPANT SCATTER – GENERAL EMPLOYEES**

	Term	inated					Deceas	ed with
		sted	Di	sabled	Re	etired		ficiary
		Total		Total		Total		Total
Age Group	Number	Benefits	Number	Benefits	Number	Benefits	Number	Benefits
Under 20	-	-	-	-	-	-	-	-
20-24	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	-	-	-
35-39	-	-	-	-	-	-	-	-
40-44	-	-	1	40,701	1	19,220	-	-
45-49	1	132	-	-	6	154,673	-	-
50-54	-	-	-	-	11	390,964	-	-
55-59	2	102,384	-	-	29	1,143,600	-	-
60-64	2	74,736	-	-	38	1,627,876	-	-
65-69	-	-	-	-	30	925,718	-	-
70-74	-	-	-	-	28	790,738	1	18,351
75-79	-	-	1	40,475	19	432,789	1	7,372
80-84	-	-	-	-	11	238,889	2	11,106
85-89	-	-	-	-	8	124,290	2	16,679
90-94	-	_	-	-	5	69,046	1	2,964
95-99	_	_	_	-	1	7,946	1	7,563
100 & Over	-	-	-	-	1	3,764	-	-
Total	5	177,252	2	81,176	188	5,929,513	8	64,035
Average Age		56		61		68		85



# **INACTIVE PARTICIPANT SCATTER – POLICE OFFICERS**

	Term	inated					Deceas	ed with
		sted	Di	sabled	Re	etired		ficiary
		Total		Total		Total		Total
Age Group	Number	Benefits	Number	Benefits	Number	Benefits	Number	Benefits
Under 20	-	-	-	-	-	-	-	-
20-24	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	-	-	-
35-39	-	-	-	-	-	-	-	-
40-44	-	-	-	-	-	-	_	-
45-49	-	-	-	-	-	-	-	-
50-54	-	-	-	-	-	-	-	-
55-59	-	-	-	-	-	-	-	-
60-64	-	-	-	-	1	117,343	-	-
65-69	-	-	-	-	3	158,382	-	-
70-74	-	-	-	-	5	44,798	1	5,529
75-79	-	-	-	-	3	16,968	-	-
80-84	-	-	-	-	2	24,595	_	-
85-89	-	-	-	-	1	17,986	-	_
90-94	-	-	-	-	2	35,424	1	5,190
95-99	-	-	-	-	-	-	-	-
100 & Over	-	-	-	-	-	-	-	-
Total	-	-	-	-	17	415,496	2	10,719
Average Age		N/A		N/A		77		82



# **INACTIVE PARTICIPANT SCATTER – FIREFIGHTERS**

		inated sted	Die	sabled	Re	etired		ed with
	•	Total	<u> </u>	Total	110	Total	Бене	Total
Age Group	Number	Benefits	Number	Benefits	Number	Benefits	Number	Benefits
Under 20	-	-	-	-	-	-	_	-
20-24	-	-	_	-	-	-	-	-
25-29	-	-	_	-	-	-	-	-
30-34	-	-	-	-	-	-	-	-
35-39	-	-	-	-	-	-	-	-
40-44	-	-	-	_	-	-	_	-
45-49	-	-	_	-	-	-	-	-
50-54	-	-	-	-	-	-	_	-
55-59	-	-	-	-	-	-	-	-
60-64	-	-	-	_	-	-	_	-
65-69	-	-	-	-	-	-	_	-
70-74	-	-	_	_	-	-	_	-
75-79	-	-	-	-	5	182,771	1	33,891
80-84	-	-	-	_	4	146,511	1	14,151
85-89	-	-	-	-	2	34,997	_	-
90-94	-	-	-	-	-	-	1	11,104
95-99	-	-	_	-	-	-	-	-
100 & Over	-	-	-	-	-	-	-	-
Total	-	-	-	-	11	364,279	3	59,146
Average Age		N/A		N/A		82		83



# **S**ECTION **F**

**SUMMARY OF PLAN PROVISIONS** 

#### SUMMARY OF PLAN PROVISIONS

#### A. Ordinances

The Plan was established under the Code of Ordinances for the City of North Miami, Florida, Chapter 15, Article III, and was most recently amended under Ordinance No. 1397 passed and adopted on March 8, 2016. 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

January 1, 1968

#### 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 general employees hired prior to June 1, 2016 are eligible. General employees hired on or after June 1, 2016 will participate in the Florida Retirement System.

#### F. Credited Service

Service is measured as the total number of calendar years, or portions thereof, during which the member has served as an employee of the City and has made the required contributions to the Plan. No service is credited for any periods of employment for which the member received a refund of employee contributions.

#### G. Compensation

Total compensation including member contributions which are "picked up" by the City, but excluding overtime, bonuses and other certain payments.

#### H. Average Final Compensation (AFC)

For members who reached their normal retirement date on or before September 29, 2016: AFC is the average of Compensation over the highest 2 years out of the last 10 years of Credited Service prior to termination or retirement. AFC excludes lump sum payment of unused leave.

#### For all other members:

Effective September 30, 2016, AFC is the average of Compensation over the highest 3 years out of the last 10 years of Credited Service prior to termination or retirement. AFC excludes lump sum payment of unused leave. Effective September 30, 2017, the "highest 3 years" will be replaced by the "highest 4 years" and beginning September 30, 2018, "the highest 4 years" will be replaced by "the highest 5 years".



#### I. Normal Retirement

Eligibility: General employees may retire on the first day of the month coincident with or next

following the earlier of:

(1) age 62 and 10 years of Credited Service, or

(2) age 55 and 20 years of Credited Service.

Police officers and firefighters may retire on the first day of the month coincident with or

next following age 50 and 20 years of Credited Service.

Benefit: 2.5% of AFC multiplied by Credited Service up to July 1, 1969, plus 3.0% of AFC multiplied

by Credited Service after July 1, 1969 through November 9, 2015.

Accrual rates for Credited Service earned on or after November 10, 2015:

3.0% for members who have reached their Normal Retirement date on or before November 10, 2015 and for members with 15 or more years of Credited Service as of

that date.

2.5% for members with 10 or more years, but less than 15 years, of Credited Service who

are not yet eligible for Normal Retirement as of November 10, 2015.

2.0% for members with less than 10 years of Credited Service on November 10, 2015.

**Normal Form** 

of Benefit: Single Life Annuity; other options are also available.

COLA: See Item V. Cost of Living Increases

### J. Early Retirement

Eligibility: General employees may elect to retire earlier than the Normal Retirement Eligibility upon

attainment of:

(1) age 55 with 10 years of Credited Service, or

(2) 14 years of Credited Service regardless of age.

Police officers and firefighters may elect to retire earlier than the Normal Retirement

eligibility upon attainment of 14 years of Credited Service.

Benefit: The Normal Retirement Benefit is reduced by 4.0% for each year that the Early

Retirement date precedes the Normal Retirement date.

**Normal Form** 

of Benefit: Single Life Annuity; other options are also available.

COLA: See Item V. Cost of Living Increases



#### **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 incurs a mental or physical condition resulting from injury, disease, or

mental disorder, which renders the member incapable of performing work for the City at a rate of 90% of the member's regular rate of Compensation is immediately eligible for a

disability benefit.

Benefit: 75% of member's Compensation on the date of disability. The benefit will be reduced by

amounts paid from other sources to the extent that, when combined with this benefit,

they exceed 100% of the rate of pay in effect at the time of the disability.

**Normal Form** 

of Benefit: Payable for life, or until recovery from disability.

COLA: None

#### M. Non-Service Connected Disability

Eligibility: Any member who incurs a mental or physical condition resulting from injury, disease, or

mental disorder, which renders the member incapable of performing work for the City at a rate of 75% of the member's regular rate of Compensation is immediately eligible for a

disability benefit.

Benefit: The member's vested accrued benefit payable at the Normal Retirement date taking

into account compensation earned and service credited on the date of disability with a maximum equal to 50% of Compensation. The benefit will be reduced by amounts paid from other sources to the extent that, when combined with this benefit, they exceed

100% of the rate of pay in effect at the time of the disability.

**Normal Form** 

of Benefit: Payable for life, or until recovery from disability.

COLA: None

### N. Death in the Line of Duty

Eligibility: Any member who dies while performing, directly or indirectly, services for the City is

eligible for survivor benefits regardless of Credited Service.

Benefit: 50% of the member's monthly Compensation at the time of death shall be paid to the

member's spouse. In addition, 10% of the member's final Compensation shall be paid for each child under age 19. In no event shall the total benefit exceed 100% of the member's

final Compensation; or 50% if there is no surviving spouse.



Normal Form

of Benefit: Spouse benefits payable until the earlier of death or remarriage. Children's benefits are

payable until age 19.

COLA: None

#### O. Other Pre-Retirement Death

Eligibility: Any vested member who dies while employed by the City is eligible for survivor benefits.

Benefit: For members who were eligible for Early or Normal Retirement, the member's

Retirement Benefit shall be payable to the member's beneficiary.

For members who were not eligible for Early or Normal Retirement, an amount equal to the member's vested accrued benefit and accumulated contributions with interest shall be

payable to the member's beneficiary.

Normal Form

of Benefit: For members who were eligible for Early or Normal Retirement, the Retirement Benefit

shall be paid as though the member had elected a 10 Year Certain and Life annuity and

retired immediately preceding death.

For members who were not eligible for Early or Normal Retirement, the benefit shall be

paid in a lump sum.

COLA: None

The designated beneficiary of a plan member who was not vested will receive a refund of the member's accumulated contributions with interest.

#### 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 the Straight Life Annuity option, the 50%, 75%, and 100% Joint and Survivor options, or the 5 and 10 Years Certain and Life options. A Social Security option is also available for members retiring prior to the time they are eligible for Social Security retirement benefits if they are not retiring under Disability Retirement.

Alternatively, members can elect a partial lump sum with the remaining value of the benefit paid as a monthly annuity. A total lump sum distribution is also available for those who became members of the Plan prior to October 1, 2004.



#### 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).

Credited	Vested
Service	Percent
Less than 5 5 6 7 8 9 10 or more	0% 25 40 55 70 85 100

Benefit: Any member who is not eligible for any other benefits provided under the Plan will receive

the vested portion of their accrued Normal Retirement Benefit as of the date of

termination. Benefit begins at the member's Early or Normal Retirement date and will be

reduced for Early Retirement if applicable.

**Normal Form** 

of Benefit: Single Life Annuity; other options are also available.

COLA: See Item V. Cost of Living Increases

Members terminating employment with less than 5 years of Credited Service will receive a refund of their own accumulated contributions with interest.

#### 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: A refund of the member's contributions with interest.

#### T. Member Contributions

7.0% of Compensation for members who have reached their Normal Retirement date prior to November 10, 2015 and for members who are not yet eligible for Normal Retirement as of November 10, 2015 with more than 10, but less than 15, years of Credited Service.

8.0% of Compensation for members with 15 or more years of Credited Service

6.0% of Compensation for members with less than 10 years of Credited Service and who had not reached their Normal Retirement date on or before November 10, 2015.



#### **U.** Employer Contributions

Any additional amount determined by the actuary needed to fund the plan properly according to State laws.

### V. Cost of Living Increases

Members who retire after October 1, 2004 (not due to disability) and who have reached their Normal Retirement date on or before November 10, 2015, electing an annuity form of payment, receive an annual cost of living adjustment each April 1st. These retirees may choose a 1.92% COLA with a one-year delay, a 2.50% COLA with a three-year delay, or a 3.00% COLA with a five-year delay.

Members with 15 or more years of Credited Service who had not reached their Normal Retirement date on or before November 10, 2015, electing an annuity form of payment, will receive a 2.50% annual cost of living adjustment each April 1st following the 5<sup>th</sup> year of retirement.

Members with 10 or more years, but less than 15 years, of Credited Service who had not reached their Normal Retirement date on or before November 10, 2015, electing an annuity form of payment, will receive a 2.00% annual cost of living adjustment each April 1st following the 5<sup>th</sup> year of retirement.

Members with less than 10 years of Credited Service as of November 10, 2015 who elect an annuity form of payment will receive a 1.50% annual cost of living adjustment each April 1st following the 5<sup>th</sup> year of retirement.

### W. 13<sup>th</sup> Check

Not Applicable

### X. Deferred Retirement Option Plan (DROP)

Not Applicable

#### Y. Other Ancillary Benefits

There are no ancillary benefits-retirement type benefits not required by statutes but which might be deemed a Clair T. Singerman Employees' Retirement System liability if continued beyond the availability of funding by the current funding source.

#### Z. Changes from Previous Valuation

None

