

**FAIRMONT FIRE DEPARTMENT
RELIEF ASSOCIATION**

*January 1, 2008
Actuarial Valuation*

June 27, 2008

FAIRMONT FIRE DEPARTMENT RELIEF ASSOCIATION
January 1, 2008 Actuarial Valuation

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Introduction

Purpose

This report presents the results of the January 1, 2008 valuation for the Fairmont Fire Department Relief Association. Its primary purposes are:

- to determine the municipal contributions payable during 2009 and 2010, and
- to evaluate the funded status of the plan.

Sources of Data

The Relief Association supplied January 1, 2008 data for all active and retired members, and the asset data for the special fund for 2006 and 2007. 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 January 1, 2006. The actuarial assumptions and methods used to prepare this report are the same as those used in the 2006 report. The benefit provisions reflected in this report are the same as those measured in the previous report.

Summary of Valuation Results

The total contribution requirement for 2009 and 2010 is \$78,716 (see page 3), lower than the 2007/08 required contribution of \$94,784. The estimated City contribution for 2009, taking into account anticipated State Aid and member contributions, is \$0 (see page 3).

Actuarial Certification

We certify that the actuarial valuation and benefit study have been prepared in accordance with Minnesota Statutes §§356.20-.23 and §69.773 as they relate to volunteer fire department relief associations.

Respectfully submitted,

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Reconciliation of Plan Assets

	<u>2006</u>	<u>2007</u>
1. Value of assets on January 1	\$2,248,976	\$2,514,829
2. Contributions for the year		
a. Municipal	39,602	16,546
b. Members	9,450	15,000
c. State Aid	<u>72,930</u>	<u>62,866</u>
d. Total contributions	121,982	94,412
3. Benefits paid during the year	(127,505)	(411,090)
4. Expenses (non-investment) paid from plan assets	(15,794)	(10,152)
5. Investment earnings for the year	287,170	120,218
6. Asset value on December 31 (sum of 1. thru 5.)	2,514,829	2,308,217

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Valuation of the Current Plan

	<u>2006</u>	<u>2008</u>
<u>A. Actuarial accrued liability (AAL)</u>		
1. Active members	\$1,738,824	\$1,622,472
2. Vested terminated members	87,612	87,066
3. Retired members	527,923	494,946
4. Spouses receiving benefits	265,352	243,532
5. Children receiving benefits	0	0
6. Disabled members receiving benefits	0	0
7. Total actuarial accrued liability	2,619,711	2,448,016
 <u>B. Special fund assets</u>	 2,248,976	 2,308,217
 <u>C. Unfunded actuarial accrued liability</u>	 370,735	 139,799
 <u>D. Credit for surplus</u>	 N/A	 N/A
 <u>E. Amortization payment</u>		
1. Amortization period	17	15
2. Payment	31,318	12,827
 <u>F. Normal cost</u>	 48,619	 55,381
 <u>G. Annual contribution payable:</u>	 <u>2007, 2008</u>	 <u>2009, 2010</u>
1. Preliminary contribution 1 (D. + E. + F.)	79,937	68,208
2. Administrative expense (previous year x 1.035)	14,847	10,507
3. Annual contribution (1.+ 2.)	94,784	78,716
4. Estimated member contributions	(15,360)	(15,360)
4. Estimated State Aid	(72,392)	(65,066)
5. Estimated municipal contribution (3.+4., not less than zero)	\$7,032	\$0

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Changes in the Unfunded Actuarial Accrued Liability

A. Liability gain or loss

1. Expected actuarial accrued liability (AAL)	
a. AAL as of January 1, 2006	2,619,711
b. Normal cost 2006	48,619
c. Normal cost 2007	48,619
d. Benefit payments 2006	(127,505)
e. Benefit payments 2007	(411,090)
f. Interest to December 31, 2007 on a. thru e.	<u>256,101</u>
g. Expected AAL on December 31, 2007 (sum of a. thru f.)	2,434,455
2. Actual AAL on January 1, 2008	
a. Before any assumption, method or plan changes	2,448,016
b. After assumption, method changes, but before plan changes	2,448,016
c. After assumption, method and plan changes	2,448,016
3. Difference from the expected AAL	
a. (Gain) or loss due to plan experience diff from that expected (2a. - 1e.)	13,561
b. Due to changes in actuarial assumptions and methods (2b. - 2a.)	0
c. Due to plan changes	<u>0</u>
d. Total (a. + b. + c.)	13,561

B. Asset gain or loss

1. Expected value of assets	
a. Value of assets on January 1, 2006	2,248,976
b. Benefit payments	(538,595)
c. Contributions	216,394
d. Interest to December 31, 2007 on a., b. and c.	<u>219,959</u>
e. Expected assets on December 31, 2007 (sum of a. through d.)	2,146,734
2. Actual assets on January 1, 2008	
a. Before any assumption or method changes	2,308,217
b. After assumption and method changes	2,308,217
3. Difference from the expected assets	
a. (Gain) or loss due to plan exp diff from expected (1e. - 2a.)	(161,483)
b. Due to changes in actuarial assumptions & methods (2a. - 2b.)	0
c. Total (a. + b.)	(161,483)

C. Changes in the unfunded actuarial accrued liability

1. Unfunded AAL on January 1, 2006 (A.1.a. - B.1.a.)	370,735
2. Expected unfunded AAL on December 31, 2008 (A.1.g. - B.1.e.)	287,721
3. Changes	
a. Actuarial (gain) or loss (A.3.a. + B.3.a.)	(147,922)
b. Changes in actuarial methods and assumptions (A.3.b. + B.3.b.)	0
c. Changes in plan provisions (A.3.c.)	<u>0</u>
d. Total change	(147,922)
4. Unfunded AAL on December 31, 2008	139,799

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Average Available Financing

	<u>State Aid</u>	<u>City Contrib</u>	<u>Credit for Surplus</u>	<u>Total</u>	<u>Active Members</u>	<u>Average Financing</u>
2005	\$69,944	\$22,255	\$0	\$92,199	32	\$2,881
2006	72,930	49,052	0	121,982	32	3,812
2007	62,866	31,546	0	94,412	34	2,777

Average available financing for 2008: \$3,157
Minimum required for \$3,800 lump sum benefit: 2,050
Maximum lump sum benefit permitted: 5,800

Notes:

- The State Aid and City Contributions shown are those made during the calendar year indicated.
- The number of active members is from the State Reporting Form for the year indicated, that is, the number as of December 31.
- The average available financing for 2008 is the average for the three years preceeding 2008 (2005 to 2007). Minnesota Statutes §424A.02.

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Summary of Changes in Membership

	<u>Active</u>	Terminated <u>Vested</u>	<u>Retired</u>	<u>Beneficiaries</u>	<u>Disabled</u>
<u>A. Members on January 1, 2006</u>	32	3	9	6	0
<u>B. Changes in the member group</u>					
1. New active members	6				
2. Retirements					
3. Separation, deferred benefit					
4. Separation, not vested					
5. Separation, disability benefit					
6. Deaths					
7. Lump sum distributions	(4)				
8. Corrections					
9. Total changes	2	0	0	0	0
<u>C. Members on January 1, 2008</u>	34	3	9	6	0

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Active Membership as of January 1, 2008

	<u>Birth Date</u>	<u>Entry Date</u>	<u>Projected Lump Sum Benefit*</u>
Armstrong, P	2/28/1966	10/13/1997	\$76,000
Atzenhoefer, R	12/22/1965	2/11/1987	106,400
Aust, J	3/9/1953	11/10/1976	117,800
Backer, T	9/6/1950	9/12/1984	87,400
Borchardt, D	10/29/1955	10/12/1996	76,000
Bulfer, P	1/13/1959	11/10/1982	98,800
Carlson, R	8/10/1953	5/14/1975	121,600
Carstensen, C	11/10/1965	1/11/1989	98,800
Craig, K	3/18/1964	10/12/1988	95,000
Cyphers, L	6/10/1979	2/13/2002	102,600
Determan, M	5/15/1961	5/14/1986	95,000
Feeney, J	9/6/1948	10/14/1992	76,000
Fowler, W	10/10/1960	1/15/1986	91,200
Freeman, J	12/12/1968	10/11/1995	87,400
Johnson, D	1/14/1970	10/12/1994	95,000
Johnson, L	8/4/1962	9/11/1991	76,000
Lilgenquist, T	4/24/1970	10/13/1997	83,600
Miller, M	9/27/1967	10/13/1993	87,400
Moore, D	10/7/1966	10/6/2004	76,000
Nawrocki, D	8/6/1979	10/13/2005	87,400
Olson, R	7/26/1962	7/10/1985	102,600
Paradis, B	11/22/1960	2/11/1987	87,400
Rosol, J	4/16/1962	8/18/1986	95,000
Scott, B	1/24/1975	10/8/2002	83,600
Sparks, T	5/25/1951	4/17/1974	125,400
Swanson, D	7/7/1960	2/14/1989	79,800
Thimesch, T	4/7/1958	2/12/1992	76,000
Whitmore, R	7/11/1954	10/11/1989	76,000

New active members since January 1, 2006:

Davis, J	4/18/1977	10/10/2007	76,000
Haagan, P	6/11/1971	10/10/2007	76,000
Kastning, B	2/10/1971	11/14/2006	76,000
Larsen, J	4/17/1974	10/10/2007	76,000
Miller, J	4/13/1973	10/10/2007	76,000
Nelson, R	1/7/1974	10/10/2007	76,000

* Assumes retirement at later of age 50 or 20 years of service.

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Inactive Members as of January 1, 2008

<u>Retired members</u>	<u>Birth Date</u>	<u>Monthly Benefit</u>	
Anderson, D	2/23/1936	\$500	
Bassett, D	7/31/1934	500	
Genrich, H	1/7/1928	500	
Hartwig, R	7/23/1939	500	
Johnson, H	4/16/1937	500	
Larkin, L	5/20/1937	500	
Plumhoff, D	10/11/1923	500	
Stevens, G	6/29/1937	500	
Theesfield, L	2/16/1934	500	
<u>Widows</u>	<u>Birth Date</u>	<u>Monthly Benefit</u>	
Alm, A	4/4/1929	\$500	
Cavers, S	12/2/1938	500	
Christianson, D	12/9/1925	500	
Clark, D	6/8/2019	500	
Simmons, R	11/24/1927	500	
Wenzel, D	1/28/1925	500	
<u>Deferred vested</u>	<u>Birth Date</u>	<u>Monthly Benefit</u>	<u>Lump Sum Benefit</u>
Crawford, R	6/15/1954	\$125	N/A
Joeckel, K	4/1/1962	N/A	\$29,250
Nelson, R	11/4/1959	N/A	33,250

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1. Normal Retirement Benefit Lump sum benefit of \$3,800 per year of service, payable on retirement after attainment of age 50 and completion of 20 years of service.

2. Deferred Vested Benefit Members terminating with at least ten years of service receive a deferred benefit when they reach age 50. The benefit is equal to the accrued normal retirement benefit at the date of termination multiplied by the member's vesting percentage. The vesting percentage is 60% for members with 10 years of service, increased by 4% for each additional year of service up to a maximum of 100% after 20 years. The benefit is credited with interest at the rate earned by the special fund up to a maximum of 5% per year during the deferral period.

3. Disability Benefit On termination due to permanent disability, a lump sum benefit is payable immediately in the amount of \$3,800 for each completed year of service at the date of disability.

4. Death Benefit On the death of any active or deferred vested member, 100% of the member's lump sum service pension, adjusted for vesting, is payable immediately to the surviving spouse, or to the member's estate if there is no spouse. On the death of any member who retired before January 1, 1999 and who did not receive a lump sum payment, 100% of the member's monthly benefit is payable to the surviving spouse. If there is no surviving spouse the surviving minor children share the 100% benefit until they reach age 19.

5. Member Contributions Members are required to contribute \$40 per month.

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1. Mortality
The 1971 Group Annuity Mortality Table without margins, projected to 1976 by Scale E.
2. Withdrawal
The rate of withdrawal is .06 at age 20 decreasing uniformly to zero at age 45 with no withdrawal after that age.
3. Disability
The Railroad Retirement Board 12th Valuation rates of disablement.
4. Retirement Age
Members are assumed to retire after attaining age 50 and completing 20 years of service.
5. Interest Rate
5% compounded annually.
6. Actuarial Cost Method
The Entry Age Normal Cost Method. Under this method, the normal cost for an individual member is the level annual dollar amount 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.