City of Hollywood
Post-Retirement Medical
Actuarial Valuation
As Required by GASB 45

Fiscal Date: **October 1, 2015 - September 30, 2016**

Date of Report: **August 31, 2016**

Prepared By: **Bolton Partners, Inc.**
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BOLTON PARTNERS

August 31, 2016

Tammie Hechler
Director, Human Resources
2600 Hollywood Blvd., Room 119
Hollywood, FL 33022-9045

Dear Tammie:

The following sets forth the October 1, 2015 GASB 45 Annual Expense for the City of Hollywood for the Fiscal Year Ending September 30, 2016. This is the final report under the GASB45 accounting standard. Starting no later than FY2018 the GASB45 accounting standard will be replaced by the GASB75 accounting standard.

The expense has increased from $29,095,000 in FY2014 to $43,059,000 in FY2016. This increase is due to higher than anticipated increases in medical costs, a lower discount rate due to persistently lower inflation rates and bond rates, and a more conservative mortality assumption due to a recent Society of Actuaries (SOA) mortality study showing longer life expectancies.

This report has been prepared for the City of Hollywood for the purposes of complying with the GASB45 accounting standard. It is neither intended nor necessarily suitable for other purposes. Bolton Partners is not responsible for the consequences of any other use nor the reliance upon this report by any other party.

In general Post Retirement medical valuations are based on an assumption for post-retirement medical increases. If medical costs increase at a rate greater than our assumption there could be a dramatic increase in the cost. The report shows the impact of 1 percent (over all years) increase in the medical trend assumption. 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 the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions, applicable law or accounting rules.

The report is based on January 1, 2016 census data. The census data was submitted by the City as well as premiums for fiscal year 2016. We have not performed an audit on the data and have relied on this information for purposes of preparing this report.

The actuarial methods and assumptions used in this report comply with GASB 45 and the actuarial standards of practice promulgated by the Actuarial Standards Board.

Bolton Partners is completely independent of the City of Hollywood, its programs, activities, or any of its officers or key personnel. We and anyone closely associated with us does not have any relationship which would impair our independence on this assignment.

Kevin Binder is a Member of the American Academy of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this report.

Respectfully submitted,

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1. Executive Summary

Background

In June 2004 the Government Accounting Standards Board (GASB) released Statement 45 which revised the GAAP accounting standards for post-employment benefits other than pensions (OPEB). This standard will be applied to post employment medical benefits that are provided to The City of Hollywood retirees. Prior to the standard these benefits were accounted for on a pay as you go basis. This standard requires that these benefits be accounted for on an accrual basis.

This report determines the expense under the standard for the City of Hollywood for FYE 2016.

OPEB Trust Arrangement

The City has not set up a trust to prefund benefits. They will pay benefits on a pay-as-you-go basis.

Funding Policy

It is our understanding that the City of Hollywood will not make a contribution to the trust in FYE 2016.

Discount Rate Assumption

The discount rate used to determine the liabilities under GASB 45 depends upon the City's funding policy. The discount rate assumption for governments (like the City of Hollywood) that do not establish an irrevocable trust to prefund benefits is the long term expected rate of return on internal government funds.

The discount rate assumption for disclosure purposes for FYE 2016 has been reduced from 4.00% to 3.50% to better reflect the current financial environment.

Annual Required Contribution (ARC)

The City of Hollywood's ARC is shown in Section 2. The ARC for the FYE September 30, 2016 is $45,797,000. The ARC is equal to cost of the accrual (the normal cost) plus an amortization payment towards the unfunded liability. There is no requirement to pay the ARC, it is an accounting term. The actual pay as you go cost for OPEB benefits during the same period is estimated to be $12,577,000.

1. Executive Summary (cont.)

Annual OPEB Cost (AOC)

If there is a Net OPEB Obligation (NOO) as of the beginning of the Fiscal Year, the ARC is adjusted by adding interest on the NOO and subtracting the amortized amount of the NOO. The adjusted ARC is called the Annual OPEB Cost (AOC). The City of Hollywood's AOC is shown in Section 2. The AOC for the FYE September 30, 2016 is $43,059,000.

The Net OPEB Obligation (NOO)

The Net OPEB Obligation (NOO) is the cumulative difference between the AOC and payments made for OPEB benefits (to a trust or directly to participants). This amount is a liability on the statement of net financial position. Because the FYE 2015 expense exceeded benefit payments to participants there is a NOO. We estimate that the NOO will increase to $194,344,543 as of September 30, 2016.

Comparison with Previous Valuation

The disclosure expense has increased from $29,095,000 for FYE 2014 to $43,059,000 for FYE 2016. The expense increased primarily due to the change in claims, the mortality assumption, and decreased discount rate. There were also experience gains and changes to the demographic assumptions that reduced the expense.

The following table compares the data and reconciles the expense.

Comparison of Current and Previous Valuations	
Reconciliation of Expense (AOC)	
FYE 2014 AOC	$ 29,095,000
Expected Increase from FYE 2014 to FYE 2016	$ 3,199,000
Demographic Experience	$ 238,000
Claims Experience	$ 2,615,000
Change in Mortality Assumption	$ 4,845,000
Change in Discount Rate	$ 3,067,000
FYE 2016 AOC	$ 43,059,000

1. Executive Summary (cont.)

Plan Provisions

Certain Other Post-Employment Benefits (OPEB) are available to all employees retiring from the City under the provisions of Disability, Early or Normal Retirement, as described in Section 3. The OPEB benefits include lifetime access to coverage for the retiree and dependents under the Medical and Prescription Plans as well as participation in the Dental, Vision, and Group Life insurance plans sponsored by the City for employees.

Eligible retirees may choose the same Medical Plan available to active employees of the City. Dependents of retirees may be covered at the retiree's option the same as dependents of active employees. Prescription Drug coverage is automatically extended to retirees and their dependents who continue coverage under the Medical Plan. Covered retirees and their dependents are subject to all the same Medical and Prescription benefits and rules for coverage as are active employees. Retirees and their dependents age 65 and over are required to enroll in Medicare Part B in order to remain covered under the program. The plan pays as secondary for claims otherwise covered under Medicare.

Deferred retirements are not allowed to elect coverage at the time of retirement.

Demographic Data

Demographic data as of January 1, 2016 was provided by the City of Hollywood. This data included current medical coverage for current employees and retirees.

Because the census data is less than 24 months before the first day of fiscal year 2016, it can be relied on to comply with GASB 45 for FYE 2016.

Although we have not audited this data we have no reason to believe that it is inaccurate.

Claims Data

We received paid claims and enrollment from 1/1/2014 to 12/31/2015 for active employees and Retirees. The City provided monthly premium Equivalent rates effective January 1, 2016. The City also provided us with the current Administrative Services Only (ASO) Fees and Stop-loss rates.

1. Executive Summary (cont.)

Implicit Subsidy

The published insurance rates for persons prior to Medicare eligibility are based primarily on the healthcare usage of active employees. Since retirees use healthcare at a rate much higher than employees, using these blended rates creates an implicit subsidy for the retiree group. GASB 45 requires that the claims assumption we use for this valuation be based on the actual per-capita retiree cost. The difference between the actual usage of healthcare by retirees and the assumption built into the published rates is identified as the implicit subsidy amount. The impact on rates can be seen in Section 5. The liabilities could be reduced by publishing rates for retirees prior to Medicare eligibility that more closely reflect the true cost of healthcare for each group.

Demographic Assumptions

Demographic assumptions mirror those used for the pension plan with the exception of the morality assumption. Mortality has been updated to be RP-2014 White Collar Morality with Scale MP-2014 for General employees and RP-2014 Blue Collar Morality with Scale MP-2014 for Police and Fire.

Section 5 details the assumptions for electing coverage.

Impact of Health Care Reform

We have adjusted the medical care trend due to the projected impact of the “Cadillac Tax”. The Cadillac Tax is one of the provisions of the Affordable Care Act (ACA) of 2010. The Cadillac Tax provision is effective in 2018. The Cadillac Tax only applies to plans that cost $10,200 or more for an individual or $27,500 per family. There will be a 40 percent excise tax for expenditures over these thresholds. The cost thresholds are indexed by general inflation each year after 2018. Because medical trends are projected to be higher than general inflation we would expect the percentage of the premium that is subject to the premium tax to increase over time.

There are other provisions of the ACA that could impact future costs. Some of the provisions (for example risk adjustment charges for plans that cover healthier populations) could increase costs, while others (for example, less uninsured care costs might be passed on to those with insurance) may reduce costs over time. Because the impact of these provisions is unclear at this time, we have made no other adjustments to the medical care trend.

1. Executive Summary (cont.)

Economic Assumptions

The discount rate is 3.50%.

The medical trend assumption is based on a model developed using the Society of Actuaries (SOA) Long-Run Medical Cost Trend Model baseline assumptions. The SOA Model was released in December 2007 and updated in September 2014. The following baseline assumptions were used as input variables into this model:

Rate of Inflation	2.4%
Rate of Growth in Real Income / GDP per capita	1.5%
Extra Trend due to Technology and other factors	1.0%
Health Share of GDP Resistance Point	25.0%
Year for Limiting Cost Growth to GDP Growth	2075

The medical trend was increased to reflect the impact of the Cadillac Tax, for this purposed general inflation was assumed to be 2.75 percent per annum.

Payroll is assumed to increase at 3.0% per annum. This assumption is used to determine the level percentage of payroll amortization factor.

Actuarial Certification

In preparing the valuation we relied on demographic and premiums provided by the City of Hollywood. We reviewed the data for reasonableness, but did not audit the data. The actuarial methods and assumptions used in this report comply with GASB 45 and the actuarial standards of practice promulgated by the Actuarial Standards Board.

Future medical care cost increase rates are unpredictable and could be volatile. They will depend upon the economy, future health care delivery systems and emerging technologies. The trend rate selected is based on an economic model developed by a health care economist for the Society of Actuaries. Future medical trend increases could vary significantly from the model. Model inputs will be updated periodically based on the best estimate of the economy at that time. Small changes in the model inputs can results in actuarial losses or gains of 5 to 15 percent of liabilities.

Kevin Binder is a Member of the American Academy of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this report.

2. Plan Expense

Expense FYE 2016

Below is a summary of the calculation of the Plan's Expense under the current provisions as of October 1, 2015.

		General	Police	Fire	Total
(1)	Interest Rate	3.50%	3.50%	3.50%	3.50%
(2)	Accrued Liability				
	(a) Actives	$102,376,000	$48,548,000	$30,788,000	$181,712,000
	(b) Retirees	$240,212,000	$95,200,000	$55,183,000	$390,595,000
	(c) Total (a + b)	$342,588,000	$143,748,000	$85,971,000	$572,307,000
(3)	Assets	$0	$0	$0	$0
(4)	Amortization of Unfunded Accrued Liability				
	(a) Unfunded Accrued Liability	$342,588,000	$143,748,000	$85,971,000	$572,307,000
	(b) Amortization Period	21	21	21	21
	(c) Amortization Factor	19.34	19.34	19.34	19.34
	(d) Amortization Amount (a / c)	$17,715,000	$7,433,000	$4,445,000	$29,593,000
(5)	Annual Required Contribution of Employer (ARC) – As of End of Fiscal Year				
	(a) Normal Cost	$8,993,000	$4,563,000	$2,648,000	$16,204,000
	(b) Amortization of Unfunded Accrued Liability	$17,715,000	$7,433,000	$4,445,000	$29,593,000
	(c) Total ARC (a + b)	$26,708,000	$11,996,000	$7,093,000	$45,797,000
(6)	Annual OPEB Cost (AOC)				
	(a) ARC	$26,708,000	$11,996,000	$7,093,000	$45,797,000
	(b) Less NOO Amortization	$4,321,000	$2,027,000	$2,125,000	$8,473,000
	(c) Plus Interest on NOO	$2,925,000	$1,372,000	$1,438,000	$5,735,000
	(d) Total Cost (a – b + c)	$25,312,000	$11,341,000	$6,406,000	$43,059,000
(7)	1% Sensitivity ARC	$26,827,000	$12,146,000	$7,247,000	$46,220,000
(8)	Net OPEB Obligation (NOO)				
	(a) Beginning of Year NOO	$83,557,715	$39,208,659	$25,465,170	$163,862,543
	(b) Current AOC	$25,312,000	$11,341,000	$6,406,000	$43,059,000
	(c) Expected Pay-go Benefits	$8,300,000	$2,824,000	$1,454,000	$12,578,000
	(d) Expected Trust Contribution	$0	$0	$0	$0
	(e) Projected End of Year NOO (a + b – c – d)	$100,569,715	$47,725,659	$30,417,170	$194,343,543

3. Summary of Principal Plan Provisions

General Eligibility Rules

Participants must meet the eligibility of the City of Hollywood Pension plans which are:

<u>Less than 10 Years of Service as of September 30, 2011</u>

General Class –earlier of
- Age 65 with 7 years of Credited Service
- Age 62 with 25 years of Credited Service
- Age 60 with 30 years of Credited Service

Police – earlier of
- Age 55 with 10 years of Credited Service
- Age 52 with 25 years of Credited Service

Firefighters – earlier of
- Age 55 with 10 years of Credited Service
- Age 52 with 25 years of Credited Service

<u>More than 10 Years of Service as of September 30, 2011</u>

General Class –earlier of
- Age 55 with 5 years of Credited Service,
- 25 years of Credited Service regardless of age

Police – earlier of
- Age 50 regardless of years of Credited Service
- 22 years of Credited Service regardless of age

Firefighters – earlier of
- Age 50 with 10 years of Credited Service
- 23 years of Credited Service regardless of age

3. Summary of Principal Plan Provisions (cont.)

Disability Retirement

Members eligible for regular disability retirement are subject to premium payments the same as all regular retirees. An exception is made for disability that is sustained in the line of duty. Premiums for these employees, their spouses and any dependent children will be fully paid for by the City. There are no eligibility requirements for in line of duty disability.

Dental and Vision Plans

Dental and Vision benefits for retirees and their dependents are fully paid by the retiree, as they are for employees and their dependents. Consequently, these benefits are not considered as other post-employment benefits for the purposes of GASB Statement No. 45.

Life Insurance

Retirees pay the full cost of life insurance and consequently life insurance benefits are not considered as other post-employment benefits for the purposes of GASB Statement No. 45

Employee Subsidy

The City of Hollywood pays full premium for individuals retiring from the General Class and Police. Fire Fighters pay the employee rate at the time of retirement with no increases in the future.

Spouse Subsidy

Spouses and dependents are allowed access to the plan however must pay the full premium. An exception is made for spouses and dependents of Executive Management as well as retirees who become disabled in the line of duty. For those spouses and dependents, the City will pay the full premium.

4. Valuation Data

Active and Retirees Statistics

The following table summarizes the counts, ages and service as of January 1, 2016.

			General	Police	Firefighters	Total
(1)	Number of Participants					
	(a)	Active Employees	771	268	187	1,226
	(b)	Drop Participants	14	44	20	78
	(c)	Retirees (Pre-Medicare)	318	183	109	610
	(d)	Retirees (Post-Medicare)	417	94	67	578
	(e)	Total	1,520	589	383	2,492
(2)	Active Statistics					
	(a)	Average Age	46.06	35.66	37.68	42.51
	(b)	Average Service	9.43	8.64	10.95	9.49
(3)	Drop Statistics					
	(a)	Average Age	64.26	49.92	55.19	53.85
	(b)	Average Service	27.49	25.71	25.41	25.95
(4)	Retiree Statistics					
	(a)	Average Age (Pre-Medicare)	58.96	57.51	57.97	58.35
	(b)	Average Age (Post-Medicare)	73.73	71.21	70.56	72.95

4. Valuation Data (cont.)

Retirees Coverage

The following table summarizes the counts of coverage by ages for the current retired employees as of January 1, 2016.

Age	*Individual*	*Parent/Child*	*Husband/Wife*	*Family*	*Total*
Less Than 55	81	5	19	26	131
55 – 60	132	9	57	18	216
60 – 65	176	2	69	16	263
65 – 70	177	1	62	3	243
70 – 75	120		44		164
75 – 80	68		12		80
80 – 85	48		6		54
Greater than 85	34		3		37
Total	836	17	272	63	1,188

4. Valuation Data (cont.)

Active Age - Service Distribution

Shown below is a distribution based on age and service of active participants (including DROP).

	Years of Service as of 1/01/2016								
Age	**Under 1**	**01-04**	**05-09**	**10-14**	**15-19**	**20-24**	**25-29**	**30+**	**Total**
Under 25	25	40	0	0	0	0	0	0	65
25 – 29	30	107	16	0	0	0	0	0	153
30 – 34	16	67	43	25	2	0	0	0	153
35 – 39	14	51	19	46	12	0	0	0	142
40 – 44	14	34	12	48	42	13	0	0	163
45 – 49	8	33	17	44	50	44	25	0	221
50 – 54	11	33	16	22	35	55	37	1	210
55 – 59	7	20	14	15	25	19	22	1	123
60 – 64	4	7	10	13	3	3	2	3	45
65 +	2	5	6	6	2	6	1	1	29
Totals	131	397	153	219	171	140	87	6	1,304

The following table shows averages in total for the above participants.

	Averages
Age:	43.19
Service:	10.47

5. Valuation Methods and Assumptions

Cost Method

This valuation uses the entry age normal funding method calculated on an individual basis with level percentage of payroll.

Amortization Method

Unfunded liabilities are amortized over a closed 21 year period as a level percentage of payroll for FYE 2016.

Coverage Status, Percent Married and Age of Spouse

For retirees, actual coverage status is used. For actives, it is assumed that 75% of males and 65% of females will have spouses at retirement. 50% of males and 20% of females are assumed to elect spouse coverage at retirement. Females are assumed to be 3 years younger than male spouses.

Election

85% of employees are assumed to elect to participate in the plan upon retirement.

Interest Assumptions

Discount Rate	3.50%
Payroll Growth	3.00%

Medical Trend Assumption

The assumption was developed using the SOA long term medical trend model using following baseline assumptions were used as input variables into the model:

Rate of Inflation	2.4%
Rate of Growth in Real Income / GDP per capita	1.5%
Extra Trend due to Technology and other factors	1.0%
Health Share of GDP Resistance Point	25.0%
Year for Limiting Cost Growth to GDP Growth	2075

The medical trend was increased to reflect the impact of the Cadillac Tax. For this purpose general inflation was assumed to be 2.75% per year.

5. Valuation Methods and Assumptions (cont.)

Medical Trend Assumption (cont.)

The resulting rates are as follows:

Year	Pre Medicare	Post Medicare
2016	4.70%	4.70%
2017	5.40%	5.40%
2018	5.70%	5.70%
2019	5.70%	5.70%
2020	5.30%	5.30%
2021	5.10%	5.10%
2022	5.00%	5.00%
2030	5.88%	5.00%
2040	5.66%	5.00%
2050	5.26%	4.80%
2060	4.93%	4.60%
2070	4.53%	4.30%
Ultimate	4.00%	3.90%

5. Valuation Methods and Assumptions (cont.)

Decrement Assumptions

Below is a summary of decrements used in this valuation. Sample Retirement, Disability, and Termination rates are illustrated in the tables below. All rates mirror the October 1, 2013 Pension Valuation for Police, Firefighters and General employees except for mortality.

Mortality Decrements		Description
(1)	General Healthy	Fully Generational RP 2014 White Collar Table projected from the year 2014 using MP 2015
(2)	Police and Fire Healthy	Fully Generational RP 2014 Blue Collar Table projected from the year 2014 using MP 2015
(3)	General Disabled	Fully Generational RP 2014 White Collar Table projected from the year 2014 using MP 2015
(4)	Police and Fire Disabled	Fully Generational RP 2014 Blue Collar Table projected from the year 2014 using MP 2015

Disability- Service Related

Sample rates are provided below.

Age	Fire	General	Police
20	0.03%	0.02%	0.03%
25	0.05%	0.02%	0.05%
30	0.07%	0.03%	0.07%
35	0.10%	0.04%	0.10%
40	0.14%	0.05%	0.14%
45	0.26%	0.08%	0.26%
50	0.44%	0.13%	0.40%

Termination

Sample rates are provided below.

Age	Fire / Police	General
20	10.30%	12.40%
25	7.30%	11.70%
30	4.15%	10.50%
35	1.82%	8.30%
40	0.99%	5.70%
45	0.48%	3.50%
50	0.00%	1.50%

5. Valuation Methods and Assumptions (cont.)

Decrement Assumptions (cont.)

Retirement

Sample rates are provided below.

Police - with more than 10 years of service as of 9/30/2011

	Years of Service					
Age	**5**	**10**	**15**	**20**	**25**	**30**
45	0.00%	0.00%	0.00%	0.00%	2.50%	100.00%
50	0.00%	5.00%	5.00%	5.00%	2.50%	100.00%
55	0.00%	10.00%	2.50%	2.50%	2.50%	100.00%
60	0.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Police - with less than 10 years of service as of 9/30/2011

	Years of Service					
Age	**5**	**10**	**15**	**20**	**25**	**30**
51	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
52	0.00%	0.00%	0.00%	0.00%	10.00%	100.00%
53	0.00%	0.00%	0.00%	0.00%	10.00%	100.00%
54	0.00%	0.00%	0.00%	0.00%	10.00%	100.00%
55	0.00%	10.00%	10.00%	10.00%	10.00%	100.00%
56	0.00%	10.00%	2.50%	3.00%	3.00%	100.00%
57	0.00%	10.00%	2.50%	3.00%	3.00%	100.00%
58	0.00%	10.00%	2.50%	3.00%	3.00%	100.00%
59	0.00%	10.00%	10.00%	10.00%	10.00%	100.00%
60	0.00%	100.00%	100.00%	100.00%	100.00%	100.00%

General Group - with more than 10 years of service as of 9/30/2011

	Years of Service					
Age	**5**	**10**	**15**	**20**	**25**	**30**
45	0.00%	0.00%	0.00%	0.00%	5.00%	15.00%
50	0.00%	0.00%	0.00%	0.00%	5.00%	15.00%
55	2.50%	2.50%	5.00%	7.50%	15.00%	15.00%
60	2.50%	2.50%	2.50%	2.50%	22.50%	60.00%
65	45.00%	45.00%	60.00%	75.00%	100.00%	100.00%
70	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

5. Valuation Methods and Assumptions (cont.)

Decrement Assumptions (cont.)

Retirement (cont.)

General Group - with less than 10 years of service as of 9/30/2011

	Years of Service					
Age	**7**	**10**	**15**	**20**	**25**	**30**
60	0.00%	0.00%	0.00%	0.00%	0.00%	30.00%
61	0.00%	0.00%	0.00%	0.00%	0.00%	30.00%
62	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
63	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
64	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
65	15.00%	15.00%	20.00%	25.00%	100.00%	100.00%
66	22.50%	22.50%	22.50%	22.50%	100.00%	100.00%
67	30.00%	30.00%	30.00%	30.00%	100.00%	100.00%
68	37.50%	37.50%	37.50%	37.50%	100.00%	100.00%
69	45.00%	45.00%	45.00%	45.00%	100.00%	100.00%
70	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Fire - with more than 10 years of service as of 9/30/2011

	Years of Service					
Age	**5**	**10**	**15**	**20**	**25**	**30**
45	0.00%	0.00%	0.00%	0.00%	2.50%	2.50%
50	0.00%	5.00%	5.00%	5.00%	2.50%	2.50%
55	0.00%	10.00%	2.50%	2.50%	2.50%	2.50%
60	0.00%	100.00%	100.00%	100.00%	100.00%	100.00%

5. Valuation Methods and Assumptions (cont.)

Decrement Assumptions (cont.)

Retirement (cont.)

Fire - with less than 10 years of service as of 9/30/2011

	Years of Service					
Age	**5**	**10**	**15**	**20**	**25**	**30**
51	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
52	0.00%	0.00%	0.00%	0.00%	1.00%	2.50%
53	0.00%	0.00%	0.00%	0.00%	1.00%	2.50%
54	0.00%	0.00%	0.00%	0.00%	1.00%	2.50%
55	0.00%	0.00%	10.00%	10.00%	1.00%	2.50%
56	0.00%	10.00%	2.50%	3.00%	3.00%	2.50%
57	0.00%	10.00%	2.50%	3.00%	3.00%	2.50%
58	0.00%	10.00%	2.50%	3.00%	3.00%	2.50%
59	0.00%	15.00%	15.00%	15.00%	15.00%	15.00%
60	0.00%	100.00%	100.00%	100.00%	100.00%	100.00%

DROP Participants

Drop participants are assumed to retire at the maximum length of the DROP program. The maximum length is 5 years for General group and 8 years for Firefighters and Police.

Salary Increases

Even though the OPEB plan is not pay related, the salary increase assumption impacts the allocation of liabilities throughout a career under the entry age normal formal funding method. Salary increases is assumed to be 5.50% flat trend for all groups.

5. Valuation Methods and Assumptions (cont.)

Claims Assumption

The Medical/Prescription plan is self insured with Specific and Aggregate stop-loss The claims are based on enrollment and paid medical and prescription claims for pre and post age 65 retirees for the period January 1, 2014 – December 31, 2015. Claims and enrollments were divided into Medicare and non Medicare eligible retirees. The claims were projected to Fiscal Year 2016. Pre 65 and Post 65 claims were projected assuming 8% annual increases. It was assumed that 8% of the prescription claims were rebates.

Pre-Medicare claims were based on FY 2016 claims. The Medicare claims assumption is a weighted average of the projected claims with fiscal year 2015 claims weighted 30%, and the fiscal year 2016 claims weighted 70%. The resulting average claims were age adjusted.

Family coverage was assumed to be 2.35 times the cost of the individual coverage for retirees less than age 65 and 2.00 for retirees age 65 or older.

The chart below shows the current cost broken down between the published per capita cost (i.e., the blended rates) and the total costs (including implicit subsidies).

FYE 2016 Claims

		Single	Family
1.	Assumed Costs		
a.	Under Age 65	7,183	16,912
b.	Over Age 65	7,183	14,365
2.	Total Costs		
a.	Under Age 50	6,456	15,202
b.	Ages 50-54	7,743	18,232
c.	Ages 55-59	8,941	21,052
d.	Ages 60-64	10,460	24,629
e.	Ages 65-69	8,501	17,001
f.	Ages 70-74	9,158	18,317
g.	Ages 75-79	10,133	20,265
h.	Ages 80-84	10,229	20,458
i.	Age 85 and older	10,169	20,337

5. Valuation Methods and Assumptions (cont.)

Changes Made Since Prior Valuation

The discount rate was decreased from 4.00% to 3.50%.

The mortality tables have been updated to be RP-2014 White Collar Morality with Scale MP-2014 for General employees and RP-2014 Blue Collar Morality with Scale MP-2014 for Police and Fire.

6. Glossary

Actuarial Accrued Liability

The portion of the Present Value of Benefits allocated to prior service.

Annual OPEB Cost (AOC):

An accrual-basis measure of the periodic cost of an employer's participation in an OPEB plan. The AOC is equal to the ARC (see below) plus interest on the Net OPEB Obligation (defined below) minus the Net OPEB Obligation divided by the amortization factor.

Annual Required Contributions of the Employer(s) (ARC):

The sum of the normal cost plus the amortization of the unfunded actuarial accrued liability. This amount is the first step to determining the Annual OPEB Cost (AOC). There is no *requirement* to make a plan contribution.

Covered Group:

Plan members included in an actuarial valuation.

Employer's Contributions:

Contributions made in relation to the annual required contributions of the employer (ARC). An employer has made a contribution in relation to the ARC if the employer has (a) made payments of benefits directly to or on behalf of a retiree or beneficiary, (b) made premium payments to an insurer, or (c) irrevocably transferred assets to a trust, or an equivalent arrangement, in which plan assets are dedicated to providing benefits to retirees and their beneficiaries in accordance with the terms of the plan and are legally protected from creditors of the employer(s) or plan administrator.

Funded Ratio:

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

Healthcare Cost Trend Rate:

The rate of change in per capita health claim costs over time as a result of factors such as medical inflation, utilization of healthcare services, plan design, and technological developments.

Investment Return Assumption (Discount Rate):

The rate used to adjust a series of future payments to reflect the time value of money.

6. Glossary (cont.)

Level Percentage of Projected Payroll Amortization Method: Amortization payments are calculated so that they are a constant percentage of the projected payroll of active plan members over a given number of years. The dollar amount of the payments generally will increase over time as payroll increases due to inflation; in dollars adjusted for inflation, the payments can be expected to remain level. This method cannot be used if the plan is closed to new entrants.

Net OPEB Obligation: The cumulative difference since the effective date of this Statement between annual OPEB cost and the employer's contributions to the plan, including the OPEB liability (asset) at transition, if any, and excluding (a) short-term differences and (b) unpaid contributions that have been converted to OPEB-related debt.

Normal Cost or Normal Actuarial Cost: That portion of the Present Value of plan benefits and expenses which is allocated to a valuation year by the Actuarial Cost Method.

OPEB Plan: An OPEB plan having terms that specify the amount of benefits to be provided at or after separation from employment. The benefits may be specified in dollars (for example, a flat dollar payment or an amount based on one or more factors such as age, years of service, and compensation), or as a type or level of coverage (for example, prescription drugs or a percentage of healthcare insurance premiums).

Other Post-employment Benefits: Post-employment benefits other than pension benefits. Other post-employment benefits (OPEB) include post-employment healthcare benefits, regardless of the type of plan that provides them, and all post-employment benefits provided separately from a pension plan, excluding benefits defined as termination offers and benefits.

Pay-as-you-go (PAYGO): A method of financing a benefit plan under which the contributions to the plan are generally made at about the same time and in about the same amount as benefit payments and expenses becoming due.

Present Value of Benefits: The PVB is the estimated amount needed to provide all future OPEB benefits for current participants. There is no provision for future hires.

6. Glossary (cont.)

Payroll Growth Rate: An actuarial assumption with respect to future increases in total covered payroll attributable to inflation; used in applying the level percentage of projected payroll amortization method.

Plan Liabilities: Obligations payable by the plan at the reporting date, including, primarily, benefits and refunds due and payable to plan members and beneficiaries, and accrued investment and administrative expenses. Plan liabilities do not include actuarial accrued liabilities for benefits that are not due and payable at the reporting date.

Plan Members: The individuals covered by the terms of an OPEB plan. The plan membership generally includes employees in active service, terminated employees who have accumulated benefits but are not yet receiving them, and retired employees and beneficiaries currently receiving benefits.

Post-employment: The period between termination of employment and retirement as well as the period after retirement.

Post-employment Healthcare Benefits: Medical, dental, vision, and other health-related benefits provided to terminated or retired employees and their dependents and beneficiaries.

Select and Ultimate Rates: Actuarial assumptions that contemplate different rates for successive years. Instead of a single assumed rate with respect to, for example, the investment return assumption, the actuary may apply different rates for the early years of a projection and a single rate for all subsequent years. For example, if an actuary applies an assumed investment return of 8% for year 20W0, 7.5% for 20W1, and 7% for 20W2 and thereafter, then 8% and 7.5% are select rates, and 7% is the ultimate rate.

Appendix 1

CAFR Disclosures

Schedules of Employer Contributions

Year Ended September 30	*Annual OPEB Cost*	*Actual Contribution[1]*	*Percentage Contributed*	*Net OPEB Obligation*
2011	30,029,771	7,756,270	25.83%	86,234,695
2012	27,318,512	8,212,242	30.06%	105,340,965
2013	29,092,887	9,419,309	32.38%	125,014,543
2014	29,095,000	10,242,000	35.20%	143,867,543
2015	30,647,000	10,652,000	34.76%	163,862,543
2016	43,059,000	12,578,000	29.21%	194,343,543

1/ sum of estimated retiree medical payments plus scheduled trust contributions

Schedule of Funding Progress

Measurement Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b)-(a)	Funded Ratio (a)/(b)	Covered Payroll (c)	UAAL as a % of Covered Payroll [(b)-(a)]/(c)
10/1/2010	0	433,363,309	0.00%	433,363,309		
10/1/2011	0	369,686,728	0.00%	369,686,728		
10/1/2012	0	388,256,996	0.00%	388,256,996		
10/1/2013	0	389,593,000	0.00%	389,593,000		
10/1/2014	0	405,131,000	0.00%	405,131,000		
10/1/2015	0	572,307,000	0.00%	572,307,000		

1/ Intentionally left blank, OPEB benefits are unrelated to pay and accordingly, Bolton Partners does not have this information.

The schedule of funding progress presented as required supplementary information (RSI) following the notes to financial statements, present multiyear trend information about whether the actuarial values of the plan assets are increasing or decreasing over time relative to the AALs for benefits.

The City's annual contribution is based on annual actuarial valuations.

Actuarial Cost Method:	Entry Age Normal
Amortization Method:	Closed
Amortization Period	21 (as of October 1, 2015)
Asset Valuation Method:	Market Value of Assets
Actuarial Assumptions	
Discount Rate:	4.00% prior to 2016, 3.50% for FYE 2016
Payroll Increase	3.00%
Medical Trend	The trend table is adjusted for the Cadillac Tax. The rate in 2050 Pre-65 is 5.26% and Post-65 is 4.80%.

Appendix 2

The Actuarial Valuation Process

Step 1 – Determining the Present Value of Benefits

The first step of the actuarial valuation process is to determine the Present Value of Benefits (PVB). The PVB represents the estimated amount needed to provide all future OPEB benefits.

For a retiree it is based on the following assumptions:

- The current cost of medical benefits
- How fast medical costs will increase (medical trend)
- Mortality

For an employee it *also* considers the following assumptions:

- How many employees will leave before becoming eligible for the benefit
- At what age will employees retire
- What percentage of eligible retirees will elect coverage
- What percent of eligible retirees will have spouse coverage

Based on these assumptions, the actuary estimates a payment stream for each year in the future.

The streams of payments are discounted to the valuation date using a discount rate. The discount rate is similar to the rate of return you would expect to earn on funds in a bank or other investment vehicle. The sum of the discounted payment stream is the PVB.

Step 2 – The Actuarial Funding Method

If the entire present value of benefits was deposited into a trust when every new employee was hired, there would be (in the absence of actuarial losses caused by experience different than that assumed) no cost after the first year. The goal of an actuarial funding method is to spread the present value of benefits throughout the employee's career.

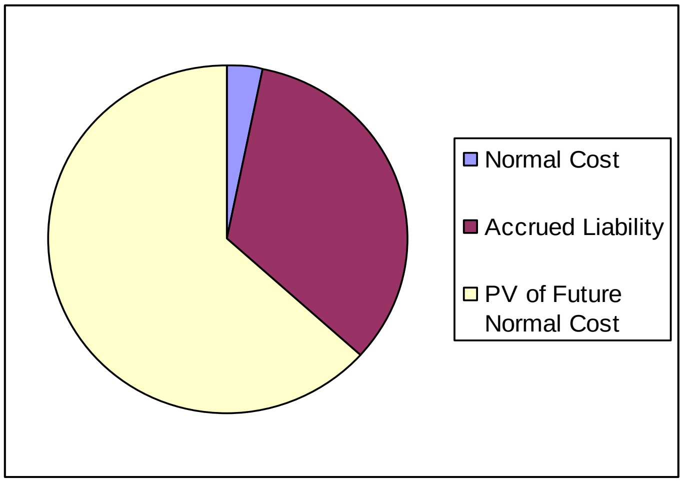
Accordingly, the second step of an actuarial valuation is to divide the Present Value of Benefits into three components:

- The normal cost (the liability accrual for the year)
- The accrued liability (the liability amount allocated for past service)
- The present value of future normal costs (the liability amount allocated to the future)

Appendix 2 (cont.)

The Actuarial Valuation Process (cont.)

The following chart illustrates the 3 components of the Present Value of Benefits:



For a retired employee, the present value of benefits equals the accrued liability.

Step 3 – Determining the Annual Required Contribution (ARC)

Under the GASB standard, the Annual required contribution is equal to the sum of the:

- Normal Cost and
- An Amortization Payment of the Unfunded Accrued Liability

The unfunded accrued liability is equal to the accrued liability minus the assets (if any).

The amortization payment is not a straight line amortization payment. It is more like a mortgage payment on a house. It includes interest on the unfunded liability and a principal payment, and is designed to be a level payment. This could mean level as in a dollar payment, or as a level percentage of payroll. If it is a level percentage of payroll, the payment amount will increase as payroll increases.

Under the GASB standard, this payment period could be up to 30 years.

Also under the GASB standard, the payment period could be "closed" or "open". A "Closed" payment period decreases each year. The unfunded amount will be zero at the end of the payment period. An "Open" payment period is reset each year to 30 years. The effect of resetting the payment period each year is similar to refinancing a loan every year. The loan will never be repaid.

Appendix 3

Expected Benefit Payments

Plan Year Ending 9/30	***Total Benefit Payments***
2016	$12,578,000
2017	$13,216,000
2018	$14,106,000
2019	$15,077,000
2020	$16,093,000
2021	$17,109,000
2022	$18,229,000
2023	$19,391,000
2024	$20,569,000
2025	$21,841,000

Please note:

- *The expected benefit payment stream shown above assumes that the covered population is a closed group, i.e. there are no new entrants or re-entrants.*
- *The Plan's actual benefit payments may be greater or lesser than the amounts shown, depending on actual demographic experience and claims experience.*