Thief River Falls Police Relief Association Annual Actuarial Valuation December 31, 2002

Gabriel, Roeder, Smith & Company

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GABRIEL, ROEDER, SMITH & COMPANY

Consultants & Actuaries

One Towne Square • Suite 800 • Southfield, Michigan 48076 • 248-799-9000 • 800-521-0498 • fax 248-799-9020

October 30, 2003

Board of Trustees Thief River Falls Police Relief Association Thief River, Minnesota

Submitted in this report are the results of the December 31, 2002 actuarial valuation of the assets, actuarial values and contribution requirements associated with the benefits provided by the Thief River Falls Police Relief Association.

The valuation results contained in Section A provide the actuarial information needed to determine the employer's "minimum obligation" effective January 1, 2004. Section A also contains comments regarding the valuation results.

The valuation was based upon information furnished by the Association concerning benefits, financial transactions, terminated members, retirants and beneficiaries. Data was checked for year to year consistency but was not otherwise audited by us. This information is summarized in Section B.

A description of the actuarial funding method and the risk experience assumptions used is contained in Section C. The economic risk experience assumptions, as well as the actuarial funding method to be used, are established by state law.

Information needed to comply with Statement No. 25 of the Governmental Accounting Standards Board is contained in Section D.

The actuarial valuation was prepared using generally accepted actuarial principles and practices based upon the methods, assumptions, summary of plan provisions and the member and financial data described in this report.

Respectfully submitted,

Randall G. Dziubek

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Valuation Results

COMMENTS

Economic Assumptions and Financing Method

The economic assumptions of 5% annual investment return and 3-1/2% annual salary increases are established by state law. State law also specifies that the annual minimum obligation of the municipality shall be determined by adding (i) the employer normal cost percent times covered payroll to (ii) the level dollar amount required to amortize the unfunded actuarial accrued liability by December 31, 2010.

It is worth noting that when the same assumptions and methods are applied to plans which differ in nature, the valuation results may not be comparable. Caution should be exercised when attempting to assess the financial condition of one Association relative to another on the basis of valuation results produced using the assumptions and methods mandated by state law.

CONTRIBUTION RATE TO PROVIDE BENEFITS Member portion & Employer portion Effective January 1, 2004

	If Paid Equally Throughout Year			
Contributions for	Normal Cost % of Active Payroll for 2004	+	UAAL Dollars	
Normal cost of annuities Age & service: to members Age & service: to survivors Disability Death before retirement Refunds of member contributions Total Normal Cost	N/A			
Amortization of unfunded actuarial accrued liabilities (UAAL) (7 year level dollar payment)				
Retired lives Active members Total			\$14,955 0 14,955	
Total Cost of Benefits	N/A	+	\$14,955	
Member contributions	N/A			
COMPUTED EMPLOYER RATE:				
(a) If Paid Equally Throughout Year(b) IF PAID AT CALENDAR YEAR END	N/A N/A	+ +	\$14,955 \$15,324	

PRESENT ACTUARIAL CONDITION

The Association's accrued actuarial assets were \$162,635 on December 31, 2002. The following schedule shows the relationship between accrued actuarial assets, actuarial accrued liabilities, and the number of persons with actual and potential claims on the Association's assets.

	Accrued Actuarial Assets	Actuarial Accrued Liabilities	Unfunded Actuarial Accrued Liabilities	Percent Funded
Retirants and Beneficiaries Retired Members (0) Surviving Spouses (4) Surviving Children (0)		\$ 0 251,316 0		
Total (4)	\$162,635	\$251,316	\$88,681	64.7%
Deferred Members (0)	0	0	0	
Active Members (0)	0	0	0	
Total	\$162,635	\$251,316	\$88,681	64.7%

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Actuarial accrued liabilities represent the value of retirement allowances likely to be paid the 4 beneficiaries, discounted for investment earnings and mortality, which was computed to be \$251,316 as of December 31, 2002. To put this amount in perspective, the \$251,316, together with investment earnings, will just be sufficient to pay the 4 beneficiaries their allowances for their remaining lifetimes. This assumes that they live and die according to the assumed mortality and the \$251,316 is invested to yield an average annual return of 5.0% over the remaining lifetimes of the beneficiaries.

Valuation Date December 31	Actuarial Accrued Liabilities	Accrued Actuarial Assets	Percent Funded
1982	\$352,852	\$136,133	38.6%
1986*	433,620	146,427	33.8
1987	349,836	145,119	41.5
1992	363,948	175,921	48.3
1997	349,932	157,888	45.1
2002	251,316	162,635	64.7

HISTORICAL FUNDING RATIO SCHEDULE (\$ IN THOUSANDS)

* After change in benefit provisions.

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Year Ended December 31		Total Normal Cost as a Percent of	Contribution For Unfunded Actuarial Accrued Liabilities	
Valuation	Fiscal	Valuation Payroll*	\$ or %	
1982	1984	N/A%	\$14,442	
1986	1988*	N/A	20,776	
1987	1989	N/A	15,176	
1992	1994	N/A	16,274	
1997	1999	N/A	21,143	
2002	2004	N/A	14,955	

COMPUTED CONTRIBUTIONS - COMPARATIVE SCHEDULE

After change in benefit provisions.

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CONTRIBUTION FOR CALENDAR YEAR EFFECTIVE JANUARY 1, 2004

For any period of time the percent-of-payroll contribution rate is converted to dollars. The amount of dollars for any calendar year depends upon the results of the last actuarial valuation, and the timing of contributions within the year. The later the contribution date, the greater the dollar amount will be.

The municipality's dollar contribution for the year may be determined as follows:

(1)	Estimated covered payroll for 2004		\$ <u>0</u>	
(2)	Total normal cost % from page A-2		N/A	
(3)	Total normal cost (Line 1 times line 2)			\$ <u>0</u>
(4)	x 1.035 2002 Administrative expenses paid from the Special Fund			<u> </u>
(5)	Amortization payment on UAAL from page A-2			14,955
(6)	Total employer contributions required (Line 3 plus line 4 plus line 5)			
(7)	Employee contributions (Line 1 times 8%)		\$ 0	
(8)	 (a) State amortization aid based on 12/31/78 UAAL of \$0 (b) State amortization aid based on 1984 legislation (c) Total State amortization aid 	\$0 _0	\$ 0	
(9)	Estimated insurance premium aid			
(10)	Estimated total contributions from other sources (Line 7 plus line 8 plus line 9)			
(11)	Employer's Minimum Obligation if payment is made in equal installments throughout the year (Line 6 minus line 10)			\$
(12)	EMPLOYER'S MINIMUM OBLIGATION IF PAYMENT IS MADE AT YEAR END (Line 11 times 1.0247)			\$

SECTION B

Valuation Data and Summary of Benefit Provisions

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RETIRANTS AND BENEFICIARIES DECEMBER 31, 2002 By Type of Annuity Being Paid

Type of Annuity Being Paid	No.	Monthly Amounts	Computed Actuarial Accrued Liabilities
Retirants receiving			
Age & service	0	\$ 0.00	\$0
Disability	_0	0.00	0
Totals	0	0.00	0
Beneficiaries receiving			
Spouse	4	2,208.84	251,316
Child	_0	0.00	0
Totals	4	2,208.84	251,316
Totals	4	\$2,208.84	\$251,316

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RETIRANTS AND BENEFICIARIES DECEMBER 31, 2002 BY ATTAINED AGES

	Number				
Attained Ages	Age & Service	Disability	Death Before Retirement		
60-64	1				
75-79	1				
80-84	1				
85-89	1				
Totals	4	0	0		

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Valuation			Rolls	s End of Year	
Date December 31	No. Added to Rolls	No. Removed from Rolls	No.	Annual Allowances	Discounted Value of Total Allowances
1982			8	\$31,419.60	\$352,852
1986		2	6	31,192.32	433,620
1987	1	2	5	24,046.80	349,836
1992			5	29,972.76	363,948
1997			5	35,357.52	349,932
2002	1	2	4	26,506.08	251,316

RETIRANTS AND BENEFICIARIES ADDED TO AND REMOVED FROM ROLLS COMPARATIVE STATEMENT

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Valuation Methods and Assumptions

VALUATION METHODS AND ASSUMPTIONS

The rate of investment return (interest) as required by state law used in making the valuation was 5.0 percent per annum, compounded annually.

	Р	Single Lif resent Value				
Sample	Le For	Level Increasing			Futu Expectan	re Life (Years)
Ages	Men	Women	Men	Women	Men	Women
45	\$177.21	\$189.58	\$280.82	\$314.75	29.50	34.00
50	163.12	177.21	246.55	280.82	25.20	29.50
55	147.50	163.12	212.60	246.55	21.16	25.20
60	130.52	147.50	179.49	212.60	17.42	21.16
65	112.87	130.52	148.28	179.49	14.05	17.42
70	95.20	112.87	119.70	148.28	11.09	14.05
75	77.77	95.20	93.83	119.70	8.52	11.09
80	61.71	77.77	71.69	93.83	6.39	8.52

Mortality Table*

* UP-1984 Table set forward 2 years for males and set back 3 years for females.

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Financial Reporting

STATEMENT OF PLAN NET ASSETS MARKET VALUE AS OF DECEMBER 31, 2001 AND 2002

	2002	2001
Assets:		
Cash and short-term investments	\$157,735	\$157,421
Receivables:		
Accrued interest	2,691	3,807
Prepaid annuities	2,209	2,142
Accounts Payable:	-	-
Investments, at fair value	<u> </u>	
Net assets held in trust for pension benefits*	\$162,635	\$163,370

* A schedule of funding progress for the plan is presented on page D-4.

Thief River Falls Police Relief Association

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STATEMENT OF CHANGES IN PLAN NET ASSETS FOR THE FISCAL YEARS ENDED DECEMBER 31, 1996 AND DECEMBER 31, 2002

	December 31, 2002	December 31, 2001
Additions:		
Contributions		
Employer	\$ 20,003	\$ 17,108
Plan members	<u></u>	
Total	20,003	17,108
Investment Income	4,968	9,687
Total Additions	\$ 24,971	\$ 26,795
Deductions:		
Benefits Paid	25,706	24,837
Refund of Contributions	-	-
Expenses		75
Total Deductions	\$ 25,706	\$ 24,912
Net Increase	\$ (735)	\$ 1,883
Net assets held in Trust Fund:		
Beginning of year	\$163,370	\$161,487
End of year	\$ <u>162,635</u>	\$ <u>163,370</u>

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Plan Description. The Thief River Falls Police Relief Association is a single-employer defined benefit pension plan that covers the police department employees of the City of Thief River Falls.

The plan provides retirement, disability, and death benefits to plan members and their beneficiaries.

The employer's funding policy provides for periodic employer contributions based upon a *fundamental financial objective of having adequate funds available to pay the benefits promised to retirees and beneficiaries.* To determine the employer contribution rates and to assess the extent to which the fundamental financial objective is being achieved, the System has actuarial valuations prepared on a regular basis. In preparing those valuations, the entry age actuarial cost method is used to determine normal cost and actuarial accrued liabilities.

Unfunded actuarial accrued liabilities are amortized by level dollar contributions over a period of future years as outlined on page A-2.

On the basis of the December 31, 2002 actuarial valuation, the employer rates were determined to be as follows:

Contributions for				
Normal Cost as a	Unfunded Actuarial			
Percent of Active Member Payroll	Accrued Liabilities			
rercent of Active Member Payroll	Accrued Liabilities			

N.A.

\$14,955

REQUIRED SUPPLEMENTARY INFORMATION SCHEDULE OF FUNDING PROGRESS

Actuarial Valuation Date	(a) Actuarial Value of Assets	(b) Entry Age Actuarial Accrued Liability (AAL)	(b)-(a) Unfunded AAL (UAAL)	(a)/(b) Funded Ratio	(c) Covered Payroll	[(b-a)/c] UAAL as a Percent of Covered Payroll
12/31/92	\$175,921	\$363,948	\$188,027	48.3%	\$0	N.A.
12/31/97	157,888	349,932	192,044	45.1	0	N.A.
12/31/02	162,635	251,316	88,681	64.7	0	N.A.

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SCHEDULE OF EMPLOYER CONTRIBUTIONS

Year Ended December 31	Annual Employer Contributions*	
4000		
1992	\$18,093	
1993	18,070	
1994	19,049	
1995	25,004	
1996	19,157	
1997	19,177	
1998	19,299	
1999	23,566	
2000	17,403	
2001	17,230	
2002	19,958	

*Cash basis accounting.

Thief River Falls Police Relief Association

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SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS

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, 2002
Actuarial cost method	Entry age actuarial cost method
Amortization method	Level dollar
Remaining amortization period	See page A-2
Asset valuation method	Market Value
Actuarial assumptions:	
Investment rate of return (net)	5.0%
Projected salary increases	N/A
Assumed rate of payroll growth	N/A
Assumed rate of membership growth	0%
Cost-of-living adjustments	3.5%

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APPENDIX I

FINANCIAL PRINCIPLES AND OPERATIONAL TECHNIQUES

Promises Made, and Eventually Paid. As each year is completed, the plan in effect hands an "IOU" to each member then acquiring a year of service credit -- the "IOU" says: "The Pension Plan owes you a portion of your retirement benefits, payments to be made in cash, commencing when you qualify for retirement."

The related key financial questions are: Which generation of taxpayers contributes the money to cover the IOU? The present taxpayers, who receive the benefit of the member's present year of service? Or the future taxpayers, who happen to be in town paying taxes at the later time when the IOU becomes a cash demand?

A sound principle of sound retirement plan financing is to have this year's taxpayers contribute the money to cover the IOUs being handed out this year. By following this principle, THE CONTRIBUTION RATE WILL REMAIN APPROXIMATELY LEVEL FROM GENERATION TO GENERATION -- our children and grandchildren will contribute the same percents of active payroll we contribute now.

A PENSION PLAN BECOMES CLOSED

The diagram in this appendix shows two important activities which occur after a plan has been closed to employees hired in the future.

Cash benefits paid continue to increase for decades, while active member payroll begins to decrease to zero.

Funding Method. A funding method is the long-term, planned pattern for employer contributions.

For an open plan (a plan covering future employees), the level-percent-of-active-member payroll funding method is the basic funding method.

The level-percent funding method can also be applied to a closed plan. However, the resulting contribution percent usually jumps to a high rate, because the number of covered active members is decreasing.

A preferred funding method for a closed plan consists of: level-percent funding for normal cost (the cost of members' service now being rendered); plus a level dollar contribution for unfunded actuarial accrued liabilities over a limited period of years. The period of years must be limited so that plan assets don't become zero while benefits are still payable.

Computing Contributions To Support Plan Benefits. From a given schedule of benefits and from the employee data and asset data furnished him, the actuary determines the contribution rates to support the benefits by means of an actuarial valuation and a funding method.

In making an actuarial valuation, assumptions must be made regarding anticipated financial experiences for the next year and for decades in the future. Only the subsequent actual experience of the plan can indicate the degree of accuracy of the assumptions.

Reconciling Differences Between Assumed Experience and Actual Experience. Once actual experience has occurred and been observed, it will not coincide exactly with assumed experience, regardless of the wisdom of the assumptions or the skill of the actuary and the millions of calculations he made. The future can be predicted with considerable but not 100% precision, except for inflation which seems to defy reliable prediction.

A well-managed plan copes with these continually changing differences by having periodic actuarial valuations. Each actuarial valuation is a complete recalculation of assumed future experience, taking into account all past differences between assumed and actual experience. The result is continuing adjustment in financial position.

A CLOSED PENSION PLAN



YEARS OF TIME

<u>A plan becomes closed</u> when no new hires are admitted to active membership. The persons covered by the plan at the time of closing continue their normal activities and continue to be covered by the plan, until the last survivor dies.

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CASH BENEFITS LINE. After a pension plan becomes closed, the usual pattern is for cash benefits to continue to increase for decades of time. Eventually the cash benefits will peak, and then gradually decrease over more decades of time, ultimately to zero. The last cash benefit is likely to occur a century after the time the plan is closed.

The precise amounts of cash benefits cannot be known now, and must be estimated by assumptions of future experiences in a variety of financial risk areas.

APPENDIX II

MEANING OF UNFUNDED ACCRUED LIABILITIES

Almost every pension plan (public or private) has "unfunded accrued liabilities," so whatever they are, they aren't rare. Since the term is not part of everyday conversation, it needs some definition.

"Accrued liabilities" are the present value \$ of plan promises to pay benefits in the future based upon service already rendered - - - a liability has been established ("accrued") because the service has been rendered, but the resulting monthly cash benefit may not be payable until years in the future. Accrued liabilities \$ are the result of complex mathematical calculations, which are made by the plan's actuary (which is the name given to the specialist who makes such calculations).

If "accrued liabilities" at any time exceed the plan's accrued assets (cash & investments), the difference is "unfunded accrued liabilities." This is the common condition. If the plan's assets equalled the plan's "accrued liabilities," the plan would be termed "fully funded." This is a rare condition.

Each time a plan adds a new benefit which applies to service already rendered, an "accrued liability" is created, which is also an "unfunded accrued liability" because the plan can't print instant cash to cover the accrued liability. Payment for such unfunded accrued liabilities is spread over a period of years, commonly in the 20-40 year range.

Unfunded accrued liabilities can occur in another way: If actual financial experience is less favorable than assumed financial experience, the difference is added to unfunded accrued liabilities. In plans where plan benefits are directly related to an employee's pay near time of retirement (a common plan provision) rather than his average pay throughout his working career, unfunded accrued liabilities have been increasing in recent years because unexpected rates of pay increase have created additional accrued liabilities which could not be matched by reasonable investment results. Some of these unexpected pay increases are the direct result of inflation, which is a very destructive force on financial stability.

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The existence of unfunded accrued liabilities is not bad, then (any more than a mortgage on your house is "bad"), but the changes from year to year in amount of unfunded accrued liabilities are important - - - "bad" or "good" or somewhere in between.

Nor are unfunded accrued liabilities a bill payable immediately (your food costs are payable immediately), but it is important that policy-makers prevent the amount from becoming unreasonably high and it is vital that your plan have a sound method for making payments toward them so that they are controlled.

The existence of large amounts of unfunded accrued liabilities indicates that total contributions in past years were less than level - - - an almost certain history if retired life liabilities are not fully funded now.