

**Bloomington Fire Department Relief Association**  
***ACTUARIAL VALUATION REPORT***

**January 1, 1996**

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**Bloomington Fire Department Relief Association**  
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**Bloomington Fire Department Relief Association**  
**Report Highlights**

	January 1, 1995 Valuation	January 1, 1996 Valuation
<b>A. REQUIRED CONTRIBUTIONS - CHAPTER 356</b>		
1. Amount (payable at end of year)	\$ 1,497,500 *	\$ 740,900
2. Amount per Active Participant	\$ 10,472	\$ 5,006
<b>B. ACCRUED LIABILITY FUNDING RATIO</b>		
1. Market Value of Special Fund	\$ 53,669,100	\$ 66,622,700
2. Accrued Liability	\$ 50,359,800 *	56,410,500
3. Funding Ratio (1./2.)	106.57%	118.10%
<b>C. PLAN PARTICIPANTS</b>		
1. Active Members		
a. Number	143	148
b. Average Age	35.7	35.7
c. Average Service	8.8	8.7
2. Others		
a. Retirees	83	90
b. Disableds	5	6
c. Surviving Spouses	10	10
d. Surviving Children	1	1
e. Deferred Vested	<u>9</u>	<u>8</u>
f. Total	108	115

\* Provided by the Wyatt Company.

**Bloomington Fire Department Relief Association**  
**Commentary**

***Purpose and Summary***

The purpose of this valuation is to determine the financial status of the Plan. To achieve this purpose, an actuarial valuation is made at the beginning of each fiscal year as required by Section 356 of the Minnesota Statutes.

Our valuation indicates a required contribution of \$705,600 as of January 1, 1996. This amount must be increased at an annual rate of 5% until the date the contribution is made. If the contribution is made as late as December 31, 1996 the required contribution would equal \$740,900.

The required contribution decreased \$756,600 from the \$1,497,500 required for the plan year ending December 31, 1995. The decrease in required contribution is primarily due to the following:

- Investment earnings were 26.3% for 1995 compared to the assumed rate of 5.0%.
- The increase in the monthly basic benefit for valuation purposes was 2.9% compared to the assumed increase of 3.5%.

The Accrued Liability Funding Ratio is a measure of funding status and funding progress. It is based on the actuarial cost method used to determine required contributions. For 1996 the ratio is 118.10%, which is an increase from the 1995 value of 106.57%.

***Member Data***

Reported data for the January 1, 1996 valuation included the following members:

	<i>Number</i>
Actives	148
Terminated with Deferred Benefits	8
Retirees	90
Disableds	6
Surviving Spouses	10
Surviving Children	<u>1</u>
Total	263

Table 2 sets forth the projected benefit that each active member would receive if he continued as an active member until his normal retirement date, age 50 and completion of 20 years of service. The benefits shown in this table are projected assuming plan benefits increase 3.5% annually.

Table 3 sets forth the current benefit that each inactive member is currently receiving or is eligible to receive upon attainment of age 50. No increase in benefits is assumed for this listing.

Table 4 contains a reconciliation of member data from January 1, 1995 to January 1, 1996.

Monthly plan benefits are calculated based on the most recent three year average salary rates of the highest paid policeman, other than officers, of the city of Bloomington. Benefits paid by the plan increase whenever salary increases are granted. For valuation purposes benefits are assumed to equal their highest level during the calendar year. The following monthly benefit levels were assumed to be in effect for valuation purposes:

	<i>January 1, 1995</i>	<i>January 1, 1996</i>
Retirees	\$1,232	\$1,268
Surviving Spouses	924	951

#### ***Asset Information***

The Actuarial Value of Assets was determined as the market value of the Special Fund as of December 31, 1995 less liabilities payable as of December 31, 1995. For valuation purposes assets are equal to \$66,622,653 ( \$66,761,022 less \$138,369).

#### ***GASB Disclosure***

The Governmental Accounting Standards Board (GASB) requires governmental plans to disclose certain information in their financial statements. Table 5 presents the information required to be disclosed by GASB Statement No. 5.

The projected benefit obligation equals the present value of all benefits earned based on current service but assuming future increases in benefit levels. The vested projected benefit obligation equals the projected benefit obligation for only those active members who have completed 20 years of service.

#### ***Actuarial Cost Method***

The approach used by the Bloomington Fire Department Relief Association to determine required contributions is the Individual Entry Age Normal Cost Method. The primary characteristic of this method is that it allocates costs as a level of percentage of payroll.

Under this method, the normal cost is equal to the level percentage of pay that would fund each fireman's benefits if the same percentage of pay is contributed to the plan each year from the fireman's entry until he attains normal retirement age.

The accrued liability equals the present value of all benefits expected to be paid from the plan less the present value of all future normal costs for current active members.

The accrued liability is compared to the actuarial value of assets of the Special Fund to determine the plan's funded status. Currently the actuarial value of assets of the Special Fund exceeds the plan's accrued liability. The plan is allowed to recognize a credit against the minimum required contribution equal to 10 percent of this excess.

Any future changes in the plan's unfunded accrued liability are required to be amortized over a 30 year period.

### ***Changes in Unfunded Accrued Liability***

The assumptions used in making the calculations using the Entry Age Normal Cost Method are based on long-term expectations. Each year, the actual experience will deviate from the long-term expectation. For an analysis of the major deviations refer to Table 7.

### ***Required Contribution***

The Required Contribution, set forth in Chapter 356, consists of:

Normal Cost based on the Entry Age Normal Cost Method.

A Supplemental Contribution for amortizing any Unfunded Accrued Liability or a Credit for any Excess of Plan Assets over Accrued Liability.

An Allowance for Expenses.

Table 8 sets forth the determination of the Required Contribution for the Plan Year ending December 31, 1996.

### ***Actuarial Assumptions***

All actuarial assumptions are the same as those used in the prior valuation. Chapter 356 of Minnesota State Statutes requires that the actuarial valuation be based on a assumed interest rate of 5% per annum and an assumed rate of salary increase of 3.5% per annum. All other assumptions are left to the discretion of the actuary. Table 9 contains a summary of actuarial assumptions and methods.

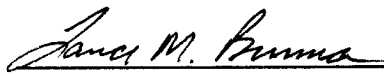
### ***Plan Provisions***

All Plan provisions are the same as those used in the prior valuation. Table 10 contains a summary of the principal provisions of the plan.

We certify that this actuarial valuation has been prepared in accordance with Chapter 356 of the Minnesota State Statutes as it applies to the Bloomington Fire Department Relief Association.



Donna M. Lundquist, FSA  
Actuary



Lance M. Burma, FSA  
Consulting Actuary

February 26, 1996

**TABLE 1**

**Bloomington Fire Department Relief Association  
Change in Actuarial Value of Assets**

Year Ending December 31, 1995

A. ACTUARIAL VALUE OF ASSETS AT BEGINNING OF PERIOD	\$	53,669,051
B. OPERATING REVENUES		
1. Membership Dues	\$	20,242
2. Contributions from the City of Bloomington		267,134
3. Contributions from the State of Minnesota		231,512
4. Investment Income		774,285
5. Net Realized Gain (Loss)		200,336
6. Other		0
7. Net Change in Unrealized Gain (Loss)		13,004,850
8. Total Revenue	\$	<u>14,498,359</u>
C. OPERATING EXPENSES		
1. Benefit Payments	\$	1,464,721
2. Administrative Expenses		71,658
3. Change in Liabilities Payable		8,378
4. Total Disbursements		<u>1,544,757</u>
D. ACTUARIAL VALUE OF ASSETS AT END OF PERIOD	\$	<u>66,622,653</u>



**Bloomington Fire Department Relief Association  
Projected Benefits for Active Members**

January 1, 1996

<u>Name</u>	<u>Birth Date</u>	<u>Entry Date</u>	<u>Annual Projected Benefit</u>
S Adelman	12/56	07/91	22,215
W Ahman	09/53	05/78	20,037
D Allen	07/73	08/93	39,869
S Anderson	10/51	01/86	18,704
T Arbuckle	02/60	01/84	24,630
B Aske	12/56	10/83	22,215
J Baeten	11/62	11/93	28,264
J Barnes	01/53	09/79	19,359
D Batten	08/64	05/91	29,253
J Bayard	02/60	07/91	26,384
J Bell	08/57	05/89	23,797
L Bergquist	11/42	11/77	16,300
S Blodgetts	10/43	07/78	16,870
D Bujold	08/57	04/90	24,630
B Carlson	06/70	08/88	34,743
T Carlson	10/66	11/91	31,336
D Carney	09/53	07/88	23,797
T Cherep	10/68	12/95	33,568
P Collins	04/54	12/84	20,738
D Congdon	05/38	09/79	15,216
R Connolly	12/68	10/95	33,568
L Daly	10/52	04/87	22,215
D DeLong	07/54	03/85	20,738
R Donnelly	08/64	11/91	29,253
M Doyle	03/49	06/82	18,704
J Duerkop	01/53	04/83	19,359
G Dugal	01/48	08/79	17,461
B Dunham	03/55	07/80	20,738
D Dvorak	10/46	11/73	15,749
D Ellings	08/59	03/82	24,630
T Erickson	10/58	11/88	23,767
J Exe	05/74	12/95	39,869
P Ferry	05/48	02/83	19,359
J Finnegan	10/45	05/79	16,870

**Bloomington Fire Department Relief Association  
Projected Benefits for Active Members**

January 1, 1996

<u>Name</u>	<u>Birth Date</u>	<u>Entry Date</u>	<u>Annual Projected Benefit</u>
J Forster	05/73	06/92	38,520
S Fritchman	06/59	04/87	23,797
K Frosig	02/65	10/91	29,253
M Gallagher	02/67	11/93	31,336
M Gang	02/64	03/95	29,253
D Gillum	08/54	10/88	23,797
P Goodwin	10/61	03/91	26,384
L Groth	08/70	09/91	35,959
C Guth	09/55	11/80	21,464
J Haeg	02/70	01/91	34,743
R Haeg	06/53	12/90	25,492
L Haugan	08/52	03/77	19,359
K Hecht	07/71	10/93	37,218
W Hecht	03/51	06/73	18,072
P Heger	10/53	12/74	20,037
B Henry	05/63	11/89	27,308
B Hoepfner	10/67	12/95	32,433
M Hoy	07/68	07/89	33,568
H Huber	03/76	08/94	42,708
R Huffman	05/56	04/87	22,215
A Hundt	06/57	05/81	22,215
M Hurley	03/52	02/80	18,704
J Hutter	02/64	11/90	28,264
W Jeffers	11/47	07/80	18,072
N Johnson	01/59	08/91	26,384
J Judy	10/46	04/81	18,072
K Kaiser	06/54	08/80	20,037
B Kalina	10/49	01/75	17,461
T Keeler	10/68	09/87	33,568
P Keller	05/44	02/76	15,216
B Koke	04/59	09/93	28,264
M Landstad	02/76	11/94	42,708
J Lanenberg	04/66	07/84	30,277
P Langer	06/66	07/91	30,277

**Bloomington Fire Department Relief Association  
Projected Benefits for Active Members**

January 1, 1996

<u>Name</u>	<u>Birth Date</u>	<u>Entry Date</u>	<u>Annual Projected Benefit</u>
S Leeder	10/51	10/80	18,704
G Lembeck	12/64	04/87	29,253
M Lessard	09/66	06/89	31,336
K Mahoney	10/62	10/90	27,308
S Maloney	01/60	10/81	24,630
D Manske	10/48	08/75	16,870
D Matlon	11/61	08/88	26,384
S McCarthy	07/61	04/88	26,384
K McDevitt	04/53	12/84	20,738
B McDonald	03/64	07/91	28,264
S McWilliams	04/65	11/91	29,253
J Meuwissen	12/53	04/87	22,215
C Meyer	07/64	06/89	29,253
J Meyer	06/75	12/95	41,264
D Michalski	07/66	01/94	31,336
J Mielke	07/71	03/95	37,218
G Moore	07/69	03/90	34,743
C Morrison	01/69	09/92	33,568
J Nanoff	10/53	12/87	22,992
K Nelson	10/60	07/88	25,492
R Nelson	02/57	04/89	23,797
R Nelson	06/59	05/86	23,797
D Noel	08/55	02/90	24,630
J Nord	02/71	08/94	35,959
S Oberaigner	04/67	03/94	31,336
B Oconnor	07/64	03/85	29,253
C Odash	05/61	05/89	25,492
B Olson	05/57	11/84	22,215
M Olson	07/66	12/95	31,336
R Olson	07/54	01/79	20,738
C Palmquist	10/71	03/95	37,218
E Palmsten	07/48	02/83	19,359
S Peterson	10/70	06/89	35,959
K Phongsavat	07/71	10/93	37,218

**Bloomington Fire Department Relief Association  
Projected Benefits for Active Members**

January 1, 1996

<u>Name</u>	<u>Birth Date</u>	<u>Entry Date</u>	<u>Annual Projected Benefit</u>
J Reily	08/50	07/85	21,464
C Reiman	04/57	03/94	28,264
C Reynolds	08/63	11/83	28,264
R Roase	09/57	02/85	22,992
W Roase	12/58	12/83	23,797
R Roehl	04/52	09/78	18,704
M Scherer	07/67	07/88	32,433
J Schoenborn	02/67	11/90	31,336
C Schuman	06/50	12/95	30,277
T Schwartz	06/54	04/87	22,215
U Seal	10/57	06/76	22,992
R Shaw	04/54	02/84	20,037
T Sheflet	09/66	01/89	31,336
G Shields	01/47	10/81	18,704
D Smith	04/47	02/82	18,704
M Smith	06/68	04/91	32,433
R Smith	05/52	06/78	18,704
D Sorensen	07/66	11/87	31,336
J Spetz	05/71	12/93	35,959
J St. Pierre	11/64	03/91	29,253
B Stekly	06/75	12/95	41,264
B Sveum	01/52	06/73	18,704
A Svobodny	07/55	04/83	21,464
T Swartz	06/54	04/87	22,215
B Tanner	04/69	07/87	33,568
L Thayer	01/67	03/91	31,336
V Traetow	04/52	04/87	22,215
L Trisco	11/66	11/89	31,336
R Trousdale	08/52	05/83	19,359
D Tschimperle	01/65	04/85	29,253
K Tschimperle	12/65	06/84	30,277
J Tumberg	03/64	11/84	28,264
S Verba	12/58	03/91	25,492
R Vierling	06/72	10/93	37,218

**Bloomington Fire Department Relief Association**  
***Projected Benefits for Active Members***

January 1, 1996

<u>Name</u>	<u>Birth Date</u>	<u>Entry Date</u>	<u>Annual Projected Benefit</u>
D Wenshau	12/72	06/91	38,520
T Winckler	02/61	12/95	30,277
M Younggren	12/53	11/87	22,992

**Bloomington Fire Department Relief Association  
Projected Benefits for Inactive Members**

January 1, 1996

<u>Name</u>	<u>Type</u>	<u>Monthly Benefit</u>
B Anderson	Retired	1,268
B Anderson	Retired	1,268
L Anderson	Retired	1,268
L Anderson	Disabled	1,268
R Anderson	Retired	1,268
R Boeser	Retired	1,268
R Borst	Retired	1,268
J Brening	Retired	1,268
D Carlson	Retired	1,268
G Chaplin	Retired	1,268
L Christensen	Widow	951
E Christian	Retired	1,268
D Ciardelli	Retired	1,268
R Clemensen	Retired	1,268
J Colehour	Disabled	1,268
D Cruikshank	Retired	1,268
D Dodds	Retired	1,268
G Doucette	Retired	1,268
R Eglan	Retired	1,268
D Elftmann	Retired	1,268
J Ellrich	Widow	951
R Elm	Retired	1,268
D Engberg	Retired	1,268
J Engberg	Retired	1,268
W Faber	Retired	1,268
R Falk	Deferred	1,268
I Finn	Retired	1,268
N Fischer	Retired	1,268
M Freemark	Retired	1,268
F Fuecker	Retired	1,268
A Furuli	Retired	1,268
N Gabriel	Retired	1,268
R Gabriel	Retired	1,268
J Gale	Disabled	1,268
J Gasterland	Retired	1,268

**Bloomington Fire Department Relief Association  
Projected Benefits for Inactive Members**

January 1, 1996

<u>Name</u>	<u>Type</u>	<u>Monthly Benefit</u>
C Gerdes	Deferred	1,268
G Gerhardt	Retired	1,268
J Gjevre	Retired	1,268
P Goettsche	Child	182
T Gustafson	Disabled	1,078
G Haeg	Disabled	1,268
J Haeg	Retired	1,268
W Haeg	Retired	1,268
V Hager	Widow	951
P Hall	Retired	1,268
J Harringer	Retired	1,268
G Hayden	Retired	1,268
D Hedin	Deferred	1,268
C Hetcht	Retired	1,268
K Hetcht	Retired	1,268
C Hedin	Retired	1,268
R Hedin	Retired	1,268
B Hoaglund	Widow	951
P Huber	Deferred	1,268
M Kaiser	Retired	1,268
W Kalima	Retired	1,268
E Keith	Retired	1,268
W Kettlekamp	Retired	1,268
R Kimbler	Retired	1,268
G Kristjanson	Retired	1,268
H Lanenberg	Retired	1,268
W Lembeck	Retired	1,268
G Lessen	Deferred	1,268
M Loiselle	Deferred	1,268
O Lund	Widow	951
R Macallister	Retired	1,268
T Manske	Retired	1,268
D Martenson	Retired	1,268
D Mattson	Retired	1,268
R McDonald	Retired	1,268

**Bloomington Fire Department Relief Association  
Projected Benefits for Inactive Members**

January 1, 1996

<u>Name</u>	<u>Type</u>	<u>Monthly Benefit</u>
R McKenzie	Retired	1,268
J McWilliams	Retired	1,268
G Melony	Retired	1,268
G Miller	Retired	1,268
S Minion	Retired	1,268
D Napier	Retired	1,268
D Nichols	Retired	1,268
W Noleen	Retired	1,268
D Olson	Retired	1,268
W Paget	Retired	1,268
K Pahl	Deferred	1,268
M Pahl	Retired	1,268
E Peterson	Retired	1,268
D Peterson	Retired	1,268
D Peterson	Retired	1,268
R Peterson	Retired	1,268
S Peterson	Widow	951
T Pressler	Retired	1,268
K Roberts	Deferred	1,268
M Rouen	Retired	1,268
M Rueger	Widow	951
J Savage	Widow	951
R Savage	Widow	951
R Schoenborn	Retired	1,268
V Segerstrom	Retired	1,268
G Selinsky	Retired	1,268
D Sheflet	Retired	1,268
B Smith	Retired	1,268
W Snyder	Retired	1,268
M Stern	Retired	1,268
W Sutcliffe	Disabled	571
R Swanson	Retired	1,268
E Swiven	Retired	1,268
J Thomas	Retired	1,268



**Bloomington Fire Department Relief Association**  
***Projected Benefits for Inactive Members***

January 1, 1996

<u>Name</u>	<u>Type</u>	<u>Monthly Benefit</u>
R Thoma	Retired	1,268
D Travers	Retired	1,268
L Tschimperl	Retired	1,268
M Vober	Retired	1,268
A Welter	Retired	1,268
E Wenshau	Retired	1,268
C Willams	Retired	1,268
C Wilson	Retired	1,268
G Wilson	Retired	1,268
L Wise	Retired	1,268
M Zochert	Widow	958

**TABLE 4**

**Bloomington Fire Department Relief Association  
Reconciliation of Members**

	<u>Actives</u>	<u>Deferred Vested</u>
A. ON JANUARY 1, 1995	143	9
B. ADDITIONS	13	4
C. DELETIONS		
1. Service Retirement	(2)	(5)
2. Disability	(1)	-
3. Death - Survivor	-	-
4. Death - Other	-	-
5. Terminated - Deferred Vested	(4)	-
7. Terminated - Non-Vested	(1)	-
8. Returned as Active	-	-
D. DATA ADJUSTMENTS	-	-
1. Vested	9	
2. Non-Vested	139	
E. TOTAL ON JANUARY 1, 1996	148	8

	<u>Recipients</u>			
	<u>Retirement Annuitants</u>	<u>Disabled</u>	<u>Surviving Spouse</u>	<u>Surviving Child</u>
A. ON JANUARY 1, 1995	83	5	10	1
B. ADDITIONS	7	1	-	-
C. DELETIONS				
1. Service Retirement	-	-	-	-
2. Death	-	-	-	-
3. Annuity Expired	-	-	-	-
4. Returned as Active	-	-	-	-
D. DATA ADJUSTMENTS	-	-	-	-
E. TOTAL ON JANUARY 1, 1996	90	6	10	1

**Bloomington Fire Department Relief Association**  
**Financial Disclosure Information**

January 1, 1996

Retirees and beneficiaries currently receiving benefits and terminated employees not yet receiving benefits	\$	35,266,500
Current Employees		
Accumulated employee contributions including allocated investment income	\$	0 *
Employer-financed vested		2,674,700
Employer-financed non-vested		15,983,200
Total Pension Benefit Obligation	\$	53,924,400

**Assumptions:** The primary actuarial assumptions used in determining the above Financial Disclosure Information included a discount rate of 5% and future benefit increased of 3.5%.

\* Assumed employee contributions are not accounted for separately since the plan does not contain provisions for return of accumulated contributions.

TABLE 6

**Bloomington Fire Department Relief Association**  
**Determination of Unfunded Accrued Liability**

January 1, 1996

	Actuarial Present Value of Projected Benefits	Actuarial Present Value of Future Normal Costs	Accrued Liability
<b>A. DETERMINATION OF ACCRUED LIABILITY</b>			
1. Active Members			
a. Retirement Annuities	\$ 34,750,000	\$ 16,252,700	\$ 18,497,300
b. Disability Benefits	6,138,200	4,154,200	1,984,000
c. Survivors' Benefits	1,328,300	921,000	407,300
d. Deferred Retirements	585,700	330,300	255,400
e. Total	<u>\$ 42,802,200</u>	<u>\$ 21,658,200</u>	<u>\$ 21,144,000</u>
2. Deferred Vested Members	3,047,500		3,047,500
3. Retired Members	28,466,600		28,466,600
4. Disabled Members	2,323,800		2,323,800
5. Survivors	1,428,600		1,428,600
6. Total	<u>\$ 78,068,700</u>	<u>\$ 21,658,200</u>	<u>\$ 56,410,500</u>
<b>B. DETERMINATION OF UNFUNDED ACCRUED LIABILITY</b>			
1. Accrued Liability			\$ 56,410,500
2. Actuarial Value of Assets			66,622,700
3. Unfunded Accrued Liability			<u>\$ (10,212,200)</u>

TABLE 7

**Bloomington Fire Department Relief Association**  
***Changes in Unfunded Accrued Liability***

Year Ending December 31, 1995

A. UNFUNDED ACCRUED LIABILITY AT BEGINNING OF YEAR	\$ (3,309,300)
B. INCREASE DUE TO:	
1. Contributions less than Annual Actuarial Cost	\$ 1,334,400
2. Favorable Mortality Experience	683,900
3. Miscellaneous Factors	2,708,600
4. Total	<u>\$ 4,726,900</u>
C. DECREASE DUE TO:	
1. Salary Increases Lower than Expected	\$ 316,800
2. Investment Return Higher than Expected	11,313,000
3. Total	<u>11,629,800</u>
D. UNFUNDED ACCRUED LIABILITY AT END OF YEAR	<u><u>\$ (10,212,200)</u></u>

**TABLE 8**

**Bloomington Fire Department Relief Association  
Determination of Required Contribution**

January 1, 1996

	<u>Dollar Amount</u>
A. NORMAL COST	
a. Retirement Benefits	\$ 1,257,400
b. Disability Benefits	324,200
c. Survivors' Benefits	72,200
d. Deferred Retirement Benefits	18,900
e. Total	<u>1,672,700</u>
f. Estimated Member Contributions	20,900
g. Net Normal Cost	<u>\$ 1,651,800</u>
B. CREDIT FOR SURPLUS ASSETS	<u>\$ (1,021,200)</u>
C. ALLOWANCE FOR ADMINISTRATIVE EXPENSES	<u>\$ 75,000</u>
D. TOTAL	<u>705,600</u>
E. PAYABLE AS OF DECEMBER 31, 1996 (D. * 1.05)	<u>\$ 740,900</u>

**Bloomington Fire Department Relief Association**  
**Summary of Actuarial Assumptions and Methods**

<i>Interest:</i>	5.00% per annum
<i>Mortality:</i>	<p>Pre-Retirement:</p> <p style="padding-left: 40px;">Male - 1971 Group Annuity Mortality Table, without margins, projected to 1976 by Scale E.</p> <p style="padding-left: 40px;">Female - 1971 Group Annuity Mortality Table, without margins, projected to 1976 by Scale E set back 7 years.</p> <p>Post-Retirement:</p> <p style="padding-left: 40px;">Male - same as above.</p> <p style="padding-left: 40px;">Female - same as above.</p> <p>Post-Disability:</p> <p style="padding-left: 40px;">Male - same as above.</p> <p style="padding-left: 40px;">Female - same as above.</p>
<i>Retirement Age:</i>	Members are assumed to retire after attaining age 50 and completing 20 Years of Service.
<i>Separation:</i>	Graded rates shown in the rate table.
<i>Disability:</i>	Graded rates shown in the rate table.
<i>Social Security:</i>	N/A
<i>Benefit Increases:</i>	3.5% per annum.
<i>Actuarial Cost Method:</i>	Entry Age Normal Cost Method with normal costs expressed as level percentage of earnings from each Members date of joining the Association to the Members assumed retirement age. Each Member is assumed to earn the same as Bloomington Policeman.
<i>Asset Valuation Method:</i>	Market Value.

**Bloomington Fire Department Relief Association**  
**Summary of Actuarial Assumptions and Methods (con.)**

<i>Payment on the Unfunded Accrued Liability:</i>	Any change in the Unfunded Accrued Liability are amortized as level dollar amount over a new 30 year period
<i>Administrative Expenses:</i>	Prior year administrative expenses (excluding investment expenses) expressed as a level amount per participant.
<i>Family Composition:</i>	100% of Members are assumed to be married. Female is assumed to be three years younger than male.
<i>Form of Payments:</i>	75% Joint and Survivor Annuity, Life Annuity if single.



TABLE 9

**Bloomington Fire Department Relief Association**  
**Summary of Actuarial Assumptions and Methods (con.)**

*Separations Expressed as the Number of Occurrences per 10,000 \**

<u>Age</u>	<u>Death</u>		<u>Withdrawal</u>	<u>Disability</u>	<u>Retirement</u>
	<u>Male</u>	<u>Female</u>			
20	5	4	300	24	0
21	5	4	290	24	0
22	5	4	280	24	0
23	5	4	270	24	0
24	6	4	260	24	0
25	6	5	250	24	0
26	6	5	240	24	0
27	7	5	230	24	0
28	7	5	220	24	0
29	7	5	210	24	0
30	8	5	200	24	0
31	8	6	190	24	0
32	9	6	180	24	0
33	9	6	170	24	0
34	10	7	160	26	0
35	11	7	150	30	0
36	12	7	140	34	0
37	13	8	130	40	0
38	14	8	120	46	0
39	15	9	110	52	0
40	16	9	100	58	0
41	17	10	90	64	0
42	19	11	80	74	0
43	22	12	70	84	0
44	25	13	60	96	0
45	28	14	50	110	0
46	32	15	40	128	0
47	36	16	30	142	0
48	41	17	20	158	0
49	46	19	10	174	0
50	-	-	-	-	10,000

\* Assuming 20 years service at age 50

**Bloomington Fire Department Relief Association  
Summary of Plan Provisions**

**GENERAL**

<i>Eligibility:</i>	Members in good and regular standing of the Bloomington Fire Department Relief Association, and who have actively served as fire fighters in the Bloomington Fire Department for at least one month.
<i>Membership Dues:</i>	One hundred forty-four dollars per year, payable semi-annually on January 1 and July 1.
<i>Index Salary:</i>	The average of the monthly salary for the preceding three years, including the current year of a patrol officer of the highest grade in the employ of the city of Bloomington.
<i>Basic Benefit:</i>	One-third of Index Salary. All benefits under the plan increase each time a pay increase is granted to the Bloomington Police Department.

**RETIREMENT****Normal Retirement Benefit:**

<i>Eligibility:</i>	Age 50 with 20 years of Service.
<i>Amount:</i>	Basic Benefit
<i>Form of Payment:</i>	75% Joint and Survivor if married, Life Annuity if single.

**Disability Benefit:**

<i>Eligibility:</i>	Inability to perform the duties of a firefighter in the opinion of a physician or physicians appointed by the Board of Trustees.
<i>Duty Related Amount:</i>	Basic benefit is payable at time of disability. This benefit is payable during the period of disability. After attainment of age 50, no evidence of disability is required for the benefit to continue.

**Bloomington Fire Department Relief Association  
Summary of Plan Provisions (con.)**

<i>Non-Duty Related Amount:</i>	The basic benefit is multiplied by 5% for each year of service up to the date of disability (maximum 20 years). This benefit is payable during the period of disability. After attainment of age 50, no evidence of disability is required for the benefit to continue.
<i>Form of Payment:</i>	Same as for retirement.

## **DEATH**

<i>Spouse's Benefit</i>	
<i>Duty-Related Amount:</i>	75% of the basic benefit is payable for his or her remaining lifetime. Benefits cease on remarriage of the surviving spouse.
<i>Non-Duty Related Amount:</i>	75% of the basic benefit multiplied by 5% for each year of service up to the date of death to a maximum of 20 years. This benefit is payable for his or her remaining lifetime. Benefits cease on remarriage of the surviving spouse.
<i>Childrens' Benefit:</i>	
<i>Eligibility:</i>	An active Member who dies and leaves surviving children.
<i>Amount:</i>	12% of the basic benefit is payable to each surviving child until attainment of age 18 or marriage. The maximum benefit paid to all family members will not exceed 100% of the basic benefit.
<i>Lump Sum Death Benefit:</i>	\$500 is payable on the death of any active or inactive member:

## **TERMINATION**

<i>Eligibility:</i>	20 years of Service.
<i>Amount:</i>	The basic benefit is payable at age 50.