May 23, 2018

#### **VIA EMAIL**

Ms. Ferrell Jenne Lead Plan Administrator Foster & Foster, Inc. 2503 Del Prado Blvd. S., Suite 502 Cape Coral, FL 33904

Re: City of Lakeland Firefighters' Retirement System

Section 112.664, Florida Statutes Compliance

#### Dear Ferrell:

Please find enclosed the annual disclosures that satisfy the October 1, 2017 financial reporting requirements made under Section 112.664.

Our office will submit this information electronically to the Department of Management Services. However, it is important for you to be aware that this report must also be made available on the Plan or Plan Sponsor's website, if such website exists. A deadline for this website publication is not made clear in the law.

In addition to the enclosed report, the Plan or Plan Sponsor's website must provide a link to the Division of Retirement's Actuarial Summary Fact Sheet for the Plan, and also report the previous five years' assumed and actual rates of return, along with their respective asset allocations. The Board should contact its Investment Consultant for this information.

If there are any questions, concerns, or comments about any of the items contained in this report, please feel free to contact me.

Respectfully submitted,

Foster & Foster, Inc.

By:

Bradley K. Henrichs, FSA, EA, MAAA

Enrolled Actuary #17-6901

BRH/lke Enclosures

cc via email: H. Lee Dehner, Board Attorney

### CITY OF LAKELAND 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:

Date: 5/23/2018

Bradley R. Heinrichs, FSA, EA, MAAA Enrolled Actuary #17-6901



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 <u>not</u> 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			
	7.50% RP-2000 Generational	5.50% RP-2000 Generational	9.50% RP-2000 Generational		
Total Pension Liability					
Service Cost	2,181,230	3,445,912	1,421,775		
Interest	7,283,494	6,744,696	7,532,709		
Changes of Benefit Terms Differences Between Expected and Actual	-	-	-		
Experience	(414,996)	(345,638)	(454,560)		
Changes of Assumptions	-	-	-		
Contributions - Buy Back	170,424	170,424	170,424		
Benefit Payments, Including Refunds of					
Employee Contributions	(6,127,114)	(6,127,114)	(6,127,114)		
Net Change in Total Pension Liability	3,093,038	3,888,280	2,543,234		
Total Pension Liability - Beginning	97,995,578	122,248,484	80,933,456		
Total Pension Liability - Ending (a)	\$ 101,088,616	\$ 126,136,764	\$ 83,476,690		
Plan Fiduciary Net Position					
Contributions - Employer	1,558,703	1,558,703	1,558,703		
Contributions - State	726,181	726,181	726,181		
Contributions - Employee	792,097	792,097	792,097		
Contributions - Buy Back	170,424	170,424	170,424		
Net Investment Income	9,564,297	9,564,297	9,564,297		
Benefit Payments, Including Refunds of					
Employee Contributions	(6,127,114)	(6,127,114)	(6,127,114)		
Administrative Expenses	(116,016)	(116,016)	(116,016)		
Net Change in Plan Fiduciary Net Position	6,568,572	6,568,572	6,568,572		
Plan Fiduciary Net Position - Beginning	87,582,084	87,582,084	87,582,084		
Plan Fiduciary Net Position - Ending (b)	\$ 94,150,656	\$ 94,150,656	\$ 94,150,656		
Net Pension Liability - Ending (a) - (b)	\$ 6,937,960	\$ 31,986,108	\$ (10,673,966)		

 $Table\ 1$  Plan Assumptions: 7.50% and RP-2000 Generational Mortality

Fiscal Year	Projected Beginning	Projected Total	Projected Benefit	Projected Administrative	Projected Investment	Projected Ending
Beginning 10/1	Fiduciary Net Position	Contributions	Payments*	Expense	Earnings	Fiduciary Net Position
2017	94,150,656	_	7,720,700	F	6,771,773	93,201,729
2018	93,201,729	_	6,352,702	-	6,751,903	93,600,930
2019	93,600,930	_	6,526,350	_	6,775,332	93,849,912
2020	93,849,912	_	6,686,558	_	6,787,997	93,951,351
2021	93,951,351	_	6,814,528	_	6,790,807	93,927,630
2022	93,927,630	-	7,045,211	-	6,780,377	93,662,796
2023	93,662,796	-	7,220,181	-	6,753,953	93,196,568
2024	93,196,568	-	7,337,588	-	6,714,583	92,573,563
2025	92,573,563	-	7,397,496	-	6,665,611	91,841,678
2026	91,841,678	-	7,407,017	-	6,610,363	91,045,024
2027	91,045,024	-	7,341,180	-	6,553,083	90,256,927
2028	90,256,927	-	7,342,964	-	6,493,908	89,407,871
2029	89,407,871	-	7,336,008	-	6,430,490	88,502,353
2030	88,502,353	-	7,398,368	-	6,360,238	87,464,223
2031	87,464,223	-	7,515,418	-	6,277,989	86,226,794
2032	86,226,794	-	7,568,625	-	6,183,186	84,841,355
2033	84,841,355	-	7,515,103	-	6,081,285	83,407,537
2034	83,407,537	-	7,415,567	-	5,977,482	81,969,452
2035	81,969,452	-	7,301,384	-	5,873,907	80,541,975
2036	80,541,975	-	7,177,828	-	5,771,480	79,135,627
2037	79,135,627	-	7,035,016	-	5,671,359	77,771,970
2038	77,771,970	-	6,900,632	-	5,574,124	76,445,462
2039	76,445,462	-	6,747,514	-	5,480,378	75,178,326
2040	75,178,326	-	6,578,396	-	5,391,685	73,991,615
2041	73,991,615	-	6,381,586	-	5,310,062	72,920,091
2042	72,920,091	-	6,187,959	-	5,236,958	71,969,090
2043	71,969,090	-	5,993,191	-	5,172,937	71,148,836
2044	71,148,836	-	5,796,555	-	5,118,792	70,471,073
2045	70,471,073	-	5,591,148	-	5,075,662	69,955,587
2046	69,955,587	-	5,379,205	-	5,044,949	69,621,331
2047	69,621,331	-	5,165,572	-	5,027,891	69,483,650
2048	69,483,650	-	4,948,798	-	5,025,694	69,560,546
2049	69,560,546	-	4,730,552	-	5,039,645	69,869,639
2050	69,869,639	-	4,510,902	-	5,071,064	70,429,801
2051	70,429,801	-	4,290,195	-	5,121,353	71,260,959
2052	71,260,959	-	4,067,143	-	5,192,054	72,385,870
2053	72,385,870	-	3,842,556	-	5,284,844	73,828,158
2054	73,828,158	-	3,616,963	-	5,401,476	75,612,671
2055	75,612,671	-	3,392,183	-	5,543,743	77,764,231
2056	77,764,231	-	3,168,222	-	5,713,509	80,309,518
2057	80,309,518	-	2,946,075	-	5,912,736	83,276,179
2058	83,276,179	-	2,727,476	-	6,143,433	86,692,136
2059	86,692,136	-	2,513,835	-	6,407,641	90,585,942
2060	90,585,942	-	2,306,761	-	6,707,442	94,986,623
2061	94,986,623	-	2,107,747	-	7,044,956	99,923,832
2062	99,923,832	-	1,918,067	-	7,422,360	105,428,125
2063	105,428,125	-	1,738,197	-	7,841,927	111,531,855
2064	111,531,855	-	1,568,765	-	8,306,060	118,269,150
2065	118,269,150	-	1,410,194	-	8,817,304	125,676,260
2066	125,676,260	-	1,262,765	-	9,378,366	133,791,861

Table 1
Plan Assumptions: 7.50% 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
2067	133,791,861	-	1,126,915	-	9,992,130	142,657,076
2068	142,657,076	_	1,001,974	_	10,661,707	152,316,809
2069	152,316,809	_	887,377	-	11,390,484	162,819,916
2070	162,819,916	_	782,614	_	12,182,146	174,219,448
2071	174,219,448	_	686,993	_	13,040,696	186,573,151
2072	186,573,151	_	599,647	_	13,970,500	199,944,004
2073	199,944,004	_	520,119	_	14,976,296	214,400,181
2074	214,400,181	_	448,055	_	16,063,212	230,015,338
2075	230,015,338	_	382,880	_	17,236,792	246,869,250
2076	246,869,250	_	324,210	_	18,503,036	265,048,076
2077	265,048,076	_	271,983	_	19,868,406	284,644,499
2078	284,644,499	_	226,180	_	21,339,856	305,758,175
2079	305,758,175	_	186,698	_	22,924,862	328,496,339
2080	328,496,339	_	152,894	_	24,631,492	352,974,937
2081	352,974,937	_	124,183	_	26,468,463	379,319,217
2082	379,319,217	_	100,058	_	28,445,189	407,664,348
2083	407,664,348	_	79,957	_	30,571,828	438,156,219
2084	438,156,219	_	63,273	_	32,859,344	470,952,290
2085	470,952,290	_	49,577	_	35,319,563	506,222,276
2086	506,222,276	_	38,426	_	37,965,230	544,149,080
2087	544,149,080	_	29,441	_	40,810,077	584,929,716
2088	584,929,716	_	22,230	_	43,868,895	628,776,381
2089	628,776,381	_	16,497	_	47,157,610	675,917,494
2090	675,917,494	_	12,018	_	50,693,361	726,598,837
2091	726,598,837	_	8,596	_	54,494,590	781,084,831
2092	781,084,831	_	6,021	_	58,581,137	839,659,947
2093	839,659,947	_	4,124	_	62,974,341	902,630,164
2094	902,630,164	_	2,758	_	67,697,159	970,324,565
2095	970,324,565	_	1,801	_	72,774,275	1,043,097,039
2096	1,043,097,039	_	1,146	_	78,232,235	1,121,328,128
2097	1,121,328,128	_	712	_	84,099,583	1,205,426,999
2098	1,205,426,999	_	432	_	90,407,009	1,295,833,576
2099	1,295,833,576	_	260	_	97,187,508	1,393,020,824
2100	1,393,020,824	_	155	_	104,476,556	1,497,497,225
2101	1,497,497,225	_	92	_	112,312,288	1,609,809,421
2102	1,609,809,421	_	55	_	120,735,705	1,730,545,071
2103	1,730,545,071	_	33	_	129,790,879	1,860,335,917
2104	1,860,335,917	_	19	_	139,525,193	1,999,861,091
2105	1,999,861,091	_	11	_	149,989,581	2,149,850,661
2106	2,149,850,661	_	7	_	161,238,799	2,311,089,453
2107	2,311,089,453	_	4	_	173,331,709	2,484,421,158
2107	2,484,421,158	_	2	_	186,331,587	2,670,752,743
2109	2,670,752,743	_	1	_	200,306,456	2,871,059,198
2110	2,871,059,198	_	1	_	215,329,440	3,086,388,637
2111	3,086,388,637	_	-	-	231,479,148	3,317,867,785
	2,300,300,037				231,172,140	2,217,007,703

<sup>\*</sup>All DROP Balances paid in 2017.

Number of Years Expected Benefit Payments Sustained: 999.99

 $This \ projection \ assumes \ no \ further \ contributions, \ assumes \ no \ further \ benefit \ accruals, \ and \ assumes \ Market \ Value \ of \ Assets \ earn \ 7.50\% \ interest.$ 

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.

 $\label{eq:Table 2} Table~2$  Hypothetical Assumptions: 5.50% 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	94,150,656	-	7,720,700	=	4,965,967	91,395,923
2018	91,395,923	-	6,352,702	-	4,852,076	89,895,297
2019	89,895,297	-	6,526,350	-	4,764,767	88,133,714
2020	88,133,714	-	6,686,558	-	4,663,474	86,110,630
2021	86,110,630	-	6,814,528	-	4,548,685	83,844,787
2022	83,844,787	-	7,045,211	-	4,417,720	81,217,296
2023	81,217,296	-	7,220,181	-	4,268,396	78,265,511
2024	78,265,511	-	7,337,588	-	4,102,819	75,030,742
2025	75,030,742	-	7,397,496	-	3,923,260	71,556,506
2026	71,556,506	-	7,407,017	-	3,731,915	67,881,404
2027	67,881,404	-	7,341,180	-	3,531,595	64,071,819
2028	64,071,819	-	7,342,964	-	3,322,019	60,050,874
2029	60,050,874	-	7,336,008	-	3,101,058	55,815,924
2030	55,815,924	-	7,398,368	-	2,866,421	51,283,977
2031	51,283,977	-	7,515,418	-	2,613,945	46,382,504
2032	46,382,504	-	7,568,625	-	2,342,901	41,156,780
2033	41,156,780	-	7,515,103	-	2,056,958	35,698,635
2034	35,698,635	-	7,415,567	-	1,759,497	30,042,565
2035	30,042,565	-	7,301,384	-	1,451,553	24,192,734
2036	24,192,734	-	7,177,828	-	1,133,210	18,148,116
2037	18,148,116	-	7,035,016	-	804,683	11,917,783
2038	11,917,783	-	6,900,632	-	465,711	5,482,862
2039	5,482,862	-	6,747,514	-	-	-

<sup>\*</sup>All DROP Balances paid in 2017.

Number of Years Expected Benefit Payments Sustained: 22.81

This projection assumes no further contributions, assumes no further benefit accruals, and assumes Market Value of Assets earn 5.50% 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.

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

 $\label{thm:continuous} Table~3$  Hypothetical Assumptions: 9.50% 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	94,150,656		7,720,700		8,577,579	95,007,535
2018	95,007,535	_	6,352,702	_	8,723,962	97,378,795
2019	97,378,795	_	6,526,350	-	8,940,984	99,793,429
2020	99,793,429	_	6,686,558	-	9,162,764	102,269,635
2021	102,269,635	_	6,814,528	_	9,391,925	104,847,032
2022	104,847,032	_	7,045,211	-	9,625,821	107,427,642
2023	107,427,642	_	7,220,181	_	9,862,667	110,070,128
2024	110,070,128	_	7,337,588	_	10,108,127	112,840,667
2025	112,840,667	_	7,397,496	_	10,368,482	115,811,653
2026	115,811,653	_	7,407,017	_	10,650,274	119,054,910
2027	119,054,910	_	7,341,180	_	10,961,510	122,675,240
2028	122,675,240	_	7,342,964	_	11,305,357	126,637,633
2029	126,637,633	_	7,336,008	-	11,682,115	130,983,740
2030	130,983,740	_	7,398,368	-	12,092,033	135,677,405
2031	135,677,405	_	7,515,418	_	12,532,371	140,694,358
2032	140,694,358	_	7,568,625	_	13,006,454	146,132,187
2033	146,132,187	_	7,515,103	_	13,525,590	152,142,674
2034	152,142,674	_	7,415,567	_	14,101,315	158,828,422
2035	158,828,422	_	7,301,384	_	14,741,884	166,268,922
2036	166,268,922	_	7,177,828	_	15,454,601	174,545,695
2037	174,545,695	_	7,035,016	_	16,247,678	183,758,357
2038	183,758,357	_	6,900,632		17,129,264	193,986,989
2039	193,986,989	_	6,747,514		18,108,257	205,347,732
2040	205,347,732	-	6,578,396	-	19,195,561	217,964,897
2041	217,964,897	-	6,381,586	-	20,403,540	231,986,851
2042	231,986,851	-	6,187,959	-	21,744,823	247,543,715
2042	247,543,715	_	5,993,191		23,231,976	264,782,500
2044	264,782,500		5,796,555	_	24,879,001	283,864,946
2045	283,864,946	_	5,591,148		26,701,590	304,975,388
2046	304,975,388	_	5,379,205		28,717,150	328,313,333
2047	328,313,333	_	5,165,572		30,944,402	354,092,163
2048	354,092,163	_	4,948,798		33,403,688	382,547,053
2049	382,547,053		4,730,552	_	36,117,269	413,933,770
2050	413,933,770	-	4,510,902	-	39,109,440	448,532,308
2051	448,532,308	_	4,290,195		42,406,785	486,648,898
2052	486,648,898	_	4,067,143	_	46,038,456	528,620,211
2053	528,620,211	_	3,842,556	_	50,036,399	574,814,054
2054	574,814,054	_	3,616,963		54,435,529	625,632,620
2055	625,632,620	_	3,392,183	_	59,273,970	681,514,407
2056	681,514,407	_	3,168,222		64,593,378	742,939,563
2057	742,939,563	_	2,946,075		70,439,320	810,432,808
2058	810,432,808	_	2,727,476		76,861,562	884,566,894
2059	884,566,894	_	2,513,835	-	83,914,448	965,967,507
2060	965,967,507	_	2,306,761	_	91,657,342	1,055,318,088
2061	1,055,318,088	_	2,107,747	_	100,155,100	1,153,365,441
2062	1,153,365,441	_	1,918,067	_	109,478,609	1,260,925,983
2063	1,260,925,983	_	1,738,197	_	119,705,404	1,378,893,190
2064	1,378,893,190	_	1,568,765	-	130,920,337	1,508,244,762
2065	1,508,244,762	_	1,410,194	-	143,216,268	1,650,050,836
2066	1,650,050,836	-	1,262,765	-	156,694,848	1,805,482,919
2000	1,030,030,830	-	1,202,703	-	130,034,040	1,003,402,719

 $\label{thm:continuous} Table~3$  Hypothetical Assumptions: 9.50% 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
2067	1,805,482,919	-	1,126,915	-	171,467,349	1,975,823,353
2068	1,975,823,353	-	1,001,974	-	187,655,625	2,162,477,004
2069	2,162,477,004	-	887,377	-	205,393,165	2,366,982,792
2070	2,366,982,792	-	782,614	-	224,826,191	2,591,026,369
2071	2,591,026,369	-	686,993	-	246,114,873	2,836,454,249
2072	2,836,454,249	-	599,647	-	269,434,670	3,105,289,272
2073	3,105,289,272	-	520,119	-	294,977,775	3,399,746,928
2074	3,399,746,928	-	448,055	-	322,954,676	3,722,253,549
2075	3,722,253,549	-	382,880	-	353,595,900	4,075,466,569
2076	4,075,466,569	-	324,210	-	387,153,924	4,462,296,283
2077	4,462,296,283	-	271,983	-	423,905,228	4,885,929,528
2078	4,885,929,528	-	226,180	-	464,152,562	5,349,855,910
2079	5,349,855,910	-	186,698	-	508,227,443	5,857,896,655
2080	5,857,896,655	-	152,894	-	556,492,920	6,414,236,681
2081	6,414,236,681	-	124,183	-	609,346,586	7,023,459,084
2082	7,023,459,084	-	100,058	-	667,223,860	7,690,582,886
2083	7,690,582,886	-	79,957	-	730,601,576	8,421,104,505
2084	8,421,104,505	-	63,273	-	800,001,923	9,221,043,155
2085	9,221,043,155	-	49,577	-	875,996,745	10,096,990,323
2086	10,096,990,323	_	38,426	_	959,212,255	11,056,164,152
2087	11,056,164,152	_	29,441	-	1,050,334,196	12,106,468,907
2088	12,106,468,907	_	22,230	-	1,150,113,490	13,256,560,167
2089	13,256,560,167	_	16,497	_	1,259,372,432	14,515,916,102
2090	14,515,916,102	_	12,018	-	1,379,011,459	15,894,915,543
2091	15,894,915,543	_	8,596	-	1,510,016,568	17,404,923,515
2092	17,404,923,515	_	6,021	-	1,653,467,448	19,058,384,942
2093	19,058,384,942	-	4,124	-	1,810,546,374	20,868,927,192
2094	20,868,927,192	_	2,758	-	1,982,547,952	22,851,472,386
2095	22,851,472,386	_	1,801	_	2,170,889,791	25,022,360,376
2096	25,022,360,376	_	1,146	-	2,377,124,181	27,399,483,411
2097	27,399,483,411	_	712	_	2,602,950,890	30,002,433,589
2098	30,002,433,589	-	432	-	2,850,231,170	32,852,664,327
2099	32,852,664,327	_	260	-	3,121,003,099	35,973,667,166
2100	35,973,667,166	_	155	-	3,417,498,373	39,391,165,384
2101	39,391,165,384	_	92	-	3,742,160,707	43,133,325,999
2102	43,133,325,999	_	55	_	4,097,665,967	47,230,991,911
2103	47,230,991,911	_	33	-	4,486,944,230	51,717,936,108
2104	51,717,936,108	_	19	_	4,913,203,929	56,631,140,018
2105	56,631,140,018	_	11	-	5,379,958,301	62,011,098,308
2106	62,011,098,308	_	7	_	5,891,054,339	67,902,152,640
2107	67,902,152,640	_	4	-	6,450,704,501	74,352,857,137
2108	74,352,857,137	_	2	_	7,063,521,428	81,416,378,563
2109	81,416,378,563	_	1	-	7,734,555,963	89,150,934,525
2110	89,150,934,525	_	1	_	8,469,338,780	97,620,273,304
2111	97,620,273,304	_	-	_	9,273,925,964	106,894,199,268
2111	71,020,213,304	_	-	-	7,213,723,904	100,077,177,200

<sup>\*</sup>All DROP Balances paid in 2017.

Number of Years Expected Benefit Payments Sustained: 999.99

 $This \ projection \ assumes \ no \ further \ benefit \ accruals, \ and \ assumes \ Market \ Value \ of \ Assets \ earn \ 9.50\% \ interest.$ 

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		
	7.50% RP-2000 Generational	5.50% RP-2000 Generational	9.50% RP-2000 Generational	
Total Required Contribution (Fixed \$)	\$3,325,569	\$5,890,137	\$1,220,716	
Total Required Contribution (% of Payroll)	30.11%	53.32%	11.05%	
Expected Member Contribution	953,230	2,021,333	77,319	
Expected State Money	726,181	726,181	726,181	
Expected Sponsor Contribution (Fixed \$)	\$1,646,158	\$3,142,623	\$417,216	
Expected Sponsor Contribution (% of Payroll)	14.91%	28.45%	3.78%	
<u>ASSETS</u>				
Actuarial Value <sup>1</sup> Market Value <sup>1</sup>	93,222,507 94,150,656	93,222,507 94,150,656	93,222,507 94,150,656	
<u>LIABILITIES</u>				
Present Value of Benefits				
Active Members				
Retirement Benefits	67,090,294	101,224,692	47,109,028	
Disability Benefits	1,855,318	2,624,444	1,368,177	
Death Benefits	433,364	613,085	314,499	
Vested Benefits	1,269,160	2,208,080	767,239	
Refund of Contributions	217,137	326,045	140,388	
Service Retirees	46,865,841	56,260,654	40,044,132	
DROP Retirees <sup>1</sup>	8,329,315	9,980,923	7,186,430	
Beneficiaries	2,773,576	3,250,496	2,415,934	
Disability Retirees	0	0	0	
Terminated Vested	535,814	803,459	371,182	
Total:	129,369,819	177,291,878	99,717,009	
Present Value of Future Salaries	119,466,046	137,887,781	105,045,212	
Total Normal Cost	1,720,263	3,230,084	772,899	
Present Value of Future				
Normal Costs (Entry Age Normal)	25,896,611	47,613,632	14,641,059	
Total Actuarial Accrued Liability <sup>1</sup>	103,473,208	129,678,245	85,075,950	
Unfunded Actuarial Accrued Liability (UAAL)	17,541,337	43,746,374	(855,921)	

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

Valuation Date: 10/1/2017

	ACTUAL	НҮРОТЬ	HETICAL
	7.50% RP-2000 Generational	5.50% RP-2000 Generational	9.50% RP-2000 Generational
PENSION COST			
Normal Cost (with interest)	1,784,773	3,318,911	809,612
Administrative Expenses (with interest)	330,573	327,387	333,760
Payment Required To Amortize UAAL (with interest)	1,210,223	2,243,839	77,344
Total Required Contribution	\$3,325,569	\$5,890,137	\$1,220,716

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