# **SPECIAL FUND**

December 31, 2006 Actuarial Valuation

April, 2007

Van Iwaarden Associates 840 Lumber Exchange Ten South Fifth Street Minneapolis MN 55402-1032 612.596,5960 f: 612.596,5999 www.vaniwaarden.com

VAN IWAARDEN

December 31, 2006 Actuarial Valuation

## Table of Contents

	Page
Introduction	
Introduction and actuarial certification	1
Summary of results	. 3
<u>Valuation data - plan assets and members</u>	
Actuarial value of assets	4
Summary of member data	5
Summary of changes in membership	6
Valuation results - actuarial values	
Actuarial values used to determine contribution	7
Changes in the unfunded actuarial accrued liability	8
Accounting basis results - GASB disclosure information	
Statement of plan net assets	9
Statement of changes in plan net assets	10
Schedule of funding progress	-11
Schedule of employer contributions	12
Historical tables	
Historical unit values	13
Historical funding ratio schedule	14
History of employer contributions	15
Comparative schedule of active members	16
Comparative schedule of inactive members	17
Supplementary information	
Actuarial assumptions and methods	18
Summary of plan provisions	19

December 31, 2006 Actuarial Valuation

#### **Introduction**

#### <u>Purpose</u>

This report presents the results of the December 31, 2006 valuation for the Minneapolis Police Relief Association. Its primary purposes are:

- to determine the funded status as of December 31, 2006,
- to determine the normal cost and the required amortization payment, and
- to present information required to be disclosed under Governmental Accounting Standards Board Statement No. 25 (GASB 25) as of December 31, 2006.

#### Sources of data

The Relief Association supplied December 31, 2006 data for all active and inactive members, including unit values and historical salary increase rates. The Relief Association has also provided asset information regarding the special fund including historical rates of return. We have relied on this data in preparing this report.

#### Changes from the previous valuation

The prior actuarial valuation of the plan was prepared as of December 31, 2005. The actuarial assumptions and methods used to prepare this report are the same as those used in the 2005 report. The current union contract was settled in 2006 and extends through October 14, 2007. A unit value of 89.27 became effective October 15, 2006, and remains in effect as of the valuation date for this report - December 31, 2006.

For purposes of this valuation, we have used the 89.27 unit value as of the valuation date, with projected annual increases of 4% per year - the statutory salary increase assumption. For the December 31, 2005 valuation, because the union contract had not been settled, we used the most recent established rate adjusted with 4% annual increases to 89.46 as of December 31, 2005. We projected this rate at 4% per year as required by statute, so that the estimated unit values as of December 31, 2006 would have been 93.04 - compared to the actual rate of 89.27 that has now been established.

Since the actual rate is less than what was projected in the previous year, and therefore benefit costs are less than expected, the plan liabilities have experienced an actuarial "gain" of \$18.6 million (see page 8, item A.3.b.)

#### Summary of valuation results

As of December 31, 2006, the funded status of the plan (actuarial value of assets divided by actuarial accrued liabilities) is 85.7% (see page 7). This is an increase from last year's funded ratio of 77.3%. The improvement in funded status is due to the actuarial gain described above and to an increase in the actuarial value of assets (see pages 4 and 8). The effective investment return on the actuarial value of assets (about 13.7%) was greater than the statutory assumption of 6.0%. On a market value basis, the funded status has increased from 78.9% to 88.8%.



December 31, 2006 Actuarial Valuation

#### Introduction (continued)

Because the five-year average rate of return on investments as of the valuation date exceeds the five-year average salary increase rate, a "13th Check" will be payable in 2007.

#### Actuarial certification

We certify, with one qualification, that the actuarial valuation has been prepared in accordance with Minnesota Statutes §§356.20-.23, §423B, and §69.77 as they relate to police department relief associations in cities of the first class in general and the Minneapolis Police Relief Association in particular.

Under Actuarial Standards of Practice (ASOP) No. 35, Paragraph 3.1,

A reasonable assumption is one that is expected to appropriately model the contingency being measured and is not anticipated to produce significant cumulative actuarial gains or losses over the measurement period.

We believe, based on the experience study we conducted in 2004, and have updated in 2007, and because of continuing actuarial experience losses (see page 8, item A.3.a.), that the mortality assumption used for this report is not reasonable. However, Paragraph 1.2 of ASOP 35, provides,

(w)hen applicable law, regulation, or other binding authority conflicts with this standard, complying with such law, regulation, or other binding authority shall not be deemed a deviation from this standard

and Paragraph 3.8 provides, "When an assumption is prescribed, the actuary is obligated to use it." Since the current mortality table cannot be changed without approval of the Legislative Commission on Pensions and Retirement, we believe it is a "prescribed assumption" and that we are obligated to use it, even though it is our opinion that it is not reasonable. We should note here that the Relief Association has directed us to begin the process of seeking LCPR approval for a change in the mortality table used to measure liabilities.

If we had used the mortality table that we now recommend (1983 GAM F+1 M-2), the funded ratio would have been 72.8% (instead of 85.7%) and the amortization payment would have been \$13 million (instead of about \$7 million) as of December 31, 2006.

In all other respects, we believe the results are reasonable and fairly represent the actuarial status of this plan.

Respectfully submitted,

Mark D. Meyer, FSÅ, MAAA Consulting Actuary

Kunger psc

Paul D. Krueger, JD, EA Consulting Actuary

Van Iwaarden

- -----

December 31, 2006 Actuarial Valuation

## **Summary of Results**

A. Plan participant data	December 31, 2005	December 31, 2006
1. Number of participants		
a. Active employees	17	15
b. Terminated vested employees	0	0
c. Retirees	664	647
d. Disability	0	0
e. Surviving spouses	239	234
f. Surviving children	<u>1</u>	<u>3</u>
g. Total	921	899
B. Normal costs	2005 Plan Year	2006 Plan Year
1. Total normal cost		
a. Amount	\$251,725	\$208,556
b. Percentage of active payroll	17.93%	16.87%
2. Employer normal cost		
a. Amount	139,417	109,672
b. Percentage of active payroll	9.93%	8.87%
C. Amortization payments		
1. Unfunded actuarial accrued liability	\$105,189,674	\$62,978,850
2. Amortization payment	10,676,247	6,711,413
D. Value of plan assets	December 31, 2005	December 31, 2006
1. Market value	\$366,406,914	\$390,831,714
2. Actuarial value (for calculating contributions)	359,031,868	377,013,110
E. Benefit liabilities		
1. Present value of future benefits	\$464,532,051	\$440,215,227
2. Actuarial accrued liability	464,221,542	439,991,960
F. Funded status		
1. Market value of assets as a % of liabilities	78.9%	88.8%
2. Actuarial value of assets as a % of liabilities	77.3%	85.7%

3 ·

December 31, 2006 Actuarial Valuation

#### **Funding Basis**

#### **Actuarial Value of Assets**

#### A. Unrealized gain

Year Ending	Market	Book	Unrealized Gain
<u>December 31:</u>	<u>Value</u>	<u>Value</u>	( <u>Market - Book)</u>
2003	323,467,992	305,535,163	17,932,829
2004	348,910,985	318,231,193	30,679,792
2005	366,406,914	331,038,035	35,368,879
2006	390,831,714	340,010,710	50,821,004
2000	570,051,714	510,010,710	

<u>B. Preliminary actuarial value of assets</u>	December 31, 2005	December 31, 2006
1. Book value of assets	\$331,038,035	\$340,010,710
2. Average unrealized gain for previous three years	<u>27,993,833</u>	<u>38,956,558</u>
3. Preliminary actuarial value	359,031,868	378,967,268

#### C. Excess investment income

1. Salary increases and time-weighted rate of return on assets

Year Ending December 31: Asset Return Salary Increase 2001 7.202% -3.9% 2002 6.165% -10.1% 2003 3.196% 22.7% 2004 3.525% 9.6% 2005 5.9% 3.082% 13.7% 2006 1.932%

2. Determination of excess investment income		
a. Arithmetic average of previous 5 years salary increases	4.634%	3.580%
b. Arithmetic average of previous 5 years of asset returns	<u>4.840%</u>	<u>8.360%</u>
c. Excess of asset return over salary increase	0.206%	4.780%
d. Excess minus 2%	0.000%	2.780%
e. Lesser of 0.5% or 2.d., times market value (not $< 0$ )	\$0	\$1,954,159
f. December 2006 monthly benefits paid	2,786,250	2,847,474
g. Adjustment to assets (lesser of e. or f.)	<u>0</u>	1,954,159
		<b>ФОЛД (12,110</b>
<u>Actuarial value of assets (B.3 C.2.g.)</u>	<u>\$359,031,868</u>	\$377,013,110

VAN IWAARDEN

December 31, 2006 Actuarial Valuation

## Summary of Member Data

December 31, 2005 December 31, 2006

<u>A. Active members</u>		
1. Number	17	15
a. Fully vested b. Nonvested	<u>0</u>	<u>0</u>
c. Total	17	15
2. Average age	57.4	58.8
3. Average years of service	33.3	34.5
4. Total annual payroll for the year ending on valuation date	\$1,403,846	\$1,236,046
5. Average annual salary	\$82,579	\$82,403
B. Vested terminated members		
1. Number	0	0
2. Total annual deferred benefits	\$ <b>0</b>	\$0
	<b>~</b> ~	÷.
<u>C. Retirees</u>		
1. Age & service	664	647
2. Disability	0	0
3. Total	664	647
4. Total annual benefits	\$29,200,531	\$28,398,155
5. Average annual benefit	\$43,977	\$43,892
D. Beneficiaries		
1. Spouses	239	234
2. Children	1	3
3. Total	240	237
4. Total annual benefits	\$5,957,359	\$5,818,408
5. Average annual benefit	\$24,822	\$24,550
		· , -
E. Total number of members (A.1. + B.1. + C.3. + D.3.)	921	899



a construction of the second second second

December 31, 2006 Actuarial Valuation

#### Summary of Changes in Membership

	Actives	Vested Terminees	<u>Retirees</u>	Beneficiaries	Total
A. Number of members on December 31, 2005	·17	0	664	240	921
B. Changes in membership	i.				
1. Retirements	(2)		2		0
2. Vested terminations					. 0
3. Active deaths					0
4. Retiree deaths			(19)	17	(2)
5. Beneficiary deaths				(19)	(19)
6. Expiration of surviving child benefits				(1)	(1)
7. Corrections					0
8. Total changes	(2)	0	(17)	(3)	(22)
C. Number of members on December 31, 2006	15	0	647	237	899

December 31, 2006 Actuarial Valuation

## Funding Basis

## Actuarial Values Used to Determine Contribution

	December 31, 2005	December 31, 2006
A. Actuarial present value of projected benefits (the value of all f	uture benefits	
to be paid to the current group of members)	•	
1. Active members	\$14,171,500	\$12,109,576
2. Vested terminated members	0	0
3. Retired members	398,087,711	376,623,568
4. Spouses and children receiving benefits	52,272,840	51,482,083
5. Disabled members receiving benefits	· <u>0</u>	<u>0</u>
6. Total present value of projected benefits	464,532,051	440,215,227
B. Actuarial accrued liability (the cost allocated to all prior years	). )	
1. Active members	\$13,860,991	\$11,886,309
2. Vested terminated members	0	0
3. Retired members	398,087,711	376,623,568
4. Spouses and children receiving benefits	52,272,840	51,482,083
5. Disabled members receiving benefits	<u>0</u>	<u>0</u>
6. Total actuarial accrued liability	464,221,542	439,991,960
C. Amortization of unfunded actuarial accrued liability		
1. Total actuarial accrued liability (B.6.)	\$464,221,542	\$439,991,960
2. Actuarial value of assets	359,031,868	377,013,110
3. Unfunded actuarial accrued liability (1 2.)	105,189,674	62,978,850
4. Funded status $(2. \div 1.)$	77.3%	85.7%
5. Years left in amortization period	14	13
6. Amortization payment	10,676,247	6,711,413
D. Normal cost (the cost allocated to the current year)		
1. Present value of future normal costs (A.6 B.6.)	\$310,509	\$223,267
2. Normal cost as a dollar amount		. ,
a. Total normal cost	251,725	208,556
b. Statutory adjustment for member contributions	112,308	98,884
c. Employer normal cost (a b.)	139,417	109,672
3. Payroll for year ending on valuation date	1,403,846	1,236,046
4. Normal cost as a percent of active payroll		
a. Total normal cost (2.a. ÷ 3.)	17.93%	16.87%
b. Statutory adjustment for member contributions $(2.b. \div 3.)$	8.00%	8.00%
c. Employer normal cost (2.c. ÷ 3.)	9.93%	8.87%

December 31, 2006 Actuarial Valuation

#### Funding Basis

#### **Changes in the Unfunded Actuarial Accrued Liability**

#### A. Liability gain or loss for the year ending on December 31, 2006 1. Expected actuarial accrued liability (AAL) a. AAL as of December 31, 2005 \$464,221,542 251.725 b. Normal cost as of December 31, 2005 (excluding expenses) c. Interest to December 31, 2006 on the AAL and normal cost 27.868.111 d. Benefit payments for the year (34, 121, 401)(1,023,642) e. Interest on benefit payments (1/2 year) f. Expected AAL on December 31, 2006 (sum of a. through e.) 457, 196, 335 2. Actual AAL on December 31, 2006 a. Before any assumption or plan changes 458, 573, 451 b. After unit value changes 439,991,960 c. After assumption and unit value changes 439,991,960 d. After plan changes 439,991,960 3. Liability (gain) or loss a. Due to plan experience different from that expected (2a. - 1f.) 1,377,115 b. Due to change in unit value different from expected (2.b. - 2.a.) (18, 581, 491)c. Due to changes in actuarial assumptions (2c. - 2b.) 0 d. Due to plan changes (2d. - 2c.) 0 e. Total (a. + b. + c. + d.)(17, 204, 375)B. Asset gain or loss for the year ending on December 31, 2006 1. Expected actuarial value of assets a. Actuarial value of assets on December 31, 2005 359,031,868 b. Benefit payments and expenses for the year (34,734,408)c. Contributions for the year 10,592,026 d. Expected return on assets 20,817,641 e. Expected actuarial value of assets on December 31, 2006 (sum of a. through d.) 355,707,127 2. Actual actuarial value of assets on December 31, 2006 377,013,110 3. Asset (gain) or loss (1e. - 2.)(21, 305, 983)C. Changes in the unfunded AAL 1. Expected unfunded AAL on December 31, 2006 101,489,208 2. Changes a. Actuarial (gain) or loss other than change in unit value (19,928,867)b. Change in unit value different from expected (18, 581, 491)c. Changes in actuarial methods and assumptions 0 0 d. Plan change (38, 510, 358)e. Total change 3. Unfunded AAL on December 31, 2006 62,978,850

8

Van Iwaarden

December 31, 2006 Actuarial Valuation

## Accounting Basis

## Statement of Plan Net Assets

		1
<u>A. Investment assets</u>	Market	<u>Book</u>
Fixed income	29,968,463	30,207,894
Corporate stock	84,289	· 0
State Board of Investment	219,363,508	180,508,608
Mutual funds	97,389,712	85,428,274
Cash equivalents and other investments	<u>43,907,354</u>	<u>43,747,546</u>
Total	390,713,326	339,892,322
B. Checking account	63,114	63,114
C. Accrued/payable		
Accrued investment income	305,209	305,209
Accrued contributions	162,053	162,053
Investment sales receivable	2,597,586	2,597,586
Accounts payable	(2,905,174)	(2,905,174)
Investment purchase payable	(104,400)	<u>(104,400)</u>
Total	55,274	55,274
D. Total pension assets (A. + B. + C.)	\$390,831,714	\$340,010,710

9

- · · · - - · ·

December 31, 2006 Actuarial Valuation

## Accounting Basis

## Statement of Changes in Plan Net Assets

	<u>2005</u>	2006
A. Additions		
1. Contributions		
a. State	\$6,573,582	\$5,200,521
b. City	24,976,747	5,366,224
c. Other	0	25,281
d. Total	31,550,329	10,592,026
2. Investment income	20,115,053	48,444,538
3. Unclaimed property	209,783	122,644
4. Proceeds from litigation	<u>0</u>	<u>0</u>
4. Total additions	51,875,165	59,159,208
B. Deductions		
1. Benefits paid	\$33,789,746	\$34,121,401
2. Refund of contributions	0	0
3. Administrative expense	<u>589,490</u>	<u>613,007</u>
4. Total deductions	34,379,236	34,734,408
<u>C. Net increase (A.4 B.4.)</u>	17,495,929	24,424,800
D. Net assets held in special fund		
1. Beginning of year	\$348,910,985	\$366,406,914
2. Post closing audit adjustments	,40,910,900 0	\$500,400,914
3. End of year	\$366,406,914	\$390,831,714

December 31, 2006 Actuarial Valuation

## Accounting Basis

## **Schedule of Funding Progress**

(Dollar amounts in thousands)

As of	Actuarial Value of	Actuarial Accrued	Unfunded AAL	Funded
December 31:	<u>Assets</u>	<u>Liability (AAL)</u>	(UAAL)	<u>Ratio</u>
1992	\$265,307	\$325,891	\$60,584	81.4%
1993	288,942	347,879	58,937	83.1%
1994	280,772	344,087	63,315	81.6%
1995	294,692	358,657	63,965	82.2%
1996	320,686	382,957	62,271	83.7%
1997	362,683	398,728	36,045	91.0%
1998	387,530	414,694	27,164	93.4%
1999	427,122	447,596	20,474	95.4%
2000	391,083	447,086	56,003	87.5%
2001	349,170	464,649	115,479	75.1%
2002	309,667	463,487	153,820	66.8%
2003	300,154	465,276	165,122	64.5%
2004*	322,278	469,557	147,279	68.6%
2005	359,032	464,222	105,190	77.3%
2006	377,013	439,992	62,979	85.7%

\*After change in benefit and funding provisions, from restated report

December 31, 2006 Actuarial Valuation

## Accounting Basis

## **Schedule of Employer Contributions**

	Employer
	Contributions
Year Ended	Paid During
December 31:	the Year
1992	\$8,281,262
1993	8,859,961
1994	6,239,591
1995	8,359,115
1996	5,544,721
1997	7,298,118
1998	6,207,956
1999	3,719,453
2000	4,563,133
2001	3,459,195
2002	8,325,895
2003	19,420,159
2004	27,889,552
2005	31,550,329
2006	10,566,745

Van Iwaarden

December 31, 2006 Actuarial Valuation

## **Historical Unit Values**

			Historical Salary Rates for PRB		
	Effective	Contract	Annualized	Annualized	5-Year
	Date	Unit Values	Unit Values	<u>Return</u>	<u>Average</u>
2000	01/01/2000	68.36	68.7350		
	10/15/2000	70.16			
2001	01/01/2001	73.16	73.6850	7.202%	
	10/15/2001	75.68			
2002	01/01/2002	77.74	78.2275	6.165%	
	10/15/2002	80.08			
2003	01/01/2003	80.08	80.7279	3.196%	
	10/15/2003	83.19			
2004	01/01/2004	83.19	83.5733	3.525%	
	10/15/2004	85.03			
2005	01/01/2005	85.03	86.1488	3.082%	4.634%
	03/01/2005	86.02			
	10/15/2005	87.43			
2006	01/01/2006	87.43	87.8133	1.932%	3.580%
	10/15/2006	89.27			·
2007	01/01/2007	89.27	89.2700	1.659%	2.679%
	10/15/2007	89.27			
2008	01/01/2008	89.27	89.2700	0.000%	2.039%
	10/15/2008	89.27			
2009	01/01/2009	89.27	89.2700	0.000%	1.335%
	10/15/2009	89.27			

Contract Unit Values: The most recent contract as of the date of this report expires October 14, 2007. The last unit value determined under that contract was 89.27 effective as of October 15, 2006.



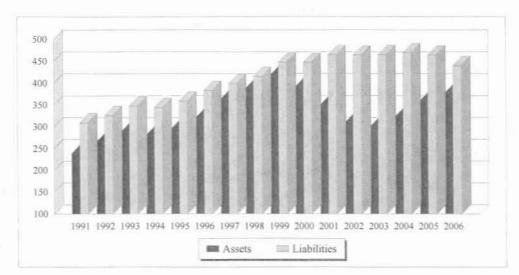
December 31, 2006 Actuarial Valuation

#### Historical Tables

#### Historical Funding Ratio Schedule (Dollar amounts in thousands)

	Actuarial	Actuarial	
As of	Accrued	Value of	Percent
December 31:	Liability	Assets	Funded
1989	\$290,537	\$211,081	72.7%
1990*	299,151	223,919	74.9%
1991	309,429	238,975	77.2%
1992*	325,891	265,307	81.4%
1993*	347,879	288,942	83.1%
1994*	344,087	280,772	81.6%
1995	358,657	294,692	82.2%
1996	382,957	320,686	83.7%
1997	398,728	362,683	91.0%
1998*	414,694	387,531	93.4%
1999	447,596	418,122	95.4%
2000	447,086	391,083	87.5%
2001	464,649	349,170	75.1%
2002	463,487	309,667	66.8%
2003	465,276	300,154	64.5%
2004*	469,557	322,278	68.6%
2005	464,222	359,032	77.3%
2006	439,992	377,013	85.7%

\*After change in benefit and funding provisions, from restated report



# VAN IWAARDEN

December 31, 2006 Actuarial Valuation

### Historical Tables

## **History of Employer Contributions**

Valuation December 31:	Normal Cost as a Percent <u>of Payroll</u>	Amortization of Unfunded Actuarial <u>Liability</u>
1989	24.53%	\$6,727,495
1990	25.61%	6,547,850
1991	25.58%	6,319,193
1992	25.62%	5,615,587
1993	25.57%	5,663,676
1994	25.43%	6,331,000
1995	24.91%	6,683,106
1996	24.83%	6,831,165
1997	24.66%	4,175,261
1998	26.53%	3,344,809
1999	26.50%	2,624,238
2000	24.03%	7,767,618
2001	23.10%	17,543,533
2002	21.56%	25,994,756
2003	19.78%	31,678,807
2004*	18.96%	14,305,932
2005	17.93%	10,676,247
2006	16.87%	6,711,413

The required municipal normal cost contribution is the total normal cost shown less an 8% adjustment for member payroll contributions.

\*After change in benefit and funding provisions, from restated report

. . . . . . . . . .

· · · · · · · · · · · ·

.

----

December 31, 2006 Actuarial Valuation

#### Historical Tables

## **Comparative Schedule of Active Members**

	Number of				
Valuation	Active	Projected		Averages	
December 31:	Members	Payroll	Age	Service	Pay
1989	460	\$18,421,160	46.6	21.0	\$40,046
1990	433	17,859,951	47.3	21.8	41,247
1991	410	17,658,290	48.0	22.5	43,069
1992	381	16,913,352	48.5	23.2	<sup>-</sup> 44,392
1993	349	16,576,802	49.2	24.0	47,498
1994	307	14,799,242	49.8	24.6	48,206
1995	278	13,937,530	50.3	25.3	50,135
1996	239	13,002,556	50.9	25.9	54,404
1997	188	10,817,520	51.1	26.3	57,540
1998	148	8,856,616	51.5	26.8	59,842
1999*	123	7,804,036	51.3	26.6	63,447
2000	97	6,583,342	51.7	27.2	67,870
2001	73	5,238,480	52.6	28.4	71,760
2002	53	3,955,411	53.7	29.4	74,630
2003	24	1,860,356	55.0	30.4	77,515
2004	18	1,429,255	55.2	31.1	79,403
2005	17	1,403,846	57.4	33.3	82,579
2006	15	1,236,046	58.8	34.5	82,403
					-

\*Payroll used to calculate normal cost for calendar year 1999 is \$7,503,881.

December 31, 2006 Actuarial Valuation

#### **Historical Tables**

#### **Comparative Schedule of Inactive Members**

	Number of Retirees and Beneficiaries		Actual	Projected		
As of	Added	Removed	On Valuation	Annual	Annual	Present Value
December 31:	<u>to Roils</u>	from Rolls	Date	<b>Benefits</b>	<b>Benefits</b>	of Benefits
1989	40	31	752	\$12,988,156	\$12,007,149	\$163,236,324
1990	33	33	752	13,179,656	12,579,039	169,649,676
1991	30	25	757	12,726,042	13,152,752	175,237,680
1992	55	28	784	14,764,375	14,352,332	192,504,840
1993	45	33	796	15,646,456	15,690,269	212,051,856
1994	56	40	812	18,040,942	17,238,698	226,104,506
1995	35	39	808	17,597,704	17,375,347	235,698,327
1996	51	28	831	20,240,597	19,435,342	263,685,600
1997	82	35	878	25,513,260	21,662,581	298,497,984
1998	65	23	920	24,511,366	24,020,183	330,745,536
1999	34	37	917	26,213,944	26,701,339	368,568,524
2000	34	37	924	30,697,541	28,043,660	385,062,755
2001	41	34	933	30,503,691	30,398,324	413,026,264
2002	35	40	928	30,724,261	31,446,287	423,583,483
2003	40	31	935	31,855,476	33,194,254	447,163,590
2004*	40	31	921	32,797,952	34,479,242	455,208,169
2005	10	27	904	33,789,746 .	35,157,890	450,360,551
2006	19	39	884	34,121,401	34,216,563	428,105,651

\*After change in benefit and funding provisions, from restated report

December 31, 2006 Actuarial Valuation

## **Actuarial Methods and Assumptions**

1. Mortality	The UP-1984 Mortality Table set forward 2 years for males and set back 3 years for females.	
2. Withdrawal	The rate of withdrawal is 0% after age 50. The plan is frozen, and all remaining active members are over age 50.	
3. Disability	Rates varying by age. follows:	Sample disability rates are as
	Age	Rate
	25	0.08%
	30	0.08
	35	0.08
	40	0.20
	45	0.26
	50	0.49
	55	0.89
4. Retirement age	Members are assumed if older.	d to retire at age 54, or attained age
5. Interest rate	6% compounded annu	ually.
6. Unit value/Salary scale	current union contract is 89.27. All future u	December 31, 2006, based on the t (which expires October 14, 2007) nit values for actives and inactives se 4% per year from the valuation
7. Actuarial cost method	The Entry Age Normal Cost Method. Under this method, the normal cost for an individual member is the level percentage of pay required, beginning on the date of joining the association, to accumulate the funds needed to pay the member's accrued benefits by their assumed retirement age. The actuarial accrued liability is the accumulated value of these annual normal costs on a given date. The normal cost and accrued liability for the plan is the total of these values for all members.	

VAN IWAARDEN

December 31, 2006 Actuarial Valuation

## **Summary of Plan Provisions**

1. Normal retirement benefit	Annual benefit of 30.40/80 of base pay for first 19 years of service. An additional 3.60/80 units are awarded for the 20th year of service. Effective January 1, 2005, an additional 4.10/80 units, and effective January 1, 2006 an additional 4.60/80 units will be awarded for the 20th year of service. For service years in excess of 20, an additional 1.60/80 is granted; to a maximum of 25 years of service and 42/80 of base pay (42.5/80 after January 1, 2005 and 43/80 after January 1, 2006). The monthly benefits of retired members will be adjusted effective January 1, 2005 and 2006 based on their years of service at retirement. "Base pay" for this purpose means the maximum monthly salary of a first class patrolman. Members must be at least age 50 with 5 years of service to receive this benefit.
2. Deferred vested benefit	The plan is frozen. All remaining active members are eligible for an immediate benefit upon retirement.
3. Disability benefit	Annual benefit of 34/80 of base pay for members no longer able to perform the duties of a policeman due to disability.
4. Surviving spouse's benefit	Annual benefit of 22/80 of base pay for the surviving spouse of an active or retired member. Effective January 1, 2005 this benefit was increased to 22.5/80 of base pay. Effective January 1, 2006 the benefit increased to 23/80 of base pay. The monthly benefits of surviving spouses already receiving payments were adjusted effective January 1, 2005 and 2006.
5. Surviving children's benefit	Annual benefit of 8/80 of base pay for each surviving child of an active or retired member. Benefits continue to age 18, or to age 22 if the child is a full-time student. The total benefit for surviving children and spouse combined is limited to 41/80 of base pay.

December 31, 2006 Actuarial Valuation

## Summary of Plan Provisions (continued)

#### 6. Member contributions

Members are required to contribute 8% of base pay. After 25 years of service, member contributions are paid to a separate health insurance account. In the event of death without survivorship, member contributions are refundable including 5% interest from the month the contribution is made.

# Van Iwaarden