



MEMORANDUM

Date: April 30, 2018

To: Eric Palm, Village Administrator

From: Joan Rock, Finance Director

Subject: May 14, 2018 Finance Committee Meeting: Approval of Actuarial Funding Policy Statements for the Police and Firefighters' Pension Funds

Background: In Fiscal Year 2015 the Village Board approved Pension Funding Policies for the Police and Firefighters' Pension Funds. The policies were developed after several meetings with the Finance Committee and the Police and Firefighters' Pension Boards. Todd Schroeder from Lauterbach and Amen led the meetings and the pension funds' investment consultants also contributed. The approved Pension Funding Policies included the following assumptions:

	Actuarial Parameters for Normal Cost	Amortization of the Unfunded Liability	Rate of Return	Actuarial Value of Assets
Police Pension Fund	Entry Age Normal/Level % of Pay	90% over 30 years/Level % increase of 3%	6.75%	5 year smoothing of gains and losses
Fire Pension Fund	Entry Age Normal/Level % of Pay	95% over 30 years/Level Dollar	7.0%	5 year smoothing of gains and losses

The Finance Committee and Pension Funds also agreed upon a five-year transition plan to reach the pension funding policy levels in FY 2019. The transition plan contributions through levy year 2017 were as follows:

	Budget FY 2015	Actual FY 2016	Actual 2017	Actual FY 2018	Required FY 2018	Estimated FY 2019
Levy Year	2014	2015	2016	2017	2017	2018
Police Pension Fund	\$1,079,777	\$1,204,822	\$1,329,644	\$1,454,466	\$1,496,256	\$1,504,726
Fire Pension Fund	\$887,920	\$988,150	\$1,086,300	\$1,184,450	\$1,399,187	\$1,207,125

The amounts in the chart above shaded in green are the transition plan amounts included in the 2017 Property Tax Levy. The amounts shaded in yellow are the actuarially required contributions for 2017 based on the May 1, 2017 actuarial valuation report. The last column in orange represents the amount originally expected to be levied with the 2018 Property Tax Levy when the Pension Funding Policies were approved in FY 2015. These amounts were supposed to be the full required contribution to be included in the 2018 Property Tax Levy using the approved Pension Funding Policies. The Police Pension Fund 2018 contribution appears to be about on target; however, the Fire Pension Fund contribution looks like it will be significantly higher than anticipated primarily due to investment returns being lower than expected and a change to the mortality tables in 2016 that assumes longer lives.

Discussion: At the time the pension policies were developed a future review of the policies was planned. Because of the apparent discrepancy between actual and expected results for 2018 it was necessary to review the policies prior to the preparation of the actuarial valuation reports for the 2018 Property Tax Levy. Meetings were held during FY 2018 with the Finance Committee, Todd Schroeder from Lauterbach & Amen, and Trustees for the Police and Firefighter Pension Boards. The funds' pension funding progress and the elements in the Pension Funding Policies were reviewed. In addition, Todd Schroeder presented several funding policy scenarios using a 6.75% and 7.0% percent interest rate assumption and 90% and 100% funding of the actuarial accrued liability. The required contributions and estimated funded percentages assuming each of these scenarios for each fund is included in the attached chart. At the final meeting, the Firefighters Pension Board verbally agreed to the following assumptions:

	Actuarial Parameters for Normal Cost	Amortization of the Unfunded Liability	Rate of Return	Actuarial Value of Assets
Fire Pension Fund	Entry Age Normal/Level % of Pay	90% funding/Level Dollar	7.0%	5 year smoothing of gains and losses

The Police Pension board requested the following:

	Actuarial Parameters for Normal Cost	Amortization of the Unfunded Liability	Rate of Return	Actuarial Value of Assets
Police Pension Fund	Entry Age Normal/Level % of Pay	100% funding/Level Dollar	6.75%	5 year smoothing of gains and losses

The recommended Police and Firefighters Pension Fund Pension Funding Policies are attached to this memo. Both include the assumptions agreed upon by the Firefighter's Pension Board. The same interest rate assumption is being used because both funds have the same investment restrictions under State Statutes and they use the same investment consultant. Both funds agreed that the level dollar method was preferred to amortize the unfunded accrued liability. With this method, the unfunded accrued liability is paid down in even payments through 2040, like a mortgage. According to Todd Schroeder, most funds use the level percentage of pay method, which increases the amount of the contribution going towards the unfunded liability each year and pushes the liability into the future. The recommended policies include the preferred level dollar method, which increases the Village's contribution in earlier years, and a 90% funded level by 2040 which is included in the Illinois Statute. The estimated employer contributions for each fund based on the recommended Actuarial Funding Policy Statements are as follows:

	Actual FY 2018	Budget FY 2019	Estimated FY 2020	Estimated FY 2021	Estimated FY 2022
Levy Year	2017	2018	2019	2020	2021
Police Pension Fund	\$1,454,466	\$1,483,000	\$1,511,000	\$1,547,000	\$1,556,000
Fire Pension Fund	\$1,184,450	\$1,324,000	\$1,394,000	\$1,454,000	\$1,470,000
Total	\$2,638,916	\$2,807,000	\$2,905,000	\$3,001,000	\$3,026,000

The Fiscal Year 2019 Budget was prepared assuming the approval of the attached recommended Pension Funding Policies. Todd Schroeder, from Lauterbach and Amen, will be at the Finance Committee Meeting to discuss the progress we have made towards improving pension funding since the original policy was approved, why the estimated actual required contributions for Tax Levy Year 2018 differ from the expected values when the original policies were approved, changes included in the new policies, and projected contributions, cash flows and funding levels with the recommended policies. He will also be available to answer any questions the Committee may have. The Finance Committee recommendation will be submitted to the Village Board for approval at their May 14, 2018 meeting.

Requested Finance Committee Action: Recommendation to the Village Board to Approve the *Actuarial Funding Policy Statements for the Village of River Forest Police and Firefighters' Pension Funds.*

**River Forest Police and Fire Pension Funds
Preliminary Actuarial Projections
Projected Actuarial Requirements & Funded Percentage
April 30, 2018**

	<u>2017</u> <u>Levy</u>	<u>2018</u> <u>Levy</u>	<u>2019</u> <u>Levy</u>	<u>2020</u> <u>Levy</u>	<u>2021</u> <u>Levy</u>	<u>2022</u> <u>Levy</u>
Fire						
2015 Pension Funding Policy	1,184,450	1,399,000	1,460,000	1,514,000	1,559,000	1,562,000
<u>Proposed Pension Funding Policy Scenarios</u>						
6.75% 100% Lev \$ Funded Percentage	1,180,000 51%	1,690,000 50%	1,760,000 49%	1,800,000 50%	1,800,000 52%	1,800,000 54%
6.75% 90% Lev \$ Funded Percentage	1,180,000 51%	1,410,000 50%	1,480,000 49%	1,540,000 49%	1,550,000 50%	1,570,000 51%
7.00% 100% Lev \$ Funded Percentage	1,180,000 52%	1,600,000 51%	1,670,000 51%	1,720,000 51%	1,720,000 53%	1,720,000 55%
7.00% 90% Lev \$ + \$0 Additional Funded Percentage	1,184,450 52%	1,324,000 51%	1,394,000 50%	1,454,000 50%	1,470,000 51%	1,486,000 52%

**River Forest Police and Fire Pension Funds
Preliminary Actuarial Projections
Projected Actuarial Requirements & Funded Pe
April 30, 2018**

	<u>2017</u> <u>Levy</u>	<u>2018</u> <u>Levy</u>	<u>2019</u> <u>Levy</u>	<u>2020</u> <u>Levy</u>	<u>2021</u> <u>Levy</u>	<u>2022</u> <u>Levy</u>
Police						
2015 Pension Funding Policy	1,454,465	1,520,000	1,530,000	1,540,000	1,560,000	1,570,000
<u>Proposed Pension Funding Policy Scenarios</u>						
6.75% 100% Lev \$ Funded Percentage	1,450,000 54%	1,980,000 55%	2,010,000 55%	2,030,000 57%	2,010,000 59%	2,010,000 60%
6.75% 90% Lev \$ Funded Percentage	1,450,000 54%	1,610,000 55%	1,640,000 55%	1,670,000 55%	1,670,000 57%	1,690,000 57%
7.00% 100% Lev \$ Funded Percentage	1,450,000 56%	1,850,000 57%	1,880,000 57%	1,900,000 58%	1,890,000 60%	1,890,000 62%
7.00% 90% Lev \$ + \$0 Additional Funded Percentage	1,454,466 56%	1,483,000 57%	1,511,000 57%	1,547,000 57%	1,556,000 58%	1,576,000 59%

**River Forest Police and Fire Pension Funds
Preliminary Actuarial Projections
Projected Actuarial Requirements & Funded Pe
April 30, 2018**

	<u>2017</u> <u>Levy</u>	<u>2018</u> <u>Levy</u>	<u>2019</u> <u>Levy</u>	<u>2020</u> <u>Levy</u>	<u>2021</u> <u>Levy</u>	<u>2022</u> <u>Levy</u>
	Total					
2015 Pension Funding Policy	2,680,450	2,919,000	2,990,000	3,054,000	3,119,000	3,132,000
<u>Proposed Pension Funding Policy Scenarios</u>						
6.75% 100% Lev \$ Funded Percentage	2,630,000	3,670,000	3,770,000	3,830,000	3,810,000	3,810,000
6.75% 90% Lev \$ Funded Percentage	2,630,000	3,020,000	3,120,000	3,210,000	3,220,000	3,260,000
7.00% 100% Lev \$ Funded Percentage	2,630,000	3,450,000	3,550,000	3,620,000	3,610,000	3,610,000
7.00% 90% Lev \$ + \$0 Additional Funded Percentage	2,638,916	2,807,000	2,905,000	3,001,000	3,026,000	3,062,000

Lauterbach & Amen, LLP
668 N. River Road
Naperville, IL 60563

Actuarial Funding Policy Statement



VILLAGE OF RIVER FOREST FIREFIGHTERS' PENSION FUND

Effective Date:

April 30, 2018

LAUTERBACH & AMEN, LLP

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PURPOSE OF THE ACTUARIAL FUNDING POLICY STATEMENT

General Purpose

This Actuarial Funding Policy Statement sets forth the procedures that the Pension Board of Trustees for the Village of River Forest Firefighters' Pension Fund and the Village of River Forest have adopted to make funding contributions to the Firefighters' Pension Fund in compliance with the Illinois Pension Code. The policy identifies goals and objectives of the Pension Board of Trustees and the Village. The policy sets out the decision-making process for handling various aspects of pension funding and defines the ongoing items to be reviewed in assessing the ongoing effectiveness of this policy.

Goals and Objectives

The key goals and objectives considered in the preparation of the investment policy are noted below:

- Make sure that benefits are secure for fund participants now and in the long-term.
- Keep the recommended costs of the plan stable across generations of taxpayers.
- Develop recommendations that are more cost-effective in the long-term.
- Provide year-to-year contribution stability/budgeting for the Village.
- Address any transition items needed at the policy implementation.

Operation of the Policy

It is the intention of the Pension Board of Trustees and the Village to review the policy on an annual basis. The intention is to review the effectiveness of the policy and determine if it continues to meet the goals and objectives as set forth.

The Pension Board of Trustees and the Village retain the right to amend the policy, as necessary, to keep the policy in line with the goals and objectives.



THE ACTUARIAL COST METHOD

General Purpose

The intent of any Actuarial Cost Method is to set aside the appropriate number of dollars during an employee's working career so that the Pension Fund has the dollars necessary to make payments at retirement. The Actuarial Cost Method will set the pattern by which contributions are made to the Funds during the working career of the employee and provide two key measures for reporting:

- Normal Cost – The amount of money to contribute for each active employee for the upcoming year of service.
- Accrued Liability – The amount of money that is expected to be in the Pension Fund already, based on all past service already worked by members of the Fund.

Selection

The Entry Age Normal (EAN) Cost Method (Level Percent of Pay) has been chosen to measure the Normal Cost and Accrued Liability for the Fund.

The EAN Method is a cost-based actuarial method which focuses on budgeting annual costs during the working career of an employee. The Normal Cost level is set with the expectation that it will increase annually at the same rate as expected payroll increases during an employee's working career.



UNFUNDED ACCRUED LIABILITY

General Purpose

The Actuarial Cost Method will provide a method for setting the annual contribution pattern for current year services, as well as setting the expected level of assets needed to be on budget for past services rendered by employees. When the Pension Fund's actuarial assets do not match the expected assets under the budget, an unfunded/overfunded liability exists.

Unfunded liability comes from two broad types of events:

Short-Term events are a product of measuring liability and asset returns at specific points in time and are expected to come up annually. For example, the assets may return 5.0% in the long-term but in any given measurement year, we will likely see returns that exceed or fall below that level. The key to managing short-term unfunded liability is to make sure that plan assumptions are as accurate as possible so that short-term fluctuations over time create both gains and losses, and effectively offset each other. Contribution adjustments are made to control short-term fluctuations but are anticipated to be offsetting adjustments in the long-term.

Systematic events are changes in unfunded liability caused by specific outside actions. The increase or decrease in unfunded liability that results is a "permanent" change in liability that will not necessarily offset another change over time. Therefore, the key to managing systematic changes in unfunded liability is to recognize a corresponding change required to the annual contribution for some set period of time.

Unfunded Liability – Existing at Implementation

As of April 30, 2018, the unfunded liability balance as of April 30, 2018 will be paid off over 22 years using level dollar payments, targeting 90% funding. The remaining 10% of the unfunded liability will continue to be separately identified and monitored. This amount will grow over time and will be monitored annually.

Unfunded Liability – New Changes

Changes in the unfunded liability subsequent to April 30, 2014 will be paid off over the remaining years from the initial 26-year period. Each valuation year, these changes to unfunded liability will be identified and the Pension Board of Trustees will recommend how to handle them. Changes in unfunded liability can be used to offset past unfunded liability or separate amortization periods setup to handle them through contributions. Amortization into future contribution recommendations will be done on a level dollar basis.



ACTUARIAL VALUE OF ASSETS

General Purpose

The Actuarial Value of Assets is the figure used annually to determine the level of underfunding in the Pension Fund. The Actuarial Value of Assets does not necessarily equal the fair Market Value of Assets. While the Actuarial Value of Assets does not represent dollars that are available on that day to make benefit payments, use of an Actuarial Value of Assets recognizes that assets will not all be distributed at a single point in time.

The objective of using an Actuarial Value of Assets that differs from the Market Value of Assets is to redistribute contributions over the life of the Pension Fund in a manner that is less volatile. The overall level of contributions over the life of the Fund is not expected to change. To achieve this, gains and losses on the Market Value of Assets are recognized in the Actuarial Value of Assets over a period of time. In order to be successful as part of long-term funding, the Actuarial Value of Assets should be equally likely to fall above or below the market value of assets.

Key parameters:

- Years – the number of years to smooth market value gains and losses.
- Corridor – A limitation placed on the Actuarial Value of Assets. This parameter will limit the Actuarial Value of Assets in relation to Market Value of Assets.

Selection

The Actuarial Value of Assets will be equal to the Market Value of Assets, with unexpected gains and losses on the Market Value of Assets smoothed over a 5-year period.

It is anticipated that the Actuarial Value of Assets will not stray too far from the Market Value of Assets with the 5-year smoothing parameter. Therefore, no corridor has been set at this time.



OPERATIONAL PROCEDURES

Funding Recommendations

The Pension Board of Trustees will use the policies and procedures set forth in this document to recommend a contribution amount to be made by the Village to the Pension Fund each year.

State of Illinois Minimum Funding Requirement

The State of Illinois provides funding policy parameters that must be used in determining the minimum amount of money that should be contributed to the Fund on an annual basis. The Pension Board of Trustees and the Village will review this amount each year. Notwithstanding anything else in this policy, in no event will the Pension Board of Trustees recommend a contribution that is less than the minimum contribution required under State law.

Actuarial Assumptions

The Pension Board of Trustees will review the actuarial assumptions used for determining the Fund's costs at least every 3-5 years. The Pension Board of Trustees and Village will use assumptions that are the best estimate of the future anticipated experience under the plan. By getting the best estimate on actuarial assumptions, short-term changes in unfunded liability are expected to be offset over a long-term period of time. Review of the assumptions every 3-5 years will help to minimize the impact of assumption changes that have deviated from actual experience over a long period of time.

If any events occur that could impact assumptions immediately (for example, a change in the Investment Policy or strategy), the Pension Board of Trustees will assess the associated assumption on a more immediate basis and will not be limited by the 3-5 year cycle.

See Addendum 1 for current selections.

Monitoring the Funding Policy

The Pension Board of Trustees and the Village will review, on an annual basis, a report that is intended to monitor the progress of the Funding Policy. This review will include but not be limited to:

- A review of the progress being made on the unfunded liability that exists at implementation.
- A review of the anticipated gains and losses that will be recognized in the upcoming actuarial value of assets under the funding policy.
- An analysis of cash flow to monitor the continuous ability of the funds to pay benefits.
- An analysis of the causes of any changes in unfunded liability over the preceding year.
- An analysis of the actuarial expectations versus actual experience over the past year.



ADDENDUM 1 – CURRENT ACTUARIAL ASSUMPTIONS

Economic Assumptions

<u>Assumption</u>	<u>Selection</u>	<u>Reason</u>
Expected Rate of Return on Assets	7.00%	Based on the current target allocation in the Pension Fund and Discussion with the Investment Consultant.
Pay Increases	3.00%-10.11%	Service-based pay rates are intended to capture increases granted early in an employee's working career and cost of living adjustments. Long-term increases are intended to capture average increases for inflation and merit/promotions.
Total Payroll Increases	3.50%	Based on the current employee population.

Demographic Assumptions

<u>Assumption</u>	<u>Selection</u>	<u>Reason</u>
Active Mortality	RP-2014 with Blue Collar Adjustment, Improved Generationally using MP-2016	Based on national studies of mortality rates and mortality improvement rates.
Retiree Mortality	L&A 2016, Experience Weighted with Active Mortality Rates	Based on a study of the actual experience for active and retired Firefighters' in the state of Illinois, blended with a national study of mortality rates and mortality improvement rates.
Disabled Mortality	RP-2014 for Disabled Participants with Blue Collar Adjustment, Improved Generationally using MP-2016	Based on national studies of mortality rates for disabled individuals and mortality improvement rates.



Demographic Assumptions - Continued

Spouse Mortality	RP-2014, Improved Generationally using MP- 2016	Based on national studies of mortality rates and mortality improvement rates.
Termination Rates	L&A 2016	Long-term anticipated experience for the Firefighters' Pension Fund, based on a study of the actual experience for active and retired Firefighters' in the state of Illinois.
Disability Rates	L&A 2016	Long-term anticipated experience for the Firefighters' Pension Fund, based on a study of the actual experience for active and retired Firefighters' in the state of Illinois.
Retirement Rates	L&A 2016	Long-term anticipated experience for the Firefighters' Pension Fund, based on a study of the actual experience for active and retired Firefighters' in the state of Illinois.
Percent Married	80%	Represents the anticipated percentage of time death benefits will be paid by the Pension Fund.



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668 N. River Road
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Actuarial Funding Policy Statement



VILLAGE OF RIVER FOREST POLICE PENSION FUND

Effective Date:

April 30, 2018

LAUTERBACH & AMEN, LLP

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PURPOSE OF THE ACTUARIAL FUNDING POLICY STATEMENT

General Purpose

This Actuarial Funding Policy Statement sets forth the procedures that the Village of River Forest has adopted to make funding contributions to the Police Pension Fund in compliance with the Illinois Pension Code. The policy identifies goals and objectives of the Village. The policy sets out the decision-making process for handling various aspects of pension funding and defines the ongoing items to be reviewed in assessing the ongoing effectiveness of this policy.

Goals and Objectives

The key goals and objectives considered in the preparation of the investment policy are noted below:

- Make sure that benefits are secure for fund participants now and in the long-term.
- Keep the recommended costs of the plan stable across generations of taxpayers.
- Develop recommendations that are more cost-effective in the long-term.
- Provide year-to-year contribution stability/budgeting for the Village.
- Address any transition items needed at the policy implementation.

Operation of the Policy

It is the intention of the Village to review the policy on an annual basis. The intention is to review the effectiveness of the policy and determine if it continues to meet the goals and objectives as set forth.

The Village retain the right to amend the policy, as necessary, to keep the policy in line with the goals and objectives.



THE ACTUARIAL COST METHOD

General Purpose

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Selection

The Entry Age Normal (EAN) Cost Method (Level Percent of Pay) has been chosen to measure the Normal Cost and Accrued Liability for the Fund.

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UNFUNDED ACCRUED LIABILITY

General Purpose

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Unfunded liability comes from two broad types of events:

Short-Term events are a product of measuring liability and asset returns at specific points in time and are expected to come up annually. For example, the assets may return 5.0% in the long-term but in any given measurement year, we will likely see returns that exceed or fall below that level. The key to managing short-term unfunded liability is to make sure that plan assumptions are as accurate as possible so that short-term fluctuations over time create both gains and losses, and effectively offset each other. Contribution adjustments are made to control short-term fluctuations but are anticipated to be offsetting adjustments in the long-term.

Systematic events are changes in unfunded liability caused by specific outside actions. The increase or decrease in unfunded liability that results is a "permanent" change in liability that will not necessarily offset another change over time. Therefore, the key to managing systematic changes in unfunded liability is to recognize a corresponding change required to the annual contribution for some set period of time.

Unfunded Liability – Existing at Implementation

As of April 30, 2018, the unfunded liability balance as of April 30, 2018 will be paid off over 22 years using level dollar payments, targeting 90% funding. The remaining 10% of unfunded liability will continue to be separately identified and monitored. This amount will grow over time and will be monitored annually.

Unfunded Liability – New Changes

Changes in the unfunded liability subsequent to April 30, 2014 will be paid off over the remaining years from the initial 26-year period. Each valuation year, these changes to unfunded liability will be identified and the Pension Board of Trustees will recommend how to handle them. Changes in unfunded liability can be used to offset past unfunded liability or separate amortization periods setup to handle them through contributions. Amortization into future contribution recommendations will be done on a level dollar basis.



ACTUARIAL VALUE OF ASSETS

General Purpose

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Key parameters:

- Years – the number of years to smooth market value gains and losses.
- Corridor – A limitation placed on the Actuarial Value of Assets. This parameter will limit the Actuarial Value of Assets in relation to Market Value of Assets.

Selection

The Actuarial Value of Assets will be equal to the Market Value of Assets, with unexpected gains and losses on the Market Value of Assets smoothed over a 5-year period.

It is anticipated that the Actuarial Value of Assets will not stray too far from the Market Value of Assets with the 5-year smoothing parameter. Therefore, no corridor has been set at this time.



OPERATIONAL PROCEDURES

Funding Recommendations

The Village will use the policies and procedures set forth in this document to recommend a contribution amount to be made to the Pension Fund each year.

State of Illinois Minimum Funding Requirement

The State of Illinois provides funding policy parameters that must be used in determining the minimum amount of money that should be contributed to the Fund on an annual basis. The Pension Board of Trustees and the Village will review this amount each year. Notwithstanding anything else in this policy, in no event will the Village contribute less than the minimum contribution required under State law.

Actuarial Assumptions

The Village will review the actuarial assumptions used for determining the Fund's costs at least every 3-5 years. The Village will use assumptions that are the best estimate of the future anticipated experience under the plan. By getting the best estimate on actuarial assumptions, short-term changes in unfunded liability are expected to be offset over a long-term period of time. Review of the assumptions every 3-5 years will help to minimize the impact of assumption changes that have deviated from actual experience over a long period of time.

If any events occur that could impact assumptions immediately (for example, a change in the Investment Policy or strategy), the Pension Board of Trustees will assess the associated assumption on a more immediate basis and will not be limited by the 3-5 year cycle.

See Addendum 1 for current selections.

Monitoring the Funding Policy

The Village will review, on an annual basis, a report that is intended to monitor the progress of the Funding Policy. This review will include but not be limited to:

- A review of the progress being made on the unfunded liability that exists at implementation.
- A review of the anticipated gains and losses that will be recognized in the upcoming actuarial value of assets under the funding policy.
- An analysis of cash flow to monitor the continuous ability of the funds to pay benefits.
- An analysis of the causes of any changes in unfunded liability over the preceding year.
- An analysis of the actuarial expectations versus actual experience over the past year.



ADDENDUM 1 – CURRENT ACTUARIAL ASSUMPTIONS

Economic Assumptions

<u>Assumption</u>	<u>Selection</u>	<u>Reason</u>
Expected Rate of Return on Assets	7.00%	Based on the current target allocation in the Pension Fund and Discussion with the Investment Consultant.
Pay Increases	3.50%-10.65%	Service-based pay rates are intended to capture increases granted early in an employee's working career and cost of living adjustments. Long-term increases are intended to capture average increases for inflation and merit/promotions.
Total Payroll Increases	3.50%	Based on the current employee population.

Demographic Assumptions

<u>Assumption</u>	<u>Selection</u>	<u>Reason</u>
Active Mortality	RP-2014 with Blue Collar Adjustment, Improved Generationally using MP-2016	Based on national studies of mortality rates and mortality improvement rates.
Retiree Mortality	L&A 2016, Experience Weighted with Active Mortality Rates	Based on a study of the actual experience for active and retired Police Officers in the state of Illinois, blended with a national study of mortality rates and mortality improvement rates.
Disabled Mortality	RP-2014 for Disabled Participants with Blue Collar Adjustment, Improved Generationally using MP-2016	Based on national studies of mortality rates for disabled individuals and mortality improvement rates.



Demographic Assumptions - Continued

Spouse Mortality	RP-2014, Improved Generationally using MP- 2016	Based on national studies of mortality rates and mortality improvement rates.
Termination Rates	100% of L&A 2016	Long-term anticipated experience for the Police Pension Fund, based on a study of the actual experience for active and retired Police Officers in the state of Illinois.
Disability Rates	110% of L&A 2016	Long-term anticipated experience for the Police Pension Fund, based on a study of the actual experience for active and retired Police Officers in the state of Illinois.
Retirement Rates	120% of L&A 2016	Long-term anticipated experience for the Police Pension Fund, based on a study of the actual experience for active and retired Police Officers in the state of Illinois.
Percent Married	80%	Represents the anticipated percentage of time death benefits will be paid by the Pension Fund.

