



December 18, 2020

Ms. Patti McLauchlin
Administrator, City of Key West
Employees Retirement Plan
City of Key West
1300 White Street
Key West, Florida 33040

Re: Retirement Plan for Employees of the City of Key West

Dear Patti:

As requested, we are pleased to enclose ten (10) copies of the October 1, 2019 Chapter 112.664 Compliance Report for the Retirement Plan for Employees of the City of Key West (Plan).

We will timely upload the required data to the State's online portal.

Please note we understand the following items must be posted on the Plan's website and must be posted on any website containing budget information relating to the City or actuarial or performance information relating to the Plan:

- this compliance report
- most recent financial statement
- most recent actuarial valuation report
- a link to the Division of Retirement Actuarial Summary Fact Sheet
http://www.dms.myflorida.com/workforce_operations/retirement/local_retirement_plans/local_retirement_section/actuarial_summary_fact_sheets
- for the previous five years - a side-by-side comparison of the Plan's assumed rate of return compared to the actual rate of return as well as the percentages of cash, equity, bond and alternative investments in the Plan portfolio
- the Plan's funded ratio as determined in the most recent actuarial valuation – 99.8% on a market value of assets basis as of October 1, 2019 under the Entry Age Normal Actuarial Cost Method

We appreciate the opportunity to work with the Board on this important assignment.

If you should have any questions concerning the above, please do not hesitate to contact us.

Sincerest regards,

A handwritten signature in black ink that reads "Jennifer Borregard". The signature is written in a cursive, flowing style.

Jennifer M. Borregard, E.A.
Consultant and Actuary

Enclosures

Retirement Plan for Employees of the City of Key West

CHAPTER 112.664, F.S. COMPLIANCE REPORT

In Connection with the October 1, 2019 Funding Actuarial Valuation Report and the Plan's Financial Reporting for the Year Ended September 30, 2019





December 18, 2020

General Employees' Retirement Committee
c/o Ms. Patti McLaughlin
Administrator – General Employees' Pension Plan
City of Key West
1300 White Street
Key West, Florida 33040

Re: October 1, 2019 Chapter 112.664 Compliance Report

Dear Committee Members:

Gabriel, Roeder, Smith & Company (GRS) has been engaged by the Retirement Committee (Committee) of the Retirement Plan for Employees of the City of Key West (Plan) to prepare a disclosure report to satisfy the requirements set forth in Chapter 112.664, F.S. and as further required pursuant to Chapter 60T-1.0035, F.A.C.

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

The purpose of the report is to provide the required information specified in Chapter 112.664, F.S. and to supplement this information with additional exhibits. This report should not be relied on for any purpose other than the purpose described above.

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 additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. The scope of this engagement does not include an analysis of the potential range of such measurements.

This report is based upon information furnished by the City and the Committee concerning Plan benefits, Plan provisions and Plan members as used in the corresponding Actuarial Valuation Reports for the Valuation Dates indicated. Financial information was provided by the City and Committee as of September 30, 2019. We reviewed the information provided for internal and year-to-year consistency, but did not audit the data. The Plan is responsible for the accuracy of the data.

Except where specific assumptions are required by Chapter 112.664, F.S, this report was prepared using actuarial assumptions adopted by the Committee as described in Section C. The Committee's assumptions are based upon the results of an Actuarial Experience Study for the five-year period ended September 30, 2017 and represent an estimate of future Plan experience. The mortality assumptions are prescribed by statute.

The investment return assumption of 2% higher than the investment return assumption utilized in the Actuarial Valuation Report does neither represent an estimate of future Plan experience nor observation of the estimates inherent in market data. This assumption is provided as a counterpart to the Chapter 112.664, F.S. requirement to utilize an investment return assumption of 2% lower than the investment return assumption utilized in the Actuarial Valuation Report. The inclusion of the additional 2% higher assumption shows a more complete assessment of the range of potential results as opposed to the *one-sided* range required by statute.

If all actuarial assumptions are met and if all current and future minimum required contributions are paid Plan assets will be sufficient to pay all Plan benefits, future contributions are expected to remain relatively stable as a percent of payroll and the funded status is expected to approach 100%. Plan minimum required contributions are determined in compliance with the requirements of the Florida Protection of Public Employee Retirement Benefits Act with normal cost determined as a level percent of covered payroll and a level percent of pay amortization payment using an initial amortization period of 20 years.

The Plan's funded ratio as of October 1, 2019 is 99.8% defined as the ratio of the market value of Plan assets to the actuarial accrued liability under the Entry Age Normal Actuarial Cost Method.

The Plan's funded ratio and the GASB Net Pension Liability may not be appropriate for assessing the sufficiency of Plan assets to meet the estimated cost of settling benefit obligations but may be appropriate for assessing the need for or the amount of future contributions.

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. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

The undersigned 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 report has been prepared by actuaries who have substantial experience valuing public employee retirement plans. To the best of our knowledge the information contained in this report is accurate and presents the actuarial position of the Plan as of the valuation date as required by



statute. 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.

With respect to the reporting standards for defined benefit retirement plans contained in Section 112.664(1), F.S., the actuarial disclosures required under this section were 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, and in our opinion, meet the requirements of Section 112.664(1), F.S., and Section 60T-1.0035, F.A.C.

Respectfully submitted,

GABRIEL, ROEDER, SMITH AND COMPANY

By Michelle Jones
Shelly L. Jones, A.S.A., M.A.A.A., E.A.
Enrolled Actuary No. 20-08646
Consultant & Actuary

By Jennifer Borregard
Jennifer M. Borregard, M.A.A.A., E.A.
Enrolled Actuary No. 20-07624
Consultant & Actuary



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SECTION A

CHAPTER 112.664, F.S. RESULTS

Net Pension Liability
Using Financial Reporting Assumptions per GASB Statements No. 67 and No. 68
and Using Assumptions Required Under 112.664(1)(a), F.S.

Measurement Date	September 30, 2019
A. <u>Total Pension Liability (TPL)</u>	
Service Cost	\$ 1,652,798
Interest	4,122,010
Benefit Changes	0
Difference Between Actual and Expected Experience	(1,376,405)
Assumption Changes	1,611,968
Benefit Payments	(3,118,279)
Other	0
Net Change in Total Pension Liability	\$ 2,892,092
Total Pension Liability (TPL) - (beginning of year)	54,976,394
Total Pension Liability (TPL) - (end of year)	\$ 57,868,486
B. <u>Plan Fiduciary Net Position</u>	
Contributions - City	\$ 998,882
Contributions - Member	832,985
Net Investment Income	1,577,081
Benefit Payments	(3,118,279)
Administrative Expenses	(168,255)
Other	0
Net Change in Plan Fiduciary Net Position	\$ 122,414
Plan Fiduciary Net Position - (beginning of year)	57,290,853
Plan Fiduciary Net Position - (end of year)	\$ 57,413,267
C. <u>Net Pension Liability (NPL) - (end of year): (A) - (B)</u>	\$ 455,219
Valuation Date	October 1, 2018

Certain Key Assumptions

Investment Return Assumption 7.45%

Mortality Table:

For healthy male participants during employment, RP 2000 Combined Male Healthy Participant Mortality Table, with 50% White Collar / 50% Blue Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy female participants during employment, RP 2000 Combined Female Healthy Participant Mortality Table, with White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy male participants post employment, RP 2000 Annuitant Male Mortality Table, with 50% White Collar / 50% Blue Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy female participants post employment, RP 2000 Annuitant Female Mortality Table, with White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For disabled male participants, RP 2000 Disabled Male Mortality Table, setback four years, without projected mortality improvements. For disabled female participants, RP 2000 Disabled Female Mortality Table, set forward two years, without projected mortality improvements.



Net Pension Liability
Using Assumptions Required Under 112.664(1)(b), F.S.

Measurement Date	September 30, 2019
A. <u>Total Pension Liability (TPL)</u>	
Service Cost	\$ 2,494,273
Interest	3,809,882
Benefit Changes	0
Difference Between Actual and Expected Experience	(1,763,048)
Assumption Changes	2,118,248
Benefit Payments	(3,118,279)
Other	0
Net Change in Total Pension Liability	\$ 3,541,076
Total Pension Liability (TPL) - (beginning of year)	68,610,277
Total Pension Liability (TPL) - (end of year)	\$ 72,151,353
B. <u>Plan Fiduciary Net Position</u>	
Contributions - City	\$ 998,882
Contributions - Member	832,985
Net Investment Income	1,577,081
Benefit Payments	(3,118,279)
Administrative Expenses	(168,255)
Other	0
Net Change in Plan Fiduciary Net Position	\$ 122,414
Plan Fiduciary Net Position - (beginning of year)	57,290,853
Plan Fiduciary Net Position - (end of year)	\$ 57,413,267
C. <u>Net Pension Liability (NPL) - (end of year): (A) - (B)</u>	\$ 14,738,086
Valuation Date	October 1, 2018

Certain Key Assumptions

Investment Return Assumption 5.45%

Mortality Table:

For healthy male participants during employment, RP 2000 Combined Male Healthy Participant Mortality Table, with 50% White Collar / 50% Blue Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy female participants during employment, RP 2000 Combined Female Healthy Participant Mortality Table, with White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy male participants post employment, RP 2000 Annuitant Male Mortality Table, with 50% White Collar / 50% Blue Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy female participants post employment, RP 2000 Annuitant Female Mortality Table, with White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For disabled male participants, RP 2000 Disabled Male Mortality Table, setback four years, without projected mortality improvements. For disabled female participants, RP 2000 Disabled Female Mortality Table, set forward two years, without projected mortality improvements.



Net Pension Liability

Using Assumptions Required Under 112.664(1)(a), F.S. Plus 2% on Investment Return Assumption

Measurement Date	September 30, 2019
A. <u>Total Pension Liability (TPL)</u>	
Service Cost	\$ 1,147,431
Interest	4,264,528
Benefit Changes	0
Difference Between Actual and Expected Experience	(1,120,711)
Assumption Changes	1,210,830
Benefit Payments	(3,118,279)
Other	0
Net Change in Total Pension Liability	\$ 2,383,799
Total Pension Liability (TPL) - (beginning of year)	45,407,586
Total Pension Liability (TPL) - (end of year)	\$ 47,791,385
B. <u>Plan Fiduciary Net Position</u>	
Contributions - City	\$ 998,882
Contributions - Member	832,985
Net Investment Income	1,577,081
Benefit Payments	(3,118,279)
Administrative Expenses	(168,255)
Other	0
Net Change in Plan Fiduciary Net Position	\$ 122,414
Plan Fiduciary Net Position - (beginning of year)	57,290,853
Plan Fiduciary Net Position - (end of year)	\$ 57,413,267
C. <u>Net Pension Liability (NPL) - (end of year): (A) - (B)</u>	\$ (9,621,882)
Valuation Date	October 1, 2018

Certain Key Assumptions

Investment Return Assumption 9.45%

Mortality Table:

For healthy male participants during employment, RP 2000 Combined Male Healthy Participant Mortality Table, with 50% White Collar / 50% Blue Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy female participants during employment, RP 2000 Combined Female Healthy Participant Mortality Table, with White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy male participants post employment, RP 2000 Annuitant Male Mortality Table, with 50% White Collar / 50% Blue Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy female participants post employment, RP 2000 Annuitant Female Mortality Table, with White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For disabled male participants, RP 2000 Disabled Male Mortality Table, setback four years, without projected mortality improvements. For disabled female participants, RP 2000 Disabled Female Mortality Table, set forward two years, without projected mortality improvements.



Asset and Benefit Payment Projection
Not Reflecting Any Future Contributions
Using Financial Reporting Assumptions per GASB Statements No. 67 and No. 68
and Using Assumptions Required Under 112.664(1)(a), F.S.

FYE	Market Value of Assets (BOY)	Expected Investment Return	Projected Benefit Payments	Market Value of Assets (EOY)
2020	\$ 56,388,491	\$ 4,047,412	\$ 3,161,364	\$ 57,274,539
2021	57,274,539	4,103,289	3,405,799	57,972,029
2022	57,972,029	4,146,622	3,614,665	58,503,986
2023	58,503,986	4,180,196	3,760,739	58,923,443
2024	58,923,443	4,207,104	3,864,968	59,265,579
2025	59,265,579	4,228,846	3,955,156	59,539,269
2026	59,539,269	4,246,001	4,033,307	59,751,963
2027	59,751,963	4,258,677	4,110,578	59,900,062
2028	59,900,062	4,267,406	4,166,809	60,000,659
2029	60,000,659	4,273,404	4,203,301	60,070,762
2030	60,070,762	4,277,687	4,226,122	60,122,327
2031	60,122,327	4,281,387	4,229,026	60,174,688
2032	60,174,688	4,286,087	4,208,216	60,252,559
2033	60,252,559	4,293,143	4,175,581	60,370,121
2034	60,370,121	4,303,697	4,128,810	60,545,008
2035	60,545,008	4,319,581	4,054,614	60,809,975
2036	60,809,975	4,342,510	3,970,815	61,181,670
2037	61,181,670	4,373,474	3,883,582	61,671,562
2038	61,671,562	4,413,554	3,787,042	62,298,074
2039	62,298,074	4,463,757	3,690,163	63,071,668
2040	63,071,668	4,525,226	3,583,642	64,013,252
2041	64,013,252	4,599,327	3,472,055	65,140,524
2042	65,140,524	4,687,016	3,364,322	66,463,218
2043	66,463,218	4,789,615	3,245,290	68,007,543
2044	68,007,543	4,908,690	3,124,332	69,791,901
2045	69,791,901	5,045,185	3,012,037	71,825,049
2046	71,825,049	5,200,122	2,898,943	74,126,228
2047	74,126,228	5,375,289	2,775,844	76,725,673
2048	76,725,673	5,572,571	2,651,669	79,646,575
2049	79,646,575	5,793,725	2,525,385	82,914,915

Number of years for which current market value of assets are adequate to sustain the payment of expected retirement benefits reflecting no contributions from the City or Members:

All Future Years

Certain Key Assumptions

Investment return assumption

7.40%

Mortality Table:

For healthy participants during employment, PUB-2010 Headcount Weighted General Below Median Employee Mortality Table, separate rates for males and females, set back 1 year for males, with fully generational mortality improvements projected to each future decrement date with Scale MP-2018. For healthy participants post employment, PUB-2010 Headcount Weighted General Below Median Healthy Retiree Mortality Table, separate rates for males and females, set back 1 year for males, with fully generational mortality improvements projected to each future decrement date with Scale MP-2018. For disabled participants, PUB-2010 Headcount Weighted General Disabled Retiree Mortality Table, separate rates for males and females, both set forward 3 years, without projected mortality improvements.

Note: As required in Section 112.664(1)(c) of the Florida Statutes, the projection of Plan assets does not include future contributions from the City or Members. For this reason, this projection should not be viewed as representative of the amount of time the Plan can sustain benefit payments. Under the Government Accounting Standards Board standards which include City and Member contributions, the Plan is expected to be able to pay all future benefit payments.



Asset and Benefit Payment Projection
Not Reflecting Any Future Contributions
Using Assumptions Required Under 112.664(1)(b), F.S.

FYE	Market Value of Assets (BOY)	Expected Investment Return	Projected Benefit Payments	Market Value of Assets (EOY)
2020	\$ 56,388,491	\$ 2,953,252	\$ 3,161,364	\$ 56,180,379
2021	56,180,379	2,934,921	3,405,799	55,709,501
2022	55,709,501	2,903,434	3,614,665	54,998,269
2023	54,998,269	2,860,789	3,760,739	54,098,319
2024	54,098,319	2,809,167	3,864,968	53,042,518
2025	53,042,518	2,749,537	3,955,156	51,836,900
2026	51,836,900	2,682,166	4,033,307	50,485,759
2027	50,485,759	2,606,963	4,110,578	48,982,143
2028	48,982,143	2,524,136	4,166,809	47,339,470
2029	47,339,470	2,434,373	4,203,301	45,570,542
2030	45,570,542	2,338,188	4,226,122	43,682,608
2031	43,682,608	2,236,156	4,229,026	41,689,738
2032	41,689,738	2,129,145	4,208,216	39,610,666
2033	39,610,666	2,017,822	4,175,581	37,452,907
2034	37,452,907	1,902,660	4,128,810	35,226,757
2035	35,226,757	1,784,600	4,054,614	32,956,743
2036	32,956,743	1,664,451	3,970,815	30,650,379
2037	30,650,379	1,542,438	3,883,582	28,309,235
2038	28,309,235	1,418,818	3,787,042	25,941,011
2039	25,941,011	1,293,745	3,690,163	23,544,592
2040	23,544,592	1,167,429	3,583,642	21,128,379
2041	21,128,379	1,040,191	3,472,055	18,696,515
2042	18,696,515	911,996	3,364,322	16,244,189
2043	16,244,189	783,024	3,245,290	13,781,923
2044	13,781,923	653,571	3,124,332	11,311,163
2045	11,311,163	523,409	3,012,037	8,822,534
2046	8,822,534	392,304	2,898,943	6,315,895
2047	6,315,895	260,517	2,775,844	3,800,568
2048	3,800,568	128,293	2,651,669	1,277,192
2049	1,277,192	14,477	2,525,385	-

Number of years for which current market value of assets are adequate to sustain the payment of expected retirement benefits reflecting no contributions from the City or Members:

29.50

Certain Key Assumptions

Investment return assumption

5.40%

Mortality Table:

For healthy participants during employment, PUB-2010 Headcount Weighted General Below Median Employee Mortality Table, separate rates for males and females, set back 1 year for males, with fully generational mortality improvements projected to each future decrement date with Scale MP-2018. For healthy participants post employment, PUB-2010 Headcount Weighted General Below Median Healthy Retiree Mortality Table, separate rates for males and females, set back 1 year for males, with fully generational mortality improvements projected to each future decrement date with Scale MP-2018. For disabled participants, PUB-2010 Headcount Weighted General Disabled Retiree Mortality Table, separate rates for males and females, both set forward 3 years, without projected mortality improvements.

Note: As required in Section 112.664(1)(c) of the Florida Statutes, the projection of Plan assets does not include future contributions from the City or Members. For this reason, this projection should not be viewed as representative of the amount of time the Plan can sustain benefit payments. Under the Government Accounting Standards Board standards which include City and Member contributions, the Plan is expected to be able to pay all future benefit payments.



Asset and Benefit Payment Projection
Not Reflecting Any Future Contributions

Using Assumptions Required Under 112.664(1)(a), F.S. Plus 2% on Investment Return Assumption

FYE	Market Value of Assets (BOY)	Expected Investment Return	Projected Benefit Payments	Market Value of Assets (EOY)
2020	\$ 56,388,491	\$ 5,141,761	\$ 3,161,364	\$ 58,368,888
2021	58,368,888	5,315,643	3,405,799	60,278,733
2022	60,278,733	5,484,680	3,614,665	62,148,748
2023	62,148,748	5,653,126	3,760,739	64,041,134
2024	64,041,134	5,825,776	3,864,968	66,001,942
2025	66,001,942	6,005,563	3,955,156	68,052,349
2026	68,052,349	6,194,377	4,033,307	70,213,419
2027	70,213,419	6,393,637	4,110,578	72,496,478
2028	72,496,478	6,605,421	4,166,809	74,935,089
2029	74,935,089	6,832,817	4,203,301	77,564,606
2030	77,564,606	7,078,846	4,226,122	80,417,330
2031	80,417,330	7,346,856	4,229,026	83,535,160
2032	83,535,160	7,640,977	4,208,216	86,967,921
2033	86,967,921	7,965,296	4,175,581	90,757,636
2034	90,757,636	8,323,878	4,128,810	94,952,704
2035	94,952,704	8,721,940	4,054,614	99,620,030
2036	99,620,030	9,164,877	3,970,815	104,814,092
2037	104,814,092	9,657,499	3,883,582	110,588,009
2038	110,588,009	10,205,096	3,787,042	117,006,062
2039	117,006,062	10,813,258	3,690,163	124,129,157
2040	124,129,157	11,488,178	3,583,642	132,033,693
2041	132,033,693	12,236,808	3,472,055	140,798,446
2042	140,798,446	13,066,105	3,364,322	150,500,228
2043	150,500,228	13,984,050	3,245,290	161,238,988
2044	161,238,988	14,999,568	3,124,332	173,114,224
2045	173,114,224	16,121,479	3,012,037	186,223,666
2046	186,223,666	17,359,446	2,898,943	200,684,168
2047	200,684,168	18,724,915	2,775,844	216,633,239
2048	216,633,239	20,230,363	2,651,669	234,211,933
2049	234,211,933	21,889,102	2,525,385	253,575,651

Number of years for which current market value of assets are adequate to sustain the payment of expected retirement benefits reflecting no contributions from the City or Members:

All Future Years

Certain Key Assumptions

Investment return assumption

9.40%

Mortality Table:

For healthy participants during employment, PUB-2010 Headcount Weighted General Below Median Employee Mortality Table, separate rates for males and females, set back 1 year for males, with fully generational mortality improvements projected to each future decrement date with Scale MP-2018. For healthy participants post employment, PUB-2010 Headcount Weighted General Below Median Healthy Retiree Mortality Table, separate rates for males and females, set back 1 year for males, with fully generational mortality improvements projected to each future decrement date with Scale MP-2018. For disabled participants, PUB-2010 Headcount Weighted General Disabled Retiree Mortality Table, separate rates for males and females, both set forward 3 years, without projected mortality improvements.

Note: As required in Section 112.664(1)(c) of the Florida Statutes, the projection of Plan assets does not include future contributions from the City or Members. For this reason, this projection should not be viewed as representative of the amount of time the Plan can sustain benefit payments. Under the Government Accounting Standards Board standards which include City and Member contributions, the Plan is expected to be able to pay all future benefit payments.



ACTUARIALLY DETERMINED CONTRIBUTION

	Valuation Assumptions and 112.664(1)(a), F.S. Assumptions	112.664(1)(b), F.S. Assumptions	112.664(1)(a), F.S. Assumptions Plus 2% on Investment Return Assumption
A. Valuation Date	October 1, 2019	October 1, 2019	October 1, 2019
B. Actuarial Determined Contribution to Be Paid During Fiscal Year Ending	September 30, 2021	September 30, 2021	September 30, 2021
C. Annual payroll of Active Employees	\$ 13,621,885	\$ 13,621,885	\$ 13,621,885
D. Total Minimum Funding Requirement			
1. Total Normal Cost	\$ 1,925,482	\$ 2,816,636	\$ 1,388,760
2. Amortization of Unfunded Actuarial Accrued Liability	(23,067)	850,292	(862,862)
3. Interest Adjustment	67,878	96,404	23,608
4. Total Minimum Funding Requirement (1. + 2. + 3., not less than 1.)	\$ 1,970,293	\$ 3,763,332	\$ 1,388,760
E. Expected Payroll of Active Employees for Following Plan Year (\$ / % of pay) (C x 1.029)	\$ 14,016,920 102.90%	\$ 14,016,920 102.90%	\$ 14,016,920 102.90%
F. Expected Contribution Sources (\$ / % of pay)			
1. City	\$ 1,191,438 8.50%	\$ 3,027,655 21.60%	\$ 588,711 4.20%
2. Member	841,015 6.00%	841,015 6.00%	841,015 6.00%
3. Total	\$ 2,032,453 14.50%	\$ 3,868,670 27.60%	\$ 1,429,726 10.20%

Unfunded Actuarial Accrued Liabilities Bases and Amortization Payments

<u>Amortization Base</u>	Current Unfunded Liabilities	Amortization Payment			Remaining Funding Period
		Valuation and 112.664(1)(a), F.S. Assumptions	112.664(1)(b), F.S. Assumptions	112.664(1)(a), F.S. Assumptions Plus 2%	
10/01/2016 Method Change - Initial Unfunded	\$ (68,978)	\$ (5,591)	\$ (4,883)	\$ (6,334)	17 years
10/01/2016 Assumption Change	(6,272)	(508)	(444)	(576)	17 years
10/01/2017 Actuarial Loss / (Gain)	61,000	4,758	4,124	5,426	18 years
10/01/2018 Actuarial Loss / (Gain)	(941,395)	(70,868)	(60,967)	(81,333)	19 years
10/01/2018 Assumption Change	850,308	64,011	55,068	73,463	19 years
10/01/2019 Actuarial Loss / (Gain)	457,638	33,338	28,469	38,499	20 years
10/01/2019 Assumption Change	(661,749)	(48,207)	(41,167)	(55,670)	20 years
10/01/2019 Assumption Change - 112.664(1)(b), F.S. Assumptions	13,986,464	N/A	870,092	N/A	20 years
10/01/2019 Assumption Change - 112.664(1)(a), F.S. Assumptions Plus 2%	(9,941,467)	N/A	N/A	(836,337)	20 years

SECTION B

SUMMARY OF PLAN PROVISIONS

**Outline of Principal Provisions of the Retirement Plan
(as of October 1, 2019)**

A. Effective Date:

January 1, 1973, as amended through Ordinance 09-04.

B. Eligibility Requirements:

Full-time employee, other than police officers and firefighters.

C. Credited Service:

Service in completed calendar months from date of employment to the earlier of date of retirement or termination.

D. Earnable Compensation:

Base salary paid including overtime pay *pick-up* contributions, but excluding bonuses, expense allowances, unused accumulated leave time, etc.

E. Final Monthly Compensation (FMC) :

Average monthly rate of earnable compensation during the best thirty-six (36) consecutive months out of the last one hundred twenty (120) months preceding date of retirement (or termination).

F. Employee Contributions:

6% of basic annual compensation.

G. Normal Retirement:

(1) Eligibility: The earlier of attainment of age 60 and completion of 10 years of credited service or completion of 20 years of credited service, irrespective of age. Employees participating in the plan prior to March 1, 1993 may retire fully vested at age 60 with 5 years of credited service. Employees hired on or after March 1, 1993 may retire at age 60 with 5 years of credited service but less than 10 years of credited service with reduced benefits.

(2) Benefit: 2.5% times FMC times credited service. 1.25% times FMC times credited service for employees hired on or after March 1, 1993 with less than 10 years of credited service.

**Outline of Principal Provisions of the Retirement Plan
(as of October 1, 2019)**

H. Early Retirement:

- (1) Eligibility: Attainment of age 55 and completion of 10 years credited service.
- (2) Benefit: Benefit accrued to date of retirement, reduced by 1/15th for each year prior to normal retirement to reflect commencement of benefit at an earlier age.

I. Deferred Retirement:

- (1) Eligibility: Continued employment beyond normal retirement date.
- (2) Benefit: Benefit accrued at deferred retirement date based on credited service and FMC at deferred retirement date.

J. Disability Retirement:

- (1) Eligibility: Total and permanent qualifying disability. If non-service incurred, requires completion of ten (10) years of credited service.
- (2) Benefit: Benefit (payable for ten (10) years certain and life thereafter or prior recovery)

Incurred in Line-of-Duty: Greatest of (a), (b) or (c), where

- (a) is 42% of FMC as of date of disability,
 - (b) is the benefit supported by the present value of accrued benefit as of date of disability deferred to normal retirement date and
 - (c) is the benefit supported by eighteen (18) times FMC.
- Benefit under (c) shall not exceed 60% of anticipated retirement benefit.

Not Incurred in Line-of-Duty: Greater of (a) or (b), where

- (a) is the benefit supported by the present value of accrued benefit as of date of disability deferred to normal retirement date and
- (b) is the benefit supported by eighteen (18) times FMC.

**Outline of Principal Provisions of the Retirement Plan
(as of October 1, 2019)**

K. Death Benefit:

Benefit to beneficiary (payable for ten (10) years certain and life thereafter) which can be supported by the greater of A or B, where A is the single-sum value of the accrued benefit at date of death deferred to normal retirement date and B is the lesser of (i) and (ii), where (i) is 18 times FMC at date of death and (ii) is 100 times the anticipated monthly normal retirement benefit.

L. Vested Benefit Upon Termination:

(1) Eligibility:

Vesting schedule with no vesting until completion of 5 years of credited service (50%) increasing by 10% per year until 100% vesting upon completion of 10 years of credited service.

(2) Benefit at payable at Normal Retirement Date:

Benefit equal to accrued benefit based upon credited service and FMC at date of termination times vested percentage.

M. Cash Termination Benefit:

(1) Accumulated employee contributions without interest for non-vested employees.

(2) Accumulated employee contributions without interest in lieu of deferred vested benefit for vested employees.

N. Normal Form of Retirement Income:

Monthly life annuity with guaranteed return of employee contributions.

**Outline of Principal Provisions of the Retirement Plan
(as of October 1, 2019)**

O. Deferred Retirement Option Plan (DROP):

- (1) Eligibility: Upon meeting the eligibility for normal or early retirement.
- (2) Participation in the DROP must be exercised within the first thirty (30) years of employment; provided, however, that participation in the DROP, when combined with participation in the retirement plan as an active member may not exceed thirty (30) years. The maximum period of participation in the DROP is five (5) years.
- (3) An employee's account in the DROP program shall be credited with interest based upon the actual earnings of the retirement fund.
- (4) No payment may be made from the DROP until the employee actually separates from service with the City.

P. Cost of Living Adjustment (COLA):

Effective January 1, 2006, members receiving benefits received a 2.0% *ad hoc* COLA.

Q. Changes From Previous Valuation:

None.

SECTION C

ACTUARIAL ASSUMPTIONS AND COST METHODS USED FOR FUNDING

**Actuarial Assumptions and Actuarial Cost Methods Used in the Valuation
(as of October 1, 2019)**

A. Mortality

For healthy participants during employment, PUB-2010 Headcount Weighted General Below Median Employee Mortality Table, separate rates for males and females, set back 1 year for males, with fully generational mortality improvements projected to each future decrement date with Scale MP-2018.

For healthy participants post employment, PUB-2010 Headcount Weighted General Below Median Healthy Retiree Mortality Table, separate rates for males and females, set back 1 year for males, with fully generational mortality improvements projected to each future decrement date with Scale MP-2018.

For disabled participants, PUB-2010 Headcount Weighted General Disabled Retiree Mortality Table, separate rates for males and females, both set forward 3 years, without projected mortality improvements.

Sample Ages (2019)	Pre-retirement Future Life Expectancy (Years)		Post-retirement Future Life Expectancy (Years)	
	Male	Female	Male	Female
	55	32.50	34.95	28.53
60	27.66	29.93	24.46	27.77
62	25.78	27.96	22.85	25.95

Sample Ages (2039)	Pre-retirement Future Life Expectancy (Years)		Post-retirement Future Life Expectancy (Years)	
	Male	Female	Male	Female
	55	34.14	36.43	30.54
60	29.22	31.36	26.31	29.42
62	27.29	29.36	24.63	27.55

**Actuarial Assumptions and Actuarial Cost Methods Used in the Valuation
(as of October 1, 2019)**

B. Investment Return

7.40%, net of investment expenses, compounded annually - includes inflation of 2.5%.

C. Allowances for Expenses or Contingencies

Previous year's actual administrative expenses added to normal cost.

D. Employee Withdrawal Rates

Withdrawal rates for males and for females were used in accordance with the following illustrative example:

<u>Service</u>	<u>Withdrawal Rates</u>
0-1	25.0%
1-2	22.0%
2-3	16.0%
3-4	14.0%
4-5	10.0%
5-6	10.0%
6-7	9.0%
7-8	8.0%
8-10	6.0%
10+	2.0%

E. Disability Rates

Class (01) Inter-Company disability rates were used with separate rates for males and females.

50% of all disablements are assumed to be service related.

F. Marital Assumptions

100% of all active participants are assumed to be married.

Females are assumed to be three years younger than their male spouses.

G. Salary Increase Factors

Current salary was assumed to increase at a rate based on the table below per year until retirement - includes assumed wage inflation of 3.25%.

<u>Age</u>	<u>Salary Increase</u>
< 30	6.00%
30 - 59	5.00%
60 +	4.00%

**Actuarial Assumptions and Actuarial Cost Methods Used in the Valuation
(as of October 1, 2019)**

H. Assumed Retirement Age

Rates of early retirement were used in accordance with the following table.

<u>Age</u>	<u>Retirement Rate</u>
55	15%
56 - 59	10%

Rates of normal retirement were used in accordance with the following table.

<u>Age</u>	<u>Retirement Rate</u>
55 or younger	20%
56 - 64	30%
65 - 74	35%
75 - 79	50%
80 & older	100%

However, all active members on the valuation date are assumed to have a minimum of one year of future service.

I. Payroll Growth Assumption

Payroll is assumed to increase at a rate equal to the historical 10-year average (2.9% as of October 1, 2019) - not less than 0.0%.

J. Valuation of Assets

The method used for determining the smoothed actuarial value of assets phases in the deviation between the expected and actual return on assets at the rate of 20% per year. The smoothed actuarial value of assets will be further adjusted to the extent necessary to fall within the corridor whose lower limit is 80% of the fair market value of plan assets and whose upper limit is 120% of the fair market value of plan assets.

K. Actuarial Cost Methods

Normal Retirement, Termination, Death and Disability Benefits: Entry Age Normal

Under this method the normal cost for each active employee is the amount which is calculated to be a level percentage of pay that would be required annually from his age at hire to his assumed retirement age to fund his estimated benefits, assuming the Plan had always been in effect. The normal cost for the Plan is the sum of such amounts for all employees. The actuarial accrued liability as of any valuation date for each active employee or inactive employee who is eligible to receive benefits under the Plan is the excess of the actuarial present value of estimated future benefits over the actuarial present value of current and future normal costs. The unfunded actuarial accrued liability as of any valuation date is the excess of the actuarial accrued liability over the smoothed actuarial value of assets of the Plan.

**Actuarial Assumptions and Actuarial Cost Methods Used in the Valuation
(as of October 1, 2019)**

K. Actuarial Cost Methods (continued)

Vested Normal Retirement, Termination, Disability, and Death Benefits: Unit Credit Cost Method

Under this method, the actuarial present value of vested accrued benefits is an amount calculated to be the sum of the present values of each individual's vested accrued or earned benefit under the Plan as of the valuation date. Each individual's calculation is based on pay and service as of the valuation date.

The DROP accounts balance is included in the assets and liabilities as of the valuation date.

L. Changes from Previous Valuation

1. Mortality was:

For healthy male participants during employment, RP 2000 Combined Male Healthy Participant Mortality Table, with 50% White Collar / 50% Blue Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy female participants during employment, RP 2000 Combined Female Healthy Participant Mortality Table, with White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB.

For healthy male participants post employment, RP 2000 Annuitant Male Mortality Table, with 50% White Collar / 50% Blue Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy female participants post employment, RP 2000 Annuitant Female Mortality Table, with White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB.

For disabled male participants, RP 2000 Disabled Male Mortality Table, setback four years, without projected mortality improvements. For disabled female participants, RP 2000 Disabled Female Mortality Table, set forward two years, without projected mortality improvements.

Sample Ages (2019)	Pre-retirement Future Life Expectancy (Years)		Post-retirement Future Life Expectancy (Years)	
	Male	Female	Male	Female
	55	30.64	33.66	30.21
60	25.71	28.64	25.55	28.54
62	23.81	26.68	23.71	26.62

Sample Ages (2039)	Pre-retirement Future Life Expectancy (Years)		Post-retirement Future Life Expectancy (Years)	
	Male	Female	Male	Female
	55	32.78	35.50	32.37
60	27.88	30.47	27.74	30.38
62	25.97	28.49	25.89	28.44

2. Investment Return was:

7.45%, net of investment expenses, compounded annually - includes inflation of 2.5%.



SECTION D

GLOSSARY

GLOSSARY

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

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

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