



Actuary

VILLAGE OF CARPENTERSVILLE
CARPENTERSVILLE FIREFIGHTERS PENSION FUND

Actuarial Valuation Report

For the Year

Beginning May 1, 2002

And Ending April 30, 2003

Timothy W. Sharpe, Actuary, 1412 Sherwood Lane, Geneva, IL 60134 (630) 262-0600

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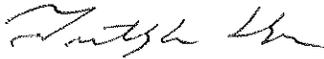
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INTRODUCTION

Fire-sworn personnel of the Village of Carpentersville are covered by the Firefighters Pension Plan that is a defined-benefit, single-employer pension plan. The purpose of this report is to disclose the Tax Levy Requirement and GASB Statements No. 25 & 27 financial information and related actuarial information for the year beginning May 1, 2002, and ending April 30, 2003.

The valuation results reported herein are based on plan provisions in effect as of May 1, 2002, the employee data furnished by the Village, the financial data provided by the Fund's trustee and the actuarial methods and assumptions described later in this report. I hereby certify that this report is complete and accurate and fairly presents the actuarial position of the Fund as of April 30, 2002, in accordance with generally accepted actuarial principles and procedures. In my opinion, the assumptions used are reasonably related to the experience of the Plan and to reasonable expectations.

Respectfully submitted,



Timothy W. Sharpe, EA, MAAA
Enrolled Actuary No. 02-4384

11/21/02

Date

SUMMARY OF RESULTS

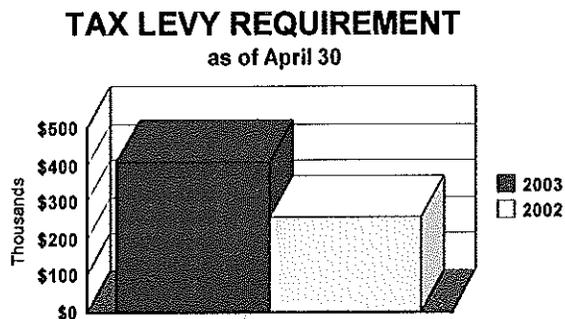
There were no changes with respect to Plan Provisions, Actuarial Methods, or Actuarial Assumptions from the prior year. There was a change of Actuary from the prior year.

The value of the Fund's investments was adjusted as of the beginning of the year (reduced \$454,477). The annual investment return was 6.20%.

The Village's Tax Levy Requirement has increased from \$263,112 last year to \$413,176 this year (57.0%). The increase in the Tax Levy is due to a large increase in the annual payroll (24.8%), and due to the adjustment to value of the Fund's investments. The Percent Funded is 87.6% this year.

SUMMARY OF RESULTS (Continued)

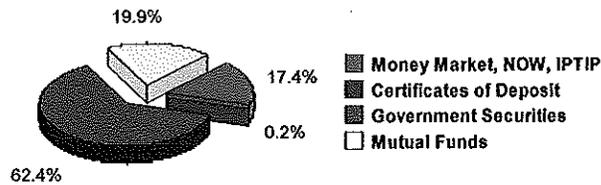
	For Year Ending April 30	
	<u>2003</u>	<u>2002</u>
Tax Levy Requirement	\$ 413,176	\$ 263,112 as of May 1 <u>2002</u>
Village Normal Cost		355,436
Anticipated Employee Contributions		144,040
Accrued Liability		6,265,487
Actuarial Value of Assets		5,489,003
Unfunded Accrued Liability/(Surplus)		776,484
Amortization of Unfunded Accrued Liability/(Surplus)		30,710
Percent Funded		87.6%
Annual Payroll		\$ 1,703,607



ACTUARIAL VALUATION OF ASSETS

	as of May 1 <u>2002</u>
Money Market, NOW, IPTIP	\$ 944,139
Certificates of Deposit	12,293
Government Securities	3,388,396
Mutual Funds	1,081,572
Interest Receivable	10,404
Miscellaneous Receivable/(Payable)	<u>52,200</u>
Actuarial Value of Assets	\$ <u>5,489,003</u>

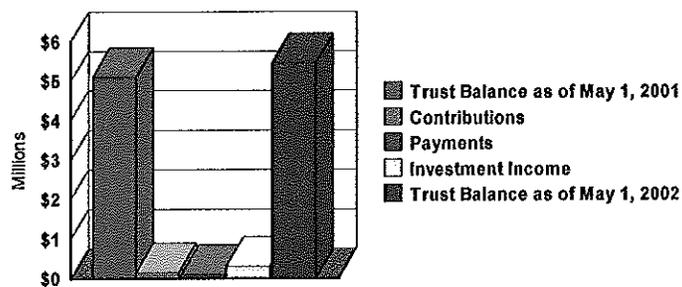
SUMMARY OF ASSETS
As Of May 1, 2002



ASSET CHANGES DURING PRIOR YEAR

Trust Balance as of May 1, 2001		\$	5,108,004
Contributions			
Village	52,200		
Employee	<u>142,641</u>		
Total			194,840
Payments			
Benefit Payments	132,355		
Expenses	<u>325</u>		
Total			132,680
Investment Income			<u>318,838</u>
Trust Balance as of May 1, 2002		\$	<u>5,489,003</u>
Approximate Annual Rate of Return			6.20%

ASSET CHANGES DURING PRIOR YEAR

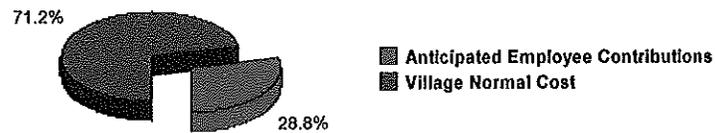


NORMAL COST

The Normal Cost is the actuarial present value of the portion of the projected benefits that are expected to accrue during the year based upon the actuarial valuation method and actuarial assumptions employed in the valuation.

		as of May 1 <u>2002</u>
Total Normal Cost	\$	499,476
Anticipated Employee Contributions		<u>144,040</u>
Village Normal Cost		<u>355,436</u>
Normal Cost Payroll	\$	1,703,607
Village Normal Cost Rate		20.86%
Total Normal Cost Rate		29.32%

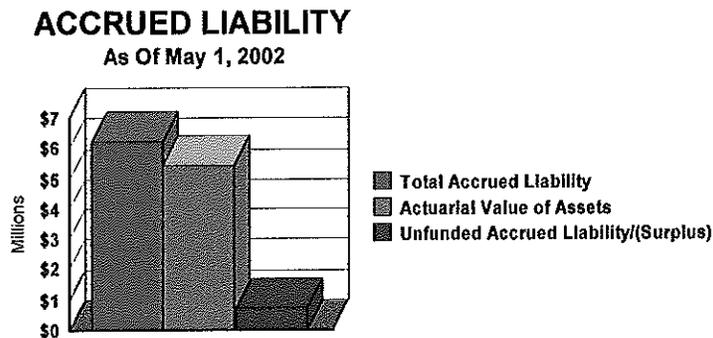
NORMAL COST As Of May 1, 2002



ACCRUED LIABILITY

The Accrued Liability is the actuarial present value of the portion of the projected benefits that has been accrued as of the valuation date based upon the actuarial valuation method and actuarial assumptions employed in the valuation. The Unfunded Accrued Liability is the excess of the Accrued Liability over the Actuarial Value of Assets.

	as of May 1 <u>2002</u>
Accrued Liability	
Active Employees	\$ 4,672,320
Children Annuities	0
Disability Annuities	0
Retirement Annuities	1,593,167
Surviving Spouse Annuities	0
Terminated Vested Annuities	<u>0</u>
Total Annuities	1,593,167
 Total Accrued Liability	 6,265,487
 Actuarial Value of Assets	 <u>5,489,003</u>
 Unfunded Accrued Liability/(Surplus)	 \$ <u>776,484</u>
 Percent Funded	 87.6%

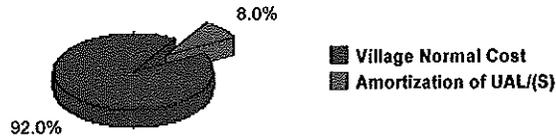


TAX LEVY REQUIREMENT

The Tax Levy Requirement is determined as the annual contribution necessary to fund the normal cost, plus the amount to amortize the unfunded accrued liability as a level percentage of payroll over a forty (40) year period which commenced in 1993, plus an adjustment for interest.

	For Year Ending April 30 <u>2003</u>
Village Normal Cost as of Beginning of Year	\$ 355,436
Amortization of Unfunded Accrued Liability/(Surplus)	30,710
Interest for One Year	<u>27,030</u>
Tax Levy Requirement as of End of Year	\$ <u>413,176</u>

TAX LEVY REQUIREMENT
For Fiscal Year Ending April 30, 2003



SUMMARY OF PLAN PARTICIPANTS

The actuarial valuation of the Plan is based upon the employee data furnished by the Village. The information provided for Active participants included:

- Name
- Sex
- Date of Birth
- Date of Hire
- Compensation
- Employee Contributions

The information provided for Inactive participants included:

- Name
- Sex
- Date of Birth
- Date of Pension Commencement
- Monthly Pension Benefit
- Form of Payment

Membership	<u>2002</u>	<u>2002</u>
Current Employees		
Vested	8	
Nonvested	<u>26</u>	
Total	<u>34</u>	
Inactive Participants		<u>Annual Benefits</u>
Children	0 \$	0
Disabled Employees	0	0
Retired Employees	4	137,307
Surviving Spouses	0	0
Terminated Vesteds	<u>0</u>	<u>0</u>
Total	<u>4</u>	<u>137,307</u>
Annual Payroll	\$	1,703,607

SUMMARY OF PLAN PARTICIPANTS (Continued)

Age and Service Distribution

Service Age	0-4	5-9	10-14	15-19	20-24	25-29	30+	Total	Salary
20-24	5							5	42,583
25-29	4							4	46,635
30-34	2	2	1					5	52,711
35-39	5	2	1					8	48,626
40-44	2	1	1	1	1			6	56,177
45-49	3			1	1			5	49,927
50-54						1		1	64,898
Total	<u>21</u>	<u>5</u>	<u>3</u>	<u>2</u>	<u>2</u>	<u>1</u>	<u>0</u>	<u>34</u>	<u>50,106</u>
Salary	44,221	56,665	59,252	58,482	66,013	64,898			

Average Age: 35.9 Average Service: 6.3

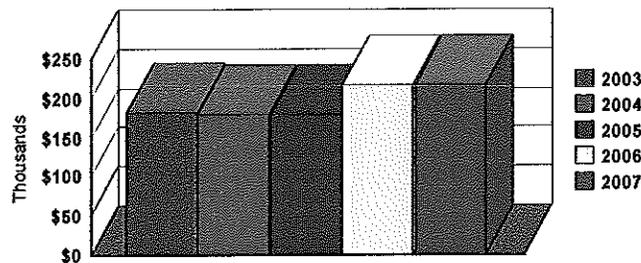
DURATION (years) Active Members: 16.6 Retired Members: 8.4 All Members: 14.5

PROJECTED PENSION PAYMENTS

<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>
\$182,735	\$181,281	\$179,480	\$217,315	\$218,965

PROJECTED PENSION PAYMENTS

2003-2007



SUMMARY OF PLAN PROVISIONS

The Plan Provisions have not been changed from the prior year.

The Village of Carpentersville Firefighters Pension Fund was created and is administered as prescribed by "Article 4. Firefighters' Pension Fund - Municipalities 500,000 and Under" of the Illinois Pension Code (Illinois Compiled Statutes, 1992, Chapter 40). A brief summary of the plan provisions is provided below.

Employees attaining the age of (50) or more with (20) or more years of creditable service are entitled to receive an annual retirement benefit of one-half of the salary attached to the rank held on the last day of service. The pension shall be increased by (1/12) of (2.5%) of such monthly salary for each additional month of service over (20) years up to (30) years, to a maximum of (75%) of such monthly salary.

Employees with at least (10) years but less than (20) years of credited service may retire at or after age (60) and receive a reduced benefit ranging from (15%) of final salary for (10) years of service to (45.6%) for 19 years of service.

Surviving spouses receive (100%) of final salary for fatalities resulting from an act of duty, or otherwise (54%) of final salary. Surviving children receive (12%) of final salary. The maximum family survivor benefit is (75%) of final salary.

Employees disabled in the line of duty receive (65%) of final salary.

The monthly pension of a covered employee who retired with (20) or more years of service after January 1, 1977, shall be increased annually, following the first anniversary date of retirement and be paid upon reaching the age of at least (55) years, by (3%) of the amount of the pension payable at the time of the increase.

Employees are required to contribute (8.455%) of their base salary to the Firefighters' Pension Plan. If an employee leaves covered employment with less than twenty (20) years of service, accumulated employee contributions may be refunded without accumulated interest.

ACTUARIAL METHODS

The Actuarial Methods used for determining the Tax Levy and GASB Statements No. 25 & 27 financial disclosure have not been changed from the prior year. The Actuarial Method employed for this valuation is as follows:

Entry Age Normal Cost Method

Under the Entry Age Normal Cost Method the Normal Cost for each participant is computed as the level percentage of pay which, if paid from the earliest age the participant is eligible to enter the plan until retirement or termination, will accumulate with interest to sufficiently fund all benefits under the plan. The Normal Cost for the plan is determined as the greater of a) the sum of the Normal Costs for all active participants, and b) 17.5% of the total payroll of all active participants.

The Accrued Liability is the theoretical amount that would have accumulated had annual contributions equal to the Normal Cost been paid. The Unfunded Accrued Liability is the excess of the Accrued Liability over the plan's assets. Experience gains or losses adjust the Unfunded Accrued Liability.

ACTUARIAL ASSUMPTIONS

The Actuarial Assumptions used for determining the Tax Levy Requirement and GASB Statements No. 25 & 27 Disclosure Information are the same and have not been changed from the prior year. The Actuarial Assumptions employed for this valuation are as follows:

Valuation Date	May 1, 2002
Asset Valuation Method	Market Value
Investment Return	7.00%
Salary Scale	5.50%
Mortality	1971 Group Annuity Mortality Table
Withdrawal	State of Illinois DOI Experience Rates
Disability	State of Illinois DOI Experience Rates
Retirement	State of Illinois DOI Experience Rates (100% by Age 69)
Marital Status	80% Married, Spouse Same Age
Plan Expenses	None

<u>Sample Annual Rates Per 100 Participants</u>				
<u>Age</u>	<u>Mortality</u>	<u>Withdrawal</u>	<u>Disability</u>	<u>Retirement</u>
20	0.05	4.02	0.17	
30	0.81	2.56	0.20	
40	0.16	1.14	0.30	
50	0.53		0.62	40.00
60	1.31		1.84	52.63
69	3.24			100.00

GASB STATEMENTS NO. 25 & 27 DISCLOSURE INFORMATION

The Governmental Accounting Standards Board (GASB) issued Statements No. 25 & 27 that established generally accepted accounting principles for the annual financial statements for defined benefit pension plans. The required information is as follows:

Membership in the plan consisted of the following as of:

	<u>April 30, 2002</u>
Retirees and beneficiaries receiving benefits	4
Terminated plan members entitled to but not yet receiving benefits	0
Active vested plan members	8
Active nonvested plan members	<u>26</u>
Total	<u>38</u>
Number of participating employers	1

SCHEDULE OF FUNDING PROGRESS

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) -Entry Age (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)
04/30/00	NA	NA	NA	NA	NA	NA
04/30/01	NA	NA	NA	NA	NA	NA
04/30/02	5,489,003	6,265,487	776,484	87.6%	1,703,607	45.6%

GASB STATEMENTS NO. 25 & 27 DISCLOSURE INFORMATION (Continued)

ANNUAL PENSION COST AND NET PENSION OBLIGATION

	<u>April 30, 2002</u>
Annual required contribution	258,017
Interest on net pension obligation	0
Adjustment to annual required contribution	<u>0</u>
Annual pension cost	258,017
Contributions made	<u>52,200</u>
Increase (decrease) in net pension obligation	205,817
Net pension obligation beginning of year	<u>0</u>
Net pension obligation end of year	<u>205,817</u>

THREE-YEAR TREND INFORMATION

<u>Fiscal Year Ending</u>	<u>Annual Pension Cost (APC)</u>	<u>Percentage of APC Contributed</u>	<u>Net Pension Obligation</u>
04/30/00	NA	NA	NA
04/30/01	NA	NA	NA
04/30/02	258,017	20.2%	205,817

GASB STATEMENTS NO. 25 & 27 DISCLOSURE INFORMATION (Continued)

FUNDING POLICY AND ANNUAL PENSION COST

Contribution rates:

Village	3.064%	
Plan members	8.455%	
Annual pension cost	258,017	
Contributions made	52,200	
Actuarial valuation date	04/30/02	04/30/01
Actuarial cost method	Entry age	Same
Amortization period	Level percentage of pay, closed	Same
Remaining amortization period	31 years	32 years
Asset valuation method	Market	Same
Actuarial assumptions:		
Investment rate of return*	7.00%	Same
Projected salary increases*	5.50%	Same
*Includes inflation at	3.00%	Same
Cost-of-living adjustments	3.00% per year	Same