

**TOWN OF PALM BEACH**  
**FIREFIGHTERS RETIREMENT SYSTEM**  
**SIXTY-FOURTH ANNUAL ACTUARIAL VALUATION**  
**SEPTEMBER 30, 2010**

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May 11, 2011

The Board of Trustees  
Town of Palm Beach Firefighters Retirement System  
Palm Beach, Florida

Submitted in this report are the results of the Sixty-Fourth Annual Actuarial Valuation of the assets, actuarial present values, and contribution requirements associated with benefits provided by the Town of Palm Beach Firefighters Retirement System. The date of the valuation was September 30, 2010.

Valuation highlights, a summary of valuation results, observations, recommendations and our certification immediately follow this cover letter.

Detailed valuation results are contained in Section B.

The valuation was based upon information, furnished by your Administrator, concerning Retirement System benefits, financial transactions, and individual members, terminated members, retired members and beneficiaries. Data was checked for internal and year-to-year consistency, but was not otherwise audited. This information is summarized in Section C.

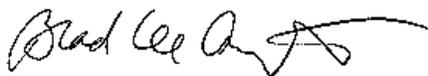
Actuarial cost methods, actuarial assumptions, and definitions of technical terms are contained in Section D.

Governmental Accounting Standards Board Statement No. 25 information is contained in Section E.

Supplemental information requested by the State of Florida Division of Retirement is contained in Section F.

The undersigned are Members of the American Academy of Actuaries (MAAA) as indicated, and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

Respectfully submitted,



Brad Lee Armstrong  
ASA, EA, MAAA



Randall J. Dziubek  
ASA, EA, MAAA

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## **SECTION A**

VALUATION SUMMARY, OBSERVATIONS,  
RECOMMENDATIONS AND CERTIFICATION

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# Actuarial Valuation Highlights

September 30, 2010

## FUNDING OBJECTIVE

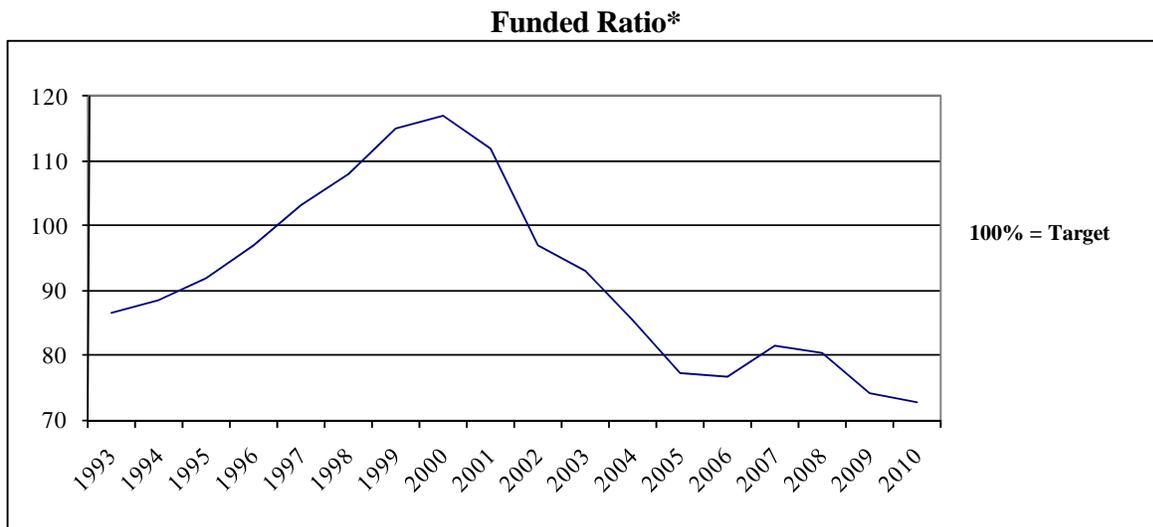
The basic funding objective of the Retirement System is to avoid transfer of the cost of benefit obligations between generations of taxpayers. This objective is implemented by contributions sufficient to:

- ◆ pay for costs allocated to the current year on account of service rendered by active non-DROP members in the current year (Normal Cost).
- ◆ pay for costs, in excess of the Funding Value of Assets, allocated to prior years on account of service rendered by participants in prior years (Unfunded Actuarial Accrued Liability) over 30-year closed periods.

The annual actuarial valuation measures the relationship between Retirement System obligations and assets and determines the contribution rates for the ensuing year. The Retirement System is supported by member contributions, property insurance premium tax monies received from the State pursuant to the provisions of Chapter 175, Florida Statutes, Town contributions, and investment income from Retirement System assets.

## VALUATION RESULTS - FUNDING PROGRESS INDICATORS

The September 30, 2010 actuarial valuation indicates that the actuarial accrued liabilities of the Retirement and Benefit System, measured in accordance with Statement No. 25 of the Governmental Accounting Standards Board, are 72.6% funded by the Funding Value of assets. This is a decrease from last year's funded ratio of 74.0%. Although not historically referred to, the ratio of the market value of assets to the actuarial accrued liabilities is 63.2%. This is an increase from last year's 61.7%.



\* Years prior to 2004 include Police and years prior to 2000 include General and Ocean Rescue.

## VALUATION RESULTS - CONTRIBUTION REQUIREMENT

The percent of active member payroll contribution requirements for the 2011-2012 and 2010-2011 fiscal years are:

	<u>2011-2012</u>	<u>2010-2011</u>
Member portion	6.82 %	6.82 %
Public portion	53.12	51.06
State	5.19	5.05
Town	47.93	46.01
Illustrative \$	\$3,229,679	\$3,189,802

The Town's contribution requirement increased 1.34% of payroll since last year due to experience during the year. Comparative contribution information is shown on page B-4. Composition of the current contribution rate is shown on page B-1.

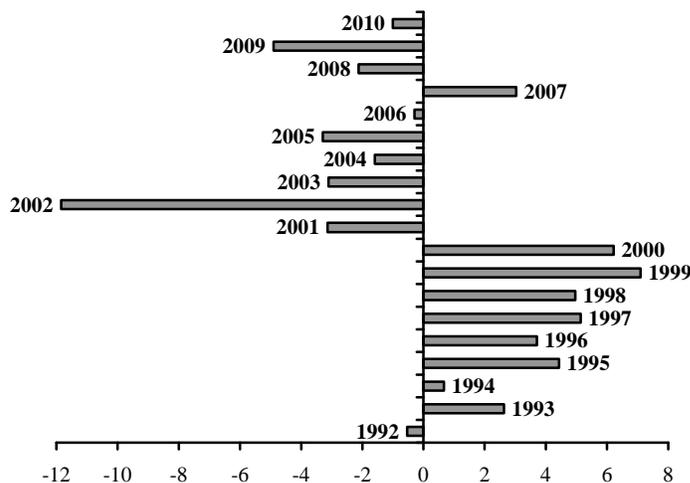
## VALUATION RESULTS - LAST YEAR'S EXPERIENCE INDICATORS

The Funding Value of Assets of the Retirement System increased less than anticipated by the long-term investment income funding assumption during the last year. Note that each year's deviation from assumed investment experience is spread over five years in equal dollar installments to reduce the effect of market volatility on contribution rates (please refer to page B-8). The return on the Funding Value of Assets was 3.0%, net of investment expenses. The projected return was 8.0%.

The aggregate effect of all system experience was a loss of \$1,384,923, caused mostly by unfavorable recognized investment experience offset substantially by lower than expected salary increases.

Year-to-year experience variations are expected and normal in the operation of a retirement system as members vary their activities and economic conditions change. The expectation is that the plus years and minus years will tend to cancel over 5 to 10 periods. Of the last 19 years, 9 have produced favorable experience and 10 have produced unfavorable experience. However, the last 10 years have been substantially unfavorable (see page B-10).

**Experience Gains and Losses\***  
(Amounts in Millions)



\* Years prior to 2004 include Police.

## **BENEFIT CHANGES**

None.

## **NEXT YEAR'S EXPERIENCE INDICATORS**

Due to the Board's use of a five-year smoothed market asset valuation method, slightly better than expected market returns were only partially recognized, and combined with the scheduled phase-in of the prior four years unrecognized investment income. Subsequently, investment losses are scheduled for the next three years. (Please see page B-8 for details). This will exert significant and sustained upward pressure on future computed employer contribution rates and downward pressure on the funded ratio in the next few reports in the absence of considerable future gains. We recognize that investment markets have recovered somewhat and outperformed expectations for new money invested in the last year, but this has yet to reach a point where assets held for longer periods can be considered recovered.

## **SUPPLEMENTAL PENSION DISTRIBUTION**

There is no supplemental pension distribution payable this year. The accumulated System experience since October 1, 2000 is negative (see page B-10) and therefore the Florida Statutes restrict this provision.

## **SHARE ACCOUNTS**

Share Accounts totaling \$2,307,053 were excluded from assets and liabilities in this report. The Board should annually review and approve the issuance of individual Share Account statements.

## **RECOMMENDATIONS**

The Retirement Ordinance requires reserve account transfers from the Employer Reserve Fund to the Retirement Reserve Fund which will establish a match between assets allocated to the Retirement Fund and liabilities associated with current retired lives.

The balance in the retirement reserve fund as of October 1, 2010 following the transfers should be \$48,286,001.

## **CERTIFICATION**

This actuarial valuation 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.



Brad Lee Armstrong, EA [11-5614]

May 11, 2011

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## **SECTION B**

### DETAILED VALUATION RESULTS

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**Contributions To Finance Benefits of the Retirement System  
For the Plan Year Beginning October 1, 2011  
To be Contributed During the Fiscal Year Beginning October 1, 2011**

Contributions for	Contributions Expressed as Percents of UnDROPed Active Member Payroll
<b>Normal Cost</b>	
Service pensions	33.28 %
Disability pensions	0.96
Death in service pensions	0.59
Deferred service pensions	1.73
Refunds of member contributions	<u>0.82</u>
Total Normal Cost	37.38
<b>Unfunded Actuarial Accrued Liability (1)</b>	
Retired members and beneficiaries	0.00
Active and vested terminated members	<u>19.66</u>
Total Unfunded Actuarial Accrued Liability	19.66
Administrative Expenses	2.90
Total Unadjusted Computed Contribution	59.94
<b>Adjustments to Computed Contribution</b>	
FS 112.64(5) Compliance	0.00
Full funding credit	<u>0.00</u>
Total adjustments	0.00
<b>Total Adjusted Contribution Requirement</b>	<b>59.94</b>
Member portion	6.82
Chapter 175 portion (FY97/98 frozen dollars)	3.74
Additional Premium Tax Revenue	1.45
Town portion	47.93

*(1) Please refer to page B-12 for a schedule of financing periods.*

FS 112.64 requires that Town contributions be deposited not less frequently than quarterly. FS175.131 requires that Chapter 175 monies be deposited within 5 days of receipt from the State. Member contributions, which are in addition to the Public contributions, must be deposited immediately after each pay period.

Comparative contribution amounts for prior fiscal years are shown on page B-4.

**Chapter 99-1, Laws of Florida  
Minimum Compliance and Extra Benefits – Chapter 175**

	Prior Year			Cumulative		
	Premium Tax Distributions	Supplemental Compensation Fund	Total	Premium Tax Distributions	Supplemental Compensation Fund	Total
A. Additional premium tax revenues as of 9/30/09 after transfer			\$ -			
B. Chapter 175 receipts during fiscal year ending 9/30/10	\$ 503,289	\$ 104,195	607,484	\$4,375,322	\$ 2,251,554	\$6,626,876
C. Chapter 175 "frozen" receipts during fiscal year ending 9/30/10	201,787	50,247	252,034	2,421,444	552,717	2,974,161
D. Qualifying benefit improvements since Chapter 99-1 effective date			97,920			698,916
E. Additional premium tax revenues as of 9/30/2010 A + [ B - C - D, not less than 0 ]			257,530	*		2,953,799

**BENEFITS ADOPTED**

**Minimum Compliance**

A. 10 year certain & life normal form (\$6,738 per year).

**Extra Benefits**

A. 3.25% multiplier, 20 & Out. (\$91,182 per year). 3.5% multiplier funded by Town.

B. Share Accounts (excess per year, if any, over \$349,954).

*\* Transferred to Share Accounts and not included in the remainder of this report.*

## Determining Dollar Contributions

For any period of time, the percent-of-payroll contribution rate needs to be converted to dollar amounts. The Florida Division of Retirement has indicated the legislative intent in Section 112.61, F.S., is to apply the Town portion of the contribution requirement on page B-1 to emerging payroll. To accomplish this, the Town should contribute dollar amounts at the end of each payroll period which are equal to the 47.93% percent-of-payroll contribution requirement multiplied by the unDROPed active member payroll for the period. Adjustments should be made as necessary to exclude items of pay that are not covered compensation for Retirement System benefits and to include non-payroll amounts that are covered compensation.

***CAUTION:** The base Town contribution amount may need to be increased if the amount received under the provisions of Chapter 185, Florida Statutes, is less than \$349,954 during the fiscal year ending September 30, 2012 to meet the Total Public Employer Contribution Requirement.*

Illustrative Only. Included in these amounts is the projected salary increase between the valuation date and the fiscal year in which the contribution will be made. The projection factor used was 1.083624, (1.055<sup>1.5</sup>), which is consistent with the projection used to calculate actuarial liability.

<b>Total Public Contribution Requirement</b>	<b>\$3,579,633</b>
<b>Chapter 175 Premium "frozen"</b>	<b>201,787</b>
<b>Chapter 175 Supplemental "frozen"</b>	<b>50,247</b>
<b>Funding from Add. Premium Tax Revenue</b>	<b>97,920</b>
<b>Base Town Contribution</b>	<b>\$3,229,679</b>

The above amounts are assumed to be contributed, on average, halfway through the fiscal year. If contributions are made on a later schedule, interest should be added at the rate of 0.64% (.0064) for each month of delay.

## Recommended Contributions Comparative Statement

Fiscal Year	Valuation Date Sept. 30	Public Contributions (Additional to Member Contributions) % of Payroll Contributions*
77/78	1976	20.42 %
78/79 (a)	1977	23.59
79/80	1978	23.70
80/81	1979	23.95
81/82 (a)	1980	23.79
82/83 (a)	1981	23.35
83/84	1982	22.77
84/85	1983	22.46
85/86	1984	21.99
86/87 (a)	1985	22.23
87/88	1986	21.58
88/89 (a)	1987	23.35
89/90	1988	23.34
90/91	1989	22.84
91/92 (a)	1990	26.06
92/93	1991	27.17
93/94	1992	28.86
94/95 (a)	1993	29.73
95/96	1994	32.83
96/97 (a)	1995	35.45
97/98	1996	34.32
98/99	1997	32.40
99/00 (a)	1998	30.13
00/01 (a)	1999	26.48
01/02 (a)	2000	15.11
02/03 (a)	2001	22.36
03/04	2002	34.45
04/05	2003	36.75
05/06 (a)	2004	39.34
06/07 (a)	2005	45.97
07/08	2006	46.47
08/09	2007	44.86
09/10	2008	47.50
10/11	2009	51.06
<b>11/12</b>	<b>2010</b>	<b>53.12</b>

(a) After changes in benefit provisions and/or actuarial assumptions and/or actuarial cost methods.

\* Contributions were not calculated separately for Police and Fire prior to the 9/30/89 actuarial valuation.

## Funding Progress Indicators

**We believe an understanding** of funding progress and status can be achieved using the following measures:

*Indicator (1)* **The actuarial present value of gains or losses realized in the operation of the Retirement System** - an experience indicator. Gains and losses are expected to cancel each other over a period of years (in the absence of double-digit inflation) but sizable year-to-year fluctuations are common. An experience gain can result from assets increasing in value by more than anticipated by the funding program, or by the actuarial accrued liability increasing by less than anticipated by the funding program, or by other favorable combinations of deviation from expected asset and liability changes. Further details on the derivation of the gain (loss) are shown on page B-7.

*Indicator (2)* **The ratio of the funding value of assets to the actuarial accrued liability** measured in accordance with GASB Statement No. 5 prior to the September 30, 1997 valuation and GASB Statement No. 25 beginning with the September 30, 1997 valuation. The ratio is expected to increase over time but the basic trend may be interrupted by changes in benefit provisions, actuarial assumptions, or methods.

*Indicator (3)* **The ratio of the unfunded actuarial accrued liability to active member payroll** - an inflation adjusted funding level indicator. In a soundly financed Retirement System, the amount of the unfunded actuarial accrued liability will be controlled and prevented from increasing in the absence of benefit improvements. However, in an inflationary environment it is seldom practical to impose this control on dollar amounts which are depreciating in value. The ratio is a relative index of condition where inflation is present in both items. The ratio is expected to decrease over time but the basic trend may be interrupted by changes in benefit provisions, actuarial assumptions, or methods.

**Funding Progress Indicators - Historical Comparisons**  
**(\$ amounts in thousands)**

Valuation Date September 30	Indicator (1)		Indicator (2)		Indicator (3)		
	Exper. Gain (Loss)	Funding Value of Assets	AAL	Funded Ratio	Unfunded AAL	Active Member Payroll	Ratio to Payroll
1986	\$ 919	\$ 27,651	\$32,706	85 %	\$ 5,055	\$ 8,856	57 %
1987 (a)	911	31,025	34,101	91	3,076	9,231	33
1988	131	34,191	37,397	91	3,206	9,706	33
1989	1,425	38,999	40,732	96	1,733	10,597	16
1990 (a)	(839)	42,663	48,527	88	5,864	11,556	51
1991	(756)	46,830	53,410	88	6,580	12,287	54
1992	(530)	51,470	58,398	88	6,928	12,712	54
1993 (a)	2,632	57,089	61,692	93	4,603	12,443	37
1994	674	62,651	66,474	94	3,823	12,415	31
1995 (a)	4,437	70,326	72,339	97	2,013	12,543	16
1996	3,707	78,929	77,327	102	(1,602)	13,382	--
1997 #	5,135	88,697	86,042	103	(2,655)	14,092	--
1998 (a)	4,961	99,939	92,703	108	(7,236)	14,549	--
1999 (a)	7,056	113,770	98,866	115	(14,904)	14,422	--
2000 (a)@	6,214	81,196	69,425	117	(11,771)	6,230	--
2001 (a)@	(3,133)	91,992	82,361	112	(9,631)	7,064	--
2002	(11,845)	86,446	88,991	97	2,545	7,769	33
2003	(3,088)	88,091	94,991	93	6,900	8,558	81
2004 (a)&	(1,587)	44,080	51,703	85	7,623	4,444	172
2005 (a)	(3,287)	45,765	59,314	77	13,548	5,237	259
2006	(290)	49,236	64,220	77	14,984	5,710	262
2007	3,038	54,723	67,027	82	12,304	5,573	221
2008	(864)	57,652	71,813	80	14,161	5,823	243
2009	(5,022)	57,852	78,139	74	20,287	6,398	317
<b>2010</b>	<b>(1,385)</b>	<b>59,219</b>	<b>81,598</b>	<b>73</b>	<b>22,379</b>	<b>6,219</b>	<b>360</b>

(a) After changes in benefit provisions and/or actuarial assumptions and/or actuarial cost methods.

# GASB Statement No. 25 basis.

@ Excludes General and Ocean Rescue members (shown in separate report beginning 9/30/2000).

& Excludes Police members (shown in separate report beginning 9/30/2004).

AAL represents actuarial accrued liability. Measured in accordance with GASB Statement No. 5 prior to 1997 and GASB Statement No. 25 beginning in 1997.

**Experience Gain/(Loss)  
Year Ended September 30, 2010**

**DERIVATION**

(1) UAAL at start of year	\$20,287,269
(2) Employer Normal cost for year	2,116,234
(3) Employer contributions for defined benefits	2,997,164
(4) Interest accrued .08 x [(1) + 1/2 ((2)-(3))]	1,587,744
(5) Expected UAAL before changes (1) + (2) - (3) + (4)	20,994,083
(6) Effect of assumption changes	0
(7) Effect of cost method changes / accounting and timing differences	0
(8) Effect of benefit changes	0
(9) Addition to supplemental pension reserve	0
(10) Expected UAAL after changes	20,994,083
(11) Actual UAAL	22,379,006
(12) Gain/(loss) (10) - (11)	(1,384,923)

UAAL represents unfunded actuarial accrued liability.

## Derivation of Funding Value of Retirement System Assets

Year Ended September 30:	2008	2009	2010	2011	2012	2013	2014
A. Funding Value Beginning of Year	\$54,722,895	\$57,652,278	\$57,851,762				
B. Market Value End of Year	49,729,313	48,209,802	51,533,882				
C. Market Value Beginning of Year	57,916,949	49,729,313	48,209,802				
D. Non-Investment Net Cash Flow	33,162	(651,462)	(390,976)				
E. Investment Income							
E1. Market Total: B - C - D	(8,220,798)	(868,049)	3,715,056				
E2. Amount for Immediate Recognition at 8.0%	4,379,158	4,586,124	4,612,502				
E3. Amount for Phased-In Recognition: E1 - E2	(12,599,956)	(5,454,173)	(897,446)				
F. Phased-In Recognition of Investment Income							
F1. Current Year: 0.20 x E3	(2,519,991)	(1,090,835)	(179,489)				
F2. First Prior Year	573,963	(2,519,991)	(833,678)	\$ (179,489)			
F3. Second Prior Year	104,803	573,963	(2,519,991)	(833,678)	\$ (179,489)		
F4. Third Prior Year	225,510	104,803	573,963	(2,519,991)	(833,678)	\$ (179,489)	
F5. Fourth Prior Year	132,778	225,508	104,802	573,961	(2,519,992)	(833,678)	\$ (179,490)
F6. Adjustment to Recognize 20% Corridor	<u>0</u>	<u>(1,028,626)</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
F7. Total Recognized Investment Gain/(Loss)	(1,482,937)	(3,735,178)	(2,854,393)	(2,959,197)	(3,533,159)	(1,013,167)	(179,490)
G. Accelerated Recognition of Investment Income	0	0	0				
H. Funding Value End of Year: A + D + E2 + F7 Not to Exceed 120% of Market Value	57,652,278	57,851,762	59,218,895				
I. Difference between Market & Funding Value	(7,922,965)	(9,641,960)	(7,685,013)				
J. Recognized Rate of Return	5.29%	1.48%	3.05%				
K. Recognized Rate of Investment Expenses	0.52%	0.26%	0.30%				

The Funding Value of Assets recognizes assumed investment income (line E2) fully each year. Differences between actual and assumed investment income (line E3) are phased in over a closed 5-year period. During periods when investment performance exceeds the assumed rate, the Funding Value of Assets will tend to be less than Market Value. During periods when investment performance is less than the assumed rate, the Funding Value of Assets will tend to be greater than Market Value. If assumed rates are exactly realized for 4 consecutive years, it will become equal to Market Value.

## Calculation of Supplemental Pension Distribution Amount - Sec. 82-97 as of September 30, 2010\*

<b>Factor (i):</b> Actuarial present value of future payments to 89 fire pension recipients on 9/30/10 using 8%.	\$ 40,139,539
<b>Factor (ii):</b> (a) Gross rate of investment return 10/1/09 through 9/30/10 estimated by actuary. If this rate is over 8%, the actual rate used will be as determined by the Board's investment consultant.	8.2%
(b) Lesser of (a) and 10%	8.2%
 <b>Preliminary Distribution Amount (prior to experience gain limitation):</b>	
Factor (i) x [(Factor (ii) - 8%) > 0]	\$ 80,279
 <b>Expenses:</b>	
Expense rate (administrative and investment)	0.708%
Preliminary Distribution Amount x Expense rate	\$ 568
 <b>Amount Available for Distribution:</b>	
(a) Unamortized Balances of Accumulated net experience gains (page B-10)	\$ (28,774,182)
(b) Unamortized Balances of Accumulated distributions @ (page B-10)	0
(c) Accumulated net gains less Accumulated distributions: [(a) - (b)] > 0	0
(d) Amount available for distribution#	0

\* Pensions are subject to automatic post-retirement cost-of-living adjustments.

@ This amount does not include the supplemental pension distribution, if any, for the current year.

# The lesser of the Preliminary Distribution Amount less expenses and accumulated net gains less accumulated distributions.

## Supplemental Pension Distribution Accumulated Gain/(Loss) Limitation

Year Ended September 30	Experience Gain/(Loss)*		Addition to Supplemental Pension Distribution Reserve		Net Unamortized Balance
	For Year	Unamortized Balance	For Year	Unamortized Balance	
2001	\$(1,885,924)	\$ (1,885,924)	\$ 0	\$ 0	\$ (1,885,924)
2002	(5,945,550)	(7,888,995)	0	0	(7,888,995)
2003	(1,908,839)	(10,036,116)	0	0	(10,036,116)
2004	(1,587,255)	(11,917,120)	0	0	(11,917,120)
2005	(3,286,941)	(15,541,592)	0	0	(15,541,592)
2006	(289,811)	(16,959,878)	0	0	(16,959,878)
2007	3,038,175	(15,885,596)	0	0	(15,885,596)
2008	(863,774)	(18,464,285)	0	0	(18,464,285)
2009	(5,021,804)	(25,366,833)	0	0	(25,366,833)
<b>2010</b>	<b>(1,384,923)</b>	<b>(28,774,182)</b>	<b>0</b>	<b>0</b>	<b>(28,774,182)</b>

\* All sources.

**Unfunded Actuarial Accrued Liability  
as of September 30**

	<u>2010</u>	<u>2009</u>
A. Actuarial present value of future benefits	\$96,955,509	\$94,407,576
B. Actuarial present value of future normal costs	15,357,608	16,268,545
C. Actuarial accrued liability	81,597,901	78,139,031
D. Actuarial value of assets	59,218,895	57,851,762
E. Unfunded actuarial accrued liability	22,379,006	20,287,269
F. Funded ratio	72.6%	74.0%

## Sources and Financing of Unfunded Actuarial Accrued Liability

Year Established	Initial Years	Years Remaining	Initial Amount	Current Amount	Amort. Factor	Contributions		FS112.64(5) Compliance
						Dollar	Percent of Payroll	
<b>Initial Unfunded</b>								
1981	37	8		\$ 3,687,738	7.295236	\$ 505,499	7.50 %	0.00 %
<b>(Gain)/Loss Experience</b>								
1981	30	1	\$ 37,256	10,393	0.988381	10,515	0.16	0.00
1982	30	2	282,654	150,089	1.953882	76,816	1.14	0.00
1983	30	3	165,232	123,422	2.897033	42,603	0.63	0.00
1984	30	4	(145,383)	(135,865)	3.818352	(35,582)	(0.53)	0.00
1985	30	5	(248,587)	(272,467)	4.718343	(57,746)	(0.86)	0.00
1986	30	6	(233,467)	(288,230)	5.597502	(51,493)	(0.76)	0.00
1987	30	7	(202,227)	(273,398)	6.456309	(42,346)	(0.63)	0.00
1988	30	8	(225,320)	(326,633)	7.295236	(44,773)	(0.66)	0.00
1989	30	9	(455,145)	(696,578)	8.114743	(85,841)	(1.27)	0.00
1990	30	10	385,923	615,900	8.915280	69,084	1.03	0.00
1991	30	11	476,404	785,200	9.697286	80,971	1.20	0.00
1992	30	12	779,775	1,353,816	10.461189	129,413	1.92	0.00
1993	30	13	(966,611)	(1,659,944)	11.207409	(148,111)	(2.20)	0.00
1994	30	14	35,481	63,379	11.936356	5,310	0.08	0.00
1995	30	15	(879,540)	(1,582,814)	12.648428	(125,139)	(1.86)	0.00
1996	30	16	(729,036)	(1,311,969)	13.344017	(98,319)	(1.46)	0.00
1997	30	17	(1,846,518)	(3,310,073)	14.023504	(236,038)	(3.50)	0.00
1998	30	18	(1,900,075)	(3,381,395)	14.687263	(230,226)	(3.42)	0.00
1999	30	19	(1,677,265)	(2,954,156)	15.335656	(192,633)	(2.86)	0.00
2000	30	20	(3,567,847)	(6,202,155)	15.969040	(388,386)	(5.76)	0.00
2001	30	21	1,885,924	3,228,035	16.587762	194,603	2.89	0.00
2002	30	22	5,945,550	9,997,714	17.192161	581,527	8.63	0.00
2003	30	23	1,908,839	3,146,864	17.782570	176,963	2.63	0.00
2004	30	24	1,587,255	2,560,630	18.359312	139,473	2.07	0.00
2005	30	25	3,286,941	5,180,381	18.922703	273,765	4.06	0.00
2006	30	26	289,811	342,516	19.473052	17,589	0.26	0.00
2007	30	27	(3,050,348)	(3,497,328)	20.010662	(174,773)	(2.59)	0.00
2008	30	28	863,774	967,232	20.535826	47,100	0.70	0.00
2009	30	29	5,021,804	5,463,215	21.048834	259,550	3.85	0.00
2010	30	30	1,384,923	1,384,923	21.549967	64,266	0.95	0.00
<b>Benefit Changes</b>								
1985	30	5	119,626	133,557	4.718343	28,306	0.42	0.00
1990	30	10	1,186,280	1,809,150	8.915280	202,927	3.01	0.00
1995	30	15	360,493	603,946	12.648428	47,749	0.71	0.00
1998	30	18	8,495	13,945	14.687263	949	0.01	0.00
1999	30	19	40,595	65,796	15.335656	4,290	0.06	0.00
2000	30	20	2,428,000	3,875,219	15.969040	242,671	3.60	0.00
2004	30	24	1,119,182	1,645,920	18.359312	89,650	1.33	0.00
2005	30	25	2,043,685	2,931,949	18.922703	154,943	2.30	0.00
<b>Assumption/Method Changes</b>								
1981	30	1	(59,995)	(22,313)	0.988381	(22,575)	(0.34)	0.00
1987	30	7	(689,072)	(917,910)	6.456309	(142,173)	(2.11)	0.00
1995	30	15	478,422	801,515	12.648428	63,369	0.94	0.00
2000	30	20	(1,084,054)	(1,730,210)	15.969040	(108,348)	(1.61)	0.00
<b>Totals</b>				<b>\$ 22,379,006</b>		<b>\$ 1,325,399</b>	<b>19.66</b>	<b>0.00</b>

## Actuarial Balance Sheet - September 30, 2010

### Present Resources and Expected Future Resources

A. Funding Value of System Assets:	
1. Net Assets from System Financial Statements (Market Value)	\$51,533,882
2. Funding Value Adjustment	<u>7,685,013</u>
3. Funding Value of Assets	59,218,895
B. Actuarial Present Value of Expected Future Employer Contributions:	
1. For Normal Costs	12,566,256
2. For Unfunded Actuarial Accrued Liability	<u>22,379,006</u>
3. Totals	34,945,262
C. Actuarial Present Value of Expected Future Member Contributions	<u>2,791,352</u>
D. Total Present and Expected Future Resources	<u><u>\$96,955,509</u></u>

### Actuarial Present Value of Expected Future Benefit Payments and Reserves

A. To Retirants and Beneficiaries	\$48,286,001
B. To Vested Terminated Members	105,722
C. To Present Active Members:	
1. Allocated to Service Rendered Prior to Valuation Date	33,206,178
2. Allocated to Service likely to be Rendered After Valuation Date	<u>15,357,608</u>
3. Totals	48,563,786
D. Reserve for Additional Premium Tax Revenues	0
E. Reserve for Employer Contributions	0
F. Reserve for Supp. Pens. Dist. - 13th Check	0
G. Total Actuarial Present Value of Expected Future Benefit Payments	<u><u>\$96,955,509</u></u>

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## **SECTION C**

**SUMMARY OF BENEFIT PROVISIONS AND  
VALUATION DATA SUBMITTED BY THE  
RETIREMENT SYSTEM**

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## **Summary of Benefit Provisions (September 30, 2010)**

### **NORMAL RETIREMENT:**

**Eligibility** - 20 or more years of service, regardless of age; or, age 50 with 10 or more years of service; or, members with at least 10 years of service who retire after 9/30/90 are eligible when the individual's age plus credited service totals 65 years or more.

#### **Pension Amount -**

Average final compensation multiplied by the greater of

- a) 3.5% per year of credited service to a maximum of 25 years, or
- b) 2.0% per year of credited service to a maximum of 50 years.

The normal form of pension is a pension payable for 10 years certain. Also, see Automatic Death Benefit After Retirement heading.

### **AVERAGE FINAL COMPENSATION:**

Highest 2 consecutive years within the member's last 5 years of credited service.

### **DROP RETIREMENT:**

**Eligibility** – Same as Normal Retirement, election must be made within 7 years of the date the member first reaches normal retirement eligibility.

**Pension Amount** – 100% of the member's accrued benefit at the date of election to participate in DROP.

### **DEFERRED RETIREMENT (VESTED TERMINATION BENEFIT):**

**Eligibility** - 10 or more years of service. Pension begins upon meeting requirement for normal retirement. Contributions must be left on deposit in the System; failure to do so results in forfeiture of the vested benefit.

**Pension Amount** - Computed as for normal retirement, based upon service and average final compensation at time of termination.

**DUTY DISABILITY RETIREMENT:**

**Eligibility** - No age or service requirements.

**Pension Amount** - Computed as a regular retirement with additional service credit granted from date of disability to earliest normal retirement eligibility date. Minimum benefit is 60% of average final compensation.

**NON-DUTY DISABILITY BEFORE RETIREMENT:**

**Eligibility** - 10 or more years of service.

**Pension Amount** - Computed as for normal retirement.

**DUTY DEATH BEFORE RETIREMENT:**

**Eligibility** - No age or service requirements.

**Pension Amount** - A pension to each surviving child of 25% of the member's average final compensation not to exceed 50% or an equal share of 75% of the member's AFC when there are 4 or more surviving children being paid. A pension to the widow of the difference, if any, between 75% of the retirant's AFC and the aggregate amount paid to children for the month.

**NON-DUTY DEATH BEFORE RETIREMENT:**

**Eligibility** - 10 or more years of service.

**Pension Amount** - 75% of normal retirement benefit to a surviving spouse or equal shares of 75% of the normal retirement benefit to surviving unmarried children under 18.

**AUTOMATIC DEATH AFTER RETIREMENT PENSION:**

**To Surviving Child(ren):** 25% of the retirant's pension payable to age 18, not to exceed an equal share of 75% of the retirants pension. Payments to surviving children may be paid to age 25 if no spouse benefits are payable.

**To Surviving Spouse:** The difference, if any, between 75% of the deceased retirant's pension and the aggregate amount paid to any surviving children for the month.

**POST-RETIREMENT COST-OF-LIVING ADJUSTMENTS:**

Members who retire after 9/30/68 and prior to 10/1/90 receive an annual 1.0% increase computed on the base benefit. Other adjustments have been made periodically. Pensions effective after 9/30/90 will be increased 2.0% annually based on the total pension payable subsequent to an initial 3 year deferral period.

**SUPPLEMENTAL PENSION DISTRIBUTION**

Amount determined on investment return, if any, after expenses, between 8.0% and 10.0% of assets, subject to accumulated gains/(losses) limitation.

**MEMBER CONTRIBUTIONS:** 6.82% of Annual Compensation.

**PREMIUM TAX MONIES:** A distribution of casualty insurance premium tax monies collected by the State pursuant to Chapter 175 Florida Statute.

**TOWN CONTRIBUTIONS:** Actuarially determined amounts which together with member contributions and premium tax monies are sufficient to cover the requirements of the funding objective stated on page A-1.

**FIREFIGHTER INDIVIDUAL CHAPTER SHARE ACCOUNTS:** Available tax revenues received pursuant to Chapter 175 Florida Statute which have not been otherwise committed for members. Individual member accounts maintained in each member's name effective on or after 10/1/98.

**PRIOR GOVERNMENTAL SERVICE ELSEWHERE:** During the first five years of employment by the Town, the years or fractional parts of years that a member previously served for any other municipal, county, or state government or district may be added to years or fractional parts of years of credited service provided that the member contributes the sum that would have been contributed to the retirement plan to pay the full actuarial cost.

**PURCHASE OF SERVICE CREDIT:** A vested member who has not purchased service credit under Prior Governmental Service Elsewhere may purchase years or fractional parts of years of service to be added to years of credited service provided that the member contributes the sum that would have been contributed to the retirement plan to pay the full actuarial cost.

## Summary of Assets

	<b>September 30, 2010</b>	<b>September 30, 2009</b>
Cash	\$ 2,228,868	\$ 2,010,134
Accrued interest and dividends	68,810	44,327
Other receivables	12,062	1,929,312
Investments		
- US government securities	7,285,500	2,318,261
- Corporate bonds and notes	5,779,732	5,359,680
- Domestic fixed income funds	0	3,953,475
- Common stock	4,257,105	4,978,552
- Equity funds	15,507,820	9,880,299
- Real estate funds	4,066,839	3,383,986
- Alternative investments	15,111,643	17,051,858
Accounts payable	(589,757) *	(768,460) **
Other	(2,194,740) #	(1,931,622) ##
<b>Total Assets</b>	<b>\$51,533,882</b>	<b>\$48,209,802</b>

\* Includes DROP plan liabilities of \$559,832.

\*\* Includes DROP plan liabilities of \$733,049.

# Share Account assets of \$2,307,053 were excluded.

## Share Account assets of \$2,045,793 were excluded.

# Accounting Information Utilized for Valuation

## Revenues and Expenditures

	<u>Year Ended</u> <u>9-30-2010</u>	<u>Year Ended</u> <u>9-30-2009</u>
<b>Revenues:</b>		
a. Member contributions	\$ 490,483	\$ 442,893
b. Town contributions	2,647,210	2,359,327
c. State contributions (Chapter 175)	349,954 *	349,954
d. Investment income		
1. Interest and dividends	394,358	382,003
2. Amortization of premiums/discounts	-	-
3. Gain or (loss)	3,538,601	(1,104,238)
e. Other - audit adjustment	-	-
f. Total revenues	<u>7,420,606</u>	<u>2,429,939</u>
<b>Expenditures:</b>		
a. Refunds of member contributions	21,600	-
b. Benefits paid	3,676,949	3,557,684
c. Supplemental pension distribution	-	-
d. Administrative expenses	180,074	245,952
e. Investment expenses	173,239	148,414
f. DROP & share account distributions/earnings	44,664	(2,600)
g. Total expenditures	<u>4,096,526</u>	<u>3,949,450</u>
<b>Reserve Increase:</b>		
Total revenues minus total expenditures	<u>\$ 3,324,080</u>	<u>\$ (1,519,511)</u>

\* Amounts received in excess of \$349,954 were excluded, as were the aggregate share account assets of \$2,307,053.

## Accounting Information Submitted for Valuation

### Reserve Accounts\*

	<u>September 30, 2010</u>	<u>September 30, 2009</u>
Employees' contributions (Members' Saving Fund)	\$ 4,035,134	\$ 3,531,283
Employer contributions (Employer Reserve Fund)	(892,975)	(1,630,629)
Retired members and beneficiaries (Retirement Reserve Fund)	48,286,001	46,211,418
Inactive members (Deferred Retirement Fund)	<u>105,722</u>	<u>97,730</u>
Total	\$ 51,533,882	\$ 48,209,802

*\* After transfers in accordance with Section 82-82(b) of Retirement Ordinance (please refer to page A-3). All reserve accounts are available for funding.*

## Retired Member and Beneficiary Data

### Historical Schedule\*

Year Ended Sept. 30	Number		Net Increase		End of Year		Average Pensions
	Added	Removed	No.	Annual Pensions	No.	Annual Pensions	
1981	11	6	5	\$ 128,569	124	\$ 816,114	\$ 6,582
1982	8	6	2	45,959	126	862,073	6,842
1983	6	3	3	42,198	129	904,271	7,010
1984	6	4	2	32,936	131	937,207	7,154
1985	15	5	10	166,787	141	1,103,994	7,830
1986	10	3	7	119,451	148	1,223,445	8,267
1987	7	2	5	72,350	153	1,295,794	8,469
1988	13	8	5	92,514	158	1,388,308	8,787
1989	9	6	3	142,425	161	1,530,733	9,508
1990	17	10	7	207,012	168	1,737,745	10,344
1991	7	5	2	145,915	170	1,883,660	11,080
1992	16	11	5	291,355	176	2,175,015	12,358
1993	11	8	3	159,198	179	2,334,213	13,040
1994	21	4	17	441,322	196	2,775,535	14,161
1995	15	8	7	199,472	203	2,975,006	14,655
1996	18	9	9	323,738	212	3,298,744	15,560
1997	13	13	0	127,873	212	3,426,617	16,163
1998	17	8	9	272,820	221	3,699,437	16,740
1999	15	7	8	455,698	229	4,155,135	18,145
2000	16	110 #	(94)	(861,467)	135	3,293,668	24,398
2001	12	9	3	215,455	138	3,509,123	25,428
2002	8	3	5	269,507	143	3,778,630	26,424
2003	1	2	(1)	100,315	142	3,878,945	27,317
2004	9	7	2	235,991	77	2,319,749	30,127
2005	2	0	2	247,973	79	2,567,722	32,503
2006	3	4	(1)	187,448	78	2,755,170	35,323
2007	6	5	1	254,745	79	3,009,915	38,100
2008	7	4	3	270,047	82	3,279,962	40,000
2009	6	3	3	316,610	85	3,596,572	42,313
<b>2010</b>	<b>5</b>	<b>1</b>	<b>4</b>	<b>232,386</b>	<b>89</b>	<b>3,828,958</b>	<b>43,022</b>

\* Prior to the September 30, 2000 valuation, general members were included. Prior to the September 30, 2004 valuation, police members were included.

# Includes 107 general members.

## Retired Members and Beneficiaries

### Historical Comparison

Valuation Date**	% Incr. in Annual Pensions	No. of Active Per Retired	Pension Payroll as % of Active Payroll
9/30/1991	8.4 %	1.3	28.1 %
9/30/1992	15.5	1.3	28.3
9/30/1993	7.3	1.3	30.3
9/30/1994	18.9	1.1	39.2
9/30/1995	7.2	1.1	38.7
9/30/1996	10.9	1.1	41.8
9/30/1997	3.9	1.1	40.1
9/30/1998	8.0	1.0	45.7
9/30/1999	12.3	0.8	58.8
9/30/2000	(20.7)	0.8	65.2
9/30/2001	6.5	0.8	62.8
9/30/2002	7.7	0.7	62.1
9/30/2003	2.7	0.8	54.2
9/30/2004	(40.2)	0.9	52.2
9/30/2005	10.7	0.9	49.0
9/30/2006	7.3	0.9	48.3
9/30/2007	9.2	0.9	54.0
9/30/2008	9.0	0.9	56.3
9/30/2009	9.7	0.9	56.2
<b>9/30/2010</b>	<b>6.5</b>	<b>0.8</b>	<b>61.6</b>

\*\* Beginning with the 9/30/00 valuation, General and Ocean Rescue are reported in a separate report.  
Beginning with the 9/30/04 valuation, Police is reported in a separate report.

**Retired Member and Beneficiary Data as of September 30, 2010  
By Type of Pension Being Paid**

<u>Type of Benefit Being Paid</u>	<u>No.</u>	<u>Annual Benefit</u>
<b>Age &amp; Service Benefits</b>		
Straight Life	7	\$ 225,786
10-Year Certain	21	1,372,077
Joint and Survivor Benefits - Regular	35	1,307,330
Surviving Beneficiaries	9	186,219
Total Age and Service Benefits	72	3,091,412
<b>Duty Disability Benefits</b>		
Straight Life	1	27,079
10-Year Certain	0	0
Joint and Survivor Benefits	1	45,458
Surviving Beneficiaries	0	0
Total Duty Disability Benefits	2	72,537
<b>Non-Duty Disability Benefits</b>		
Straight Life	1	16,674
10-Year Certain	3	119,713
Joint and Survivor Benefits	4	95,435
Surviving Beneficiaries	0	0
Total Non-Duty Disability Benefits	8	231,822
<b>Death-In-Service Benefits</b>		
Non-Duty Spouse	1	3,600
Total Death in Service Benefits	1	3,600
<b>Active DROP Members</b>	6	429,587
<b>Totals</b>	<b>89</b>	<b>\$ 3,828,958</b>

**Retired Member and Beneficiary Data as of September 30, 2010  
(Includes DROP Participants)  
Tabulated by Attained Age**

<b>Attained Age</b>	<b>No.</b>	<b>Annual Pensions</b>
45 - 49	6	\$ 527,625
50 - 54	18	1,085,092
55 - 59	12	516,267
60 - 64	12	556,954
65 - 69	13	426,221
70 - 74	12	397,433
75 - 79	2	98,283
80 - 84	9	164,280
85 - 89	4	53,203
90 - 94	1	3,600
<b>Totals</b>	<b>89</b>	<b>\$ 3,828,958</b>

Average Age at Retirement:            49.5 years

Average Age Now:                        64.7 years

**Vested Terminated Members as of September 30, 2010**  
**Annual Estimated Pensions**  
**Tabulated by Attained Age**

<b>Attained Age</b>	<b>No.</b>	<b>Annual Estimated Pensions</b>
43	1	\$13,598
<hr/>		
<b>Totals</b>	<b>1</b>	<b>\$13,598</b>

## Active and Vested Terminated Members Included in Valuation

Valuation Date September 30	Active Members	Vested		Valuation Payroll	Average		
		Terminated Members			Age	Service	Pay
1995	64	0		\$2,850,626	37.4 yrs.	11.3 yrs.	\$44,541
1996	66	0		2,962,735	37.0	10.5	44,890
1997	66	0		3,081,776	38.0	11.5	46,694
1998	62	0		2,980,932	38.2	12.1	48,080
1999	58	0		2,824,287	37.4	11.1	48,729
2000	56	0		2,785,352	37.3	10.9	49,738
2001	58	0		3,104,984	36.4	10.1	53,534
2002	56	2		3,314,457	36.9	10.3	59,187
2003	63	1		3,845,159	37.2	10.1	61,034
2004	67	1		4,443,846	37.4	9.4	66,326
2005	74	2		5,236,941	37.2	8.7	70,769
2006	74	2		5,709,684	37.7	9.1	77,158
2007	72	2		5,573,348	37.9	9.1	77,408
2008	73	1		5,822,885	37.9	9.3	79,766
2009	73	1		6,397,554	37.6	9.1	87,638
<b>2010</b>	<b>69</b>	<b>1</b>		<b>6,218,731</b>	<b>38.1</b>	<b>9.8</b>	<b>90,127</b>

## Number Added to and Removed from Active Membership

Year Ended Sept. 30	Number Added During Year	Retirement			Disability Retirement A	Disability E	Died-in- Service		Withdrawal		Active Members End of Year
		A	Other	Totals			A	E	A	E	
2000	2	4		4	1.7		0.1	0.1		1.9	56
2001	6	1	1	2	2.1		0.1	2	0.1	1.8	58
2002	3	1		1	4.2	1	0.1		0.1	3	56
2003	8				6.3		0.1		0.1	1	63
2004	9	2	1	3	8.2		0.1		0.1	2	67
2005	11	1	1	2	7.0		0.1		0.1	2	74
2006	4	1	1	2	8.0		0.1		0.1	2	74
2007	5	3	0	3	8.2		0.1		0.1	4	72
2008	4	1	2	3	8.7		0.1		0.1		73
2009	5	3	1	4	9.4		0.1		0.1	1	73
<b>2010</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>3</b>	<b>7.0</b>		<b>0.1</b>		<b>0.1</b>	<b>1</b>	<b>69</b>

A represents actual number.

E represents expected number.

## Active Member Data as of September 30, 2010

### By Attained Age and Years of Service

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
20-24	1							1	\$ 61,628
25-29	7	1						8	510,278
30-34	3	8						11	833,240
35-39	3	8	5	3				19	1,725,133
40-44	3	4	2	7	2			18	1,811,310
45-49		3	2		4			9	948,499
50-54		1			1			2	209,281
55-59		1						1	119,362
<b>Totals</b>	<b>17</b>	<b>26</b>	<b>9</b>	<b>10</b>	<b>7</b>			<b>69</b>	<b>\$6,218,731</b>

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## **SECTION D**

ACTUARIAL COST METHOD, ACTUARIAL  
ASSUMPTIONS AND DEFINITIONS OF TECHNICAL  
TERMS

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## Actuarial Cost Method

The actuarial cost method is a procedure for allocating the actuarial present value of benefits and expenses to time periods. The method used for your valuation is known as the individual entry-age actuarial cost method, and has the following characteristics:

- The annual normal cost for each individual active member is sufficient to accumulate the value of the member's pension at time of retirement or at DROP election, if earlier.
- Each annual normal cost is a constant percentage of the member's year-by-year projected pensionable compensation.

The entry-age actuarial cost method allocates the actuarial present value of each member's projected benefits on a level basis over the member's pensionable compensation between the entry-age of the member and the assumed active status exit ages.

The portion of the actuarial present value allocated to the valuation year is called the normal cost. The portion of the actuarial present value not provided for by the actuarial present value of future normal costs is called the actuarial accrued liability. Deducting accrued assets from the actuarial accrued liability determines the unfunded actuarial accrued liability. The unfunded actuarial accrued liability was financed as a level percent of active member payroll over varying periods of 1 to 30 years. Please refer to page B-12 for a schedule of financing periods.

The characteristics of this method of financing the unfunded actuarial accrued liability are shown on page D-2 using the single equivalent amortization periods.

Member payroll was assumed to increase 5.5% a year offset by members entering the DROP, for the purpose of determining the level percent contributions (except as required by F.S. 112.64 (5)). This estimate is consistent with the base rate of increase in salaries used to calculate actuarial present values. Expressing contributions, as on page B-1, as a percent of active member payroll excluding DROP members may cause fluctuations due to the level of participation in the DROP.

## UAAL Amortization Schedule\*

Year	Investment Assumption 8.00%	Inflation Assumption	
	Payroll	5.50%	Payment
		UAAL Balance	
1	\$ 6,218,731	\$22,379,006	\$ 1,038,466
2	6,560,761	23,060,814	1,095,582
3	6,921,603	23,736,199	1,155,839
4	7,302,291	24,401,294	1,219,410
5	7,703,917	25,051,736	1,286,478
6	8,127,633	25,682,623	1,357,234
7	8,574,653	26,288,452	1,431,882
8	9,046,258	26,863,064	1,510,635
9	9,543,803	27,399,580	1,593,720
10	10,068,712	27,890,328	1,681,375
11	10,622,491	28,326,769	1,773,850
12	11,206,728	28,699,411	1,871,412
13	11,823,098	28,997,723	1,974,340
14	12,473,368	29,210,030	2,082,929
15	13,159,404	29,323,407	2,197,490
16	13,883,171	29,323,567	2,318,352
17	14,646,745	29,194,725	2,445,861
18	15,452,316	28,919,466	2,580,383
19	16,302,194	28,478,590	2,722,304
20	17,198,814	27,850,950	2,872,031
21	18,144,749	27,013,273	3,029,993
22	19,142,710	25,939,966	3,196,642
23	20,195,559	24,602,903	3,372,458
24	21,306,315	22,971,202	3,557,943
25	22,478,162	21,010,968	3,753,630
26	23,714,461	18,685,028	3,960,079
27	25,018,757	15,952,639	4,177,884
28	26,394,788	12,769,163	4,407,667
29	27,846,502	9,085,727	4,650,089
30	29,378,059	4,848,842	4,905,844
31	30,993,852	0	0

\* This is an illustrative schedule assuming the unfunded liability is amortized over 30 years.

## **Actuarial Assumptions Used for the Valuation**

Funding objective contribution requirements and actuarial present values are calculated by applying estimates of future Plan activities (actuarial assumptions) to the benefit provisions and people information of the System, using the actuarial cost method described on page D-1.

The principal areas of activity which require assumptions are:

- long-term rates of investment return to be generated by the assets of the System
- patterns of pay increases to members
- rates of mortality among members, retirants and beneficiaries
- rates of withdrawal of active members
- rates of disability among active members
- the age patterns of actual retirement

In a valuation, the monetary effect of each activity is calculated for as long as a present covered person survives - -  
- a period of time which can be as long as a century.

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Actual activities of the system will not coincide exactly with assumed activities due to the nature of the activities. Each valuation provides a complete recalculation of assumed future activities and takes into account the effect of differences between assumed and actual activities to date. The result is a continual series of adjustments (usually small) to the computed contribution rate.

From time-to-time one or more of the assumptions are modified to reflect experience trends (but not random or temporary year-to-year fluctuations).

The assumptions regarding the INVESTMENT RETURN rate, INFLATION rate, REAL INVESTMENT RETURN rate, and SALARY INCREASE rates were revised effective September 30, 1987. These assumptions are used, in combination with the other assumptions, to (i) determine the present value of amounts expected to be paid in the future and (ii) establish rates of contribution which are expected to remain relatively level as a percent of active member payroll.

**INVESTMENT RETURN.** 8% per annum compounded annually, net of investment expenses.

**INFLATION.** 5% per annum, compounded annually. This is the rate at which growth in the supply of money and credit is assumed to exceed growth in the supply of goods and services. It may be thought of as the rate of depreciation of the purchasing power of the dollar. There are a number of indices for measuring the inflation rate. The recent inflation rate, as measured by the Consumers Price Index, has been:

	<b>Year Ended September 30</b>					
	<b>2010</b>	<b>2009</b>	<b>2008</b>	<b>2007</b>	<b>2006</b>	<b>Average for Period</b>
Actual	1.1%	(1.3%)	4.9%	2.8%	2.1%	1.9%
Assumed	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%

**REAL INVESTMENT RETURN.** 3% per annum, compounded annually net of investment expenses. This is the rate of return assumed to be produced by investing a pool of assets in an inflation-free environment. Recent real investment return for the Retirement System has been:

	<b>Year Ended September 30</b>					
	<b>2010</b>	<b>2009</b>	<b>2008</b>	<b>2007</b>	<b>2006</b>	<b>Average for Period</b>
Total Rate of Return	3.0%	1.5%	5.3%	11.3%	8.4%	5.9%
less investment expenses	0.3	0.3	0.5	0.5	0.5	0.4
Net Rate of Return	2.7	1.2	4.8	10.8	7.9	5.5
less inflation rate	1.1	(1.3)	4.9	2.8	2.1	1.9
Net Real Rate of Return	1.6	2.5	(0.1)	8.0	5.8	3.6
<b>Assumed Real Rate</b>	<b>3.0%</b>	<b>3.0%</b>	<b>3.0%</b>	<b>3.0%</b>	<b>3.0%</b>	<b>3.0%</b>
<b>Assumed Net Rate</b>	<b>8.0%</b>	<b>8.0%</b>	<b>8.0%</b>	<b>8.0%</b>	<b>8.0%</b>	<b>8.0%</b>

The total investment return rate was computed using the approximate formula  $i = I$  divided by  $1/2 (A + B - I)$ , where  $I$  is actual realized investment income plus market value adjustments,  $A$  is the beginning of year asset value, and  $B$  is the end of year asset value.

The preceding investment return rates reflect the particular characteristics of this Retirement System and should not be used to measure an investment advisor's performance or for comparison with other retirement systems. Such use will usually mislead.

**SALARY INCREASES.** Employee salaries are assumed to increase between the date of hire and date of retirement or DROP election, if earlier. Salary increases occur in recognition of (i) individual merit and seniority, (ii) inflation-related depreciation of the purchasing power of salaries, and (iii) competition from other employers for personnel. A schedule of assumed rates of increase in individual salaries for sample ages follows:

<b>Attributable to:</b>	<b>Annual Rates of Salary Increase for Sample Ages</b>				
	<b>20</b>	<b>30</b>	<b>40</b>	<b>50</b>	<b>60</b>
Merit & Seniority	3.8 %	2.7 %	2.1 %	1.1 %	0.2 %
General Increase in Wage Level Due to:					
Inflation	5.0	5.0	5.0	5.0	5.0
Other Causes	0.5	0.5	0.5	0.5	0.5
<b>Totals</b>	<b>9.3 %</b>	<b>8.2 %</b>	<b>7.6 %</b>	<b>6.6 %</b>	<b>5.7 %</b>

A schedule of recent salary change experience, as measured by average reported pay, follows:

	<b>Year Ended September 30</b>					<b>Average 10-Year</b>
	<b>2010</b>	<b>2009</b>	<b>2008</b>	<b>2007</b>	<b>2006</b>	
% Change: Actual*	3.1 %	16.1 %	6.5 %	3.0 %	10.8 %	
Assumed	7.7	7.7	7.7	7.7	7.7	
% Change in Total Payroll	(2.8)	9.9	2.0	(2.4)	9.0	9.1 %

\* Based on members who were active throughout the year.

In order to achieve the funding objective of a contribution rate which remains level as a percent-of-payroll, the total rate of investment return must exceed the rate of average increase in salaries by an amount equal to the assumed real investment return rate. The following schedule illustrates the recent history of the relationship between total investment return and average pay changes.

	<b>Year Ended September 30</b>					<b>Average 5-Year</b>
	<b>2010</b>	<b>2009</b>	<b>2008</b>	<b>2007</b>	<b>2006</b>	
Net Rate of Investment Return	3.0%	1.5%	5.3%	11.3%	8.4%	5.9%
Rate of Change in Average Pay	3.1	16.1	6.5	3.0	10.9	7.9
Difference: Actual	(0.1)	(14.6)	(1.2)	8.3	(2.5)	(2.0)
Target	3.0	3.0	3.0	3.0	3.0	3.0

**MORTALITY TABLE.** The 1983 Group Annuity Mortality Table, set back 6 years for females.

<b>Sample Ages</b>	<b>Value of</b>		<b>Future Life</b>	
	<b>\$1 Monthly for Life</b>		<b>Expectancy (Years)</b>	
	<b>Men</b>	<b>Women</b>	<b>Men</b>	<b>Women</b>
50	\$132.10	\$139.24	29.18	34.68
55	124.57	133.42	24.82	30.08
60	115.04	126.21	20.64	25.68
65	103.26	117.13	16.69	21.46
70	90.18	105.77	13.18	17.45
75	76.40	92.85	10.15	13.84
80	62.65	79.21	7.64	10.72

This assumption is used to measure the probabilities of members dying before retirement and the probabilities of each benefit payment being made after retirement.

**RATES OF SEPARATION FROM ACTIVE MEMBERSHIP.** The rates do not apply to members eligible to retire and do not include separation on account of death or disability. This assumption measures the probabilities of active members remaining in employment.

<b>Sample Ages</b>	<b>Years of Service</b>	<b>Percent Separating Within Next Year</b>
ALL	0	15.00 %
	1	10.00
	2	8.00
	3	7.00
	4	6.00
20	5 & Over	5.00
25		5.00
30		4.50
35		3.55
40		1.45
45		0.75
50		0.75
55		0.75
60		--

**RATES OF DISABILITY.** This assumption measures the probabilities of active members becoming disabled.

<b>Sample Ages</b>	<b>Percent Becoming Disabled Within Next Year</b>	
	<b>Men</b>	<b>Women</b>
20	0.07 %	0.03 %
25	0.09	0.05
30	0.10	0.07
35	0.14	0.13
40	0.21	0.19
45	0.32	0.28
50	0.52	0.45
55	0.92	0.76
60	1.53	1.10
65	1.65	0.98

The mortality table was set forward 10 years from the age at disability projecting disability costs. 50% of Firefighters disabilities were assumed to be duty related.

**RATES OF RETIREMENT.** This assumption measures the probabilities of eligible members retiring or electing DROP during the next year.

<b>Age &amp; Service</b>		<b>Rule of 65</b>		<b>Service Based</b>	
<b>Retirement Ages</b>	<b>Percent Retiring</b>	<b>Age Plus Service</b>	<b>Percent Retiring</b>	<b>Service Based</b>	<b>Percent Retiring</b>
50	70%	65	70%	20	70%
51	70	66	70	21	70
52	70	67	70	22	70
53	70	68	70	23	70
54	70	69	70	24	70
55	100	70	100	25	100

**Summary of Assumptions Used  
September 30, 2010  
Miscellaneous and Technical Assumptions**

**VESTED MEMBERS** who terminate with a benefit worth less than 100% of their own accumulated contributions were assumed to elect a refund and forfeit their vested benefit.

**ADMINISTRATIVE EXPENSES** are reimbursed on a retrospective basis by an addition to the Town contribution rate.

**ACTIVE MEMBER GROUP SIZE.** The number of active members was assumed to remain constant. This is unchanged from previous valuations.

**EARNINGS** reported for actuarial valuation include all amounts included in average earnings for benefit purposes. Non-recurring amounts were excluded for purposes of projected future earnings.

**INVESTMENT EXPENSES** are an offset against total investment income.

**MARRIAGE PROPORTION.** 90% of active members who meet the age and service requirements for pre-retirement survivor benefits are assumed to be married. In each case the male was assumed to be 3 years older than the female.

**LUMP SUM PAYMENTS** for unused accumulated leave time are excluded in determining pension amounts pursuant to the Town of Palm Beach Code of Ordinances.

**PAY INCREASE TIMING.** Beginning of (Fiscal) year. This is equivalent to assuming that reported pays represent amounts paid to members during the year ended on the valuation date.

**DECREMENT TIMING.** Decrements of all types are assumed to occur mid-year.

**ELIGIBILITY TESTING.** Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.

**BENEFIT SERVICE.** Exact fractional service is used to determine the amount of benefit payable.

**DECREMENT RELATIVITY.** Decrement rates are used directly, without adjustment for multiple decrement table effects.

**DECREMENT OPERATION.** Disability and mortality decrements do not operate during the first 5 years of service. Disability and withdrawal do not operate during retirement eligibility.

**NORMAL FORM OF BENEFIT.** The assumed normal form of benefit is 75% joint & survivor for married members and the 10 year certain form for single members.

**LOADS.** None.

**INCIDENCE OF CONTRIBUTIONS.** Contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report, and the actual payroll payable at the time contributions are made. New entrant normal cost contributions are applied to the funding of new entrant benefits.

## Definitions of Technical Terms

**ACCRUED SERVICE.** Service credited under the System which was rendered before the date of the actuarial valuation.

**ACTUARIAL ACCRUED LIABILITY.** The difference between the actuarial present value of future benefit payments and the actuarial present value of future normal costs. Also referred to as "accrued liability" or "past service liability."

**ACTUARIAL ASSUMPTIONS.** Estimates of expected future experience with respect to rates of mortality, disability, separation, retirement, rate or rates of investment income and salary increases. Decrement estimates (rates of mortality, disability, separation and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic estimates (salary increases and investment income) consist of the underlying rates in an inflation-free environment plus a provision for a long-term average rate of inflation.

**ACTUARIAL COST METHOD.** A mathematical budgeting procedure for allocating the dollar amount of the "actuarial present value of future benefit payments" between future normal cost and actuarial accrued liabilities. Sometimes referred to as the "actuarial valuation cost method."

**ACTUARIAL EQUIVALENT.** A single amount or series of amounts of equal actuarial present value to another single amount or series of amounts, computed on the basis of appropriate actuarial assumptions.

**ACTUARIAL PRESENT VALUE.** The amount of funds currently required to provide a payment or series of payments in the future. It is determined by discounting future payments at predetermined rates of interest, and by probabilities of payment. Also referred to as "present value."

**AMORTIZATION.** Paying off an interest-discounted amount with periodic payments of interest and principal -- as opposed to paying it off with a lump sum payment.

**EXPERIENCE GAIN (LOSS).** The difference between actual actuarial costs and assumed actuarial costs -- during the period between two valuation dates.

**FUNDING VALUE OF ASSETS.** Also referred to as actuarial value of assets, smoothed market value of assets, or valuation assets.

Valuation assets recognize assumed investment return fully each year. Differences between actual and assumed investment return are phased in over a closed 5-year period. During periods when investment performance exceeds the assumed rate, valuation assets will tend to be less than market value. During periods when investment performance is less than the assumed rate, valuation assets will tend to be greater than market value. If assumed rates are exactly realized for 4 consecutive years, valuation assets will become equal to market value.

**NORMAL COST.** The actuarial cost allocated to the current year by the actuarial cost method. Sometimes referred to as "current service cost."

**UNFUNDED ACTUARIAL ACCRUED LIABILITIES.** The difference between actuarial accrued liabilities and the actuarial value of System assets. Sometimes referred to as "unfunded past service liability," "unfunded accrued liability" or "unfunded supplemental present value."

Most retirement systems have unfunded actuarial accrued liability. It arises each time new benefits are added and each time an experience loss is realized.

The existence of unfunded actuarial accrued liability is not in itself bad, any more than a mortgage on a house is bad. Unfunded actuarial accrued liability does not represent a debt that is payable today. What is important is the ability to control the amount of unfunded actuarial accrued liability and the trend in its amount (after due allowance for devaluation of the dollar).

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## **SECTION E**

### **CERTAIN DISCLOSURES REQUIRED BY STATEMENT NO. 25 OF THE GOVERNMENTAL ACCOUNTING STANDARDS BOARD**

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**This information is presented in draft form for review by the System's auditor. Please let us know if there are any items that the auditor changes so that we may maintain consistency with the System's financial statements.**

**GASB Statement No. 25**  
**Required Supplementary Information**  
(\$ Amounts in Thousands)

**Schedule of Funding Progress\***

Actuarial Valuation Date Sept. 30	Actuarial Value of Assets	Actuarial Accrued Liability (AAL) -- Entry-Age--	Funded Ratio	Unfunded AAL (UAAL)	Covered Payroll	UAAL as a % of Covered Payroll
1999 (a)	\$113,770	\$98,866	115.1 %	(\$14,904)	\$14,422	- %
2000 (a)	81,196	69,425	117.0	(11,771)	6,230	-
2001 (a)	91,992	82,361	111.7	(9,631)	7,064	-
2002	86,446	88,991	97.1	2,545	7,769	32.8
2003	88,091	94,991	92.7	6,900	8,558	80.6
2004 (a)	44,080	51,703	85.3	7,623	4,444	171.5
2005 (a)	45,765	59,314	77.2	13,549	5,237	258.7
2006	49,236	64,220	76.7	14,984	5,710	262.4
2007	54,723	67,027	81.6	12,304	5,573	220.8
2008	57,652	71,813	80.3	14,161	5,823	243.2
2009	57,852	78,139	74.0	20,287	6,398	317.1
<b>2010</b>	<b>59,219</b>	<b>81,598</b>	<b>72.6</b>	<b>22,379</b>	<b>6,219</b>	<b>359.8</b>

**Schedule of Employer Contributions\***

Fiscal Year Ending Sept. 30	Contribution Rates as Percents of Valuation Payroll	Computed Dollar Contribution Based on Projected Payroll#	Actual Dollar Contribution	Percentage Contributed
2003 (a)	20.67 %	\$1,582	\$1,347	100.00 %
2004	32.32	2,721	2,510	100.00
2005	34.73	1,531	1,466	100.00
2006 (a)	39.34	1,796	1,701	100.00
2007 (a)	45.97	2,609	2,610	100.00
2008	46.47	2,875	2,875	100.00
2009	44.86	2,709	2,709	100.00
2010	47.50	2,997	2,997	100.00
2011	51.06	3,540		
<b>2012</b>	<b>53.12</b>	<b>3,580</b>		

(a) After changes in benefit provisions and/or actuarial assumptions and/or actuarial cost methods.

\* Beginning with valuation date September 30, 2000, excludes General and Ocean Rescue members.  
Beginning with valuation date September 30, 2004, excludes Police members.

# In years where the computed contribution exceeds the actual contribution, the difference was funded by the Reserve for Employer Contributions.

## GASB Statement No. 25 Required Supplementary Information

The information presented in the required supplementary schedules was determined as part of the actuarial valuations at the dates indicated. Additional information as of the latest actuarial valuation follows:

Valuation date	September 30, 2010
Actuarial cost method	Entry-Age
Amortization method	Level percent of payroll
Remaining amortization period*	1 - 30 years
Asset valuation method	5-year smoothed market
Actuarial assumptions	
Investment rate of return	8.00%
Projected salary increases	9.8% to 6.2%
Includes inflation and other general increases at	5.5%
Cost-of-living adjustments	Members who retire after 9-30-68 and prior to 10-1-90 receive an annual 1.0% increase computed on the base benefit. Members after 9-30-90 will be increased 2.0% annually based on total pension after a 3 year deferral period. Other adjustments have been made periodically.

Membership of the plan consisted of the following at September 30, 2010, the date of the latest actuarial valuation:

Retirees and beneficiaries receiving benefits	89
Terminated plan members entitled to but not yet receiving benefits	1
Active plan members	
Vested	26
Non-vested	43
	43
<b>Totals</b>	<b>159</b>

\* The periods are in compliance with Florida Statutes and Actuarial Standards of Practice.

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## **SECTION F**

### STATE REQUIRED DATA

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**Actuarial Present Value of Accrued Benefits**  
**(\$ Amounts in Thousands)**

	<u>September 30, 2010</u>	<u>September 30, 2009</u>
(i) Actuarial present value of active member benefits:		
Service retirement	\$45,939	\$45,357
Vested termination benefits	1,307	1,365
Disability retirement	686	708
Survivor benefits (pre-retirement)	478	494
Termination benefits - refunds	153	174
Totals	<u>48,564</u>	<u>48,098</u>
 (ii) Actuarial present value of terminated vested members	 106	 98
(iii) Actuarial present value of retired member & beneficiary	48,286	46,211
(iv) Reserves	0	0
(v) Total actuarial present value of future benefit payments	96,956	94,408
(vi) Present value of active member future payroll	40,929	43,851
(vii) Present value of future active member contributions	2,791	2,991
(viii) Active member accumulated contributions	4,035	3,531
(ix) Actuarial accrued liability using projected unit credit funding method	79,494	75,850

**Summary of Valuation Results in State Format**  
**(\$ Amounts in thousands)**

	<u>September 30, 2010</u>	<u>September 30, 2009</u>
Actuarial Present Value of Accrued Benefits		
(calculated in accordance with FASB Statement No. 35)		
(i) Vested accrued benefits		
Retired members and beneficiaries	\$48,286	\$46,211
Terminated members	106	98
Active members (includes non-forfeitable accum. member contributions)	20,950	19,420
Total	69,342	65,730
(ii) Non-vested accrued benefits	3,437	2,774
(iii) Total actuarial p.v. of accrued benefits	72,779	68,504
(iv) Actuarial p.v. of accrued benefits at begin. of year	68,504	64,015
(v) Changes attributable to:		
Amendments	-	-
Assumption change	-	-
Operation of decrements	7,952	8,047
Benefit payments	(3,677)	(3,558)
Expenses	-	-
(vi) Net change	4,275	4,489
(vii) Actuarial p.v. of accr. benefits at end of year	72,779	68,504

## Reconciliation of Membership Data

### A. Active Members

1. Number Included in Last Valuation	73
2. New Members Included in Current Valuation	
3. Non-Vested Employment Terminations	(1)
4. Vested Employment Terminations	
5. Service Retirements	(1)
6. DROP Retirements	(2)
7. Disability Retirements	
8. Deaths	
9. Other (Transfer)	
10. Number Included in this Valuation	<u>69</u>

### B. Terminated Vested Members

1. Number Included in Last Valuation	1
2. Additions from Active Members	
3. Lump Sum Payments	
4. Payments Commenced	
5. Deaths	
6. Other	
7. Number Included in this Valuation	<u>1</u>

### C. Service Retirees, Disability Retirees and Beneficiaries

1. Number Included in Last Valuation	85
2. Additions from Active Members	3
3. Additions from Terminated Vested Members	
4. Removed (Deaths, Benefit Termination, Data Corrections)	(1)
5. Added (Beneficiaries/Data Corrections)	<u>2</u>
6. Number Included in this Valuation	89

**Number Eligible/Number Electing Normal Retirement  
During Year Ended September 30, 2010**

<b>Age</b>	<b>Number Eligible</b>	<b>Number Electing Normal Retirement</b>	
		<b>DROP</b>	<b>Regular</b>
41	1		
42	1		
46	2		
47	1		
49	1		
52	3	1	1
53	1	1	
<b>Totals</b>	<b>10</b>	<b>2</b>	<b>1</b>

May 11, 2011

Mr. William P. Hanes  
Pension Administrator  
William P. Hanes Consulting, Inc.  
249 Royal Palm Way, Room 301  
Palm Beach, Florida 33480

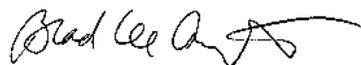
Dear Bill:

Please find enclosed fifteen copies of the Sixty-Fourth Annual Actuarial Valuation report of the Town of Palm Beach Firefighters Retirement System.

One copy should be sent, within 60 days to:

Department of Management Services  
Division of Retirement  
Bureau of Program Services  
P.O. Box 9000  
Tallahassee, Florida 32315-9000

Sincerely,



Brad Lee Armstrong  
ASA, EA, MAAA

BLA:bd

Enclosures

cc: Goldstein Schechter Koch  
Ms. Bonni S. Jensen

**Goldstein Schechter Koch**  
**4000 Hollywood Blvd., Suite 215**  
**South Hollywood, FL 33021**