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THE TOWN OF CHAPEL HILL ACTUARIAL VALUATION OF THE HEALTH CARE PLAN

PREPARED AS OF DECEMBER 31, 2014





October 7, 2015

Ms. Amy Oland Assistant Director of Finance Town of Chapel Hill 405 Martin Luther King Jr. Blvd. Chapel Hill, NC 27514

Re: December 31, 2014 Actuarial Valuation of the Health Care Plan of The Town of Chapel Hill

Dear Ms. Oland:

Enclosed are the results of the December 31, 2014 Actuarial Valuation of the Health Care Plan of the Town of Chapel Hill. In preparing the valuation, the actuary relied on data provided by the Town and the North Carolina Local Governmental Employees' Retirement System (NCLGERS). While not verifying the data at source, the actuary performed tests for consistency and reasonability.

The valuation was based on an assumed interest rate of 4.00%. Schedule A summarizes the valuation results, including a summary of membership data, the valuation balance sheet and the actuarially determined contribution rates. Schedule B contains the required Governmental Accounting Standards Board (GASB) disclosure information. Schedule C outlines the full set of actuarial assumptions and methods employed. Schedule D provides a summary of the benefit and contribution provisions as interpreted for valuation purposes.

The annual required contribution was determined in accordance with the accounting requirements under GASB Statement No. 43 and GASB Statement No. 45. The assumptions recommended by the actuary are, in the aggregate, reasonably related to the experience under the Plan and to reasonable expectations of anticipated experience under the Plan and meet the parameters for the disclosures under GASB Statement No. 43 and GASB Statement No. 45.



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On June 2, 2015, GASB Statement No. 74 and GASB Statement No. 75 (GASB 74 and 75) were unanimously adopted by the GASB Board. The disclosure requirements of GASB 74 and 75 will be similar to the disclosure requirements for pension benefits under GASB Statement No. 67 and GASB Statement No. 68. GASB 74 relates to accounting disclosures for plan sponsors and, as such, replaces GASB 43 beginning with fiscal years ending June 30, 2017. GASB 75 relates to accounting disclosures for contributing employers and, as such, replaces GASB 45 beginning with fiscal years ending June 30, 2018. GASB 74 and 75 will require applicable OPEB plan sponsors and contributing employers to disclose the net OPEB liability on the statement of financial position and book an accounting expense based upon the entry age normal actuarial cost method. Beyond the use of a specified actuarial cost method, GASB's new disclosure standards will also require the discount rate used to calculate liabilities to be based upon the yield of 20year, tax-exempt municipal bonds and the expected rate of return on plan assets, to the extent plan assets are projected to be available for the payment of future benefits. Additionally, GASB 74 and 75 will bring about many other changes in the liability valuation and accounting disclosure processes currently in place which are expected to significantly impact data collection, timing, and effort. As details for the new GASB OPEB disclosure standards emerge, planning and coordination between plan sponsors, contributing employers, actuaries, and auditors is recommended.

The impact of the Affordable Care Act (ACA) was addressed in this valuation. Review of the information currently available did not identify any specific provisions of the ACA that are anticipated to significantly impact results. While the impact of certain provisions such as the excise tax on high-value health insurance plans beginning in 2018 (if applicable), mandated benefits and participation changes due to the individual mandate should be recognized in the determination of liabilities, overall future plan costs and the resulting liabilities are driven by amounts employers and retirees can afford (i.e., trend). The trend assumption forecasts the anticipated increase to initial per capita costs, taking into account health care cost inflation, increases in benefit utilization, plan changes, government-mandated benefits, and technological advances. Given the uncertainty regarding the ACA's implementation (e.g., the impact of excise tax on high-value health insurance plans, changes in participation resulting from the implementation of state-based health insurance exchanges), continued monitoring of the ACA's impact on the Plan's liability will be required.

Future actuarial results may differ significantly from the current results 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 or applicable law. Since the potential impact of such factors is outside the scope of a normal annual actuarial valuation, an analysis of the range of results is not presented herein.



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This is to certify that the independent consulting actuaries are Members of the American Academy of Actuaries and have experience in performing valuations for public retirement systems, that the valuation was prepared in accordance with principles of practice prescribed by the Actuarial Standards Board, and that the actuarial calculations were performed by qualified actuaries in accordance with accepted actuarial procedures, based on the current provisions of the Plan and on actuarial assumptions that are internally consistent and reasonably based on the actual experience of the Plan.

If you have any questions, please call us at 678-388-1700.

Respectfully submitted,

Todd B. Green, ASA, FCA, MAAA Principal and Consulting Actuary

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TBG/AB:nkh

Alisa Bennett, FSA, EA, FCA, MAAA Principal and Consulting Actuary

Misa Break



DECEMBER 31, 2014 ACTUARIAL VALUATION OF THE HEALTH CARE PLAN OF THE TOWN OF CHAPEL HILL

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SCHEDULE A – SUMMARY OF PRINCIPAL RESULTS

Membership as of Dece	ember 31	l, 2014
Active Members*		
Law Enforcement Officers		
Number		83
Covered Payroll	\$	4,839,393
Valuation Compensation+	\$ \$	5,117,777
Firefighters		
Number		75
Covered Payroll	\$	4,220,781
Valuation Compensation+	\$	4,473,755
General Employees		
Number		346
Covered Payroll	\$	16,983,658
Valuation Compensation ⁺	\$	17,917,418
Retired Members		
Number		224

^{*} The information shown above does not include covered payroll of \$7,210,845 for 179 active members who will not receive benefits due to the July 1, 2010 closure of the Plan.

⁺ Reported annual compensation adjusted for expected changes during the year.

Valuation Balance Sheet as of December 31, 20	14	
Accrued Actuarial Liabilities		
Present Value of Benefits (Based on Credited Service to Date) Payable in Respect of:		
(1) Present Retired Members and Beneficiaries	\$	24,423,649
(2) Present Active Members		39,785,992
(3) Total Accrued Actuarial Liabilities [(1) + (2)]	\$	64,209,641
Present and Prospective Assets		
(4) Present Assets	\$	0
(5) Present Value of Future Accrued Liability Contributions		
(Unfunded Accrued Liability) [(3) – (4)]		64,209,641
(6) Total Present and Prospective Assets [(4) + (5)]	\$	64,209,641



SCHEDULE A – SUMMARY OF PRINCIPAL RESULTS (CONTINUED)

Annual Required Contribution (ARC)									
For Fiscal Year Ending June 30, 2016									
Contribution Component	ARC as a Percentage of Valuation Compensation								
Normal Cost Unfunded Accrued Liability	\$	2,531,970	9.20%						
Amortization Payment Total Contribution	\$	3,862,913 6,394,883	14.04% 23.24%						

Annual Required Contribution (ARC)							
Based on the December 31, 2014 Actuarial Valuation							
		Amortization					
Fiscal Year End	ARC Dollar Amount	Factor					
6/30/2017	\$ 6,484,071	16.2470					

The future ARC as shown in the above table may only be used if the following conditions are met:

- There are no changes to the following sections in the Summary of Benefit and Contribution Provisions (Schedule D):
 - Eligibility for Allowance
 - Amount of Allowance
 - Other Post-Employment Benefits
 - Dependent Coverage

If any of the above conditions are not met, an updated valuation may need to be performed to determine the updated ARC.



SCHEDULE B - ACCOUNTING INFORMATION

GASB Statement No. 43 and GASB Statement No. 45 set forth certain items of required supplementary information to be disclosed in the financial statements of the Town. The following required supplementary information was prepared for illustrative purposes. The Town is responsible for the preparation and fair presentation of its financial statements in accordance with U.S. generally accepted accounting principles and is subject to audit to obtain reasonable assurance the financial statements are free from material misstatement.

	Annual OPEB Cost and Net OPEB Obligation for Fiscal Year Ending Ju	ne 30,	2015
(A)	Employer Annual Required Contribution (ARC)*	\$	5,892,263
(B)	Valuation Discount Rate		4.00%
(C)	Interest on Net OPEB Obligation [(B) x (I)]		846,634
(D)	Amortization Factor		17.3296
(E)	Adjustment to Annual Required Contribution		1,221,370
(F)	Annual OPEB Cost [(A) + (C) - (E)]	\$	5,517,527
(G)	Employer Contributions Made for Fiscal Year Ending June 30, 2015**		1,585,135
(H)	Increase (Decrease) in Net OPEB Obligation [(F) - (G)]	\$	3,932,392
(1)	Net OPEB Obligation Beginning of Fiscal Year		21,165,852
(J)	Net OPEB Obligation End of Fiscal Year [(H) + (I)]	\$	25,098,244

^{*} Based on the ARC from the December 31, 2012 Actuarial Valuation Report. We assumed there have been no changes to the plan, benefit structure or population covered that would require an updated Actuarial Valuation ARC be used.

^{**} Under GASB Statement Nos. 43 and 45, the OPEB liability may include an implicit subsidy amount based upon age adjusted costs reflecting the higher cost of benefits associated with older participants. For the purpose of determining the Net OPEB Obligation (NOO), the portion of the annual OPEB contributions for medical and prescription drug costs that are determined on a combined basis for actives and retirees (in this case the pre-65 retirees) has been increased to include the impact of the 33% implicit subsidy. The total contribution of \$1,585,135 includes \$321,072 due to the impact of the 33% implicit subsidy and actual cash contributions of \$1,264,063 paid by the employer. Medicare Supplement insurance does not generate an implicit subsidy. Correspondingly, in the financial statements, the costs associated with active employee medical and prescription drug benefits may need to be decreased by the same dollar amount to reflect that portion of the active employee contribution subsidizing retiree costs.

Trend Information ⁺										
	Annı	ial OPEB Cost	Percentage of AOC							
Fiscal Year Ending	(AOC)		Contributed	Net OPEB Obligation						
6/30/2013	\$	6,641,450	19.7%	\$	17,156,249					
6/30/2014	\$	5,522,093	27.4%	\$	21,165,852					
6/30/2015	\$	5,517,527	28.7%	\$	25,098,244					

^{*} Historical information was provided in the Town's June 30, 2014 Annual Financial Report.



SCHEDULE B – ACCOUNTING INFORMATION (CONTINUED)

	Schedule of Funding Progress											
					Actuarial						UAAL as a	
	,	Actuarial			Accrued	ı	Unfunded				Percentage	
Actuarial		Value of			Liability		AAL	Funded		Covered	of Covered	
Valuation		Assets			(AAL)		(UAAL)	Ratio		Payroll	Payroll	
Date		[A]			[B]		[B - A]	[A / B]		[C]	[(B - A) / C]	
12/31/2005	\$		0	\$	45,380,700	\$	45,380,700	0.0%	\$	25,322,664	179.2%	
12/31/2008	\$		0	\$	32,451,498	\$	32,451,498	0.0%	\$	32,174,140	100.9%	
12/31/2010 ⁺	\$		0	\$	64,319,378	\$	64,319,378	0.0%	\$	32,549,036	197.6%	
12/31/2012+	\$		0	\$	56,370,479	\$	56,370,479	0.0%	\$	28,236,336	199.6%	
12/31/2014+	\$		0	\$	64,209,641	\$	64,209,641	0.0%	\$	26,043,832	246.5%	

[†] The plan is closed to new entrants as of July 1, 2010. The covered payroll displayed excludes members who are ineligible for benefits due to the closure of the Plan.

Additional Valuation Information								
Valuation Date	December 31, 2014							
Actuarial Cost Method	Projected Unit Credit							
Amortization Method	Level Dollar Amount, Closed							
Remaining Amortization Period	26 Years							
Amortization Factor	16.6221							
Asset Valuation Method	Market Value of Assets							
Actuarial Assumptions:								
Investment Rate of Return*	4.00%							
Medical Trend Assumptions								
Pre-Medicare Trend Rate Post-Medicare Trend Rate Year of Ultimate Trend Rate	7.50% - 5.00% 5.50% - 5.00% 2020							
*Includes Inflation at	3.00%							

The assumed investment rate of return reflects the fact that no assets are set aside within the Town of Chapel Hill that are legally held exclusively for retiree health benefits.



INTEREST RATE: 4.00% per annum, compounded annually.

GENERAL EMPLOYEES: Representative values of the annual rates of separation from service are as follows:

	Annual Rates of											
	Withdrawal				Withdrawal and Vesting*		ortality**	Disa	ability			
Service	Male	Female	Age	Male	Female	Male	Female	Male	Female			
0	30.0%	30.0%	25	6.0%	8.0%	0.04%	0.02%	0.04%	0.05%			
1	17.3%	20.0%	30	6.0%	7.0%	0.06%	0.03%	0.10%	0.09%			
2	14.5%	16.0%	35	6.0%	7.0%	0.09%	0.05%	0.25%	0.15%			
3	12.0%	13.0%	40	4.0%	5.0%	0.12%	0.07%	0.45%	0.30%			
4	10.0%	12.5%	45	4.0%	4.0%	0.17%	0.11%	0.55%	0.40%			
			50	4.0%	4.0%	0.24%	0.17%	0.80%	0.48%			
			55	4.0%	4.0%	0.36%	0.25%	1.00%	0.65%			
			60	4.0%	4.0%	0.59%	0.39%	1.00%	0.85%			
			65			0.86%	0.58%					
			69			1.09%	0.73%					

^{*} These rates apply only after five years of membership in the system.

^{**} Base mortality rates as of December 31, 2003, projected using Scale AA.

	Annual Rates of Retirement – Males											
Age	5	10	15	20	25	30	35					
50				5.0%	7.0%	30.0%	30.0%					
55				4.0%	10.0%	25.0%	17.5%					
60	8.0%	8.0%	8.0%	8.0%	27.5%	40.0%	25.0%					
65	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%					
70	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%					
75	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%					

	Annual Rates of Retirement – Females										
Age	5	10	15	20	25	30	35				
50				7.0%	5.0%	25.0%	25.0%				
55				5.0%	10.0%	32.5%	17.5%				
60	9.0%	9.0%	9.0%	9.0%	30.0%	40.0%	27.5%				
65	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%				
70	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%				
75	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%				



LAW ENFORCEMENT OFFICERS: Representative values of the annual rates of separation from service are as follows:

	Annual Rates of								
	Witho	Withdrawal			Withdrawal and Vesting*		ortality**	Disa	ability
Service	Male	Female	Age	Male	Female	Male	Female	Male	Female
0	15.0%	15.0%	25	4.50%	4.50%	0.04%	0.02%	0.12%	0.25%
1	10.0%	10.0%	30	4.50%	4.50%	0.06%	0.04%	0.16%	0.32%
2	9.0%	9.0%	35	4.50%	4.50%	0.09%	0.06%	0.40%	0.45%
3	7.5%	7.5%	40	3.50%	3.50%	0.12%	0.09%	0.60%	0.59%
4	7.5%	7.5%	45	3.50%	3.50%	0.17%	0.13%	0.80%	0.80%
			50	3.50%	3.50%	0.24%	0.20%	0.80%	0.80%
			55	3.50%	3.50%	0.36%	0.30%		
			60	3.50%	3.50%	0.59%	0.47%		
			65			0.86%	0.66%		
			69			1.09%	0.83%		

^{*} These rates apply only after five years of membership in the system.

^{**} Base mortality rates as of December 31, 2003, projected using Scale AA.

	Annual Rates of Retirement							
Age	5	10	15	20	25	30	35	
50			4.0%	4.0%	4.0%	40.0%	40.0%	
55	30.0%	30.0%	30.0%	30.0%	30.0%	65.0%	40.0%	
60	20.0%	20.0%	20.0%	20.0%	20.0%	65.0%	30.0%	
65	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	
70	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	
75	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	



FIREFIGHTERS: Representative values of the annual rates of separation from service are as follows:

	Annual Rates of								
	Withdrawal			Withdrawal and Vesting*		Base Mo	ortality**	Disa	ability
Service	Male	Female	Age	Male	Female	Male	Female	Male	Female
0	10.0%	10.0%	25	1.50%	1.50%	0.04%	0.02%	0.16%	0.16%
1	5.0%	5.0%	30	1.50%	1.50%	0.06%	0.04%	0.30%	0.30%
2	5.0%	5.0%	35	2.00%	2.00%	0.09%	0.06%	0.50%	0.50%
3	5.0%	5.0%	40	1.50%	1.50%	0.12%	0.09%	0.68%	0.68%
4	4.0%	4.0%	45	1.50%	1.50%	0.17%	0.13%	0.83%	0.83%
			50	1.50%	1.50%	0.24%	0.20%	1.20%	1.20%
			55	1.50%	1.50%	0.36%	0.30%	1.50%	1.50%
			60	1.50%	1.50%	0.59%	0.47%	2.00%	2.00%
			65			0.86%	0.66%		
			69			1.09%	0.83%		

^{*} These rates apply only after five years of membership in the system.

^{**} Base mortality rates as of December 31, 2003, projected using Scale AA.

	Annual Rates of Retirement								
Age	5	10	15	20	25	30	35		
50				2.5%	5.0%	27.5%	27.5%		
55	3.0%	3.0%	3.0%	3.0%	8.0%	50.0%	27.5%		
60	2.0%	2.0%	2.0%	2.0%	50.0%	50.0%	50.0%		
65	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%		
70	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%		
75	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%		



DEATHS AFTER RETIREMENT (HEALTHY): According to the RP-2000 Healthy Annuitant Mortality table with Projection Scale AA from 2004 set forward two years for male General Employees, all Firefighters, all Law Enforcement Officers, and unadjusted for female General Employees.

DEATHS AFTER RETIREMENT (DISABLED): According to the RP-2000 Mortality tables for disabled annuitants set back six years for males and set forward one year for females.

LEAVE CONVERSION: Creditable service for unreduced retirement from NCLGERS has been increased by one year.

ASSET VALUATION METHOD: Market Value.

ACTUARIAL METHOD: Costs were determined using the Projected Unit Credit Actuarial Cost Method. The annual service cost is the present value of the portion of the projected benefit attributable to participation service during the upcoming year, and the Actuarial Accrued Liability (AAL) is equal to the present value of the portion of the projected benefit attributable to service before the valuation date. Service from hire date through full retirement eligibility date was used in allocating costs.

HEALTH CARE COST TREND RATES: The following chart details trend assumptions for annual health care claims.

	Annual Rate of Increase					
	Med					
	Prescrip	tion Drug	Age 65 & Older			
Year	Under Age 65	Vision				
2015	7.50%	5.50%	3.00%			
2016	6.75%	5.25%	3.00%			
2017	6.25%	5.00%	3.00%			
2018	5.75%	5.00%	3.00%			
2019	5.25%	5.00%	3.00%			
2020 & Beyond	5.00%	5.00%	3.00%			



AGE RELATED MORBIDITY: Per capita costs are adjusted to reflect expected cost changes related to age. The age related increase to the net incurred claims was assumed to be:

Participant Age	Annual Increase
Under 30	0.0%
30 – 34	1.0%
35 – 39	1.5%
40 – 44	2.0%
45 – 49	2.6%
50 – 54	3.3%
55 – 59	3.6%
60 – 64	4.2%
65 – 69	3.0%
70 – 74	2.5%
75 – 79	2.0%
80 – 84	1.0%
85 – 89	0.5%
90 and Older	0.0%

ANTICIPATED PLAN PARTICIPATION: Representative values of the assumed annual rates of member participation and spouse coverage are as follows:

Anticipated Plan Participation						
Years of Service With						
Town at Retirement	Participation					
5 – 9	43.75%					
10 – 14	75.00%					
15 – 19	93.75%					
20 or More	100.00%					
Spouse Coverage	10.00%					

SPOUSE AGE DIFFERENCE: Wives are assumed to be four years younger than husbands.



ANNUAL EXPECTED MEDICAL/PRESCRIPTION DRUGS/VISION CLAIMS (AGE ADJUSTED TO AGE 65): The initial per capita costs were based upon adjusted premium rates. The following chart details the annual expected claims for the year following the valuation date:

Annual Expected Claims								
Age Adjusted Claims								
Pre-65	\$	12,968						
Post-65	\$	3,516						
Non-Age Adjusted Claims								
Post-65 Vision	\$	111						

BENEFITS VALUED: The benefits listed below were valued for the stated upon duration.

Lifetime Benefits Valued:

- Medical Coverage
- Prescription Drug Coverage
- Vision Coverage



SCHEDULE D - SUMMARY OF BENEFIT AND CONTRIBUTION PROVISIONS

Eligibility for Allowance

Part-time and full-time employees that were hired with the Town prior to July 1, 2010 and retire (under early, normal or disabled retirement conditions) from the North Carolina Local Government Employees' Retirement System (NCLGERS), and have five (5) years of service with Town immediately prior to retirement may continue participating in the Town's group hospitalization insurance plan until age 65, at which time coverage changes to a Medicare Supplement Plan.

Amount of Allowance

The Town will contribute toward the cost of group health insurance premiums and Medicare Supplement premiums for eligible retirees based on the following schedule:

Years of Service with	
Town at Retirement	Town Contribution
20 or more	100%
15 – 19	75%
10 – 14	50%
5 – 9	25%

For employees hired on or after July 1, 2010, the Town sponsors a defined contribution post-employment benefit plan. The employer's liability for this plan is not included in this report.

Elected Officials are not eligible for the benefits described herein.

Other Post-Employment Benefits

Health care, prescription drugs and vision coverage are provided in the Town's group hospitalization insurance plan. At age 65, retirees are moved to a separate Medicare Supplement Plan which provides health care, prescription drugs and vision coverage.

Dependent Coverage

The retiree may continue dependent coverage (and pay the full premium) if enrolled in dependent coverage at the time of retirement. When the retiree moves to the separate Medicare Supplement Plan, spouses under age 65 will remain on the pre-65 plan as their own subscriber. Once the spouse turns age 65 they will move to the separate Medicare Supplement Plan. Dependent coverage terminates upon the retirees' death.

The Health Care Plan of the Town of Chapel Hill

SCHEDULE D – SUMMARY OF BENEFIT AND CONTRIBUTION PROVISIONS (CONTINUED)

Representative Monthly Retiree Premium Amounts

Tier	Group Health Plan Pre-65 Rate	Medicare Supplement Post-65 Rate
Employee Only	\$ 639.58	\$354.26
Employee and Spouse	1,445.01	708.52
Effective Date	9/1/2014	1/1/2015

Additionally, post-65 vision coverage is \$9.22 per month, also effective January 1, 2015.