

Lauterbach & Amen, LLP  
27W457 Warrenville Road  
Warrenville, IL 60555-3902

Actuarial Valuation  
as of May 1, 2014

**ROCHELLE FIREFIGHTERS'  
PENSION FUND**

Utilizing Data as of April 30, 2014  
For the Contribution Year May 1, 2014 to April 30, 2015

***LAUTERBACH & AMEN, LLP***

Actuarial Valuation  
as of May 1, 2014

---



**ROCHELLE FIREFIGHTERS'  
PENSION FUND**

Utilizing Data as of April 30, 2014  
For the Contribution Year May 1, 2014 to April 30, 2015

---

**Submitted by:**

Lauterbach & Amen, LLP  
27W457 Warrenville Road  
Warrenville, IL 60555-3902  
630.393.1483 Phone  
630.393.2516 Fax  
[www.lauterbachamen.com](http://www.lauterbachamen.com)

**Contact:**

Todd A. Schroeder, EA

November 21, 2014

# TABLE OF CONTENTS

---

Page

## **Introduction**

Statement of Actuarial Opinion	1
Summary of Actuarial Valuation	2
Comments and Analysis	3 - 4

## **Assets**

Market Value of Assets	5
Actuarial Value of Assets	6

## **Recommended Contribution Determination**

Actuarial Accrued Liability and Funded Status	7
Normal Cost and Contribution Requirement	8
Actuarial Method and Assumptions	9

## **Statutory Minimum Contribution**

Statutory Minimum Contribution	10
Actuarial Method and Assumptions – Statutory Minimum	11

## **Valuation Data and Procedures**

Summary of Plan Participants	12
Actuarial Method and Assumptions	13 - 16
Summary of Principal Plan Provisions	17 - 21

<b>Glossary of Terms</b>	22
--------------------------	----



## **INTRODUCTION**

DRAFT

## Statement of Actuarial Opinion

This report documents the results of the Actuarial valuation of the Rochelle Firefighters' Pension Fund. The purpose is to report the actuarial contribution requirement for the contribution year May 1, 2014 to April 30, 2015. Determinations for purposes other than meeting the employer's actuarial contribution requirements may be significantly different from the results herein.

The results in this report are based on information and data submitted by the Rochelle Firefighters' Pension Fund including studies performed by prior actuaries. We did not prepare the actuarial valuations for the years prior to May 1, 2013. Those Valuations were prepared by other actuaries whose reports have been furnished to us, and our disclosures are based upon those reports. An audit of the information was not performed, but high-level reviews were performed for general reasonableness, as appropriate, based on the purpose of the valuation. The accuracy of the results is dependent upon the accuracy and completeness of the underlying information. The results of the actuarial valuation and these supplemental disclosures rely on the information provided.

The valuation results summarized in this report involve actuarial calculations that require assumptions about future events. The Rochelle Firefighters' Pension Fund selected certain assumptions, while others were the result of guidance and/or judgment. We believe that the assumptions used in this valuation are reasonable and appropriate for the purposes for which they have been used.

To the best of our knowledge, all calculations are in accordance with the applicable funding requirements, and the procedures followed and presentation of results conform to generally accepted actuarial principles and practices. The undersigned of Lauterbach & Amen, LLP, with actuarial credentials, meets the Qualification Standards of the American Academy of Actuaries to render this Actuarial Opinion. There is no relationship between the Rochelle Firefighters' Pension Fund and Lauterbach & Amen, LLP that impairs our objectivity.

The information contained in this report was prepared for the use of the Rochelle Firefighters' Pension Fund and the City of Rochelle in connection with our actuarial valuation. It is not intended or necessarily suitable for other purposes. It is intended to be used in its entirety to avoid misrepresentations.

Respectfully Submitted,  
LAUTERBACH & AMEN, LLP

Todd A. Schroeder, EA



# SUMMARY OF ACTUARIAL VALUATION

## *Contribution Requirement*

---

	Prior Valuation	Current Valuation
Contribution Requirement	\$273,650	\$337,824
Expected Payroll	\$830,941	\$875,470
Contribution Requirement as a Percent of Expected Payroll	32.93%	38.59%

*Recommended  
Contribution  
has Increased  
\$64,174 from  
Prior Year.*

Recommended Contribution is based on the Funding Policy agreed upon by the Board.

## *Funded Status*

---

	Prior Valuation	Current Valuation
Normal Cost	\$196,233	\$219,785
Market Value of Assets	\$7,608,614	\$7,655,533
Actuarial Value of Assets	\$7,691,266	\$7,837,754
Actuarial Accrued Liability	\$10,232,629	\$11,169,545
Unfunded Actuarial Accrued Liability	\$2,541,363	\$3,331,791
Percent Funded		
Actuarial Value of Assets	75.16%	70.17%
Market Value of Assets	74.36%	68.54%

*Funded  
Percentage  
has Decreased  
by 4.99 on an  
Actuarial  
Value of Assets  
Basis.*



## COMMENTS AND ANALYSIS

---

### Funding Policy

The Recommended contribution is based on the Funding Policy for the Plan. A Funding Policy has three key numerical components:

1. **The Actuarial Cost Method:** The Actuarial Cost Method budgets a contribution for each year of an employee's working career. Cash contributions are made according to the budget ("Normal Cost" contributions). In addition the Actuarial Cost Method can measure how well the funding is progressing compared to the budgeted contributions.
2. **Amortization Policy:** When Plan funding is not where expected (according to budget), procedures are put into place to pay down any shortfall. This leads to a second piece of the cash contribution (the "Amortization Payment").
3. **Actuarial Value of Assets:** Fluctuations in the plans assets due to short-term gains and losses may be smoothed over some period of time to minimize long-term contribution volatility.

### Actuarial Cost Method

The Actuarial Cost Method under the Funding Policy is the Entry Age Normal (EAN) Cost Method (as a percent of payroll). The EAN method creates budgeted contributions that are expected to be stable as a percent of payroll over time, creating equity over generations of taxpayers.

### Amortization Policy

The Funding Policy amortizes the current unfunded liability with a target of 100% funding by 2040.

### Actuarial Value of Assets

The actuarial value of assets under the funding policy is equal to the fair market value of assets, with unexpected gains and losses smoothed over 5 years. Only gains and losses that occurred in fiscal years subsequent to March 30, 2011 are being smoothed.

The net impact is that the actuarial value of assets is higher than the market value of assets, or approximately 102% of the market value of assets.



## COMMENTS AND ANALYSIS - CONTINUED

### Actuarial Liability/Contribution Requirement Changes

Actuarial liability is expected to increase each year for both interest for the year and as active employees earn additional service years towards retirement. Similarly actuarial liability is expected to decrease when the fund pays benefits to inactive employees. Other increases or decreases in actuarial liability (key changes noted below) will increase or decrease the amount of unfunded liability in the plan. To the extent unfunded liability increases or decreases unexpectedly, the contribution towards unfunded liability will also change unexpectedly.

Contributions are expected to increase at the rate of expected pay increases under the funding policy for the Fund.

	Actuarial Liability	Contribution Requirement
Prior Valuation	\$ 10,232,629	\$ 273,650
Expected Changes	389,576	10,946
Initial Expected Current Valuation	10,622,205	284,596
Salary Increase Less than Expected	(35,372)	(2,086)
Demographic Changes	251,579	12,920
Assumption Changes	331,133	29,191
Asset Return Less than Expected *	-	3,990
Contributions Less than Expected	-	9,213
Current Valuation	\$ 11,169,545	\$ 337,824

\*The increase in contribution due to asset performance is based on the Actuarial Value of Assets.

Demographic gains and losses occur when the assumptions over the one-year period for employee changes do not meet our long-term expectation. For example, if no employees become disabled during the year, we would expect a liability gain. If more employees retire than anticipated last year, we would expect a liability loss. Generally we expect short-term fluctuations in demographic experience to create 1%-3% gains or losses in any given year, but to balance out in the long-term.

The contribution increased, related to demographic experience, by approximately \$12,000. A small portion of this increase is expected when measuring on a year by year basis. Approximately \$11,000 of this contribution increase was related to monthly benefits increasing 5-6% for all retirees. This was due to benefit corrections in the participant data.

The assumption for investment rate of return was updated to 6.75%. This increased the contribution approximately \$29,000.



## **ASSETS**

DRAFT

## MARKET VALUE OF ASSETS

### *Market Value of Assets*

	Prior Valuation	Current Valuation
Money Market	\$ 52,927	\$ 504,313
Fixed Income	3,607,422	3,436,117
Insurance Contracts	231,509	201,820
Mutual Funds	3,682,003	3,469,914
Receivables (Net of Payables)	34,753	43,369
Net Assets Available for Pensions	\$ 7,608,614	\$ 7,655,533

*The Total Value of Assets has Increased \$46,919 from the Prior Valuation.*

### *Change in Market Value of Assets*

Total Market Value - Prior Valuation	\$ 7,608,614
Plus - Employer Contributions	103,048
Plus - Employee Contributions	84,116
Plus - Return on Investments	359,053
Less - Benefit and Related Payments	(484,633)
Less - Other Expenses	(14,665)
Total Market Value - Current Valuation	\$ 7,655,533

*The Return on Investment on the Market Value of Assets for the Fund was Approximately 4.6% Net of Administrative Expenses.*



## ACTUARIAL VALUE OF ASSETS

### *Current Year Loss/(Gain) Assets*

Total Market Value - Prior Valuation	\$ 7,608,614
Contributions	187,164
Benefit Payments	(484,633)
Expected Return on Investments	<u>509,859</u>
Expected Total Market Value - Current Valuation	7,821,004
Actual Total Market Value - Current Valuation	<u>7,655,533</u>
Current Market Value Loss/(Gain)	<u>\$ 165,471</u>
Expected Return on Investments	\$ 509,859
Actual Return on Investments (Net of Expenses)	<u>344,388</u>
Current Market Value Loss/(Gain)	<u>\$ 165,471</u>

*The Current Year Loss/Gain is the Difference in Earnings Between the Actuarial Assumed Rate of Return on Investments and the Actual Investment Returns.*

### *Development of the Actuarial Value of Assets*

Total Market Value - Current Valuation	\$ 7,655,533	
Adjustment for Prior Losses/(Gains)		
	<u>Full Amount</u>	
First Proceeding Year	\$ 165,471	132,377
Second Proceeding Year	(78,862)	(47,317)
Third Proceeding Year	242,903	97,161
Fourth Proceeding Year	-	<u>-</u>
Total Deferred Loss/(Gain)		<u>182,221</u>
Initial Actuarial Value of Assets - Current Valuation		7,837,754
Less Contributions for the Current Year and Interest		-
Less Adjustment for the Corridor		<u>-</u>
Actuarial Value of Assets - Current Valuation		<u>\$ 7,837,754</u>

*The Actuarial Value of Assets is Equal to the Fair Market Value of Assets with Unanticipated Gains/Losses Recognized over 5 Years. The Actuarial Value of Assets is Currently 102% of the Market Value.*



**RECOMMENDED CONTRIBUTION DETERMINATION**

DRAFT

# ACTUARIAL ACCRUED LIABILITY AND FUNDED STATUS

## *Actuarial Accrued Liability*

	Prior Valuation	Current Valuation
Active Employees	\$ 3,380,404	\$ 3,961,660
Inactive Employees		
Terminated Employees - Vested	-	-
Retired Employees	6,511,577	6,870,273
Disabled Employees	340,648	337,612
Other Beneficiaries	-	-
Total Inactive Employees	6,852,225	7,207,885
Total Actuarial Accrued Liability	\$ 10,232,629	\$ 11,169,545

*Total Actuarial  
Accrued Liability has  
Increased \$936,916  
from the Prior  
Valuation (See Table  
on Page 4).*

## *Funded Status*

	Prior Valuation	Current Valuation
Total Actuarial Accrued Liability	\$ 10,232,629	\$ 11,169,545
Total Actuarial Value of Assets	7,691,266	7,837,754
Unfunded Actuarial Accrued Liability	\$ 2,541,363	\$ 3,331,791
Total Market Value of Assets	\$ 7,608,614	\$ 7,655,533
Percent Funded		
Actuarial Value of Assets	<u>75.16%</u>	<u>70.17%</u>
Market Value of Assets	<u>74.36%</u>	<u>68.54%</u>

*The Current  
Funding Policy is  
for the Pension  
Fund to be 100%  
Funded on an  
Actuarial Basis  
(Entry Age Normal  
Cost Method) by  
the Year 2040.*



# NORMAL COST AND CONTRIBUTION REQUIREMENT

## *Development of the Normal Cost*

	Prior Valuation	Current Valuation
Total Normal Cost	\$ 196,233	\$ 219,785
Estimated Employee Contributions	(78,565)	(82,776)
Employer Normal Cost	<u>\$ 117,668</u>	<u>\$ 137,009</u>

*At a 100% Funding Level, the Normal Cost Contribution is Still Required.*

## *Normal Cost as a Percentage of Expected Payroll*

	Prior Valuation	Current Valuation
Expected Payroll	\$ 830,941	\$ 875,470
Employee Normal Cost Rate	<u>9.455%</u>	<u>9.455%</u>
Employer Normal Cost Rate	<u>14.16%</u>	<u>15.65%</u>
Total Normal Cost Rate	<u>23.62%</u>	<u>25.10%</u>

*Ideally the Employer Normal Cost Rate will Remain Stable.*

## *Contribution Requirement*

	Prior Valuation	Current Valuation
Employer Normal Cost*	\$ 131,404	\$ 151,844
Amortization of Unfunded Accrued Liability/(Surplus)	<u>142,246</u>	<u>185,980</u>
Funding Requirement	<u>\$ 273,650</u>	<u>\$ 337,824</u>

*The Recommended Contribution has Increased 23.5% from the Prior Valuation (See Table on Page 4).*

\*Employer Normal Cost Contribution includes interest through the end of the year.



# ACTUARIAL METHOD AND ASSUMPTIONS

## *Actuarial Method and Assumptions Utilized*

Actuarial Valuation Date	May 1, 2014
Actuarial Cost Method	Entry Age Normal (Level % Pay)
Amortization Method	Level % Pay (Closed)
Amortization Target	100% Funded in year 2040
Asset Valuation Method	5-Year Smoothed Market Value
Actuarial Assumptions	
Investment Rate of Return	6.75%
Projected Salary Increases	0% - 15%
Aggregate Payroll Increases	4.00%
Inflation Rate Included	3.00%

*A Summary of the Key Actuarial Assumptions and Funding Policy Decisions used in the Determination of the Recommended Contribution are Shown. More Detail is Available Later.*

Actuarial assumptions are based upon per year compounded annually.

Pay is assumed to increase at 4.50% long-term for inflation and merit increases. Step-increases have been included in the first 9 years to estimate the impact of pay steps. Rates are as follows:

Service	Rate	Age	Rate
1	15.00%	6	0.00%
2	5.00%	7	4.00%
3	5.00%	8	0.00%
4	0.00%	9	13.50%
5	5.00%	10+	4.50%

The contribution and benefit values of the Pension Fund are calculated by applying actuarial assumptions to the benefit provisions and census information furnished, using the actuarial cost methods described. The actuarial cost and amortization method allocates the projected obligations of the plan over the working lifetimes of the plan participants.

Details behind the selection of the actuarial assumptions can be found in the assumption document provided to the client. The client has reviewed and approved the assumptions as a reasonable expectation of the future anticipated experience under the plan.



**STATUTORY MINIMUM CONTRIBUTION**

DRAFT

# STATUTORY MINIMUM CONTRIBUTION

## *Contribution Requirement*

---

	<u>Minimum Contribution</u>
Contribution Requirement	\$233,343
Expected Payroll	\$875,470
Contribution Requirement as a Percent of Expected Payroll	26.65%

*The Statutory  
Minimum  
Contribution is Based  
on Funding Methods  
and Funding  
Parameters That Were  
Incorporated Into the  
Illinois Statutes for  
Pension Funding  
Effective January 1,  
2011.*

The Statutory Minimum Contribution is based on funding methods and funding parameters in the Illinois statutes for pension funding. The resulting contribution is lower than the recommended contribution for the current plan year. The lower contribution amount is not recommended because it represents a deferral of contributions when compared to the recommended contribution method.

The recommended contribution method is intended to allocate pension contributions in a manner that provides for increases that are manageable going forward. When contributions are lowered in current years, the resulting contributions in future years can increase more rapidly, with the risk of becoming unmanageable. The Securities and Exchange Commission in 2013 used the phrase “Statutory Underfunding” to describe situations where contributions appear to be more manageable in the short-term, but set up future contribution requirements that are less likely to be manageable.



# ACTUARIAL METHOD AND ASSUMPTIONS – STATUTORY MINIMUM

## *Actuarial Method and Assumptions Utilized*

---

Actuarial Valuation Date	May 1, 2014
Actuarial Cost Method	Projected Unit Credit (Level % of Pay)
Amortization Method	Level % Pay (Closed)
Remaining Amortization Period	90% Funded in year 2040
Asset Valuation Method	5-Year Smoothed Market Value
Actuarial Assumptions	
Investment Rate of Return	6.75%
Projected Salary Increases	0% - 15%
Aggregate Payroll Increases	4.00%
Inflation Rate Included	3.00%

*The Statutory Minimum Contribution has Been Determined Using the Same Actuarial Assumptions as the Recommended Contribution.*

Actuarial assumptions are based upon per year compounded annually.

Pay is assumed to increase at 4.50% long-term for inflation and merit increases. Step-increases have been included in the first 9 years to estimate the impact of pay steps. Rates are as follows:

Service	Rate	Age	Rate
1	15.00%	6	0.00%
2	5.00%	7	4.00%
3	5.00%	8	0.00%
4	0.00%	9	13.50%
5	5.00%	10+	4.50%

The contribution and benefit values of the Pension Fund are calculated by applying actuarial assumptions to the benefit provisions and census information furnished, using the actuarial cost methods described. The actuarial cost and amortization method allocates the projected obligations of the plan over the working lifetimes of the plan participants.

Details behind the selection of the actuarial assumptions can be found in the assumption document provided to the client. The client has reviewed and approved the assumptions as a reasonable expectation of the future anticipated experience under the plan.



# **VALUATION DATA AND PROCEDURES**

DRAFT

## SUMMARY OF PLAN PARTICIPANTS

### *Active Employees*

---

	Prior Valuation	Current Valuation
Vested	6	7
Nonvested	7	6
<b>Total Active Employees</b>	<b>13</b>	<b>13</b>
<b>Total Payroll</b>	<b>\$ 814,648</b>	<b>\$ 858,304</b>

### *Inactive Employees*

---

	Prior Valuation	Current Valuation
Terminated Employees - Vested	0	0
Retired Employees	8	8
Disabled Employees	1	1
Other Beneficiaries	0	0
<b>Total Inactive Employees</b>	<b>9</b>	<b>9</b>

### *Inactive Employees – Summary of Monthly Benefits*

---

	Prior Valuation	Current Valuation
Terminated Employees - Vested	\$ -	\$ -
Retired Employees	36,708	38,662
Disabled Employees	2,481	2,475
Other Beneficiaries	-	-
<b>Total Inactive Employees</b>	<b>\$ 39,189</b>	<b>\$ 41,137</b>

Benefits shown for terminated employees under deferred retirement are not currently in pay status.



## ACTUARIAL METHODS AND ASSUMPTIONS

### *Nature of Actuarial Calculations*

---

The results documented in this report are estimates based on data that may be imperfect and on assumptions about future events. Certain plan provisions may be approximated or deemed immaterial, and, therefore, are not valued. Assumptions may be made about participant data or other factors. Reasonable efforts were made in this valuation to ensure that significant items in the context of the actuarial liabilities or costs are treated appropriately, and not excluded or included inappropriately.

Actual future experience will differ from the assumptions used in the calculations. As these differences arise, the expense for accounting purposes will be adjusted in future valuations to reflect such actual experience.

A range of results different from those presented in this report could be considered reasonable. The numbers are not rounded, but this is for convenience only and should not imply precision which is not inherent in actuarial calculations.

### *Actuarial Cost Methods*

---

The actuarial cost method allocates the projected obligations of the plan over the working lifetimes of the plan participants.

In accordance with the Pension Fund's Funding Policy the actuarial cost method for the recommended contribution basis is Entry Age Normal (Level Percent of Pay). The Entry Age Normal Cost Method is a method under which the actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit age. The portion of this actuarial present value allocated to a valuation year is called normal cost. The portion of the actuarial present value not provided at a valuation date by the actuarial present value of future normal costs is called the actuarial liability.



## ACTUARIAL METHODS AND ASSUMPTIONS - CONTINUED

### *Financing of Unfunded Actuarial Accrued Liabilities*

---

The Unfunded Actuarial Accrued Liability may be amortized over a period either in level dollar amounts or as a level percentage of projected payroll.

In accordance with the Pension Fund's Funding Policy for the recommended contribution the unfunded actuarial accrued liabilities are amortized by level percent of payroll contributions to 100% funding target over the remaining 26 future years including the municipality's fiscal year 2040.

### *Asset Valuation Method*

---

The Actuarial Value of Assets is equal to the Market value of assets with unanticipated gains/losses recognized over five years (beginning with gains/losses in 2011).

DRAFT



## ACTUARIAL METHODS AND ASSUMPTIONS - CONTINUED

### *Actuarial Assumptions in the Valuation Process*

---

The contribution and benefit values of the Pension Fund are calculated by applying actuarial assumptions to the benefit provisions and census information furnished, using the actuarial cost methods described in the previous section.

The principal areas of financial risk which require assumptions about future experience are:

- Long-term Rates of Investment Return
- Patterns of Pay Increases for Members
- Rates of Mortality Among Members and Beneficiaries
- Rates of Withdrawal of Active Members
- Rates of Disability Among Members
- Age Patterns of Actual Retirement

Actual experience of the Pension Fund will not coincide exactly with assumed experience. Each valuation provides a complete recalculation of assumed future experience and takes into account all past differences between assumed and actual experience. The result is a continual series of adjustments to the computed contribution requirement.

From time to time it becomes appropriate to modify one or more of the assumptions, to reflect experience trends (but not random year-to-year fluctuations).

### *Actuarial Assumptions Utilized*

---

<b>Investment Return</b>	Are Described in the Prior Sections of this Report
<b>Salary Increases</b>	Are Described in the Prior Sections of this Report
<b>Inflation Rate Included</b>	Are Described in the Prior Sections of this Report
<b>Cost-of-Living Adjustments</b>	Are Described in the Prior Sections of this Report



# ACTUARIAL METHODS AND ASSUMPTIONS - CONTINUED

## *Actuarial Assumptions Utilized - Continued*

---

### **Retirement Rates**

100% of the L&A Assumption Study Cap Age 65 for Firefighters 2012. Sample Rates as Follows:

Age	Rate	Age	Rate
50	0.100	53	0.180
51	0.100	54	0.180
52	0.100	55	0.180

### **Withdrawal Rates**

100% of the L&A Assumption Study for Firefighters 2012. Sample Rates as Follows:

Age	Rate	Age	Rate
25	0.049	40	0.008
30	0.030	45	0.000
35	0.016	50	0.000

### **Disability Rates**

100% of the L&A Assumption Study for Firefighters 2012. Sample Rates as Follows:

Age	Rate	Age	Rate
25	0.000	40	0.004
30	0.000	45	0.007
35	0.002	50	0.012

### **Mortality Rates**

L&A Assumption Study for Firefighters 2012. Sample Rates as Follows:

Age	Rate	Age	Rate
25	0.000	40	0.000
30	0.000	45	0.001
35	0.000	50	0.001

### **Married Participants**

80% of Active Participants are Assumed to be Married. Spouses are Assumed to be the same age.



# SUMMARY OF PRINCIPAL PLAN PROVISIONS

## ***Establishment of the Fund***

---

The Firefighters' Pension Fund is established and administered as prescribed by "Article 4. Firefighters' Pension Fund – Municipalities 500,000 and Under" of the Illinois Pension Code.

## ***Administration***

---

The Firefighters' Pension Fund is administered by a Board of Trustees located in each municipality maintaining a pension fund for its firefighters. Its duties are to control and manage the pension fund, to hear and determine applications for pensions, to authorize payment of pensions, to establish rules, to pay expenses, to invest funds, and to keep records.

## ***Employee Contributions***

---

Employees contribute 9.455% of salary.

## ***Normal Retirement Pension Benefit***

---

Hired Prior to January 1, 2011

*Eligibility:* Age 50 with at least 20 years of creditable service and no longer a firefighter.

*Benefit:* 50% of final salary is payable commencing at retirement for 20 years of service. An additional 2.5% of final salary is added for each additional year of service (prorated monthly) in excess of 20 years of service (not to exceed 75% of final salary). "Final salary" is based on the pay rate for the firefighter at retirement.

*Annual Increase in Benefit:* A firefighter is entitled to an initial pension increase equal to 1/12 of 3% of the original monthly benefit for each full month that has passed since the pension began. The initial increase date will be the later of the first day of the month following the attainment of age 55, or the first anniversary of the date of retirement. Subsequent increases of 3% of the current pension amount will be provided in each January thereafter.



## SUMMARY OF PRINCIPAL PLAN PROVISIONS - CONTINUED

### ***Normal Retirement Pension Benefit - Continued***

---

Hired on or After January 1, 2011

*Eligibility:* Age 55 with at least 10 years of creditable service and no longer a firefighter.

*Benefit:* 2.5% of final average salary for each year of service is payable at retirement (not to exceed 75% of final average salary). "Final average salary" is determined by dividing the highest total salary over 96 consecutive months of service in the last 120 months of service by the total number of months of service in the period. Annual salary for this purpose will not exceed \$106,800, indexed by the lesser of 3% or ½ of the CPI-U for the 12 months ending with the September preceding each November 1. The salary cap will not decrease.

*Annual Increase in Benefit:* The initial increase date will be the January 1<sup>st</sup> following the attainment of age 60, or the first anniversary of the date of retirement. Subsequent increases will occur on each subsequent January 1<sup>st</sup>. The first increase and subsequent increases will be the lesser of 3% of the original benefit or ½ of the CPI-U for the 12 months ending with the September preceding each November 1, applied to the original pension amount.

### ***Early Retirement Pension Benefit***

---

Hired Prior to January 1, 2011

None

Hired on or After January 1, 2011

*Eligibility:* Age 50 with at least 10 years of creditable service and no longer a firefighter.

*Benefit:* The normal retirement pension benefit reduced by ½ of 1% for each month that the firefighter's age is under age 55.

*Annual Increase in Benefit:* The initial increase date will be the January 1<sup>st</sup> following the attainment of age 60, or the first anniversary of the date of retirement. Subsequent increases will occur on each subsequent January 1<sup>st</sup>. The first increase and subsequent increases will be the lesser of 3% of the original benefit or ½ of the CPI-U for the 12 months ending with the September preceding each November 1, applied to the original pension amount.



## SUMMARY OF PRINCIPAL PLAN PROVISIONS - CONTINUED

### *Pension to Survivors*

---

#### Hired Prior to January 1, 2011

##### Death - Line of Duty

Surviving spouse is entitled to 100% of the salary attached to the rank of the firefighter on the last day of service, payable immediately.

##### Death - Non-Duty

*Current Pensioners (Including Disabled Pensioners):* Surviving spouse to receive continuation of the pension at the time of death or 54% of pensionable salary at the time pension began, if greater.

*Active Employee with 20+ Years of Service:* Surviving spouse is entitled to the full pension earned by the firefighter at the time of death, or 54% of the pensionable salary at death if greater.

*Active Employee with 10-20 Years of service:* Surviving spouse is entitled to 54% of the salary attached to the rank of the firefighter on the last day of service, payable immediately

*Annual Increase in Benefit:* None.

#### Hired on or After January 1, 2011

##### Death - Line of Duty

Surviving spouse is entitled to 100% of the salary attached to the rank of the firefighter on the last day of service, payable immediately.

##### Death - Non-Duty

*Current Pensioners (Including Disabled Pensioners), Active Employee with 20+ Years of Service, and Active Employee with 10-20 Years of service:* Surviving spouse to receive 66  $\frac{2}{3}$ % of the firefighter's earned pension at the date of death.

*Annual Increase in Benefit:* The initial increase date will be the January 1<sup>st</sup> after the attainment of age 60 by the recipient of the survivor's pension. Subsequent increases will occur on each subsequent January 1<sup>st</sup>. The first increase and subsequent increases will be the lesser of 3% of the original benefit or  $\frac{1}{2}$  of the CPI-U for the 12 months ending with the September preceding each November 1, applied to the original survivor's pension amount.



## SUMMARY OF PRINCIPAL PLAN PROVISIONS - CONTINUED

### *Termination Benefit*

---

#### Hired Prior to January 1, 2011

*Eligibility:* At least 10 years but less than 20 years of creditable service.

*Benefit:* An accrual factor times final salary for each year of service is payable beginning at age 60. "Accrual Factor" is a factor of 1.5% at 10 years of service, increasing ratably up to 2.4% at 19 years of service. "Final salary" is based on the pay rate for the firefighter on the date of separation.

*Annual Increase in Benefit:* A firefighter will receive an initial increase of 3% on the first anniversary of the date of start of payments. Subsequent increases of 3% of the current pension amount will be provided in each January thereafter.

#### Hired on or After January 1, 2011

*Eligibility:* At least 10 years but less than 20 years of creditable service.

*Benefit:* An accrual factor times final salary for each year of service is payable beginning at age 60. "Accrual Factor" is a factor of 1.5% at 10 years of service, increasing ratably up to 2.4% at 19 years of service. "Final salary" is based on the greater of salary during the last year of service prior to termination of employment or the pay rate for the firefighter at termination of employment. Annual salary for this purpose will not exceed \$106,800, indexed by the lesser of 3% or ½ of the CPI-U for the 12 months ending with the September preceding each November 1. The salary cap will not decrease.

*Annual Increase in Benefit:* The initial increase date will be the January 1<sup>st</sup> following the first payment. Subsequent increases will occur on each subsequent January 1<sup>st</sup>. The first increase and subsequent increases will be the lesser of 3% of the original benefit or ½ of the CPI-U for the 12 months ending with the September preceding each November 1, applied to the original pension amount.



## SUMMARY OF PRINCIPAL PLAN PROVISIONS - CONTINUED

### *Disability Benefit*

---

#### Hired Prior to January 1, 2011

*Eligibility:* Disability (duty; or non-duty with 7 years of service).

*Benefit:* A firefighter who becomes disabled on duty is entitled to receive a pension equal to the greatest of 65% of final salary or the pension they would have been entitled to upon retirement at the time of disability. For a non-duty disability, the firefighter is entitled to 50% of final salary. "Final salary" is based on the pay rate for the firefighter at retirement.

*Annual Increase in Benefit:* The initial increase date will be the January 1<sup>st</sup> following the attainment of age 60. Subsequent increases will occur on each subsequent January 1<sup>st</sup>. The first increase is 3% of the original benefit for each full year that has passed since the pension began. Subsequent increases are 3% of the original pension benefit amount.

#### Hired on or after January 1, 2011

*Eligibility:* Disability (duty; or non-duty with 7 years of service).

*Benefit:* A firefighter who becomes disabled on duty is entitled to receive a pension equal to the greater of 65% of final salary or the pension they would have been entitled to upon retirement at the time of disability. For a non-duty disability, the firefighter is entitled to 50% of final salary. "Final salary" is based on the pay rate for the firefighter at last day of service.

*Annual Increase in Benefit:* The initial increase date will be the January 1<sup>st</sup> following the attainment of age 60. Subsequent increases will occur on each subsequent January 1<sup>st</sup>. The first increase and subsequent increases will be the lesser of 3% of the original benefit or ½ of the CPI-U for the 12 months ending with the September preceding each November 1, applied to the original pension amount.



## **GLOSSARY OF TERMS**

DRAFT

## GLOSSARY OF TERMS

---

**Actuarial Accrued Liability** –The actuarial present value of future benefits based on employees’ service rendered to the measurement date using the selected actuarial cost method. It is that portion of the Actuarial Present Value of plan benefits and expenses allocated to prior years of employment. It is not provided for by future Normal Costs.

**Actuarial Cost Method** – The method used to allocate the projected obligations of the plan over the working lifetimes of the plan participants.

**Actuarial Value of Asset** – The value of the assets used in the determination of the Unfunded Actuarial Accrued Liability. The Actuarial Value of Assets is related to Market Value of Assets, with adjustments made to spread unanticipated gains and losses for a given year over a period of several years. Actuarial Value of Assets is generally equally likely to fall above or below the Market Value of Assets, and generally does not experience as much volatility over time as the Market Value of Assets.

**Asset Valuation Method** – A valuation method designed to smooth random fluctuations in asset values. The objective underlying the use of an asset valuation method is to provide for the long-term stability of employer contributions.

**Funding Policy** – A set of procedures for a Pension Fund that outlines the “best practices” for funding the pension benefits based on the goals of the plan sponsor. A Funding Policy discusses items such as assumptions, Actuarial Cost Method, assets, and other parameters that will best help the sponsor meet their goal of working in the best interest of the plan participant.

**Market Value of Assets** – The value of the cash, bonds, securities and other assets held in the pension trust as of the measurement date.

**Normal Cost** –The present value of future benefits earned by employees during the current fiscal year. It is that portion of the Actuarial Present Value of benefits and expenses which is allocated to a valuation year by the Actuarial Cost Method.

**Unfunded Actuarial Accrued Liability** – The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The Unfunded Actuarial Accrued Liability is amortized over a period either in level dollar amounts or as a level percentage of projected payroll.

