

CITY OF SIOUX FALLS EMPLOYEE'S RETIREMENT SYSTEM FIFTY-NINTH ANNUAL ACTUARIAL VALUATION REPORT DECEMBER 31, 2009

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March 19, 2010

The Board of Trustees City of Sioux Falls Employee's Retirement System Sioux Falls, South Dakota

Ladies and Gentlemen:

Submitted in this report are the results of the fifty-ninth annual actuarial valuation of the assets, actuarial values and contribution requirements associated with benefits (pensions and postretirement health insurance) provided by the City of Sioux Falls Employee's Retirement System. The purpose of the valuation is to measure the System's funding progress and to determine contribution rates for the associated fiscal year.

The date of the valuation was December 31, 2009.

The valuation was based upon information, furnished by your Secretary, concerning Retirement System benefits, financial transactions, individual members, terminated members, retirees and beneficiaries. Data was checked for year-to-year consistency, but was not otherwise audited by us. The Appendix of this report includes retiree health valuation results based on assumptions and methods that comply with Governmental Accounting Standards Board (GASB) Statements No. 43 and No. 45 and with current actuarial standards of practice. This report may be provided to parties other than City of Sioux Falls only in its entirety and only with the permission of the Retirement System.

To the best of our knowledge this report is complete, accurate and was made in accordance with standards of practice prescribed by the Actuarial Standards Board and in compliance with the provisions governing the Retirement System. The actuarial assumptions used for the valuation produce results which we believe are reasonable. All actuaries submitting this report are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Respectfully submitted,

Louise M. Gates, ASA, MAAA Cathy Nagy, FSA, Et, MAAA John Mallows, ASA, MAAA

LMG/CN/JM:lr

### **SECTION A**

VALUATION RESULTS

#### FINANCIAL OBJECTIVE

The financial objective of the Retirement System is to establish and receive contributions, expressed as percents of active member payroll, which will remain approximately level from year-to-year and will accumulate reserves during members' working lifetimes which will be sufficient to pay promised benefits throughout retirement.

#### **CONTRIBUTION RATES**

The Retirement System is supported by member contributions, City contributions and investment income from Retirement System assets.

Contributions which satisfy the financial objective are determined by an annual actuarial valuation and are sufficient to:

- (1) cover the actuarial present value of benefits assigned to the current year by the actuarial cost methods described in Section C (the normal cost); and
- (2) amortize over a period of future years the actuarial present value of benefits not covered by valuation assets and anticipated future normal costs (unfunded actuarial accrued liability).

Pension contribution requirements for the year beginning January 1, 2011 are shown on page A-2.

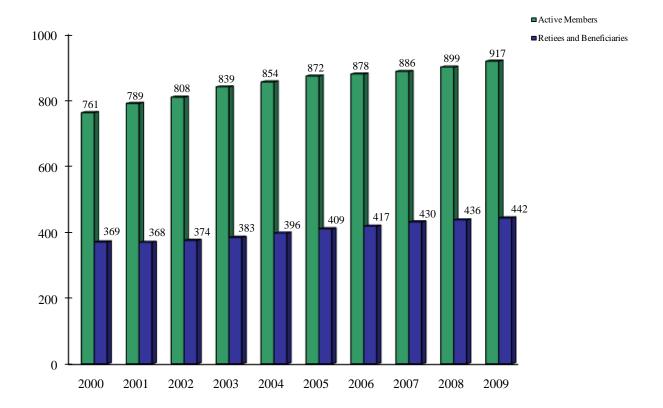
## PENSION CONTRIBUTIONS COMPUTED TO MEET THE FINANCIAL OBJECTIVE OF THE RETIREMENT SYSTEM FOR THE YEAR BEGINNING JANUARY 1, 2011

Contributions Expressed

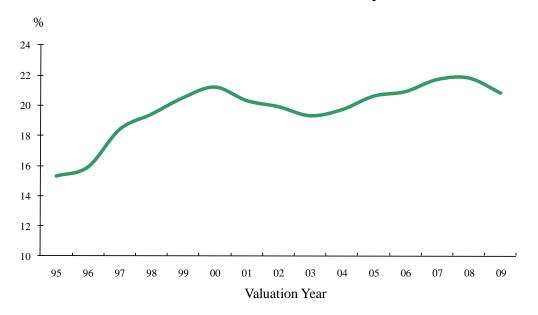
	As Percents of Payroll			
Contributions for	General/Management	Police		
Normal Cost				
Age & service benefits	9.66%	16.71%		
Death and disability benefits	0.98	1.27		
Termination benefits				
Deferred age & service benefits	0.49	0.23		
Refunds of member contributions	0.47	1.09		
Total normal cost	11.60%	19.30%		
Unfunded Actuarial Accrued Liabilities (1)	4.57%	9.48%		
Total Contribution Requirement	16.17%	28.78%		
Member portion	3.00%	8.00%		
City-State portion	13.17%	20.78%		

<sup>(1)</sup> Unfunded accrued liabilities were amortized as a level percent of active member payroll over a period of 14 years.

#### **Active and Retired Members**



#### Pension Benefits as a Percent of Payroll



### COMPUTED CITY CONTRIBUTIONS COMPARATIVE STATEMENT

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Val	uation

	, 001020101011			
<b>Fiscal</b>	Date	% of Payroll Contributions		Weighted
Year	December 31	General	Police	Average
1997	1995	9.25	16.92	11.09
1998	1996	9.29	17.27	11.20
1999	1997 #	10.33	18.09	12.14
2000	1998 @	9.68	16.85	11.42
2001	1999	8.47	13.90	9.80
2002	2000 **	7.60	15.60	9.67
2003	2001 **	7.77	14.42	9.45
2004	2002	8.68	15.68	10.48
2005	2003	9.43	13.96	10.65
2006	2004 @	9.80	14.84	11.21
2007	2005	10.38	14.96	11.67
2008	2006	9.50	13.36	10.43
2009	2007 **@	9.33	14.58	10.80
2010	2008	10.93	17.66	12.73
2011	2009	13.17	20.78	15.15

<sup>@</sup> After changes in actuarial assumptions or methods.

<sup>#</sup> After changes in benefit provisions.

<sup>\*\*</sup> Reflects full funding credit.

### ACTUARIAL BALANCE SHEET - DECEMBER 31, 2009

#### **Present Pension Resources and Expected Future Pension Resources**

	General	Police	Total		
A. Valuation assets	\$161,979,408	\$ 86,975,518	\$248,954,926		
B. Actuarial present value of expected future employer contributions					
For normal costs	27,660,414	15,849,232	43,509,646		
For unfunded actuarial accrued liabilities	19,590,847	15,232,056	34,822,903		
3. Total	47,251,261	31,081,288	78,332,549		
C. Actuarial present value of expected					
future member contributions	10,077,462	11,431,978	21,509,440		
D. Total actuarial present value of present and expected future resources	\$219,308,131	\$129,488,784	\$348,796,915		
Actuarial Present Value of Expected Future Pension Benefit Payments and Reserves					
A. To retirees and beneficiaries	\$ 79,898,627	\$ 50,385,760	\$130,284,387		
B. To vested terminated members	3,396,408	434,831	3,831,239		
C. To present active members					
<ol> <li>Allocated to service rendered prior to valuation date</li> <li>Allocated to service likely to be</li> </ol>	98,275,220	51,386,983	149,662,203		
rendered after valuation date	37,737,876	27,281,210	65,019,086		
3. Total	136,013,096	78,668,193	214,681,289		
D. Reserves					
1. Allocated to retirants and beneficiaries	0	0	0		
2. Unallocated investment income	0	0	0		
3. Total	0	0	0		
E. Total actuarial present value of expected future benefit payments and reserves	\$219,308,131	\$129,488,784	\$348,796,915		

#### DERIVATION OF ACTUARIAL GAIN (LOSS) YEAR ENDED DECEMBER 31, 2009

The actuarial gains or losses realized in the operation of the Retirement System provide an experience test. Gains and losses are expected to cancel each other over a period of years (in the absence of double-digit inflation) and sizable year-to-year fluctuations are common. Details of the derivation of the actuarial gain (loss) are shown below.

	General	Police
(1) UAAL* at start of year	\$9,377,689	\$10,004,777
(2) Normal cost	4,347,186	2,711,509
(3) Actual contributions	4,549,638	3,182,250
(4) Interest accrual	718,926	757,129
(5) Expected UAAL before changes	9,894,163	10,291,165
(6) Change from benefit increases		
(7) Change from revised actuarial assumptions		
(8) Expected UAAL after changes	9,894,163	10,291,165
(9) Actual UAAL at end of year	19,590,847	15,232,056
(10) Gain (loss) (8) - (9)	(9,696,684)	(4,940,891)
(11) Gain (loss) as percent of AAL at start of year	(5.80)%	(5.26)%

<sup>\*</sup> Unfunded actuarial accrued liability.

#### **COMMENTS**

Comment A: Retirement System experience was overall unfavorable during the year ended December 31, 2009. The primary source of unfavorable experience was investment return. During calendar year 2009 the return on the market value of assets was higher than long term expectations. However, the market smoothing techniques used in this valuation of the System recognize both past and present investment experience. Due to the large prior year's investment loss, the recognized rate of return for the year was 4.20%. Additional information about the asset smoothing method is shown on page B-4. Higher than expected pay increases due to the additional pay period in calendar year 2009 contributed to the unfavorable experience.

Given the current state of capital markets and unrecognized investment losses from the prior year, it is likely that the Retirement System will continue to experience investment losses in the near term. In the absence of significant offsetting favorable experience, contribution increases are likely in the near term.

**Comment B:** The Appendix of this report includes the results of the retiree health valuation using assumptions and methods required by the Governmental Accounting Standards Board (GASB). The City has decided to make contributions to the retiree health plan at the recommended rates using the methods and assumptions that comply with the new GASB Statements. The Appendix of this report includes important additional information about this valuation.

Comment C: The Internal Revenue Code (IRC) Section 401(h) allows a pension plan to establish a separate account within the pension trust to pay benefits for sickness, accident, hospitalization and medical expenses of retired employees, their spouses and their dependents. In order for a pension plan to maintain its qualified status, the IRC Section 401(h) account must meet certain requirements, established by the code. An important (and often, the most restrictive) requirement is that employer contributions for medical benefits must be "subordinate" to the contributions for pension benefits. As a result of this requirement the maximum permissible employer health contribution (to the pension trust) may be insufficient to actuarially fund the promised benefits.

#### **COMMENTS (CONCLUDED)**

The results of the most recent analysis conducted in 2008 indicate that the retiree health contributions are subordinate to pension contributions as of December 31, 2007. As a result, the plan has not violated the limit imposed by IRC Section 401(h). We recommend that this analysis be performed in 2010 to ensure continued compliance.

**Comment D:** The current years' retiree health contributions were generally consistent with expectations. During 2009, retiree health cost increases were a bit higher than expectations. The increase in retiree payments for health coverage over the prior year was consistent with expectations. The assumed rates of medical inflation used in this valuation of the retiree health plan were modified to better reflect plan experience. Page 5 of the Appendix includes a summary of medical and dental rates of inflation used in this valuation.

# CONTRIBUTIONS COMPUTED TO MEET THE FINANCIAL OBJECTIVE OF THE RETIREMENT SYSTEM FOR THE FISCAL YEAR BEGINNING JANUARY 1, 2011 GENERAL/MANAGEMENT

**Contributions Expressed as Percents of Payroll** 

Contributions for	Pension	Health	Total
Total Normal Cost	11.60%	2.81%	14.41%
Unfunded Actuarial Accrued Liabilities	4.57%	2.08%	6.65%
Total Contribution Requirement	16.17%	4.89%	21.06%
Member portion	3.00%	0.00%	3.00%
City-State portion	13.17%	4.89%	18.06%

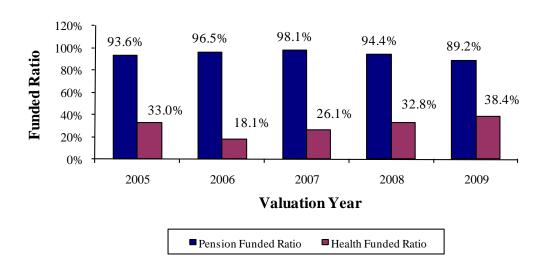
# CONTRIBUTIONS COMPUTED TO MEET THE FINANCIAL OBJECTIVE OF THE RETIREMENT SYSTEM FOR THE FISCAL YEAR BEGINNING JANUARY 1, 2011 POLICE

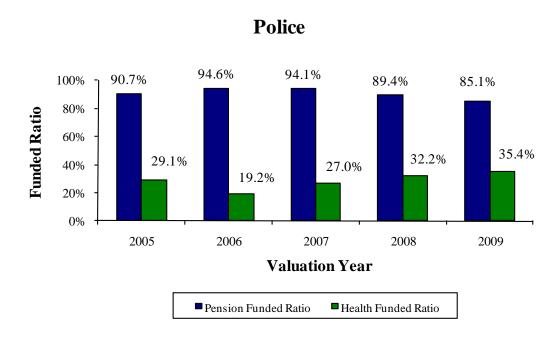
#### **Contributions Expressed as Percents of Payroll**

Contributions for	Pension	Health	Total
Total normal cost	19.30%	4.13%	23.43%
Unfunded Actuarial Accrued Liabilities	9.48%	3.53%	13.01%
Total Contribution Requirement	28.78%	7.66%	36.44%
Member portion	8.00%	0.00%	8.00%
City-State portion	20.78%	7.66%	28.44%

### FUNDED RATIO HISTORY PENSION AND RETIREE HEALTH

#### **General/Management**





Effective with the 2006 actuarial valuation the health funded ratio was based on the results of an actuarial valuation that complies with GASB Statements No. 43 and No. 45. Please refer to the Appendix for additional information.

# SECTION B SUMMARY OF BENEFIT PROVISIONS AND VALUATION DATA

## BENEFIT PROVISIONS EVALUATED AND/OR CONSIDERED (DECEMBER 31, 2009)

#### **Regular Unreduced Retirement:**

*Eligibility* - General members: age 55 with 30 or more years of service, or age 60 with 5 years of service.

Police: age 50 with 25 years of service, or age 60 with 15 years of service.

Mandatory Retirement Age - Police: age 60 (age 65 with employer consent).

Annual Amount - General members: 1.8% of final average pay times years of service. Police: final average pay times the sum of a) 2.5% times the first 25 years of service, plus b) 1.5% times service in excess of 25 years.

Type of Final Average Pay - Highest 3 consecutive years out of last 10. Some lump sums are included.

#### **Early Reduced Retirement:**

Eligibility - 20 or more years of service.

Annual Amount - Same as regular retirement except that the benefit is actuarially reduced.

#### **Deferred Retirement (vested benefit):**

Eligibility - General Members: 5 years of service. Benefit commences at age 60.

Police: 15 years of service. Benefit commences at deferred retirement age.

Annual Amount - Computed as a regular retirement benefit based on service and final average pay at termination.

#### **Duty Disability Retirement:**

Eligibility - No age or service requirement.

Annual Amount - Computed as a regular retirement benefit. If disabled before eligible for regular retirement, additional service is credited for the period between disability and the time member would have been eligible for regular retirement if he had not been disabled. Minimum benefit is 12.5% of final average pay for general members and 20% of final average pay for police. Worker's Compensation payments are offset.

## BENEFIT PROVISIONS EVALUATED AND/OR CONSIDERED (DECEMBER 31, 2009)

#### **Non-Duty Disability Retirement:**

Eligibility - 10 years of service.

Annual Amount - Computed as a regular retirement benefit based on service and final average pay at time of disability. Worker's Compensation payments are offset.

#### **Duty Death Before Retirement:**

Eligibility - No age or service requirement. Worker's Compensation must be payable.

Annual Amount - Refund of accumulated contributions. Spouse receives pension of 1/3 of final average pay until death. Unmarried children under age 18 or an eligible handicapped child each receive an equal share of 1/6 of final average pay (if no spouse each child receives 1/4 to a maximum of 1/2). If no spouse or eligible children, dependent parents each receive 1/6 of final average pay (each parent's pension limited to \$600 annually). Worker's Compensation payments are offset.

#### **Non-Duty Death Before Retirement:**

*Eligibility* - 10 years of service.

Annual Amount - Spouse (or some other dependent if an Option B election was in force) receives a benefit computed as regular retirement benefit but actuarially reduced in accordance with a 100% joint and survivor election. Minimum benefit is \$360 annually. If no Option B election is in force, each unmarried child under age 18 or an eligible handicapped child receives \$2,400 annually. If no Option B election is in force and there is no eligible spouse, member contributions are refunded.

**Post-Retirement Cost-of-Living Adjustments:** Annual increase equal to 100% of the June CPI of each year (with a cap of 3%) applied to the member's current benefit. The first increase will be granted after 36 months of retirement.

**Member Contributions:** Police: 8% of compensation.

Elected officials, appointed officers and management

employees: 3.0% of compensation. Other members: 3.0% of compensation.

#### REPORTED FUND BALANCES (MARKET VALUE)

Reporte	h	Fund	Ral	ances
IXCDUILC	u	1 unu	Du	unces

	Keponcuru	nu Dalances
Reserves	December 31, 2008	December 31, 2009
Annuity Savings Fund		
General division	\$ 19,704,665	\$ 21,050,101
Police division	12,382,608	13,994,044
Totals	32,087,273	35,044,145
Employer Reserve Fund		
General division	40,835,152	68,445,730
Police division	18,424,363	32,391,992
Totals	59,259,515	100,837,722
Retirement Reserve Fund		
General division	53,517,644	54,276,264
Police division	42,261,517	42,266,846
Totals	95,779,161	96,543,110
Income Fund	0	0
Expense Fund	190,590	196,893
Total Balances	\$187,316,539	\$232,621,870

#### **DERIVATION OF VALUATION ASSETS**

	Pensions	Health	Grand Total
A. Funding Value, 12/31/08	\$241,784,990	\$10,718,920	\$252,503,910
B. Market Value, Beginning of Year			187,316,539
C. Non-Investment Net Cash Flow			(568,826)
D. Net Investment Income (Market total)			45,874,157
E. Market Valva End of Vaca			222 621 970
E. Market Value, End of Year			232,621,870
F. Phase-in Factor			20%
G. Expected Income			19,547,011
H. Market Value Gain (Loss): [(D) – (G)]			26,327,146
I. Method Change			
J. Recognition of Gain/(Loss)			
J1. Year One			5,265,429
J2. Year Two			(18,293,260)
J3. Year Three			354,503
J4. Year Four			3,302,352
J5. Year Five			<u>317,453</u>
J6. Total (J1J5)			(9,053,523)
K. Funding Value, 12/31/09			
[(A) + (C) + (G) + (J6)]			262,428,572
L. Net Funding Value Rate of Return			4.2%
M. Percent Allocation (to pension and health)*	94.9%	5.1%	100.0%
N. Allocated Funding Value, 12/31/2009	\$248,954,926	\$13,473,646	\$262,428,572
11. Anocated Funding value, 12/31/2007	ψ <b>∠+</b> 0,33 <b>4</b> ,320	φ1 <i>3</i> , <del>4</del> 73,040	φ202, <del>4</del> 20,312

<sup>\*</sup> Rounded

#### SUMMARY OF CURRENT ASSET INFORMATION REPORTED FOR VALUATION

#### **Trust Assets**

	December 31, 2009  Market Value
Cash	\$ 1,129,751
Receivables & accruals	729,750
Investments	230,762,369
Less accounts payable	0
Total assets	\$232,621,870

#### **Revenues and Expenditures of Trust**

	2009	2008
Balance - January 1	\$187,316,539	\$260,388,129
Revenues		
Employee's contributions	2,272,170	2,065,615
Employer contributions	8,433,917	7,710,786
Investment income	46,453,891	(71,138,091)
Other income	0	0
Expenditures		
Benefit payments	10,471,659	10,005,006
Hospitalization insurance	712,478	763,261
Refunds of member contributions	90,776	275,474
Expenses	579,734	666,159
Miscellaneous	0	0
Balance - December 31	\$232,621,870	\$187,316,539

## MARKET VALUE OF ASSETS REPORTED FOR VALUATION COMPARATIVE STATEMENT

Year	Assets	Revenues						
Ended	Beginning	Employee	Employer	Investment	Retirement	Contrib.	Misc.	Assets
<b>Dec. 31</b>	of Year	Contrib.	Contrib.	Income	Benefits	Refunds	Expenses*	Year-End
1995	\$ 77,570,516	\$1,322,338	\$3,191,204	\$ 18,315,824	\$3,299,025	\$ 168,376	\$ 521,138	\$ 96,411,343
1996	96,411,343	1,485,256	3,369,320	12,535,654	3,782,793	83,772	510,740	109,424,268
1997	109,424,268	1,540,007	3,341,706	17,474,254	4,202,853	189,073	533,763	126,854,546
1998	126,854,546	1,462,159	3,723,334	14,571,870	4,998,076	114,099	504,691	140,995,043
1999	140,995,043	1,193,764	3,746,140	20,287,090	5,421,649	160,909	394,037	160,245,442
2000	160,245,442	1,249,943	3,667,166	(539,610)	5,847,524	177,771	438,219	158,159,427
2001	158,159,427	1,359,825	3,537,191	(1,535,524)	6,190,412	237,070	541,518	154,551,919
2002	154,551,919	1,442,154	3,896,795	(14,929,083)	6,600,911	182,350	664,456	137,514,068
2003	137,514,068	1,593,939	4,373,347	36,238,185	6,915,649	132,505	703,505	171,967,880
2004	171,967,880	1,718,969	5,261,202	24,644,820	7,403,924	188,094	758,667	195,242,186
2005	195,242,186	1,829,649	5,769,159	17,035,074	8,014,168	182,999	1,055,818	210,623,083
2006	210,623,083	1,907,951	5,975,325	33,030,851	8,662,750	189,338	1,253,516	241,431,606
2007	241,431,606	2,001,290	7,896,489	19,937,351	9,262,791	199,779	1,416,037	260,388,129
2008	260,388,129	2,065,615	7,710,786	(71,138,091)	10,005,006	275,474	1,429,420	187,316,539
2009	187,316,539	2,272,170	8,433,917	46,453,891	10,471,659	90,776	1,292,212	232,621,870

<sup>\*</sup> Includes retiree health benefits.

## ADDITIONS TO AND REMOVALS FROM RETIRED/SURVIVOR MEMBERSHIP COMPARATIVE STATEMENT

Year		Additions	Re	emovals	End of Year Ave		Average	Average Present	
Ended		Annual		Annual		Annual	Annual	Value of	Expected
<b>Dec. 31</b>	No.	Benefits	No.	Benefits	No.	Benefits	Benefits	Benefits	Removals
1995	30	\$ 541,105	13	\$ 115,481	296	\$ 3,717,861	\$ 12,560	\$ 44,353,632	10.6
1996	25	516,018	13	163,629	308	4,070,250	13,215	48,501,396	11.6
1997	29	761,054	10	89,454	327	4,741,850	14,501	59,459,496	11.6
1998	25	594,946	5	38,762	347	5,298,034	15,268	66,486,000	9.8
1999	25	507,219	16	133,245	356	5,672,008	15,933	71,686,116	7.8
2000	27	544,081	14	59,225	369	6,156,864	16,685	76,925,868	10.9
2001	22	561,207	23	274,403	368	6,443,668	17,510	80,195,604	11.3
2002	21	397,601	15	140,349	374	6,700,920	17,917	82,787,796	11.2
2003	37	566,899	28	280,190	383	6,987,629	18,244	85,924,411	11.2
2004	24	749,117	11	159,821	396	7,576,925	19,134	90,336,864	11.3
2005	33	1,007,507	20	246,108	409	8,338,324	20,387	100,153,352	12.4
2006	25	802,970	17	281,824	417	8,859,470	21,246	105,705,500	12.5
2007	25	920,591	12	100,174	430	9,679,887	22,511	116,479,480	12.7
2008	21	707,365	15	251,647	436	10,135,605	23,247	124,265,687	13.0
2009	16	715,776	10	155,652	442	10,695,729	24,198	130,284,387	13.5

## RETIREES AND BENEFICIARIES AS OF DECEMBER 31, 2009 TABULATED BY TYPE OF BENEFITS BEING PAID

Type of Benefits Being Paid	No.	Annual Benefits
Age and Service Retirement Benefits	340	\$ 8,973,735
Disability Retirement Benefits	19	375,808
Survivor Retirement Benefits	83	1,346,186
Total Retirement Benefits Being Paid	442	\$10,695,729

## RETIREES AND BENEFICIARIES BY ATTAINED AGES AS OF DECEMBER 31, 2009

Attained		Annual				
Ages	No.	Benefits				
Under 40	2	\$ 14,630				
40 - 44	1	6,208				
45 - 49	3	46,831				
50 - 54 55 - 59	14 49	398,217 1,589,055				
60 - 64	98	2,950,770				
65 - 69	78	2,119,483				
70 - 74 75 - 79	71 59	1,536,127 1,146,749				
80 - 84	32	459,039				
85 - 89	26	340,333				
90 & Over	9	88,287				
Totals	442	\$10,695,729				

## VESTED FORMER MEMBERS AS OF DECEMBER 31, 2009 TABULATED BY ATTAINED AGES

Attained Ages	No.	Monthly Benefits
Under 40	8	\$ 43,701
40 - 44 45 - 49	6 10	50,230 108,424
50 - 54 55 - 59	14 16	136,035 188,588
Totals	54	\$526,978

## ACTIVE MEMBERS AS OF DECEMBER 31, 2009 TABULATED BY VALUATION DIVISIONS

		Annual		Average			
Valuation Groups	No.	Payroll	Age	Service	Pay	_	
General/Management Members	698	\$37,475,739	45.3 yrs.	12.5 yrs.	\$53,690		
Police Members	219	14,034,727	40.1	12.3	64,086		
Total Active Members	917	\$51,510,466	44.1	12.5	\$56,173		

### ACTIVE MEMBERS INCLUDED IN VALUATION COMPARATIVE SCHEDULE

Valuation										
Date	A	Active Member	S	Valuation	Average					
December 31	General	Police	Totals	Payroll	Age	Service	Pay	% Incr.		
1995	568	155	723	\$24,295,495	43.0	11.9	\$33,604	1.3 %		
1996	575	160	735	25,525,258	42.0	11.8	34,728	3.3		
1997	571	158	729	25,830,779	42.2	11.8	35,433	2.0		
1998	573	161	734	27,295,184	42.2	11.7	37,187	5.0		
1999	588	162	750	27,623,182	42.4	11.7	36,830	(1.0)		
2000	587	174	761	29,068,666	42.4	11.7	38,198	3.7		
2001	611	178	789	31,751,356	42.6	11.7	40,243	5.4		
2002	626	182	808	33,718,220	43.0	11.8	41,730	3.7		
2003	636	203	839	36,244,556	42.8	11.7	43,200	3.5		
2004	642	212	854	38,539,387	43.1	11.7	45,128	4.5		
2005	654	218	872	40,492,380	43.0	11.6	46,436	2.9		
2006	664	214	878	42,456,531	43.4	11.9	48,356	4.1		
2007	669	217	886	44,646,848	43.5	11.9	50,391	4.2		
2008	676	223	899	46,433,304	43.8	12.2	51,650	2.5		
2009	698	219	917	51,510,466	44.1	12.5	56,173	8.8		

### ADDITIONS TO AND REMOVALS FROM ACTIVE MEMBERSHIP ACTUAL AND EXPECTED NUMBERS

Number Added Year During Ended Year		Normal Disability Retirement Retiremen			•		d-In- vice	Other Terminations		Active Members End of	
Dec. 31	A	E	A	E	A	E	A	Е	A	Е	Year
1995	66	42	20	8.2	3	1.8	0	2.2	19	27.2	723
1996	45	33	17	8.3	0	2.1	1	2.2	15	30.3	735
1997	38	44	21	8.3	1	2.1	0	2.2	22	30.3	729
1998	45	50	21	7.8	1	1.6	0	0.9	23	26.8	734
1999	56	46	14	7.5	1	1.6	2	0.9	23	27.5	750
2000	68	57	17	11.0	2	1.1	0	1.0	38	27.9	761
2001	64	36	11	10.0	1	1.2	1	1.0	23	29.2	789
2002	66	47	11	13.7	0	1.3	0	1.1	36	30.2	808
2003	74	43	19	15.3	2	1.3	0	1.1	22	31.5	839
2004	65	50	17	15.1	1	1.3	1	1.2	31	33.2	854
2005	65	47	19	13.9	3	1.1	1	1.2	24	31.2	872
2006	56	50	14	14.0	0	1.1	0	1.2	36	31.4	878
2007	57	49	22	16.7	0	1.1	1	1.3	26	29.9	886
2008	54	41	11	18.5	1	1.2	0	1.3	29	29.9	899
2009	48	30	12	24.8	0	1.2	0	1.4	18	29.4	917
5 Year Totals	280	217	78	87.9	4	5.7	2	6.4	133	151.8	

A represents actual number.

E represents expected number based on assumptions outlined in Section C.

#### GENERAL/MANAGEMENT ACTIVE MEMBERS - DECEMBER 31, 2009 BY ATTAINED AGE AND YEARS OF SERVICE

		Year	s of Ser	vice on	Valuatio	n Date			Totals		
Attained									Valuation		
Age	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Payroll		
20.24	1.4							1.4	¢ 507.204		
20-24	14	1.1						14	\$ 507,284		
25-29	42	11	_					53	2,209,587		
30-34	52	27	7					86	4,253,744		
35-39	28	21	12	3				64	3,150,016		
40-44	19	29	16	12	2			78	4,563,508		
45-49	24	24	19	21	16	14		118	6,412,093		
50-54	10	19	20	22	21	17	22	131	7,514,113		
55-59	7	10	13	19	14	9	22	94	5,281,655		
60		2	1	3	2		2	10	639,088		
61	1			3	3		4	11	612,845		
62	1	3	3	2	3	2	2	16	895,563		
63		4	4				1	9	497,601		
64		1	1		1			3	229,481		
65			1			1		2	128,106		
66		1	1	1				3	175,913		
67		1		1				2	83,190		
68		1						1	110,873		
69					1			1	49,147		
71	1	1						2	161,932		
Totals	199	155	98	87	63	43	53	698	\$37,475,739		

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 45.3 years Service: 12.5 years Annual Pay: \$53,690

#### POLICE ACTIVE MEMBERS - DECEMBER 31, 2009 BY ATTAINED AGE AND YEARS OF SERVICE

		Ye	ears of Se	rvice on	Valuation	n Date		Totals			
Attained Age	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll		
8-									_ uj_u_		
25-29	24	3						27	\$ 1,415,368		
30-34	8	27	1					36	1,991,434		
35-39	2	27	17					46	2,844,412		
40-44	1	12	11	15	4			43	2,841,493		
45-49			5	7	19	2		33	2,460,885		
50-54		3	3	5	5	4	2	22	1,579,808		
55-59				3	5	1	2	11	838,367		
61					1			1	62,960		
Totals	35	72	37	30	34	7	4	219	\$14,034,727		

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 40.1 years Service: 12.3 years Annual Pay: \$64,086

#### **SECTION C**

ACTUARIAL METHODS AND ASSUMPTIONS AND DEFINITIONS OF TECHNICAL TERMS

#### ACTUARIAL COST METHODS USED FOR THE VALUATION

Normal cost and the allocation of actuarial present values between service rendered before and after the valuation date were determined using an individual entry-age actuarial cost method having the following characteristics:

- (i) the annual normal costs for each individual active member, payable from the member's actual date of employment to projected date of retirement, are sufficient to accumulate the actuarial present value of the member's benefit at the time of retirement;
- (ii) each annual normal cost is a constant percentage of the member's year-by-year projected covered pay.

#### Amortization of Unfunded Actuarial Accrued Liabilities for Pension Benefits

The unfunded actuarial accrued liability (UAAL) was determined using the funding value of assets and actuarial accrued liability calculated as of the valuation date. Except where indicated, the UAAL amortization payment (one component of the contribution requirement), is the level percent of pay required to fully amortize the UAAL over a 14 year period beginning on the date contributions determined by this report are scheduled to begin. This UAAL payment does not reflect any payments expected to be made between the valuation date and the date contributions determined by this report are scheduled to begin.

Active payroll was assumed to increase 4.25% a year for the purpose of determining the level percent contributions.

#### **ACTUARIAL ASSUMPTIONS IN THE VALUATION PROCESS**

The actuary calculates contribution requirements and actuarial present values of a retirement system by applying actuarial assumptions to the benefit provisions and census information of the system, using the actuarial cost methods described in this report.

The principal areas of risk which require assumptions about future experience are:

- (i) long-term rates of investment return to be generated by the assets of the system
- (ii) patterns of pay increases to members
- (iii) rates of mortality among members, retirees and beneficiaries
- (iv) rates of withdrawal of active members
- (v) rates of disability among active members
- (vi) the age patterns of actual retirements

In making a valuation, the actuary calculates the monetary effect of each assumption for as long as a present covered person survives - - - a period of time which can be as long as a century.

The employer contribution rate has been computed to remain level from year-to-year so long as benefits and the basic experience and make-up of members do not change. Examples of favorable experience which would tend to reduce the employer contribution rate are:

- (1) Investment returns in excess of 7.75% per year
- (2) Member non-vested terminations at a higher rate than outlined in this report
- (3) Mortality among retirees and beneficiaries at a higher rate than indicated by the 1983 Group Annuity Mortality Table
- (4) Increases in the number of active members

#### **ACTUARIAL ASSUMPTIONS IN THE VALUATION PROCESS**

Examples of unfavorable experience which would tend to increase the employer contribution rate are:

- (1) Pay increases in excess of the rates outlined in this report.
- (2) An acceleration in the rate of retirement from the rates outlined in this report.
- (3) A pattern of hiring employees at older ages than in the past.

Actual experience of the system will not coincide exactly with assumed experience, regardless of the choice of the assumptions, or the skill of the actuary and the precision of the calculations. Each valuation provides a complete recalculation of assumed future experience and takes into account all past differences between assumed and actual experience. 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).

Valuation assets are equal to reported market value of assets, with investment gains and losses spread over a period of 5 years, (with 20% recognition in each year). Such spreading reduces the fluctuation in the City's computed contribution rate which might otherwise be caused by market value fluctuations. The details of the spreading technique are shown in Section B of this report.

#### **ACTUARIAL ASSUMPTIONS USED FOR THE VALUATION**

#### **Investment Return** (net of expenses).

7.75% per year, compounded annually. This rate consists of a net real rate of return of 3.5% a year plus a long-term rate of wage inflation of 4.25% a year.

This assumption is used to equate the value of payments due at different points in time and was first used for the December 31, 2007 valuation. Approximate rates of investment return, for the purpose of comparisons with assumed rates, are shown below.

	Year Ended December 31,									
	2009	2008	2007	2006	2005					
Rate of Investment Return	4.2 %	3.0 %	12.8 %	10.2 %	7.1 %					

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

These rates of return should not be used for measurement of an investment advisor's performance or for comparisons with other systems -- *to do so will mislead*.

**Pay Projections:** These assumptions are used to project current pays to those upon which benefits will be based.

	Annual Rate of Pay Increase for Sample Ages			
Sample	Base	General/Management		
Ages	(Economic)	Merit and Longevity	Totals	
20	4.25 %	1.70 %	5.95 %	
25	4.25	1.60	5.85	
30	4.25	1.20	5.45	
35	4.25	0.90	5.15	
40	4.25	0.40	4.65	
45	4.25	0.30	4.55	
50	4.25	0.20	4.45	
55	4.25	0.20	4.45	
60	4.25	0.00	4.25	
65	4.25	0.00	4.25	

#### **ACTUARIAL ASSUMPTIONS USED FOR THE VALUATION**

**Annual Rate of Pay Increase for Indicated Years of Service** 

-	rimidal Rate of I	tay mercase for material	cars or service
Years of	Base	Police	
Service	(Economic)	Merit and Longevity	Total
1	4.25 %	4.00 %	8.25 %
2	4.25	4.00	8.25
3	4.25	4.00	8.25
4	4.25	4.00	8.25
5	4.25	4.00	8.25
6	4.25	3.00	7.25
7	4.25	3.00	7.25
8	4.25	2.00	6.25
9	4.25	2.00	6.25
10	4.25	1.00	5.25
11	4.25	1.00	5.25
12	4.25	1.00	5.25
13	4.25	1.00	5.25
14	4.25	1.00	5.25
15	4.25	0.00	4.25

The base economic assumptions were first used in the December 31, 2007 valuation.

**Lump sum payments** included in the calculation of the average pay upon which benefits are computed were assumed to increase benefits by 12% for members of the Police, General and Management divisions.

**Active Member Group Size:** The number of active members was assumed to remain constant. This assumption is unchanged from previous valuations.

## **ACTUARIAL ASSUMPTIONS USED FOR THE VALUATION**

If the number of active members remains constant, the total active member payroll is expected to increase 4.25% annually, the base portion of the individual pay increase assumptions. This increasing payroll was recognized in amortizing unfunded actuarial accrued liabilities.

Changes actually experienced in average pay and total payroll have been as follows:

_	Year Ended December 31,				
Increase in	2009	2008	2007	2006	2005
Average pay	8.8%	2.5%	4.2%	4.1%	2.9%
Total payroll	10.9	4.0	5.2	4.9	5.1

**Mortality Table:** The 1983 Group Annuity Mortality Table. This table was first used for the December 31, 1997 valuation. Sample values follow:

	<b>Actuarial Pre</b>	Actuarial Present Value of		re Life
Sample	\$1 Month	ly for Life	Expectar	ncy (Years)
Ages	Men	Women	Men	Women
55	\$127.14	\$137.81	24.82	30.24
60	117.18	129.90	20.64	25.67
65	104.97	119.83	16.69	21.29
70	91.48	107.29	13.18	17.13
75	77.33	92.89	10.15	13.37
80	63.28	78.10	7.64	10.20

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

## **ACTUARIAL ASSUMPTIONS USED FOR THE VALUATION**

**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 members remaining in employment.

		Percent Separat	ting		
Sample	Years of	Within Next Year			
Ages	Service	General/Management	Police		
ALL	0	12.00 %	13.00 %		
	1	11.00	8.00		
	2	9.00	5.00		
	3	7.00	4.00		
	4	5.00	3.50		
25	5 & Over	5.00	3.50		
30		5.00	3.00		
35		4.50	2.50		
40		3.50	2.00		
45		2.50	1.00		
50		1.50	1.00		
55		1.00	0.50		
60		0.50	0.50		

These rates were first used for the December 31, 2004 valuation.

Rates of Disability: These assumptions represent the probabilities of active members becoming disabled.

Sample Ages	Percent Becoming Disabled within Next Year
20	0.08 %
25	0.08
30	0.08
35	0.08
40	0.20
45	0.26
50	0.49
55	0.89

## **ACTUARIAL ASSUMPTIONS USED FOR THE VALUATION**

**Rates of Retirement:** These rates are used to measure the probabilities of an eligible member retiring under the Regular and Early Reduced retirement provisions during the next year.

	Regular Retire	ement Rates	<b>Early Retirement Rates</b>		Rates
Retirement	General/		Years of	General/	
Ages	Management	Police	Service	Management	Police
50		40%	20	2%	2%
51		20	21	2	2
52		20	22	2	2
53		20	23	2	2
54		20	24	2	2
55	25%	20	25	2	2
56	25	20	26	2	2
57	20	20	27	2	2
58	20	20	28	2	2
59	20	20	29	2	2
60	25	100	30	2	2
61	25	100	31		2
62	30	100	32		2
63	20	100	33		2
64	20	100	34		2
65	40	100	35		2
66	30	100			
67	30	100			
68	30	100			
69	30	100			
70	100	100			

General and Management members were assumed to be eligible for regular retirement after attaining age 55 with 30 years of service, or age 60 with 5 years of service. These members were assumed to be eligible for early reduced retirement after completing 20 years of service.

A Police member was assumed eligible for retirement after attaining age 50 with 25 years of service, or, after attaining age 60 with 15 or more years of service. Police members were assumed to be eligible for early reduced retirement after completing 20 years of service.

The current rates were first used for the December 31, 2004 valuation of the System.

### MISCELLANEOUS AND TECHNICAL ASSUMPTIONS

Marriage Assumption: 80% of participants are assumed to be married for purposes

of death and retiree health benefits. In each case the male

was assumed to be 3 years older than the female.

**Pay Increase Timing:** Beginning of year.

**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.

Other: Disability and turnover decrements do not operate during

retirement eligibility.

**Miscellaneous Loading Factors:** The calculated retirement benefits were increased by 12% to

account for the inclusion of unused sick leave and vacation time in the calculation of Final Average Compensation and by 1% to account for the impact of subsidized optional forms

of payment.

**Disability Assumption:** Fifty percent of disabilities for Police were assumed to be

duty related. Fifty percent were assumed to be unrelated to duty. Twenty-five percent of disabilities for General/Management were assumed to be duty related. Seventy-five percent were assumed to be unrelated to duty. The recovery rate from disability was assumed to be 0 (i.e., no disabled individual was assumed to recover and return to

work.)

**Death Assumption:** Fifty percent of Police deaths were assumed to be duty

related and fifty percent were assumed to be unrelated to duty. Twenty-five percent of General/Management deaths were assumed to be duty related and seventy-five percent

were assumed to be unrelated to duty.

**Non-forfeiture Assumption:** All vested terminated Police members were assumed to elect

a deferred retirement benefit. General and Management members who terminate close to retirement were assumed to elect a deferred retirement while those terminating with less service were assumed to elect a refund of their contributions

in lieu of deferred retirement 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 system benefits and the actuarial present value of future normal costs. Also referred to as "past service liability."

Actuarial Assumptions - Estimates of future experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate 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" between future normal costs and actuarial accrued liability. Sometimes referred to as the "actuarial funding method."

**Actuarial Equivalent** - One series of payments is said to be actuarially equivalent to another series of payments if the two series have the same actuarial present value.

Actuarial Gain (Loss) - The difference between actual unfunded actuarial accrued liabilities and anticipated unfunded actuarial accrued liabilities -- during the period between two valuation dates. It is a measurement of the difference between actual and expected experience.

## **DEFINITIONS OF TECHNICAL TERMS**

**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.

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

**Normal Cost** - The portion of the actuarial present value of future benefits that is assigned 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 valuation assets. Sometimes referred to as "unfunded past service liability" or "unfunded supplemental present value."

Most retirement systems have unfunded actuarial accrued liabilities. They arise each time new benefits are added and each time an actuarial loss occurs. The existence of unfunded actuarial accrued liabilities is not in itself bad, any more than a mortgage on a house is bad. Unfunded actuarial accrued liabilities do not represent a debt that is payable today. What is important is the ability to amortize the unfunded actuarial accrued liabilities and the trend in their amount (after due allowance for devaluation of the dollar).

## **SECTION D**

DISCLOSURES REQUIRED BY GASB STATEMENTS NO. 25, NO. 26 AND NO. 27

## REQUIRED SUPPLEMENTARY INFORMATION

## **Schedule of Pension Funding Progress (Police & General Combined)**

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (\$ millions) (c)	UAAL as a % of Covered Payroll ((b-a)/c)
2000	\$ 152,796,352	\$ 156,540,695	\$ 3,744,343	97.6	\$29,068,666	12.9 %
2001	164,995,804	167,764,361	2,768,557	98.3	31,751,356	8.72
2002	168,572,303	176,313,178	7,740,875	95.6	33,718,220	23.0
2003	175,891,684	184,882,463	8,990,779	95.1	36,244,556	24.8
2004	184,053,333	197,268,600	13,215,267	93.3	38,539,387	34.3
2005	195,203,944	210,940,503	15,736,559	92.5	40,492,380	38.9
2006	213,015,364	222,363,698	9,348,334	95.8	42,456,531	22.0
2007	238,029,788	246,147,797	8,118,009	96.7	44,646,848	18.2
2008	241,784,990	261,167,456	19,382,466	92.6	46,433,304	41.7
2009	248,954,926	283,777,829	34,822,903	87.7	51,510,466	67.6

## **Schedule of Employer Pension Contributions**

Valuation Year Ended	Fiscal Year Ended		Contribution Rates as % aluation Pay		Computed Dollar	Actual	%
<b>Dec. 31</b>	Dec. 31	General	Police	Wt. Avg.	Contributions	Contributions	Contributed
2000#	2002	7.60 %	15.60 %	9.67 %	\$2,936,546	\$3,273,019	100 %
2001#	2003	7.77	14.42	9.45	3,134,728	3,557,438	100
2002#	2004	8.68	15.68	10.48	3,693,299	4,270,076	100
2003	2005	9.43	13.96	10.65	4,125,255	4,499,260	100
2004^	2006	9.80	14.84	11.21	4,717,920	4,928,487	100
2005	2007	10.38	14.96	11.67	5,160,605	5,373,132	100
2006	2008	9.50	13.36	10.43	4,907,566	4,889,940	100
2007#^	2009	9.33	14.58	10.80	5,238,815	5,459,718	100
2008	2010	10.93	17.66	12.73	6,470,984		
2009	2011	13.17	20.78	15.15	8,533,571		

<sup>#</sup> Reflects amortization credit.

Computed dollar contributions are based on contribution rates and projected valuation payroll. Actual contributions were based on the financial statements provided by the City. Deviations may be attributable to differences between projected and actual payroll. This information is presented in draft form for review by the City's auditor. Please let us know if there are any items that the auditor changes so that we may maintain consistency with the City's financial statements.

<sup>^</sup> New methods or assumptions adopted.

## 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 December 31, 2009

Actuarial Cost Method Entry-Age

Amortization Method Level percent, closed

Remaining Amortization Period 14 years

Asset Valuation Method 5 year smoothed market

**Actuarial Assumption:** 

Investment rate of return 7.75%
Projected salary increases\* 4.25% - 8.25%
\* Includes inflation at 4.25%

Cost-of-living adjustments

Annual increase equal to CPI with a cap of 3% beginning 36 months after retirement.

Membership of the Retirement System is shown below at December 31, 2009, the date of the latest actuarial valuation:

Retirees and beneficiaries receiving benefits 442

Terminated plan members entitled to but not yet receiving benefits 54

Active plan members 917

Total 1,413

# GASB STATEMENT No. 26 REQUIRED SUPPLEMENTARY INFORMATION STATEMENT OF REPORTED ASSETS (INCLUDES RETIREE HEALTH) AS OF DECEMBER 31, 2009

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Cash and equivalents Interest and dividend receivables* Total	\$ 1,129,751 729,750 1,859,501
Investments, at market value:	
Other investments STW Northern trust Total investments	133,968,807 39,021,713 57,771,849 230,762,369
Total assets (market value)	232,621,870
Less accounts payable	0
Assets held in trust for pension and health benefits	\$ 232,621,870

<sup>\*</sup> Includes accounts receivable

# GASB STATEMENT NO. 26 REQUIRED SUPPLEMENTARY INFORMATION STATEMENT OF CHANGES IN REPORTED ASSETS (INCLUDES RETIREE HEALTH) AS OF DECEMBER 31, 2009

	Retiree		
	Pension	Health	Total
Additions:			
Contributions:			
Employer	\$5,459,718	\$2,974,199	\$ 8,433,917
Plan Members	2,272,170		2,272,170
Total	7,731,888	2,974,199	10,706,087
Investment Income			46,453,891
Miscellaneous			0
Total Additions			57,159,978
Deductions:			
Pension Benefits Paid	10,471,659		10,471,659
Refunds of Contributions	90,776		90,776
Health Benefits		712,478	712,478
Expenses^	552,497	27,237	579,734
Total Deductions	11,114,932	739,715	11,854,647
Net Increase (Decrease)			\$ 45,305,331
Net Assets Held in Trust Fund:			
Beginning of Year Market Value			\$187,316,539
End of Year Market Value			\$232,621,870

<sup>^</sup> The administrative and other expenses shown above were allocated based on the average funding value of assets and are shown for illustration purposes.

Employer contributions for pension and retiree health were reported in total and allocated by the actuary based on contribution recommendations.



RETIREE HEALTH VALUATION BASED ON ASSUMPTIONS AND METHODS PRESCRIBED BY THE GOVERNMENTAL ACCOUNTING STANDARDS BOARD

### RETIREE HEALTH PREMIUM RATES

#### **Background**

Health care premiums are an important part of a retiree health valuation. Eligible City retirees (and their spouses) may elect to receive benefits from health plans offered by Sanford and Avera McKennan. All benefits provided by the City sponsored retiree health Program (plan) are self-funded. This means that the City pays claims and takes the risk associated with the health care program. The City buys stop loss insurance to help manage this risk. Dental insurance benefits are also self-funded.

Retiree health benefit recipients pay for a portion of their benefits based on premium rates established by the City (illustrative premiums). These premiums were used in the actuarial valuation of the retiree health program based on a weighted average of reported premiums and utilization of health care plans by retirees. A summary of these premiums is shown in this section of the report.

Retirees who participate in the retiree health program pay 50% of the reported illustrative premiums. The City pays the remaining portion of the retiree health care cost. Health insurance coverage terminates upon attainment of age 65. At this time, each retiree must make their own arrangements for health care coverage.

The current actuarial standard covering the valuation of retiree medical liability became effective for measurements on or after January 1, 2003. The standard includes the development of facsimile premiums based on the actual claims experience and the use of age grading. The combination of these two techniques produces "premiums" at each age during the retiree's lifetime based on the group's actual, historical claims experience.

We believe that using illustrative premium rates alone to determine retiree medical liability will likely understate the value of retiree health benefits and will fail to comply with both current actuarial standards of practice and governmental accounting standards. A summary of the facsimile health care "premium" rates used in the December 31, 2009 valuation of the retiree health program are shown on the following page. The actuarial assumptions and methods used in the retiree health program valuation are shown in this section of the report.

## PREMIUM RATE DEVELOPMENT METHOD MONTHLY PER PERSON HEALTH CARE RATES

Initial premiums were developed for pre-65 retirees only. These premiums were developed using claims experience from January 2007 to November 2009 in conjunction with exposure data for the retired members of the health care program. These claims were projected on a paid claim basis, adjusted for plan design changes, large claims and loaded for administrative expenses.

Age graded and sex distinct premiums are utilized by this valuation. The premium developed by the preceding process is appropriate for the unique age and sex distribution currently existing. Over the future years covered by this valuation, the age and sex distribution will most likely change. Therefore, our process "distributes" the average premium over all age/sex combinations and assigns a unique premium to each combination. This process more accurately reflects health care costs in the retired population over the projection period. The table below shows the combined medical and prescription drug one-person monthly premiums at selected ages effective January 1, 2010 to December 31, 2010.

Facsimile Health Care Premiums Used in the 2009 Valuation

	Monthly Pre-65 Rates at Sample Ages			
Age	Male	Female		
50	\$ 655.49	\$ 742.71		
55	856.71	880.62		
60	1,076.28	1,034.54		

The above rates reflect the total medical and prescription drug retiree cost without considering any applicable retiree contributions.

## PREMIUM RATE DEVELOPMENT METHOD MONTHLY PER PERSON HEALTH CARE RATES

### **Monthly Dental Premiums Used in the 2009 Valuation**

Coverage for	<b>Monthly Rate</b>
1-person	\$38.61
2-person	77.22

The dental premium rates used in the valuation were not "age graded' since dental claims do not vary significantly by age.

The chart below shows the retiree paid premiums (50% of the weighted average illustrative premiums) reported to the actuary in connection with this valuation of the program.

Coverage for	Monthly Rate	
Health Care Premiums (Retiree Only - General)	\$355.83	
Health Care Premiums (Retiree Only - Police)	355.83	
Health Care Premiums (Retiree & Spouse - General)	754.62	
Health Care Premiums (Retiree & Spouse - Police)	754.62	
Dental (Retiree only)	18.21	
Dental (Retiree & Spouse)	34.77	

### HEALTH COST TREND ASSUMPTION

#### Background

Retiree health care valuations require an assumption about how the health costs that the plan is absorbing will change over the years. This assumption includes more than just "health inflation". It includes the impact of

- The introduction of new procedures and medications and how they are priced.
- The utilization of services and products by covered retirees and their dependents and how that utilization changes over the years.

Retiree health valuations use a health cost trend assumption that changes over the years. The near term rates reflect the fact that currently employers are seeing sharp increases in the cost of health goods and services. However, they do not anticipate that health costs will increase at these rates indefinitely. To do so would be to ignore the real world implications of this sort of projection. For example, if health costs represent 20% of disposable income initially and grow at 12% per year for the next 10 years while disposable income increases at 4% would imply that after 10 years health would absorb 40% of our disposable income. Over a 20-year period, these rates of increase would imply that at the end of the 20-year period, health costs would absorb almost 80% of our disposable income.

The valuations attempt to deal with the future by recognizing that it is more reasonable to assume that current trends will have to change in the future before we reach the absurd situation of having little or no money to spend on things that are not related to health (including food, shelter, clothes, etc.). Health costs are assumed to increase at rates greater than general inflation for a temporary "cooling off" period. At the end of the cooling off period, health costs are assumed to increase in line with general inflation. As years elapse, there are fewer remaining years in the cooling off period. A summary of the rates of medical inflation used in this valuation of the program are shown on the next page. Retirees pay the premium rates shown at the bottom of the prior page. These premiums were assumed to increase with medical inflation. The assumed rate of increase is shown on the following page.

## HEALTH COST TREND AND RELATED ASSUMPTIONS

## Rates of Inflation for Medical, Rx and Dental Benefits

Future Health Cost Increases				
Year Beginning December 31,	Medical & Rx	Dental		
2010	9.00%	4.25%		
2011	8.50	4.25		
2012	8.00	4.25		
2013	7.50	4.25		
2014	7.00	4.25		
2015	6.50	4.25		
2016	6.00	4.25		
2017	5.50	4.25		
2018	5.00	4.25		
2019 & After	4.25	4.25		

## **Cumulative Aging Factors at Select Ages**

Age	Male	Female
45	0.514	0.673
50	0.696	0.788
55	0.909	0.935
57	1.000	1.000
60	1.142	1.098

# COMPUTED RETIREE HEALTH CONTRIBUTION RATES BASED ON ASSUMPTIONS/METHODS PRESCRIBED BY GASB FOR GENERAL AND MANAGEMENT MEMBERS FOR THE FISCAL YEAR BEGINNING JANUARY 1, 2011

	Contribution Requirements			
Contributions for	<b>Expressed as Percents of Payroll</b>			
Total NC%	2.81 %			
-Employee %	0.00			
-Employer %	2.81 %			
UAL% (26 Year Amortizaton of UAL*) Total Employer Contribution	2.08 % 4.89 %			
First Year \$ Contribution	\$1,991,642			

<sup>\*</sup> Unfunded accrued liability (UAL) was amortized as a level percent of active member payroll.

# COMPUTED RETIREE HEALTH CONTRIBUTION RATES BASED ON ASSUMPTIONS/METHODS PRESCRIBED BY GASB FOR POLICE MEMBERS FOR THE FISCAL YEAR BEGINNING JANUARY 1, 2011

	<b>Contribution Requirements</b>				
Contributions for	<b>Expressed as Percents of Payroll</b>				
Total NC%	4.13 %				
-Employee %	0.00				
-Employer %	4.13 %				
UAL% (26 Year Amortization of UAL*) Total Employer Contribution	3.53 % 7.66 %				
First Year \$ Contribution	\$1,168,382				

<sup>\*</sup> Unfunded accrued liability (UAL) was amortized as a level percent of active member payroll.

## REQUIRED SUPPLEMENTARY INFORMATION SCHEDULE OF HEALTH FUNDING PROGRESS FOR THE RETIREE HEALTH PLAN (POLICE & GENERAL COMBINED)

Actuarial Valuation Date Dec. 31	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (\$ millions) (c)	UAAL as a % of Covered Payroll ((b-a)/c)
2006	\$ 5,747,326	\$ 31,127,424	\$ 25,380,098	18.5 %	\$ 42,456,531	59.8 %
2007^	8,379,519	31,758,969	23,379,450	26.4	44,646,848	52.4
2008	10,718,920	32,930,510	22,211,590	32.6	46,433,304	47.8
2009	13,473,646	36,173,536	22,699,890	37.2	51,510,466	44.1

<sup>^</sup> New methods or assumptions adopted.

## REQUIRED SUPPLEMENTARY INFORMATION SCHEDULE OF EMPLOYER HEALTH CONTRIBUTIONS (POLICE & GENERAL)

Valuation Year	Fiscal Year	Contribution R	tate as a % of	Annual Required		
Ended	Ended	Valuation Payroll		Contribution	Actual	Percentage
<b>Dec. 31</b>	Dec. 31	General	Police	(ARC)	Contributions	Contributed
2005	2007	5.04%	7.23%	\$ 2,501,513	\$ 2,523,357	100.0 %
2006	2008	5.49%	7.57%	2,816,421	2,820,846	100.0
2007^	2009	5.18%	7.36%	2,808,976	2,974,199	100.0
2008	2010	5.03%	7.45%	2,881,839		
2009	2011	4.89%	7.66%	3,160,024		

Annual required contributions are based on contribution rates and projected valuation payroll. Actual contributions were based on the financial statements provided by the City. Deviations may be attributable to differences between projected and actual payroll. This information is presented in draft form for review by the City's auditor. Please let us know if there are any items that the auditor changes so that we can maintain consistency with the City's financial statements.

## REQUIRED SUPPLEMENTARY INFORMATION FOR THE RETIREE HEALTH PLAN

The following assumptions and methods were used in the December 31, 2009 actuarial valuation for the Retiree Health Plan:

Valuation Date December 31, 2009

Actuarial Cost Method Entry-Age

Amortization Method Level percent, closed

Remaining Amortization Period 26 years

Asset Valuation Method 5 year smoothed market

Premium Rate Development Method Please refer to page 1

**Actuarial Assumptions** 

Annual Rate of return (discount rate) 7.75% per year

Dependent Coverage elections 80% of employees are assumed

to cover a spouse at retirement

Coverage election All eligible future retirees are

assumed to elect benefits

Rates of inflation for medical and dental benefits

Please refer to page 5

Membership of the Retiree Health Plan is shown below at December 31, 2009, the date of the latest actuarial valuation.

Retirees receiving medical benefits 121

Active plan members 917

Total number of current and former City employees

who are members of the Retiree Health Plan 1,038