

# MIAMI SHORES VILLAGE POLICE OFFICERS' RETIREMENT SYSTEM

ACTUARIAL VALUATION REPORT AS OF  
OCTOBER 1, 2023

ANNUAL EMPLOYER CONTRIBUTION IS  
DETERMINED BY THIS VALUATION FOR THE  
YEAR ENDING SEPTEMBER 30, 2025







July 24, 2024

Board of Trustees  
Miami Shores Village Police Officers'  
Retirement System  
Miami Shores, Florida

**Re: Miami Shores Village Police Officers' Retirement System  
Actuarial Valuation as of October 1, 2023 and Actuarial Disclosures**

Dear Board Members:

The results of the October 1, 2023 Annual Actuarial Valuation of the Miami Shores Village Police Officers' Retirement System ("System" or "Plan") are presented in this report.

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 purposes of the valuation are to measure the System's funding progress, to determine the employer contribution rate for the fiscal year ending September 30, 2025, and to report the actuarial information for Governmental Accounting Standards Board (GASB) Statement No. 67 for the fiscal year ending September 30, 2023. This report also includes estimated GASB Statement No. 67 information for the fiscal year ending September 30, 2024. 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 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.

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 findings in this report are based on data and other information through September 30, 2023. The valuation was based upon information furnished by the Plan Administrator and the Village concerning Retirement System benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We checked for internal reasonability 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 Village.

This report was prepared using assumptions approved by the Board as authorized and prescribed by Florida Statutes, as described in the section of this report entitled Actuarial Assumptions and Cost Method. The investment return assumption was prescribed by the Board and the assumed mortality rates detailed in the Actuarial Assumptions and Cost Method section were prescribed by Florida Statutes, Chapter 112.63. All actuarial assumptions used in this report are reasonable for the purposes of this valuation. The combined effect of the assumptions, excluding prescribed assumptions or methods set by law, is expected to have no significant bias (i.e. not significantly optimistic or pessimistic).

This report was prepared using our proprietary valuation model and related software which in our professional judgment has the capability to provide results that are consistent with the purposes of the valuation and has no material limitations or known weaknesses. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

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 Miami Shores Village Police Officers' Retirement System 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.

Melissa Zrelack and Dina Lerner are members of the American Academy of Actuaries and meet the Academy's Qualification Standards 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 report with the Board of Trustees and to answer any questions pertaining to the valuation.

Respectfully submitted,

GABRIEL, ROEDER, SMITH & COMPANY

By:



Melissa Zrelack, EA, MAAA, FCA  
Enrolled Actuary No. 23-06467

By:



Dina Lerner, FSA, EA, MAAA, FCA  
Enrolled Actuary No. 23-08236



## TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>
<b>A</b>	Discussion of Valuation Results	
	1. Discussion of Valuation Results	1
	2. Risks Associated with Measuring the Accrued Liability and Actuarially Determined Contribution	3
	3. Low-Default-Risk Obligation Measure	5
	4. Chapter Revenue	6
<b>B</b>	Valuation Results	
	1. Participant Data	7
	2. Actuarially Determined Employer Contribution (ADEC)	8
	3. Actuarial Value of Benefits and Assets	9
	4. Calculation of Employer Normal Cost	10
	5. Liquidation of the Unfunded Actuarial Accrued Liability	11
	6. Actuarial Gains and Losses	12
	7. Actual Versus Expected Decrements	16
	8. History of Valuation Results	17
	9. History of UAAL and Funded Ratio	18
	10. History of Required and Actual Contributions	19
	11. Actuarial Assumptions and Cost Method	21
	12. Glossary of Terms	26
<b>C</b>	Pension Fund Information	
	1. Summary of Assets	29
	2. Summary of Fund's Income and Disbursements	30
	3. Actuarial Value of Assets	31
	4. Reconciliation of DROP Accounts, Share Plan Accounts, and Prepaid Contribution	32
	5. Investment Rate of Return	33
<b>D</b>	Financial Accounting Information	
	1. FASB No. 35	34
	2. GASB No. 67	35
<b>E</b>	Miscellaneous Information	
	1. Reconciliation of Membership Data	41
	2. Age/Service/Salary Distributions	42
<b>F</b>	Summary of Plan Provisions	44



## SECTION A

---

### DISCUSSION OF VALUATION RESULTS

# DISCUSSION OF VALUATION RESULTS

## Comparison of Required Employer Contributions

The required employer contribution developed in this year's valuation is compared below to last year's results.

	For FYE 9/30/25 Based on 10/1/2023 Valuation	For FYE 9/30/24 Based on 10/1/2022 Valuation	Increase (Decrease)
Required Employer/State Contribution As % of Covered Payroll	\$ 1,417,364 43.23 %	\$ 1,265,010 41.26 %	\$ 152,354 1.97 %
Credit for State Revenue* As % of Covered Payroll	\$ 71,070 2.17 %	\$ 71,070 2.32 %	\$ 0 (0.15) %
Required Employer Contribution** As % of Covered Payroll	\$ 1,346,294 41.06 %	\$ 1,193,940 38.94 %	\$ 152,354 2.12 %

\* This amount is estimated based on the latest collective bargaining agreement. The amount shown assumes total annual premium tax revenue receipts of \$142,139 in FYE 2024 and FYE 2025. The prior year figures have been updated to reflect a lower expected State Revenue credit due to the new agreement.

\*\* The Village has a prepaid contribution of \$74,097 as of October 1, 2023 that can be used to reduce its contribution requirement for FYE 2024 and/or FYE 2025 and/or future fiscal years.

The required employer contribution developed in this valuation has been calculated as though the full contribution for the fiscal year ending September 30, 2025 is paid on December 31, 2024.

Further, the required employer contribution has been computed under the assumption that the allowable amount of State money to be used as an offset towards the Village's contribution requirements for fiscal years ending 2024 and 2025 will be at least \$71,070. If the actual allowable amount of State money falls below \$71,070, then the Village must raise its contribution (or reduce the prepaid amount) by the difference.

The actual Employer and State contributions for the fiscal year ending September 30, 2023 were \$1,194,308 and \$0, respectively. In addition, \$96,313 from the Village's prepaid contribution reserve was used to satisfy the contribution requirement. The total of these contribution amounts was \$1,290,621. The total annual required contribution was \$1,290,621.

## Revision in Benefits

A new collective bargaining agreement covering the period October 1, 2023 through September 30, 2026 was signed since the prior valuation. The new agreement allocates 50% of annual State insurance premium tax revenue to the Share Plan. Prior to this agreement, the allocation to the Share Plan was 50% of the amount received in excess of \$82,448 per year. In accordance with this change, the estimated State revenue credit available to offset the Village's contribution requirement for FYE 2024 (shown in the prior year column of this report) and FYE 2025 has been updated from \$96,036 to \$71,070. The new amount assumes total annual premium tax revenue receipts will equal \$142,139 (the same amount as calculated by the State for FYE 2023).



## Revisions in Actuarial Assumptions or Methods

There have been no changes in actuarial assumptions or methods since the prior valuation.

## Actuarial Experience

There was a net actuarial loss of \$1,177,517 for the year. The net loss is primarily due to lower than expected investment earnings under the asset smoothing method. The return under the asset smoothing method was 5.0% versus the assumed rate of 7.0%. The return on the market value of assets was 13.0%. Additionally, there were demographic experience losses attributable to unfavorable employment termination, retirement, and mortality experience. The net actuarial loss increased the actuarially determined employer contribution by \$113,046.

## Funded Ratio

The funded ratio, one measure of the Plan's financial health, is equal to the actuarial value of assets divided by the actuarial accrued (past service) liability. The funded ratio is 89.3% this year compared to 91.0% for the previous valuation.

## Analysis of Change in Employer Contribution

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

Contribution last year	\$ 1,193,940
Change in assumptions/methods	-
Change in Normal Cost	43,474
Experience gain/loss	113,046
Amortization payment on UAAL	(15,353)
Change in administrative expense	<u>11,187</u>
Contribution this year	\$ 1,346,294

## Variability of Future Contribution Rates

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

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

The actuarial value of assets exceeds the market value of assets by \$2,136,716 as of the valuation date (see Section C). This difference will be gradually recognized over the next four years and will increase the Village's contribution requirement in the absence of offsetting gains.

## Relationship to Market Value

If market value had been the basis for the valuation, the Village contribution requirement would have been approximately \$1,551,425 and the funded ratio would have been 83.5%.

## Conclusion

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





## **RISKS ASSOCIATED WITH MEASURING THE ACCRUED LIABILITY AND ACTUARIALLY DETERMINED CONTRIBUTION**

The determination of the accrued liability and the actuarially determined contribution requires the use of assumptions regarding future economic and demographic experience. Risk measures, as illustrated in this report, are intended to aid in the understanding of the effects of future experience differing from the assumptions used in the course of the actuarial valuation. Risk measures may also help with illustrating the potential volatility in the accrued liability and the actuarially determined contribution that result from the differences between actual experience and the actuarial assumptions.

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 due to changing conditions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period, or additional cost or contribution requirements based on the Plan's funded status); and changes in plan provisions or applicable law. The scope of an actuarial valuation does not include an analysis of the potential range of such future measurements.

Examples of risk that may reasonably be anticipated to significantly affect the plan's future financial condition include:

1. Investment risk – actual investment returns may differ from the expected returns;
2. Contribution risk – actual contributions may differ from expected future contributions. For example, actual contributions may not be made in accordance with the plan's funding policy or material changes may occur in the anticipated number of covered employees, covered payroll, or other relevant contribution base;
3. Salary and Payroll risk – actual salaries and total payroll may differ from expected, resulting in actual future accrued liability and contributions differing from expected;
4. Longevity risk – members may live longer or shorter than expected and receive pensions for a period of time other than assumed;
5. Other demographic risks – members may terminate, retire or become disabled at times or with benefits other than assumed resulting in actual future accrued liability and contributions differing from expected.

The effects of certain trends in experience can generally be anticipated. For example, if the investment return since the most recent actuarial valuation is less (or more) than the assumed rate, the cost of the plan can be expected to increase (or decrease). Likewise, if longevity is improving (or worsening), increases (or decreases) in cost can be anticipated.

The computed contribution rate shown on page 1 may be considered as a minimum contribution rate that complies with the Board's funding policy. The timely receipt of the actuarially determined contributions is critical to support the financial health of the plan. Users of this report should be aware that contributions made at the actuarially determined rate do not necessarily guarantee benefit security.



## Plan Maturity Measures

Risks facing a pension plan evolve over time. A young plan with virtually no investments and paying few benefits may experience little investment risk. An older plan with a large number of members in pay status and a significant trust may be much more exposed to investment risk. Generally accepted plan maturity measures include the following:

	<u>2023</u>	<u>2022</u>	<u>2021</u>
Ratio of the market value of assets to payroll	9.41	8.98	10.69
Ratio of actuarial accrued liability to payroll	11.27	11.38	10.70
Ratio of actives to retirees and beneficiaries	1.03	1.06	1.13
Ratio of net cash flow to market value of assets	-0.53 %	-1.89 %	0.53 %

### Ratio of Market Value of Assets to Payroll

The relationship between assets and payroll is a useful indicator of the potential volatility of contributions. For example, if the market value of assets is 2.0 times the payroll, a return on assets 5% different than assumed would equal 10% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in plan sponsor contributions as a percentage of payroll.

### Ratio of Actuarial Accrued Liability to Payroll

The relationship between actuarial accrued liability and payroll is a useful indicator of the potential volatility of contributions for a fully funded plan. A funding policy that targets a funded ratio of 100% is expected to result in the ratio of assets to payroll and the ratio of liability to payroll converging over time.

The ratio of liability to payroll may also be used as a measure of sensitivity of the liability itself. For example, if the actuarial accrued liability is 2.5 times the payroll, a change in liability 2% other than assumed would equal 5% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in liability (and also plan sponsor contributions) as a percentage of payroll.

### Ratio of Actives to Retirees and Beneficiaries

A young plan with many active members and few retirees will have a high ratio of active to retirees. A mature open plan may have close to the same number of actives to retirees resulting in a ratio near 1.0. A super-mature or closed plan may have significantly more retirees than actives resulting in a ratio below 1.0.

### Ratio of Net Cash Flow to Market Value of Assets

A positive net cash flow means contributions exceed benefits and expenses. A negative cash flow means existing funds are being used to make payments. A certain amount of negative net cash flow is generally expected to occur when benefits are prefunded through a qualified trust. Large negative net cash flows as a percent of assets may indicate a super-mature plan or a need for additional contributions.

## Additional Risk Assessment

Additional risk assessment is outside the scope of the annual actuarial valuation. Additional assessment may include scenario tests, sensitivity tests, stochastic modeling, stress tests, and a comparison of the present value of accrued benefits at low-risk discount rates with the actuarial accrued liability.

## LOW-DEFAULT-RISK OBLIGATION MEASURE

Actuarial Standards of Practice No. 4 (ASOP No. 4) was revised and reissued in December 2021 by the Actuarial Standards Board (ASB). It includes a new calculation called a low-default-risk obligation measure (LDROM) to be prepared and issued annually for defined benefit pension plans. The transmittal memorandum for ASOP No. 4 includes the following explanation:

“The ASB believes that the calculation and disclosure of this measure provides appropriate, useful information for the intended user regarding the funded status of a pension plan. The calculation and disclosure of this additional measure is not intended to suggest that this is the “right” liability measure for a pension plan. However, the ASB does believe that this additional disclosure provides a more complete assessment of a plan’s funded status and provides additional information regarding the security of benefits that members have earned as of the measurement date.”

The following information has been prepared in compliance with this new requirement. Unless otherwise noted, the measurement date, actuarial cost methods, and assumptions used are the same as for the funding valuation covered in this actuarial valuation report.

A. Low-default-risk Obligation Measure of benefits earned as of the measurement date: \$50,287,772

B. Discount rate used to calculate the LDROM: 4.63%

C. Other significant assumptions that differ from those used for the funding valuation: none

D. Actuarial cost method used to calculate the LDROM: Entry Age Normal

E. Valuation procedures to value any significant plan provisions that are difficult to measure using traditional valuation procedures, and that differ from the procedures used in the funding valuation: none

F. Commentary to help the intended user understand the significance of the LDROM with respect to the funded status of the plan, plan contributions, and the security of participant benefits: The LDROM is a market-based measurement of the pension obligation. It estimates the amount the plan would need to invest in low risk securities to provide the benefits with greater certainty. This measure may not be appropriate for assessing the need for or amount of future contributions. This measure may not be appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan’s benefit obligation.

**The difference between the two measures (Valuation and LDROM) is one illustration of the savings the sponsor anticipates by taking on the risk in a diversified portfolio.**



## CHAPTER REVENUE

For FYE 2023, the Village and Union have mutually consented to using 50% of the annual Insurance Premium Tax Revenue (IPTR) in excess of the 2012 amount of \$82,448 to fund the Share Plan, with the remainder used to offset the Village's annual required contribution.

A new collective bargaining agreement was signed on November 21, 2023, covering the period October 1, 2023 through September 30, 2026. This agreement allocates 50% of annual IPTR to the Share Plan and 50% as an offset to the Village's annual required contribution.

Actuarial Confirmation of the Use of State Chapter Money FY 2023	
1. Premium Tax Revenue Received for Calendar year 2012	\$ 82,448
2. Premium Tax Revenue Received in Previous Plan Year	-
3. Annual Excess: (2) - (1), not less than zero	-
4. Amount Used to Fund Share Plan: 50% of (3)	-
5. Annual Excess Used to Fund Pension Plan: (3) - (4)	-
6. Amount Used to Fund Pension Plan: (1) + (5)	\$ -

## SECTION B

---

### VALUATION RESULTS

PARTICIPANT DATA		
	October 1, 2023	October 1, 2022
<b>ACTIVE MEMBERS</b>		
Number	36	34
Covered Annual Payroll	\$ 3,278,890	\$ 3,066,180
Average Annual Payroll	\$ 91,080	\$ 90,182
Average Age	33.4	35.5
Average Past Service	7.9	9.3
Average Age at Hire	25.5	26.2
<b>RETIREES &amp; BENEFICIARIES &amp; DROP</b>		
Number	34	31
Annual Benefits	\$ 1,949,403	\$ 1,707,996
Average Annual Benefit	\$ 57,335	\$ 55,097
Average Age	64.7	65.0
<b>DISABILITY RETIREES</b>		
Number	1	1
Annual Benefits	\$ 23,454	\$ 23,107
Average Annual Benefit	\$ 23,454	\$ 23,107
Average Age	82.1	81.1
<b>TERMINATED VESTED MEMBERS</b>		
Number	1	1
Annual Benefits	\$ 44,028	\$ 44,028
Average Annual Benefit	\$ 44,028	\$ 44,028
Average Age	43.0	42.0

<b>ACTUARIALLY DETERMINED EMPLOYER CONTRIBUTION (ADEC)</b>		
A. Valuation Date	October 1, 2023	October 1, 2022
B. ADEC to Be Paid During Fiscal Year Ending	9/30/2025	9/30/2024
C. Assumed Date of Employer Contrib.	12/31/2024	12/31/2023
D. Annual Payment to Amortize Unfunded Actuarial Liability	\$ 550,042	\$ 460,272
E. Employer Normal Cost	752,379	702,151
F. ADEC if Paid on the Valuation Date: D+E	1,302,421	1,162,423
G. ADEC Adjusted for Timing of Payments	1,417,364	1,265,010
H. ADEC as % of Covered Payroll	43.23 %	41.26 %
I. Assumed Rate of Increase in Covered Payroll to Contribution Year	0.00 %	0.00 %
J. Covered Payroll for Contribution Year	3,278,890	3,066,180
K. ADEC for Contribution Year: H x J	1,417,364	1,265,010
L. Credit for State Revenue in Contribution Year*	71,070	71,070
M. Required Employer Contribution (REC) in Contribution Year	1,346,294	1,193,940
N. REC as % of Covered Payroll in Contribution Year: M ÷ J	41.06 %	38.94 %

\* The estimated credit has been updated to reflect the latest collective bargaining agreement which allocates 50% of annual State insurance premium tax revenue to the Share Plan. The amount shown assumes total annual premium tax revenue receipts of \$142,139 in FYE 2024 and FYE 2025.

ACTUARIAL VALUE OF BENEFITS AND ASSETS		
A. Valuation Date	October 1, 2023	October 1, 2022
B. Actuarial Present Value of All Projected Benefits for		
1. Active Members		
a. Service Retirement Benefits	\$ 18,656,371	\$ 18,697,837
b. Vesting Benefits	1,083,803	908,917
c. Disability Benefits	868,211	781,330
d. Preretirement Death Benefits	64,628	58,967
e. Return of Member Contributions	157,419	117,869
f. Total	20,830,432	20,564,920
2. Inactive Members		
a. Service Retirees & Beneficiaries	25,620,625	22,466,353
b. Disability Retirees	123,990	127,861
c. Terminated Vested Members	675,066	630,460
d. Total	26,419,681	23,224,674
3. Total for All Members	47,250,113	43,789,594
C. Actuarial Accrued (Past Service) Liability under Entry Age Normal	36,957,364	34,902,028
D. Actuarial Value of Accumulated Plan Benefits per FASB No. 35	32,891,453	31,323,844
E. Plan Assets		
1. Market Value	30,848,536	27,549,060
2. Actuarial Value	32,985,252	31,744,003
F. Unfunded Actuarial Accrued Liability: (C - E2)	3,972,112	3,158,025
G. Actuarial Present Value of Projected Covered Payroll	35,880,955	30,898,479
H. Actuarial Present Value of Projected Member Contributions	3,229,286	2,780,863



CALCULATION OF EMPLOYER NORMAL COST		
A. Valuation Date	October 1, 2023	October 1, 2022
B. Normal Cost for		
1. Service Retirement Benefits	\$ 788,287	\$ 740,642
2. Vesting Benefits	66,560	58,469
3. Disability Benefits	58,619	57,330
4. Preretirement Death Benefits	2,762	2,706
5. Return of Member Contributions	<u>21,270</u>	<u>19,259</u>
6. Total for Future Benefits	937,498	878,406
7. Assumed Amount for Administrative Expenses	<u>109,981</u>	<u>99,701</u>
8. Total Normal Cost	1,047,479	978,107
C. Expected Member Contribution	295,100	275,956
D. Employer Normal Cost: B8-C	752,379	702,151
E. Employer Normal Cost as a % of Covered Payroll	22.95%	22.90%

## LIQUIDATION OF THE UNFUNDED ACTUARIAL ACCRUED LIABILITY

The Unfunded Actuarial Accrued Liability (UAAL) is being amortized as a level dollar amount over the number of years remaining in the amortization period. Details relating to the UAAL are as follows:

UAAL AMORTIZATION PERIOD AND PAYMENTS						
Original UAAL				Current UAAL		
Date Established	Source	Amort'n Period (Years)	Amount	Years Remaining	Amount	Payment
10/1/2012	Method Change	20	7,346,474	9	3,918,417	562,078
10/1/2013	Experience Gain	20	(323,492)	10	(188,307)	(25,057)
10/1/2013	Assumption Change	20	275,355	10	160,287	21,328
10/1/2013	Plan Amendment	20	(143,531)	10	(83,553)	(11,118)
10/1/2014	Experience Gain	20	(569,454)	11	(359,923)	(44,858)
10/1/2014	Assumption Change	20	295,290	11	186,639	23,261
10/1/2015	Experience Loss	20	187,032	12	129,018	15,181
10/1/2015	Assumption Change	20	315,722	12	217,792	25,627
10/1/2016	Experience Loss	20	79,434	13	58,436	6,535
10/1/2016	Assumption Change	20	(265,431)	13	(195,266)	(21,835)
10/1/2017	Experience Gain	20	(1,088,897)	14	(839,889)	(89,754)
10/1/2018	Experience Loss	20	31,702	15	26,017	2,670
10/1/2019	Experience Loss	20	97,492	16	83,754	8,286
10/1/2019	Assumption Change	20	845,792	16	726,615	71,886
10/1/2020	Experience Gain	20	(336,186)	17	(293,760)	(28,120)
10/1/2021	Experience Gain	20	(871,872)	18	(795,054)	(73,868)
10/1/2022	Experience Loss	20	45,275	19	43,372	3,922
10/1/2023	Experience Loss	20	<u>1,177,517</u>	20	<u>1,177,517</u>	<u>103,878</u>
			\$ 7,098,222		\$ 3,972,112	\$ 550,042

Amortization Schedule	
Year	Expected UAAL
2023	\$ 3,972,112
2024	3,661,625
2025	3,329,393
2026	2,973,906
2027	2,593,534
2028	2,186,537
2033	283,586
2038	288,298
2043	-

## ACTUARIAL GAINS AND LOSSES

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

1. Last Year's UAAL	\$ 3,158,025
2. Last Year's Employer Normal Cost	702,151
3. Last Year's Contributions	1,290,621
4. Interest at the Assumed Rate on:	
a. 1 and 2 for one year	270,212
b. 3 from dates paid	45,172
c. a - b	225,040
5. This Year's Expected UAAL 1 + 2 - 3 + 4c:	2,794,595
6. This Year's Actual UAAL	3,972,112
7. Net Actuarial Gain/(Loss): 5 - 6	(1,177,517)
8. Gain/(Loss) Due to Investments	(650,961)
9. Gain/(Loss) Due to Other Sources	(526,556)

Net actuarial gains and losses in previous years have been as follows:

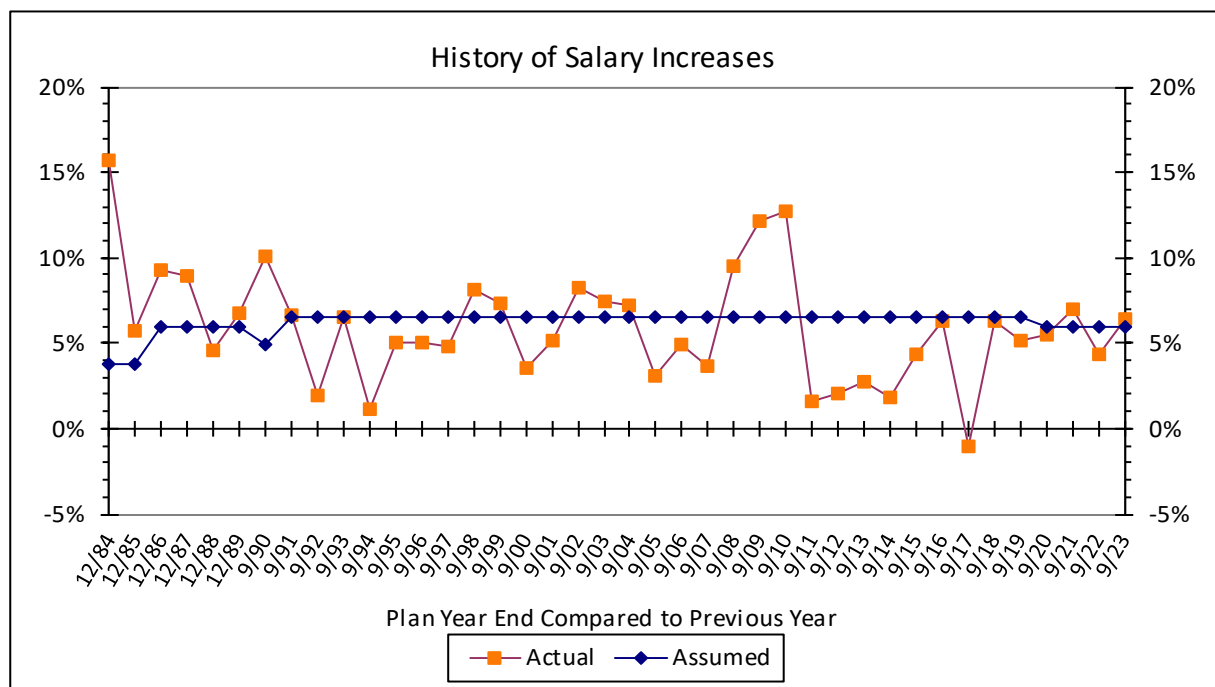
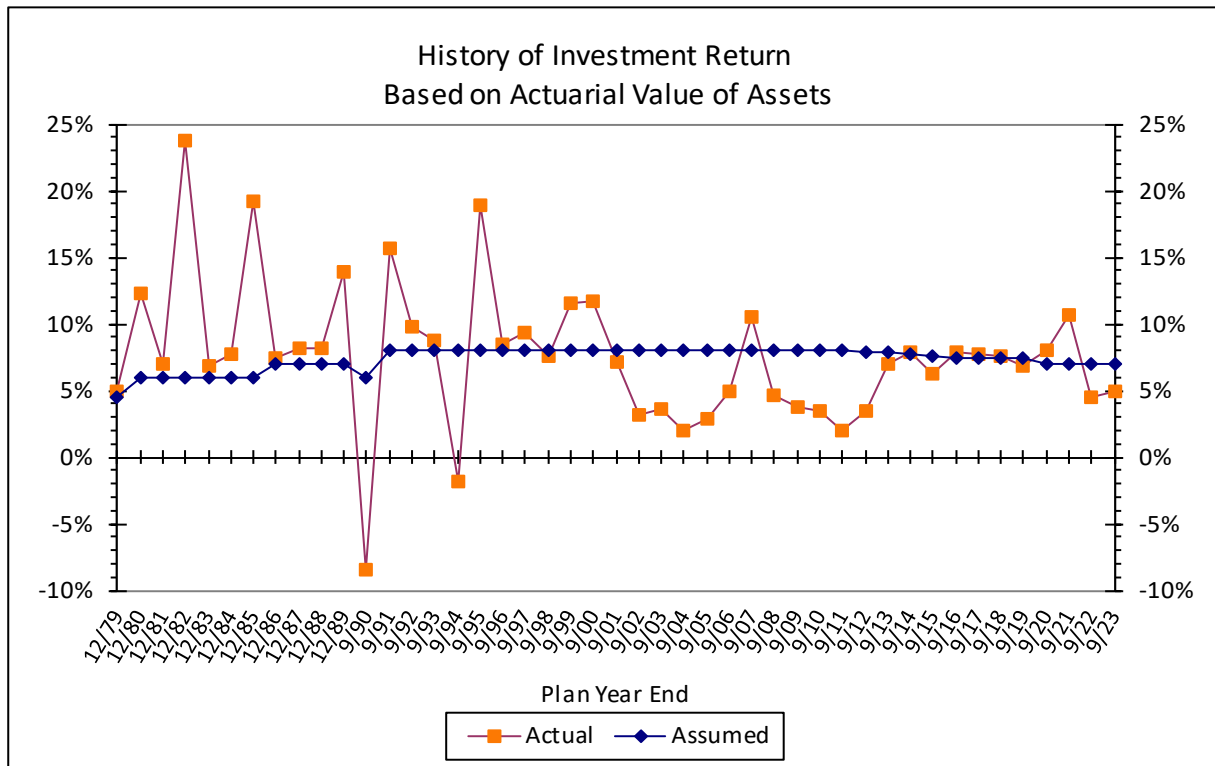
Year Ended	Net Gain (Loss)*
12/31/89	\$ 321,199
9/30/90 (9 mos.)	(406,155)
9/30/91	242,232
9/30/93	(18,250)
9/30/94	(117,136)
9/30/95	464,248
9/30/96	220,748
9/30/97	314,887
9/30/98	(117,839)
9/30/99	345,563
9/30/00	519,974
9/30/01	39,578
9/30/02	(545,492)
9/30/03	(414,623)
9/30/05	(760,867)
9/30/06	80,338
9/30/07	252,002
9/30/08	9,613
9/30/09	(53,993)
9/30/10	(53,156)
9/30/11	89,473
9/30/12	(379,467)
9/30/13	323,492
9/30/14	569,454
9/30/15	(187,032)
9/30/16	(79,434)
9/30/17	1,088,897
9/30/18	(31,702)
9/30/19	(97,492)
9/30/20	336,186
9/30/21	871,872
9/30/22	(45,275)
9/30/23	(1,177,517)

\* Based on Entry Age Normal Funding Method after FYE 9/30/12.

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 previous years:

Year Ending	Investment Return		Salary Increases	
	Actual	Assumed	Actual	Assumed
12/31/1979	4.9 %	4.5 %	NA	NA
12/31/1980	12.3	6.0	NA	3.75 %
12/31/1981	7.0	6.0	NA	3.75
12/31/1982	23.7	6.0	NA	3.75
12/31/1983	6.8	6.0	NA	3.75
12/31/1984	7.7	6.0	15.7 %	3.75
12/31/1985	19.2	6.0	5.7	3.75
12/31/1986	7.5	7.0	9.3	6.00
12/31/1987	8.1	7.0	8.9	6.00
12/31/1988	8.1	7.0	4.6	6.00
12/31/1989	13.9	7.0	6.8	6.00
9/30/1990 (9 mos.)	(8.4)	6.0	10.1	4.90
9/30/1991	15.7	8.0	6.6	6.50
9/30/1992	9.8	8.0	1.9	6.50
9/30/1993	8.7	8.0	6.5	6.50
9/30/1994	(1.9)	8.0	1.1	6.50
9/30/1995	18.9	8.0	5.0	6.50
9/30/1996	8.4	8.0	5.0	6.50
9/30/1997	9.4	8.0	4.8	6.50
9/30/1998	7.6	8.0	8.1	6.50
9/30/1999	11.6	8.0	7.3	6.50
9/30/2000	11.7	8.0	3.6	6.50
9/30/2001	7.2	8.0	5.1	6.50
9/30/2002	3.1	8.0	8.2	6.50
9/30/2003	3.6	8.0	7.5	6.50
9/30/2004	2.0	8.0	7.2	6.50
9/30/2005	2.9	8.0	3.1	6.50
9/30/2006	5.0	8.0	4.9	6.50
9/30/2007	10.5	8.0	3.7	6.50
9/30/2008	4.6	8.0	9.5	6.50
9/30/2009	3.8	8.0	12.2	6.50
9/30/2010	3.5	8.0	12.7	6.50
9/30/2011	2.0	8.0	1.6	6.50
9/30/2012	3.4	7.9	2.0	6.50
9/30/2013	7.0	7.8	2.7	6.50
9/30/2014	7.8	7.7	1.8	6.50
9/30/2015	6.3	7.6	4.3	6.50
9/30/2016	7.8	7.5	6.3	6.50
9/30/2017	7.7	7.5	(1.0)	6.50
9/30/2018	7.6	7.5	6.3	6.50
9/30/2019	6.9	7.5	5.2	6.50
9/30/2020	8.0	7.0	5.5	6.00
9/30/2021	10.7	7.0	7.0	6.00
9/30/2022	4.5	7.0	4.3	6.00
9/30/2023	5.0	7.0	6.4	6.00
Averages	7.5 %	---	5.9 %	---

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



Actual (A) Compared to Expected (E) Decrements Among Active Employees													
Year Ended	Number Added During Year		Service & DROP Retirement		Disability Retirement		Death		Terminations				Active Members End of Year
	A	E	A	E	A	E	A	E	A	Other	Totals		
											A	E	
9/30/2007	7	5	1	0	0	0	0	0	1	3	4	1	28
9/30/2008	3	1	0	0	0	0	0	0	0	1	1	1	30
9/30/2009	0	2	1	0	0	0	0	0	0	1	1	1	28
9/30/2010	3	1	0	0	0	0	0	0	0	1	1	1	30
9/30/2011	2	0	0	2	0	0	0	0	0	0	0	1	32
9/30/2012	0	0	0	2	0	0	0	0	0	0	0	1	32
9/30/2013	0	0	0	2	0	0	0	0	0	0	0	1	32
9/30/2014	0	5	4	4	0	0	0	0	0	1	1	1	27
9/30/2015	2	4	3	2	0	0	0	0	0	1	1	1	25
9/30/2016	4	1	0	1	0	0	0	0	0	1	1	1	28
9/30/2017	3	0	0	1	0	0	0	0	0	0	0	1	31
9/30/2018	2	1	1	1	0	0	0	0	0	0	0	1	32
9/30/2019	5	1	1	1	0	0	0	0	0	0	0	1	36
9/30/2020	0	2	1	1	0	0	0	0	0	1	1	1	34
9/30/2021	2	2	0	0	0	0	0	0	0	2	2	1	34
9/30/2022	8	8	2	2	0	0	0	0	1	5	6	1	34
9/30/2023	5	3	3	1	0	0	0	0	0	0	0	1	36
9/30/2024				1		0		0				1	
17 Yr Totals *	46	36	17	20	0	0	0	0	2	17	19	17	

\* Totals are through current Plan Year only.

HISTORY OF VALUATION RESULTS							
Valuation Date	Number of		Covered Annual Payroll	Actuarial Value of Assets	UFAAL	Employer Normal Cost**	
	Active Members	Inactive Members				Amount	% of Payroll
1/1/84	98	27	\$ 1,807,367	\$ 3,158,441	\$ 846,812	\$ 220,874	12.22 %
1/1/85	103	25	2,010,440	3,543,257	1,109,310	184,536	9.18
1/1/86	98	27	2,175,398	4,341,688	NA	194,089	8.92
1/1/87	96	30	2,235,827	4,863,014	NA	188,278	8.42
1/1/88	109	28	2,635,041	5,442,147	NA	222,386	8.44
1/1/89	118	29	2,756,036	6,157,589	1,017,826	272,688	9.89
1/1/90	106	33	2,605,006	7,281,622	(504,628)	191,668	7.36
10/1/90	80	39	2,398,152	6,667,843	151,001	196,064	8.18
10/1/91	85	41	2,666,872	7,834,089	(440,143)	194,795	7.30
10/1/92	93	43	3,060,775	8,680,742	(346,854)	244,545	7.99
10/1/93	91	42	3,111,680	9,539,357	(328,225)	251,447	8.08
10/1/94	86	45	2,925,881	9,380,878	154,113	225,256	7.70
10/1/95	84	47	2,900,044	10,193,957	0	226,583	7.81
10/1/96	96	43	3,333,873	11,043,748	0	230,257	6.91
10/1/97	93	41	3,382,347	11,990,762	0	198,549	5.87
10/1/98	83	47	3,078,948	12,753,331	0	191,419	6.22
10/1/99	86	49	3,343,398	13,971,154	0	172,199	5.15
10/1/00 *	27	15	1,449,586	9,672,236	0	116,160	8.01
10/1/01	27	17	1,453,248	10,090,680	0	120,863	8.32
10/1/02	25	19	1,425,992	10,112,018	0	179,481	12.59
10/1/03	25	19	1,512,332	10,238,221	0	488,300	32.25
10/1/05	23	21	1,424,759	10,151,153	0	539,711	37.88
10/1/06	26	21	1,630,878	10,332,878	0	636,210	39.01
10/1/07	28	22	1,683,969	11,320,831	0	638,388	37.91
10/1/08	30	22	1,901,236	11,728,021	0	727,340	38.26
10/1/09	28	22	1,989,749	12,349,336	0	762,033	38.30
10/1/10	30	22	2,333,748	12,907,994	0	869,932	37.28
10/1/11	32	22	2,484,518	13,516,192	0	1,109,622	44.66
10/1/12	32	22	2,541,774	14,296,817	7,346,474	442,657	17.42
10/1/13	32	22	2,610,111	16,196,228	6,935,503	479,966	18.39
10/1/14	27	25	2,148,391	17,925,664	6,395,948	420,333	19.57
10/1/15	25	28	1,998,278	19,332,306	6,539,917	394,846	19.76
10/1/16	28	28	2,374,511	20,821,367	6,073,268	474,328	19.98
10/1/17	31	27	2,532,481	22,484,178	4,771,120	529,219	20.90
10/1/18	32	28	2,721,462	24,207,653	4,489,138	551,985	20.28
10/1/19	36	29	3,031,497	25,958,626	5,173,097	653,655	21.56
10/1/20	34	30	3,008,917	27,818,106	4,697,465	667,980	22.20
10/1/21	34	30	3,191,142	30,673,319	3,485,884	713,813	22.37
10/1/22	34	33	3,066,180	31,744,003	3,158,025	702,151	22.90
10/1/23	36	36	3,278,890	32,985,252	3,972,112	752,379	22.95

\* After split of General and Police Plans.

\*\* Based on Entry Age Normal funding method after 10/1/11.





## HISTORY OF UAAL AND FUNDED RATIO

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) - Entry Age (b)	Unfunded AAL (UAAL) (b) - (a)	Funded Ratio (a) / (b)	Covered Payroll (c)	UAAL As % of Covered Payroll (b - a) / c
10/1/1991	\$ 7,834,089	\$ 7,393,946	\$ (440,143)	106.0 %	\$ 2,666,872	(16.5) %
10/1/1992	8,656,344	8,333,888	(322,456)	103.9	3,060,775	(10.5)
10/1/1993	9,539,357	9,211,131	(328,226)	103.6	3,111,680	(10.5)
10/1/1994	9,380,878	9,436,798	55,920	99.4	2,925,881	1.9
10/1/1995	10,193,957	10,100,353	(93,604)	100.9	2,900,044	(3.2)
10/1/1996	11,043,748	10,651,327	(392,421)	103.7	3,333,873	(11.8)
10/1/1997	11,990,762	11,411,093	(579,669)	105.1	3,382,347	(17.1)
10/1/1998	12,753,331	12,112,534	(640,797)	105.3	3,078,948	(20.8)
10/1/1999	13,971,154	12,842,028	(1,129,126)	108.8	3,343,398	(33.8)
10/1/2000*	9,672,236	9,116,194	(556,042)	106.1	1,449,586	(38.4)
10/1/2001	10,090,680	9,726,578	(364,102)	103.7	1,453,248	(25.1)
10/1/2002	10,112,018	10,279,369	167,351	98.4	1,425,992	11.7
10/1/2003	10,238,221	10,983,149	744,928	93.2	1,514,310	49.2
10/1/2005	10,151,153	13,679,903	3,528,750	74.2	1,424,759	247.7
10/1/2006	10,332,878	14,573,821	4,240,943	70.9	1,630,878	260.0
10/1/2007	11,320,831	15,114,334	3,793,503	74.9	1,683,969	225.3
10/1/2008	11,728,021	16,032,250	4,304,229	73.2	1,901,236	226.4
10/1/2009	12,349,336	16,905,643	4,556,307	73.0	1,989,749	229.0
10/1/2010	12,907,994	18,239,319	5,331,325	70.8	2,333,748	228.4
10/1/2011	13,516,192	20,341,716	6,825,524	66.4	2,484,518	274.7
10/1/2012	14,296,817	21,643,291	7,346,474	66.1	2,541,774	289.0
10/1/2013	16,196,228	23,131,731	6,935,503	70.0	2,610,111	265.7
10/1/2014	17,925,664	24,321,612	6,395,948	73.7	2,148,391	297.7
10/1/2015	19,332,306	25,872,223	6,539,917	74.7	1,998,278	327.3
10/1/2016	20,821,367	26,894,635	6,073,268	77.4	2,374,511	255.8
10/1/2017	22,484,178	27,255,298	4,771,120	82.5	2,532,481	188.4
10/1/2018	24,207,653	28,696,791	4,489,138	84.4	2,721,462	165.0
10/1/2019	25,958,626	31,131,723	5,173,097	83.4	3,031,497	170.6
10/1/2020	27,818,106	32,515,571	4,697,465	85.6	3,008,917	156.1
10/1/2021	30,673,319	34,159,203	3,485,884	89.8	3,191,142	109.2
10/1/2022	31,744,003	34,902,028	3,158,025	91.0	3,066,180	103.0
10/1/2023	32,985,252	36,957,364	3,972,112	89.3	3,278,890	121.1

\* After split of General and Police Plans.

HISTORY OF REQUIRED AND ACTUAL CONTRIBUTIONS										
Valuation	End of Year To Which Valuation Applies	Required Contributions						Actual Contributions		
		Employer & State		Estimated State		Net Employer				
		Amount	% of Payroll	Amount	% of Payroll	Amount	% of Payroll	Employer <sup>1</sup>	State	Total
1/1/84	9/30/85	\$ 183,231	10.14 %	\$ 19,000	1.05 %	\$ 164,231	9.09 %	\$ 167,602	\$ 15,629	\$ 183,231
1/1/85	9/30/86	177,745	8.84	21,000	1.04	156,745	7.80	166,992	17,465	184,457
1/1/86	9/30/87	266,262	12.24	17,465	0.80	248,797	11.44	247,673	18,589	266,262
1/1/87	9/30/88	266,780	11.93	18,589	0.83	248,191	11.10	246,397	20,383	266,780
1/1/88	9/30/89	331,173	12.57	20,383	0.77	310,790	11.79	309,612	22,079	331,691
1/1/89	9/30/90	380,104	13.79	22,079	0.80	358,025	12.99	358,718	21,386	380,104
1/1/90	9/30/91	170,470	6.54	20,000	0.77	150,470	5.78	150,470	23,028	173,498
10/1/90	9/30/92	237,642	9.91	23,000	0.96	214,642	8.95	217,043	20,599	237,642
10/1/91	9/30/93	185,656	6.96	20,000	0.75	165,656	6.21	172,460	21,528	193,988
10/1/92	9/30/94	238,913	7.81	21,528	0.70	217,385	7.10	214,712	24,201	238,913
10/1/93	9/30/95	248,001	7.97	24,201	0.78	223,800	7.19	225,844	22,157	248,001
10/1/94	9/30/96	262,633	8.98	20,379	0.70	242,254	8.28	240,362	22,271	262,633
10/1/95	9/30/97	249,327	8.60	22,271	0.77	227,056	7.83	223,938	25,389	249,327
10/1/96	9/30/98	253,370	7.60	25,389	0.76	227,981	6.84	224,565	28,806	253,371
10/1/97	9/30/99	218,478	6.46	28,806	0.85	189,672	5.61	190,036	30,193	220,229
10/1/98	9/30/00	210,634	6.84	30,193	0.98	180,441	5.86	199,535	28,907	228,442
10/1/99	9/30/01	189,485	5.67	28,907	0.87	160,578	4.80	161,879	27,606	189,485
10/1/00 <sup>2</sup>	9/30/02	127,821	8.81	27,606	1.90	100,215	6.91	100,215	30,193	130,408
10/1/01	9/30/03	132,996	9.15	30,193	2.08	102,803	7.07	102,803	30,193	132,996
10/1/02	9/30/04	197,498	13.85	30,193	2.12	167,305	11.73	167,305	30,193	197,498
10/1/03	9/30/05	279,522	18.46	30,193	2.00	249,329	16.46	249,329	30,193	279,522
10/1/03	9/30/06	297,812	18.46	30,193	1.88	267,619	16.58	267,619	30,193	297,812
10/1/05	9/30/07	594,211	41.71	30,193	2.12	564,018	39.59	594,211	0	594,211
10/1/06	9/30/08	700,455	42.95	30,193	1.85	670,262	41.10	670,262	30,193	700,455
10/1/07	9/30/09	702,853	41.74	30,193	1.79	672,660	39.95	752,742	60,386	813,128
10/1/08	9/30/10	800,787	42.12	30,193	1.59	770,594	40.53	790,000	0	790,000
10/1/09	9/30/11	838,984	42.17	30,193	1.52	808,791	40.65	951,650	60,386	1,012,036
10/1/10	9/30/12	957,779	41.04	30,193	1.29	927,586	39.75	940,000	60,386	1,000,386
10/1/11	9/30/13	1,220,259 <sup>3</sup>	49.11	30,193	1.22	1,190,066	47.90	1,221,859	0	1,221,859
10/1/12	9/30/14	1,237,354	48.68	30,193	1.19	1,207,161	47.49	1,207,161	60,386	1,267,547
10/1/13	9/30/15	1,246,939 <sup>3</sup>	47.77	30,193	1.16	1,216,746	46.62	1,249,668	0	1,249,668
10/1/14	9/30/16	1,138,404 <sup>3</sup>	52.99	30,193	1.41	1,108,211	51.58	1,122,197	30,193	1,152,390
10/1/15	9/30/17	1,136,047	56.85	30,193	1.51	1,105,854	55.34	1,105,854	30,193	1,136,047
10/1/16	9/30/18	1,195,594	50.35	30,193	1.27	1,165,401	49.08	1,165,400	30,193	1,195,593
10/1/17	9/30/19	1,146,404	45.27	91,075	3.60	1,055,329	41.67	1,116,211	30,193	1,146,404
10/1/18	9/30/20	1,160,361	42.64	95,571	3.51	1,064,790	39.13	1,066,555	93,806	1,160,361
10/1/19	9/30/21	1,336,493	44.09	93,806	3.10	1,242,687	40.99	1,240,180	96,313	1,336,493
10/1/20	9/30/22	1,334,228	44.34	96,313	3.20	1,237,915	41.14	1,238,192	96,036	1,334,228
10/1/21	9/30/23	1,290,621	40.44	96,036	3.01	1,194,585	37.43	1,290,621	0	1,290,621
10/1/22	9/30/24	1,265,010	41.26	71,070	2.32	1,193,940	38.94	NA	NA	NA
10/1/23	9/30/25	1,417,364	43.23	71,070	2.17	1,346,294	41.06	NA	NA	NA

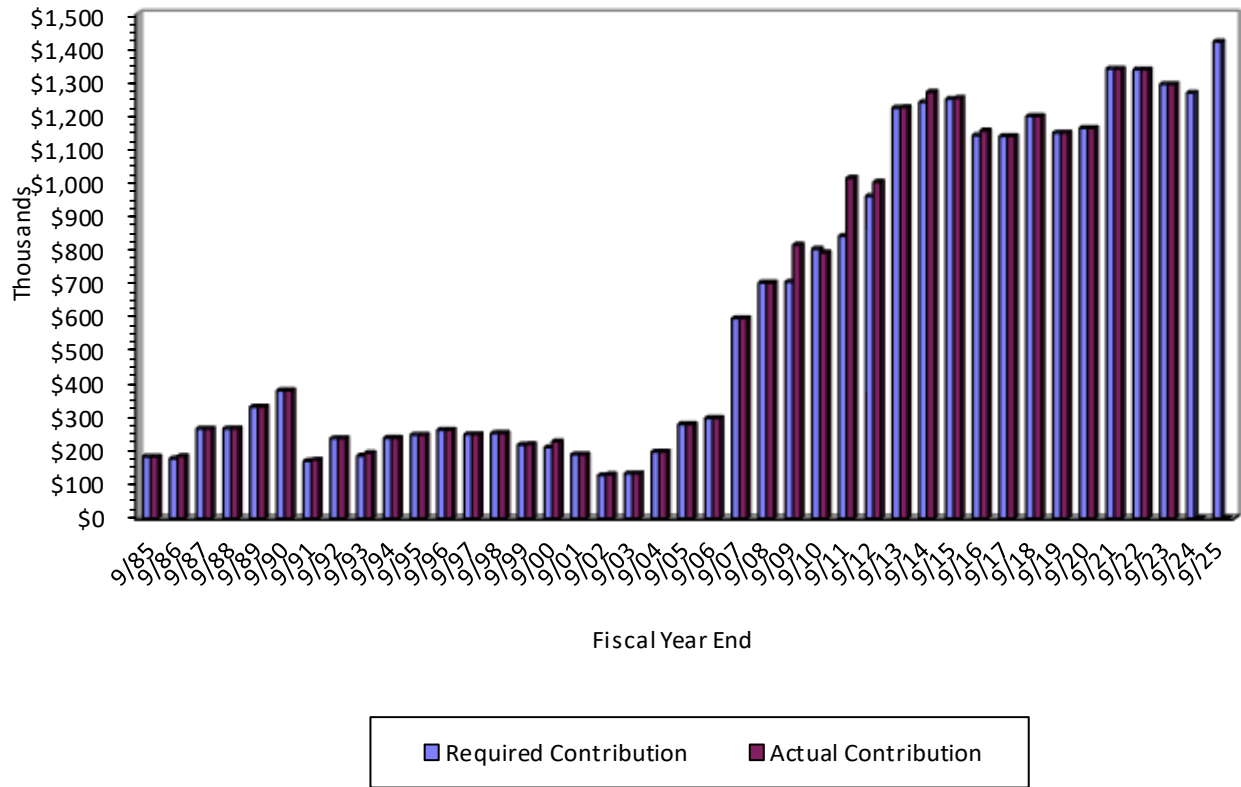
<sup>1</sup> Net of prepaid contribution use.

<sup>2</sup> After split of General and Police Plans.

<sup>3</sup> Does not include interest for late payment of contribution.



## History of Required and Actual Contributions



# 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:

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

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

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

**Actuarial Value of Assets** - The Actuarial Value of Assets phases in the difference between the actual and expected investment earnings over a period of five years. 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 covered group is too small to provide statistically significant experience on which to base certain demographic assumptions. Mortality is based on a commonly used fully generational mortality table and projection scale which is prescribed by Florida Statutes. The retirement age assumption tracks the eligibility requirements for normal retirement. Economic assumptions were most-recently updated in the October 1, 2019 actuarial valuation.

## Economic Assumptions

**The investment return rate** assumed in the valuation is 7.0% per year, compounded annually (net of investment expenses).

The **Price Inflation Rate** assumed this year is 2.25% per year. The Price 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 7.0% investment return rate translates to an assumed real rate of return over price inflation of 4.75%.

**The rate of salary increase** for individual active members is assumed to be 6.0% per year. This assumption is used to project a member's current salary to the salaries upon which benefits will be based. Part of this assumption is for merit and/or seniority increases and productivity increases, and 2.25% recognizes price inflation.



## Demographic Assumptions

The mortality tables used in the valuation are based on the PUB-2010 Headcount Weighted Mortality Tables described below, with mortality improvements generationally projected for healthy lives to all future years after 2010 using Scale MP-2018. No mortality improvement is projected for disabled lives.

	Pre-Retirement PUB-2010 Table	Post-Retirement PUB-2010 Table
Female Healthy	Headcount Weighted Safety Employee Female Table, set forward 1 year	Headcount Weighted Safety Healthy Retiree Female Table, set forward 1 year
Male Healthy	Headcount Weighted Safety Below Median Employee Male Table, set forward 1 year	Headcount Weighted Safety Below Median Healthy Retiree Male Table, set forward 1 year
Female Disabled	N/A	80% Headcount Weighted General Disabled Retiree Female Table; 20% Headcount Weighted Safety Disabled Retiree Female Table
Male Disabled	N/A	80% Headcount Weighted General Disabled Retiree Male Table; 20% Headcount Weighted Safety Disabled Retiree Male Table

These are the same rates as used by the Florida Retirement System (FRS) in their July 1, 2022 Actuarial Valuation Report for Special Risk class members. Florida Statutes Chapter 112.63(1)(f) mandates the use of the mortality tables used in either of the two most recently published actuarial valuation reports of FRS.

The following table presents post-retirement mortality rates and life expectancies at illustrative ages. These assumptions are used to measure the probabilities of each benefit payment being made after retirement.

### FRS Healthy Post-Retirement Mortality for Special Risk Class Members

Sample Attained Ages (in 2023)	Probability of Dying Next Year		Future Life Expectancy (years)	
	Men	Women	Men	Women
50	0.42 %	0.20 %	32.69	36.52
55	0.55	0.35	27.91	31.48
60	0.91	0.60	23.31	26.68
65	1.31	0.92	19.03	22.15
70	2.07	1.43	14.99	17.88
75	3.49	2.38	11.38	13.95
80	6.19	4.08	8.29	10.46

The following table presents pre-retirement mortality rates and life expectancies at illustrative ages. These assumptions are used to measure the probabilities of active members dying prior to retirement.

**FRS Healthy Pre-Retirement Mortality for Special Risk Class Members**

Sample Attained Ages (in 2023)	Probability of Dying Next Year		Future Life Expectancy (years)	
	Men	Women	Men	Women
50	0.16 %	0.10 %	35.82	39.73
55	0.25	0.16	30.74	34.59
60	0.42	0.22	25.78	29.51
65	0.68	0.30	21.00	24.49
70	1.17	0.54	16.46	19.58
75	2.05	1.05	12.21	14.87
80	6.19	4.08	8.29	10.46

The following table presents disabled post-retirement mortality rates and life expectancies at illustrative ages.

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

Sample Attained Ages (in 2023)	Probability of Dying Next Year		Future Life Expectancy (years)	
	Men	Women	Men	Women
50	1.45 %	1.25 %	24.04	26.84
55	1.91	1.50	20.88	23.54
60	2.37	1.81	17.92	20.32
65	3.00	2.22	15.07	17.17
70	3.91	2.90	12.39	14.10
75	5.30	4.13	9.87	11.22
80	7.66	6.21	7.60	8.67

**Rates of Retirement:** It was assumed that all active participants retire when first eligible for Normal Retirement. The rate of retirement is 1% for each year of eligibility for early retirement.

**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 Ages	% of Active Members Separating Within Next Year	
	Male	Female
20	5.7%	6.0%
25	5.0%	5.7%
30	3.8%	5.0%
35	2.6%	3.8%
40	1.6%	2.6%
45	0.8%	1.6%

**Rates of disability** among active members were as shown below (75% of disabilities are assumed to be service-connected).

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

#### **Changes from the Previous Valuation**

There have been no changes in actuarial assumptions or cost method since the prior valuation.

## Miscellaneous and Technical Assumptions

<b>Administrative &amp; Investment Expenses</b>	The investment return assumption is intended to be the return net of investment expenses. Annual administrative expenses are assumed to be equal to the average of the expenses over the previous 2 years. Assumed administrative expenses are added to the Normal Cost.
<b>Benefit Service</b>	Exact fractional service is used to determine the amount of benefit payable.
<b>Decrement Operation</b>	Disability and mortality decrements operate during retirement eligibility.
<b>Decrement Timing</b>	Decrements of all types are assumed to occur at the beginning of the year, except that active members who are eligible for Normal Retirement on the valuation date are assumed to retire at the end of the year.
<b>Eligibility Testing</b>	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.
<b>Forfeitures</b>	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.
<b>Incidence of Contributions</b>	Employer contributions are assumed to be made on the December 31 of the next fiscal year. Employee 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.
<b>Marriage Assumption</b>	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.
<b>Normal Form of Benefit</b>	A 10-year certain and life annuity is the normal form of benefit.
<b>Pay Increase Timing</b>	Beginning of fiscal year. This is equivalent to assuming that reported pay represents amounts paid to members during the year ended on the valuation date.
<b>Service Credit Accruals</b>	It is assumed that members accrue one year of service credit per year.



## GLOSSARY OF TERMS

<b>Actuarial Accrued Liability (AAL)</b>	The difference between the Actuarial Present Value of Future Benefits, and the Actuarial Present Value of Future Normal Costs.
<b>Actuarial Assumptions</b>	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.
<b>Actuarial Cost Method</b>	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.
<b>Actuarial Equivalent</b>	Of equal Actuarial Present Value, determined as of a given date and based on a given set of Actuarial Assumptions.
<b>Actuarial Present Value (APV)</b>	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.
<b>Actuarial Present Value of Future Benefits (APVFB)</b>	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.
<b>Actuarial Valuation</b>	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.
<b>Actuarial Value of Assets</b>	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).
<b>Actuarially Determined Employer Contribution (ADEC)</b>	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.

<b>Amortization Method</b>	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.
<b>Amortization Payment</b>	That portion of the plan contribution or ADEC which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.
<b>Amortization Period</b>	The period used in calculating the Amortization Payment.
<b>Closed Amortization Period</b>	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.
<b>Employer Normal Cost</b>	The portion of the Normal Cost to be paid by the employer. This is equal to the Normal Cost less expected member contributions.
<b>Equivalent Single Amortization Period</b>	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.
<b>Experience Gain/Loss</b>	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.
<b>Funded Ratio</b>	The ratio of the Actuarial Value of Assets to the Actuarial Accrued Liability.
<b>GASB</b>	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

Item	September 30	
	2023	2022
A. Cash and Cash Equivalents (Operating Cash)	\$ 482,106	\$ 609,274
B. Receivables:		
1. Member Contributions	\$ -	\$ -
2. Employer Contributions	-	-
3. State Contributions	-	109,624
4. Investment Income and Other Receivables	109,411	119,535
5. Prepaid Expenses	-	-
6. Total Receivables	\$ 109,411	\$ 229,159
C. Investments		
1. Short Term Investments	\$ -	\$ -
2. Domestic Equities	19,544,923	16,589,266
3. International Equities	1,374,453	699,315
4. Domestic Fixed Income	10,215,431	10,225,785
5. International Fixed Income	208,291	60,839
6. Real Estate	-	-
7. Private Equity	-	-
8. Total Investments	\$ 31,343,098	\$ 27,575,205
D. Liabilities		
1. Refunds Payable	\$ -	\$ -
2. Accrued Expenses and Other Payables	-	-
3. DROP Payable	-	-
4. Total Liabilities	-	-
E. Total Market Value of Assets Available for Benefits	\$ 31,934,615	\$ 28,413,638
F. Reserves		
1. State Contribution Reserve	\$ -	\$ -
2. DROP Accounts	(763,178)	(447,211)
3. Share Plan Accounts	(248,804)	(246,957)
4. Prepaid Contribution	(74,097)	(170,410)
5. Total Reserves	\$ (1,086,079)	\$ (864,578)
G. Market Value Net of Reserves	\$ 30,848,536	\$ 27,549,060
H. Allocation of Investments		
1. Short Term Investments	0.0%	0.0%
2. Domestic Equities	62.4%	60.2%
3. International Equities	4.4%	2.5%
4. Domestic Fixed Income	32.6%	37.1%
5. International Fixed Income	0.6%	0.2%
6. Real Estate	0.0%	0.0%
7. Private Equity	0.0%	0.0%
8. Total Investments	100.0%	100.0%

## Reconciliation of Plan Assets

Item	September 30	
	2023	2022
A. Market Value of Assets at Beginning of Year	\$ 28,413,638	\$ 35,168,683
B. Revenues and Expenditures		
1. Contributions		
a. Employee Contributions	\$ 289,307	\$ 260,052
b. Employer Contributions	1,194,308	1,150,000
c. State Contributions	-	109,624
d. Other Income	-	-
e. Total	<u>\$ 1,483,615</u>	<u>\$ 1,519,676</u>
2. Investment Income		
a. Interest, Dividends, and Other Income	\$ 1,089,716	\$ 1,888,013
b. Net Realized Gains/(Losses) *	2,743,512	(8,002,226)
c. Net Unrealized Gains/(Losses)	-	-
d. Investment Expenses	(149,073)	(118,907)
e. Net Investment Income	<u>\$ 3,684,155</u>	<u>\$ (6,233,120)</u>
3. Benefits and Refunds		
a. Regular Monthly Benefits & Refunds **	\$ (1,518,317)	\$ (1,659,583)
b. DROP Distributions	-	(265,436)
c. Share Plan Distributions	(25,096)	-
d. Total	<u>\$ (1,543,413)</u>	<u>\$ (1,925,019)</u>
4. Administrative and Miscellaneous Expenses	\$ (103,380)	\$ (116,582)
C. Market Value of Assets at End of Year	\$ 31,934,615	\$ 28,413,638
D. Reserves		
1. State Contribution Reserve	\$ -	\$ -
2. DROP Accounts	(763,178)	(447,211)
3. Share Plan Accounts	(248,804)	(246,957)
4. Prepaid Contribution	(74,097)	(170,410)
5. Total Reserves	<u>\$ (1,086,079)</u>	<u>\$ (864,578)</u>
E. Market Value Net of Reserves	\$ 30,848,536	\$ 27,549,060

\* A breakdown of realized and unrealized gains/(losses) was not provided.

\*\* A breakdown between regular monthly benefits and refunds was not provided.



### ACTUARIAL VALUE OF ASSETS

	Year Ending September 30					
	2022	2023	2024	2025	2026	2027
A. Beginning of Year Assets						
1. Market Value*	35,168,683	\$ 28,413,638				
2. Actuarial Value*	31,726,922	32,608,581				
B. Net of Contributions						
Less Disbursements	(521,925)	(163,178)				
C. Actual Net Investment Earnings	(6,233,120)	3,684,155				
D. Expected Investment Earnings	2,202,617	2,276,889				
E. Excess of Actual Over Expected Investment Earnings: C - D	(8,435,737)	1,407,266				
F. Recognition of Excess Earnings Over 5 Years						
1. From This Year	(1,687,147)	281,453				
2. From One Year Ago	850,396	(1,687,147)	281,453			
3. From Two Years Ago	98,123	850,396	(1,687,147)	281,453		
4. From Three Years Ago	(193,787)	98,123	850,396	(1,687,147)	281,453	
5. From Four Years Ago	133,382	(193,786)	98,124	850,394	(1,687,149)	281,454
6. Total	(799,033)	(650,961)	(457,174)	(555,300)	(1,405,696)	281,454
G. End of Year Assets						
1. Market Value*	28,413,638	31,934,615				
2. Actuarial Value:						
A2 + B + D + F6	32,608,581	34,071,331				
3. Final Actuarial Value						
Within 80% to 120% of Market Value	32,608,581	34,071,331				
4. Less: State Contribution Reserve	-	-				
5. Less: DROP Accounts	447,211	763,178				
6. Less: Share Plan Accounts	246,957	248,804				
7. Less: Prepaid Contributions	170,410	74,097				
8. Final Actuarial Value	31,744,003	32,985,252				

\* Before subtraction of Reserve Accounts.



### Reconciliation of DROP Accounts

<b>Year Ended 9/30</b>	<b>Balance at Beginning of Year</b>	<b>BOY Adjustment</b>	<b>Credits</b>	<b>Interest</b>	<b>Distributions</b>	<b>Balance at End of Year</b>
2018	1,050,438	0	292,434	116,570	(223,677)	1,235,765
2019	1,235,765	0	182,425	(46,256)	(1,236,628)	135,306
2020	135,306	0	153,416	27,624	0	316,346
2021	316,346	0	189,602	82,649	0	588,597
2022	588,597	0	202,077	(78,027)	(265,436)	447,211
2023	447,211	(3,774)	256,077	63,664	0	763,178

### Reconciliation of Share Plan Accounts

<b>Year Ended</b>	<b>Balance at Beginning of Year</b>	<b>Credits from Use of State Money</b>	<b>Interest Applied to Balances</b>	<b>Distributions</b>	<b>Balance at End of Year</b>
9/30/2018	156,323	11,733	0	0	168,056
9/30/2019	168,056	13,124	6,022	0	187,202
9/30/2020	187,202	11,359	15,127	0	213,688
9/30/2021	213,688	13,865	40,130	0	267,683
9/30/2022	267,683	13,588	(34,314)	0	246,957
9/30/2023	246,957	0	26,943	(25,096)	248,804

### Development of (Receivable)/Prepaid Village Contributions

<b>Year Ended 9/30</b>	<b>Balance at Beginning of Year</b>	<b>Plus: Village and State Contributions Received During Fiscal Year</b>	<b>Less: Required Village/State Contribution for Fiscal Year</b>	<b>Balance at End of Year</b>
2020	420,389	902,261	(1,160,361)	162,289
2021	162,289	1,432,806	(1,336,493)	258,602
2022	258,602	1,246,036	(1,334,228)	170,410
2023	170,410	1,194,308	(1,290,621)	74,097



# INVESTMENT RATE OF RETURN

Year Ended	Investment Rate of Return	
	Market Value	Actuarial Value
12/31/1979	4.9 %	4.9 %
12/31/1980	12.3	12.3
12/31/1981	7.0	7.0
12/31/1982	23.7	23.7
12/31/1983	6.8	6.8
12/31/1984	7.7	7.7
12/31/1985	19.2	19.2
12/31/1986	15.4	7.5
12/31/1987	(1.8)	8.1
12/31/1988	10.9	8.1
12/31/1989	13.9	13.9
9/30/1990 (9 mos.)	(8.4)	(8.4)
9/30/1991	15.7	15.7
9/30/1992	9.8	9.8
9/30/1993	9.7	8.7
9/30/1994	(1.2)	(1.9)
9/30/1995	19.7	18.9
9/30/1996	13.0	8.4
9/30/1997	22.0	9.4
9/30/1998	8.4	7.6
9/30/1999	11.9	11.6
9/30/2000	6.8	11.7
9/30/2001	(6.5)	7.2
9/30/2002	(10.1)	3.1
9/30/2003	13.9	3.6
9/30/2004	7.3	2.0
9/30/2005	11.7	2.9
9/30/2006	6.9	5.0
9/30/2007	14.9	10.5
9/30/2008	(14.4)	4.6
9/30/2009	1.4	3.8
9/30/2010	6.4	3.5
9/30/2011	(1.0)	2.0
9/30/2012	16.3	3.4
9/30/2013	13.5	7.0
9/30/2014	6.7	7.8
9/30/2015	(1.1)	6.3
9/30/2016	9.5	7.8
9/30/2017	11.7	7.7
9/30/2018	10.2	7.6
9/30/2019	3.6	6.9
9/30/2020	8.8	8.0
9/30/2021	21.7	10.7
9/30/2022	(17.9)	4.5
9/30/2023	13.0	5.0
<b>Average Returns:</b>		
<b>Last 5 Years</b>	4.9 %	7.0 %
<b>Last 10 Years</b>	6.1 %	7.2 %
<b>All Years</b>	7.5 %	7.5 %

## SECTION D

---

### FINANCIAL ACCOUNTING INFORMATION

FASB NO. 35 INFORMATION		
<b>A. Valuation Date</b>	October 1, 2023	October 1, 2022
<b>B. Actuarial Present Value of Accumulated Plan Benefits</b>		
1. Vested Benefits		
a. Members Currently Receiving Payments	\$ 25,744,615	\$ 22,594,214
b. Terminated Vested Members	675,066	630,460
c. Other Members	<u>5,926,002</u>	<u>7,730,274</u>
d. Total	32,345,683	30,954,948
2. Non-Vested Benefits	545,770	368,896
3. Total Actuarial Present Value of Accumulated Plan Benefits: 1d + 2	32,891,453	31,323,844
4. Accumulated Contributions of Active Members	2,191,695	2,463,959
<b>C. Changes in the Actuarial Present Value of Accumulated Plan Benefits</b>		
1. Total Value at Beginning of Year	31,323,844	30,050,141
2. Increase (Decrease) During the Period Attributable to:		
a. Plan Amendment	0	0
b. Change in Actuarial Assumptions	0	0
c. Latest Member Data, Benefits Accumulated and Decrease in the Discount Period	3,342,003	3,135,363
d. Benefits Paid (net of DROP & Share Accounts)	<u>(1,774,394)</u>	<u>(1,861,660)</u>
e. Net Increase	1,567,609	1,273,703
3. Total Value at End of Period	32,891,453	31,323,844
<b>D. Market Value of Assets</b>	30,848,536	27,549,060
<b>E. Actuarial Assumptions - See page entitled Actuarial Assumptions and Methods</b>		

# SCHEDULE OF CHANGES IN THE EMPLOYER'S NET PENSION LIABILITY AND RELATED RATIOS

## GASB Statement No. 67

Fiscal year ending September 30,	2024 **	2023	2022	2021	2020	2019	2018	2017	2016	2015
<b>Total pension liability</b>										
Service Cost	\$ 937,498	\$ 878,406	\$ 916,556	\$ 864,180	\$ 826,391	\$ 737,909	\$ 686,704	\$ 660,242	\$ 536,463	\$ 554,721
Interest	2,616,187	2,555,672	2,430,533	2,327,492	2,306,113	2,215,570	2,232,269	2,115,601	1,991,408	1,937,284
Benefit Changes	-	-	-	-	-	-	-	-	-	(173,336)
Difference in actual vs. expected experience	576,682	(863,181)	199,400	(95,445)	(34,466)	71,995	(1,142,939)	101,437	(51,582)	(582,646)
Assumption Changes	-	-	-	-	795,173	-	-	(303,810)	326,835	307,647
Benefit Payments	(1,970,172)	(1,543,413)	(1,925,019)	(1,455,900)	(1,425,391)	(2,437,760)	(1,279,385)	(950,094)	(1,023,327)	(941,093)
Refunds	(17,404)	-	-	-	-	-	-	-	-	-
Other (Increase in Reserves/Share Plan)	71,070	-	13,588	13,865	11,359	(235,974)	69,509	70,382	65,088	-
<b>Net Change in Total Pension Liability</b>	<b>2,213,861</b>	<b>1,027,484</b>	<b>1,635,058</b>	<b>1,654,192</b>	<b>2,479,179</b>	<b>351,740</b>	<b>566,158</b>	<b>1,693,758</b>	<b>1,844,885</b>	<b>1,102,577</b>
<b>Total Pension Liability - Beginning</b>	<b>37,430,391</b>	<b>36,402,907</b>	<b>34,767,849</b>	<b>33,113,657</b>	<b>30,634,478</b>	<b>30,282,738</b>	<b>29,716,580</b>	<b>28,022,822</b>	<b>26,177,937</b>	<b>25,075,360</b>
<b>Total Pension Liability - Ending (a)</b>	<b>\$ 39,644,252</b>	<b>\$ 37,430,391</b>	<b>\$ 36,402,907</b>	<b>\$ 34,767,849</b>	<b>\$ 33,113,657</b>	<b>\$ 30,634,478</b>	<b>\$ 30,282,738</b>	<b>\$ 29,716,580</b>	<b>\$ 28,022,822</b>	<b>\$ 26,177,937</b>
<b>Plan Fiduciary Net Position</b>										
Contributions - Employer (from Village)	\$ 1,193,940	\$ 1,194,308	\$ 1,150,000	\$ 1,336,493	\$ 808,455	\$ 1,116,211	\$ 1,165,400	\$ 1,105,854	\$ 1,122,197	\$ 1,249,668
Contributions - Employer (from State)	142,139	-	109,624	110,178	105,165	214,608	99,702	100,575	95,281	-
Contributions - Member	295,100	289,307	260,052	271,555	264,605	249,510	231,040	210,630	191,425	180,728
Net Investment Income	2,219,100	3,684,155	(6,233,120)	6,252,510	2,347,637	936,089	2,464,134	2,495,997	1,818,553	(201,097)
Benefit Payments	(1,970,172)	(1,543,413)	(1,925,019)	(1,455,900)	(1,425,391)	(2,437,760)	(1,279,385)	(950,094)	(1,023,327)	(941,093)
Refunds	(17,404)	-	-	-	-	-	-	-	-	-
Administrative Expense	(109,981)	(103,380)	(116,582)	(82,819)	(86,101)	(63,104)	(55,307)	(62,709)	(78,167)	(11,783)
Other	-	-	-	-	-	-	-	-	-	-
<b>Net Change in Plan Fiduciary Net Position</b>	<b>1,752,722</b>	<b>3,520,977</b>	<b>(6,755,045)</b>	<b>6,432,017</b>	<b>2,014,370</b>	<b>15,554</b>	<b>2,625,584</b>	<b>2,900,253</b>	<b>2,125,962</b>	<b>276,423</b>
<b>Plan Fiduciary Net Position - Beginning</b>	<b>31,934,615</b>	<b>28,413,638</b>	<b>35,168,683</b>	<b>28,736,666</b>	<b>26,722,296</b>	<b>26,706,742</b>	<b>24,081,158</b>	<b>21,180,905</b>	<b>19,054,943</b>	<b>18,778,520</b>
<b>Plan Fiduciary Net Position - Ending (b)</b>	<b>33,687,337</b>	<b>31,934,615</b>	<b>28,413,638</b>	<b>35,168,683</b>	<b>28,736,666</b>	<b>26,722,296</b>	<b>26,706,742</b>	<b>24,081,158</b>	<b>21,180,905</b>	<b>\$ 19,054,943</b>
<b>Net Pension Liability - Ending (a) - (b)</b>	<b>5,956,915</b>	<b>5,495,776</b>	<b>7,989,269</b>	<b>(400,834)</b>	<b>4,376,991</b>	<b>3,912,182</b>	<b>3,575,996</b>	<b>5,635,422</b>	<b>6,841,917</b>	<b>7,122,994</b>
<b>Plan Fiduciary Net Position as a Percentage of Total Pension Liability</b>	<b>84.97 %</b>	<b>85.32 %</b>	<b>78.05 %</b>	<b>101.15 %</b>	<b>86.78 %</b>	<b>87.23 %</b>	<b>88.19 %</b>	<b>81.04 %</b>	<b>75.58 %</b>	<b>72.79 %</b>
<b>Covered Payroll *</b>	<b>3,278,890</b>	<b>3,214,522</b>	<b>2,889,467</b>	<b>3,017,278</b>	<b>2,940,056</b>	<b>2,772,333</b>	<b>2,567,111</b>	<b>2,340,333</b>	<b>2,126,944</b>	<b>2,008,089</b>
<b>Net Pension Liability as a Percentage of Covered Payroll</b>	<b>181.67 %</b>	<b>170.97 %</b>	<b>276.50 %</b>	<b>(13.28)%</b>	<b>148.87 %</b>	<b>141.12 %</b>	<b>139.30 %</b>	<b>240.80 %</b>	<b>321.68 %</b>	<b>354.72 %</b>

\* Covered Payroll was calculated by dividing the total member contributions for the fiscal year by the member contribution rate of 9%.

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



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

FY Ending September 30,	Total Pension Liability	Plan Net Position	Net Pension Liability	Plan Net Position as a % of Total Pension Liability	Covered Payroll	Net Pension Liability as a % of Covered Payroll
2015	26,177,937	19,054,943	7,122,994	72.79%	2,008,089	354.72 %
2016	28,022,822	21,180,905	6,841,917	75.58%	2,126,944	321.68 %
2017	29,716,580	24,081,158	5,635,422	81.04%	2,340,333	240.80 %
2018	30,282,738	26,706,742	3,575,996	88.19%	2,567,111	139.30 %
2019	30,634,478	26,722,296	3,912,182	87.23%	2,772,333	141.12 %
2020	33,113,657	28,736,666	4,376,991	86.78%	2,940,056	148.87 %
2021	34,767,849	35,168,683	(400,834)	101.15%	3,017,278	(13.28)%
2022	36,402,907	28,413,638	7,989,269	78.05%	2,889,467	276.50 %
2023	37,430,391	31,934,615	5,495,776	85.32%	3,214,522	170.97 %
2024**	39,644,252	33,687,337	5,956,915	84.97%	3,278,890	181.67 %

NOTE: Covered Payroll was calculated by dividing the total member contributions for the fiscal year by the member contribution rate of 9%.



**NOTES TO SCHEDULE OF THE EMPLOYER'S NET PENSION LIABILITY**  
**GASB Statement No. 67**  
**(for Fiscal Year Ending September 30, 2024)**

**Valuation Date:** October 1, 2023  
**Measurement Date:** September 30, 2024  
**Roll Forward Procedures:** The Total Pension Liability was rolled forward from the Valuation Date to the Measurement Date using standard actuarial techniques.

**Methods and Assumptions Used to Determine Contribution Rates:**

Actuarial Cost Method	Entry Age Normal
Inflation	2.25%
Salary Increases	6.0%, including inflation
Investment Rate of Return	7.00%
Retirement Age	All actives are assumed to retire when first eligible for Normal Retirement. The rate of retirement is 1% for each year of eligibility for Early Retirement.
Mortality	The same versions of PUB-2010 Headcount-Weighted Mortality Tables as used by the Florida Retirement System (FRS) in their July 1, 2022 actuarial valuation for Special Risk class members (with mortality improvements projected for healthy lives to all future years after 2010 using Scale MP-2018). Florida Statutes Chapter 112.63(1)(f) mandates the use of mortality tables from one of the two most recently published FRS actuarial valuation reports.

**Other Information:**

Notes See Discussion of Valuation Results on Page 1.



## 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
2015	1,249,668 <sup>1</sup>	1,249,668 <sup>2</sup>	-	2,008,089	62.23%
2016	1,152,390	1,152,390	-	2,126,944	54.18%
2017	1,136,047	1,136,047	-	2,340,333	48.54%
2018	1,195,594	1,195,593	1	2,567,111	46.57%
2019	1,146,404	1,305,962 <sup>3</sup>	(159,558)	2,772,333	47.11%
2020	1,160,361	902,261	258,100 <sup>4</sup>	2,940,056	30.69%
2021	1,336,493	1,432,806	(96,313)	3,017,278	47.49%
2022	1,334,228	1,246,036	88,192 <sup>5</sup>	2,889,467	43.12%
2023	1,290,621	1,194,308	96,313 <sup>6</sup>	3,214,522	37.15%
2024 **	1,265,010	1,265,010	-	3,278,890	38.58%

NOTE: Covered Payroll was calculated by dividing the total member contributions for the fiscal year by the member contribution rate of 9%.

<sup>1</sup> Includes receivable Employer contribution in the amount of \$32,922 for fiscal year ending September 30, 2015.

<sup>2</sup> State contributions for fiscal year ending September 30, 2015 were not received until after the end of the fiscal year (therefore not permitted to be used until the next fiscal year).

<sup>3</sup> State contributions for fiscal years ending September 30, 2018 & 2019 were received in fiscal year ending September 30, 2019.

<sup>4</sup> As of October 1, 2019, the Village had a prepaid contribution of \$420,389, of which \$258,100 was used to satisfy the Village's contribution requirement for the fiscal year ending September 30, 2020.

<sup>5</sup> As of October 1, 2021, the Village had a prepaid contribution of \$258,602, of which \$88,192 was used to satisfy the Village's contribution requirement for the fiscal year ending September 30, 2022.

<sup>6</sup> As of October 1, 2022, the Village had a prepaid contribution of \$170,410, of which \$96,313 was used to satisfy the Village's contribution requirement for the fiscal year ending September 30, 2023.

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



**NOTES TO SCHEDULE OF CONTRIBUTIONS**  
**GASB Statement No. 67**  
**(for Fiscal Year Ending September 30, 2024)**

**Valuation Date:** October 1, 2022  
**Notes** Actuarially determined contribution rates 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	Level Dollar, Closed
Remaining Amortization Period	20 years
Asset Valuation Method	5-year smoothed market
Inflation	2.25%
Salary Increases	6.0%, including inflation
Investment Rate of Return	7.00%
Retirement Age	All actives are assumed to retire when first eligible for Normal Retirement. The rate of retirement is 1% for each year of eligibility for Early Retirement.
Mortality	The same versions of PUB-2010 Headcount-Weighted Mortality Tables as used by the Florida Retirement System (FRS) in their July 1, 2022 actuarial valuation for Special Risk class members (with mortality improvements projected for healthy lives to all future years after 2010 using Scale MP-2018). Florida Statutes Chapter 112.63(1)(f) mandates the use of mortality tables from one of the two most recently published FRS actuarial valuation reports.

**Other Information:**

**Notes** See Discussion of Valuation Results in the October 1, 2022 Actuarial Valuation Report dated July 21, 2023.





**SINGLE DISCOUNT RATE**  
**GASB Statement No. 67**  
**(for Fiscal Year Ending September 30, 2024)**

A single discount rate of 7.00% 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 7.00%. 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 (7.00%) 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 7.00%, 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\*\***

<b>1% Decrease</b>	<b>Current Single Discount Rate Assumption</b>	<b>1% Increase</b>
<b>6.00%</b>	<b>7.00%</b>	<b>8.00%</b>
\$10,980,204	\$5,956,915	\$1,820,291

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

## SECTION E

---

### MISCELLANEOUS INFORMATION

RECONCILIATION OF MEMBERSHIP DATA		
	From 10/1/22 To 10/1/23	From 10/1/21 To 10/1/22
<b>A. Active Members</b>		
1. Number Included in Last Valuation	34	34
2. New Members Included in Current Valuation	5	8
3. Non-Vested Employment Terminations	0	(5)
4. Vested Employment Terminations	0	(1)
5. DROP Participation	(3)	(1)
6. Service Retirements	0	(1)
7. Disability Retirements	0	0
8. Deaths	0	0
9. Number Included in This Valuation	36	34
<b>B. Terminated Vested Members</b>		
1. Number Included in Last Valuation	1	0
2. Additions from Active Members	0	1
3. Lump Sum Payments/Refund of Contributions	0	0
4. Payments Commenced	0	0
5. Deaths	0	0
6. Other	0	0
7. Number Included in This Valuation	1	1
<b>C. DROP Plan Members</b>		
1. Number Included in Last Valuation	3	3
2. Additions from Active Members	3	1
3. Retirements	0	(1)
4. Deaths Resulting in No Further Payments	0	0
5. Other	0	0
6. Number Included in This Valuation	6	3
<b>D. Service Retirees, Disability Retirees and Beneficiaries</b>		
1. Number Included in Last Valuation	29	27
2. Additions from Active Members	0	1
3. Additions from Terminated Vested Members	0	0
4. Additions from DROP Plan	0	1
5. Deaths Resulting in No Further Payments	0	0
6. Deaths Resulting in New Survivor Benefits	0	0
7. End of Certain Period - No Further Payments	0	0
8. Other	0	0
9. Number Included in This Valuation	29	29

## ACTIVE PARTICIPANT AGE & SALARY DISTRIBUTION

Age Group	Years of Service to Valuation Date										Totals
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25+	
20-24 NO.	3	2	0	1	0	0	0	0	0	0	6
TOT PAY	182,609	140,006	0	64,522	0	0	0	0	0	0	387,137
AVG PAY	60,870	70,003	0	64,522	0	0	0	0	0	0	64,523
25-29 NO.	1	5	1	0	3	0	0	0	0	0	10
TOT PAY	60,870	345,857	69,129	0	235,637	0	0	0	0	0	711,493
AVG PAY	60,870	69,171	69,129	0	78,546	0	0	0	0	0	71,149
30-34 NO.	0	1	1	0	1	1	1	0	0	0	5
TOT PAY	0	69,919	71,601	0	69,739	93,388	94,717	0	0	0	399,364
AVG PAY	0	69,919	71,601	0	69,739	93,388	94,717	0	0	0	79,873
35-39 NO.	0	0	0	0	0	1	1	2	0	0	4
TOT PAY	0	0	0	0	0	86,919	97,715	203,072	0	0	387,706
AVG PAY	0	0	0	0	0	86,919	97,715	101,536	0	0	96,927
40-44 NO.	0	0	0	0	0	1	1	4	1	0	7
TOT PAY	0	0	0	0	0	91,590	95,726	422,724	114,286	0	724,326
AVG PAY	0	0	0	0	0	91,590	95,726	105,681	114,286	0	103,475
45-49 NO.	0	0	0	0	0	0	0	2	0	0	2
TOT PAY	0	0	0	0	0	0	0	220,420	0	0	220,420
AVG PAY	0	0	0	0	0	0	0	110,210	0	0	110,210
50-54 NO.	0	0	0	0	0	0	0	0	0	0	0
TOT PAY	0	0	0	0	0	0	0	0	0	0	0
AVG PAY	0	0	0	0	0	0	0	0	0	0	0
55-59 NO.	0	0	0	0	0	0	0	1	0	0	1
TOT PAY	0	0	0	0	0	0	0	99,667	0	0	99,667
AVG PAY	0	0	0	0	0	0	0	99,667	0	0	99,667
60+ NO.	0	0	0	0	0	1	0	0	0	0	1
TOT PAY	0	0	0	0	0	163,179	0	0	0	0	163,179
AVG PAY	0	0	0	0	0	163,179	0	0	0	0	163,179
TOT NO.	4	8	2	1	4	4	3	9	1	0	36
TOT AMT	243,479	555,782	140,730	64,522	305,376	435,076	288,158	945,883	114,286	0	3,093,292
AVG AMT	60,870	69,473	70,365	64,522	76,344	108,769	96,053	105,098	114,286	0	85,925

Miami Shores Police Employees Retirement Plan Inactive Participant Data								
Age	Terminated Vested		Disabled		Retired		Deceased with Beneficiary	
	Number	Total Benefits	Number	Total Benefits	Number	Total Benefits	Number	Total Benefits
Under 20	-	-	-	-	-	-	-	-
20 - 24	-	-	-	-	-	-	-	-
25 - 29	-	-	-	-	-	-	-	-
30 - 34	-	-	-	-	-	-	-	-
35 - 39	-	-	-	-	-	-	-	-
40 - 44	1	44,028	-	-	-	-	-	-
45 - 49	-	-	-	-	1	77,650	-	-
50 - 54	-	-	-	-	6	304,428	-	-
55 - 59	-	-	-	-	6	418,474	-	-
60 - 64	-	-	-	-	5	299,047	1	62,445
65 - 69	-	-	-	-	3	165,719	-	-
70 - 74	-	-	-	-	4	212,661	1	43,805
75 - 79	-	-	-	-	4	208,092	1	48,303
80 - 84	-	-	1	23,454	1	67,515	-	-
85 - 89	-	-	-	-	1	41,264	-	-
90 - 94	-	-	-	-	-	-	-	-
95 - 99	-	-	-	-	-	-	-	-
100 & Over	-	-	-	-	-	-	-	-
Total	1	44,028	1	23,454	31	1,794,850	3	154,553

## SECTION F

---

### SUMMARY OF PLAN PROVISIONS

# **Miami Shores Village Police Officers' Retirement System**

## **SUMMARY OF PLAN PROVISIONS**

### **A. Ordinances**

Plan established under the Code of Ordinances for the Village of Miami Shores, Florida, Chapter 18, Article IV, and was most recently amended under Ordinance No. 2019-01 passed and adopted on February 19, 2019. The Plan is also governed by certain provisions of Chapter 185, Florida Statutes, Part VII, Chapter 112, Florida Statutes and the Internal Revenue Code.

### **B. Effective Date**

January 1, 1957; December 5, 2006 (Restatement)

### **C. Plan Year**

October 1 through September 30

### **D. Type of Plan**

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

### **E. Eligibility Requirements**

All full-time police officers become members as a condition of employment.

### **F. Credited Service**

Service is measured as the total number years and fractional parts of years of service with the Village for which the police officer made Member Contributions to the plan. Vacations and other paid leaves of absence are included. No service is credited for any periods of employment for which the member received a refund of their contributions.

### **G. Compensation**

Wages paid by the Village on regular payroll for services performed.

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

The average of Compensation over the highest consecutive 3 years during the last 10 years of Credited Service.

### **I. Normal Retirement**

Eligibility: A member may retire on the first day of the month coincident with or next following the earlier of age 55 and 10 years of Credited Service or 25 years of Credited Service regardless of age.



Benefit: 2.91% of AFC multiplied by Credited Service up to a maximum of 25 years. Benefit cannot be less than 2.0% of AFC multiplied by total years of Credited Service.

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

COLA: 1.5% compounded annually on each October 1.

#### **J. Early Retirement**

Eligibility: A member may elect to retire earlier than the Normal Retirement Eligibility upon attainment of age 50 and 10 years of Credited Service.

Benefit: The Normal Retirement Benefit is reduced by 3% for each year by which the Early Retirement date precedes the Normal Retirement date.

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

COLA: 1.5% compounded annually on each October 1.

#### **K. Delayed Retirement**

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

#### **L. Service Connected Disability**

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

Benefit: The accrued Normal Retirement Benefit taking into account compensation earned and service credited as of the date of disability with a minimum benefit equal to 42% of AFC.

Normal Form of Benefit: 10 Years Certain and Life thereafter.

COLA: 1.5% compounded annually on each October 1.

#### **M. Non-Service Connected Disability**

Eligibility: Any member with 10 or more years of Credited Service who becomes totally and permanently disabled and unable to render useful and efficient service as a police officer is eligible for a disability benefit.

Benefit: The accrued Normal Retirement Benefit taking into account compensation earned and service credited as of the date of disability with a minimum benefit equal to 25% of AFC.

Normal Form





of Benefit: 10 Years Certain and Life thereafter.

COLA: 1.5% compounded annually on each October 1.

#### **N. Death in the Line of Duty**

Eligibility: Members with at least 10 years of Credited Service are eligible for survivor benefits.

Benefit: The beneficiary will receive the member's accrued Normal Retirement Benefit taking into account compensation earned and service credited as of the date of death. The benefit is payable on the member's Early or Normal Retirement date and will be reduced for Early Retirement if applicable.

Normal Form  
of Benefit: 10 Years Certain.

COLA: 1.5% compounded annually on each October 1.

The beneficiary of a plan member who dies with less than 10 years of Credited Service will receive a refund of the member's accumulated contributions with interest.

#### **O. Other Pre-Retirement Death**

Eligibility: Members with at least 10 years of Credited Service are eligible for survivor benefits.

Benefit: The beneficiary will receive the member's accrued Normal Retirement Benefit taking into account compensation earned and service credited as of the date of death. The benefit is payable on the member's Early or Normal Retirement date and will be reduced for Early Retirement if applicable.

Normal Form  
of Benefit: 10 Years Certain.

COLA: 1.5% compounded annually on each October 1.

The beneficiary of a plan member who dies with less than 10 years of Credited Service 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 a Life Annuity or the 50%, 66 2/3%, 75% and 100% Joint and Survivor options. A Social Security option is also available for members retiring prior to the time they are eligible for Social Security retirement benefits.



## **R. Vested Termination**

**Eligibility:** A member has earned a non-forfeitable right to Plan benefits after the completion of 10 years of Credited Service.

**Benefit:** The benefit is the member's accrued Normal Retirement Benefit as of the date of termination. Benefit begins on the member's Normal Retirement date. Alternatively, members with 10 or more years of Credited Service can elect a reduced Early Retirement benefit any time after age 50.

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

**COLA:** 1.5% compounded annually on each October 1 after benefit payments begin.

Members terminating employment with less than 10 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 10 years of Credited Service are eligible. Optionally, vested members (those with 10 or more years of Credited Service) may elect a refund in lieu of the vested benefits otherwise due.

**Benefit:** Refund of the member's contributions with interest. Interest is currently credited at a rate of 3% compounded annually.

## **T. Member Contributions**

9.0% of Compensation

## **U. Employer Contributions**

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

## **V. Cost of Living Increases**

1.5% compounded annually on each October 1 for all present and future retirees.

## **W. Changes from Previous Valuation**

None.

## **X. 13<sup>th</sup> Check**

Not Applicable



## **Y. Deferred Retirement Option Plan**

**Eligibility:** Plan members who have attained Normal Retirement age, but not more than 30 years of Credited Service are eligible for the DROP.

Members must make a written election to participate in the DROP.

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

**Maximum  
DROP Period:** 60 months

**Interest  
Credited:** The member's DROP account is credited at the same interest rate earned by the Plan.

**Normal Form  
of Benefit:** Lump Sum; alternatively equal periodic payments may be elected.

**COLA:** 1.5% compounded annually on each October 1.

## **Z. Other Ancillary Benefits**

There are no ancillary retirement type benefits not required by statutes but which might be deemed a Miami Shores Village Police Officers' Retirement System liability if continued beyond the availability of funding by the current funding source.