

**CITY OF CLEARWATER FIREFIGHTERS'**

**RELIEF AND PENSION FUND**

**ACTUARIAL REPORT**

**OCTOBER 1, 2015**

December 2, 2015

Board of Trustees  
City of Clearwater Firefighters' Relief and Pension Fund  
P. O. Box 4748  
Clearwater, FL 33758

Dear Trustees:

We are pleased to present the attached Report as of October 1, 2015 covering the actuarial aspects of the Firefighters' Relief and Pension Fund for the short Plan Year starting October 1, 2014 and ending September 30, 2016 and the City's fiscal year ending September 30, 2016.

A brief overview of the progress of the Plan can be obtained by looking at the following figures for the past three valuations (n.b. the plan has gone to bi-annual valuations, skipping the 2013 valuation):

<u>Item</u>	<u>01/2014 Plan Year</u>	<u>10/2014 Plan Year</u>	<u>2015 Plan Year</u>
Participants	27	22	22
Covered Payroll	\$ na	\$ na	\$ na
Fiscal Funding Cost	\$0	\$0	\$0
Cost as % of 1 Mill	0%	0%	0%

We feel that these results support our conclusion that the Plan is funded at a level which can reasonably be expected to support the benefits promised by the Plan on an adequate and timely basis.

Respectfully submitted,



Glenn F. Mouton, FSA  
Consulting Actuary

GFM/nm  
Enclosures

December 2, 2015

ACTUARIAL REPORT

PLAN: City of Clearwater Firefighters' Relief and Pension Fund  
PLAN YEAR: October 1, 2015 through September 30, 2016  
SPONSOR FISCAL YEAR: October 1, 2015 through September 30, 2016  
VALUATION DATE: October 1, 2015

This report presents the results of the Actuarial Valuation as of October 1, 2015 of the plan. The principal purposes of this report are

- To present the financial condition of the Plan
- To satisfy the requirements of Chapter 112 of the Florida Statutes
- To present the contributions required to adequately fund the Plan during the current year, according to the plan's current funding scheme
- To present disclosures required by Governmental Accounting Standards Board, Statements #67 and #68

Mouton and Company, Inc. was retained by the Board of Trustees of the Plan for this report. This actuarial valuation and/or cost determination was prepared and completed by me or under my direct supervision, and I acknowledge responsibility for the results. To the best of my knowledge, the results are complete and accurate, and in my opinion, the techniques and assumptions used are reasonable and meet the requirements and intent of Part VII, Chapter 112, Florida Statutes. 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.

The undersigned credentialed actuary meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Jan 7, 2016  
Date

  
Glenn F. Mouton  
Enrollment #14-2773  
On Behalf of Mouton & Company, Inc.

CITY OF CLEARWATER FIREFIGHTERS' RELIEF AND PENSION FUND  
Actuarial Valuation as of October 1, 2015

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**CITY OF CLEARWATER FIREFIGHTERS' RELIEF AND PENSION FUND**

Actuarial Valuation as of October 1, 2015

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**CURRENT VALUATION RESULTS**

**EXHIBIT 1**

Development of Current Year's Costs

Schedule A

	01-Jan-2014	01-Oct-2014	Before 01-Oct-2015	After 01-Oct-2015
A. Present Value of Future Obligations:				
1. Active Members	0	0	0	0
2. Retired Members	1,929,064	1,723,807	1,544,630	1,630,612
3. Survivors on Benefit	2,301,548	1,861,581	1,822,460	1,938,400
4. Disabled Members	282,846	212,392	202,823	202,823
Total Actuarial Accrued Liability:	4,513,458	3,797,780	3,569,913	3,771,835
B. Less Present Value of:				
1. Member Contributions	0	0	0	0
2. Florida Premium Tax Rebates	0	0	0	0
	0	0	0	0
C. Less Actuarial Plan Assets	5,008,891	4,860,303	4,615,299	4,615,299
D. Amount to be Funded by City (A-B-C) (Unfunded Actuarial Accrued Liability)	(495,433)	(1,062,523)	(1,045,386)	(843,464)
E. Current Value of 1 Mill	na	na	na	na
F. Maximum Authorized Current Contribution (authorized contribution capped at .6 mill)	0	0	0	0
G. Years Left in Funding Period	none	none	none	none
H. Increasing Funding Annuity Factor	n/a	n/a	n/a	n/a
I. Minimum Required Increasing Contribution (mid-yr)	none	none	none	none
J. Cash Flow Analysis Recommended Contribution	none	none	none	none
K. GASB 67, 68 EAN level \$ amortization period in years	n/a	n/a	n/a	n/a
L. GASB 67, 68 EAN level \$ amortization factor	n/a	n/a	n/a	n/a
M. GASB 67, 68 EAN level \$ amortization	0	0	0	0
N. Unadjusted Scheduled Funding Method Contribution	0	0	0	0
O. Current Recommended Contribution =(larger of I, J or N, but not more than F)	0	0	0	0
P. General Expenses*	4,900	0	2,500	2,500
Q. Total (O + P)	4,900	0	2,500	2,500
R. Interest Adjustment	0	0	0	0
S. Interest Adjusted Normal Cost (@ 9/30/2015)	4,900	0	2,500	2,500
T. Valuation Interest Rate	3.00%	3.00%	3.00%	3.00%

\* If not paid directly by the Trust

**CITY OF CLEARWATER FIREFIGHTERS' RELIEF AND PENSION FUND**

Actuarial Valuation as of October 1, 2015

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CURRENT VALUATION RESULTS

EXHIBIT 1

Experience gains and losses since the last valuation	Annual				3.00%	Schedule B	
	Actives Liability +	Retired Liability +	Survivors Liability +	Disabled Liability +	Total Liability +	Actuarial Assets -	Unfunded Liability
a. Beginning balances 10/01/14	0	1,723,807	1,861,581	212,392	3,797,780	4,860,303	(1,062,523)
b. Interest	0	51,714	55,847	6,372	113,933	145,809	(31,876)
c. Benefit Accruals	0	0	0	0	0	0	0
d. Interest	0	0	0	0	0	0	0
e. Contributions							
1. City (none)	0	0	0	0	0	0	0
2. State (none)	0	0	0	0	0	0	0
3. Employee (none)	0	0	0	0	0	0	0
f. Interest	0	0	0	0	0	0	0
g. Benefits Paid 09/30/15	0	(194,292)	(216,221)	(32,262)	(442,775)	(442,775)	0
h. Interest	0	(5,829)	(6,487)	(968)	(13,283)	(13,283)	0
i. Expenses Paid	0	0	0	0	0	(2,005)	0
j. Interest	0	0	0	0	0	(60)	0
k. Expected Values as of 09/30/15	0	1,575,400	1,694,720	185,534	3,455,655	4,547,989	(1,094,399)
l. Assumption Changes	0	85,982	115,940	0	201,922	0	201,922
l. Actual Values as of 09/30/15	0	1,630,612	1,938,400	202,823	3,771,835	4,615,299	(843,464)
m. Experience Gains	0	30,770	(127,740)	(17,289)	(114,258)	(67,310)	(49,013)

CURRENT VALUATION RESULTS

EXHIBIT 1

Cash Flow Analysis Assumptions

Schedule C

The following cash flow illustration covers the scenario under the current actuarial assumptions.

<u>Assumption</u>	<u>01-Oct-15</u>
Normal Mortality Table	RP2000 projected to 2020 using Scale BB The prior valuation used 1994 Unisex Mortality projected to 2010 using Scale AA
Disabled Mortality	PBGC Tables 3 & 4
Investment Yield	3.0%
Contribution Increase Rate	n/a
Future Benefit Increase Rate	2.0%

**CITY OF CLEARWATER FIREFIGHTERS' RELIEF AND PENSION FUND**  
Actuarial Valuation as of October 1, 2015

**CURRENT VALUATION RESULTS**      **REQUIRED CONTRIBUTION**

Schedule D

Cash Flow Analysis (net of plan expenses)      Adequate Present Value of Funding:      pass      #N/A      0

Calendar Year	Beginning of Year Plan Assets	na #N/A	Contributions by Source		Present Value of 1 Mill: Funding Required (pres val): 5.00%	#N/A (843,464)	Benefit Payments by Recipient Group		Required Millage: Funding Schedule	Total Benefit Payments	Net Increase in Plan Assets	Ending of Year Plan Assets	Assumed Investment Yield
			City	Members & State			Disables	Survivors					
2015	4,615,299	0	0	0	0	131,876	32,907	215,507	190,480	438,895	(307,019)	4,308,280	3.00%
2016	4,308,280	0	0	0	0	122,607	33,243	217,343	192,163	442,749	(320,142)	3,988,138	3.00%
2017	3,988,138	0	0	0	0	112,949	33,243	219,215	193,879	446,338	(333,388)	3,654,750	3.00%
2018	3,654,750	0	0	0	0	102,977	33,243	221,125	190,001	444,369	(341,392)	3,313,358	3.00%
2019	3,313,358	0	0	0	0	92,958	33,243	223,073	173,221	429,538	(336,580)	2,976,778	3.00%
2020	2,976,778	0	0	0	0	83,066	33,243	211,844	170,730	415,817	(332,751)	2,644,026	3.00%
2021	2,644,026	0	0	0	0	73,737	24,706	193,188	154,374	372,268	(298,531)	2,345,495	3.00%
2022	2,345,495	0	0	0	0	65,836	0	166,944	134,998	301,942	(236,107)	2,109,388	3.00%
2023	2,109,388	0	0	0	0	59,210	0	135,501	135,965	271,466	(212,256)	1,897,132	3.00%
2024	1,897,132	0	0	0	0	53,426	0	100,363	132,185	232,548	(179,122)	1,718,009	3.00%
2025	1,718,009	0	0	0	0	48,884	0	89,359	87,724	177,083	(128,199)	1,589,810	3.00%
2026	1,589,810	0	0	0	0	45,633	0	78,892	58,512	137,404	(91,770)	1,498,040	3.00%
2027	1,498,040	0	0	0	0	43,639	0	50,034	36,800	86,834	(43,196)	1,454,844	3.00%
2028	1,454,844	0	0	0	0	42,780	0	25,360	32,353	57,713	(14,934)	1,439,910	3.00%
2029	1,439,910	0	0	0	0	42,432	0	25,360	25,652	51,011	(8,579)	1,431,331	3.00%
2030	1,431,331	0	0	0	0	42,560	0	25,360	0	25,360	17,200	1,448,531	3.00%
2031	1,448,531	0	0	0	0	43,076	0	25,360	0	25,360	17,716	1,466,246	3.00%
2032	1,466,246	0	0	0	0	43,607	0	25,360	0	25,360	18,247	1,484,493	3.00%
2033	1,484,493	0	0	0	0	44,154	0	25,360	0	25,360	18,795	1,503,288	3.00%
2034	1,503,288	0	0	0	0	44,718	0	25,360	0	25,360	19,358	1,522,646	3.00%
2035	1,522,646	0	0	0	0	45,679	0	0	0	0	45,679	1,568,326	3.00%
2036	1,568,326	0	0	0	0	47,050	0	0	0	0	47,050	1,615,376	3.00%
2037	1,615,376	0	0	0	0	48,461	0	0	0	0	48,461	1,663,837	3.00%
2038	1,663,837	0	0	0	0	49,915	0	0	0	0	49,915	1,713,752	3.00%
2039	1,713,752	0	0	0	0	51,413	0	0	0	0	51,413	1,765,164	3.00%
2040	1,765,164	0	0	0	0	52,955	0	0	0	0	52,955	1,818,119	3.00%
2041	1,818,119	0	0	0	0	54,544	0	0	0	0	54,544	1,872,663	3.00%
2042	1,872,663	0	0	0	0	56,180	0	0	0	0	56,180	1,928,843	3.00%
2043	1,928,843	0	0	0	0	57,865	0	0	0	0	57,865	1,986,708	3.00%
2044	1,986,708	0	0	0	0	59,601	0	0	0	0	59,601	2,046,309	3.00%
2045	2,046,309	0	0	0	0	61,389	0	0	0	0	61,389	2,107,699	3.00%
2046	2,107,699	0	0	0	0	63,231	0	0	0	0	63,231	2,170,930	3.00%
2047	2,170,930	0	0	0	0	65,128	0	0	0	0	65,128	2,236,058	3.00%
2048	2,236,058	0	0	0	0	67,082	0	0	0	0	67,082	2,303,139	3.00%
2049	2,303,139	0	0	0	0	69,094	0	0	0	0	69,094	2,372,233	3.00%
2050	2,372,233	0	0	0	0	71,167	0	0	0	0	71,167	2,443,400	3.00%
2051	2,443,400	0	0	0	0	73,302	0	0	0	0	73,302	2,516,702	3.00%
2052	2,516,702	0	0	0	0	75,501	0	0	0	0	75,501	2,592,204	3.00%
2053	2,592,204	0	0	0	0	77,766	0	0	0	0	77,766	2,669,970	3.00%
2054	2,669,970	0	0	0	0	80,099	0	0	0	0	80,099	2,750,069	3.00%
2055	2,750,069	0	0	0	0	82,502	0	0	0	0	82,502	2,832,571	3.00%
41		0	0	0	0	2,650,047	223,830	2,299,907	1,909,038	4,432,775	(1,782,728)		

**CITY OF CLEARWATER FIREFIGHTERS' RELIEF AND PENSION FUND**

Actuarial Valuation as of October 1, 2015

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**CURRENT VALUATION RESULTS**

**EXHIBIT 1**

Participant Data

Schedule E

	01/01/2014	01/01/2014	Before 01-Oct-2015	After 01-Oct-2015
	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
Number Included				
Active Members	0	0	0	0
Retired Members	9	8	7	7
Current Beneficiaries	16	13	14	14
Disabled Members	2	1	1	1
 Total Annual Payroll of Actives	 0	 0	 0	 0
 Total Annual Benefits:				
to Retired Members	228,406	205,206	190,480	190,480
to Current Beneficiaries	262,531	208,144	215,507	215,507
to Disabled Members	49,976	32,907	32,907	32,907

Assets

Schedule F

Actuarial Value	5,008,891	4,860,303	4,615,299	4,615,299
Market Value (as reported by the City of Clearwater)	5,008,891	4,860,303	4,615,299	4,615,299

Liabilities

Schedule G

Present Value of Benefits				
Active Members	0	0	0	0
Retired Members	1,929,064	1,723,807	1,544,630	1,630,612
Current Beneficiaries	2,301,548	1,861,581	1,822,460	1,938,400
Disabled Members	282,846	212,392	202,823	202,823
 Total	 <u>4,513,458</u>	 <u>3,797,780</u>	 <u>3,569,913</u>	 <u>3,771,835</u>
 Less Present Value				
Future Member Contributions	0	0	0	0
Future State Contributions	0	0	0	0
	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
 Actuarial Accrued Liability less Actuarial Plan Assets	 <u>4,513,458</u> <u>(5,008,891)</u>	 <u>3,797,780</u> <u>(4,860,303)</u>	 <u>3,569,913</u> <u>(4,615,299)</u>	 <u>3,771,835</u> <u>(4,615,299)</u>
 Unfunded Actuarial Accrued Liability	 <u>(495,433)</u>	 <u>(1,062,523)</u>	 <u>(1,045,386)</u>	 <u>(843,464)</u>

**CITY OF CLEARWATER FIREFIGHTERS' RELIEF AND PENSION FUND**

Actuarial Valuation as of October 1, 2015

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**CURRENT VALUATION RESULTS**

EXHIBIT 1

Actuarial Present Value of Accrued Benefits

Schedule H

	01/01/2014	10/01/2014	Before 01-Oct-2015	After 01-Oct-2015
	<u>                    </u>	<u>                    </u>	<u>                    </u>	<u>                    </u>
Vested Accrued Benefits				
Inactive Members & Beneficiaries	4,513,458	3,797,780	3,569,913	3,771,835
Active Members	0	0	0	0
	<u>                    </u>	<u>                    </u>	<u>                    </u>	<u>                    </u>
Total	4,513,458	3,797,780	3,569,913	3,771,835
Nonvested Accrued Benefits	0	0	0	0
	<u>                    </u>	<u>                    </u>	<u>                    </u>	<u>                    </u>
Total	4,513,458	3,797,780	3,569,913	3,771,835

Statement of Changes in Total Actuarial Present Value of All Accrued Benefits

Schedule I

Present Value of Accrued Benefits at Beginning of Year	5,659,565	4,513,458	3,797,780	3,797,780
Increase (Decrease) During Year Attributable to (where applicable):				
Plan Amendment	0	0	0	0
Changes in Actuarial Assumptions	0	0	0	201,922
Increase (Decrease) due to Survivorship	(403,027)	(128,445)	290,864	290,864
Increase for less Interest Discount	110,546	0	0	0
Benefits Accrued	0	0	0	0
Benefits Paid	(596,682)	(382,322)	(442,775)	(442,775)
Other Changes - pay/benefit/deaths	(256,944)	(204,911)	(75,956)	(75,956)
	<u>                    </u>	<u>                    </u>	<u>                    </u>	<u>                    </u>
Net Increase (Decrease)	(1,146,107)	(715,678)	(227,867)	(25,945)
Actuarial Present Value of Accrued Benefits at End of Year	4,513,458	3,797,780	3,569,913	3,771,835

**CITY OF CLEARWATER FIREFIGHTERS' RELIEF AND PENSION FUND**

Actuarial Valuation as of October 1, 2015

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**CURRENT VALUATION RESULTS**

EXHIBIT 1

Pension Cost

Schedule J

	01/01/2014	10/01/2014	01-Oct-2015
	~~~~~	~~~~~	~~~~~
Required Funding Costs	0	0	0
Administrative Expense *	4,900	0	2,500
Interest Adjustment	0	0	0
	-----	-----	-----
Total Required City Contribution	4,900	0	2,500
As % of Payroll	N/A	N/A	N/A
Estimated Participant Contributions	0	0	0
As % of Payroll	N/A	N/A	N/A
Estimated Premium Tax Refund	0	0	0
As % of Payroll	N/A	N/A	N/A
Remaining Amount to be Contributed			
by City	4,900	0	2,500
As % of Payroll	N/A	N/A	N/A

\* if not paid directly by the Trust

Past Contributions

Schedule K

For the fiscal year ended 09/30/2015	
Total Contribution Required	0
Actual Contribution Made By:	
State	0
City	0
Participants	0
	-----
	0

Schedule Illustrating the Amortization of Unfunded Liabilities  
As They Exist This Date

Schedule L

See the Cash Flow Analysis contained in this report.

**CITY OF CLEARWATER FIREFIGHTERS' RELIEF AND PENSION FUND**

Actuarial Valuation as of October 1, 2015

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**CURRENT VALUATION RESULTS**

**EXHIBIT 1**

Comparison of Annual Benefit Increase Factors

Schedule M

(Continuing in pay status members only)

Valuation Date	Prior Valuation			Current Valuation			Actual Experience Uncapped	3 Year Average	Assumed Factor
	Annual Benefits Total	Annual Benefits Capped	Annual Benefits Uncapped	Annual Benefits Total	Annual Benefits Capped	Annual Benefits Uncapped			
01-Jan-1987	788,834			828,371			5.01%	NA	7.00%
01-Jan-1988	854,614			885,809			3.65%	NA	7.00%
01-Jan-1989	902,468			959,895			6.36%	5.01%	7.00%
01-Jan-1990	941,416			996,378			5.84%	5.28%	7.00%
01-Jan-1991	963,577			1,010,080			4.83%	5.68%	6.50%
01-Jan-1992	1,011,328			1,050,715			3.89%	4.85%	6.50%
01-Jan-1993	992,093			1,011,545			1.96%	3.56%	4.00%
01-Jan-1994	973,472			991,798			1.88%	2.58%	4.00%
01-Jan-1995	948,520			948,520			0.00%	1.28%	4.00%
01-Jan-1996	948,520			964,863			1.72%	1.20%	4.00%
01-Jan-1997	964,863			980,928			1.67%	1.13%	4.00%
01-Jan-1998	964,200			964,200			0.00%	1.13%	4.00%
01-Jan-1999	964,329			1,001,984			3.90%	1.86%	2.00%
01-Jan-2000	965,592			975,683			1.05%	1.65%	2.00%
01-Jan-2001	941,439			980,708			4.17%	3.04%	2.00%
01-Jan-2002	921,467			933,799			1.34%	2.19%	2.00%
01-Jan-2003	934,391			938,034			0.39%	1.97%	2.00%
01-Jan-2004	923,932			923,932			0.00%	0.58%	2.00%
01-Jan-2005	909,774			909,774			0.00%	0.13%	2.00%
01-Jan-2006	901,492	518,034	383,458	940,077	518,034	422,043	10.06%	3.35%	2.00%
01-Jan-2007	901,796	504,310	397,486	919,204	504,593	414,610	4.31%	4.79%	2.00%
01-Jan-2008	887,516	594,228	293,287	887,516	594,228	293,287	0.00%	4.79%	2.00%
01-Jan-2010	793,692	567,832	201,133	793,692	567,832	201,133	0.00%	1.44%	2.00%
01-Jan-2012	682,146	465,936	201,133	691,736	467,928	208,707	3.77%	1.26%	2.00%
01-Jan-2014	534,299	324,639	133,534	539,420	326,028	136,873	2.50%	2.09%	2.00%
01-Oct-2014	444,676	270,022	136,873	444,676	270,022	136,873	0.00%	2.09%	2.00%
01-Oct-2015	437,314	255,296	136,873	437,314	255,296	136,873	0.00%	0.83%	2.00%

**CITY OF CLEARWATER FIREFIGHTERS' RELIEF AND PENSION FUND**

Actuarial Valuation as of October 1, 2015

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**CURRENT VALUATION RESULTS**

**EXHIBIT 1**

**Comparison of Actual to Assumed Earnings**

**Schedule N**

(Assuming uniform income and disbursements, Employer Contributions assumed at End of Year)

Valuation Date	Beginning Assets	Ending Assets	Investment Earnings	Other Income	Benefits and Expenses
01-Jan-1994	3,252,665	3,177,236	64,734	831,026	971,189
01-Jan-1995	3,177,236	3,360,076	265,555	872,840	955,555
01-Jan-1996	3,360,076	3,407,925	103,544	916,135	971,830
01-Jan-1997	3,407,925	3,626,850	228,907	962,147	972,129
01-Jan-1998	3,626,850	3,963,395	300,824	1,011,742	976,021
01-Jan-1999	3,963,395	4,092,298	64,512	1,048,296	983,904
01-Jan-2000	4,092,299	4,668,572	426,660	1,098,990	949,376
01-Jan-2001	4,668,573	5,213,993	341,619	1,153,732	949,929
01-Jan-2002	5,213,995	5,741,450	257,977	1,211,210	941,731
01-Jan-2003	5,741,451	6,190,744	138,177	1,271,562	960,446
01-Jan-2004	6,190,744	6,744,043	138,857	1,331,045	916,603
01-Jan-2005	6,744,043	7,445,172	241,043	1,397,390	937,304
01-Jan-2006	7,445,172	8,375,505	387,938	1,467,259	924,865
01-Jan-2007	8,375,504	8,063,338	580,213	0	892,380
01-Jan-2008	8,063,337	7,561,246	366,551	0	868,643
01-Jan-2009	7,561,245	7,069,681	329,806	0	821,371
01-Jan-2010	7,069,680	6,661,881	363,961	0	771,761
01-Jan-2011	6,661,880	6,341,468	396,483	0	716,896
01-Jan-2012	6,341,467	5,849,998	169,814	0	661,284
01-Jan-2013	5,849,997	5,008,891	(244,425)	0	596,682
01-Jan-2014	5,008,890	4,860,303	239,542	0	388,130
01-Oct-2014	4,860,302	4,615,299	199,776	0	444,780
01-Oct-2015	4,615,298	#N/A	#N/A	0	#N/A

Valuation Date	Net Increase	Expected Earnings	Actual Experience	3 Year Average	5 Year Average	Assumed Factor
01-Jan-1994	(75,429)	221,665	1.90%	5.22%	7.06%	6.50%
01-Jan-1995	182,840	175,722	9.82%	6.16%	7.25%	6.50%
01-Jan-1996	47,849	175,722	3.83%	5.18%	5.86%	6.50%
01-Jan-1997	218,925	190,123	7.83%	7.16%	6.03%	6.50%
01-Jan-1998	336,545	204,284	9.57%	7.08%	6.59%	6.50%
01-Jan-1999	128,904	190,929	1.86%	6.42%	6.58%	5.50%
01-Jan-2000	576,274	198,969	11.79%	7.74%	6.98%	5.50%
01-Jan-2001	545,422	230,648	8.15%	7.27%	7.84%	5.50%
01-Jan-2002	527,456	260,872	5.44%	8.46%	7.36%	5.50%
01-Jan-2003	449,293	236,755	2.63%	5.41%	5.97%	4.50%
01-Jan-2004	553,299	287,908	2.17%	3.41%	6.04%	4.50%
01-Jan-2005	701,129	313,834	3.46%	2.75%	4.37%	4.50%
01-Jan-2006	930,332	347,237	5.03%	3.55%	3.75%	4.50%
01-Jan-2007	(312,167)	356,819	7.32%	5.27%	4.12%	4.50%
01-Jan-2008	(502,092)	343,306	4.80%	5.72%	4.56%	4.50%
01-Jan-2009	(491,565)	321,775	4.61%	5.58%	5.04%	4.50%
01-Jan-2010	(407,800)	300,771	5.45%	4.95%	5.44%	4.50%
01-Jan-2011	(320,413)	283,654	6.29%	5.45%	5.69%	4.50%
01-Jan-2012	(491,470)	180,325	2.83%	4.86%	4.80%	3.00%
01-Jan-2013	(841,107)	166,550	-4.40%	1.57%	2.96%	3.00%
01-Jan-2014	(148,588)	144,445	4.98%	1.14%	3.03%	3.00%
01-Oct-2014	(245,004)	139,137	4.31%	1.63%	2.80%	3.00%
01-Oct-2015	#N/A	#N/A	#N/A	#N/A	#N/A	3.00%

**CITY OF CLEARWATER FIREFIGHTERS' RELIEF AND PENSION FUND**

Actuarial Valuation as of October 1, 2015

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**PARTICIPANT DEMOGRAPHICS**

EXHIBIT 2

Coverage

Schedule A

This valuation includes the following 22 persons covered by the plan as of October 1, 2015.

Category	Number	Amount
Active Participants	0	0 *
Other Inactive Participants	0	0 **
Retirees on Benefit	7	190,480 **
Survivors on Benefit	14	215,507 **
Participants on Disability Benefit	1	32,907 **
Terminated Vested Participants	0	0 **
<b>TOTAL</b>	<b>22</b>	<b>N/A</b>

\* Annual covered pay only

\*\* Annual Benefit

No persons (included in the data furnished to us) were ineligible for participation as of the valuation date. Participant data was furnished by the City of Clearwater and was as of September 30, 2015.

For all Participants, the following items were determined:

2012	Disabled	Survivor	Retiree	Active
Average Attained Age	83.35	79.57	82.63	na
Average Retirement Age	53.51	44.36	53.37	na
Average Monthly Benefit	2,264	1,333	2,095	na
Benefit Increase Ratio	105.00%	110.00%	104.00%	na

2014 at 9/30

Average Attained Age	77.98	80.58	84.48	na
Average Retirement Age	51.73	43.78	54.39	na
Average Monthly Benefit	2,742	1,334	2,138	na
Benefit Increase Ratio	121.00%	100.00%	102.00%	na

2015

Average Attained Age	78.98	81.79	85.06	na
Average Retirement Age	51.73	43.73	55.60	na
Average Monthly Benefit	2,742	1,283	2,268	na
Benefit Increase Ratio	100.00%	96.00%	106.00%	na

**CITY OF CLEARWATER FIREFIGHTERS' RELIEF AND PENSION FUND**

Actuarial Valuation as of October 1, 2015

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**PARTICIPANT DEMOGRAPHICS**

**EXHIBIT 2**

Participant Reconciliation

Schedule B

	Active (all past NRD)	Retired on Benefit	Survivor on Benefit	Disabled	With Vested Benefit	Total
Participants at 01-Oct-2014	0	8	13	1	0	22
New	0					0
Retirement	0					0
Death	0	-1				(1)
Disability	0					0
Vested Termination	0					0
Lump Sum Settlement	0					0
New Survivors	0		1			1
Data Corrections	0					0
Participants at 01-Oct-2015	0	7	14	1	0	22

**CITY OF CLEARWATER FIREFIGHTERS' RELIEF AND PENSION FUND**

Actuarial Valuation as of October 1, 2015

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PLAN ASSET INFORMATION

EXHIBIT 3

Statement of Plan Fiduciary Net Position*	31-Dec-2013	30-Sep-2014	Schedule A 30-Sep-2015
<b>Market Value</b>			
Interest Receivable - Pooled Cash	25,324.00	31,068.00	30,783.00
Interest Receivable - Investments	14,110.00	0.00	0.00
Cash and cash equivalents	3,051,849.00	2,770,355.00	2,452,915.00
Agency Bonds	1,917,608.00	2,058,880.00	2,131,601.00
Accrued Earnings	0.00	0.00	0.00
	<u>5,008,891.00</u>	<u>4,860,303.00</u>	<u>4,615,299.00</u>
<b>Liabilities</b>			
Accounts Payable	0.00	0.00	0.00
	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>
<b>Plan Fiduciary Net Position</b>	<u><u>5,008,891.00</u></u>	<u><u>4,860,303.00</u></u>	<u><u>4,615,299.00</u></u>

\* As reported by the City

Actuarial Assets = Plan Fiduciary Net Position at Market Value

**CITY OF CLEARWATER FIREFIGHTERS' RELIEF AND PENSION FUND**

Actuarial Valuation as of October 1, 2015

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PLAN ASSET INFORMATION

EXHIBIT 3

Statement of Changes in Plan Fiduciary Net Position  
Plan Year Ending:

31-Dec-2012

30-Sep-2014

Schedule B  
30-Sep-2015

	31-Dec-2012	30-Sep-2014	30-Sep-2015
<b>INCREASES</b>			
Earnings on Investments	101,727.00	98,270.00	108,223.00
Unrealized Appreciation (Depreciation)	(346,152.00)	141,272.00	91,553.00
State Insurance Contributions	0.00	0.00	0.00
Employee Contributions	0.00	0.00	0.00
Employer Contributions:			
Accrued	0.00	0.00	0.00
	0.00	0.00	0.00
	(244,425.00)	239,542.00	199,776.00
<b>DECREASES</b>			
Expenses			
Professional Fees	0.00	(5,808.00)	(2,005.00)
Other expenses	0.00	0.00	0.00
Bad debt write-off	0.00	0.00	0.00
Paid to Participants	0.00	(5,808.00)	(2,005.00)
Retirees	(273,198.00)	(382,322.00)	(194,292.12)
Survivors	(252,563.00)		(216,220.76)
Disabled	(70,921.00)		(32,262.12)
	(596,682.00)	(382,322.00)	(442,775.00)
	(596,682.00)	(388,130.00)	(444,780.00)
Net Increase/(Decrease)	(841,107.00)	(148,588.00)	(245,004.00)
<b>Plan Fiduciary Net Position</b>			
Beginning of Year	5,849,998.00	5,008,891.00	4,860,303.00
End of Year	5,008,891.00	4,860,303.00	4,615,299.00

PLAN SUMMARY

EXHIBIT 4

1. General Information

- (a) Plan Name: City of Clearwater Firefighters' Relief and Pension Fund
- (b) Plan Year: January 1 through December 31
- (c) Plan Sponsor: City of Clearwater, Florida
- (d) Sponsor Fiscal Year: October 1 through September 30
- (e) Plan Administrator: Board of Trustees
- (f) Effective Date: December 20, 1955
- (g) The Plan was last amended by the passing of HB 1089 (Laws of Florida Chapter 30658) providing for administrative changes not having an actuarial impact.

2. Eligibility for Participation

All firemen regularly employed in the City's Fire Department prior to July 1, 1963 who have been certified to permanent status, excluding secretaries, stenographers and other civilian employees shall participate. This is now a closed group.

3. Contributions

- (a) Municipality: A tax not to exceed six-tenths (6/10) of one mill commencing 10/01/72 for a period of 35 years. This period has expired.
- (b) Active Participants: 6% of basic compensation. There are no active participants.
- (c) State of Florida: N/A

4. Normal Retirement Benefit

- (a) Eligibility: The completion of 20 years of service.

PLAN SUMMARY

EXHIBIT 4

- (b) Benefit: A benefit in the amount of 50% of compensation plus 2% of compensation for each year of service in excess of 20 years, up to a maximum of 60%. Compensation is the prevailing wage for the lowest rank held in the three years immediately preceding retirement. Service shall mean the period during which an employee is an active member of the Fire Department, including a pro rata share for any partial year.
- (c) Form of Benefit: A joint and 50% contingent annuity with automatic cost of living increases equal to the increase in the prevailing wage for rank at which the Fireman retired, not to exceed the rank of Captain.
- (d) Maximum Benefit: For those participants who retire 4/20/72 or later, there is a 100% limitation on total increases due to cost of living adjustments.

5. Service Connected Disability Benefit

- (a) Eligibility: Permanent disability from a service connected cause leaving the Participant unable to serve as a Fireman.
- (b) Benefit: A monthly retirement income for the life of the participant in the amount of 60% of the prevailing wage for rank held at the time of disability. At the time of death, the spouse shall receive 50% of the prevailing wage for rank held at the time of disability, plus 7.5% of such wage for each child under the age of 18, provided the total benefit shall not exceed 60% of such wage.

6. Non-Service Connected Disability Benefit

- (a) Eligibility: Total and permanent disability other than from a service connected cause before 20 years of service.
- (b) Benefit: A life annuity in the amount of 2.5% of the prevailing wage for rank held at the time of disability multiplied by years and months of service to date (maximum 20 years) plus 7.5% of such prevailing wage for each child under the age of 18, subject to a maximum of 50%. At the time of death, the spouse shall receive the same pension, not to exceed 25% of the prevailing wage for rank held when pensioned, plus 7.5% of such wage for each child under the age of 18, subject to a maximum of 50%.

PLAN SUMMARY

EXHIBIT 4

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7. Vesting Benefits

- (a) Eligibility: Termination of employment (other than retirement) upon completion of 12 years of service.
- (b) Benefit: The same as provided for a non-service connected disability.

8. Service Connected Death Benefits

- (a) Eligibility: Death of a participant while performing his duties.
- (b) Benefit: A benefit equal to 50% of the prevailing wage held at the time of death, plus 7.5% of such wage for each child under the age of 18, provided the total benefit shall not exceed 60%.

9. Non-Service Connected Death Benefits

- (a) Eligibility: Death of a participant while not performing his duties.
- (b) Benefit: If the participant has less than 20 years of service, the benefit shall be 25% of the prevailing wage at the time of death, plus 7.5% of such wage for each child under the age of 18, provided the total benefit shall not exceed 50% of such wage. If the participant has more than 20 years of service, the benefit shall be 50% of the pension the participant would have been entitled to receive, plus 7.5% of the prevailing wage at the date of death for each child under the age of 18, provided the total benefit shall not exceed the pension to which the participant was entitled.

COST METHOD AND ASSUMPTIONS

EXHIBIT 5

COST METHOD: A variation of the aggregate actuarial cost method was used during the funding period of the plan. The plan currently has only inactives; therefore the funding method could be described as either aggregate, accrued benefit or entry age normal, all of which normally converge after the end of the active participant phase. The present value of the projected benefits is calculated using the provisions of the plan and the actuarial assumptions, but based upon annuities certain for the expectation of life (these are the values used to produce the cash flows shown in Exhibit 1, Schedule D). The actuarial value of assets includes only the value of assets. No future funding is required according to the governing Florida Law. The City may elect to contribute should future valuations show an actuarial need for such. Should such a situation arise, a new funding method would be chosen. Ultimately, the City is responsible for all benefits.

RETIREMENT PATTERN: There are no remaining active members.

INVESTMENT YIELD: We have assumed a 3.0% annually compounded yield. This was set after review of projections by the City Finance Department showing expected earnings of the Plan's assets over the intermediate future.

MORTALITY PATTERN: We have assumed that mortality follows the RP2000 table projected to 2020 using Scale BB for retired Participants. The prior valuation used the 1994 Unisex Mortality Table projected to 2010 using Scale AA for retired Participants. We have assumed that disabled Participants will experience mortality according to PBGC Tables 3 and 4 for males and females, respectively. We have assumed no future projection of mortality improvement due to the small number of participants and their advanced age.

DISABILITY RATES: There are no remaining active members.

ASSET VALUATION: We have used the market value of the trust fund (as reported by the City) for this valuation.

WITHDRAWAL PATTERN: There are no remaining active members.

CONTRIBUTION INCREASE RATES: We have assumed no future contributions other than payment of expenses, not otherwise paid directly by the Trust.

PENSION COST RATIONALE

EXHIBIT 6

When one speaks of pension costs, one must distinguish between "true" costs and "actuarial" costs.

The true cost of a pension plan depends on its experience and is equal to:

$$\begin{array}{r} \text{Total Benefits Paid} \\ + \\ \text{Total Expense to Run the Plan} \\ - \\ \text{Investment Earnings} \end{array}$$

Because this true cost is not apparent until many years into the future, and then only in retrospect, the actuary scientifically estimates what the true cost will be and then assesses a share against the current year's operations.

In order to estimate the true cost elements, the actuary must try to predict the future happenings which will affect them -- such as death, employee turnover, expenses, investment earnings, etc. The assessment to each current year is made using a particular "cost method", selected by the actuary considering tax implications to the Employer, future cost versus future earnings patterns, present and projected makeup of employee force, etc. Based on these considerations, the actuarial costs are found to be as shown in this report.

It is important to remember that these annual costs are estimates of the actuary, which, if his projections are realized, will accumulate according to certain future patterns, as dictated by the cost method, to meet the true costs on an adequate and timely basis.

**CITY OF CLEARWATER FIREFIGHTERS' RELIEF AND PENSION FUND**

Actuarial Valuation as of October 1, 2015

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GASB 67, 68 Notes to the Financial Statements

EXHIBIT 7

- a. (1) The above PERS administrator is a single-employer with only one contributing municipality employer and no nonemployer contribution and no other contributors.
- (2) All firemen regularly employed in the City's Fire Department prior to July 1, 1963 who have been certified to permanent status, excluding secretaries, stenographers and other civilian employees shall participate.

Inactive Participants by category:

Retirees currently receiving benefits	8
Beneficiaries currently receiving benefits	14
Terminated employees entitled to benefits	0
	22
	22

Active Participants by category:

Fully vested and past normal retirement date	0
Partially vested	0
Non-vested	0
	0
	0

- (3) The benefit provisions are a monthly benefit in the amount of 50% of compensation plus 2% of compensation for each year of service in excess of 20 years, up to a maximum of 60%.
- (4) Employee eligibility requirements are membership in the covered group, being all firemen regularly employed in the City's Fire Department prior to July 1, 1963 who have been certified to permanent status, excluding secretaries, stenographers and other civilian employees. Eligibility for vesting is completion of 12 years of service. There are no remaining active members.

The authority under which benefit provisions are established is Article IV, Section 26.50 of the Clearwater Code, as provided in Florida Statutes, Chapters 112 and 175.

The employer obligation to contribute is as described in the Clearwater Code: a tax not to exceed six-tenths (6/10) of one mill commencing October 1, 1972 for a period of 35 years.

The funding period has expired.

## CITY OF CLEARWATER FIREFIGHTERS' RELIEF AND PENSION FUND

Actuarial Valuation as of October 1, 2015

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GASB 67, 68 Notes to the Financial Statements

EXHIBIT 7

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The authority under which those obligations are established is the Clearwater Code, Subpart B, Article 1, Section 1.

- b. (1) The accounting policies include the Accrual basis of accounting, and assets are reported at Market Value. Exchanges or "swaps" of securities are accounted for in the income. In previous years statement values of assets were used.
- (2) We are aware of no investments (other than U.S. government and U.S. government-guaranteed obligations) which represented more than 5% of net assets available for benefits.
- (3) We are aware of no investments in, loans to, or leases with any PERS official, government employer official, party related to a PERS official or governmental employer official, nonemployer contributor, or organization included in the reporting entity.

The Actuarial Present Value of credited projected benefits, is a standardized disclosure measure of the present value of pension benefits, adjusted for the effects of projected salary increases and any step-rate benefits, estimated to be payable in the future as a result of employee service to date.

## CITY OF CLEARWATER FIREFIGHTERS' RELIEF AND PENSION FUND

Actuarial Valuation as of October 1, 2015

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GASB 67, 68 Notes to the Financial Statements

EXHIBIT 7

The significant actuarial assumptions used to compute the pension benefit obligation were:

**Investment Yield:** This report assumes a 3.0% yield for both present and future.

**Mortality Pattern:** This valuation report uses the RP2000 Mortality Table projected to 2020 using Scale BB for both active and retired participants. The prior valuation used the 1994 Unisex Mortality Table projected to 2010 using Scale AA.

We continue to use the PBGC Tables 3 and 4 for disabled Participants.

**Salary Benefit Increases:** A projection of 2.0% due to a combination of both seniority and inflation is assumed. There are no longer any active members in this plan.

**Post Retirement Benefit Increases:** An increase of 2.0% has been assumed. Some participants have benefits capped.

**Rate of future contribution increases:** No future contributions are assumed.

The System's funding policy, as mandated by ordinance, provides for actuarially determined periodic contributions at rates that, expressed as percentages of 1 mill of assessed property value, are sufficient to accumulate sufficient assets, over the mandated contribution period, to pay benefits when due.

A variation of the aggregate actuarial cost method was used during the funding period of the plan. The plan currently has only inactive participants; therefore, the funding method could be described as either aggregate or entry age normal, both of which normally converge after the end of the active participant phase. The present value of the projected benefits is calculated using the provisions of the plan and the actuarial assumptions, but based upon annuities certain for the expectation of life (these are the values used to produce the cash flows shown in Exhibit 1, Schedule D). The actuarial value of assets includes only the value of assets. No future funding is required according to the governing Ordinance. The City may elect to contribute should future valuations show an actuarial need for such. Should such a situation arise, a new funding method would be chosen. This City is ultimately responsible for all benefits.

The GASB 67 and 68 Actuarial Funding Method is the Entry Age Normal (EAN) Method. For actuarial purposes, the plan has only inactive participants. Therefore the minimum funding required by GASB 67 and 68 is taken to be a level dollar amortization of the EAN Unfunded Actuarial Liability over a maximum of 40 years for the first 10 years of applicability of GASB 25, and 30 years thereafter. So long as the plan remains fully funded, this is not applicable.

**CITY OF CLEARWATER FIREFIGHTERS' RELIEF AND PENSION FUND**

Actuarial Valuation as of October 1, 2015

GASB 67, 68 Schedules of Funding Progress

The actuarially determined normal cost as of	01-Oct-2015	\$0	% of Annual Payroll
Contributions actually made by employees and employer were:		Amount	
Employer		0	na
Employees		0	na
The State contributed an additional amount of:		\$0	0.00%

Summary of Fund Progress by Plan Years

	10/1/2014 to 9/30/2015	1/1/2014 to 9/30/2014	1/1/2013 to 12/31/2013	1/1/2012 to 12/31/2012	1/1/2011 to 12/31/2011	1/1/2010 to 12/31/2010	1/1/2009 to 12/31/2009	1/1/2008 to 12/31/2008	1/1/2007 to 12/31/2007	1/1/2006 to 12/31/2006	1/1/2005 to 12/31/2005
<b>Increases to funds</b>											
Employer Contribution	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,467,259.00	1,397,390.00
Employee Contribution	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
State Contribution	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total Contributions</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>1,467,259.00</b>	<b>1,397,390.00</b>
Investment Income	199,776.00	239,542.00	(244,425.00)	169,814.00	396,483.00	363,961.00	329,806.00	366,551.48	580,212.68	387,938.47	241,043.34
Other Income	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total Increases</b>	<b>199,776.00</b>	<b>239,542.00</b>	<b>(244,425.00)</b>	<b>169,814.00</b>	<b>396,483.00</b>	<b>363,961.00</b>	<b>329,806.00</b>	<b>366,551.48</b>	<b>580,212.68</b>	<b>1,855,197.47</b>	<b>1,638,433.34</b>
<b>Decreases to Funds</b>											
Benefit payments	(442,775.00)	(382,322.00)	(596,682.00)	(655,986.00)	(716,896.00)	(767,455.00)	(821,371.00)	(868,643.00)	(888,319.79)	(920,796.51)	(933,431.06)
Admin expenses	(2,005.00)	(5,808.00)	0.00	(5,298.00)	0.00	(4,306.00)	0.00	0.00	(4,060.50)	(4,068.32)	(3,872.60)
<b>Total Decreases</b>	<b>(444,780.00)</b>	<b>(388,130.00)</b>	<b>(596,682.00)</b>	<b>(661,284.00)</b>	<b>(716,896.00)</b>	<b>(771,761.00)</b>	<b>(821,371.00)</b>	<b>(868,643.00)</b>	<b>(892,380.29)</b>	<b>(924,864.83)</b>	<b>(937,303.66)</b>
<b>Net Increase/Decrease</b>	<b>(245,004.00)</b>	<b>(148,588.00)</b>	<b>(84,107.00)</b>	<b>(491,470.00)</b>	<b>(320,413.00)</b>	<b>(407,800.00)</b>	<b>(491,565.00)</b>	<b>(502,091.52)</b>	<b>(312,167.61)</b>	<b>930,332.64</b>	<b>701,129.68</b>

**CITY OF CLEARWATER FIREFIGHTERS' RELIEF AND PENSION FUND**

Actuarial Valuation as of October 1, 2015

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GASB 67, 68 Schedules of Funding Progress

EXHIBIT 7

	Actuarial Valuation Date	Actuarial Value of Assets (a)	EAN Actuarial Accrued Liability (AAL)			Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Projected Covered Payroll (c)	UALL as a % of Covered Payroll ((b-a)/c)
			Actives	Inactives	Total (b)				
	1-Jan-1996	3,360,076	467,227	10,769,539	11,236,766	7,876,690	29.90%	0	na
	1-Jan-1997	3,407,925	455,335	10,559,644	11,014,979	7,607,054	30.94%	0	na
	1-Jan-1998	3,626,850	454,712	10,110,415	10,565,127	6,938,277	34.33%	0	na
Before Changes	1-Jan-1999	3,963,395	0	10,261,010	10,261,010	6,297,615	38.63%	0	na
After Changes	1-Jan-1999	3,963,395	0	10,473,888	10,473,888	6,510,493	37.84%	0	na
	1-Jan-2000	4,092,298	0	9,746,671	9,746,671	5,654,373	41.99%	0	na
	1-Jan-2001	4,668,572	0	9,527,303	9,527,303	4,858,731	49.00%	0	na
	1-Jan-2002	5,213,993	0	8,907,427	8,907,427	3,693,434	58.54%	0	na
Before Changes	1-Jan-2003	5,741,450	0	8,963,776	8,963,776	3,222,326	64.05%	0	na
After Changes	1-Jan-2003	5,741,450	0	10,483,967	10,483,967	4,742,517	54.76%	0	na
	1-Jan-2004	6,190,744	0	9,974,824	9,974,824	3,784,080	62.06%	0	na
	1-Jan-2005	6,744,043	0	8,938,022	8,938,022	2,193,979	75.45%	0	na
	1-Jan-2006	7,445,172	0	8,773,238	8,773,238	1,328,066	84.86%	0	na
	1-Jan-2007	8,375,505	0	8,320,672	8,320,672	-54,833	100.66%	0	na
	1-Jan-2008	8,063,338	0	7,815,729	7,815,729	-247,609	103.17%	0	na
	1-Jan-2010	7,069,681	0	6,752,633	6,752,633	-317,048	104.70%	0	na
Before Changes	1-Jan-2012	6,341,468	0	5,387,227	5,387,227	-954,241	117.71%	0	na
After Changes	1-Jan-2012	6,341,468	0	5,659,565	5,659,565	-681,903	112.05%	0	na
Before Changes	1-Jan-2014	5,008,891	0	4,402,912	4,402,912	-605,979	113.76%	0	na
After Changes	1-Jan-2014	5,008,891	0	4,513,458	4,513,458	-495,433	110.98%	0	na
	1-Oct-2014	4,860,303	0	3,797,780	3,797,780	-1,062,523	127.98%	0	na
Before Changes	1-Oct-2015	4,615,299	0	3,569,913	3,569,913	-1,045,386	129.28%	0	na
After Changes	1-Oct-2015	4,615,299	0	3,771,835	3,771,835	-843,464	122.36%	0	na

Actuarial Valuation Date	GASB 67 and 68				Actual Plan Contributions			
	Unfunded AAL (UAAL)	Amortization Period, I	Amortization Factor	Minimum ARC	Employer	Employee	State	Total
01-Jan-1996	7,876,690	40, 6.5%	15.06499	522,847	867,569	2,596	2,675	872,840
01-Jan-1997	7,607,054	40, 6.5%	15.06499	504,949	910,559	2,735	2,841	916,135
01-Jan-1998	6,938,277	40, 6.5%	15.06499	460,556	955,920	2,798	3,429	962,147
01-Jan-1999	6,510,493	40, 5.5%	16.92866	384,584	1,003,758	4,718	3,266	1,011,742
01-Jan-2000	5,654,373	40, 5.5%	16.92866	334,012	1,046,856	(1,645)	3,085	1,048,296
01-Jan-2001	4,858,731	40, 5.5%	16.92866	287,012	1,098,990	0	0	1,098,990
01-Jan-2002	3,693,434	40, 5.5%	16.92866	218,176	1,153,732	0	0	1,153,732
01-Jan-2003	4,742,517	40, 4.5%	16.92866	280,147	1,211,210	0	0	1,211,210
01-Jan-2004	3,784,080	40, 4.5%	16.92866	223,531	1,271,562	0	0	1,271,562
01-Jan-2005	2,193,979	40, 4.5%	16.92866	129,601	1,331,045	0	0	1,331,045
01-Jan-2006	1,328,066	30, 4.5%	17.02189	78,021	1,397,390	0	0	1,397,390
01-Jan-2007	-54,833	30, 4.5%	17.02189	-3,221	1,467,259	0	0	1,467,259
01-Jan-2008	-247,609	30, 4.5%	17.02189	-14,546	0	0	0	0
01-Jan-2010	-317,048	30, 4.5%	17.02189	-18,626	0	0	0	0
01-Jan-2012	-681,903	30, 4.5%	17.02189	-40,060	0	0	0	0
01-Jan-2014	-495,433	30, 4.5%	17.02189	-29,106	0	0	0	0
01-Oct-2014	-1,062,523	30, 4.5%	17.02189	-62,421	0	0	0	0
01-Oct-2015	-843,464	30, 4.5%	17.02189	-49,552	0	0	0	0

Contributions were made in accordance with actuarial requirements.

**CITY OF CLEARWATER FIREFIGHTERS' RELIEF AND PENSION FUND**

Actuarial Valuation as of October 1, 2015

GASB 67,68 Schedules of Funding Progress

EXHIBIT 8

GASB 67,68 Schedules of Funding Progress Summary of Fund Progress by Plan Years --  
Individual Entry Age Normal Method

	1/1/2012 to 12/31/2013	1/1/2014 to 9/30/2014	Before 10/1/2014 to 9/30/2015	After 10/1/2014 to 9/30/2015
<b>Total Liability</b>				
Service Cost	4,900	0	2,500	2,500
Interest	0	0	0	0
Changes of benefit terms	0	0	0	0
Differences between expected and actual experience	(187,474)	555,943	(49,013)	(49,013)
Changes in Assumptions	110,546	0	0	0
Benefit payments, including refunds of member contributions	(1,252,668)	(382,322)	(442,775)	(442,775)
Net change in total pension liability	(1,324,696)	173,621	(489,288)	(489,288)
Total pension liability -- beginning	5,659,565	4,513,458	3,797,780	3,797,780
Total pension liability -- ending (a)	<u>\$4,513,458</u>	<u>\$3,797,780</u>	<u>\$3,569,913</u>	<u>\$3,771,835</u>
<b>Plan Fiduciary net position</b>				
Employer Contribution	0	0	0	0
Employee Contribution	0	0	0	0
State Contribution	0	0	0	0
Investment Income	(74,611)	239,542	199,776	199,776
Other Income	0	0	0	0
Benefit payments	(1,252,668)	(382,322)	(442,775)	(442,775)
Admin expenses	(5,298)	(5,808)	(2,005)	(2,005)
Net change in plan fiduciary net position	(1,332,577)	(148,588)	(245,004)	(245,004)
Plan fiduciary net position -- beginning	6,341,468	5,008,891	4,860,303	4,860,303
Plan fiduciary net position -- ending (b)	<u>\$5,008,891</u>	<u>\$4,860,303</u>	<u>\$4,615,299</u>	<u>\$4,615,299</u>
<b>Net Pension Liability (asset) -- ending (a) - (b)</b>	<u>(\$495,433)</u>	<u>(\$1,062,523)</u>	<u>(\$1,045,386)</u>	<u>(\$843,464)</u>
Plan fiduciary net position as a percentage of the total pension liability	110.98%	127.98%	129.28%	122.36%
Covered employee payroll	#N/A	#N/A	#N/A	#N/A
Net pension liability (asset) as a percentage of payroll	#N/A	#N/A	#N/A	#N/A

**CITY OF CLEARWATER FIREFIGHTERS' RELIEF AND PENSION FUND**

Actuarial Valuation as of October 1, 2015

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GASB 67,68 Schedules of Funding Progress -- Plan Funding Method representing discount rate 1.0% lower

(i = 2.0%)

EXHIBIT

Development of Current Year's Costs

Schedule A

	01-Jan-2014	01-Oct-2014	Before 01-Oct-2015	After 01-Oct-2015
A. Present Value of Future Obligations:				
1. Active Members	0	0	0	0
2. Retired Members	2,028,903	1,812,191	1,620,896	1,715,608
3. Survivors on Benefit	2,428,916	1,967,069	1,920,319	2,047,378
4. Disabled Members	291,900	219,674	209,453	209,453
Total Actuarial Accrued Liability:	4,749,719	3,998,934	3,750,668	3,972,439
B. Less Present Value of:				
1. Member Contributions	0	0	0	0
2. Florida Premium Tax Rebates	0	0	0	0
	0	0	0	0
C. Less Actuarial Plan Assets	5,008,891	4,860,303	4,615,299	4,615,299
D. Amount to be Funded by City (A-B-C) (Unfunded Actuarial Accrued Liability)	(259,172)	(861,369)	(864,631)	(642,860)
E. Current Value of 1 Mill	na	na	na	na
F. Maximum Authorized Current Contribution (authorized contribution capped at .6 mill)	0	0	0	0
G. Years Left in Funding Period	none	none	none	none
H. Increasing Funding Annuity Factor	n/a	n/a	n/a	n/a
I. Minimum Required Increasing Contribution (mid-yr)	none	none	none	none
J. Cash Flow Analysis Recommended Contribution	none	none	none	none
K. GASB 67, 68 EAN level \$ amortization period in years	n/a	n/a	n/a	n/a
L. GASB 67, 68 EAN level \$ amortization factor	n/a	n/a	n/a	n/a
M. GASB 67, 68 EAN level \$ amortization	0	0	0	0
N. Unadjusted Scheduled Funding Method Contribution	0	0	0	0
Current Recommended Contribution =(larger of I, J or N, but not more than F)	0	0	0	0
P. General Expenses*	4,900	0	2,500	2,500
Q. Total (O + P)	4,900	0	0	2,500
R. Interest Adjustment	0	0	0	0
S. Interest Adjusted Normal Cost (@ 9/30/2015)	4,900	0	2,500	2,500
T. Valuation Interest Rate	3.00%	3.00%	2.00%	2.00%

\* If not paid directly by the Trust

**CITY OF CLEARWATER FIREFIGHTERS' RELIEF AND PENSION FUND**

Actuarial Valuation as of October 1, 2015

GASB 67,68 Schedules of Funding Progress -- Plan Funding Method representing discount rate 1.0% lower

(i = 2.0%)

EXHIBIT

Cash Flow Analysis (net of plan expenses) Adequate Present Value of Funding: Avoid any Negative Asset Years: #N/A #N/A (642,860) #N/A

Schedule D

Calendar Year	Beginning of Year Plan Assets	na #N/A	Contributions by Source			Present Value of 1 Mill: Funding Required (pres val): 5.00%	#N/A (642,860)	Benefit Payments by Recipient Group			Required Millage: Funding Schedule	#N/A	Total Benefit Payments	Net Increase in Plan Assets	Ending of Year Plan Assets	Assumed Investment Yield
			City	Members & State	Total			Disables	Survivors	for "old" Retirees						
2015	4,615,299	0	0	0	0	87,917	32,907	215,507	0	190,480	438,895	(350,978)	4,264,321	2.00%		
2016	4,264,321	0	0	0	0	80,859	33,243	217,343	0	192,163	442,749	(361,890)	3,902,432	2.00%		
2017	3,902,432	0	0	0	0	73,585	33,243	219,215	0	193,879	446,338	(372,752)	3,529,679	2.00%		
2018	3,529,679	0	0	0	0	66,150	33,243	221,125	0	190,001	444,369	(378,219)	3,151,460	2.00%		
2019	3,151,460	0	0	0	0	58,734	33,243	223,073	0	173,221	429,538	(370,804)	2,780,656	2.00%		
2020	2,780,656	0	0	0	0	51,455	33,243	211,844	0	170,730	415,817	(364,562)	2,416,294	2.00%		
2021	2,416,294	0	0	0	0	44,603	24,706	193,188	0	154,374	372,268	(327,665)	2,088,629	2.00%		
2022	2,088,629	0	0	0	0	38,753	0	166,944	0	134,998	301,942	(263,189)	1,825,439	2.00%		
2023	1,825,439	0	0	0	0	33,794	0	135,501	0	135,965	271,466	(237,672)	1,587,767	2.00%		
2024	1,587,767	0	0	0	0	29,430	0	100,363	0	132,185	232,548	(203,118)	1,384,649	2.00%		
2025	1,384,649	0	0	0	0	25,922	0	89,359	0	87,724	177,083	(151,161)	1,233,488	2.00%		
2026	1,233,488	0	0	0	0	23,296	0	78,892	0	58,512	137,404	(114,108)	1,119,380	2.00%		
2027	1,119,380	0	0	0	0	21,519	0	50,034	0	36,800	86,834	(65,315)	1,054,065	2.00%		
2028	1,054,065	0	0	0	0	20,504	0	25,360	0	32,353	57,713	(37,209)	1,016,856	2.00%		
2029	1,016,856	0	0	0	0	19,827	0	25,360	0	25,652	51,011	(31,184)	985,671	2.00%		
2030	985,671	0	0	0	0	19,460	0	25,360	0	0	25,360	(5,900)	979,771	2.00%		
2031	979,771	0	0	0	0	19,342	0	25,360	0	0	25,360	(6,018)	973,753	2.00%		
2032	973,753	0	0	0	0	19,221	0	25,360	0	0	25,360	(6,138)	967,615	2.00%		
2033	967,615	0	0	0	0	19,099	0	25,360	0	0	25,360	(6,261)	961,354	2.00%		
2034	961,354	0	0	0	0	18,973	0	25,360	0	0	25,360	(6,386)	954,968	2.00%		
2035	954,968	0	0	0	0	19,099	0	0	0	0	0	19,099	974,067	2.00%		
2036	974,067	0	0	0	0	19,481	0	0	0	0	0	19,481	993,548	2.00%		
2037	993,548	0	0	0	0	19,871	0	0	0	0	0	19,871	1,013,419	2.00%		
2038	1,013,419	0	0	0	0	20,268	0	0	0	0	0	20,268	1,033,688	2.00%		
2039	1,033,688	0	0	0	0	20,674	0	0	0	0	0	20,674	1,054,361	2.00%		
2040	1,054,361	0	0	0	0	21,087	0	0	0	0	0	21,087	1,075,449	2.00%		
2041	1,075,449	0	0	0	0	21,509	0	0	0	0	0	21,509	1,096,957	2.00%		
2042	1,096,957	0	0	0	0	21,939	0	0	0	0	0	21,939	1,118,897	2.00%		
2043	1,118,897	0	0	0	0	22,378	0	0	0	0	0	22,378	1,141,275	2.00%		
2044	1,141,275	0	0	0	0	22,825	0	0	0	0	0	22,825	1,164,100	2.00%		
2045	1,164,100	0	0	0	0	23,282	0	0	0	0	0	23,282	1,187,382	2.00%		
2046	1,187,382	0	0	0	0	23,748	0	0	0	0	0	23,748	1,211,130	2.00%		
2047	1,211,130	0	0	0	0	24,223	0	0	0	0	0	24,223	1,235,352	2.00%		
2048	1,235,352	0	0	0	0	24,707	0	0	0	0	0	24,707	1,260,059	2.00%		
2049	1,260,059	0	0	0	0	25,201	0	0	0	0	0	25,201	1,285,261	2.00%		
2050	1,285,261	0	0	0	0	25,705	0	0	0	0	0	25,705	1,310,966	2.00%		
2051	1,310,966	0	0	0	0	26,219	0	0	0	0	0	26,219	1,337,185	2.00%		
2052	1,337,185	0	0	0	0	26,744	0	0	0	0	0	26,744	1,363,929	2.00%		
2053	1,363,929	0	0	0	0	27,279	0	0	0	0	0	27,279	1,391,207	2.00%		
2054	1,391,207	0	0	0	0	27,824	0	0	0	0	0	27,824	1,419,031	2.00%		
2055	1,419,031	0	0	0	0	28,381	0	0	0	0	0	28,381	1,447,412	2.00%		
41		0	0	0	0	1,264,888	223,830	2,299,907	0	1,909,038	4,432,775	(3,167,887)				

Min assets: 954,968

**CITY OF CLEARWATER FIREFIGHTERS' RELIEF AND PENSION FUND**

Actuarial Valuation as of October 1, 2015

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GASB 67,68 Schedules of Funding Progress -- Plan Funding Method representing discount rate 1.0% higher

(i = 4.0%)

EXHIBIT 1

Development of Current Year's Costs

Schedule A

	01-Jan-2014	01-Oct-2014	Before 01-Oct-2015	After 01-Oct-2015
A. Present Value of Future Obligations:				
1. Active Members	0	0	0	0
2. Retired Members	1,837,221	1,642,404	1,474,193	1,552,381
3. Survivors on Benefit	2,185,555	1,765,614	1,733,122	1,839,131
4. Disabled Members	274,267	205,498	196,534	196,534
Total Actuarial Accrued Liability:	4,297,043	3,613,516	3,403,849	3,588,046
B. Less Present Value of:				
1. Member Contributions	0	0	0	0
2. Florida Premium Tax Rebates	0	0	0	0
	0	0	0	0
C. Less Actuarial Plan Assets	5,008,891	4,860,303	4,615,299	4,615,299
D. Amount to be Funded by City (A-B-C) (Unfunded Actuarial Accrued Liability)	(711,848)	(1,246,787)	(1,211,450)	(1,027,253)
E. Current Value of 1 Mill	na	na	na	na
F. Maximum Authorized Current Contribution (authorized contribution capped at .6 mill)	0	0	0	0
G. Years Left in Funding Period	none	none	none	none
H. Increasing Funding Annuity Factor	n/a	n/a	n/a	n/a
I. Minimum Required Increasing Contribution (mid-yr)	none	none	none	none
J. Cash Flow Analysis Recommended Contribution	none	none	none	none
K. GASB 67, 68 EAN level \$ amortization period in years	n/a	n/a	n/a	n/a
L. GASB 67, 68 EAN level \$ amortization factor	n/a	n/a	n/a	n/a
M. GASB 67, 68 EAN level \$ amortization	0	0	0	0
N. Unadjusted Scheduled Funding Method Contribution	0	0	0	0
O. Current Recommended Contribution =(larger of I, J or N, but not more than F)	0	0	0	0
P. General Expenses*	4,900	0	2,500	2,500
Q. Total (O + P)	4,900	0	0	2,500
R. Interest Adjustment	0	0	0	0
S. Interest Adjusted Normal Cost (@ 9/30/2015)	4,900	0	2,500	2,500
T. Valuation Interest Rate	3.00%	3.00%	4.00%	4.00%

\* If not paid directly by the Trust

**CITY OF CLEARWATER FIREFIGHTERS' RELIEF AND PENSION FUND**

Actuarial Valuation as of October 1, 2015

GASB 67,68 Schedules of Funding Progress -- Plan Funding Method representing discount rate 1.0% higher

(i = 4.0%)

EXHIBIT 1

Cash Flow Analysis (net of plan expenses) Adequate Present Value of Funding: Avoid any Negative Asset Years: #N/A 0

Schedule D

Calendar Year	Beginning of Year Plan Assets	na #N/A	Contributions by Source			Present Value of 1 Mill. Funding Required (pres val): 5.00%	#N/A (1,027,253)	Benefit Payments by Recipient Group		Required Millage Funding Schedule	Total Benefit Payments	Net Increase in Plan Assets	Ending of Year Plan Assets	Assumed Investment Yield
			City	Members & State	Total			Disables	Current Survivors					
2015	4,615,299	0	0	0	0	175,834	32,907	215,507	0	190,480	438,895	(263,060)	4,352,239	4.00%
2016	4,352,239	0	0	0	0	165,235	33,243	217,343	0	192,163	442,749	(277,514)	4,074,724	4.00%
2017	4,074,724	0	0	0	0	154,062	33,243	219,215	0	193,879	446,338	(292,275)	3,782,449	4.00%
2018	3,782,449	0	0	0	0	142,411	33,243	221,125	0	190,001	444,369	(301,938)	3,480,490	4.00%
2019	3,480,490	0	0	0	0	130,629	33,243	223,073	0	173,221	429,538	(298,909)	3,181,581	4.00%
2020	3,181,581	0	0	0	0	118,947	33,243	211,844	0	170,730	415,817	(296,871)	2,884,711	4.00%
2021	2,884,711	0	0	0	0	107,943	24,706	193,188	0	154,374	372,268	(264,325)	2,620,386	4.00%
2022	2,620,386	0	0	0	0	98,777	0	135,501	0	135,965	(180,207)	2,417,220	4.00%	
2023	2,417,220	0	0	0	0	91,259	0	100,363	0	132,185	(147,719)	2,289,295	4.00%	
2024	2,237,013	0	0	0	0	84,830	0	89,359	0	87,724	(97,053)	1,992,241	4.00%	
2025	2,089,295	0	0	0	0	80,030	0	78,892	0	81,724	(60,462)	1,931,780	4.00%	
2026	1,992,241	0	0	0	0	76,942	0	75,534	0	58,512	(17,404)	1,920,480	4.00%	
2027	1,931,780	0	0	0	0	75,534	0	50,034	0	36,800	86,834	1,920,480	4.00%	
2028	1,920,480	0	0	0	0	75,665	0	25,360	0	32,353	17,952	1,938,431	4.00%	
2029	1,938,431	0	0	0	0	76,517	0	25,360	0	25,652	25,506	1,963,937	4.00%	
2030	1,963,937	0	0	0	0	78,050	0	25,360	0	0	52,690	2,016,627	4.00%	
2031	2,016,627	0	0	0	0	80,158	0	25,360	0	0	54,798	2,071,425	4.00%	
2032	2,071,425	0	0	0	0	82,350	0	25,360	0	0	56,990	2,128,415	4.00%	
2033	2,128,415	0	0	0	0	84,629	0	25,360	0	0	59,270	2,187,685	4.00%	
2034	2,187,685	0	0	0	0	87,000	0	25,360	0	0	61,640	2,249,325	4.00%	
2035	2,249,325	0	0	0	0	89,973	0	0	0	0	89,973	2,339,298	4.00%	
2036	2,339,298	0	0	0	0	93,572	0	0	0	0	93,572	2,432,870	4.00%	
2037	2,432,870	0	0	0	0	97,315	0	0	0	0	97,315	2,530,185	4.00%	
2038	2,530,185	0	0	0	0	101,207	0	0	0	0	101,207	2,631,392	4.00%	
2039	2,631,392	0	0	0	0	105,256	0	0	0	0	105,256	2,736,648	4.00%	
2040	2,736,648	0	0	0	0	109,466	0	0	0	0	109,466	2,846,114	4.00%	
2041	2,846,114	0	0	0	0	113,845	0	0	0	0	113,845	2,959,959	4.00%	
2042	2,959,959	0	0	0	0	118,398	0	0	0	0	118,398	3,078,357	4.00%	
2043	3,078,357	0	0	0	0	123,134	0	0	0	0	123,134	3,201,491	4.00%	
2044	3,201,491	0	0	0	0	128,060	0	0	0	0	128,060	3,329,551	4.00%	
2045	3,329,551	0	0	0	0	133,182	0	0	0	0	133,182	3,462,733	4.00%	
2046	3,462,733	0	0	0	0	138,509	0	0	0	0	138,509	3,601,242	4.00%	
2047	3,601,242	0	0	0	0	144,050	0	0	0	0	144,050	3,745,292	4.00%	
2048	3,745,292	0	0	0	0	149,812	0	0	0	0	149,812	3,895,104	4.00%	
2049	3,895,104	0	0	0	0	155,804	0	0	0	0	155,804	4,050,908	4.00%	
2050	4,050,908	0	0	0	0	162,036	0	0	0	0	162,036	4,212,944	4.00%	
2051	4,212,944	0	0	0	0	168,518	0	0	0	0	168,518	4,381,462	4.00%	
2052	4,381,462	0	0	0	0	175,258	0	0	0	0	175,258	4,556,720	4.00%	
2053	4,556,720	0	0	0	0	182,269	0	0	0	0	182,269	4,738,989	4.00%	
2054	4,738,989	0	0	0	0	189,560	0	0	0	0	189,560	4,928,549	4.00%	
2055	4,928,549	0	0	0	0	197,142	0	0	0	0	197,142	5,125,691	4.00%	
41		0	0	0	0	4,943,167	223,830	2,299,907	0	1,909,038	4,432,775	510,392		

Min. assets: 1,920,480