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February 22, 2017

Ms. Patti McLauchlin, Administrator
City of Key West Employees' Retirement Plan
City of Key West
3102 Flagler Avenue
Key West, Florida 33040

**Re: Retirement Plan for Employees of the City of Key West
Actuarial Study as of October 1, 2015**

Dear Patti:

As requested, we are pleased to enclose ten (10) copies of our Actuarial Study as of October 1, 2015 to determine the financial effect of proposed benefit changes to the City of Key West Employees' Retirement Plan (Plan).

<u>Background</u> – The Plan does not currently provide an automatic annual cost of living adjustment (COLA). Effective January 1, 2006, members receiving benefits received a 2.0% *ad hoc* (one time) COLA.

<u>Proposed Changes</u> **–** The Board is interested in analyzing the financial impact of the following proposed changes in benefit provisions:

- **<u>Scenario 1</u>**

  Current retirees who retired with **twenty (20) or more years of service**, with a monthly benefit less than $1,000 shall receive a monthly benefit of **$1,000** during their lifetime.

  PLUS

  C**urrent** and **future** retirees including DROP members and respective beneficiaries, who retire/retired or enter/entered the DROP on or after reaching normal retirement date, members retiring due to disability and survivor beneficiaries of members active at time of death will receive an annual automatic **2% COLA** increase payable each January 1st commencing the later of January 1, 2017 or following receipt of benefits for **five (5) years**. DROP members will not receive the COLA while participating in the DROP.

- **<u>Scenario 2</u>**

  Current retirees who retired with **twenty (20) or more years of service**, with a monthly benefit less than $1,000 shall receive a monthly benefit of **$1,000** during their lifetime.

  PLUS

  C**urrent** and **future** retirees including DROP members and respective beneficiaries, who retire/retired or enter/entered the DROP on or after reaching normal retirement date, members retiring due to disability and survivor beneficiaries of members active at time of death will receive an annual automatic **3% COLA** increase payable each January 1st commencing the later of January 1, 2017 or following receipt of benefits for **five (5) years**. DROP members will not receive the COLA while participating in the DROP.

<u>Results</u> – The attached Exhibits set out the key financial results of our Study for each Scenario. The following sets out the projected change in minimum annual required contributions for the first year for the City as a dollar amount and as a percentage of projected covered payroll ($11,441,982):

Item	Incremental Cost in Net City Annual Required Contribution
Scenario 1 – Current retirees who have 20 or more years of service receive a minimum of $1,000 per month for life. Annual automatic 2% COLA increase payable each January 1st commencing at the later of 5 years following retirement / DROP or January 1, 2017	
• Normal retirement only *	$ 766,613 / 6.7%
• Normal retirement & disability	$ 778,055 / 6.8%
• Normal retirement, disability, and death	$ 812,381 / 7.1%
Scenario 2 –Current retirees who have 20 or more years of service receive a minimum of $1,000 per month for life. Annual automatic 3% COLA increase payable each January 1st commencing at the later of 5 years following retirement / DROP or January 1, 2017	
• Normal retirement only *	$ 1,201,408 / 10.5%
• Normal retirement & disability	$ 1,224,292 / 10.7%
• Normal retirement, disability, and death	$ 1,270,060 / 11.1%

* Current beneficiaries of participants who previously retired at or after their Normal Retirement Date as well as survivors of active members are included in the death costs.

Other Considerations –

Please note only one current retiree meeting the twenty (20) or more years of service requirement has a current monthly benefit less than $1,000.

The Consumer Price Index (CPI) has increased approximately 22.5% since the prior *ad hoc* COLA of 2% was provided effective January 1, 2006.

The projected change in minimum annual required contributions for the first year for the City as a dollar amount and as a percentage of projected covered payroll of providing a 2% *ad hoc* COLA without delay for all current inactive members eligible for the COLA in Scenario 1 and Scenario 2 is approximately $80,000 / 0.7%.

Census data for annuitants was provided with our Study dated September 8, 2016.

Actuarial Assumptions and Methods, Plan Provisions, Financial Data, Member Census Data – The actuarial assumptions and methods, financial data and member census data employed for purposes of our Actuarial Study are the same actuarial assumptions and methods, financial data and member census data utilized for the October 1, 2015 Actuarial Valuation unless otherwise specified herein. Additional information regarding current inactive members who retired at or after normal retirement was provided by the Board in order to complete the analysis.

The actuarial cost method was changed to the Entry Age Normal level percent of pay method. The Unfunded Actuarial Accrued Liability was amortized over 20 years as a level percent of pay on a closed basis.

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.

The Plan provisions employed for purposes of our Actuarial Study are the same Plan provisions utilized for the October 1, 2015 Actuarial Valuation as modified above.

This Actuarial Study is intended to describe the estimated future financial effects of the proposed benefit changes on the Plan, and is not intended as a recommendation in favor of the benefit changes or in opposition of the benefit changes.

If all actuarial assumptions are met and if all future minimum required contributions are paid, Plan assets will be sufficient to pay all Plan benefits. 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.

The Unfunded Entry Age Normal Actuarial Accrued Liability (UAAL) 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. The UAAL would be different if it reflected the market value of assets rather than the smoothed actuarial value of assets.

The Funded Percentage shown in Item H of the Exhibit is for informational purposes and is not appropriate for assessing the sufficiency of Plan assets to cover the estimated cost of settling the Plan's benefit obligations but may be appropriate for assessing the need for or the amount of future contributions.

These calculations are based upon assumptions regarding future events. However, the Plan's long term costs will be determined by actual future events, which may differ materially from the assumptions made. These calculations are also based upon present Plan provisions that are referenced in this Actuarial Study.

If you have reason to believe the assumptions used are unreasonable, the Plan provisions are incorrectly described as referenced, important Plan provisions relevant to this proposed Actuarial Study are not described or that conditions have changed since the calculations were made, you should contact the undersigned prior to relying on information in this Actuarial Study.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: Plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); and changes in Plan provisions or applicable law. Due to the limited scope of the actuary's assignment, the actuary did not perform an analysis of the potential range of such future measurements.

This Actuarial Study should not be relied on for any purpose other than the purpose described in the primary communication. Determinations of the financial results associated with the benefits described in this report in a manner other than the intended purpose may produce significantly different results.

This Actuarial Study 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 fairly presents the actuarial position of the Plan as of the Study 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.

This Actuarial Study may be provided to parties other than the Board only in its entirety and only with the permission of an approved representative of the Board.

The signing actuaries are independent of the Plan sponsor.

If you have reason to believe that the information provided in this Actuarial Study is inaccurate, or is in any way incomplete, or if you need further information in order to make an informed decision on the subject matter of this report, please contact the undersigned prior to making such decision.

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 opinion contained herein.

If you should have any question concerning the above or if we may be of further assistance with this matter, please do not hesitate to contact us.

Sincerest regards,

L. F. Wilson

Lawrence F. Wilson, A.S.A., E.A.
Senior Consultant and Actuary

Kelly L. Adams

Kelly L. Adams, A.S.A., E.A.
Consultant and Actuary

Enclosures

Retirement Plan for Employees of the City of Key West

Actuarial Study as of October 1, 2015

	Actuarial Valuation				Method Change				Scenario 1			
	Current Plan				Entry Age Normanl (EAN) Cost Method				Current retirees who have 20 or more years of service receive a minimum of $1,000 per month / Annual automatic 2% COLA increase payable each January 1st commencing at the later of 5 years or January 1, 2017			
		Cost Data	% of Annual Compensation			Cost Data	% of Annual Compensation			Cost Data	% of Annual Compensation	
A. Participants												
1. Active employees		250	N/A			250	N/A			250	N/A	
2. Terminated vested		13	N/A			13	N/A			13	N/A	
3. Receiving benefits (including DROPs)		143	N/A			143	N/A			143	N/A	
4. Annual payroll of active employees	$	11,339,923	100.0%		$	11,339,923	100.0%		$	11,339,923	100.0%	
5. Projected annual payroll of active Members	$	11,441,982	100.9%		$	11,441,982	100.9%		$	11,441,982	100.9%	
B. Total Present Value of Future Benefits	$	54,579,004	481.3%		$	54,579,004	481.3%		$	62,065,165	547.3%	
C. Total Entry Age Normal Actuarial Actuarial Accrued Liability	$	46,751,976	412.3%		$	46,751,976	412.3%		$	53,418,966	471.1%	
D. Smoothed Actuarial Value of Assets	$	47,501,146	418.9%		$	47,501,146	418.9%		$	47,501,146	418.9%	
E. Unfunded Entry Age Normal Actuarial Accrued Liability	$	(749,170)	(6.6%)		$	(749,170)	(6.6%)		$	5,917,820	52.2%	
F. Total Normal Costs (including expenses)												
1. Aggregate Cost Method	$	1,289,184	11.4%		$	1,289,184	11.4%		$	2,478,742	21.9%	
2. Entry Age Normal	$	1,432,370	12.6%		$	1,432,370	12.6%		$	1,559,515	13.8%	
G. Market Value of Assets	$	47,155,911	415.8%		$	47,155,911	415.8%		$	47,155,911	415.8%	
H. Funded Percentage (Market Value)		100.9%	N/A			100.9%	N/A			88.3%	N/A	
I. Net City Cost (% of projected payroll)	$	663,635	5.8%		$	755,171	6.6%		$	1,476,016	12.9%	
J. Increase / (Decrease) in Net City Cost		N/A	N/A		$	91,536	0.8%		$	812,381	7.1%	

Retirement Plan for Employees of the City of Key West

Actuarial Study as of October 1, 2015

	Actuarial Valuation		Method Change		Scenario 2	
	Current Plan		Entry Age Normal (EAN) Cost Method		Current retirees who have 20 or more years of service receive a minimum of $1,000 per month / Annual automatic 3% COLA increase payable each January 1st commencing at the later of 5 years or January 1, 2017	
	Cost Data	% of Annual Compensation	Cost Data	% of Annual Compensation	Cost Data	% of Annual Compensation
A. Participants						
1. Active employees	250	N/A	250	N/A	250	N/A
2. Terminated vested	13	N/A	13	N/A	13	N/A
3. Receiving benefits (including DROPs)	143	N/A	143	N/A	143	N/A
4. Annual payroll of active employees	$ 11,339,923	100.0%	$ 11,339,923	100.0%	$ 11,339,923	100.0%
5. Projected annual payroll of active Members	$ 11,441,982	100.9%	$ 11,441,982	100.9%	$ 11,441,982	100.9%
B. Total Present Value of Future Benefits	$ 54,579,004	481.3%	$ 54,579,004	481.3%	$ 66,776,343	588.9%
C. Total Entry Age Normal Actuarial Actuarial Accrued Liability	$ 46,751,976	412.3%	$ 46,751,976	412.3%	$ 57,607,718	508.0%
D. Smoothed Actuarial Value of Assets	$ 47,501,146	418.9%	$ 47,501,146	418.9%	$ 47,501,146	418.9%
E. Unfunded Entry Age Normal Actuarial Accrued Liability	$ (749,170)	(6.6%)	$ (749,170)	(6.6%)	$ 10,106,572	89.1%
F. Total Normal Costs (including expenses)						
1. Aggregate Cost Method	$ 1,289,184	11.4%	$ 1,289,184	11.4%	$ 3,228,311	28.5%
2. Entry Age Normal	$ 1,432,370	12.6%	$ 1,432,370	12.6%	$ 1,639,997	14.5%
G. Market Value of Assets	$ 47,155,911	415.8%	$ 47,155,911	415.8%	$ 47,155,911	415.8%
H. Funded Percentage (Market Value)	100.9%	N/A	100.9%	N/A	81.9%	N/A
I. Net City Cost (% of projected payroll)	$ 663,635	5.8%	$ 755,171	6.6%	$ 1,933,695	16.9%
J. Increase / (Decrease) in Net City Cost	N/A	N/A	$ 91,536	0.8%	$ 1,270,060	11.1%