

City of York Paid Firefighter's Pension Fund
Actuarial Valuation
as of January 1, 2015

City of York Paid Firefighter's Pension Fund
Actuarial Valuation as of January 1, 2015
Table of Contents

Executive Summary

Actuarial Certification

Summary of Principal Plan Benefit Provisions (SPPB)

Actuarial Assumptions and Methods

Section 1 - Summary of Plan Assets and Summary of Plan Membership

Section 2 - Act 205 Funding Calculations

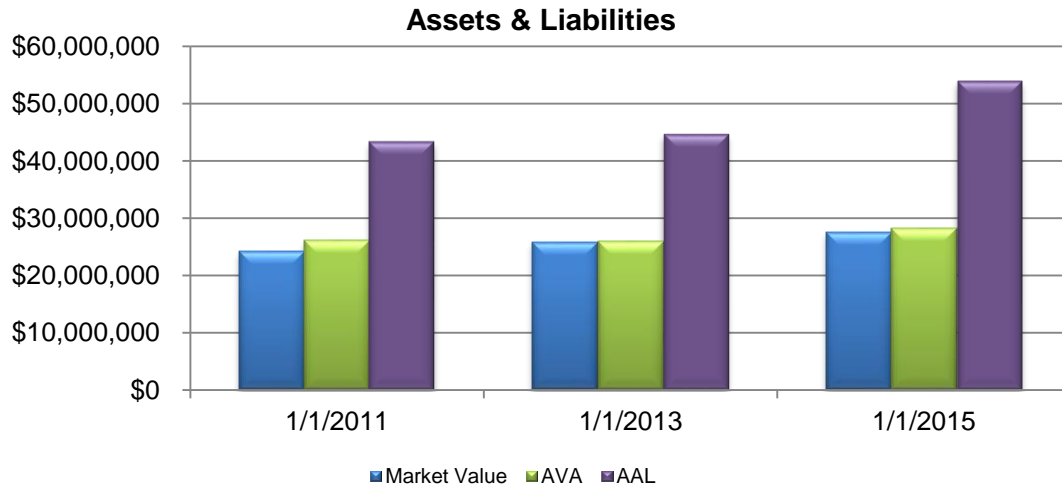
Section 3 - Supplemental Information

Appendix

City of York Paid Firefighter's Pension Fund
Actuarial Valuation as of January 1, 2015
Executive Summary

The purpose of the valuation report is to determine the actuarial status of the Plan and to serve as the basis for satisfying the reporting requirements under Act 205.

The Summary of Principal Plan Benefit Provisions (SPPB) may be found following the Actuarial Certification. This summary represents our understanding of the current plan provisions in effect at January 1, 2015. The only change in the provisions from the prior valuation report is the addition of 10 year cliff vesting. Following the SPPB is a summary of the Actuarial Assumptions and Methods used in this valuation report. Changes to any assumptions from the prior valuation are indicated on the second page which include changes to the mortality and disability assumptions.



	1/1/2011	1/1/2013	1/1/2015
Market Value of Assets (MVA)	\$24,225,589	\$25,872,148	\$27,524,622
Actuarial Value of Assets (AVA)	\$26,159,700	\$25,983,937	\$28,193,075
Actuarial Accrued Liability (AAL)	\$43,362,544	\$44,675,326	\$53,944,991
Unfunded Actuarial Accrued Liability (UAAL)	\$17,202,844	\$18,691,389	\$25,751,916
Normal Cost	\$586,950	\$486,931	\$494,784
W-2 Payroll	\$3,869,316	\$3,487,640	\$3,705,295
Percentage of W-2 Payroll	15.2%	14.0%	13.4%
Estimated Minimum Municipal Obligation (MMO)	\$1,850,297	\$2,010,256	\$2,835,295
Participant Counts:			
Active	67	59	53
Vested Former	0	1	0
Receiving Benefits	77	83	81
Total	144	143	134

City of York Paid Firefighter's Pension Fund
Actuarial Valuation as of January 1, 2015
Executive Summary

Section 1

At the beginning of Section 1, there is a summary of the receipts and disbursements for 2013 and 2014. The Plan received contributions of \$1,876,527 during 2013, and \$1,869,478 during 2014. There were monthly benefit payments to former participants totaling \$2,343,304 during 2013, and \$3,589,530 during 2014. The investment return earned by the plan assets was approximately 14.3% for 2013, and approximately 2.0% for 2014.

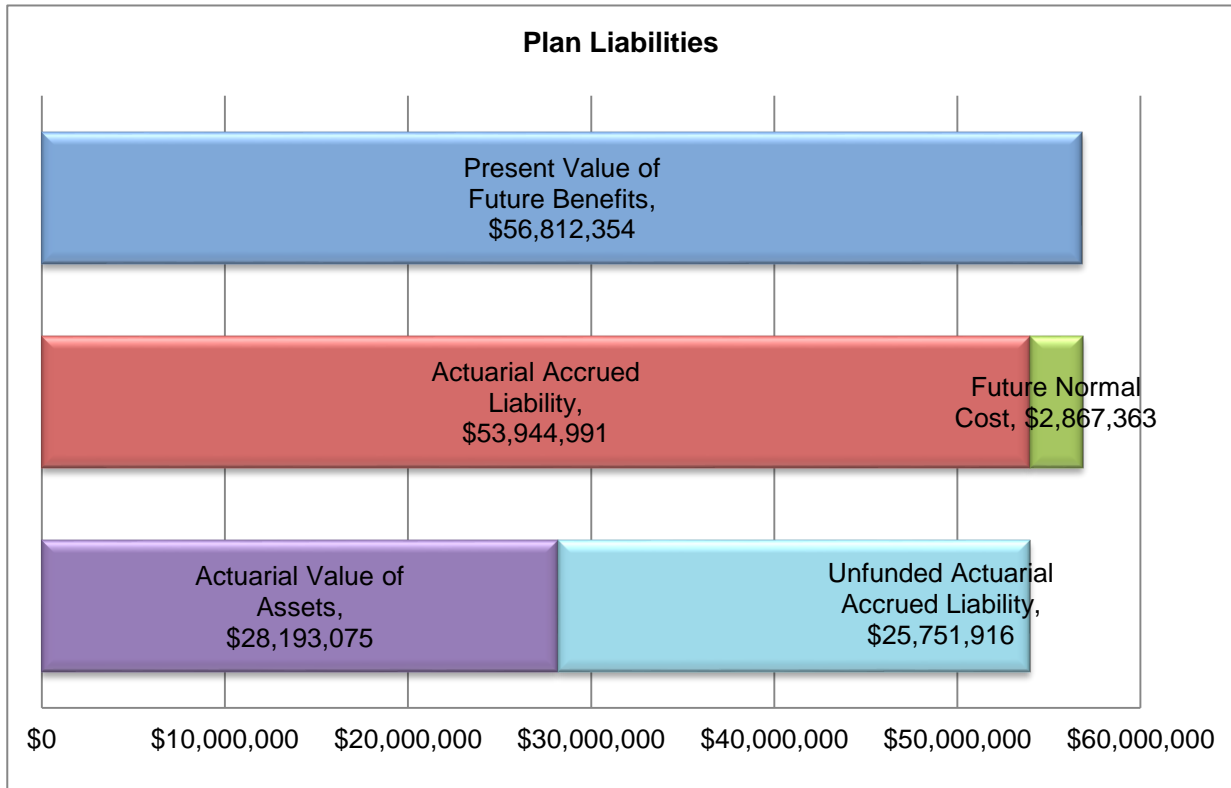
The following is a summary of the net dollar-weighted rates of investment return for the past six calendar years on both a market value and actuarial value basis.

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>
Market Value of Assets	22.2%	12.6%	(2.5%)	12.2%	14.3%	2.0%
Actuarial Value of Assets	10.0%	2.1%	0.5%	0.4%	10.2%	7.4%

Section 2

The Act 205 funding calculations are included in Section 2. The first page shows the development of the actuarial value of assets. As of December 31, 2014, the actuarial value of assets is \$28,193,075.

Page 2 of Section 2 shows that the actuarial present value of future benefits is \$56,812,354. Since the present value of future normal costs is \$2,867,363, the actuarial accrued liability at January 1, 2015, is \$53,944,991. Subtracting the actuarial value of assets of \$28,193,075 results in an unfunded actuarial accrued liability of \$25,751,916.



City of York Paid Firefighter's Pension Fund
Actuarial Valuation as of January 1, 2015
Executive Summary

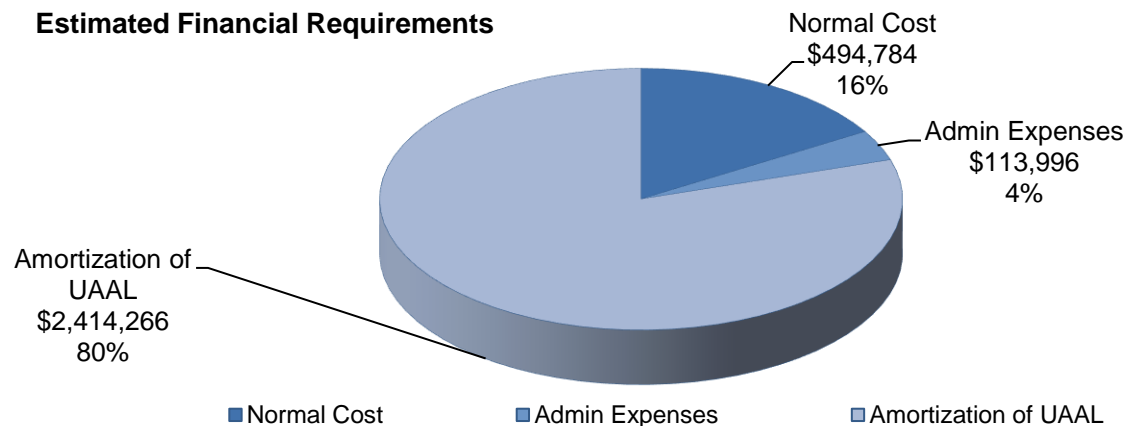
Components of Financial Requirements

There are three cost components that make up the financial requirement of a Plan's minimum municipal obligation.

1. Normal Cost – This is the cost of pension and other benefits earned during the current year. The normal cost of the Plan is \$494,784. The normal cost represents approximately 13.4% of annual payroll.

2. Administrative Expenses – Examples of administrative expenses paid from the plan assets are expenses for: investment advisory services, actuarial services and trustee services. The Plan's estimated annual administrative expenses are \$113,996.

3. Amortization of the Unfunded Actuarial Accrued Liability – The amount of this cost is comprised of the amortization of the various gains and losses, plan amendments, and changes in actuarial assumptions that have occurred in the Plan over time. The Plan had a loss as of January 1, 2015, of \$1,962,059 due to the change in actuarial assumptions as well as a loss of \$28,139 as of January 1, 2015, due to the plan benefit modification. In addition, the Plan had an actuarial loss of \$5,593,576 for the previous two-year period. The amortization of the Unfunded Actuarial Accrued Liability is \$2,414,266.



Page 5 of Section 2 contains an illustration of the annual minimum municipal obligation (MMO). Please note that the figures shown below are for illustrative purposes only. The actual minimum municipal obligation is determined through the annual budgeting process.

Illustration of Minimum Municipal Obligation

Financial Requirements	
Normal Cost	\$494,784
Administrative Expenses	\$113,996
Amortization of Unfunded Actuarial Accrued Liability (UAAL)	<u>\$2,414,266</u>
Total	<u>\$3,023,046</u>
<u>Expected Member Contributions</u>	<u>(\$187,751)</u>
Minimum Municipal Obligation (not less than \$0)	<u>\$2,835,295</u>

City of York Paid Firefighter's Pension Fund
Actuarial Valuation as of January 1, 2015
Actuarial Certification

In preparing this report, we have relied upon the data furnished to us. The data with respect to receipts and disbursements and assets of the Plan as well as the data with respect to participants and beneficiaries were furnished by the City of York. The data has been reviewed and has been determined to be reasonable and consistent.

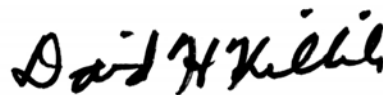
The information as contained in this report is a projection of liabilities based upon stated assumptions and is not an exact statement of the Plan's ultimate benefits and liabilities. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as at the end of an amortization period or additional cost or contribution requirements based on the Plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of the assignment, an analysis of the potential range of such future measurements was not performed.

I certify that all costs, liabilities, rates of interest, and other factors under the Plan in Section 2 of the report have been determined on the basis of actuarial assumptions and methods, each of which is reasonable (taking into account the experience of the Plan and reasonable expectations) or which, in the aggregate, result in a total contribution equivalent to that which would be determined if each such assumption and method were reasonable, and which, in combination, offer my best estimate of anticipated experience under the Plan.

I am a member of the American Academy of Actuaries, a Fellow of the Society of Actuaries, and an Enrolled Actuary under ERISA, and I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this report.

2/25/2016

Date



David H. Killick, F.S.A.
Consulting Actuary
Enrolled Actuary No. 14-03880

DHK/GGC

City of York Paid Firefighter's Pension Fund
Actuarial Valuation as of January 1, 2015
Summary of Principal Plan Benefit Provisions
Members Hired Before January 1, 1988

Eligibility

All full-time members of the City Fire Department hired before January 1, 1988, are eligible for the following benefits.

Normal Retirement

The normal retirement requirement is attainment of age 50 and completion of 20 years of service.

The normal retirement pension is payable monthly for life with payments continuing after the member's death to the surviving spouse or, if no surviving spouse, to dependent children under the age of 18.

The amount of annual pension is equal to 50% of the yearly salary of the member at the time of retirement or the highest average annual salary which the member received during any five years preceding retirement, if higher. An additional incremental pension is provided equal to 1/40 of the annual pension for each complete year of service in excess of 20 (but not beyond age 65) up to a maximum of \$1,200 additional per year. The calculation of salary includes base salary plus longevity increments.

Postretirement Cost-of-Living Increase

The monthly pension is increased by 50% of the dollar increase granted to active firefighters of the highest pay grade. For certain members who retired between January 1, 2003, and January 15, 2003, the monthly pension is increased by 4.0% per year.

Disability Retirement

A disability benefit is provided under permanent disability after completion of ten years of service. The disability retirement pension is 30% of salary at the time of disability plus 2% of salary for each year of service in excess of ten, up to a maximum pension of 50% of salary.

Such disability pension is reduced by Workers' Compensation benefits received if the disability was not incurred in the line of duty.

Preretirement Death Benefits

If a member dies prior to being eligible to retire, a death benefit is payable to his surviving spouse or, if no surviving spouse, to dependent children under the age of 18 equal to 30% of salary plus 2% of salary for each year of service in excess of ten, up to a maximum pension of 50% of salary.

If a member dies after being eligible to retire, a death benefit is payable to his surviving spouse or, if no surviving spouse, to dependent children under the age of 18 equal to the benefit the member would have been receiving had he been retired on the day of his death.

Vesting

A member's benefits vest upon completion of 10 years of service. The vested benefit is a deferred monthly pension beginning at normal retirement equal to the benefit accrued to the date of termination.

City of York Paid Firefighter's Pension Fund
Actuarial Valuation as of January 1, 2015
Summary of Principal Plan Benefit Provisions
Members Hired Before January 1, 1988

Accrued Pension

The benefit accrued at any date prior to the normal retirement date is equal to the projected normal retirement benefit multiplied by the ratio of the number of years of service to date to the total number of years of service projected at normal retirement.

Employee Contributions

Members contribute 5% of salary plus \$1 per month. Employee contributions are not credited with interest. Contributions are refunded on termination before eligibility for retirement or on death if member is not eligible for widow or children's benefits.

City of York Paid Firefighter's Pension Fund
Actuarial Valuation as of January 1, 2015
Summary of Principal Plan Benefit Provisions
Members Hired On or After January 1, 1988

Eligibility

All full-time members of the City Fire Department hired on or after January 1, 1988, are eligible for the following benefits.

Normal Retirement

The normal retirement requirement is attainment of age 50 and completion of 20 years and six months of service.

The normal retirement pension is payable monthly for life with payments continuing after the member's death to the surviving spouse or, if no surviving spouse, to dependent children under the age of 18.

The amount of annual pension is equal to 52% of the yearly salary of the member at the time of retirement or the highest average annual salary, which the member received during any five years preceding retirement, if higher. The calculation of salary includes base salary plus longevity increments.

Disability Retirement

A disability benefit is provided under permanent disability after completion of ten years of service. The disability retirement pension is 30% of salary at the time of disability plus 2% of salary for each year of service in excess of ten, up to a maximum pension of 50% of salary.

Such disability pension is reduced by Workers' Compensation benefits received if the disability was not incurred in the line of duty.

Preretirement Death Benefits

If a member dies prior to being eligible to retire, a death benefit is payable to his surviving spouse or, if no surviving spouse, to dependent children under the age of 18 equal to 30% of salary plus 2% of salary for each year of service in excess of ten, up to a maximum pension of 50% of salary.

If a member dies after being eligible to retire, a death benefit is payable to his surviving spouse or, if no surviving spouse, to dependent children under the age of 18 equal to the benefit the member would have been receiving had he been retired on the day of his death.

Vesting

A member's benefits vest upon completion of 10 years of service. The vested benefit is a deferred monthly pension beginning at normal retirement equal to the benefit accrued to the date of termination.

Accrued Pension

The benefit accrued at any date prior to the normal retirement date is equal to the projected normal retirement benefit multiplied by the ratio of the number of years of service to date to the total number of years of service projected at normal retirement.

City of York Paid Firefighter's Pension Fund
Actuarial Valuation as of January 1, 2015
Summary of Principal Plan Benefit Provisions
Members Hired On or After January 1, 1988

Employee Contributions

Members hired on or after January 1, 1988, contribute 5% of salary. Members hired on or after January 1, 2007, contribute 6% of salary. Employee contributions are not credited with interest. Contributions are refunded on termination before eligibility for retirement or on death if member is not eligible for widow or children's benefits.

City of York Paid Firefighter's Pension Fund
Actuarial Valuation as of January 1, 2015
Actuarial Assumptions and Methods

Interest

8.00%

Salary

5.00% Annual Increase

Withdrawal

Table D-1: Rates of withdrawal at selected ages:

<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>
20	5.5000%	35	2.5000%	50	0.0000%
25	5.0000%	40	1.0000%	55	0.0000%
30	4.0000%	45	0.5000%	60	0.0000%

Mortality

RP2000 Table
(This table does not include projected mortality improvements.)

Disability

SOA 1987 Group LTD Table - Males, 3-month elimination. Sample rates are shown below.

<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>
20	0.1444%	35	0.2123%	50	0.7536%
25	0.1534%	40	0.2931%	55	1.2612%
30	0.1708%	45	0.4561%	60	1.8818%

100% of disabilities are assumed to be service-related.

Retirement

Latest of age 52, age at the completion of 20 years of service if hired before January 1, 1988, age at the completion of 20 years and 6 months of service if hired on or after January 1, 1988, or age at the valuation date, if greater.

Preretirement Death Benefit

Liabilities computed on the assumption that all participants will have spouses of the same age at the date of eligibility for the benefit.

City of York Paid Firefighter's Pension Fund
Actuarial Valuation as of January 1, 2015
Actuarial Assumptions and Methods

Expenses

Provision for administrative expenses added to annual contribution requirement, per Act 205 of 1984.

Inflation

Moderate inflation based on long term historical average rates is a component of the actuarial assumptions used herein. Provision is not made for advance funding of sharply higher rates of inflation experienced in some years. The effects of such higher rates are reflected in the funding after their occurrence.

Cost-of-Living Increase

5.00% per year. For certain members who retired between January 1, 2003 and January 15, 2003 - 4.00% per year.

Actuarial Value of Assets

Each year the investment gain (excess of actual investment income including realized and unrealized appreciation over expected investment income) or loss is recognized over a five-year period. In no event is the actuarial value of assets allowed to be greater than 120% or less than 80% of market value.

Actuarial Cost Method

Entry Age Normal using level percentage of future payroll amortization of the initial unfunded actuarial accrued liability based on a 4.0% annual increase in covered payroll assumption and using level percentage of future payroll amortization of the increase in the unfunded actuarial accrued liability as of January 1, 2005, attributable to the change in the postretirement cost-of-living increase benefit based upon a 5.0% annual increase in covered payroll assumption.

Changes in Actuarial Assumptions and Methods

	<u>Prior</u>	<u>Current</u>
Mortality	UP1984 Table with 5 year postretirement age setback for females	RP2000 Table
Disability	Loading of 5.00% added to basic pension costs	See Above

City of York Paid Firefighter's Pension Fund
Actuarial Valuation
as of January 1, 2015

Section 1

Summary of Plan Assets and Summary of Plan Membership

City of York Paid Firefighter's Pension Fund
 Actuarial Valuation as of January 1, 2015
Receipts and Disbursements - January 1, 2013 to December 31, 2013

Market Value at 1/1/2013		\$ 25,872,148.00
Receipts		
Employer Contributions		
Received	\$ 2,018,344.00	
Receivable at 1/1/2013	(1,929,195.00)	
Receivable at 12/31/2013	1,613,021.00	
Total Employer Contributions	\$ 1,702,170.00	
Employee Contributions Received		174,357.00
Investment Income		
Income Received	\$ 281,694.00	
Accrued Income at 1/1/2013	0.00	
Accrued Income at 12/31/2013	0.00	
Total Investment Income	281,694.00	
Change in Market Value	3,246,988.00	
Total Receipts		5,405,209.00
Disbursements		
Monthly Benefit Payments	\$ (2,343,304.00)	
Administrative Expenses	(97,899.00)	
Total Disbursements		(2,441,203.00)
Market Value at 12/31/2013		\$ 28,836,154.00
Approximate Net Dollar-Weighted Rate of Investment Return		14.29%

City of York Paid Firefighter's Pension Fund
 Actuarial Valuation as of January 1, 2015
Receipts and Disbursements - January 1, 2014 to December 31, 2014

Market Value at 1/1/2014 \$ 28,836,154.00

Receipts

Employer Contributions

Received	\$ 2,574,029.00	
Receivable at 1/1/2014	(1,613,021.00)	
Receivable at 12/31/2014	<u>681,658.00</u>	
Total Employer Contributions		\$ 1,642,666.00

Employee Contributions Received 226,812.00

Investment Income

Income Received	\$ 330,699.00	
Accrued Income at 1/1/2014	0.00	
Accrued Income at 12/31/2014	<u>0.00</u>	
Total Investment Income		330,699.00

Change in Market Value 208,618.00

Total Receipts 2,408,795.00

Disbursements

Monthly Benefit Payments \$ (3,589,530.00)

Refund of Employee Contributions (704.00)

Administrative Expenses (130,093.00)

Total Disbursements (3,720,327.00)

Market Value at 12/31/2014 \$ 27,524,622.00

Approximate Net Dollar-Weighted Rate of Investment Return 2.03%

City of York Paid Firefighter's Pension Fund
Actuarial Valuation as of January 1, 2015
Assets and Liabilities

Assets

Cash	\$	0.00
Mutual Funds		<u>26,842,964.00</u>
Total Assets in Fund		\$ 26,842,964.00
Employer Contributions Receivable		681,658.00
Accrued Income		<u>0.00</u>
Total Assets		\$ 27,524,622.00

Liabilities

Total Liabilities		<u>0.00</u>
Net Assets		<u><u>\$ 27,524,622.00</u></u>

City of York Paid Firefighter's Pension Fund
Actuarial Valuation as of January 1, 2015
Summary of Plan Membership

Active Members	Number of Members	Annual Payroll
Active Members as of 1/1/2013	59	
New Members During the Period	5	
Returned to Active	0	
Members No Longer Active:		
Retired with Disability Benefit	0	
Retired with Service Retirement Benefit	(6)	
Separated with Deferred Benefit	0	
Separated with Refund of Contributions	(5)	
Separated with Neither Deferred Benefit nor Refund of Contributions	0	
Deceased	0	
Total	(11)	
Active Members as of 1/1/2015	53	\$ 3,705,295
Vested Former Members	Number of Members	Annual Benefit
Vested Former Members as of 1/1/2013	1	
Separated with Deferred Benefit	0	
Beneficiary of Deceased Participant	0	
Returned to Active	0	
Retired with Service Retirement Benefit	(1)	
Deceased or Paid in Full	0	
Vested Former Members as of 1/1/2015	0	\$ 0
Retired Members		
Retired Members as of 1/1/2013	52	
Retired with Service Retirement Benefit	7	
Deceased or Paid in Full	(4)	
Retired Members as of 1/1/2015	55	\$ 2,074,248
Disabled Members		
Disabled Members as of 1/1/2013	5	
Retired with Disability Benefit	0	
Deceased	(1)	
Disabled Members as of 1/1/2015	4	\$ 127,774
Spouse Beneficiaries of Deceased Members		
Spouse Beneficiaries of Deceased Members as of 1/1/2013	26	
Additional Spouse Beneficiaries of Deceased Members	0	
Deceased	(4)	
Spouse Beneficiaries of Deceased Members as of 1/1/2015	22	\$ 546,053

City of York Paid Firefighter's Pension Fund
Actuarial Valuation
as of January 1, 2015

Section 2

Act 205 Funding Calculations

City of York Paid Firefighter's Pension Fund
Actuarial Valuation as of January 1, 2015
Actuarial Value of Assets

	2011	2012	2013	2014
Market Value at 1/1	\$24,225,589.00	\$23,497,740.00	\$25,872,148.00	\$28,836,154.00
Contributions	2,095,113.00	2,189,395.00	1,876,527.00	1,869,478.00
Benefit Payments and Expenses	(2,255,101.00)	(2,428,694.00)	(2,441,203.00)	(3,720,327.00)
Expected Investment Income ¹	1,931,647.60	1,870,247.24	2,047,185.00	2,232,858.00
Expected Value at 12/31	\$25,997,248.60	\$25,128,688.24	\$27,354,657.00	\$29,218,163.00
Market Value at 12/31	23,497,740.00	25,872,148.00	28,836,154.00	27,524,622.00
Gain/(Loss): (Market Value less Expected Value)	\$ (2,499,508.60)	\$ 743,459.76	\$ 1,481,497.00	\$ (1,693,541.00)
Percentage of Gain/(Loss) to be recognized in the future	20%	40%	60%	80%
Gain/(Loss) to be recognized in the future	\$ (499,901.72)	\$ 297,383.90	\$ 888,898.00	\$ (1,354,833.00)
Market Value at 12/31/2014				\$27,524,622.00
Total (Gain)/Loss for 2011-2014 to be recognized in the future				<u>668,452.82</u>
Actuarial Value of Assets at 12/31/2014				<u><u>\$28,193,074.82</u></u> ²
2013 Approximate Net Dollar-Weighted Rate of Investment Return				10.19%
2014 Approximate Net Dollar-Weighted Rate of Investment Return				7.40%

¹ 8.00% annual interest rate

² Actuarial Value of Assets cannot be greater than 120% nor be less than 80% of the Market Value.

City of York Paid Firefighter's Pension Fund
 Actuarial Valuation as of January 1, 2015
Unfunded Actuarial Accrued Liability and Normal Cost

Unfunded Actuarial Accrued Liability

Actuarial Present Value of Future Benefits

Active Members Retirement Pension Benefits	\$ 18,911,526	
Active Members Vested Withdrawal Benefits	127,739	
Active Members Disability Benefits	543,239	
Active Members Preretirement Death Benefits	60,213	
Active Members Refund of Member Contributions	28,731 ¹	
Refund of Employee Contributions to Terminated Members	10,958	
Retired Members Benefits	31,080,034	
Disabled Members Benefits	2,030,646	
Surviving Spouses Benefits	<u>4,019,268</u>	
Total	\$ 56,812,354	
Actuarial Present Value of Future Normal Costs		<u>(2,867,363)</u>
Actuarial Accrued Liability	\$ 53,944,991	
Actuarial Value of Assets		<u>(28,193,075)</u>
Unfunded Actuarial Accrued Liability		<u><u>\$ 25,751,916</u></u>

Normal Cost

Normal Cost		<u><u>\$ 494,784</u></u>
Normal Cost as a Percentage of Annual Payroll		<u>13.4%</u>

¹ Accumulated Member Contributions Without Interest as of 1/1/2015 = \$2,093,149

City of York Paid Firefighter's Pension Fund
 Actuarial Valuation as of January 1, 2015
Analysis of the Change in the Unfunded Actuarial Accrued Liability

Unfunded Actuarial Accrued Liability at 1/1/2013		\$ 18,691,389
Additions		
Normal Costs	\$ 998,209	
Administrative Expenses	227,992	
Interest on Unfunded Actuarial Accrued Liability, Normal Costs, and Administrative Expenses	<u>3,249,440</u>	
Total		4,475,641
Contributions		
Employer Contributions	\$ (3,344,836)	
Employee Contributions	(401,169)	
Interest on Contributions	<u>(144,498)</u>	
Total		(3,890,503)
Adjustment for Funding Deviation		(1,108,385)
Modification in the Benefit Plan		28,139
Change in Actuarial Assumptions		1,962,059
Actuarial Loss		
Investment Gain	\$ (606,007)	
Experience Loss	5,091,198	
Funding Deviation	<u>1,108,385</u>	
Total		<u>5,593,576</u>
Unfunded Actuarial Accrued Liability at 1/1/2015		<u>\$ 25,751,916</u>

City of York Paid Firefighter's Pension Fund
 Actuarial Valuation as of January 1, 2015
Amortization of Unfunded Actuarial Accrued Liability

Initial Date	Initial Amount	Outstanding Balance	Amortization Amount	Remaining Amortization	Nature
January 1, 2002	\$ 1,699,746	\$ 1,362,899	\$ 134,651	18 Years	Investment Loss
January 1, 2003	(3,693,442)	(2,161,795)	(348,320)	8 Years	Assumption Chg.
January 1, 2003	4,557,377	3,793,938	374,833	18 Years	Investment Loss
January 1, 2003	675,974	203,539	73,123	3 Years	Other Actuarial Loss
January 1, 2005	9,415,508	11,579,736	746,760	20 Years ¹	COLA Amendment
January 1, 2005	1,981,228	645,989	232,101	3 Years	Active Amendment
January 1, 2005	1,105,554	360,484	129,515	3 Years	Actuarial Loss
January 1, 2007	(818,230)	(295,370)	(106,125)	3 Years	Assumption Chg.
January 1, 2007	1,587,217	572,965	205,863	3 Years	Actuarial Loss
January 1, 2009	(5,364,683)	(4,504,693)	(505,930)	14 Years	Assumption Chg.
January 1, 2009	8,087,649	6,791,146	762,727	14 Years	Actuarial Loss
January 1, 2011	(2,047,995)	(1,846,334)	(193,141)	16 Years	Actuarial Gain
January 1, 2013	1,744,950	1,665,638	164,562	18 Years	Actuarial Loss
January 1, 2015	28,139	28,139	3,883	10 Years ²	Act. Amend. (NM)
January 1, 2015	1,962,059	1,962,059	212,247	15 Years	Assumption Chg.
January 1, 2015	5,593,576	5,593,576	527,517	20 Years	Actuarial Loss
Total	\$ 26,514,627	\$ 25,751,916	\$ 2,414,266		

Projected plan year in which the unfunded accrued liability is fully amortized is 2034.

Aggregation of Changes in Unfunded Actuarial Accrued Liability

Date of Aggregation	Aggregated Target Date	Outstanding Balance	Amortization Amount	Remaining Amortization
January 1, 2015	2035	<u>\$ 25,751,916</u>	<u>\$ 2,414,266</u>	21 Years

¹ Level Percentage of Future Payroll Amortization

² (NM) represents non-mandated changes and (M) represents mandated changes.

City of York Paid Firefighter's Pension Fund
 Actuarial Valuation as of January 1, 2015
Illustration of Minimum Municipal Obligation

Financial Requirements

Normal Cost	\$	494,784
Administrative Expenses		113,996 ¹
Amortization of Unfunded Actuarial Accrued Liability		<u>2,414,266</u>
Total	\$	3,023,046
Expected Member Contributions		<u>(187,751)</u>
Minimum Municipal Obligation	\$	2,835,295 ²
Estimated Allocation of General Municipal Pension System State Aid		<u>0</u>
Net Minimum Municipal Obligation	\$	<u><u>2,835,295</u></u> ²

¹ Total Administrative Expenses for Plan Year 1/1/2013 to 12/31/2013 - \$ 97,899
 Total Administrative Expenses for Plan Year 1/1/2014 to 12/31/2014 - \$ 130,093

² This is not an actual MMO. Figures from this report will be used to prepare actual MMOs in future years.

City of York Paid Firefighter's Pension Fund
 Actuarial Valuation as of January 1, 2015
**Receipts and Disbursements Excluding Bond Issue Assets -
 January 1, 2013 to December 31, 2013**

Market Value at 1/1/2013		\$ 19,168,238.82
Receipts		
Employer Contributions Received	\$ 2,141,116.00	
Employee Contributions Received	174,357.00	
Investment Income	208,702.34	
Change in Market Value	<u>2,405,638.74</u>	
Total Receipts		4,929,814.08
Disbursements		
Monthly Benefit Payments	\$ (2,343,304.00)	
Administrative Expenses	<u>(97,899.00)</u>	
Total Disbursements		<u>(2,441,203.00)</u>
Market Value at 12/31/2013		<u><u>\$ 21,656,849.90</u></u>

City of York Paid Firefighter's Pension Fund
 Actuarial Valuation as of January 1, 2015
**Receipts and Disbursements Excluding Bond Issue Assets -
 January 1, 2014 to December 31, 2014**

Market Value at 1/1/2014		\$ 21,656,849.90
Receipts		
Employer Contributions Received	\$ 2,117,433.00	
Employee Contributions Received	226,812.00	
Investment Income	248,365.25	
Change in Market Value	<u>156,678.62</u>	
Total Receipts		2,749,288.87
Disbursements		
Monthly Benefit Payments	\$ (3,589,530.00)	
Refund of Employee Contributions	(704.00)	
Administrative Expenses	<u>(130,093.00)</u>	
Total Disbursements		<u>(3,720,327.00)</u>
Market Value at 12/31/2014		<u><u>\$ 20,685,811.77</u></u>

City of York Paid Firefighter's Pension Fund
Actuarial Valuation as of January 1, 2015
Assets and Liabilities Excluding Bond Issue Assets

Assets

Total Assets \$ 20,685,811.77

Liabilities

Total Liabilities 0.00

Net Assets \$ 20,685,811.77

City of York Paid Firefighter's Pension Fund
Actuarial Valuation as of January 1, 2015
Actuarial Value of Assets

	2011	2012	2013	2014
Market Value at 1/1	\$ 16,856,809.81	\$ 16,903,177.04	\$ 19,168,238.82	\$ 21,656,849.90
Contributions	2,696,601.00	2,813,577.00	2,315,473.00	2,344,245.00
Benefit Payments and Expenses	(2,255,101.00)	(2,428,694.00)	(2,441,203.00)	(3,720,327.00)
Expected Investment Income ¹	1,366,204.78	1,367,649.48	1,528,429.91	1,677,504.71
Expected Value at 12/31	\$ 18,664,514.59	\$ 18,655,709.52	\$ 20,570,938.73	\$ 21,958,272.61
Market Value at 12/31	16,903,177.04	19,168,238.82	21,656,849.90	20,685,811.77
Gain/(Loss): (Market Value less Expected Value)	\$ (1,761,337.55)	\$ 512,529.30	\$ 1,085,911.17	\$ (1,272,460.84)
Percentage of Gain/(Loss) to be recognized in the future	20%	40%	60%	80%
Gain/(Loss) to be recognized in the future	\$ (352,267.51)	\$ 205,011.72	\$ 651,546.70	\$ (1,017,968.67)
Market Value at 12/31/2014				\$ 20,685,811.77
Total (Gain)/Loss for 2011-2014 to be recognized in the future				<u>513,677.76</u>
Actuarial Value of Assets at 12/31/2014				<u><u>\$ 21,199,489.53</u></u>
2013 Approximate Net Dollar-Weighted Rate of Investment Return				9.80%
2014 Approximate Net Dollar-Weighted Rate of Investment Return				7.34%

¹ 8.00% annual interest rate

² Actuarial Value of Assets cannot be greater than 120% nor be less than 80% of the Market Value.

City of York Paid Firefighter's Pension Fund
Actuarial Valuation as of January 1, 2015
Unfunded Actuarial Accrued Liability Excluding Bond Issue Assets

Actuarial Present Value of Future Benefits	\$ 56,812,354
Actuarial Present Value of Future Normal Costs	<u>(2,867,363)</u>
Actuarial Accrued Liability	\$ 53,944,991
Actuarial Value of Assets	<u>(21,199,490)</u>
Unfunded Actuarial Accrued Liability	<u><u>\$ 32,745,501</u></u>

City of York Paid Firefighter's Pension Fund
 Actuarial Valuation as of January 1, 2015
Analysis of the Change in the Unfunded Actuarial Accrued Liability
Excluding Bond Issue Assets

Unfunded Actuarial Accrued Liability at 1/1/2013		\$ 25,357,777
Additions		
Normal Cost	\$ 998,209	
Administrative Expenses	227,992	
Interest on Unfunded Actuarial Accrued Liability, Normal Costs, and Administrative Expenses	<u>4,358,726</u>	
Total		5,584,927
Contributions		
Employer Contributions	\$ (4,258,549)	
Employee Contributions	(401,169)	
Interest on Contributions	<u>(179,614)</u>	
Total		(4,839,332)
Adjustment for Funding Deviation		(1,898,820)
Modification in the Benefit Plan		28,139
Change in Actuarial Assumptions		1,962,059
Actuarial Loss		
Investment Gain	\$ (439,267)	
Experience Loss	5,091,198	
Funding Deviation	<u>1,898,820</u>	
Total		<u>6,550,751</u>
Unfunded Actuarial Accrued Liability at 1/1/2015		<u><u>\$ 32,745,501</u></u>

City of York Paid Firefighter's Pension Fund
Actuarial Valuation as of January 1, 2015

Amortization of Unfunded Actuarial Accrued Liability Excluding Bond Issue Assets

Initial Date	Initial Amount	Outstanding Balance	Amortization Amount	Remaining Amortization	Nature
January 1, 1985	\$ 8,455,560	\$ 10,961,127	\$ 1,291,408	10 Years ¹	Initial Unfunded
January 1, 2001	1,321,160	142,920	142,920	1 Year	Actuarial Loss
January 1, 2002	1,252,468	1,004,252	99,219	18 Years	Investment Loss
January 1, 2002	(265,548)	(55,335)	(28,725)	2 Years	Other Actuarial Gain
January 1, 2003	(1,998,283)	(1,169,615)	(188,453)	8 Years	Assumption Chg.
January 1, 2003	2,450,287	2,039,822	201,530	18 Years	Investment Loss
January 1, 2003	541,290	162,983	58,554	3 Years	Other Actuarial Loss
January 1, 2005	9,415,508	11,579,738	746,759	20 Years ¹	COLA Amendment
January 1, 2005	1,981,228	645,988	232,101	3 Years	Active Amendment
January 1, 2005	791,902	258,209	92,771	3 Years	Actuarial Loss
January 1, 2007	(422,381)	(152,475)	(54,783)	3 Years	Assumption Chg.
January 1, 2007	1,036,271	374,081	134,405	3 Years	Actuarial Loss
January 1, 2009	(3,405,577)	(2,859,640)	(321,172)	14 Years	Assumption Chg.
January 1, 2009	4,099,113	3,441,997	386,578	14 Years	Actuarial Loss
January 1, 2011	(2,591,728)	(2,336,524)	(244,420)	16 Years	Actuarial Gain
January 1, 2013	174,978	167,024	16,502	18 Years	Actuarial Loss
January 1, 2015	28,139	28,139	3,883	10 Years ²	Act. Amend (NM)
January 1, 2015	1,962,059	1,962,059	212,247	15 Years	Assumption Chg.
January 1, 2015	6,550,751	6,550,751	617,786	20 Years	Actuarial Loss
Total	\$ 31,377,197	\$ 32,745,501	\$ 3,399,110		

Projected plan year in which the unfunded accrued liability is fully amortized is 2034

Aggregation of Changes in Unfunded Actuarial Accrued Liability

Date of Aggregation	Aggregated Target Date	Outstanding Balance	Amortization Amount	Remaining Amortization
January 1, 2015	2033	<u>\$ 21,784,374</u>	<u>\$ 2,107,702</u>	19 Years

¹ Level Percentage of Future Payroll Amortization

² (NM) represents non-mandated changes and (M) represents mandated changes.

City of York Paid Firefighter's Pension Fund
Actuarial Valuation
as of January 1, 2015

Section 3

Supplemental Information

City of York Paid Firefighter's Pension Fund
Actuarial Valuation as of January 1, 2015
Supplemental Information

Schedule of Funding Progress

Valuation Date	Market Value of Assets (a)	Entry Age Actuarial Liability (AAL) (b)	Unfunded AAL (UAAL) (b-a)	Net Position as a % of Total Liability (b-a)/b	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a % of Covered Payroll ((b-a)/c)
1/1/2011	\$ 24,225,589	\$ 43,362,544	\$ 19,136,955	44.1%	55.9%	\$ 3,869,316	494.6%
1/1/2012	23,497,740						
1/1/2013	25,872,148	44,675,326	18,803,178	42.1%	57.9%	3,487,640	539.1%
1/1/2014	28,836,154						
1/1/2015	27,524,622	53,944,991	26,420,369	49.0%	51.0%	3,705,295	713.0%

Schedule of Interest Rate Sensitivity Testing

Interest Rate ¹	Market Value of Assets (a)	Entry Age Actuarial Liability (AAL) (b)	Unfunded AAL (UAAL) (b-a)	Net Position as a % of Total Liability (b-a)/b	Funded Ratio (a/b)
7.00%	\$ 27,524,622	\$ 61,413,232	\$ 33,888,610	55.2%	44.8%
8.00%	27,524,622	53,944,991	26,420,369	49.0%	51.0%
9.00%	27,524,622	49,901,208	22,376,586	44.8%	55.2%

¹ Valuation interest rate is 8.00%

City of York Paid Firefighter's Pension Fund
 Actuarial Valuation as of January 1, 2015
Supplemental Information

Schedule of Contributions from the Employer and Other Contributing Entities

Year	Actuarially ¹ Determined Contribution	Contributions ² From Employer	Contribution Deficiency/ (Surplus)
2005	\$ 545,584	\$ 545,584	\$ 0
2006	1,621,527	1,621,527	0
2007	1,641,164	1,641,164	0
2008	1,681,386	1,681,387	(1)
2009	1,785,031	2,018,478	(233,447)
2010	1,805,385	1,960,365	(154,980)
2011	1,715,778	1,904,238	(188,460)
2012	1,756,473	2,011,353	(254,880)
2013	1,521,930	1,702,170	(180,240)
2014	1,537,319	1,642,666	(105,347)

¹ Minimum Municipal Obligation under Act 205 of 1984

² Includes general municipal pension system State aid

City of York Paid Firefighter's Pension Fund
Actuarial Valuation as of January 1, 2015
Appendix

Supplemental Information for Assumptions for Act 205 Funding Calculations

In accordance with regulations under Act 205 of 1984, all actuarial assumptions are selected jointly by the actuary and the governing body of the pension Plan.

Interest Rates

The interest rate assumption is the long term expected rate of return on pension plan investments. It is based on the Plan's current asset allocation, expected long term inflation, and historical long term expected real rates of return on the Plan's major asset classes.

Salary

Based on expected long term salary increases for active participants, considering the effects of future inflation.

Inflation

Moderate inflation based on long term historical average rates is a component of the actuarial assumptions used herein.

Cost-of-Living Increase

Based on expected future inflation using long term historical averages, and taking into consideration annual COLA limits per Plan provisions.