CITY OF GREENVILLE

FIREMEN'S PENSION FUND

ACTUARIAL REVIEW

July 1, 2003

Prepared By:

STANLEY, HUNT, DuPREE & RHINE, INC.

Employee Benefit Consultants
Consulting Actuarial Services

September 3, 2003

Board of Trustees
Greenville Fire Department
22 West Broad Street
Greenville, South Carolina 29601

Gentlemen:

Stanley, Hunt, DuPree & Rhine, Inc. has prepared an actuarial review for The City of Greenville Firemen's Pension Fund as of July 1, 2003. The financial information presented in this valuation is applicable to the twelve months ending June 30, 2004. The purpose of the review is to:

--- determine the existing and projected plan liabilities for benefits earned by active, retiree, and widowed participants.

--- determine the sufficiency of current funding levels and investment returns.

--- provide disclosures which can be utilized to meet all of the requirements of the Government Accounting Standards Board Statements relating to the Pension Fund.

The Table of Contents following this letter outlines the text and tables included in this report.

Sincerely,

STANLEY, HUNT, DuPREE & RHINE, INC.

Traci Pennell LR

Traci B. Pennell, Vice President
Client Relationship Manager

Linda Reed

Linda G. Reed, A.S.A.
Vice President and Actuary

TBP:LGR/sml
attachments

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SECTION I

BASIS OF VALUATION

In this section, the basis of the valuation is presented and described. This information - the provisions of the plan and census of participants - is the foundation of the valuation, since these are the present facts upon which benefit payments will depend.

The valuation is based upon the premise that the plan will continue in existence, so that future events must also be considered. These future events are assumed to occur in accordance with the actuarial assumptions and concern such events as the earnings of the fund, the number of participants who will remain to retirement, their ages at retirement and expected benefits.

The actuarial assumptions and the actuarial cost method, or funding method, which has been adopted to guide the sponsor in funding the plan in a reasonable and acceptable manner, are described in this section.

SECTION I.A Summary of Plan Provisions

Effective Date

June 25, 1946

Eligibility Requirements

All regular employees of the Fire Department hired prior to the attainment of age 35 are eligible for benefits provided by this plan.

Contributions by Participating Employees

Participating employees contributed initially at the rate of 1% of salary. Salary deductions were increased, effective July 1, 1952, to 3% of salary. Deductions remained at this level until June 24, 1975 when they were raised to the current level of 5.775% of salary. Beginning in the 1997 plan year, the City offered to pay 4% of the State-directed contribution level, so that the net rate is now 1.775%.

Contributions from Other Sources

The following sums are also paid into the Fund:

1. Any money, real estate, personal property or other assets made available by gift, devise or bequest;

2. All forfeitures and fines imposed upon any member of the Department by way of discipline;

3. All proceeds from sales of condemned or discarded personal property and equipment in use by the Department;

4. The income from any tax levy imposed by the City Council in order to supplement or support this fund. The City currently contributes 19.425% of participating payroll.

SECTION I.A Summary of Plan Provisions (Continued)

Service Retirement Benefits

A member who has attained age 55 and completed at least 25 years of service may retire with a monthly benefit equal to 50% of his monthly compensation at the time of his retirement. For each year of service in excess of 25 years, an additional 2% of final compensation will be provided. In no event will more than 35 years of service be considered for the purpose of benefit determination. An adjustment of up to 6% of the percentage of compensation will be added to the benefit calculation to reflect accrued general leave time.

Disability Retirement Benefits

1. Line of Duty Disability
   A member who incurs a disability while engaged in the performance of his duty will be retired with a monthly benefit equal to 50% of his monthly compensation at the time of his disability.

2. Disability Other Than in Line of Duty
   a. A member who becomes disabled other than in the line of duty after the completion of 10 years of service will be retired with a monthly benefit equal to one-third of his monthly compensation at the time of disability.

   b. A member who becomes disabled other than in the line of duty after the completion of 20 years of service will be retired with a monthly benefit equal to one-half of his monthly compensation at the time of disability.

Death Benefits

1. Upon the death of a retired member, the lawful widow will receive a monthly benefit equal to one-half of the benefit which the member was receiving, plus a lump sum of $200. Such monthly benefit shall continue during her lifetime regardless of whether she remarries.

2. Upon death of an active member, the lawful widow will receive a monthly benefit equal to one-half of the member's monthly salary at the time of his death, plus a lump sum of $200. Such monthly benefit shall continue during her lifetime unless she remarries.

3. If in the case of (1) or (2) above there is no lawful widow, the monthly benefits shall be paid to the surviving children until the youngest child attains age 18.

4. In the case of (2) above, the designated beneficiary may elect to take a refund of the member's contributions with 4% interest thereon in lieu of any monthly pension.

5. The minimum widow's benefit is $750 per month.

Withdrawal Benefits

A member who leaves the service of the Fire Department prior to becoming eligible for retirement benefits shall be entitled to a refund of his contributions plus four percent interest.

Members have a vested interest in their accrued benefits from the retirement plan of fifty percent after ten years of service. For each year of service beyond ten years, a member shall be entitled to an additional ten percent. A member becomes one hundred percent vested in his accrued retirement benefit after the completion of fifteen years of service.

A member's accrued retirement benefit will be based on earnings at the time of termination and will be prorated based on the number of years of actual service at date of termination to the total number of years of service anticipated at retirement age. For this purpose, retirement age is the later of age 55 and completion of 25 years of service. In lieu of a monthly pension, a vested participant may elect upon termination to take a refund of his contributions with 4% interest.

SECTION I.B Actuarial Assumptions

Development of Actuarial Assumptions

In determining costs for a retirement program, it is necessary to make certain assumptions as to the expected future experience that will take place within the program. These assumptions include the rates of mortality to be experienced by both the active, retired and widowed plan participants, the rates of termination of employment prior to retirement, the rates at which plan participants can be expected to take disability retirement, the age at which retirement will actually occur, the rates at which salaries will increase, the rate of investment return to be earned by the fund and the expenses to be incurred. The ultimate cost of any given retirement plan will depend upon actual plan experience.

It is possible to derive actuarial assumptions from the experience of the group under consideration. This is most often the case in very large groups. For plans of this size, the assumptions are best determined from the experience of similar groups, and standard published tables are available which can be used. Changes to assumptions will be considered when actual experience differs substantially and when estimates for the future suggest these changes.

SECTION I.B Actuarial Assumptions (Continued)

Actuarial Assumptions for Valuation of Liabilities

Mortality Rate: GAM 83 - Sex Distinct

Disability Rate: The following are examples of the probability that a participant will become disabled within one year. A disabled mortality assumption is also utilized. Duty-related disabilities are assumed to be 50% of all disabilities.

Age	Percentage
25	0.068%
40	0.230%
55	1.180%

Withdrawal Rate: The following are examples of the probability that a participant will terminate within one year for reasons other than death.

Age	Percentage
25	7.72%
40	5.15%
55	0.90%

Salary Scale: Assumes salaries increase at 4% per year. The ratio of salary at age 55 to salary at

Age	Percentage
25	324%
40	180%

In addition, the inclusion of accrued general leave in the benefit calculation is assumed to increase retirement benefits by 4%.

Rate of Retirement: Assumed 50% retire each year following attainment of age 55 or the completion of 35 years of service, if later, but not beyond age 62.

Interest Rate:
Funding Purposes -
Pre-Retirement: 7.0%
Post-Retirement: 7.0%

Marriage: It is assumed that 75% of the actives are married at death or retirement with spouses that are three years younger.

Actuarial Assumptions for Valuation of Assets

Assets are carried at Market Value for valuation purposes.

SECTION I.C Actuarial Cost Method

Description of Valuation Method

The valuation method used is known as the Projected Unit Credit Method. The method divides the cost of funding benefits into two parts: normal cost and past service liability. Normal cost is the present value of the projected normal retirement benefit divided by a participant's total service. Past service liability is the present value of the projected retirement benefit multiplied by the ratio of past service over total service. If the past liability were fully funded, the total annual cost would be normal cost.

Because liabilities under a pension plan are based on actuarial assumptions (mortality, investment return, etc.) which will never precisely coincide with actual experience, variations known as actuarial gains and losses will occur, determined each time an actuarial valuation of the plan is made. Such gains or losses are a component of the unfunded liability and are amortized to determine the recommended contribution.

SECTION I.D Changes From Prior Report

1. <u>Plan Provisions</u>

   The minimum monthly benefit for widows was increased from $500 to $750.

2. <u>Actuarial Cost Method</u>

   No Changes.

3. <u>Actuarial Assumptions</u>

   No Changes.

SECTION I.E Summary of Plan Participants

	June 30, 2002	June 30, 2003
I. ACTIVES		
Number	141	144
Total Annual Earnings	$5,305,381	$5,436,942
Average Earnings	$ 37,627	$ 37,757
Average Current Age	38.8	38.1
Average Past Service	15.7	15.1
II. DEFERRED VESTED		
Number	2	3
Average Annual Deferred Pension	$ 9,028	$ 9,571
III. PARTICIPANTS IN PAY STATUS		
Retirees	56	58
Surviving Widows	28	28
Average Annual Retiree Pension	21,318	23,085
Average Annual Widow Pension	9,153	10,856

SECTION II

ACCOUNTING INFORMATION

We received bank statements from Prudential Financial for the appropriate periods within the Plan Year ending June 30, 2003. This section provides a comparative summary statement of assets and liabilities as of each June 30, as well as a statement of income and expenses for the plan year.

SECTION II

FINANCIAL STATEMENTS

Section II.A Statement of Assets and Liabilities

	06-30-02 Market Value	06-30-03 Market Value
Assets		
Cash Equivalents:		
Cash	$ 590,280	$ 4,551,236
Accounts Receivable:		
Accrued Income	329,666	54,412
Investments:		
Government Securities	15,017,977	5,220,686
Corporate Debt and Equity Instruments	4,514,089	8,808,110
Mutual Funds	5,492,373	7,943,301
Total Assets	$25,944,385	$26,577,745
Liabilities		
Accounts Payable:		
Benefit Payments	1,156	0
Total Liabilities	1,156	0
Net Assets	$25,943,229	$26,577,745

Statement of Income and Expenses
For Plan Year 07-01-02 To 06-30-03

Net Assets at Beginning of Year			$ 25,943,229
Income			
Employer Contribution	$ 1,067,656		
Employee Contribution	97,559		
Other Contributions	137,453		
Interest and Dividend Income	867,056		
Realized Gain/(Loss)	104,294		
Unrealized Gain/(Loss)	(89,197)		
Total Income		$ 2,184,821	
Expenses			
Pension Payments	1,527,745		
Fees and Insurance Premiums	22,560		
Total Expenses		1,550,305	
Net Income			634,516
Net Assets at End of Year			$ 26,577,745

SECTION III

SUMMARY OF VALUATION RESULTS

Section III.A Summary of Actuarial Valuation

1.	Present Value of Benefits		
	a. Active Lives		
	(1) Retirement	$14,907,138	
	(2) Vesting	3,433,059	
	(3) Death	755,624	
	(4) Disability	1,385,324	
	(5) Total		20,481,145
	b. Deferred Vesteds		156,220
	c. Retirees		12,843,774
	d. Widows		2,636,013
	e. Total		36,117,152
2.	Present Value of Future Normal Cost		6,786,169
3.	Accrued Liability		
	a. Active Lives		13,694,976
	b. Deferred Vesteds		156,220
	c. Retirees		12,843,774
	d. Widows		2,636,013
	e. Total		29,330,983
4.	Actuarial Value of Assets		26,577,745
5.	Actual Unfunded Liability [(3)-(4)]		2,753,238
6.	Increase in (3) Due to Method Change	0	
7.	Increase in (3) Due to Benefit Changes	287,479	
8.	Increase in (3) Due to Assumption Change	0	
9.	Expected Unfunded Liability	972,728	
10.	Gain or Loss(-) (9)-[(5)-(6)-(7)-(8)]		(1,493,031)
11.	Funding Requirements		
	a. Normal Cost		
	(1) Retirement	431,187	
	(2) Vesting	138,569	
	(3) Death	19,866	
	(4) Disability	36,504	
	(5) Total		626,126
	b. Less Expected Employee Contributions		(88,293)
	c. Net Employer Normal Cost (a)-(b)		537,833
	d. Ten Year Amortization of Unfunded Liability		366,354
	e. Minimum Employer Funding Requirement		904,187

Section III.B Plan Termination Liability

1. Assumptions

   a. Discount Rate: 7%

   b. Mortality Table:

      (1) 1983 GAM Sex Distinct

      (2) Females assumed to be 3 years younger than their spouses

      (3) All Active Participants are 100% vested

2.	Present Value of Accrued Benefits	$27,163,952
3.	Market Value of Assets	26,577,745
4.	Excess Assets/(Shortfall) (3)-(2)	$ (586,207)

Section III.C Analysis of Results

Investment Return

During our compilation of the plan's accounting over the prior year, we determined the approximate investment return over each period. We have summarized our results below and included results for the past 20 years.

Year	Estimated Annual Rate of Return	
1983	5.2%	
1984	12.9%	
1985	15.1%	
1986	9.9%	
1987	3.5%	
Five Year Average		9.2%
1988	6.8%	
1989	10.8%	
1990	8.9%	
1991	12.9%	
1992	6.9%	
Five Year Average		9.2%
1993	7.9%	
1994	-2.6%	
1995	16.3%	
6-30-97	7.7%	
6-30-98	8.4%	
Five Year Average		7.4%
6-30-99	3.4%	
6-30-00	2.4%	
6-30-01	10.3%	
6-30-02	6.5%	
6-30-03	3.3%	
Five Year Average		5.1%
Twenty Year Average		7.7%

Actual Salary Increases

Salaries increased over the past year an average of 6.1% (4.0% was assumed), reflecting both merit and cost of living components for some participants.

Retirement

Over the prior year, five participants retired and began receiving payments from the plan. From the prior year's retirement rate assumption, one and a half participants were expected to retire.

Death

There were no deaths among active participants, three deaths were reported among retired plan participants, and one death was reported among surviving spouses receiving benefits. Based on the mortality assumption, this was one more death than expected for the retired plan participants and the expected number of deaths for the active participants and surviving spouses.

Disabilities

There were no disabilities during the period. Based on the disability assumption, we expect about one disability every three years.

Terminations

Two active participants terminated before the earliest retirement age. One was paid the amount of their contributions plus interest, and the other is being held with a deferred benefit. Based on the termination assumption, we expected about seven terminations.

Section III.D Actuarial Gain/Loss Analysis

Total Actuarial Gain/(Loss) from 7-1-02 through 7-1-03		$(1,493,031)
Components of Total Loss:		
· Loss on assets		
Expected assets at 7-1-03	$ 27,526,433	
Actual assets at 7-1-03	26,577,745	
Gain/(Loss)		$ (948,688)
· Loss on liabilities		
Expected accrued liability at 7-1-03	$ 28,499,161	
Actual accrued liability before plan changes at 7-1-03	29,043,504	
Gain/(Loss)		$ (544,343)*
Aggregate Loss		$(1,493,031)

*Primarily losses from salary increases in excess of assumed rate of 4% and less terminations than assumed.

Section III.E — Cost of Living Adjustment Projections Based Upon an Assumed 2% Annual Cost of Living Adjustment

1. Accrued Liability

a.	Active Lives	$ 16,665,494
b.	Deferred Vesteds	188,212
c.	Retirees	15,056,861
c.	Widows	3,085,307
e.	Total	$ 34,985,874

2. Actuarial Value of Assets $ 26,577,745

3. Unfunded Liability [(1)-(2)] $ 8,408,129

4. Funding Requirements

a.	Normal Cost		
	(1) Retirement	522,179	
	(2) Vesting	169,054	
	(3) Death	25,077	
	(4) Disability	44,036	
	(5) Total Normal Cost		$ 760,346
b.	Less Expected Employee Contributions		(88,293)
c.	Net Employer Normal Cost		$ 672,053
	Option 1:		
d.	Ten Year Amortization of Unfunded Liability		1,118,812
e.	Suggested Employer Funding for a 2% annual increase (c)+(d)		$ 1,790,865
	Option 2:		
f.	Twenty Year Amortization of Unfunded Liability		741,746
g.	Suggested Employer Funding for a 2% annual increase (c)+(f)		$ 1,413,799

Section III.F Cost of a One-Time COLA for Retirees and Widows

	One-Time 1% COLA	One-Time 2% COLA
1. Accrued Liability (Total)	$ 29,485,781	$ 29,640,579
2. Actuarial Value of Assets	$ 26,577,745	$ 26,577,745
3. Unfunded Liability [(1)-(2)]	$ 2,908,036	$ 3,062,834
4. Funding Requirements		
a. Net Employer Normal Cost	$ 537,833	$ 537,833
Option 1: b. Ten Year Amortization of Unfunded Liability	386,952	407,550
c. Suggested Employer Funding for a One-Time COLA (a)+(b)	$ 924,785	$ 945,383
Option 2: d. Twenty Year Amortization of Unfunded Liability	256,540	270,196
e. Suggested Employer Funding for a One-Time COLA (a)+(d)	$ 794,373	$ 808,029

Section III.G Cost of Adding Special Retirement Age

		35 & Out*
1.	Accrued Liability (Total)	$ 29,442,062
2.	Actuarial Value of Assets	$ 26,577,745
3.	Unfunded Liability [(1)-(2)]	$ 2,864,317
4.	Funding Requirements	
	a. Net Employer Normal Cost	$ 542,348
	Option 1: b. Ten Year Amortization of Unfunded Liability	381,135
	c. Suggested Employer Funding for Adding Special Retirement Ages (a)+(b)	$ 923,483
	Option 2: d. Twenty Year Amortization of Unfunded Liability	252,683
	e. Suggested Employer Funding for Adding Special Retirement Ages (a)+(d)	$ 795,031

* 35 & Out - Members could retire at the earlier of age 55 with 25 years of service, or any age with 35 years of service.

SECTION IV
INFORMATION FOR ACCOUNTANTS PURSUANT TO GOVERNMENT ACCOUNTING STANDARDS BOARD'S (GASB) STATEMENT NO. 27

A. Development of Pension Cost for fiscal year ending 6-30-03

1.	Annual Required Contribution	$ 701,952
2.	Interest on Net Pension Obligation	(214,827)
3.	Amortization of Net Pension Obligation	408,364
4.	Pension Cost (1)+(2)+(3)	895,489

B. Net Pension Obligation as of 6-30-03

1.	Net Pension Obligation at Beginning of Year	(3,068,953)
2.	Actual Employer Contribution	1,205,109
3.	Pension Cost	895,489
4.	Net Pension Obligation 6-30-03 (1)-(2)+(3)	(3,378,573)
5.	Increase/(Decrease) in NPO from Beginning of Period	(309,620)

C. Basic Information

1. Amortization Method: Level Dollar
2. Amortization Period: 10 years
3. Amortization Period: Closed Method
4. The employer funding policy is based upon a 1974 City Ordinance (as subsequently modified) requiring an employer contribution of 19.425% of participating payroll. Employee contributions are mandatory at 1.775% of compensation.
5. See contents of 7-1-03 Actuarial Report for other required disclosures.

CITY OF GREENVILLE FIREMEN'S PENSION FUND

VALUATION AS OF 07/01/2003

AGE - SERVICE DISTRIBUTION FOR ACTIVE PARTICIPANTS

	COMPLETED YEARS OF SERVICE																			
	< 1 Yr		1-4 Yrs		5-9 Yrs		10-14 Yrs		15-19 Yrs		20-24 Yrs		25-29 Yrs		30-34 Yrs		35-39 Yrs		40 Yrs & >	
Age Group	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.
0-24	6	15,057	5	27,570	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-29	3	15,433	11	27,601	4	31,446	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-34	1	9,169	3	28,535	10	32,806	8	34,332	0	0	0	0	0	0	0	0	0	0	0	0
35-39	0	0	1	28,212	1	32,021	13	34,706	15	38,688	2	41,063	0	0	0	0	0	0	0	0
40-44	0	0	0	0	2	31,582	3	35,323	11	42,938	10	45,358	0	0	0	0	0	0	0	0
45-49	0	0	0	0	0	0	1	36,369	2	42,488	4	44,478	16	50,743	1	44,799	0	0	0	0
50-54	0	0	0	0	0	0	0	0	0	0	1	42,487	3	53,833	4	52,297	0	0	0	0
55-59	0	0	0	0	0	0	0	0	0	0	0	0	1	43,346	2	77,109	0	0	0	0
60-64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65-69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70&up	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0