

CITY OF SOUTH PASADENA  
FIREFIGHTERS' RETIREMENT SYSTEM

SECTION 112.664, FLORIDA STATUTES  
COMPLIANCE

With respect to the reporting standards for defined benefit retirement plans or systems contained in Section 112.664(1), F.S., the actuarial disclosures required under this section were 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, meet the requirements of Section 112.664(1), Florida Statutes, and Rule 60T-1.0035, Florida Administrative Code.

By: PA: Dh Date: 9/28/2018  
Patrick T. Donlan, EA, ASA, MAAA  
Enrolled Actuary #17-6595



When reviewing the following schedules, please note the following:

- 1) The purpose of producing this report is solely to satisfy the requirements set forth by Section 112.664, Florida Statutes, and is mandatory for every Florida public pension fund, excluding the Florida Retirement System (FRS).
- 2) None of the schedules shown have any impact on the funding requirements of the Plan. These schedules are for statutory compliance purposes only.
- 3) In the schedules that follow, the columns labeled “ACTUAL” represent the final recorded GASB 67/68 results. The columns labeled “HYPOTHETICAL” illustrate what the results would have been if different assumptions were used.
- 4) It is our opinion that the Plan’s actual assumptions utilized in the October 1, 2017 Actuarial Valuation Report, as adopted by the Board of Trustees, are reasonable individually and in the aggregate, and represent our best estimate of future Plan experience.
- 5) The “Number of Years Expected Benefit Payments Sustained” calculated in Section II: Asset Sustainability should not be interpreted as the number of years the Plan has left until it is insolvent. This calculation is required by 112.664, Florida Statutes, but the numeric result is irrelevant, since in its calculation we are to assume there will be no further contributions to the Fund. As long as the Actuarially Determined Contribution is made each year the Plan will never become insolvent.

SCHEDULE OF CHANGES IN NET PENSION LIABILITY  
FISCAL YEAR SEPTEMBER 30, 2017

	ACTUAL	HYPOTHETICAL	
	7.75% RP-2000 Generational	5.75% RP-2000 Generational	9.75% RP-2000 Generational
<u>Total Pension Liability</u>			
Service Cost	139,049	216,378	92,181
Interest	670,563	611,134	706,839
Change in Excess State Money	(15,444)	(15,444)	(15,444)
Share Plan Allocation	7,722	7,722	7,722
Changes of Benefit Terms	-	-	-
Differences Between Expected and Actual Experience	67,857	102,037	37,621
Changes of Assumptions	-	-	-
Benefit Payments, Including Refunds of Employee Contributions	(999,844)	(999,844)	(999,844)
Net Change in Total Pension Liability	(130,097)	(78,017)	(170,925)
Total Pension Liability - Beginning	9,028,749	10,927,412	7,672,815
Total Pension Liability - Ending (a)	<u>\$ 8,898,652</u>	<u>\$ 10,849,395</u>	<u>\$ 7,501,890</u>
<u>Plan Fiduciary Net Position</u>			
Contributions - Employer	298,315	298,315	298,315
Contributions - State	43,206	43,206	43,206
Contributions - Employee	54,426	54,426	54,426
Net Investment Income	785,892	785,892	785,892
Benefit Payments, Including Refunds of Employee Contributions	(999,844)	(999,844)	(999,844)
Administrative Expenses	(34,501)	(34,501)	(34,501)
Net Change in Plan Fiduciary Net Position	147,494	147,494	147,494
Plan Fiduciary Net Position - Beginning	6,549,381	6,549,381	6,549,381
Plan Fiduciary Net Position - Ending (b)	<u>\$ 6,696,875</u>	<u>\$ 6,696,875</u>	<u>\$ 6,696,875</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 2,201,777</u>	<u>\$ 4,152,520</u>	<u>\$ 805,015</u>

## PROJECTION OF THE NUMBER OF YEARS ASSETS WILL SUSTAIN BENEFIT PAYMENTS

Table 1  
Plan Assumptions: 7.75% and RP-2000 Generational Mortality

Fiscal Year Beginning 10/1	Projected Beginning Fiduciary Net Position	Projected Total Contributions	Projected Benefit Payments*	Projected Administrative Expense	Projected Investment Earnings	Projected Ending Fiduciary Net Position
2017	6,689,008	-	1,068,806	-	476,982	6,097,184
2018	6,097,184	-	591,827	-	449,598	5,954,955
2019	5,954,955	-	623,743	-	437,339	5,768,551
2020	5,768,551	-	622,219	-	422,952	5,569,284
2021	5,569,284	-	620,342	-	407,581	5,356,523
2022	5,356,523	-	657,814	-	389,640	5,088,349
2023	5,088,349	-	652,101	-	369,078	4,805,326
2024	4,805,326	-	681,498	-	346,005	4,469,833
2025	4,469,833	-	674,541	-	320,274	4,115,566
2026	4,115,566	-	668,714	-	293,044	3,739,896
2027	3,739,896	-	690,544	-	263,083	3,312,435
2028	3,312,435	-	703,048	-	229,471	2,838,858
2029	2,838,858	-	690,823	-	193,242	2,341,277
2030	2,341,277	-	688,930	-	154,753	1,807,100
2031	1,807,100	-	685,850	-	113,474	1,234,724
2032	1,234,724	-	666,901	-	69,849	637,672
2033	637,672	-	660,640	-	-	-

\*All DROP and Share Balances paid in 2017.

Number of Years Expected Benefit Payments Sustained: 16.97

This projection assumes no further contributions, assumes no further benefit accruals, and assumes Market Value of Assets earn 7.75% interest.

**It is important to note that as long as the Actuarially Determined Contribution is made each year, the Plan will never become insolvent. Furthermore, State and local laws mandate that the Actuarially Determined Contribution be made each year.**

## PROJECTION OF THE NUMBER OF YEARS ASSETS WILL SUSTAIN BENEFIT PAYMENTS

Table 2  
Hypothetical Assumptions: 5.75% and RP-2000 Generational Mortality

Fiscal Year Beginning 10/1	Projected Beginning Fiduciary Net Position	Projected Total Contributions	Projected Benefit Payments*	Projected Administrative Expense	Projected Investment Earnings	Projected Ending Fiduciary Net Position
2017	6,689,008	-	1,068,806	-	353,890	5,974,092
2018	5,974,092	-	591,827	-	326,495	5,708,760
2019	5,708,760	-	623,743	-	310,321	5,395,338
2020	5,395,338	-	622,219	-	292,343	5,065,462
2021	5,065,462	-	620,342	-	273,429	4,718,549
2022	4,718,549	-	657,814	-	252,404	4,313,139
2023	4,313,139	-	652,101	-	229,258	3,890,296
2024	3,890,296	-	681,498	-	204,099	3,412,897
2025	3,412,897	-	674,541	-	176,849	2,915,205
2026	2,915,205	-	668,714	-	148,399	2,394,890
2027	2,394,890	-	690,544	-	117,853	1,822,199
2028	1,822,199	-	703,048	-	84,564	1,203,715
2029	1,203,715	-	690,823	-	49,352	562,244
2030	562,244	-	688,930	-	-	-

\*All DROP and Share Balances paid in 2017.

Number of Years Expected Benefit Payments Sustained: 13.82

This projection assumes no further contributions, assumes no further benefit accruals, and assumes Market Value of Assets earn 5.75% interest.

**It is important to note that as long as the Actuarially Determined Contribution is made each year, the Plan will never become insolvent. Furthermore, State and local laws mandate that the Actuarially Determined Contribution be made each year.**

## PROJECTION OF THE NUMBER OF YEARS ASSETS WILL SUSTAIN BENEFIT PAYMENTS

Table 3  
Hypothetical Assumptions: 9.75% and RP-2000 Generational Mortality

Fiscal Year Beginning 10/1	Projected Beginning Fiduciary Net Position	Projected Total Contributions	Projected Benefit Payments*	Projected Administrative Expense	Projected Investment Earnings	Projected Ending Fiduciary Net Position
2017	6,689,008	-	1,068,806	-	600,074	6,220,276
2018	6,220,276	-	591,827	-	577,625	6,206,074
2019	6,206,074	-	623,743	-	574,685	6,157,016
2020	6,157,016	-	622,219	-	569,976	6,104,773
2021	6,104,773	-	620,342	-	564,974	6,049,405
2022	6,049,405	-	657,814	-	557,749	5,949,340
2023	5,949,340	-	652,101	-	548,271	5,845,510
2024	5,845,510	-	681,498	-	536,714	5,700,726
2025	5,700,726	-	674,541	-	522,937	5,549,122
2026	5,549,122	-	668,714	-	508,440	5,388,848
2027	5,388,848	-	690,544	-	491,749	5,190,053
2028	5,190,053	-	703,048	-	471,757	4,958,762
2029	4,958,762	-	690,823	-	449,802	4,717,741
2030	4,717,741	-	688,930	-	426,394	4,455,205
2031	4,455,205	-	685,850	-	400,947	4,170,302
2032	4,170,302	-	666,901	-	374,093	3,877,494
2033	3,877,494	-	660,640	-	345,849	3,562,703
2034	3,562,703	-	647,676	-	315,789	3,230,816
2035	3,230,816	-	629,967	-	284,294	2,885,143
2036	2,885,143	-	611,506	-	251,491	2,525,128
2037	2,525,128	-	589,897	-	217,443	2,152,674
2038	2,152,674	-	568,102	-	182,191	1,766,763
2039	1,766,763	-	550,122	-	145,441	1,362,082
2040	1,362,082	-	528,861	-	107,021	940,242
2041	940,242	-	509,411	-	66,840	497,671
2042	497,671	-	489,057	-	24,681	33,295
2043	33,295	-	466,403	-	-	-

\*All DROP and Share Balances paid in 2017.

Number of Years Expected Benefit Payments Sustained: 26.07

This projection assumes no further contributions, assumes no further benefit accruals, and assumes Market Value of Assets earn 9.75% interest.

**It is important to note that as long as the Actuarially Determined Contribution is made each year, the Plan will never become insolvent. Furthermore, State and local laws mandate that the Actuarially Determined Contribution be made each year.**

**ACTUAL AND HYPOTHETICAL CONTRIBUTIONS APPLICABLE TO THE FISCAL YEAR  
ENDING SEPTEMBER 30, 2019**

Valuation Date: 10/1/2017

	ACTUAL	HYPOTHETICAL	
	7.75% RP-2000 Generational	5.75% RP-2000 Generational	9.75% RP-2000 Generational
Total Required Contribution (Fixed \$)	\$529,491	\$759,783	\$341,818
Total Required Contribution (% of Payroll)	44.5%	63.8%	28.7%
Expected Member Contribution	74,181	73,467	74,895
Expected State Money	43,206	43,206	43,206
Expected Sponsor Contribution (Fixed \$)	\$412,104	\$643,110	\$223,717
Expected Sponsor Contribution (% of Payroll)	34.9%	54.2%	19.1%

**ASSETS**

Actuarial Value <sup>1</sup>	6,566,302	6,566,302	6,566,302
Market Value <sup>1</sup>	6,689,008	6,689,008	6,689,008

**LIABILITIES**

Present Value of Benefits			
Active Members			
Retirement Benefits	3,715,089	5,600,335	2,595,756
Disability Benefits	57,350	79,845	42,935
Death Benefits	31,499	43,233	23,587
Vested Benefits	361,730	593,509	232,320
Refund of Contributions	28,077	30,699	25,790
Service Retirees	4,268,153	5,044,563	3,687,453
DROP Retirees <sup>1</sup>	1,513,287	1,753,235	1,343,253
Beneficiaries	111,854	125,254	100,912
Disability Retirees	634,166	754,110	545,589
Terminated Vested	11,858	11,858	11,858
Share Plan Balances <sup>1</sup>	7,722	7,722	7,722
Excess State Monies Reserve	0	0	0
Total:	10,740,785	14,044,363	8,617,175
Present Value of Future Salaries	9,784,750	11,098,703	8,745,966
Present Value of Future Member Contributions	587,085	665,922	524,758
Total Normal Cost	202,605	313,283	135,207
Present Value of Future Normal Costs (Entry Age Normal)	1,683,321	2,985,914	994,725
Total Actuarial Accrued Liability <sup>1</sup>	9,057,464	11,058,449	7,622,450
Unfunded Actuarial Accrued Liability (UAAL)	2,491,162	4,492,147	1,056,148

ACTUAL AND HYPOTHETICAL CONTRIBUTIONS APPLICABLE TO THE FISCAL YEAR  
ENDING SEPTEMBER 30, 2019

Valuation Date: 10/1/2017

	ACTUAL	HYPOTHETICAL	
	7.75% RP-2000 Generational	5.75% RP-2000 Generational	9.75% RP-2000 Generational
<b><u>PENSION COST</u></b>			
Normal Cost <sup>2</sup>	224,093	343,174	150,987
Administrative Expenses <sup>2</sup>	38,159	37,792	38,526
Payment Required To Amortize UAAL <sup>2</sup>	267,239	378,817	152,305
Total Required Contribution	\$529,491	\$759,783	\$341,818

<sup>1</sup> The asset values and liabilities include accumulated DROP and Share Plan Balances as of 9/30/2017.

<sup>2</sup> Contributions developed as of 10/1/2017 displayed above have been adjusted to account for assumed salary increase and interest components.