

Discussion Materials

Town of Chapel Hill, North Carolina



January 25, 2019

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Topics for Discussion

- Davenport History with the Town.

- Current Credit Ratings and Rating Peers.

- General Fund Operations and Fund Balance.

- Existing Tax Supported Debt and Financial Profile.
 - Key Financial Ratios.
 - Peer Comparatives.
 - Debt Affordability.
 - Debt Capacity.

- Capital Planning.

- Observations.

- Financial Policies.



Davenport History with the Town



Role of a Financial Advisor Scope

As Financial Advisor to the Town, Davenport has a Fiduciary Duty to the Town and as such provides the Town with guidance and assistance to ensure that the Town's interests are protected throughout the issuance process – from the planning stages through post-issuance decisions.

Planning and Pre-Transaction Related Services

- Long Term Capital Planning Strategy
- Financial Policy Development
- Peer Comparative Analysis
- Debt Capacity Analysis
- Debt Affordability Analysis
- Debt Service Structuring Options
- Plan of Finance Development
- Rating Agency Strategy
- Rating Agency Surveillance
- Refunding Opportunity Monitoring
- Investment Management Services

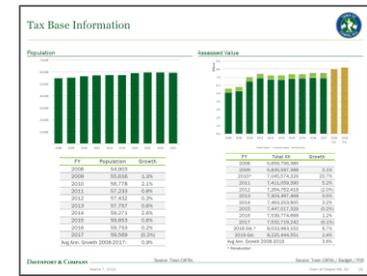
Transaction Related Services

- Rating Agency Coordination including:
 - Schedule the rating agency meetings / calls
 - Provide each rating agency with the required background information on the Town
 - Draft a comprehensive rating agency presentation
 - Prepare Town participants for rating interactions
 - Coordinate any required follow-up correspondence
 - Coordinate the drafting and publication of the Town's official rating reports
- LGC coordination / due diligence process
- Development / review of Bond Documents
 - Assist in preparation of the POS and NOS
 - Provide insight / guidance on NOS bid parameters that maximize bidder participation while meeting the Town's objectives
- Assistance in researching and disclosing prior 15c2-12 Disclosure Compliance.
- Provide Pricing Oversight:
 - Monitor bidder registration to maximize the competitive bids
 - Analyze bids received to ensure accuracy of the bid process
 - Provide preliminary and final bond sizing models on day of sale
- Coordinate the closing process
- Investment of Bond Proceeds

Davenport History with Chapel Hill



- Davenport has served as Financial Advisor to Chapel Hill since 2009 and has assisted the Town with the following services:
 - Bond Issuances
 - Refunding Strategies
 - Capital Planning
 - Debt Capacity
 - Debt Affordability
 - Monitoring of Peer Rating Medians
 - Rating Agency Strategies / Interactions
 - Town Council Education / Interaction
 - General Obligation Referendum Analysis
- Davenport works with the Town to document all pertinent information regarding the Town's debt issuances, including debt service schedules, call dates, call premiums, and refunding eligibility.
 - This includes monitoring the Town's Existing Debt Portfolio, identifying opportunities to lower Debt Service Costs through a variety of strategies, and updating the Town on a regular basis on its ability to Refinance / Refund debt for savings purposes. Davenport has assisted the Town in identifying and executing the following transactions:



Transactions Completed

Issue	Size	Method of Sale	Debt Service Savings	% Net Present Value Savings
General Obligation Public Improvement Bonds, Series 2018	\$12,500,000	Public Issuance – Competitive	-	-
Installment Purchase Contract, Series 2017	\$6,408,000	Direct Bank Loan	-	-
General Obligation Public Improvement Bonds, Series 2017	\$9,000,000	Public Issuance – Competitive	-	-
General Obligation Public Safety Bonds, Series 2017	\$1,460,000	Public Issuance – Competitive	-	-
Installment Financing Contract, Series 2016	\$7,984,000	Direct Bank Loan	-	-
Installment Financing Contract, Series 2015	\$2,395,000	Direct Bank Loan	-	-
General Obligation Refunding Bond, Series 2013	\$3,050,000	Direct Bank Loan	\$178,820	5.88%
Limited Obligation Bonds, Series 2012	\$28,800,000	Public Issuance – Negotiated	\$812,572	3.17%
General Obligation Refunding Bonds, Series 2012	\$4,655,000	Public Issuance – Competitive	\$466,077	9.15%
General Obligation Public Improvement Bonds, Series 2012	\$1,700,000	Public Issuance – Competitive	-	-
General Obligation Public Improvement Bonds, Series 2010B (BABs)	\$12,250,000	Public Issuance – Competitive	-	-
General Obligation Public Improvement Bonds, Series 2010A	\$8,160,000	Public Issuance – Competitive	-	-
Total	\$98,362,000		\$1,457,469	

Project Name	Date	Year of Issuance	Amount
1. Subtotal Debt Issuance			
2. Debt Service	01/01/2018	21,000	\$ 1,400,000
3. Debt & Interest Expense	01/01/2018	21,000	\$ 1,500,000
4. Debt & Interest Expense	01/01/2019	21,000	\$ 1,500,000
5. Debt & Interest Expense	01/01/2020	21,000	\$ 1,500,000
6. Debt & Interest Expense	01/01/2021	21,000	\$ 1,500,000
7. Debt & Interest Expense	01/01/2022	21,000	\$ 1,500,000
8. Debt & Interest Expense	01/01/2023	21,000	\$ 1,500,000
9. Debt & Interest Expense	01/01/2024	21,000	\$ 1,500,000
10. Debt & Interest Expense	01/01/2025	21,000	\$ 1,500,000
11. Debt & Interest Expense	01/01/2026	21,000	\$ 1,500,000
12. Debt & Interest Expense	01/01/2027	21,000	\$ 1,500,000
13. Debt & Interest Expense	01/01/2028	21,000	\$ 1,500,000
14. Debt & Interest Expense	01/01/2029	21,000	\$ 1,500,000
15. Debt & Interest Expense	01/01/2030	21,000	\$ 1,500,000
16. Debt & Interest Expense	01/01/2031	21,000	\$ 1,500,000
17. Debt & Interest Expense	01/01/2032	21,000	\$ 1,500,000
18. Debt & Interest Expense	01/01/2033	21,000	\$ 1,500,000
19. Debt & Interest Expense	01/01/2034	21,000	\$ 1,500,000
20. Debt & Interest Expense	01/01/2035	21,000	\$ 1,500,000
21. Debt & Interest Expense	01/01/2036	21,000	\$ 1,500,000
22. Debt & Interest Expense	01/01/2037	21,000	\$ 1,500,000
23. Debt & Interest Expense	01/01/2038	21,000	\$ 1,500,000
24. Debt & Interest Expense	01/01/2039	21,000	\$ 1,500,000
25. Debt & Interest Expense	01/01/2040	21,000	\$ 1,500,000
26. Debt & Interest Expense	01/01/2041	21,000	\$ 1,500,000
27. Debt & Interest Expense	01/01/2042	21,000	\$ 1,500,000
28. Debt & Interest Expense	01/01/2043	21,000	\$ 1,500,000
29. Debt & Interest Expense	01/01/2044	21,000	\$ 1,500,000
30. Debt & Interest Expense	01/01/2045	21,000	\$ 1,500,000
31. Debt & Interest Expense	01/01/2046	21,000	\$ 1,500,000
32. Debt & Interest Expense	01/01/2047	21,000	\$ 1,500,000
33. Debt & Interest Expense	01/01/2048	21,000	\$ 1,500,000
34. Debt & Interest Expense	01/01/2049	21,000	\$ 1,500,000
35. Debt & Interest Expense	01/01/2050	21,000	\$ 1,500,000
36. Debt & Interest Expense	01/01/2051	21,000	\$ 1,500,000
37. Debt & Interest Expense	01/01/2052	21,000	\$ 1,500,000
38. Debt & Interest Expense	01/01/2053	21,000	\$ 1,500,000
39. Debt & Interest Expense	01/01/2054	21,000	\$ 1,500,000
40. Debt & Interest Expense	01/01/2055	21,000	\$ 1,500,000
41. Debt & Interest Expense	01/01/2056	21,000	\$ 1,500,000
42. Debt & Interest Expense	01/01/2057	21,000	\$ 1,500,000
43. Debt & Interest Expense	01/01/2058	21,000	\$ 1,500,000
44. Debt & Interest Expense	01/01/2059	21,000	\$ 1,500,000
45. Debt & Interest Expense	01/01/2060	21,000	\$ 1,500,000
46. Debt & Interest Expense	01/01/2061	21,000	\$ 1,500,000
47. Debt & Interest Expense	01/01/2062	21,000	\$ 1,500,000
48. Debt & Interest Expense	01/01/2063	21,000	\$ 1,500,000
49. Debt & Interest Expense	01/01/2064	21,000	\$ 1,500,000
50. Debt & Interest Expense	01/01/2065	21,000	\$ 1,500,000
51. Debt & Interest Expense	01/01/2066	21,000	\$ 1,500,000
52. Debt & Interest Expense	01/01/2067	21,000	\$ 1,500,000
53. Debt & Interest Expense	01/01/2068	21,000	\$ 1,500,000
54. Debt & Interest Expense	01/01/2069	21,000	\$ 1,500,000
55. Debt & Interest Expense	01/01/2070	21,000	\$ 1,500,000
56. Debt & Interest Expense	01/01/2071	21,000	\$ 1,500,000
57. Debt & Interest Expense	01/01/2072	21,000	\$ 1,500,000
58. Debt & Interest Expense	01/01/2073	21,000	\$ 1,500,000
59. Debt & Interest Expense	01/01/2074	21,000	\$ 1,500,000
60. Debt & Interest Expense	01/01/2075	21,000	\$ 1,500,000
61. Debt & Interest Expense	01/01/2076	21,000	\$ 1,500,000
62. Debt & Interest Expense	01/01/2077	21,000	\$ 1,500,000
63. Debt & Interest Expense	01/01/2078	21,000	\$ 1,500,000
64. Debt & Interest Expense	01/01/2079	21,000	\$ 1,500,000
65. Debt & Interest Expense	01/01/2080	21,000	\$ 1,500,000
66. Debt & Interest Expense	01/01/2081	21,000	\$ 1,500,000
67. Debt & Interest Expense	01/01/2082	21,000	\$ 1,500,000
68. Debt & Interest Expense	01/01/2083	21,000	\$ 1,500,000
69. Debt & Interest Expense	01/01/2084	21,000	\$ 1,500,000
70. Debt & Interest Expense	01/01/2085	21,000	\$ 1,500,000
71. Debt & Interest Expense	01/01/2086	21,000	\$ 1,500,000
72. Debt & Interest Expense	01/01/2087	21,000	\$ 1,500,000
73. Debt & Interest Expense	01/01/2088	21,000	\$ 1,500,000
74. Debt & Interest Expense	01/01/2089	21,000	\$ 1,500,000
75. Debt & Interest Expense	01/01/2090	21,000	\$ 1,500,000
76. Debt & Interest Expense	01/01/2091	21,000	\$ 1,500,000
77. Debt & Interest Expense	01/01/2092	21,000	\$ 1,500,000
78. Debt & Interest Expense	01/01/2093	21,000	\$ 1,500,000
79. Debt & Interest Expense	01/01/2094	21,000	\$ 1,500,000
80. Debt & Interest Expense	01/01/2095	21,000	\$ 1,500,000
81. Debt & Interest Expense	01/01/2096	21,000	\$ 1,500,000
82. Debt & Interest Expense	01/01/2097	21,000	\$ 1,500,000
83. Debt & Interest Expense	01/01/2098	21,000	\$ 1,500,000
84. Debt & Interest Expense	01/01/2099	21,000	\$ 1,500,000
85. Debt & Interest Expense	01/01/2100	21,000	\$ 1,500,000
86. Debt & Interest Expense	01/01/2101	21,000	\$ 1,500,000
87. Debt & Interest Expense	01/01/2102	21,000	\$ 1,500,000
88. Debt & Interest Expense	01/01/2103	21,000	\$ 1,500,000
89. Debt & Interest Expense	01/01/2104	21,000	\$ 1,500,000
90. Debt & Interest Expense	01/01/2105	21,000	\$ 1,500,000
91. Debt & Interest Expense	01/01/2106	21,000	\$ 1,500,000
92. Debt & Interest Expense	01/01/2107	21,000	\$ 1,500,000
93. Debt & Interest Expense	01/01/2108	21,000	\$ 1,500,000
94. Debt & Interest Expense	01/01/2109	21,000	\$ 1,500,000
95. Debt & Interest Expense	01/01/2110	21,000	\$ 1,500,000
96. Debt & Interest Expense	01/01/2111	21,000	\$ 1,500,000
97. Debt & Interest Expense	01/01/2112	21,000	\$ 1,500,000
98. Debt & Interest Expense	01/01/2113	21,000	\$ 1,500,000
99. Debt & Interest Expense	01/01/2114	21,000	\$ 1,500,000
100. Debt & Interest Expense	01/01/2115	21,000	\$ 1,500,000



Credit Rating Overview and Peer Comparatives



Credit Rating Overview and Peer Comparatives

Peer Comparative Introduction

- The Town is currently rated Aaa by Moody’s Investors Service (March 2018) and AAA by Standard and Poor’s (March 2018).
 - The Town received its Aaa rating from Moody’s in 1998 and its AAA rating from S&P in 2006.

- The following pages contain peer comparatives based on the below Moody’s rating categories.
 - National Cities and Towns
 - Aaa 228 Credits
 - Aa1 289 Credits
 - Aa2 736 Credits

 - Moody’s North Carolina Cities and Towns
 - Aaa 12 Credits
 - Apex, Asheville, Cary, Chapel Hill, Charlotte, Durham, Greensboro, Huntersville, Morrisville, Raleigh, Wilmington, Winston-Salem
 - Aa1 9 Credits
 - Carrboro, Concord, Fayetteville, Fuquay-Varina, Garner, High Point, Indian Trail, Matthews, Wake Forest
 - Aa2 15 Credits
 - Burlington, Clayton, Gastonia, Goldsboro, Greenville, Hickory, Holly Springs, Jacksonville, Kannapolis, Mint Hill, Monroe, Mooresville, Mount Holly, Rocky Mount, Wilson

Moody's Investors Service	Standard & Poor's	Fitch Ratings
Aaa	AAA	AAA
Aa1	AA+	AA+
Aa2	AA	AA
Aa3	AA-	AA-
A1	A+	A+
A2	A	A
A3	A-	A-
Baa1	BBB+	BBB+
Baa2	BBB	BBB
Baa3	BBB-	BBB-
Non Investment Grade		

Note: The data shown in the peer comparatives is from Moody’s Municipal Financial Ratio Analysis database. The figures shown are derived from the most recent financial statement available as of January 9, 2019 (FY 2017 figures in most cases).



Moody's Methodology Update

Quantitative Scoring Factors

- On January 15, 2014, Moody's updated its US Local Governments General Obligation Debt methodology and assumptions. Under the new methodology, an initial indicative rating is calculated from a weighted average of four key factors. Below the line qualitative adjustments can be made after the initial indicative rating.

US Local Governments General Obligation Debt Methodology		
1	Economy / Tax Base	30%
	Tax Base Size (Full Value)	10%
	Full Value Per Capita	10%
	Wealth (Median Family Income)	10%
2	Finances	30%
	Fund Balance (% of Revenues)	10%
	Fund Balance Trend (5-Year Change)	5%
	Cash Balance (% of Revenues)	10%
	Cash Balance Trend (5-Year Change)	5%
3	Management	20%
	Institutional Framework	10%
	Operating History	10%
4	Debt / Pensions	20%
	Debt to Full Value	5%
	Debt to Revenue	5%
	Moody's Adjusted Net Pension Liability (3-Year Average) to Full Value	5%
	Moody's Adjusted Net Pension Liability (3-Year Average) to Revenue	5%

Qualitative Scoring Factors

	Below-the-Line Adjustments	Other Considerations ¹
1	Economy / Tax Base	
2	Institutional presence (+)	Per capita income
3	Regional economic center (+)	Composition of workforce/employment opportunities
4	Economic concentration (-)	Proportion of tax base that is vacant or exempt from taxes
5	Outsized unemployment or poverty levels (-)	Median home value
6		Trend of real estate values
7		Population trends
8		Property tax appeals outstanding
9		Unusually significant tax base declines or growth
10		
11	Finances	
12	Outsized enterprise or contingent liability risk (-)	Questionable balance sheet items that may distort fund balance
13	Unusually volatile revenue structure (-)	Large portion of fund balance that is restricted or unusable
14		Labor contracts that materially affect credit strength
15		Limited revenue raising ability:
16		Restrictive property tax cap
17		Constraints on capturing tax base growth
18		Other levy-raising limitation
19		Limited ability to cut or control expenditures:
20		Limitation constrains budgetary flexibility to a degree not already captured in the scorecard
21		Heavy fixed costs, including contractually fixed costs such as pension payments
22	Management	
23	State oversight or support (+ or -)	
24	Unusually strong or weak budget management and planning (+ or -)	
25		
26	Debt / Pensions	
27	Unusually weak or strong security features (- or +)	Very high or low debt service relative to budget
28	Unusual risk posed by debt structure (-)	Very high or low overall debt burden (including overlapping debt)
29	History of missed debt service payments (-)	Heavy capital needs implying future debt increases
30		Unusually slow or rapid amortization of debt principal (gauged by the percentage of principal repaid within 10 years)
31		Other post-employment benefits (OPEB), the most significant of which is retiree healthcare liabilities, when they have the potential to significantly constrain operational flexibility

¹ These other considerations include factors specifically outlined in Moody's rating methodology. However, any information regarding an issuer can rise to the level of a qualitative factor/consideration as deemed appropriate by the rating analyst and credit committee.

Note: Qualitative adjustments consisting of either a ½ “notch” up or down (+/- ~0.16 on the scorecard) or a full “notch” up or down (+/- ~0.33 on the scorecard) can be added or subtracted from the initial indicative rating, as applicable.

Moody's FY 2017 Scorecard Results



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Chapel Hill, NC	Very Strong (Aaa)		Strong (Aa)		Moderate (A)		Weak (Baa)		Poor (Ba)		Very Poor (B & Below)		Input	Weight	Score	Weighted Score	
Numerical Score	0.50	1.49	1.50	2.49	2.50	3.49	3.50	4.49	4.50	5.49	5.50	6.50					
1 Economy / Tax Base (30%)																	
2 Total Full Value (\$000)	> \$12B	\$12B >	> \$1.4B	\$1.4B >	> \$240M	\$240M >	> \$120M	\$120M >	> \$60M	< \$60M	7,532,719	10%	1.91	0.19			
3 Full Value Per Capita (\$)	> \$150,000	\$150,000 >	> \$65,000	\$65,000 >	> \$35,000	\$35,000 >	> \$20,000	\$20,000 >	> \$10,000	< \$10,000	126,454	10%	1.77	0.18			
4 Median Family Income as % of U.S. (2010 Census)	> 150%	150% >	> 90%	90% >	> 75%	75% >	> 50%	50% >	> 40%	< 40%	158.50%	10%	1.32	0.13			
5 Finances (30%)																	
6 Available Op Fund Balance as % of Revenue	> 30.0%	30.0% >	> 15.0%	15.0% >	> 5.0%	5.0% >	> 0.0%	0.0% >	> -2.5%	< -2.5%	46.80%	10%	0.93	0.09			
7 5-Year Dollar Change in Fund Balance as % of Revenues	> 25.0%	25.0% >	> 10.0%	10.0% >	> 0.0%	0.0% >	> -10.0%	-10.0% >	> -18.0%	< -18.0%	11.00%	5%	2.42	0.12			
8 Operating Net Cash as % of Operating Revenues	> 25.0%	25.0% >	> 10.0%	10.0% >	> 5.0%	5.0% >	> 0.0%	0.0% >	> -2.5%	< -2.5%	39.30%	10%	0.54	0.05			
9 5-Year Dollar Change in Cash Balance as % of Revenues	> 25.0%	25.0% >	> 10.0%	10.0% >	> 0.0%	0.0% >	> -10.0%	-10.0% >	> -18.0%	< -18.0%	5.90%	5%	2.90	0.15			
10 Management (20%)																	
11 Institutional Framework	Very strong legal ability to match resources with spending	Strong legal ability to match resources with spending		Moderate legal ability to match resources with spending		Limited legal ability to match resources with spending		Poor legal ability to match resources with spending		Very Poor or no legal ability to match resources with spending		Aaa	10%	1.00	0.10		
12 Operating History: (5 Year Average of Operating Revenues / Operating Expenditures)	> 1.05x	1.05x >	> 1.02x	1.02x >	> 0.98x	0.98x >	> 0.95x	0.95x >	> 0.92x	< 0.92x	1.00	10%	2.99	0.30			
13 Debt / Pensions (20%)																	
14 Direct Net Debt as % of Full Value	< 0.75%	0.75% <	< 1.75%	1.75% <	< 4.00%	4.00% <	< 10.00%	10.00% <	< 15.00%	> 15.00%	0.90%	5%	1.64	0.08			
15 Net Direct Debt / Operating Revenues (x)	< 0.33x	0.33x <	< 0.67x	0.67x <	< 3.00x	3.00x <	< 5.00x	5.00x <	< 7.00x	> 7.00x	0.99	5%	2.63	0.13			
16 3-Year Avg of Moody's ANPL / Full Value	< 0.90%	0.90% <	< 2.10%	2.10% <	< 4.80%	4.80% <	< 12.00%	12.00% <	< 18.00%	> 18.00%	1.00%	5%	1.57	0.08			
17 3-Year Avg of Moody's ANPL / Operating Revenues	< 0.40x	0.40x <	< 0.80x	0.80x <	< 3.60x	3.60x <	< 6.00x	6.00x <	< 8.40x	> 8.40x	1.13	5%	2.61	0.13			
18																	
19 Total Score																1.73	
20 Unadjusted Rating																Aa1	

Moody's Rating Scorecard: Indicative Ratings

HI	LO	Rating
0.50	1.50	Aaa
1.50	1.83	Aa1
1.83	2.17	Aa2

Rating Agency Commentary – Moody's (3/23/2018)



U.S. PUBLIC FINANCE

Moody's
INVESTORS SERVICE

CREDIT OPINION
23 March 2018

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Contacts

Edward (Ted) Damutz VP-Sr Credit Officer edward.damutz@moodys.com	+1.212.553.6990
Tiphany Lee-Allen AVP-Analyst tiphany.lee-allen@moodys.com	+1.212.553.4772

CLIENT SERVICES

Americas	1-212-553-1653
Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454

Chapel Hill (Town of) NC

Update to credit analysis

Summary

The town of Chapel Hill (Aaa, stable) benefits from a sound financial position. Following 14 years of General Fund surpluses, officials had a planned draw down on reserves for various pay-go capital improvements including parks and affordable housing as well as transfer to OBEB trust. The town's tax base continues to grow largely due to its advantageous location in the burgeoning Research Triangle region and is anchored by the strong institutional presence of the flagship campus of the University of North Carolina. Income and wealth levels are well above average despite the large student population. Lastly, the town's fixed costs will remain affordable despite future borrowing plans due to a conservatively constructed CIP and an average pension position.

Credit strengths

- » Sound financial position with healthy reserves
- » Stable economy with strong institutional presence
- » Affordable debt profile

Credit challenges

- » Relatively high cost of living

Rating outlook

The stable outlook reflects the economic strength of the tax base as well as the town's sound financial position.

Factors that could lead to an upgrade

- » Not applicable

Factors that could lead to a downgrade

- » Multi-year trend of structural budget imbalance
- » Reduction of General Fund balance and other available reserves
- » Deterioration of the town's tax base

- Credit Strengths
 - Sound financial position with healthy reserves
 - Stable economy with strong institutional presence
 - Affordable debt profile
- Credit Challenges
 - Relatively high cost of living
- Factors that could lead to an upgrade
 - Not applicable
- Factors that could lead to a downgrade
 - Multi-year trend of structural budget imbalance
 - Reduction of General Fund balance and other available reserves
 - Deterioration of the town's tax base



S&P Methodology Update & Scorecard

Methodology Update

- On September 12, 2013, Standard & Poor's updated its US Local Governments General Obligation Ratings methodology and assumptions.
- Under the new methodology, an initial indicative rating is calculated from a weighted average of seven key factors:

US Local Governments General Obligation Ratings Methodology

1. Economy	30%
Total Market Value Per Capita	
Projected per capita effective buying income as a % of US	
2. Management	20%
Impact of management conditions on the likelihood of repayment	
3. Budgetary Flexibility	10%
Available Fund Balance as a % of Expenditures	
4. Budgetary Performance	10%
Total Government Funds Net Result (%)	
General Fund Net Revenue	
5. Liquidity	10%
Total Gov't Available Cash as a % of Total Gov't Funds Debt Service	
Total Gov't Cash as a % of Total Gov't Funds Expenditures	
6. Debt and Contingent Liabilities	10%
Net Direct Debt as a % of Total Governmental Funds Revenue	
Total Governmental Funds Debt Service as a % of Total	
7. Institutional Framework	10%
Legal and practical environment in which the local gov't operates	

- Up to a one-notch adjustment can be made from the indicative rating based on other qualitative factors.

Sample S&P Scorecard

Town of Chapel Hill, NC 2018 S&P Scorecard - As Calculated by Davenport

Factor	Weight	Score	Weighted Score
Economy	30%	1.00	0.30
Budgetary flexibility	10%	1.00	0.10
Budgetary performance	10%	3.00	0.30
Liquidity	10%	1.00	0.10
Management	20%	1.00	0.20
Debt and contingent liabilities	10%	2.00	0.20
Institutional framework	10%	1.00	0.10
Weighted Average			1.30

Indicative Rating

1.00 - 1.64	AAA
1.65 - 1.94	AA+
1.95 - 2.34	AA
2.35 - 2.84	AA-

S&P affirmed the Town's 'AAA' rating in its March 21, 2018 Report and assigned a Stable Outlook.

Note: The Budgetary Performance score measures the current fiscal balance (Revenues Over/Under Expenditures) of the Town, both from a general fund and total governmental funds perspective.

Note: The Debt and Contingent Liabilities score is a combination of two measures: total governmental funds debt service as a percentage of total governmental funds expenditures and net direct debt as a percentage of total governmental funds revenue.



Rating Agency Commentary – S&P (3/21/2018)

Summary:

Chapel Hill, North Carolina; Appropriations; General Obligation

Credit Profile

US\$12.5 mil GO pub imp bnds ser 2018 due 05/01/2038

Long Term Rating	AAA/Stable	New
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Chapel Hill GO

Long Term Rating	AAA/Stable	Affirmed
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Rationale

S&P Global Ratings assigned its 'AAA' long-term rating to Chapel Hill, N.C.'s series 2018 general obligation (GO) public improvement bonds. At the same time, we affirmed our 'AAA' long-term rating on the town's GO debt outstanding, and our 'AA+' long-term rating on the town's appropriation-backed debt. The outlook is stable.

The bonds constitute GOs, secured by the town's full faith and credit, and represent the second installment issued from the town's November 2015 authorization. Proceeds will be used to finance stormwater improvements, as well as streets, sidewalks, and recreation facilities.

We rate Chapel Hill's GO debt higher than the sovereign because we believe the town can maintain better credit characteristics than the U.S. in a stress scenario. Under our criteria, titled "Ratings Above The Sovereign: Corporate And Government Ratings—Methodology And Assumptions," published Nov. 19, 2013 on RatingsDirect, the town primarily has a locally derived revenue base with roughly 72% of total governmental revenue derived from property taxes in fiscal 2017. Intergovernmental revenue from the federal government accounted for 3%.

The ratings reflect our opinion of the town's:

- Very strong economy, with access to a broad and diverse metropolitan statistical area (MSA) and a local stabilizing institutional influence;
- Very strong management, with "strong" financial policies and practices under our Financial Management Assessment methodology;
- Adequate budgetary performance, with operating results that we expect could improve in the near term relative to fiscal 2017, which closed with operating deficits in the general fund and at the total governmental fund level in fiscal 2017;
- Very strong budgetary flexibility, with an available fund balance in fiscal 2017 of 27% of operating expenditures;
- Very strong liquidity, with total government available cash at 69.2% of total governmental fund expenditures and 7.1x governmental debt service, and access to external liquidity we consider strong;
- Strong debt and contingent liability position, with debt service carrying charges at 9.7% of expenditures and net

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MARCH 21, 2018 2

- The 'AAA' rating reflects S&P's opinion of the Town's:
 - Very strong economy
 - Very strong management
 - Adequate budgetary performance
 - Very strong budgetary flexibility
 - Very strong liquidity
 - Strong debt and contingent liability position
 - Very strong institutional framework score
- Outlook
 - The stable outlook reflects our view of the town's maintenance of very strong reserves despite fiscal 2017's adequate budgetary performance resulting from a large planned drawdown, and a broad and diverse economy, which is anchored by a strong institutional presence. Furthermore, it reflects our expectation that the town's very strong management practices will contribute to a likely return to strong budgetary performance in the near term. For these reasons, we do not expect to change the rating over the two-year outlook period. Holding all other factors equal, if performance were to deteriorate significantly—potentially stemming from fixed cost pressure related to large pension and OPEB liabilities—causing a substantial weakening of reserves and liquidity, we could lower the rating.



General Fund Operations and Fund Balance

General Fund Operations



	2013 Audited	2014 Audited	2015 Audited	2016 Audited	2017 Audited	2018 Audited
1 Revenues						
2 Taxes	38,698,385	40,696,859	41,622,075	42,647,872	43,212,056	45,006,529
3 Licenses and Permits	2,369,155	2,683,188	2,392,108	2,710,159	2,485,929	3,322,598
4 Fines and Forfeitures	36,477	19,943	74,682	55,304	61,116	36,913
5 Intergovernmental Revenues						
6 Federal Government	55,228	323,673	-	8,222	-	-
7 State Government	6,581,625	6,622,235	8,045,678	8,066,013	7,895,891	7,813,736
8 Other	503,004	1,228,933	669,968	671,834	661,399	684,899
9 Charges for Services	3,134,170	3,435,270	3,475,157	3,632,627	4,190,130	3,990,342
10 Interest on Investments	19,293	25,553	29,780	30,070	39,099	72,812
11 Donations	308,325	108,423	107,249	83,493	58,906	62,498
12 Revenue in Lieu	13,905	262,629	109,082	117,261	44,491	85,511
13 Other	239,554	277,446	491,958	294,728	209,706	259,155
14 Mutual Aid Reimbursements	518,489	486,784	11,978	529,106	539,310	497,427
15 Insurance Recovery	-	44,340	319,605	16,574	55,356	17,792
16 Total Revenues	52,477,610	56,215,276	57,349,320	58,863,263	59,453,389	61,850,212
17						
18 Expenditures						
19 General Government	9,493,289	9,541,046	9,589,280	10,729,883	14,147,529	12,898,095
20 Environment and Development	12,586,543	13,585,175	14,132,526	14,689,024	17,076,637	16,485,199
21 Public Safety	19,516,889	19,875,998	20,318,420	20,281,922	20,546,434	21,001,429
22 Leisure Activities	8,001,159	8,277,168	8,671,427	9,070,159	9,799,053	10,044,146
23 Total Expenditures	49,597,880	51,279,387	52,711,653	54,770,988	61,569,653	60,428,869
24						
25 Revenues over (under) expenditures	2,879,730	4,935,889	4,637,667	4,092,275	(2,116,264)	1,421,343
26						
27 Other Sources (Uses)						
28 Transfers from Other Funds	175,137	170,424	45,000	2,245,000	45,000	45,000
29 Transfers to Other Funds	(1,781,386)	(2,494,604)	(2,998,110)	(1,417,543)	(6,162,544)	(1,294,818)
30 Total other sources (uses)	(1,606,249)	(2,324,180)	(2,953,110)	827,457	(6,117,544)	(1,249,818)
31						
32 Change in Fund Balance	1,273,481	2,611,709	1,684,557	4,919,732	(8,233,808)	171,525
33						
34 Fund Balance Beginning	22,254,301	23,527,782	26,139,491	27,824,048	32,743,780	24,509,972
35 Fund Balance Ending	23,527,782	26,139,491	27,824,048	32,743,780	24,509,972	24,681,497

Includes a \$2.7 million OPEB Trust deposit

Includes the following transfers for one time projects:

- \$3.6 million for American Legion property
- \$1,645,000 Affordable Housing transfer

General Fund Balance



General Fund Balance

	2013	2014	2015	2016	2017	2018
1 General Fund Budget						
2 Revenues	52,477,610	56,215,276	57,349,320	58,863,263	59,453,389	61,850,212
3 Expenditures (Including Transfers Out)	51,379,266	53,773,991	55,709,763	56,188,531	67,732,197	61,723,687
4						
5 General Fund Balance						
6 Nonspendable	22,561	3,020	50,956	8,391	77,818	100,955
7 Restricted - Other	428,261	820,632	633,449	653,154	577,200	573,464
8 Restricted - Stabilization for State Statute	6,697,509	9,994,453	8,825,428	10,706,650	7,234,759	6,955,024
9 Committed	121,811	72,513	-	-	-	-
10 Assigned	3,373,643	4,105,066	4,939,269	5,385,390	2,958,533	3,430,129
11 Unassigned	12,883,997	11,143,807	13,374,946	15,990,195	13,661,662	13,621,925
12 Total	23,527,782	26,139,491	27,824,048	32,743,780	24,509,972	24,681,497
13						
14 Rating Agency Available ¹	23,076,960	25,315,839	27,139,643	32,082,235	23,854,954	24,007,078
15						
16 General Fund Balance Ratios						
17 Unassigned as a % of GF Revenues	24.55%	19.82%	23.32%	27.16%	22.98%	22.02%
18 Unassigned as a % of GF Expenditures	25.08%	20.72%	24.01%	28.46%	20.17%	22.07%
19 Rating Agency Available as a % of GF Revenues	43.97%	45.03%	47.32%	54.50%	40.12%	38.81%
20 Rating Agency Available as a % of GF Expenditures	44.91%	47.08%	48.72%	57.10%	35.22%	38.89%
21 Total General Fund Balance as a % of GF Revenues	44.83%	46.50%	48.52%	55.63%	41.23%	39.91%
22 Total General Fund Balance as a % of GF Expenditures	45.79%	48.61%	49.94%	58.27%	36.19%	39.99%
23						
24 Debt Service Fund Balance	5,340,180	4,803,926	5,452,410	6,615,510	7,048,523	7,189,658
25						
26 Affordable Housing Fund Balance	-	-	-	-	1,060,385	830,452
27						
28 Rating Agency Available Op. Fund Balance ²	28,417,140	30,119,765	32,592,053	38,697,745	30,903,477	31,196,736
29 Rating Agency Operating Fund Revenues	58,187,000	61,975,000	63,851,000	67,191,000	66,033,000	68,627,177
30 Rating Agency Operating Fund Expenditures	58,204,000	59,900,000	61,518,000	61,109,000	73,834,000	68,359,517
31 Rating Agency Available Op. as a % of Op. Revenues	48.84%	48.60%	51.04%	57.59%	46.80%	45.46%
32 Rating Agency Available OP. as a % of Op. Expenditures	48.82%	50.28%	52.98%	63.33%	41.86%	45.64%

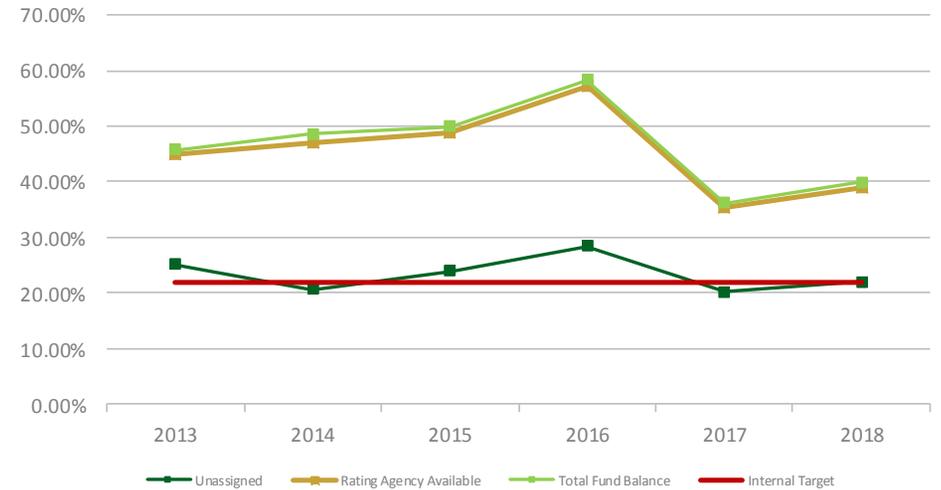
¹ Includes Stabilization by State Statute, Committed, Assigned, and Unassigned Fund Balance

² Includes Rating Agency Available and Debt Service Fund Balance

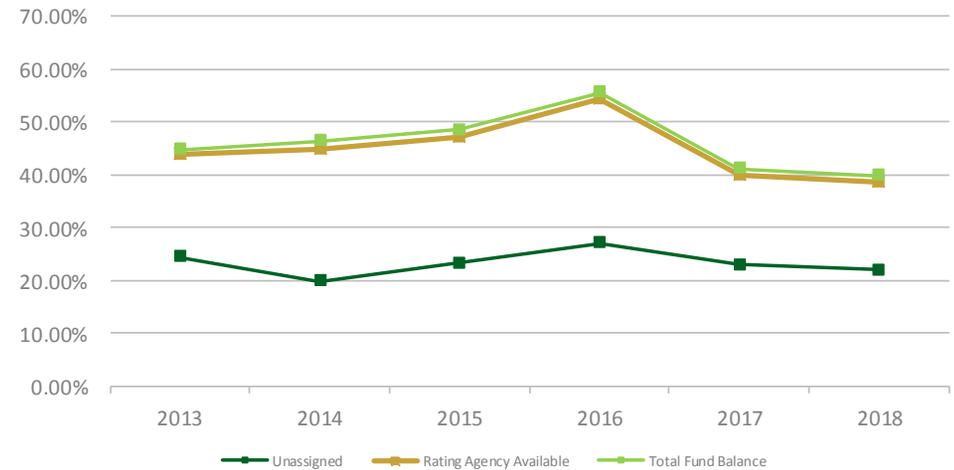
- The Town maintains an internal Unassigned Fund Balance target of 22% or higher of General Fund Expenditures. Any Unassigned Fund Balance above the 22% target is made available for one time capital expenditures.

The Town may want to consider adopting a formal General Fund Unassigned Fund Balance Policy.

General Fund Balance as a % of Expenditures



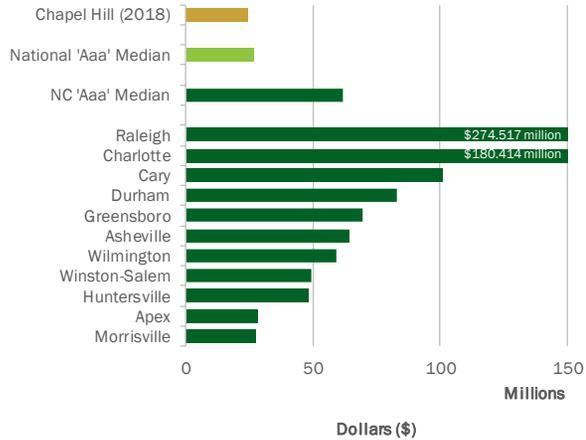
General Fund Balance as a % of Revenues



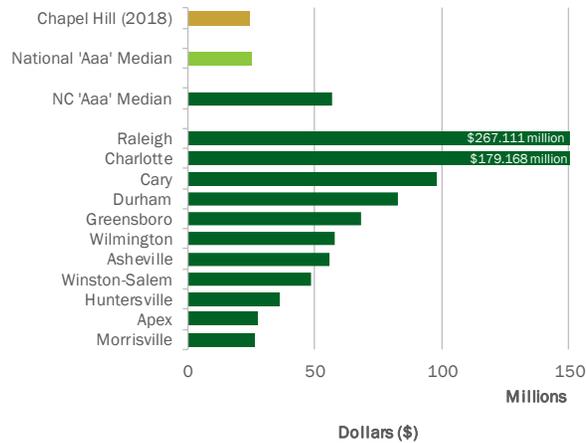
General Fund Balance – Aaa Peer Comparatives



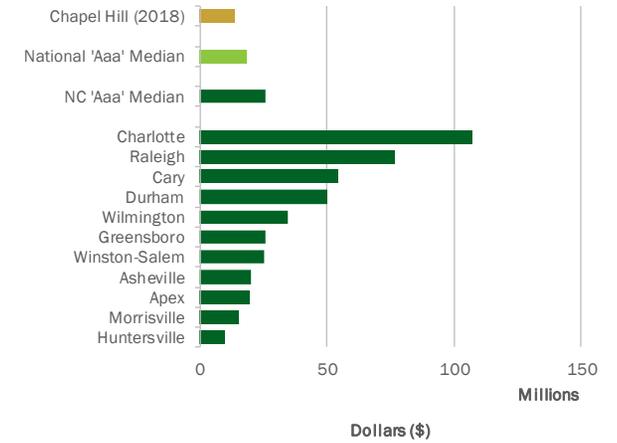
Total General Fund Balance



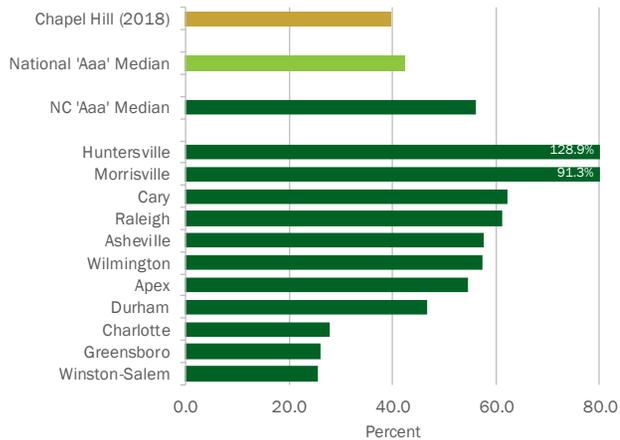
Rating Agency Available General Fund Balance ¹



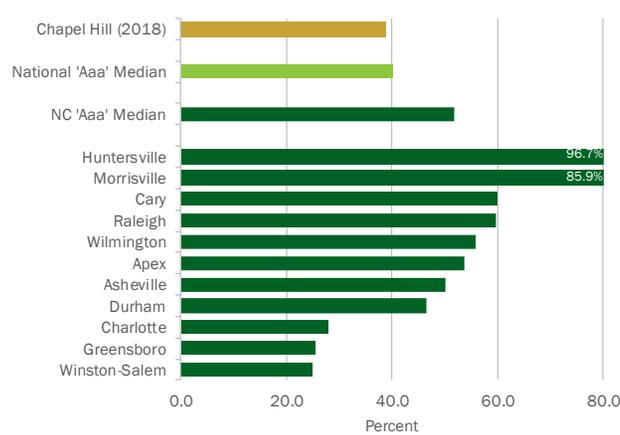
Unassigned General Fund Balance



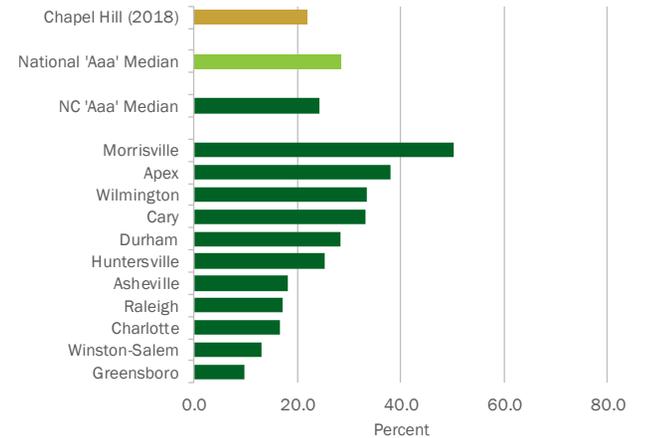
Total General Fund Balance as a % of Revenues



Rating Agency Available Fund Balance as a % of Revenues ¹



Unassigned Fund Balance as a % of Revenues



¹ Includes Restricted – Stabilization by State Statute, Committed, Assigned, and Unassigned Fund Balances.

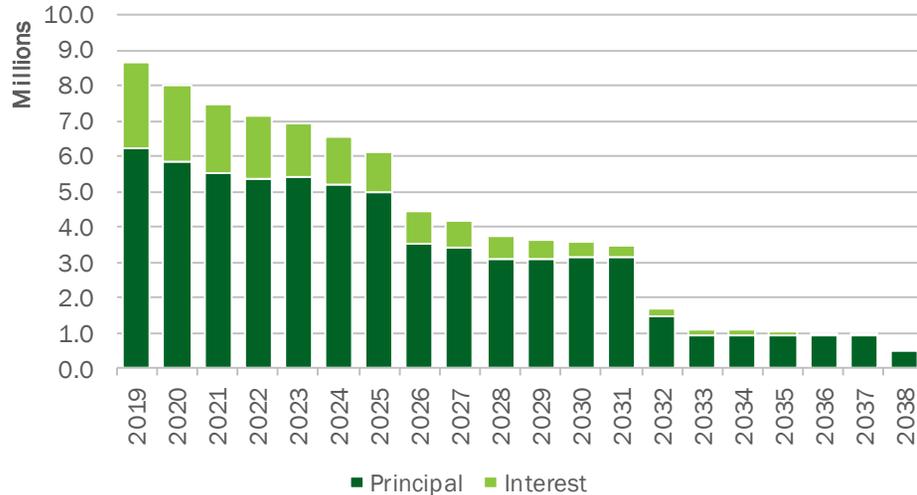


Existing Tax Supported Debt Profile



Existing Tax Supported Debt

Tax Supported Debt Service



Tax Supported Debt Service

FY	Principal	Interest	Total	10-yr Payout
Total	64,669,414	16,732,896	81,402,310	
2019	6,235,117	2,422,825	8,657,942	75.1%
2020	5,832,742	2,193,912	8,026,655	77.8%
2021	5,514,555	1,977,185	7,491,740	81.3%
2022	5,371,000	1,762,360	7,133,360	85.9%
2023	5,402,000	1,543,762	6,945,762	87.6%
2024	5,198,000	1,327,089	6,525,089	88.3%
2025	5,006,000	1,110,234	6,116,234	89.4%
2026	3,526,000	904,982	4,430,982	90.9%
2027	3,410,000	774,671	4,184,671	93.7%
2028	3,090,000	657,251	3,747,251	97.4%
2029	3,113,000	547,499	3,660,499	100.0%
2030	3,141,000	433,450	3,574,450	100.0%
2031	3,170,000	322,937	3,492,937	100.0%
2032	1,470,000	211,615	1,681,615	100.0%
2033	940,000	163,363	1,103,363	100.0%
2034	940,000	135,163	1,075,163	100.0%
2035	940,000	105,788	1,045,788	100.0%
2036	940,000	76,413	1,016,413	100.0%
2037	940,000	46,475	986,475	100.0%
2038	490,000	15,925	505,925	100.0%

Par Outstanding – Estimated as of 6/30/2018

Type	Par Amount
General Obligation Bonds	\$38,770,000
Limited Obligation Bonds	\$16,155,000
IPCs (Debt Fund)	\$9,028,000
IPCs (Vehicle Replacement Fund)	\$716,414
Total	\$64,669,414

Note:

- Includes debt obligations accounted for in the Debt Fund, Parking Fund, and Vehicle Replacement Fund.
- 2010B GO debt service shown gross of BAB subsidy.
- Excludes debt obligations accounted for in the Stormwater Management Fund, Transit Fund, and American Legion Property Installment Payments.



Key Debt Ratio: Tax Supported Payout Ratio

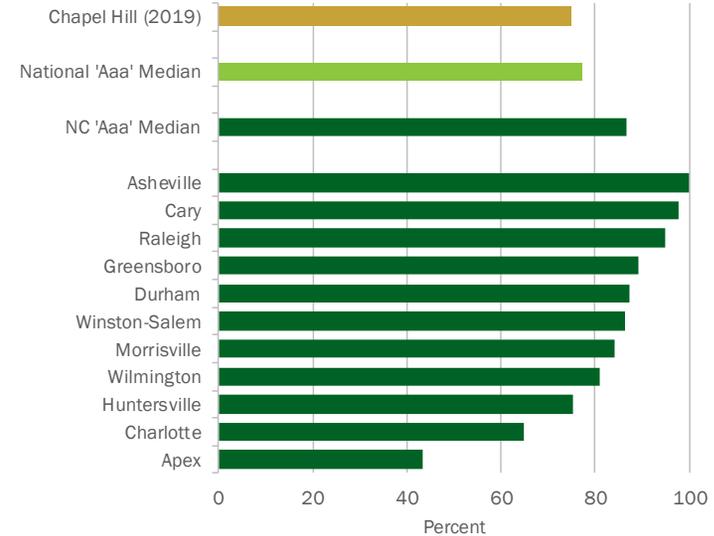
10-Year Payout Ratio



- Existing 10-year Payout Ratio
 - FY 2019: 75.1%
- The 10-Year Payout Ratio measures the amount of principal to be retired in the next 10 years.
- This ratio is an important metric that indicates whether or not a locality is back-loading its debt.

The Town may want to consider adopting a policy setting a minimum 10-Year Payout Ratio.

10-year Payout Ratio Peer Comparative

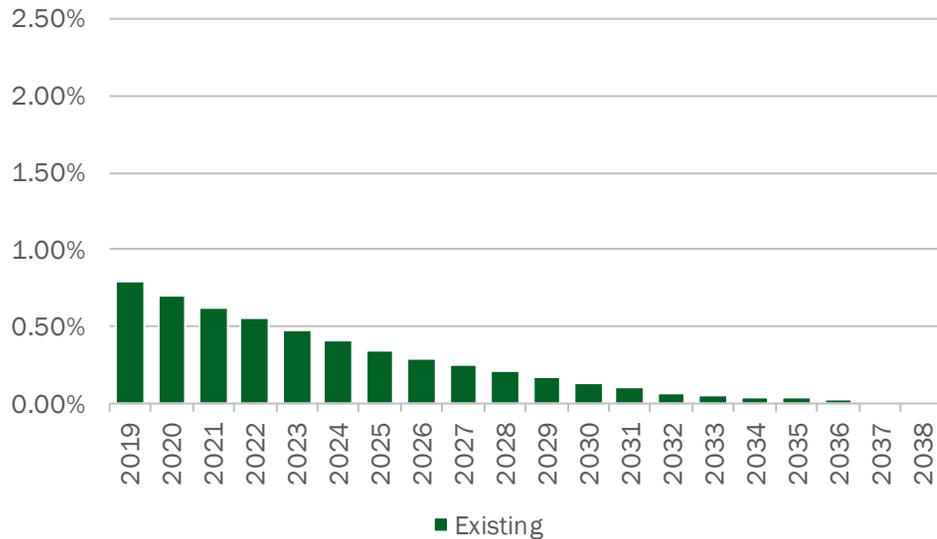


- Rating Considerations:
 - Moody's: Moody's rating criteria for General Obligation credits allows for a scorecard adjustment if an issuer has unusually slow or rapid amortization of debt principal.
 - S&P: A payout ratio greater than 65% results in a one point positive qualitative adjustment to the Debt & Contingent Liabilities section of S&P's General Obligation rating methodology.



Key Debt Ratio: Debt to Assessed Value

Debt to Assessed Value



- Existing Debt to Assessed Value

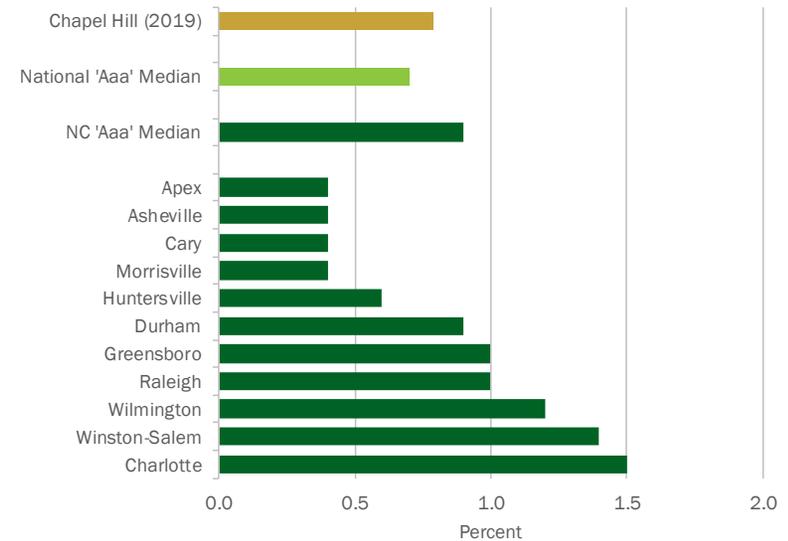
- FY 2019: 0.79%

- Assumed Future Growth Rates

- 2018 Assessed Value: \$8,034,649,409
 - 2019 Estimated Assessed Value: \$8,225,444,551
 - 2020 & Beyond: 1.50%

The Town may want to consider adopting a policy setting a maximum Debt to Assessed Value Ratio.

Debt to Assessed Value Peer Comparative



- Rating Considerations:

- Moody's: Criteria for General Obligation Credits defines categories of Debt to Assessed Values as:

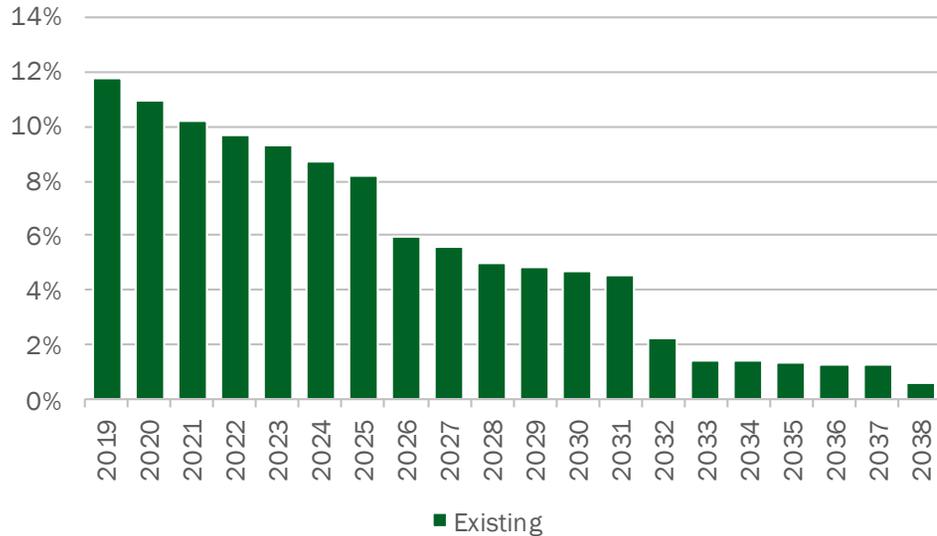
- Very Strong (Aaa): < 0.75%
 - Strong (Aa): 0.75% - 1.75%**
 - Moderate (A): 1.75% - 4.00%
 - Weak - Very Poor (Baa and below): > 4.00%

- S&P: A positive qualitative adjustment is made to the Debt and Contingent Liabilities score for a debt to market value ratio below 3.00%, while a negative adjustment is made for a ratio above 10.00%.



Key Debt Ratio: Debt Service vs. Expenditures

Debt Service vs. Governmental Expenditures



Existing Debt Service vs. Expenditures

– FY 2019: 11.85%

Assumed Future Growth Rates

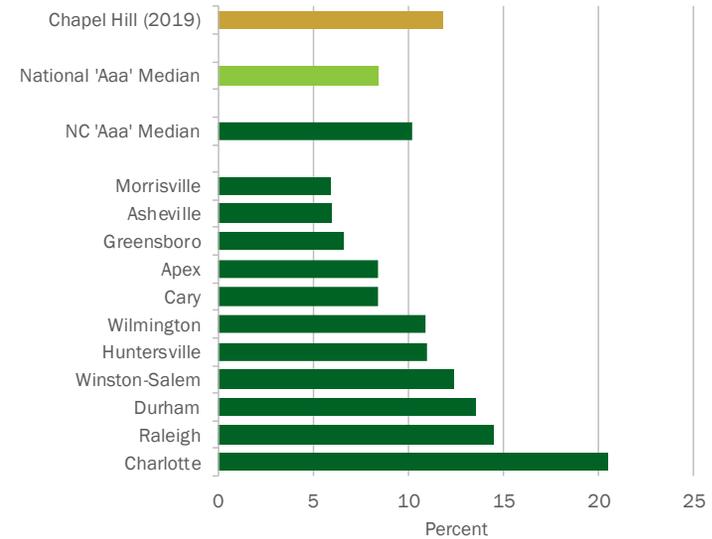
– 2018 Adjusted Expenditures: \$63,436,563

– 2019 and Beyond: 1.50%

The Town may want to consider adopting a policy setting a maximum Debt Service to Expenditures Ratio.

Note: Governmental Expenditures represent the ongoing operating expenditures of the Town. In this analysis, debt service and capital outlay expenditures are excluded.

Debt Service vs. Expenditures Peer Comparative



Rating Considerations:

– Moody's: Moody's criteria allows for a scorecard adjustment if an issuer has very high or low debt service relative to its budget Percent.

– S&P: The Debt and Contingent Liabilities section defines categories of Net Direct Debt as a % of Total Governmental Funds Expenditures as follows:

- Very Strong: <8%
- **Strong: 8% to 15%**
- Adequate: 15% - 25%
- Weak: 25% - 35%
- Very Weak: > 35%



Debt Fund Cash Flow Forecast



Town Repayment Plan – Existing Tax Supported Obligations

Debt Fund

- The Town has established a debt fund for the repayment of tax supported debt obligations.
- The Town has dedicated 8.2 cents on the tax rate to fund the Debt Fund.
 - 1 cent on the Town’s property tax rate generates approximately \$821,098 in FY 2019.
 - An additional 1 cent is assumed to be implemented based on the approval of the Affordable Housing Bonds in FY 2020.
- In addition to the 8.2 cents on the tax rate, the Debt Fund also receives revenues from:
 - Transfers from the Parking Fund for repayment of parking related Debt Service
 - BABs Subsidy
 - Interest on Investments (assumed at 1% of prior year’s ending Debt Fund Balance)
 - Blue Hill (Ephesus Fordham) TIF Reimbursement
- The Town’s Debt Fund pays for debt service on the following obligations (see Appendix B for details):
 - 2009 General Obligation Refunding Bonds
 - 2010A General Obligation Public Improvement Bonds
 - 2010B General Obligation Public Improvement Bonds (BABs)
 - 2012 General Obligation Refunding Bonds
 - 2012 General Obligation Public Improvement Bonds
 - 2012 Limited Obligation Bonds
 - 2013 General Obligation Refunding Bond
 - 2015 Bank of North Carolina IPC
 - 2016 Raymond James IPC
 - 2017 General Obligation Public Improvement Bonds
 - 2018 General Obligation Public Improvement Bonds

Vehicle Replacement Fund & Other Funds

- The Town has a Vehicle replacement internal service fund that pays the debt service on certain vehicle related loans that are not paid by the debt fund.
 - The fund receives vehicle use fees from participating departments and also gets the proceeds of vehicle sales.
 - The Town has moved to a pay-go basis for most vehicles starting in FY15.
 - The Town’s Vehicle Replacement Fund pays for debt service on the following obligations (see Appendix B for details):
 - 2012 BB&T IPC
 - 2012 SunTrust IPC
 - 2013 Wells Fargo IPC
 - 2013 SunTrust IPC
- Additionally, the Town operates both a Transit Fund (funded primarily by 5 cents on the tax rate) and Stormwater Management Fund (funded primarily by stormwater fees) that pays the debt service on certain transit and storm water related loans that are not paid by the debt fund.
 - Transit Fund:
 - 2017 Pinnacle Bank IFC
 - Stormwater Management Fund:
 - 2018 General Obligation Public Improvement Bonds



Debt Affordability Analysis

Existing Town Debt – Debt Fund and Vehicle Fund Obligations Only

A	B C D E F G H							I J K L M N O P							Q R S T U V									
	Debt Service Requirements							Revenue Available for DS							Debt Service Cash Flow Surplus (Deficit)									
	Debt Fund		Vehicle Fund		Debt Fund			Debt Fund				Vehicle Fund			Surplus/ (Deficit)	Revenue From Prior Tax Impact	Debt Fund Balance Utilized	Adjusted Surplus/ (Deficit)	Estimated Incremental Tax Equivalent	Debt Fund Balance				
FY	Existing Debt Service - Debt Fund ¹	Existing Debt Service - Parking Fund	Existing Debt Service - Vehicle Replacement Fund	CIP Debt Service	CIP Pay-Go	Cash	Service Charges	Total	Property Taxes (Grown at 1.50%)	Transfer from Parking for existing debt	BABs Subsidy ²	Interest on Investments ³	Blue Hill Incremental Tax Revenue	Affordable Housing Tax Increase (1c in FY 2020)							Vehicle Replacement Fund Revenues	Total Revenues Available		
2019	7,342,680	914,631	400,630	-	-	-	-	8,657,942	6,733,000	914,631	176,666	71,897	445,100	-	400,630	8,741,924	83,983	-	-	83,983	-	7,273,641		
2020	6,855,732	905,331	265,591	-	-	-	-	8,026,655	6,833,995	905,331	176,666	72,736	434,572	833,414	265,591	9,522,306	1,495,652	-	-	1,495,652	-	8,769,292		
2021	6,510,312	914,831	66,596	-	-	-	-	7,491,740	6,936,505	914,831	164,571	87,693	434,572	845,915	66,596	9,450,684	1,958,944	-	-	1,958,944	-	10,728,236		
2022	6,216,529	916,831	-	-	-	-	-	7,133,360	7,040,552	916,831	151,785	107,282	434,572	858,604	-	9,509,627	2,376,267	-	-	2,376,267	-	13,104,503		
2023	6,033,681	912,081	-	-	-	-	-	6,945,762	7,146,161	912,081	138,307	131,045	434,572	871,483	-	9,633,650	2,687,887	-	-	2,687,887	-	15,792,390		
2024	5,844,257	680,831	-	-	-	-	-	6,525,089	7,253,353	680,831	124,484	157,924	434,572	884,555	-	9,535,720	3,010,631	-	-	3,010,631	-	18,803,022		
2025	5,651,902	464,331	-	-	-	-	-	6,116,234	7,362,153	464,331	110,229	188,030	434,572	897,824	-	9,457,140	3,340,906	-	-	3,340,906	-	22,143,928		
2026	3,968,650	462,331	-	-	-	-	-	4,430,982	7,472,586	462,331	95,715	221,439	434,572	911,291	-	9,597,935	5,166,953	-	-	5,166,953	-	27,310,881		
2027	3,719,321	465,350	-	-	-	-	-	4,184,671	7,584,675	465,350	80,855	273,109	434,572	924,960	-	9,763,521	5,578,850	-	-	5,578,850	-	32,889,731		
2028	3,284,851	462,400	-	-	-	-	-	3,747,251	7,698,445	462,400	65,650	328,897	434,572	938,835	-	9,928,799	6,181,548	-	-	6,181,548	-	39,071,279		
2029	3,198,299	462,200	-	-	-	-	-	3,660,499	7,813,921	462,200	49,754	390,713	434,572	952,917	-	10,104,077	6,443,578	-	-	6,443,578	-	45,514,856		
2030	3,113,050	461,400	-	-	-	-	-	3,574,450	7,931,130	461,400	33,512	455,149	434,572	967,211	-	10,282,973	6,708,524	-	-	6,708,524	-	52,223,380		
2031	3,027,937	465,000	-	-	-	-	-	3,492,937	8,050,097	465,000	17,016	522,234	434,572	981,719	-	10,470,638	6,977,702	-	-	6,977,702	-	59,201,082		
2032	1,218,815	462,800	-	-	-	-	-	1,681,615	8,170,849	462,800	-	592,011	434,572	996,445	-	10,656,676	8,975,061	-	-	8,975,061	-	68,176,143		
2033	1,103,363	-	-	-	-	-	-	1,103,363	8,293,411	-	-	681,761	434,572	1,011,392	-	10,421,136	9,317,774	-	-	9,317,774	-	77,493,917		
2034	1,075,163	-	-	-	-	-	-	1,075,163	8,417,813	-	-	774,939	434,572	1,026,563	-	10,653,886	9,578,724	-	-	9,578,724	-	87,072,641		
2035	1,045,788	-	-	-	-	-	-	1,045,788	8,544,080	-	-	870,726	434,572	1,041,961	-	10,891,339	9,845,552	-	-	9,845,552	-	96,918,192		
2036	1,016,413	-	-	-	-	-	-	1,016,413	8,672,241	-	-	969,182	434,572	1,057,590	-	11,133,585	10,117,173	-	-	10,117,173	-	107,035,365		
2037	986,475	-	-	-	-	-	-	986,475	8,802,325	-	-	1,070,354	434,572	1,073,454	-	11,380,704	10,394,229	-	-	10,394,229	-	117,429,594		
2038	505,925	-	-	-	-	-	-	505,925	8,934,359	-	-	1,174,296	434,572	1,089,556	-	11,632,783	11,126,858	-	-	11,126,858	-	128,556,453		
2039	-	-	-	-	-	-	-	-	9,068,375	-	-	1,285,565	434,572	1,105,899	-	11,894,411	11,894,411	-	-	11,894,411	-	140,450,863		
2040	-	-	-	-	-	-	-	-	9,204,400	-	-	1,404,509	434,572	1,122,488	-	12,165,969	12,165,969	-	-	12,165,969	-	152,616,832		
2041	-	-	-	-	-	-	-	-	9,342,466	-	-	1,526,168	434,572	1,139,325	-	12,442,532	12,442,532	-	-	12,442,532	-	165,059,364		
2042	-	-	-	-	-	-	-	-	9,482,603	-	-	1,650,594	434,572	1,156,415	-	12,724,184	12,724,184	-	-	12,724,184	-	177,783,548		
2043	-	-	-	-	-	-	-	-	9,624,842	-	-	1,777,835	434,572	1,173,761	-	13,011,011	13,011,011	-	-	13,011,011	-	190,794,559		
2044	-	-	-	-	-	-	-	-	9,769,215	-	-	1,907,946	434,572	1,191,368	-	13,303,100	13,303,100	-	-	13,303,100	-	204,097,659		
Total	71,719,143	8,950,350	732,817	-	-	-	-	81,402,310									Total							
																							Total Tax Effect	0.00%

¹ 2010B GO debt service is shown gross of BAB subsidy. Excludes Parking Fund Debt Service.
² BABs subsidies are assumed to be reduced by 6.2% due to Federal Sequestration.
³ Assumed to be equal to 1.00% of prior years ending Debt Fund Balance.

- FY 2019 Value of a Penny: \$821,098
- FY 2020 & Beyond: 1.50% (consistent with Town planning model)



Capital Planning



2015 and 2018 General Obligation Bond Referendums

- On November 3, 2015, the Town passed a GO Bond Referendum for 5 separate purposes. A total of \$40,300,000 in General Obligation Bonds was proposed and passed by the Town.
 - \$16,200,000 Streets and Sidewalks
 - \$5,000,000 Trails & Greenways
 - \$8,000,000 Parks & Recreation
 - \$5,200,000 Solid Waste
 - \$5,900,000 Storm Water

- Additionally, on November 6, 2018, the Town passed a GO Bond Referendum for \$10 million of Affordable Housing Bonds.

- The Town’s GO Bond authorization will expire 7 years from the date of the Referendum. The Town would have the ability to extend the approval for 3 additional years, subject to LGC approval, for a total of up to 10 years from the date of the Referendum.

- The Town has issued \$21,500,000 of General Obligation Bonds to date and \$28,800,000 of the referendum authorization remains unissued:

A	B	C	D	E	F	G
Referendum Question	Authorized GO Bonds	2017 Issuance	2018 Issuance	Remaining Authorized / Unissued	Initial Expiration	Final Expiration (if extended)
1 Streets and Sidewalks	\$ 16,200,000	\$ 3,000,000	\$ 5,500,000	\$ 7,700,000	11/3/2022	11/3/2025
2 Trails & Greenways	5,000,000	5,000,000	-	-	11/3/2022	11/3/2025
3 Parks & Recreation	8,000,000	1,000,000	4,300,000	2,700,000	11/3/2022	11/3/2025
4 Solid Waste	5,200,000	-	-	5,200,000	11/3/2022	11/3/2025
5 Storm Water	5,900,000	-	2,700,000	3,200,000	11/3/2022	11/3/2025
6 Affordable Housing	10,000,000	-	-	10,000,000	11/6/2025	11/6/2028
7 Total	\$ 50,300,000	\$ 9,000,000	\$ 12,500,000	\$ 28,800,000		



Capital Projects Under Consideration

- The Town has identified the following Capital Projects that it is considering funding in the next few years. Following the issuance of the proposed General Obligation Bonds mentioned below, the Town will have \$8.4 million of remaining authorized but unissued General Obligation Bonds (\$5.2 million for Solid Waste and \$3.2 million for Storm Water). Solid Waste and Storm Water are not included in this analysis as they are repaid from dedicated funds.

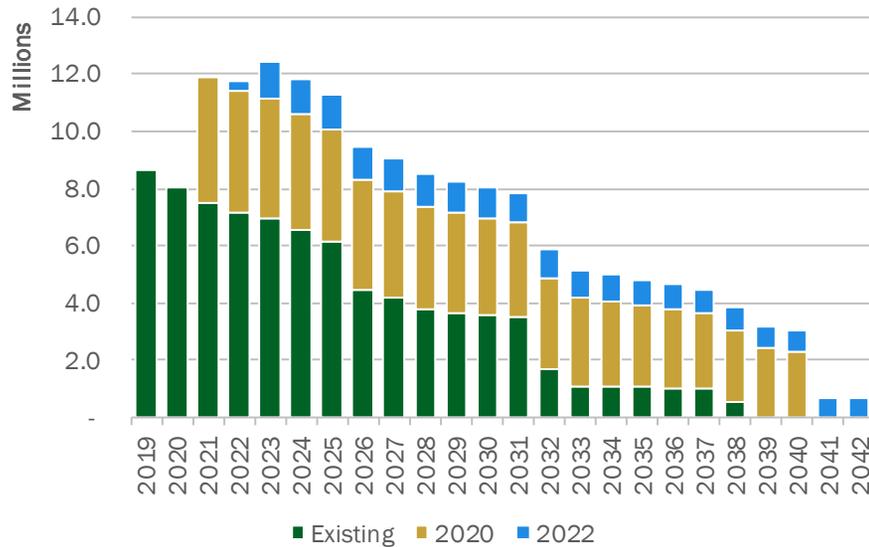
A	B	C	D	E	F	G	H	I	J
Project	Issuance by Type			Total	Debt Source	Timing	Term	Interest Rate	Amortization
	GO Bonds	LOBs / IFC	Cash on Hand						
1 FY 2020 Projects									
2 Wallace Deck	\$ -	\$ 2,400,000	\$ -	\$ 2,400,000	LOBs / IFC	FY 2020	20 Years	5.00%	Level Principal
3 Blue Hill Phase II	-	2,600,000	1,600,000	4,200,000	LOBs / IFC	FY 2020	20 Years	5.00%	Level Principal
4 Municipal Services Center	2,700,000	31,300,000	-	34,000,000	GO / LOBs / IFC	FY 2020	20 Years	5.00%	Level Principal
5 Affordable Housing	5,000,000	-	-	5,000,000	GO Bonds	FY 2020	20 Years	5.00%	Level Principal
6 Total FY 2020 Projects	\$ 7,700,000	\$ 36,300,000	\$ 1,600,000	\$ 45,600,000					
7									
8									
9 FY 2022 Projects									
10 Affordable Housing	\$ 5,000,000	\$ -	\$ -	\$ 5,000,000	GO Bonds	FY 2022	20 Years	5.00%	Level Principal
11 Streets & Sidewalks	7,700,000	-	-	7,700,000	GO Bonds	FY 2022	20 Years	5.00%	Level Principal
12 Total FY 2022 Projects	\$ 12,700,000	\$ -	\$ -	\$ 12,700,000					
13									
14									
15 Total Projects	\$ 20,400,000	\$ 36,300,000	\$ 1,600,000	\$ 58,300,000					

- The following debt assumptions have been included:
 - Term: 20 Years
 - Amortization: Level Principal
 - Interest Rate: 5.00%
 - First Interest:
 - FY 2020 Projects: FY Following Issuance
 - FY 2022 Projects: FY of Issuance
 - First Principal: FY Following Issuance

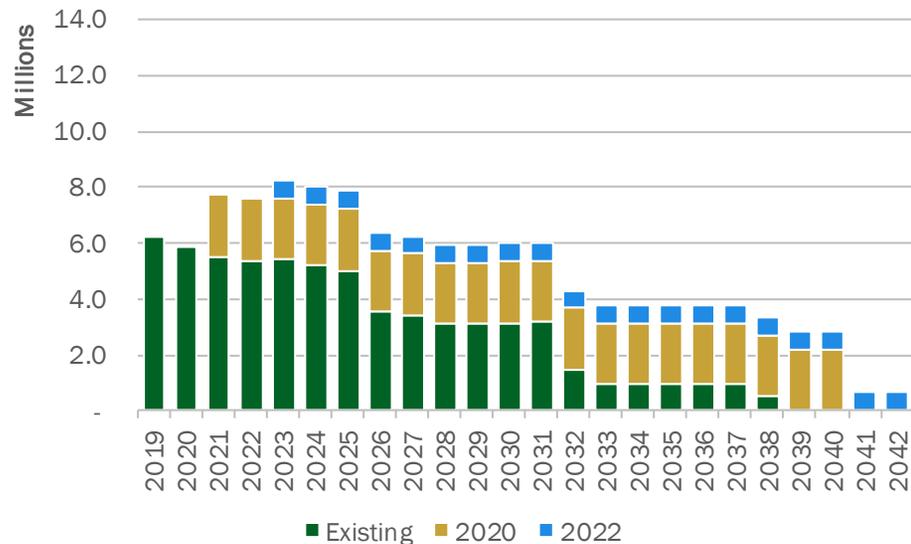


Existing and Proposed Debt Service

Existing and Proposed Debt Service



Existing and Proposed Principal



Assumptions

- Financing Assumptions:
 - Amortization: Level Principal
 - Term: 20 Years
 - Interest Rate: 5.00%
 - First Interest Payment
 - FY 2020 Projects: FY Following Issuance
 - FY 2022 Projects: FY of Issuance
 - First Principal Payment: FY Following Issuance

- Proposed Debt Issuance by Fiscal Year:
 - FY 2020: \$44,000,000
 - FY 2022: \$12,700,000
 - Total: \$56,700,000

- Proposed Debt Service by Fiscal Year:
 - FY 2020: \$67,100,000
 - FY 2022: \$19,685,000
 - Total: \$86,785,000

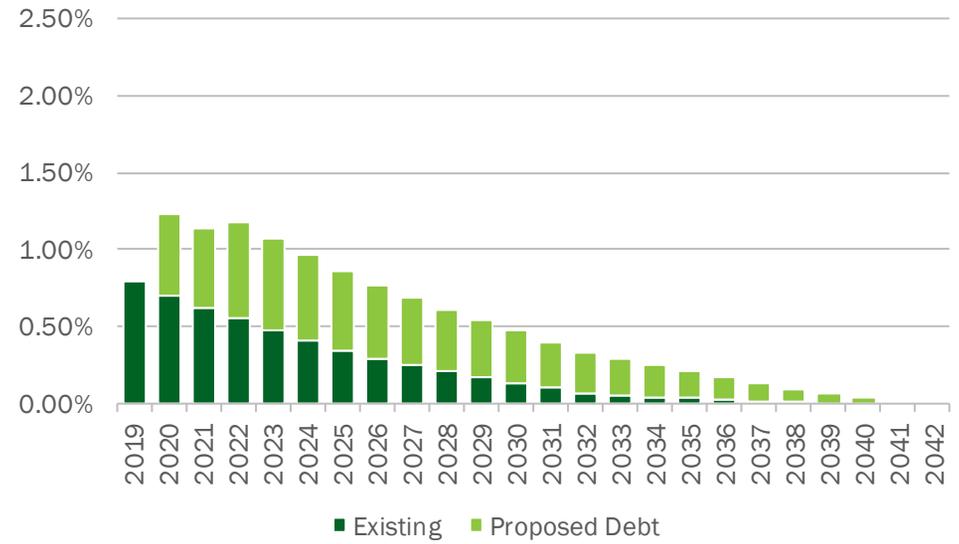


Key Debt Ratios

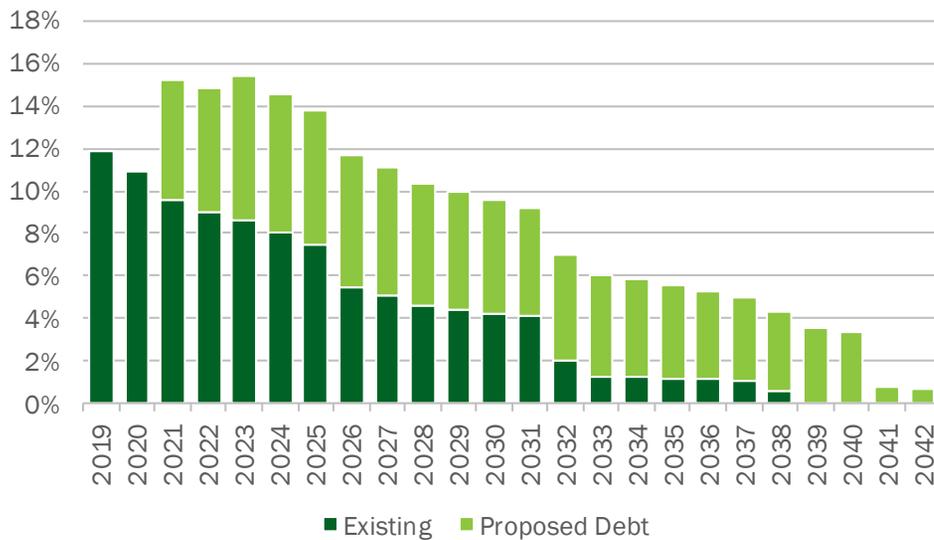
10-Year Payout



Debt to Assessed Value



Debt Service to Expenditures



The Town may want to consider adopting a series of formal debt related Financial Policies, including 10-Year Payout, Debt to Assessed Value, and Debt Service to Expenditures.



Debt Affordability Analysis

Existing and Proposed Town Debt

FY	Debt Service Requirements							Revenue Available for DS							Debt Service Cash Flow Surplus (Deficit)							
	Debt Fund	Vehicle Fund	Debt Fund					Debt Fund			Vehicle Fund											
	Existing Debt Service - Debt Fund ¹	Existing Debt Service - Parking Fund	Existing Debt Service - Vehicle Replacement Fund	CIP Debt Service	CIP Pay-Go Cash	Service Charges	Total	Property Taxes (Grown at 1.50%)	Transfer from Parking for existing debt	BABs Subsidy ²	Interest on Investments ³	Blue Hill Incremental Tax Revenue	Affordable Housing Tax Increase (1c in FY 2020)	Vehicle Replacement Fund Revenues	Total Revenues Available	Surplus/ (Deficit)	Revenue From Prior Tax Impact	Debt Fund Balance Utilized	Adjusted Surplus/ (Deficit)	Estimated Incremental Tax Equivalent	Debt Fund Balance	
2019	7,342,680	914,631	400,630	-	-	-	8,657,942	6,733,000	914,631	176,666	71,897	445,100	-	400,630	8,741,924	83,983	-	-	83,983	-	7,189,658	
2020	6,855,732	905,331	265,591	-	-	-	8,026,655	6,833,995	905,331	176,666	72,736	434,572	833,414	265,591	9,522,306	1,495,652	-	-	1,495,652	-	8,769,292	
2021	6,510,312	914,831	66,596	4,400,000	-	-	11,891,740	6,936,505	914,831	164,571	87,693	434,572	845,915	66,596	9,450,684	(2,441,056)	-	(2,441,056)	-	-	6,328,236	
2022	6,216,529	916,831	-	4,607,500	-	-	11,740,860	7,040,552	916,831	151,785	63,282	434,572	858,604	-	9,465,627	(2,275,233)	-	(2,275,233)	-	-	4,053,003	
2023	6,033,681	912,081	-	5,450,000	-	-	12,395,762	7,146,161	912,081	138,307	40,530	434,572	871,483	-	9,543,135	(2,852,628)	-	(2,852,628)	-	-	1,200,375	
2024	5,844,257	680,831	-	5,308,250	-	-	11,833,339	7,253,353	680,831	124,484	12,004	434,572	884,555	-	9,389,800	(2,443,539)	-	(1,200,375)	(1,243,163)	1.41¢	-	
2025	5,651,902	464,331	-	5,166,500	-	-	11,282,734	7,362,153	464,331	110,229	-	434,572	897,824	-	9,269,110	(2,013,624)	1,261,811	-	(751,813)	0.84¢	-	
2026	3,968,650	462,331	-	5,024,750	-	-	9,455,732	7,472,586	462,331	95,715	-	434,572	911,291	-	9,376,495	(79,236)	2,043,828	-	1,964,592	-	1,964,592	
2027	3,719,321	465,350	-	4,883,000	-	-	9,067,671	7,584,675	465,350	80,855	19,646	434,572	924,960	-	9,510,058	442,387	2,074,486	-	2,516,873	-	4,481,464	
2028	3,284,851	462,400	-	4,741,250	-	-	8,488,501	7,698,445	462,400	65,650	44,815	434,572	938,835	-	9,644,716	1,156,215	2,105,603	-	3,261,818	-	7,743,282	
2029	3,198,299	462,200	-	4,599,500	-	-	8,259,999	7,813,921	462,200	49,754	77,433	434,572	952,917	-	9,790,797	1,530,798	2,137,187	-	3,667,985	-	11,411,267	
2030	3,113,050	461,400	-	4,457,750	-	-	8,032,200	7,931,130	461,400	33,512	114,113	434,572	967,211	-	9,941,937	1,909,738	2,169,245	-	4,078,983	-	15,490,250	
2031	3,027,937	465,000	-	4,316,000	-	-	7,808,937	8,050,097	465,000	17,016	154,902	434,572	981,719	-	10,103,307	2,294,370	2,201,783	-	4,496,154	-	19,986,403	
2032	1,218,815	462,800	-	4,174,250	-	-	5,855,865	8,170,849	462,800	-	199,864	434,572	996,445	-	10,264,530	4,408,665	2,234,810	-	6,643,475	-	26,629,878	
2033	1,103,363	-	-	4,032,500	-	-	5,135,863	8,293,411	-	-	266,299	434,572	1,011,392	-	10,005,674	4,869,811	2,268,332	-	7,138,144	-	33,768,022	
2034	1,075,163	-	-	3,890,750	-	-	4,965,913	8,417,813	-	-	337,680	434,572	1,026,563	-	10,216,627	5,250,715	2,302,357	-	7,553,072	-	41,321,094	
2035	1,045,788	-	-	3,749,000	-	-	4,794,788	8,544,080	-	-	413,211	434,572	1,041,961	-	10,433,824	5,639,036	2,336,893	-	7,975,929	-	49,297,022	
2036	1,016,413	-	-	3,607,250	-	-	4,623,663	8,672,241	-	-	492,970	434,572	1,057,590	-	10,657,373	6,033,711	2,371,946	-	8,405,657	-	57,702,679	
2037	986,475	-	-	3,465,500	-	-	4,451,975	8,802,325	-	-	577,027	434,572	1,073,454	-	10,887,378	6,435,403	2,407,525	-	8,842,928	-	66,545,607	
2038	505,925	-	-	3,323,750	-	-	3,829,675	8,934,359	-	-	665,456	434,572	1,089,556	-	11,123,943	7,294,268	2,443,638	-	9,737,907	-	76,283,514	
2039	-	-	-	3,182,000	-	-	3,182,000	9,068,375	-	-	762,835	434,572	1,105,899	-	11,371,681	8,189,681	2,480,293	-	10,669,974	-	86,953,488	
2040	-	-	-	3,040,250	-	-	3,040,250	9,204,400	-	-	869,535	434,572	1,122,488	-	11,630,995	8,590,745	2,517,497	-	11,108,242	-	98,061,730	
2041	-	-	-	698,500	-	-	698,500	9,342,466	-	-	980,617	434,572	1,139,325	-	11,896,981	11,198,481	2,555,260	-	13,753,740	-	111,815,470	
2042	-	-	-	666,750	-	-	666,750	9,482,603	-	-	1,118,155	434,572	1,156,415	-	12,191,745	11,524,995	2,593,588	-	14,118,584	-	125,934,054	
2043	-	-	-	-	-	-	-	9,624,842	-	-	1,259,341	434,572	1,173,761	-	12,492,516	12,492,516	2,632,492	-	15,125,009	-	141,059,062	
2044	-	-	-	-	-	-	-	9,769,215	-	-	1,410,591	434,572	1,191,368	-	12,805,745	12,805,745	2,671,980	-	15,477,725	-	156,536,788	
Total	71,719,143	8,950,350	732,817	86,785,000	-	-	168,187,310									Total		(8,769,292)		Total Tax Effect	2.24¢	

¹ 2010B GO debt service is shown gross of BAB subsidy. Excludes Parking Fund Debt Service.

² BABs subsidies are assumed to be reduced by 6.2% due to Federal Sequestration.

³ Assumed to be equal to 1.00% of prior years ending Debt Fund Balance.

- FY 2019 Value of a Penny: \$821,098
- FY 2020 & Beyond: 1.50% (consistent with Town planning model)
- Alternatively, the Town could utilize \$3,336,023 of additional revenues or reserves to offset the need for a future tax impact.
- The Town could also consider an additional 0.61¢ Upfront Tax Increase in FY 2020 in place of the use of additional revenues / reserves.



Observations

Observations



- The Town has a Aaa / AAA rating from both Moody's and S&P, which are the highest credit ratings a local government can achieve.
 - The Town received its Aaa rating from Moody's in 1998 and its AAA rating from S&P in 2006.

- The Town has managed its financial operations in a responsible manner, maintaining a structurally balanced Budget with Fund Balance levels commensurate with its rating category.

- The Town has managed its debt issuance activities in a responsible fashion and has a Debt Profile that compares favorably to other highly rated Cities and Towns.

- As measured by certain key Debt Ratios and rating agency guidelines, the Town has Debt Capacity to accommodate its current CIP through FY 2022.
 - Debt Capacity beyond FY 2022 is more limited by these same measures.

- The Town has well established and sustainable debt service budgeting practices which provide for some additional Debt Affordability beyond current debt levels.
 - Current debt modeling of the CIP through FY 2022 estimates a funding deficit will occur in FY 2024 – 2026, unless other sources of revenues are identified.

- Capital planning beyond the FY 2022 horizon will allow the Town to identify potential funding issues and work towards developing a responsible Plan of Finance.
 - As part of this process, Davenport would recommend that the Town Council consider reviewing and adopting a series of Financial Policy Guidelines, inclusive of Reserves, Debt, Investments, and other key management areas.



Appendix A

Financial Policy Discussion



Rating Agency Commentary on Management and Policies

Moody's

- “A local government’s success in navigating the legal, political and practical environment in which it operates depends on a multitude of factors, including management’s mastery in understanding its resources and managing its responsibilities, public and executive support for its plans, and its willingness to use the tools at its disposal.”
- **“When evaluating a credit, we seek to understand the probable impact of fund balance policies, multi-year financial or capital planning, liquidity management, accuracy of budget forecasts, and willingness to make midyear adjustments.** Reliance on non-recurring, or “one-shot” revenues, such as proceeds from the sale of assets, windfall delinquent tax collections, or the use of fund balance as a revenue source, leaves the municipality vulnerable should these one-time revenues fail to materialize.”

Source: Moody’s US Local Government General Obligation Debt, January 2014

S&P

- “The rigor of a government’s financial management practices is an important factor in Standard & Poor’s Ratings Services analysis of that government’s creditworthiness. Managerial decisions, policies, and practices apply directly to the government’s financial position and operations, debt burden, and other key credit factors. A government’s ability to implement timely and sound financial and operational decisions in response to economic and fiscal demands is a primary determinant of near-term changes in credit quality.”
- S&P measures the strength of governmental financial management through seven key factors:
 - Revenue and expenditure assumptions
 - Budget amendments and updates
 - Long term financial planning
 - Long term capital planning
 - Investment management policies
 - Debt management policies
 - Reserve and liquidity policies

Source: S&P’s U.S. Local Governments General Obligation Ratings: Methodology And Assumptions, September 2013



Financial Policy Overview

- Financial Policies that are adopted, adhered to, and regularly reviewed are recognized as a cornerstone of sound financial management.

- Effective Financial Policies:
 - Contribute to the Town's ability to insulate itself from fiscal crisis;
 - Enhance access to short term and long term financial credit by helping to achieve the highest credit ratings possible;
 - Promote long-term financial stability by establishing clear and consistent guidelines;
 - Direct attention to the total financial picture of the Town rather than single issue areas;
 - Promote the view of linking long-run financial planning with day-to-day operations, and;
 - Provide the Town Staff, the Town Council and the Town citizens a framework for measuring the fiscal impact of government services against established fiscal parameters and guidelines.

- Financial Policies should be reviewed periodically by Town staff and any recommended changes should be presented to the Governing Body for formal approval / adoption.

- Policy areas to consider:
 - Reserve Policies
 - Debt / Contingent Liabilities Policies
 - Cash Management / Investment Policies



Rating Agency / GFOA Guidance

■ S&P Views on Reserve and Liquidity Policies:

- “Has the organization established a formalized operating reserve policy, which takes into account the government’s cash flow/operating requirements and the historic volatility of revenues and expenditures through economic cycles?”
- **Strong:** A formal operating reserve policy is well defined. Reserve levels are clearly linked to the government’s cash flow needs and the historic volatility of revenues and expenditures throughout economic cycles. Management has historically adhered to it.
- **Standard:** A less defined policy exists, which has no actual basis but has been historically adhered to it.
- **Vulnerable:** Absence of basic policies or, if they exist, are not followed.

■ GFOA Reserve Commentary:

- “GFOA recommends that governments establish a formal policy on the level of unrestricted fund balance that should be maintained in the general fund. Such a guideline should be set by the appropriate policy body and should provide both a temporal framework and specific plans for increasing or decreasing the level of unrestricted fund balance, if it is inconsistent with that policy.”
- “The adequacy of unrestricted fund balance in the general fund should be assessed based upon a government's own specific circumstances. Nevertheless, GFOA recommends, at a minimum, that general-purpose governments, regardless of size, maintain unrestricted fund balance in their general fund of no less than two months of regular general fund operating revenues or regular general fund operating expenditures. The choice of revenues or expenditures as a basis of comparison may be dictated by what is more predictable in a government's particular circumstances. Furthermore, a government's particular situation often may require a level of unrestricted fund balance in the general fund significantly in excess of this recommended minimum level. In any case, such measures should be applied within the context of long-term forecasting, thereby avoiding the risk of placing too much emphasis upon the level of unrestricted fund balance in the general fund at any one time.”

General Fund Balance



General Fund Balance

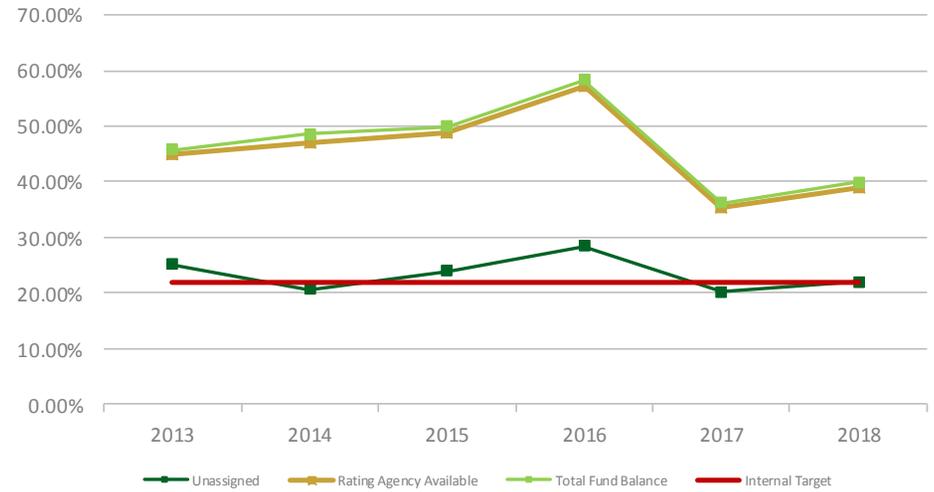
	2013	2014	2015	2016	2017	2018
1 General Fund Budget						
2 Revenues	52,477,610	56,215,276	57,349,320	58,863,263	59,453,389	61,850,212
3 Expenditures (Including Transfers Out)	51,379,266	53,773,991	55,709,763	56,188,531	67,732,197	61,723,687
4						
5 General Fund Balance						
6 Nonspendable	22,561	3,020	50,956	8,391	77,818	100,955
7 Restricted - Other	428,261	820,632	633,449	653,154	577,200	573,464
8 Restricted - Stabilization for State Statute	6,697,509	9,994,453	8,825,428	10,706,650	7,234,759	6,955,024
9 Committed	121,811	72,513	-	-	-	-
10 Assigned	3,373,643	4,105,066	4,939,269	5,385,390	2,958,533	3,430,129
11 Unassigned	12,883,997	11,143,807	13,374,946	15,990,195	13,661,662	13,621,925
12 Total	23,527,782	26,139,491	27,824,048	32,743,780	24,509,972	24,681,497
13						
14 Rating Agency Available ¹	23,076,960	25,315,839	27,139,643	32,082,235	23,854,954	24,007,078
15						
16 General Fund Balance Ratios						
17 Unassigned as a % of GF Revenues	24.55%	19.82%	23.32%	27.16%	22.98%	22.02%
18 Unassigned as a % of GF Expenditures	25.08%	20.72%	24.01%	28.46%	20.17%	22.07%
19 Rating Agency Available as a % of GF Revenues	43.97%	45.03%	47.32%	54.50%	40.12%	38.81%
20 Rating Agency Available as a % of GF Expenditures	44.91%	47.08%	48.72%	57.10%	35.22%	38.89%
21 Total General Fund Balance as a % of GF Revenues	44.83%	46.50%	48.52%	55.63%	41.23%	39.91%
22 Total General Fund Balance as a % of GF Expenditures	45.79%	48.61%	49.94%	58.27%	36.19%	39.99%
23						
24 Debt Service Fund Balance	5,340,180	4,803,926	5,452,410	6,615,510	7,048,523	7,189,658
25						
26 Affordable Housing Fund Balance	-	-	-	-	1,060,385	830,452
27						
28 Rating Agency Available Op. Fund Balance ²	28,417,140	30,119,765	32,592,053	38,697,745	30,903,477	31,196,736
29 Rating Agency Operating Fund Revenues	58,187,000	61,975,000	63,851,000	67,191,000	66,033,000	68,627,177
30 Rating Agency Operating Fund Expenditures	58,204,000	59,900,000	61,518,000	61,109,000	73,834,000	68,359,517
31 Rating Agency Available Op. as a % of Op. Revenues	48.84%	48.60%	51.04%	57.59%	46.80%	45.46%
32 Rating Agency Available OP. as a % of Op. Expenditures	48.82%	50.28%	52.98%	63.33%	41.86%	45.64%

¹ Includes Stabilization by State Statute, Committed, Assigned, and Unassigned Fund Balance
² Includes Rating Agency Available and Debt Service Fund Balance

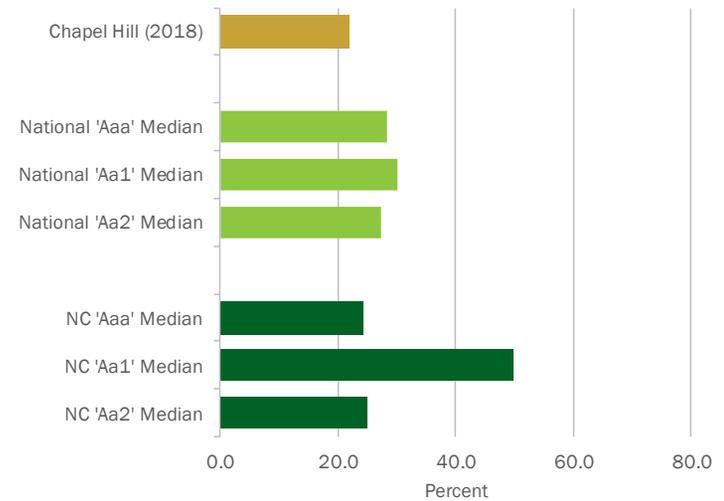
- The Town maintains an internal Unassigned Fund Balance target of 22% or higher of General Fund Expenditures. Any Unassigned Fund Balance above the 22% target is made available for one time capital expenditures.

The Town may want to consider adopting a formal General Fund Unassigned Fund Balance Policy.

General Fund Balance as a % of Expenditures



Unassigned Fund Balance as a % of Revenues





Reserve Policies

Potential Policy Recommendations

- Key Considerations:
 - Establish a minimum reserve level that provides ample liquidity based on historical expenditure levels and cash flows and that provides an allowance for unforeseen one time events.
 - Provide flexibility for the use of reserves in excess of the policy level, if justified. Provide flexibility for the use of reserves that may result in a breach of the policy limit provided that a plan is established to restore compliance within a specified period of time.

- Potential Policy Language:
 - In accordance with State statute, appropriated fund balance in any fund will not exceed the sum of cash and investments less the sum of liabilities, encumbrances, and deferred revenues arising from cash receipts.

 - The Town will maintain a minimum General Fund Unassigned Fund Balance, as defined by the Governmental Accounting Standards Board, at the close of each fiscal year equal to ___% of General Fund Revenues with a targeted Unassigned Fund Balance equal to ___% of General Fund Revenues.
 - a) Purpose of Reserve: These funds will be used to avoid cash flow interruptions, generate interest income, eliminate the need for short term borrowing, assist in maintaining strong investment grade bond ratings, and sustain operations during unanticipated emergencies and disasters.
 - b) Reserve Drawdowns: The fund balance may be purposefully drawn down below the target percentage for emergencies. Fund balance percentages in excess of ___% may be drawn down for nonrecurring expenditures, or major capital projects.
 - c) Reserve Replenishment: If the fund balance falls below the target percentage for two consecutive fiscal years, the Town will replenish funds by direct appropriation beginning in the following fiscal year. In that instance, the Town will annually appropriate ___% of the difference between the target percentage level and the actual balance until the target level is met. In the event appropriating ___% is not feasible, the Town will appropriate a lesser amount and shall reaffirm its commitment to fully replenish the fund balance over a longer period of time.

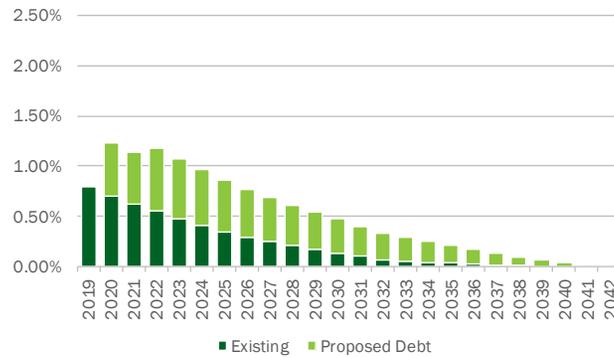


Key Debt Ratios and Peer Comparatives

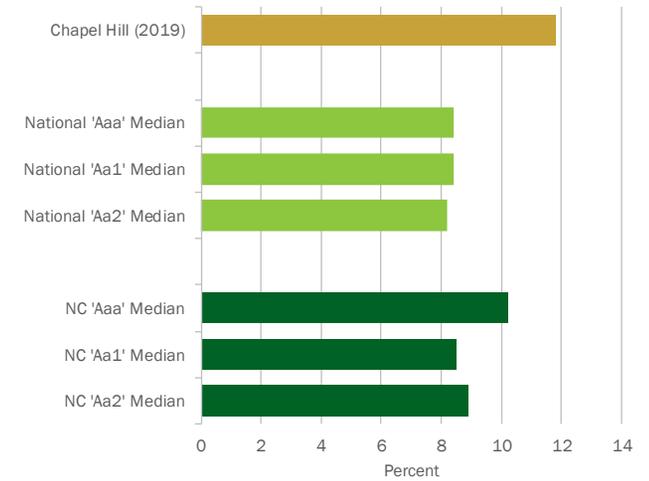
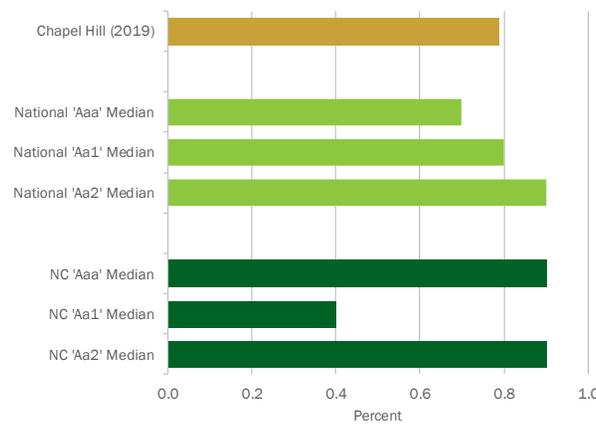
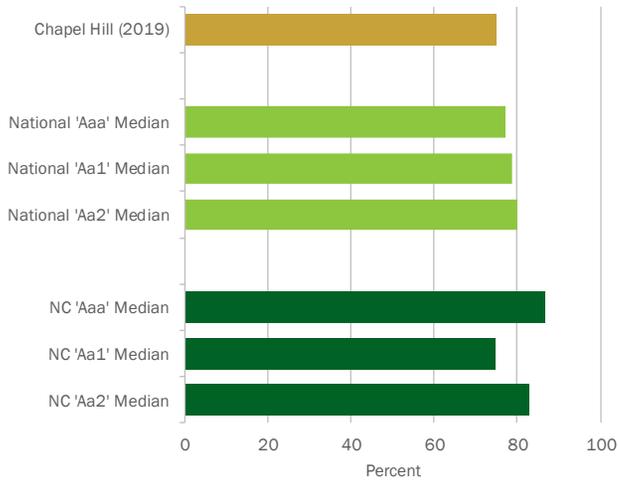
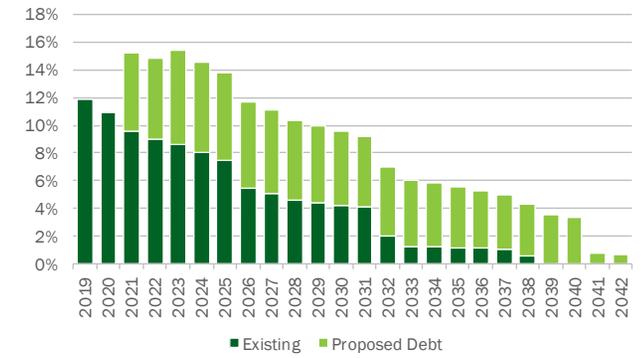
10-Year Payout Ratio



Debt to Assessed Value



Debt Service to Expenditures





Debt and Contingent Liability Policies

Potential Policy Recommendations

- Key Considerations:
 - Establish meaningful policy levels that provide the Town with the flexibility to fund future projects.
 - Consider including language that allows the Town to breach policies for a period of time provided that the Governing Body is notified and approves of the non-compliance period.
 - Establish a framework to monitor policy calculations on an annual basis and report findings to the Town Council.
- Potential Policy Language:
 - Debt to Assessed Value
 - Net debt as a percentage of estimated market value of taxable property shall not exceed __%. Net debt is defined as any and all debt that is tax-supported. Should Debt to Assessed Value exceed __%, staff must request an exception from Town Council stating the justification and expected duration of the policy exception.
 - 10 Year Payout Ratio
 - “Payout of aggregate outstanding tax-supported debt principal shall be no less than __% repaid in 10 years. Should this be projected to fall below the minimum policy of __%, Staff must request an exception from Town Council stating the justification and expected duration of the policy exception.”
 - Debt Service to Expenditures
 - “Debt Service expenditures as a percent of total governmental fund expenditures shall not exceed __%. Should this ratio exceed __%, staff must request an exception from Town Council stating the justification and expected duration of the policy exception.”
 - Other Debt and Contingent Liability Policies
 - The Town will confine long-term borrowing to capital improvements or projects that cannot be financed from current revenues except where approved justification is provided.
 - The Town will take a balanced approach to capital funding utilizing debt financing, capital reserves and pay-as-you-go funding that will provide the least financial impact on the taxpayer.
 - When the Town finances capital improvements or other projects by issuing bonds or entering into capital leases, it will repay the debt within a period not to exceed the expected useful life of the project.
 - Other Post Employment Benefits (“OPEB”) Liability Funding Policy.



Rating Agency / GFOA Guidance

■ S&P Views on Investment Management Policies

- “Has the organization established policies pertaining to investments, such as the selection of financial institutions for services and transactions; risk assessment; investment objectives; investment maturities and volatility; portfolio diversification; safekeeping and custody; and investment performance reporting, benchmarking, and disclosure?”
 - **Strong:** Investment policies exist and are well defined; strong reporting and monitoring mechanisms exist and are functioning.
 - **Standard:** Informal or non-published policies exist; policies are widely communicated and followed.
 - **Vulnerable:** Absence of informal or non-published policies.

■ GFOA Investment Policy Commentary:

- “An investment policy should describe the most prudent primary objectives for a sound policy: safety, liquidity, and yield. It should also indicate the type of instruments eligible for purchase by a government entity, the investment process, and the management of a portfolio.”
- “The process of creating an investment policy should include:
 - Examination of state public funds investment statutes and collateral statutes
 - Establishment of written investment procedures. Topics should include: procedures for taking competitive bids, delivering and paying for purchases, recording transactions, and obtaining approval before buying or selling decisions.
 - Annual review of investment policy. The written investment policy should be a living document that is reviewed each year by a government entity's investment officials and modified as needed. The policy should be presented each year to the governing body for formal review and approval.”



Cash Management / Investment Policies

Potential Policy Recommendations

- It is the intent of the Town that public funds will be invested to the extent possible to reduce the dependence upon property tax revenues. Funds will be invested with the chief objectives of safety of principal, liquidity, and yield, in that order. All deposits and investments of Town funds will be in accordance with N.C.G.S. 159.
- Up to fifty percent **[50%]** of the appropriations to Non-Town Agencies and to non debt-supported capital outlays for Town Departments can be encumbered prior to December 31. Any additional authorization shall require the Town Manager's written approval upon justification. The balance of these appropriations may be encumbered after January 1, upon a finding by the Town Manager that there is a reasonable expectation that the Town's Budgeted Revenues will be realized.
- The Town will use a Central Depository to maximize the availability and mobility of cash for all funds that can be legally and practically combined.
- Liquidity: No less than **[20%]** of funds available for investment will be maintained in liquid investments at any point in time.
- Maturity: All investments will mature in no more than **[thirty-six [36]]** months from their purchase date.
- Custody: All investments will be purchased "payment-verses-delivery" and if certificated will be held by the Finance Officer in the name of the Town. All non-certificated investments will be held in book-entry form in the name of the Town with the Town's third party Custodian (Safekeeping Agent).
- Authorized Investments: The Town may deposit Town Funds into: Any Council approved Official Depository, if such funds are secured in accordance with NCGS-159 (31). The Town may invest Town Funds in: the North Carolina Capital Management Trust, US Treasury Securities, US Agency Securities specifically authorized in GS-159 and Commercial Paper meeting the requirements of NCGS-159 plus having at least one long term bond rating from a nationally recognized rating agency. Investment in Asset Backed Commercial Paper will not be permitted under this Policy unless an exception is granted by the Town Council.
- Diversification: No more than **[5%]** of the Town's investment funds may be invested in a specific company's commercial paper and no more than **[20%]** of the Town's investment funds may be invested in commercial paper. No more than **[25%]** of the Town's investments may be invested in any one US Agency's Securities.
- Allocation: Investment income will be allocated to each participating fund or account based on a fair and equitable formula determined by the Finance Director.



Appendix B

Aaa North Carolina Cities' and Towns' Financial Policy Summary

Aaa North Carolina Cities' and Towns' Financial Policy Summary



A	B	C	D	E
Policy	Fund Balance	10-Year Payout	Debt to Assessed Value	Debt Service to Expenditures
1 Apex	Available fund balances at the close of each fiscal year should be at least 25% of the Total Annual Operating Budget of the Town.	> 55%	< 2.50%	< 12%
2				
3 Asheville	The City will maintain an undesignated fund balance equal to 15% of the General Fund operating budget.	n/a	n/a	n/a
4				
5 Cary	The Town will maintain a minimum Accessible Fund Balance of at least 25% of budgeted General Fund Expenditures. ¹	n/a	< 8%	< 15%
6				
7 Charlotte	The Budget will maintain a General Fund balance equal to 16% of the operating budget.	n/a	n/a	n/a
8				
9 Durham	The City will maintain an unassigned fund balance no less than 12% of the General Fund adjusted operating expenditures.	n/a	n/a	n/a
10				
11 Greensboro	The City shall maintain unassigned fund balance in the General Fund equal to 9% of the following fiscal year's General Fund adopted budget.	n/a	< 4%	n/a
12				
13 Huntersville	The Town will maintain an unallocated fund balance to be used for unanticipated emergencies of 45% of the general operating budget.	> 55%	< 2%	< 15%
14				
15 Morrisville	The Town will maintain an unassigned fund balance no less than three months operating expenditures or 25% of the total budgeted operating expenditures.	> 55%	< 2%	< 15%
16				
17 Raleigh	The City seeks to maintain an undesignated General Fund balance of approximately 14% of the subsequent year's budget.	n/a	n/a	n/a
18				
19 Wilmington	The City shall maintain a minimum unassigned fund balance equal to 20-25% of the operating budget.	n/a	< 2%	< 20%
20				
21 Winston-Salem	The City will maintain a minimum unassigned fund balance of 14% of estimated expenditures in the general fund.	n/a	n/a	< 20%

¹ Accessible fund balance is defined as the total of Assigned Fund Balance and Unassigned Fund Balance.



Appendix C

Existing Tax Supported Debt



Existing Tax Supported Debt

By Credit



Tax Supported Debt

Total Tax Supported Debt Service

FY	Principal	Interest	Total
Total	64,669,414	16,732,896	81,402,310
2019	6,235,117	2,422,825	8,657,942
2020	5,832,742	2,193,912	8,026,655
2021	5,514,555	1,977,185	7,491,740
2022	5,371,000	1,762,360	7,133,360
2023	5,402,000	1,543,762	6,945,762
2024	5,198,000	1,327,089	6,525,089
2025	5,006,000	1,110,234	6,116,234
2026	3,526,000	904,982	4,430,982
2027	3,410,000	774,671	4,184,671
2028	3,090,000	657,251	3,747,251
2029	3,113,000	547,499	3,660,499
2030	3,141,000	433,450	3,574,450
2031	3,170,000	322,937	3,492,937
2032	1,470,000	211,615	1,681,615
2033	940,000	163,363	1,103,363
2034	940,000	135,163	1,075,163
2035	940,000	105,788	1,045,788
2036	940,000	76,413	1,016,413
2037	940,000	46,475	986,475
2038	490,000	15,925	505,925

LOBs

FY	Principal	Interest	Total
Total	16,155,000	3,830,300	19,985,300
2019	1,920,000	772,331	2,692,331
2020	1,930,000	678,331	2,608,331
2021	1,980,000	583,331	2,563,331
2022	2,010,000	484,331	2,494,331
2023	2,040,000	383,831	2,423,831
2024	1,840,000	281,831	2,121,831
2025	1,650,000	189,831	1,839,831
2026	355,000	107,331	462,331
2027	370,000	95,350	465,350
2028	380,000	82,400	462,400
2029	395,000	67,200	462,200
2030	410,000	51,400	461,400
2031	430,000	35,000	465,000
2032	445,000	17,800	462,800
2033	-	-	-
2034	-	-	-
2035	-	-	-
2036	-	-	-
2037	-	-	-
2038	-	-	-

GO Bonds

FY	Principal	Interest	Total
Total	38,770,000	11,462,170	50,232,170
2019	3,242,000	1,434,003	4,676,003
2020	2,952,000	1,320,471	4,272,471
2021	2,772,000	1,218,429	3,990,429
2022	2,657,000	1,119,686	3,776,686
2023	2,651,000	1,017,792	3,668,792
2024	2,640,000	919,484	3,559,484
2025	2,630,000	811,157	3,441,157
2026	2,439,000	705,118	3,144,118
2027	2,382,000	603,631	2,985,631
2028	2,045,000	514,298	2,559,298
2029	2,045,000	435,045	2,480,045
2030	2,050,000	352,280	2,402,280
2031	2,050,000	273,838	2,323,838
2032	1,025,000	193,815	1,218,815
2033	940,000	163,363	1,103,363
2034	940,000	135,163	1,075,163
2035	940,000	105,788	1,045,788
2036	940,000	76,413	1,016,413
2037	940,000	46,475	986,475
2038	490,000	15,925	505,925

IPCs

FY	Principal	Interest	Total
Total	9,744,414	1,440,426	11,184,840
2019	1,073,117	216,491	1,289,608
2020	950,742	195,110	1,145,853
2021	762,555	175,424	937,979
2022	704,000	158,342	862,342
2023	711,000	142,139	853,139
2024	718,000	125,774	843,774
2025	726,000	109,246	835,246
2026	732,000	92,532	824,532
2027	658,000	75,690	733,690
2028	665,000	60,554	725,554
2029	673,000	45,254	718,254
2030	681,000	29,770	710,770
2031	690,000	14,099	704,099
2032	-	-	-
2033	-	-	-
2034	-	-	-
2035	-	-	-
2036	-	-	-
2037	-	-	-
2038	-	-	-



General Obligation Bonds

\$4,490,000

General Obligation Refunding Bonds, Series 2009

FY	Coupon	Principal	Interest	Total
Total		275,000	8,250	283,250
2019	3.000%	275,000	8,250	283,250
2020		-	-	-
2021		-	-	-
2022		-	-	-
2023		-	-	-
2024		-	-	-
2025		-	-	-
2026		-	-	-
2027		-	-	-
2028		-	-	-
2029		-	-	-
2030		-	-	-
2031		-	-	-
2032		-	-	-
2033		-	-	-
2034		-	-	-
2035		-	-	-
2036		-	-	-
2037		-	-	-
2038		-	-	-
2039		-	-	-

Dated Date: 12/22/2009 Next Call: Non-callable
 Purpose: Refunding Insurance: n/a
 Coupon Dates: Mar 1/ Sep 1 Maturity Date: Mar 1

\$8,160,000

General Obligation Public Improvement Bonds, Series 2010A

FY	Coupon	Principal	Interest	Total
Total		1,020,000	30,600	1,050,600
2019	3.000%	1,020,000	30,600	1,050,600
2020		-	-	-
2021		-	-	-
2022		-	-	-
2023		-	-	-
2024		-	-	-
2025		-	-	-
2026		-	-	-
2027		-	-	-
2028		-	-	-
2029		-	-	-
2030		-	-	-
2031		-	-	-
2032		-	-	-
2033		-	-	-
2034		-	-	-
2035		-	-	-
2036		-	-	-
2037		-	-	-
2038		-	-	-
2039		-	-	-

Dated Date: 10/12/2010 Next Call: 4/1/2020
 Purpose: Public Improvement Insurance: n/a
 Coupon Dates: Apr 1 / Oct 1 Maturity Date: Apr 1

\$12,250,000

General Obligation Public Improvement Bonds, Series 2010B (BABs)

FY	Coupon	Principal	Interest	Total
Total		12,250,000	4,088,585	16,338,585
2019	3.000%	-	521,448	521,448
2020	3.500%	1,020,000	521,448	1,541,448
2021	3.700%	1,020,000	485,748	1,505,748
2022	3.900%	1,020,000	448,008	1,468,008
2023	4.000%	1,020,000	408,228	1,428,228
2024	4.125%	1,020,000	367,428	1,387,428
2025	4.200%	1,020,000	325,353	1,345,353
2026	4.300%	1,020,000	282,513	1,302,513
2027	4.400%	1,020,000	238,653	1,258,653
2028	4.600%	1,020,000	193,773	1,213,773
2029	4.700%	1,020,000	146,853	1,166,853
2030	4.750%	1,025,000	98,913	1,123,913
2031	4.900%	1,025,000	50,225	1,075,225
2032		-	-	-
2033		-	-	-
2034		-	-	-
2035		-	-	-
2036		-	-	-
2037		-	-	-
2038		-	-	-
2039		-	-	-

Dated Date: 10/12/2010 Next Call: 4/1/2020
 Purpose: Public Improvement Insurance: n/a
 Coupon Dates: Apr 1 / Oct 1 Maturity Date: Apr 1
 Note: Interest shown gross of subsidy

General Obligation Bonds



\$4,655,000

General Obligation Refunding Bonds, Series 2012

FY	Coupon	Principal	Interest	Total
Total		2,035,000	196,500	2,231,500
2019	3.000%	485,000	61,050	546,050
2020	3.000%	480,000	46,500	526,500
2021	3.000%	305,000	32,100	337,100
2022	3.000%	195,000	22,950	217,950
2023	3.000%	195,000	17,100	212,100
2024	3.000%	190,000	11,250	201,250
2025	3.000%	185,000	5,550	190,550
2026	-	-	-	-
2027	-	-	-	-
2028	-	-	-	-
2029	-	-	-	-
2030	-	-	-	-
2031	-	-	-	-
2032	-	-	-	-
2033	-	-	-	-
2034	-	-	-	-
2035	-	-	-	-
2036	-	-	-	-
2037	-	-	-	-
2038	-	-	-	-
2039	-	-	-	-

Dated Date: 6/5/2012 Next Call: 4/1/2022
 Purpose: Refunding Insurance: n/a
 Coupon Dates: Apr 1 / Oct 1 Maturity Date: Apr 1

\$1,700,000

General Obligation Public Improvement Bonds, Series 2012

FY	Coupon	Principal	Interest	Total
Total		1,190,000	211,225	1,401,225
2019	2.000%	85,000	26,648	111,648
2020	2.000%	85,000	24,948	109,948
2021	2.000%	85,000	23,248	108,248
2022	2.000%	85,000	21,548	106,548
2023	2.000%	85,000	19,848	104,848
2024	2.000%	85,000	18,148	103,148
2025	2.100%	85,000	16,448	101,448
2026	2.200%	85,000	14,663	99,663
2027	2.300%	85,000	12,793	97,793
2028	2.450%	85,000	10,838	95,838
2029	2.500%	85,000	8,755	93,755
2030	2.550%	85,000	6,630	91,630
2031	2.600%	85,000	4,463	89,463
2032	2.650%	85,000	2,253	87,253
2033	-	-	-	-
2034	-	-	-	-
2035	-	-	-	-
2036	-	-	-	-
2037	-	-	-	-
2038	-	-	-	-
2039	-	-	-	-

Dated Date: 7/3/2012 Next Call: 4/1/2022
 Purpose: Public Improvement Insurance: n/a
 Coupon Dates: Apr 1 / Oct 1 Maturity Date: Apr 1

\$3,050,000

General Obligation Refunding Bond, Series 2013 (SunTrust)

FY	Coupon	Principal	Interest	Total
Total		2,340,000	197,621	2,537,621
2019	1.770%	287,000	41,418	328,418
2020	1.770%	282,000	36,338	318,338
2021	1.770%	277,000	31,347	308,347
2022	1.770%	272,000	26,444	298,444
2023	1.770%	266,000	21,629	287,629
2024	1.770%	260,000	16,921	276,921
2025	1.770%	255,000	12,319	267,319
2026	1.770%	249,000	7,806	256,806
2027	1.770%	192,000	3,398	195,398
2028	-	-	-	-
2029	-	-	-	-
2030	-	-	-	-
2031	-	-	-	-
2032	-	-	-	-
2033	-	-	-	-
2034	-	-	-	-
2035	-	-	-	-
2036	-	-	-	-
2037	-	-	-	-
2038	-	-	-	-
2039	-	-	-	-

Dated Date: 2/28/2013 Next Call: 2/28/2020
 Purpose: Refunding Insurance: n/a
 Coupon Dates: May 1 / Nov 1 Maturity Date: May 1

General Obligation Bonds



\$1,460,000

General Obligation Public Safety Bonds, Series 2017

FY	Coupon	Principal	Interest	Total
Total		1,310,000	256,900	1,566,900
2019	5.000%	150,000	56,800	206,800
2020	5.000%	145,000	49,300	194,300
2021	5.000%	145,000	42,050	187,050
2022	5.000%	145,000	34,800	179,800
2023	5.000%	145,000	27,550	172,550
2024	5.000%	145,000	20,300	165,300
2025	3.000%	145,000	13,050	158,050
2026	3.000%	145,000	8,700	153,700
2027	3.000%	145,000	4,350	149,350
2028	-	-	-	-
2029	-	-	-	-
2030	-	-	-	-
2031	-	-	-	-
2032	-	-	-	-
2033	-	-	-	-
2034	-	-	-	-
2035	-	-	-	-
2036	-	-	-	-
2037	-	-	-	-
2038	-	-	-	-
2039	-	-	-	-

Dated Date: 2/21/2017 Next Call: Noncallable
 Purpose: Equipment Insurance: n/a
 Coupon Dates: Feb 1 / Aug 1 Maturity Date: Feb 1

\$9,000,000

General Obligation Public Improvement Bonds, Series 2017

FY	Coupon	Principal	Interest	Total
Total		8,550,000	3,003,188	11,553,188
2019	2.000%	450,000	304,875	754,875
2020	3.000%	450,000	295,875	745,875
2021	3.000%	450,000	282,375	732,375
2022	4.000%	450,000	268,875	718,875
2023	3.000%	450,000	250,875	700,875
2024	5.000%	450,000	237,375	687,375
2025	5.000%	450,000	214,875	664,875
2026	5.000%	450,000	192,375	642,375
2027	5.000%	450,000	169,875	619,875
2028	4.000%	450,000	147,375	597,375
2029	4.000%	450,000	129,375	579,375
2030	3.000%	450,000	111,375	561,375
2031	3.000%	450,000	97,875	547,875
2032	3.000%	450,000	84,375	534,375
2033	3.000%	450,000	70,875	520,875
2034	3.125%	450,000	57,375	507,375
2035	3.125%	450,000	43,313	493,313
2036	3.250%	450,000	29,250	479,250
2037	3.250%	450,000	14,625	464,625
2038	-	-	-	-
2039	-	-	-	-

Dated Date: 2/22/2017 Next Call: 2/1/2027
 Purpose: Land, Streets, and Parks & Rec Insurance: n/a
 Coupon Dates: Feb 1 / Aug 1 Maturity Date: Feb 1

\$9,800,000

General Obligation Public Improvement Bonds, Series 2018 (No Stormwater)

FY	Coupon	Principal	Interest	Total
Total		9,800,000	3,469,302	13,269,302
2019	5.000%	490,000	382,915	872,915
2020	5.000%	490,000	346,063	836,063
2021	5.000%	490,000	321,563	811,563
2022	5.000%	490,000	297,063	787,063
2023	5.000%	490,000	272,563	762,563
2024	5.000%	490,000	248,063	738,063
2025	5.000%	490,000	223,563	713,563
2026	5.000%	490,000	199,063	689,063
2027	2.500%	490,000	174,563	664,563
2028	2.500%	490,000	162,313	652,313
2029	3.000%	490,000	150,063	640,063
2030	2.875%	490,000	135,363	625,363
2031	2.875%	490,000	121,275	611,275
2032	3.000%	490,000	107,188	597,188
2033	3.000%	490,000	92,488	582,488
2034	3.125%	490,000	77,788	567,788
2035	3.125%	490,000	62,475	552,475
2036	3.125%	490,000	47,163	537,163
2037	3.250%	490,000	31,850	521,850
2038	3.250%	490,000	15,925	505,925
2039	-	-	-	-

Dated Date: 4/19/2018 Next Call: 5/1/2026
 Purpose: Parks & Rec and Streets & Sidewalks Only Insurance: n/a
 Coupon Dates: May 1 / Nov 1 Maturity Date: May 1
 Note: Excludes Stormwater Component of issuance.

LOBs



\$28,800,000
Limited Obligation Bonds, Series 2012

FY	Coupon	Principal	Interest	Total
Total		9,200,000	1,834,950	11,034,950
2019	5.000%	1,320,000	457,700	1,777,700
2020	5.000%	1,310,000	393,000	1,703,000
2021	5.000%	1,320,000	328,500	1,648,500
2022	5.000%	1,315,000	262,500	1,577,500
2023	5.000%	1,315,000	196,750	1,511,750
2024	5.000%	1,310,000	131,000	1,441,000
2025	5.000%	1,310,000	65,500	1,375,500
2026		-	-	-
2027		-	-	-
2028		-	-	-
2029		-	-	-
2030		-	-	-
2031		-	-	-
2032		-	-	-
2033		-	-	-
2034		-	-	-
2035		-	-	-
2036		-	-	-
2037		-	-	-
2038		-	-	-
2039		-	-	-

Dated Date: **6/27/2012** Next Call: **6/1/2022**
 Purpose: **Refunding - Chapel Hill Portion Insurance: n/a**
 Coupon Dates: **Jun 1 / Dec 1** Maturity Date: **Jun 1**

\$28,800,000
Limited Obligation Bonds, Series 2012

FY	Coupon	Principal	Interest	Total
Total		2,100,000	354,300	2,454,300
2019	5.000%	345,000	104,500	449,500
2020	5.000%	355,000	87,550	442,550
2021	5.000%	380,000	70,000	450,000
2022	5.000%	400,000	51,000	451,000
2023	5.000%	415,000	31,000	446,000
2024	5.000%	205,000	10,250	215,250
2025		-	-	-
2026		-	-	-
2027		-	-	-
2028		-	-	-
2029		-	-	-
2030		-	-	-
2031		-	-	-
2032		-	-	-
2033		-	-	-
2034		-	-	-
2035		-	-	-
2036		-	-	-
2037		-	-	-
2038		-	-	-
2039		-	-	-

Dated Date: **6/27/2012** Next Call: **6/1/2022**
 Purpose: **Refunding - Parking Portion Insurance: n/a**
 Coupon Dates: **Jun 1 / Dec 1** Maturity Date: **Jun 1**

\$28,800,000
Limited Obligation Bonds, Series 2012

FY	Coupon	Principal	Interest	Total
Total		4,855,000	1,641,050	6,496,050
2019	5.000%	255,000	210,131	465,131
2020	5.000%	265,000	197,781	462,781
2021	5.000%	280,000	184,831	464,831
2022	5.000%	295,000	170,831	465,831
2023	5.000%	310,000	156,081	466,081
2024	5.000%	325,000	140,581	465,581
2025	5.000%	340,000	124,331	464,331
2026	3.375%	355,000	107,331	462,331
2027	3.500%	370,000	95,350	465,350
2028	4.000%	380,000	82,400	462,400
2029	4.000%	395,000	67,200	462,200
2030	4.000%	410,000	51,400	461,400
2031	4.000%	430,000	35,000	465,000
2032	4.000%	445,000	17,800	462,800
2033		-	-	-
2034		-	-	-
2035		-	-	-
2036		-	-	-
2037		-	-	-
2038		-	-	-
2039		-	-	-

Dated Date: **6/27/2012** Next Call: **6/1/2022**
 Purpose: **New Money - 140 West Portion Insurance: n/a**
 Coupon Dates: **Jun 1 / Dec 1** Maturity Date: **Jun 1**



\$887,000 2012 IPC (BB&T)					\$431,200 2012 IPC (SunTrust)					\$445,000 2013 IPC (Wells Fargo)				
FY	Coupon	Principal	Interest	Total	FY	Coupon	Principal	Interest	Total	FY	Coupon	Principal	Interest	Total
Total		133,127	1,912	135,039	Total		127,748	2,542	130,290	Total		131,846	2,662	134,508
2019	1.720%	133,127	1,912	135,039	2019	1.510%	63,454	1,691	65,145	2019	1.520%	65,483	1,771	67,254
2020		-	-	-	2020	1.510%	64,294	851	65,145	2020	1.520%	66,363	891	67,254
2021		-	-	-	2021		-	-	-	2021		-	-	-
2022		-	-	-	2022		-	-	-	2022		-	-	-
2023		-	-	-	2023		-	-	-	2023		-	-	-
2024		-	-	-	2024		-	-	-	2024		-	-	-
2025		-	-	-	2025		-	-	-	2025		-	-	-
2026		-	-	-	2026		-	-	-	2026		-	-	-
2027		-	-	-	2027		-	-	-	2027		-	-	-
2028		-	-	-	2028		-	-	-	2028		-	-	-
2029		-	-	-	2029		-	-	-	2029		-	-	-
2030		-	-	-	2030		-	-	-	2030		-	-	-
2031		-	-	-	2031		-	-	-	2031		-	-	-
2032		-	-	-	2032		-	-	-	2032		-	-	-
2033		-	-	-	2033		-	-	-	2033		-	-	-
2034		-	-	-	2034		-	-	-	2034		-	-	-
2035		-	-	-	2035		-	-	-	2035		-	-	-
2036		-	-	-	2036		-	-	-	2036		-	-	-
2037		-	-	-	2037		-	-	-	2037		-	-	-
2038		-	-	-	2038		-	-	-	2038		-	-	-
2039		-	-	-	2039		-	-	-	2039		-	-	-

Dated Date: Unknown	Next Call: Unknown	Dated Date: Unknown	Next Call: Unknown	Dated Date: Unknown	Next Call: Unknown
Purpose: Unknown	Insurance: Unknown	Purpose: Unknown	Insurance: Unknown	Purpose: Unknown	Insurance: Unknown
Coupon Dates: Annual	Maturity Date: Annual	Coupon Dates: Annual	Maturity Date: Annual	Coupon Dates: Annual	Maturity Date: Annual
Note: Interpolated from FY 2017 CAFR		Note: Interpolated from FY 2017 CAFR		Note: Interpolated from FY 2017 CAFR	



\$872,000

2013 IPC (SunTrust)

FY	Coupon	Principal	Interest	Total
Total		323,693	9,287	332,980
2019	1.810%	128,052	5,140	133,192
2020	1.810%	130,085	3,107	133,192
2021	1.810%	65,555	1,041	66,596
2022	-	-	-	-
2023	-	-	-	-
2024	-	-	-	-
2025	-	-	-	-
2026	-	-	-	-
2027	-	-	-	-
2028	-	-	-	-
2029	-	-	-	-
2030	-	-	-	-
2031	-	-	-	-
2032	-	-	-	-
2033	-	-	-	-
2034	-	-	-	-
2035	-	-	-	-
2036	-	-	-	-
2037	-	-	-	-
2038	-	-	-	-
2039	-	-	-	-

\$2,395,000

2015 IPC (Bank of NC)

FY	Coupon	Principal	Interest	Total
Total		2,075,000	301,537	2,376,537
2019	2.239%	160,000	44,668	204,668
2020	2.239%	160,000	41,086	201,086
2021	2.239%	160,000	37,503	197,503
2022	2.239%	160,000	33,921	193,921
2023	2.239%	160,000	30,338	190,338
2024	2.239%	160,000	26,756	186,756
2025	2.239%	160,000	23,174	183,174
2026	2.239%	160,000	19,591	179,591
2027	2.239%	159,000	16,020	175,020
2028	2.239%	159,000	12,460	171,460
2029	2.239%	159,000	8,900	167,900
2030	2.239%	159,000	5,340	164,340
2031	2.239%	159,000	1,780	160,780
2032	-	-	-	-
2033	-	-	-	-
2034	-	-	-	-
2035	-	-	-	-
2036	-	-	-	-
2037	-	-	-	-
2038	-	-	-	-
2039	-	-	-	-

\$7,984,000

2016 IPC (Raymond James)

FY	Coupon	Principal	Interest	Total
Total		6,953,000	1,122,486	8,075,486
2019	2.320%	523,000	161,310	684,310
2020	2.320%	530,000	149,176	679,176
2021	2.320%	537,000	136,880	673,880
2022	2.320%	544,000	124,422	668,422
2023	2.320%	551,000	111,801	662,801
2024	2.320%	558,000	99,018	657,018
2025	2.320%	566,000	86,072	652,072
2026	2.320%	572,000	72,941	644,941
2027	2.320%	499,000	59,670	558,670
2028	2.320%	506,000	48,094	554,094
2029	2.320%	514,000	36,354	550,354
2030	2.320%	522,000	24,430	546,430
2031	2.320%	531,000	12,319	543,319
2032	-	-	-	-
2033	-	-	-	-
2034	-	-	-	-
2035	-	-	-	-
2036	-	-	-	-
2037	-	-	-	-
2038	-	-	-	-
2039	-	-	-	-

Dated Date: Unknown Next Call: Unknown

Purpose: Unknown Insurance: Unknown

Coupon Dates: Annual Maturity Date: Annual

Note: Interpolated from FY 2017 CAFR

Dated Date: 6/4/2015 Next Call: Current

Purpose: Equipment / Buildings Insurance: n/a

Coupon Dates: Feb 1 / Aug 1 Maturity Date: Aug 1

Dated Date: 3/10/2016 Next Call: 3/1/2026

Purpose: Capital / Fire Station / EF / Town Hall Insurance: n/a

Coupon Dates: Mar 1 / Sep 1 Maturity Date: Mar 1



Existing Tax Supported Debt

By Fund

Tax Supported Debt



Total Tax Supported Debt Service

FY	Principal	Interest	Total
Total	64,669,414	16,732,896	81,402,310
2019	6,235,117	2,422,825	8,657,942
2020	5,832,742	2,193,912	8,026,655
2021	5,514,555	1,977,185	7,491,740
2022	5,371,000	1,762,360	7,133,360
2023	5,402,000	1,543,762	6,945,762
2024	5,198,000	1,327,089	6,525,089
2025	5,006,000	1,110,234	6,116,234
2026	3,526,000	904,982	4,430,982
2027	3,410,000	774,671	4,184,671
2028	3,090,000	657,251	3,747,251
2029	3,113,000	547,499	3,660,499
2030	3,141,000	433,450	3,574,450
2031	3,170,000	322,937	3,492,937
2032	1,470,000	211,615	1,681,615
2033	940,000	163,363	1,103,363
2034	940,000	135,163	1,075,163
2035	940,000	105,788	1,045,788
2036	940,000	76,413	1,016,413
2037	940,000	46,475	986,475
2038	490,000	15,925	505,925

Parking Fund

FY	Principal	Interest	Total
Total	6,955,000	1,995,350	8,950,350
2019	600,000	314,631	914,631
2020	620,000	285,331	905,331
2021	660,000	254,831	914,831
2022	695,000	221,831	916,831
2023	725,000	187,081	912,081
2024	530,000	150,831	680,831
2025	340,000	124,331	464,331
2026	355,000	107,331	462,331
2027	370,000	95,350	465,350
2028	380,000	82,400	462,400
2029	395,000	67,200	462,200
2030	410,000	51,400	461,400
2031	430,000	35,000	465,000
2032	445,000	17,800	462,800
2033	-	-	-
2034	-	-	-
2035	-	-	-
2036	-	-	-
2037	-	-	-
2038	-	-	-

Debt Fund (Excluding Parking Fund)

FY	Principal	Interest	Total
Total	56,998,000	14,721,143	71,719,143
2019	5,245,000	2,097,680	7,342,680
2020	4,952,000	1,903,732	6,855,732
2021	4,789,000	1,721,312	6,510,312
2022	4,676,000	1,540,529	6,216,529
2023	4,677,000	1,356,681	6,033,681
2024	4,668,000	1,176,257	5,844,257
2025	4,666,000	985,902	5,651,902
2026	3,171,000	797,650	3,968,650
2027	3,040,000	679,321	3,719,321
2028	2,710,000	574,851	3,284,851
2029	2,718,000	480,299	3,198,299
2030	2,731,000	382,050	3,113,050
2031	2,740,000	287,937	3,027,937
2032	1,025,000	193,815	1,218,815
2033	940,000	163,363	1,103,363
2034	940,000	135,163	1,075,163
2035	940,000	105,788	1,045,788
2036	940,000	76,413	1,016,413
2037	940,000	46,475	986,475
2038	490,000	15,925	505,925

Vehicle Replacement Fund

FY	Principal	Interest	Total
Total	716,414	16,403	732,817
2019	390,117	10,513	400,630
2020	260,742	4,849	265,591
2021	65,555	1,041	66,596
2022	-	-	-
2023	-	-	-
2024	-	-	-
2025	-	-	-
2026	-	-	-
2027	-	-	-
2028	-	-	-
2029	-	-	-
2030	-	-	-
2031	-	-	-
2032	-	-	-
2033	-	-	-
2034	-	-	-
2035	-	-	-
2036	-	-	-
2037	-	-	-
2038	-	-	-

Debt Fund



\$4,490,000

General Obligation Refunding Bonds, Series 2009

FY	Coupon	Principal	Interest	Total
Total		275,000	8,250	283,250
2019	3.000%	275,000	8,250	283,250
2020		-	-	-
2021		-	-	-
2022		-	-	-
2023		-	-	-
2024		-	-	-
2025		-	-	-
2026		-	-	-
2027		-	-	-
2028		-	-	-
2029		-	-	-
2030		-	-	-
2031		-	-	-
2032		-	-	-
2033		-	-	-
2034		-	-	-
2035		-	-	-
2036		-	-	-
2037		-	-	-
2038		-	-	-
2039		-	-	-

Dated Date: 12/22/2009 Next Call: Non-callable
 Purpose: Refunding Insurance: n/a
 Coupon Dates: Mar 1/ Sep 1 Maturity Date: Mar 1

\$8,160,000

General Obligation Public Improvement Bonds, Series 2010A

FY	Coupon	Principal	Interest	Total
Total		1,020,000	30,600	1,050,600
2019	3.000%	1,020,000	30,600	1,050,600
2020		-	-	-
2021		-	-	-
2022		-	-	-
2023		-	-	-
2024		-	-	-
2025		-	-	-
2026		-	-	-
2027		-	-	-
2028		-	-	-
2029		-	-	-
2030		-	-	-
2031		-	-	-
2032		-	-	-
2033		-	-	-
2034		-	-	-
2035		-	-	-
2036		-	-	-
2037		-	-	-
2038		-	-	-
2039		-	-	-

Dated Date: 10/12/2010 Next Call: 4/1/2020
 Purpose: Public Improvement Insurance: n/a
 Coupon Dates: Apr 1 / Oct 1 Maturity Date: Apr 1

\$12,250,000

General Obligation Public Improvement Bonds, Series 2010B (BABs)

FY	Coupon	Principal	Interest	Total
Total		12,250,000	4,088,585	16,338,585
2019	3.000%	-	521,448	521,448
2020	3.500%	1,020,000	521,448	1,541,448
2021	3.700%	1,020,000	485,748	1,505,748
2022	3.900%	1,020,000	448,008	1,468,008
2023	4.000%	1,020,000	408,228	1,428,228
2024	4.125%	1,020,000	367,428	1,387,428
2025	4.200%	1,020,000	325,353	1,345,353
2026	4.300%	1,020,000	282,513	1,302,513
2027	4.400%	1,020,000	238,653	1,258,653
2028	4.600%	1,020,000	193,773	1,213,773
2029	4.700%	1,020,000	146,853	1,166,853
2030	4.750%	1,025,000	98,913	1,123,913
2031	4.900%	1,025,000	50,225	1,075,225
2032		-	-	-
2033		-	-	-
2034		-	-	-
2035		-	-	-
2036		-	-	-
2037		-	-	-
2038		-	-	-
2039		-	-	-

Dated Date: 10/12/2010 Next Call: 4/1/2020
 Purpose: Public Improvement Insurance: n/a
 Coupon Dates: Apr 1 / Oct 1 Maturity Date: Apr 1
 Note: Interest shown gross of subsidy

Debt Fund



\$4,655,000
General Obligation Refunding Bonds, Series 2012

FY	Coupon	Principal	Interest	Total
Total		2,035,000	196,500	2,231,500
2019	3.000%	485,000	61,050	546,050
2020	3.000%	480,000	46,500	526,500
2021	3.000%	305,000	32,100	337,100
2022	3.000%	195,000	22,950	217,950
2023	3.000%	195,000	17,100	212,100
2024	3.000%	190,000	11,250	201,250
2025	3.000%	185,000	5,550	190,550
2026	-	-	-	-
2027	-	-	-	-
2028	-	-	-	-
2029	-	-	-	-
2030	-	-	-	-
2031	-	-	-	-
2032	-	-	-	-
2033	-	-	-	-
2034	-	-	-	-
2035	-	-	-	-
2036	-	-	-	-
2037	-	-	-	-
2038	-	-	-	-
2039	-	-	-	-

Dated Date: 6/5/2012 Next Call: 4/1/2022
 Purpose: Refunding Insurance: n/a
 Coupon Dates: Apr 1 / Oct 1 Maturity Date: Apr 1

\$1,700,000
General Obligation Public Improvement Bonds, Series 2012

FY	Coupon	Principal	Interest	Total
Total		1,190,000	211,225	1,401,225
2019	2.000%	85,000	26,648	111,648
2020	2.000%	85,000	24,948	109,948
2021	2.000%	85,000	23,248	108,248
2022	2.000%	85,000	21,548	106,548
2023	2.000%	85,000	19,848	104,848
2024	2.000%	85,000	18,148	103,148
2025	2.100%	85,000	16,448	101,448
2026	2.200%	85,000	14,663	99,663
2027	2.300%	85,000	12,793	97,793
2028	2.450%	85,000	10,838	95,838
2029	2.500%	85,000	8,755	93,755
2030	2.550%	85,000	6,630	91,630
2031	2.600%	85,000	4,463	89,463
2032	2.650%	85,000	2,253	87,253
2033	-	-	-	-
2034	-	-	-	-
2035	-	-	-	-
2036	-	-	-	-
2037	-	-	-	-
2038	-	-	-	-
2039	-	-	-	-

Dated Date: 7/3/2012 Next Call: 4/1/2022
 Purpose: Public Improvement Insurance: n/a
 Coupon Dates: Apr 1 / Oct 1 Maturity Date: Apr 1

\$3,050,000
General Obligation Refunding Bond, Series 2013 (SunTrust)

FY	Coupon	Principal	Interest	Total
Total		2,340,000	197,621	2,537,621
2019	1.770%	287,000	41,418	328,418
2020	1.770%	282,000	36,338	318,338
2021	1.770%	277,000	31,347	308,347
2022	1.770%	272,000	26,444	298,444
2023	1.770%	266,000	21,629	287,629
2024	1.770%	260,000	16,921	276,921
2025	1.770%	255,000	12,319	267,319
2026	1.770%	249,000	7,806	256,806
2027	1.770%	192,000	3,398	195,398
2028	-	-	-	-
2029	-	-	-	-
2030	-	-	-	-
2031	-	-	-	-
2032	-	-	-	-
2033	-	-	-	-
2034	-	-	-	-
2035	-	-	-	-
2036	-	-	-	-
2037	-	-	-	-
2038	-	-	-	-
2039	-	-	-	-

Dated Date: 2/28/2013 Next Call: 2/28/2020
 Purpose: Refunding Insurance: n/a
 Coupon Dates: May 1 / Nov 1 Maturity Date: May 1

Debt Fund



\$1,460,000
General Obligation Public Safety Bonds, Series 2017

FY	Coupon	Principal	Interest	Total
Total		1,310,000	256,900	1,566,900
2019	5.000%	150,000	56,800	206,800
2020	5.000%	145,000	49,300	194,300
2021	5.000%	145,000	42,050	187,050
2022	5.000%	145,000	34,800	179,800
2023	5.000%	145,000	27,550	172,550
2024	5.000%	145,000	20,300	165,300
2025	3.000%	145,000	13,050	158,050
2026	3.000%	145,000	8,700	153,700
2027	3.000%	145,000	4,350	149,350
2028	-	-	-	-
2029	-	-	-	-
2030	-	-	-	-
2031	-	-	-	-
2032	-	-	-	-
2033	-	-	-	-
2034	-	-	-	-
2035	-	-	-	-
2036	-	-	-	-
2037	-	-	-	-
2038	-	-	-	-
2039	-	-	-	-

Dated Date: **2/21/2017** Next Call: **Noncallable**
 Purpose: **Equipment** Insurance: **n/a**
 Coupon Dates: **Feb 1 / Aug 1** Maturity Date: **Feb 1**

\$9,000,000
General Obligation Public Improvement Bonds, Series 2017

FY	Coupon	Principal	Interest	Total
Total		8,550,000	3,003,188	11,553,188
2019	2.000%	450,000	304,875	754,875
2020	3.000%	450,000	295,875	745,875
2021	3.000%	450,000	282,375	732,375
2022	4.000%	450,000	268,875	718,875
2023	3.000%	450,000	250,875	700,875
2024	5.000%	450,000	237,375	687,375
2025	5.000%	450,000	214,875	664,875
2026	5.000%	450,000	192,375	642,375
2027	5.000%	450,000	169,875	619,875
2028	4.000%	450,000	147,375	597,375
2029	4.000%	450,000	129,375	579,375
2030	3.000%	450,000	111,375	561,375
2031	3.000%	450,000	97,875	547,875
2032	3.000%	450,000	84,375	534,375
2033	3.000%	450,000	70,875	520,875
2034	3.125%	450,000	57,375	507,375
2035	3.125%	450,000	43,313	493,313
2036	3.250%	450,000	29,250	479,250
2037	3.250%	450,000	14,625	464,625
2038	-	-	-	-
2039	-	-	-	-

Dated Date: **2/22/2017** Next Call: **2/1/2027**
 Purpose: **Land, Streets, and Parks & Rec** Insurance: **n/a**
 Coupon Dates: **Feb 1 / Aug 1** Maturity Date: **Feb 1**

\$9,800,000
General Obligation Public Improvement Bonds, Series 2018 (No Stormwater)

FY	Coupon	Principal	Interest	Total
Total		9,800,000	3,469,302	13,269,302
2019	5.000%	490,000	382,915	872,915
2020	5.000%	490,000	346,063	836,063
2021	5.000%	490,000	321,563	811,563
2022	5.000%	490,000	297,063	787,063
2023	5.000%	490,000	272,563	762,563
2024	5.000%	490,000	248,063	738,063
2025	5.000%	490,000	223,563	713,563
2026	5.000%	490,000	199,063	689,063
2027	2.500%	490,000	174,563	664,563
2028	2.500%	490,000	162,313	652,313
2029	3.000%	490,000	150,063	640,063
2030	2.875%	490,000	135,363	625,363
2031	2.875%	490,000	121,275	611,275
2032	3.000%	490,000	107,188	597,188
2033	3.000%	490,000	92,488	582,488
2034	3.125%	490,000	77,788	567,788
2035	3.125%	490,000	62,475	552,475
2036	3.125%	490,000	47,163	537,163
2037	3.250%	490,000	31,850	521,850
2038	3.250%	490,000	15,925	505,925
2039	-	-	-	-

Dated Date: **4/19/2018** Next Call: **5/1/2026**
 Purpose: **Parks & Rec and Streets & Sidewalks Only** Insurance: **n/a**
 Coupon Dates: **May 1 / Nov 1** Maturity Date: **May 1**
 Note: Excludes Stormwater Component of issuance.

Debt Fund



\$2,395,000

2015 IPC (Bank of NC)

FY	Coupon	Principal	Interest	Total
Total		2,075,000	301,537	2,376,537
2019	2.239%	160,000	44,668	204,668
2020	2.239%	160,000	41,086	201,086
2021	2.239%	160,000	37,503	197,503
2022	2.239%	160,000	33,921	193,921
2023	2.239%	160,000	30,338	190,338
2024	2.239%	160,000	26,756	186,756
2025	2.239%	160,000	23,174	183,174
2026	2.239%	160,000	19,591	179,591
2027	2.239%	159,000	16,020	175,020
2028	2.239%	159,000	12,460	171,460
2029	2.239%	159,000	8,900	167,900
2030	2.239%	159,000	5,340	164,340
2031	2.239%	159,000	1,780	160,780
2032		-	-	-
2033		-	-	-
2034		-	-	-
2035		-	-	-
2036		-	-	-
2037		-	-	-
2038		-	-	-
2039		-	-	-

Dated Date: 6/4/2015 Next Call: Current
 Purpose: Equipment / Buildings Insurance: n/a
 Coupon Dates: Feb 1 / Aug 1 Maturity Date: Aug 1

\$7,984,000

2016 IPC (Raymond James)

FY	Coupon	Principal	Interest	Total
Total		6,953,000	1,122,486	8,075,486
2019	2.320%	523,000	161,310	684,310
2020	2.320%	530,000	149,176	679,176
2021	2.320%	537,000	136,880	673,880
2022	2.320%	544,000	124,422	668,422
2023	2.320%	551,000	111,801	662,801
2024	2.320%	558,000	99,018	657,018
2025	2.320%	566,000	86,072	652,072
2026	2.320%	572,000	72,941	644,941
2027	2.320%	499,000	59,670	558,670
2028	2.320%	506,000	48,094	554,094
2029	2.320%	514,000	36,354	550,354
2030	2.320%	522,000	24,430	546,430
2031	2.320%	531,000	12,319	543,319
2032		-	-	-
2033		-	-	-
2034		-	-	-
2035		-	-	-
2036		-	-	-
2037		-	-	-
2038		-	-	-
2039		-	-	-

Dated Date: 3/10/2016 Next Call: 3/1/2026
 Purpose: Capital / Fire Station / EF / Town Hall Insurance: n/a
 Coupon Dates: Mar 1 / Sep 1 Maturity Date: Mar 1

Parking Fund



\$28,800,000

Limited Obligation Bonds, Series 2012

FY	Coupon	Principal	Interest	Total
Total		2,100,000	354,300	2,454,300
2019	5.000%	345,000	104,500	449,500
2020	5.000%	355,000	87,550	442,550
2021	5.000%	380,000	70,000	450,000
2022	5.000%	400,000	51,000	451,000
2023	5.000%	415,000	31,000	446,000
2024	5.000%	205,000	10,250	215,250
2025		-	-	-
2026		-	-	-
2027		-	-	-
2028		-	-	-
2029		-	-	-
2030		-	-	-
2031		-	-	-
2032		-	-	-
2033		-	-	-
2034		-	-	-
2035		-	-	-
2036		-	-	-
2037		-	-	-
2038		-	-	-
2039		-	-	-

Dated Date: 6/27/2012

Next Call: 6/1/2022

Purpose: Refunding - Parking Portion

Insurance: n/a

Coupon Dates: Jun 1 / Dec 1

Maturity Date: Jun 1

\$28,800,000

Limited Obligation Bonds, Series 2012

FY	Coupon	Principal	Interest	Total
Total		4,855,000	1,641,050	6,496,050
2019	5.000%	255,000	210,131	465,131
2020	5.000%	265,000	197,781	462,781
2021	5.000%	280,000	184,831	464,831
2022	5.000%	295,000	170,831	465,831
2023	5.000%	310,000	156,081	466,081
2024	5.000%	325,000	140,581	465,581
2025	5.000%	340,000	124,331	464,331
2026	3.375%	355,000	107,331	462,331
2027	3.500%	370,000	95,350	465,350
2028	4.000%	380,000	82,400	462,400
2029	4.000%	395,000	67,200	462,200
2030	4.000%	410,000	51,400	461,400
2031	4.000%	430,000	35,000	465,000
2032	4.000%	445,000	17,800	462,800
2033		-	-	-
2034		-	-	-
2035		-	-	-
2036		-	-	-
2037		-	-	-
2038		-	-	-
2039		-	-	-

Dated Date: 6/27/2012

Next Call: 6/1/2022

Purpose: New Money - 140 West Portion

Insurance: n/a

Coupon Dates: Jun 1 / Dec 1

Maturity Date: Jun 1

Vehicle Replacement Fund



\$887,000

2012 IPC (BB&T)

FY	Coupon	Principal	Interest	Total
Total		133,127	1,912	135,039
2019	1.720%	133,127	1,912	135,039
2020		-	-	-
2021		-	-	-
2022		-	-	-
2023		-	-	-
2024		-	-	-
2025		-	-	-
2026		-	-	-
2027		-	-	-
2028		-	-	-
2029		-	-	-
2030		-	-	-
2031		-	-	-
2032		-	-	-
2033		-	-	-
2034		-	-	-
2035		-	-	-
2036		-	-	-
2037		-	-	-
2038		-	-	-
2039		-	-	-

Dated Date: Unknown

Purpose: Unknown

Coupon Dates: Annual

Note: Interpolated from FY 2017 CAFR

Next Call: Unknown

Insurance: Unknown

Maturity Date: Annual

\$431,200

2012 IPC (SunTrust)

FY	Coupon	Principal	Interest	Total
Total		127,748	2,542	130,290
2019	1.510%	63,454	1,691	65,145
2020	1.510%	64,294	851	65,145
2021		-	-	-
2022		-	-	-
2023		-	-	-
2024		-	-	-
2025		-	-	-
2026		-	-	-
2027		-	-	-
2028		-	-	-
2029		-	-	-
2030		-	-	-
2031		-	-	-
2032		-	-	-
2033		-	-	-
2034		-	-	-
2035		-	-	-
2036		-	-	-
2037		-	-	-
2038		-	-	-
2039		-	-	-

Dated Date: Unknown

Purpose: Unknown

Coupon Dates: Annual

Note: Interpolated from FY 2017 CAFR

Next Call: Unknown

Insurance: Unknown

Maturity Date: Annual

Vehicle Replacement Fund



\$445,000

2013 IPC (Wells Fargo)

FY	Coupon	Principal	Interest	Total
Total		131,846	2,662	134,508
2019	1.520%	65,483	1,771	67,254
2020	1.520%	66,363	891	67,254
2021		-	-	-
2022		-	-	-
2023		-	-	-
2024		-	-	-
2025		-	-	-
2026		-	-	-
2027		-	-	-
2028		-	-	-
2029		-	-	-
2030		-	-	-
2031		-	-	-
2032		-	-	-
2033		-	-	-
2034		-	-	-
2035		-	-	-
2036		-	-	-
2037		-	-	-
2038		-	-	-
2039		-	-	-

Dated Date: Unknown

Next Call: Unknown

Purpose: Unknown

Insurance: Unknown

Coupon Dates: Annual

Maturity Date: Annual

Note: Interpolated from FY 2017 CAFR

\$872,000

2013 IPC (SunTrust)

FY	Coupon	Principal	Interest	Total
Total		323,693	9,287	332,980
2019	1.810%	128,052	5,140	133,192
2020	1.810%	130,085	3,107	133,192
2021	1.810%	65,555	1,041	66,596
2022		-	-	-
2023		-	-	-
2024		-	-	-
2025		-	-	-
2026		-	-	-
2027		-	-	-
2028		-	-	-
2029		-	-	-
2030		-	-	-
2031		-	-	-
2032		-	-	-
2033		-	-	-
2034		-	-	-
2035		-	-	-
2036		-	-	-
2037		-	-	-
2038		-	-	-
2039		-	-	-

Dated Date: Unknown

Next Call: Unknown

Purpose: Unknown

Insurance: Unknown

Coupon Dates: Annual

Maturity Date: Annual

Note: Interpolated from FY 2017 CAFR



Appendix D

Rating Reports

Rating Action: Moody's assigns Aaa to Chapel Hill, NC's \$12.5M GO Bonds 2018

Global Credit Research - 22 Mar 2018

Assignment of stable outlook

New York, March 22, 2018 -- Moody's Investors Service has assigned a Aaa rating to the Town of Chapel Hill, NC's \$12.5 million General Obligation Public Improvement Bonds, Series 2018. Concurrently, we have affirmed the Aaa rating on the town's \$31.7 million of outstanding general obligation debt and assigned a stable outlook.

RATINGS RATIONALE

The Aaa rating reflects the town's healthy financial position, its stable tax base anchored by the strong institutional presence of the flagship campus of the University of North Carolina, and manageable fixed costs.

RATING OUTLOOK

The assignment of the stable outlook reflects the economic strength of the tax base as well as the town's sound financial position.

FACTORS THAT COULD LEAD TO AN UPGRADE

- Not applicable

FACTORS THAT COULD LEAD TO A DOWNGRADE

- Multi-year trend of structural budget imbalance
- Reduction of General Fund balance and other available reserves
- Deterioration of the town's tax base

LEGAL SECURITY

The bonds are secured by the unlimited general obligation tax pledge of the town.

USE OF PROCEEDS

Proceeds from the issuance will be used to finance various town-wide capital improvements including parks, stormwater and street projects.

PROFILE

Located in the central portion of the state, the town sits within Orange County (Aaa stable). The town covers a land area of 21.6 square miles and has a population estimated at 59,753.

METHODOLOGY

The principal methodology used in these ratings was US Local Government General Obligation Debt published in December 2016. Please see the Rating Methodologies page on www.moody.com for a copy of this methodology.

REGULATORY DISCLOSURES

For ratings issued on a program, series or category/class of debt, this announcement provides certain regulatory disclosures in relation to each rating of a subsequently issued bond or note of the same series or category/class of debt or pursuant to a program for which the ratings are derived exclusively from existing ratings in accordance with Moody's rating practices. For ratings issued on a support provider, this announcement provides certain regulatory disclosures in relation to the credit rating action on the support

provider and in relation to each particular credit rating action for securities that derive their credit ratings from the support provider's credit rating. For provisional ratings, this announcement provides certain regulatory disclosures in relation to the provisional rating assigned, and in relation to a definitive rating that may be assigned subsequent to the final issuance of the debt, in each case where the transaction structure and terms have not changed prior to the assignment of the definitive rating in a manner that would have affected the rating. For further information please see the ratings tab on the issuer/entity page for the respective issuer on www.moodys.com.

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Edward Damutz
Lead Analyst
Regional PFG Northeast
Moody's Investors Service, Inc.
100 N Riverside Plaza
Suite 2220
Chicago 60606
US
JOURNALISTS: 1 212 553 0376
Client Service: 1 212 553 1653

Tiphany Lee-Allen
Additional Contact
Regional PFG Northeast
JOURNALISTS: 1 212 553 0376
Client Service: 1 212 553 1653

Releasing Office:
Moody's Investors Service, Inc.
250 Greenwich Street
New York, NY 10007
U.S.A
JOURNALISTS: 1 212 553 0376
Client Service: 1 212 553 1653

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CREDIT OPINION

23 March 2018

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Contacts

Edward (Ted) Damutz +1.212.553.6990
 VP-Sr Credit Officer
 edward.damutz@moodys.com

Tiphany Lee-Allen +1.212.553.4772
 AVP-Analyst
 tiphany.lee-allen@moodys.com

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Chapel Hill (Town of) NC

Update to credit analysis

Summary

The town of Chapel Hill (Aaa, stable) benefits from a sound financial position. Following 14 years of General Fund surpluses, officials had a planned draw down on reserves for various pay-go capital improvements including parks and affordable housing as well as transfer to OBEB trust. The town's tax base continues to grow largely due to its advantageous location in the burgeoning Research Triangle region and is anchored by the strong institutional presence of the flagship campus of the University of North Carolina. Income and wealth levels are well above average despite the large student population. Lastly, the town's fixed costs will remain affordable despite future borrowing plans due to a conservatively constructed CIP and an average pension position.

Credit strengths

- » Sound financial position with healthy reserves
- » Stable economy with strong institutional presence
- » Affordable debt profile

Credit challenges

- » Relatively high cost of living

Rating outlook

The stable outlook reflects the economic strength of the tax base as well as the town's sound financial position.

Factors that could lead to an upgrade

- » Not applicable

Factors that could lead to a downgrade

- » Multi-year trend of structural budget imbalance
- » Reduction of General Fund balance and other available reserves
- » Deterioration of the town's tax base

Key indicators

Exhibit 1

Chapel Hill (Town of) NC	2013	2014	2015	2016	2017
Economy/Tax Base					
Total Full Value (\$000)	\$7,304,497	\$7,463,254	\$7,447,017	\$7,539,775	\$7,532,719
Population	58,058	58,379	58,766	59,753	59,569
Full Value Per Capita	\$125,814	\$127,841	\$126,723	\$126,182	\$126,454
Median Family Income (% of US Median)	174.8%	172.6%	174.2%	174.2%	174.2%
Finances					
Operating Revenue (\$000)	\$58,187	\$61,975	\$63,851	\$67,191	\$66,033
Fund Balance (\$000)	\$24,482	\$26,450	\$32,592	\$38,698	\$30,903
Cash Balance (\$000)	\$22,921	\$23,201	\$27,509	\$32,689	\$25,926
Fund Balance as a % of Revenues	42.1%	42.7%	51.0%	57.6%	46.8%
Cash Balance as a % of Revenues	39.4%	37.4%	43.1%	48.7%	39.3%
Debt/Pensions					
Net Direct Debt (\$000)	\$61,701	\$135,295	\$41,342	\$56,398	\$65,260
3-Year Average of Moody's ANPL (\$000)	\$55,834	\$63,568	\$59,919	\$55,610	\$74,843
Net Direct Debt / Operating Revenues (x)	1.1x	2.2x	0.6x	0.8x	1.0x
Net Direct Debt / Full Value (%)	0.8%	1.8%	0.6%	0.7%	0.9%
Moody's - adjusted Net Pension Liability (3-yr average) to Revenues (x)	1.0x	1.0x	0.9x	0.8x	1.1x
Moody's - adjusted Net Pension Liability (3-yr average) to Full Value (%)	0.8%	0.9%	0.8%	0.7%	1.0%

Source: Chapel Hill Comprehensive Annual Financial Reports, Moody's Investors Service, US Census

Profile

Located in the central portion of the state, the town sits within Orange County (Aaa stable). The town covers a land area of 21.6 square miles and has a population estimated at 59,569.

Detailed credit considerations

Economy and Tax Base: University and proximity to research triangle park support robust local economy

The town's tax base is expected to remain stable and healthy, given the stabilizing presence of the University of North Carolina (UNC) at Chapel Hill (Aaa stable) and the important role the town plays as one of the anchors of Research Triangle Park (RTP). The university enrolls over 29,000 students and employs approximately 20,000 people. UNC's footprint in the community is expected to increase substantially over the next 10 to 20 years with the construction of Carolina North, a major satellite research campus. The project will occupy over 250 acres in town and include new academic buildings, retail space, research facilities, businesses and public schools. At completion, the project is expected to include sizable employment and enrollment gains. Also of note, approximately half of the project is expected to be taxable. UNC Healthcare employs over 13,000 individuals. In addition to not-for-profit employment opportunities in surrounding communities including Duke University (Aa1 stable) and Duke University Health System (over 20,000 employees), the area is characterized by a robust and diverse private sector centered around RTP including several large employers including International Business Machines Corporation-IBM (A1 stable-11,500 employees), SAS (4,200 employees), and GlaxoSmithKline plc (A2 stable). Over 39,000 people are employed by RTP's various entities, producing an annual payroll of over \$2.8 billion.

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The town's \$7.5 billion tax base has grown at an average annual rate of 0.7% for the past five years. The relatively low growth rate is largely due to some major redevelopment projects downtown which temporarily lowered valuations in the interim. The high quality nature of the tax base is evidenced by a full value per capita of \$126,454. Despite the large student presence, wealth levels are well above those of the state and the U.S., as evidenced by the 2015 median family income of 174.2% of the US.

Financial Operations and Reserves: Maintenance of healthy reserves and liquidity despite active pay-go capital funding

The town's financial position will likely remain healthy given a solid track record of positive operating results, conservative budgeting practices, and sound reserve levels. Positive fiscal 2016 results marked town's 14th consecutive General Fund surplus, increasing total General Fund balance to a strong \$32.7 million (53.6% of revenues) with the unreserved portion at \$16 million (26.2% of General Fund revenues). In fiscal 2017, officials had a planned spend-down of reserves for pay-go projects including parks & recreation, land acquisition, affordable housing as well as \$2.7 million for OPEB trust funding. The total over-run was \$7.8 million in the combined (General and Debt Service) operating fund, bringing the combined fund balance down to \$31.6 million or a still healthy 47.8% of revenues. At these levels the town's reserve position remains in line with the national Aaa median and above the town's target minimum available General Fund balance of 22% of General Fund expenditures. Officials report year-to-date fiscal 2018 results are positive.

LIQUIDITY

The town continues to carry a healthy amount of cash and investments with \$25.9 million in fiscal 2017, representing 39.3% of combined operating fund revenues.

Debt and Pensions: Fixed costs expected to remain affordable

The town's debt position will remain manageable given a low direct debt burden of 0.9% of full value and debt service levels representing 9.6% of expenditure in fiscal 2017. Further, the town employs an average repayment schedule with 91% of principal repaid within 10 years. In addition to the planned \$20.2 million borrowing for various municipal purposes under the bond authorization, the CIP includes \$31 million of installment financing.

DEBT STRUCTURE

The town's debt profile consists entirely of fixed rate borrowing.

DEBT-RELATED DERIVATIVES

The town has not entered into any swap agreements.

PENSIONS AND OPEB

The town contributes to the North Carolina Local Government Employees Retirement System (NCLGERS), defined benefit retirement plan administered by the State of North Carolina. Moody's uses the adjusted net pension liability to improve comparability of reported pension liabilities. The adjustments are not intended to replace the town's reported liability information, but to improve comparability with other rated entities. We determined the town's share of liability for the state-run plan in proportion to its contributions to the plan. In addition to participating in the state plan, the town has a separate plan for law enforcement and to which the town consistently makes over 100% of the annual required contribution. The three year average Moody's adjusted net pension liability (ANPL) for the town is an average 1.13 times operating revenues and 0.99% of full value.

The town also provides employees with Other Post employment Benefits (OPEB) and as of the last actuarial date (6/30/2016), had an unfunded actuarial liability of \$56.1 million. The town also set aside \$2.7 million from the General Fund for OPEB in an irrevocable trust.

Management and Governance

Chapel Hill's management has a long-standing history of conservative budgetary practice and prudent policies. The town maintains an Unassigned Fund Balance target of 22% of General Fund expenditures or higher and utilizes overages for one time pay-go capital projects. In preparation of the GO referendum in fiscal 2015, the Town Council increased the portion of the property tax dedicated to debt service from 7.5 cents to 8.5 cents and then to 8.2 cents after the revaluation.

North Carolina cities and towns have an institutional framework score of "Aaa," or very strong. Cities and towns have a large degree of revenue-raising flexibility primarily through the ability to increase property tax rates. Expenditures, which are largely for personnel, are predictable and towns have the legal ability to reduce expenditures if necessary, as it is a right to work state. Additionally, North Carolina cities benefit from strong state oversight by the Local Government Commission.

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Contacts

Edward (Ted) Damutz <i>VP-Sr Credit Officer</i> edward.damutz@moodys.com	+1.212.553.6990	Tiphany Lee-Allen <i>AVP-Analyst</i> tiphany.lee-allen@moodys.com	+1.212.553.4772
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Summary:

Chapel Hill, North Carolina; Appropriations; General Obligation

Primary Credit Analyst:

Daniel P Pulter, Centennial (1) 303-721-4646; Daniel.Pulter@spglobal.com

Secondary Contact:

Andy A Hobbs, Dallas + (972) 367-3345; Andy.Hobbs@spglobal.com

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Related Research

Summary:

Chapel Hill, North Carolina; Appropriations; General Obligation

Credit Profile

US\$12.5 mil GO pub imp bnds ser 2018 due 05/01/2038

Long Term Rating

AAA/Stable

New

Chapel Hill GO

Long Term Rating

AAA/Stable

Affirmed

Rationale

S&P Global Ratings assigned its 'AAA' long-term rating to Chapel Hill, N.C.'s series 2018 general obligation (GO) public improvement bonds. At the same time, we affirmed our 'AAA' long-term rating on the town's GO debt outstanding, and our 'AA+' long-term rating on the town's appropriation-backed debt. The outlook is stable.

The bonds constitute GOs, secured by the town's full faith and credit, and represent the second installment issued from the town's November 2015 authorization. Proceeds will be used to finance stormwater improvements, as well as streets, sidewalks, and recreation facilities.

We rate Chapel Hill's GO debt higher than the sovereign because we believe the town can maintain better credit characteristics than the U.S. in a stress scenario. Under our criteria, titled "Ratings Above The Sovereign: Corporate And Government Ratings—Methodology And Assumptions," published Nov. 19, 2013 on RatingsDirect, the town primarily has a locally derived revenue base with roughly 72% of total governmental revenue derived from property taxes in fiscal 2017. Intergovernmental revenue from the federal government accounted for 3%.

The ratings reflect our opinion of the town's:

- Very strong economy, with access to a broad and diverse metropolitan statistical area (MSA) and a local stabilizing institutional influence;
- Very strong management, with "strong" financial policies and practices under our Financial Management Assessment methodology;
- Adequate budgetary performance, with operating results that we expect could improve in the near term relative to fiscal 2017, which closed with operating deficits in the general fund and at the total governmental fund level in fiscal 2017;
- Very strong budgetary flexibility, with an available fund balance in fiscal 2017 of 27% of operating expenditures;
- Very strong liquidity, with total government available cash at 69.2% of total governmental fund expenditures and 7.1x governmental debt service, and access to external liquidity we consider strong;
- Strong debt and contingent liability position, with debt service carrying charges at 9.7% of expenditures and net

direct debt that is 111.6% of total governmental fund revenue, as well as low overall net debt at less than 3% of market value and rapid amortization, with 75.5% of debt scheduled to be retired in 10 years; and

- Very strong institutional framework score.

Very strong economy

We consider Chapel Hill's economy very strong. The town, with an estimated population of 60,812, is located in Durham and Orange counties in the Durham-Chapel Hill MSA, which we consider to be broad and diverse. The town also benefits, in our view, from a stabilizing institutional influence. The town has a projected per capita effective buying income of 135% of the national level and per capita market value of \$132,111. Overall, the town's market value grew by 6.7% over the past year to \$8 billion in 2018. The weight-averaged unemployment rate of the counties was 4.3% in 2016.

Spanning an area of 21.6 square miles, the town of Chapel Hill represents one of three communities anchoring the North Carolina Research Triangle, along with the cities of Raleigh and Durham. While the local economy is home to a diverse array of technology, electronics, pharmaceutical, biotech, and financial services employers, it also benefits from the institutional presence of the University of North Carolina's (UNC) flagship campus, as well as UNC Medical Center--which function as the town's largest employers. With nearly 30,000 enrolled students and roughly 12,600 faculty and staff in fiscal 2018, UNC Chapel Hill represents a stabilizing presence for the town, in our view. We consider the tax base very diverse, with the top 10 payers representing only 4.28% of AV in 2017. And while total AV largely remained level from fiscal years 2011 to 2017, town officials report that AV markedly strengthened by an estimated 6.7% in fiscal 2018 (owing to both favorable revaluations and ongoing development), and is expect to grow an additional 2.4% in fiscal 2019 as development continues.

Given the town's favorable proximity to major employers, including UNC and those within the Research Triangle as well as the state capitol, the town has grown into a premier residential location, with several mixed-used developments recently completed or currently underway. One such development includes nearly 140 condominiums as well as 30,000 square feet of office and retail space. Additionally, Carolina Square is a 200,000 square foot redevelopment in downtown Chapel Hill that includes class A office space, a Target shopping center, and 246 apartments. Two new hotels also completed construction in recent months, and a Wegmans Food Market is anticipated to open in early 2019.

Finally, the town has recently focused on infrastructure development within the Ephesus Church-Fordham area. Once complete, the area will include additional commercial and residential opportunities, and will provide bike path and walkability features.

Very strong management

We view the town's management as very strong, with "strong" financial policies and practices under our Financial Management Assessment methodology, indicating financial practices are strong, well embedded, and likely sustainable.

Supporting our opinion of the town's very strong management profile are:

- Conservative budget practices that take into account historical and projected trends, which have contributed to the

maintenance of the town's strong reserve levels over the last three fiscal years;

- Monthly monitoring of its financial performance coupled with formal reports to the town board every quarter;
- Rolling, multiyear financial plan projecting out revenues and expenditures over a five-year period;
- Detailed 15-year capital improvement plan that is updated annually and identifies potential funding sources; and
- Formal reserve policy requiring unassigned general fund balance to be maintained at a minimum of 22% of general fund expenditures.

The towns currently lacks formal investment and debt management policies. However, investments adhere to state guidelines with quarterly reports given to the board that include holdings and performance. Additionally, the town follows an informal target of maintaining debt service between 10% and 12% of general fund expenditures.

Adequate budgetary performance

Chapel Hill's budgetary performance is adequate in our opinion. The town had operating deficits of negative 4.7% of expenditures in the general fund and of negative 2.4% across all governmental funds in fiscal 2017. Our assessment accounts for our expectation that budgetary results could improve from 2017 results in the near term.

In assessing the town's budgetary performance, we adjusted for annually recurring transfers into and out of the general fund, and for large one-time capital outlays with the use of debt proceeds across total governmental funds.

Chapel Hill has produced both strong and very strong budgetary performance results in recent years, due in part to conservative budgetary practices on behalf of management. While annual budgets often prescribe drawdowns and are balanced with fund balance appropriations, year-end results have consistently exceeded expectations. Following fiscal 2016's very strong surplus, however, the town budgeted for a much larger-than-usual general fund balance appropriation of roughly \$12.4 million in fiscal 2017, with large planned expenditures toward the creation of an OPEB trust, as well as transfers for the establishment of an Affordable Housing Development Reserve fund and the purchase of property from the local American Legion chapter. Despite intergovernmental revenues also falling short of expectations due to a state-wide reduction of utility franchise tax receipt disbursement, the town finished the year by drawing on fund balance by only \$8.2 million, as general fund expenditures far outperformed expectations by nearly \$5 million. Ad valorem property taxes comprised 49% of general fund revenue throughout the year, with local option sales taxes (21%) and intergovernmental revenues (14%) representing the next largest revenue sources. Both property and sales taxes have shown steady upward growth in recent years, and town officials expect these trends to continue--budgeting for 7.9% sales tax growth in fiscal 2018.

For fiscal 2018, Chapel Hill returned to its practice of conservatively budgeting for a drawdown of approximately \$2.7 million in general fund balance, with the assumption that year-end results will once again outperform budget and preclude the drawdown. Furthermore, the town budgeted for balanced operations across other governmental funds in the year, with the anticipation of another total government funds surplus net of capital expenditures. Town officials report that revenues and expenditures are trending ahead of expectations thus far, owing partly to persisting personnel vacancies, and therefore expect to finish the year with an operating surplus. If realized, this would constitute a structural improvement from fiscal 2017's planned drawdown result, and we therefore expect that budgetary performance will remain at least adequate in the near term.

Very strong budgetary flexibility

Chapel Hill's budgetary flexibility is very strong, in our view, with an available fund balance in fiscal 2017 of 27% of operating expenditures, or \$16.6 million.

Chapel Hill has historically maintained very strong reserve levels, in our view, with available fund balance exceeding 26% of operating expenditures in each of the three most recent audited fiscal years. The town's formal reserve policy targets the maintenance of an unassigned general fund balance equal to 22% of operating expenditures, with any excess balance available for capital expenditures. While unassigned fund balance decreased by \$2.3 million in fiscal 2017 to 20.17% operating expenditures--corresponding with large planned expenditures and transfers for land purchases, Affordable Housing Development Reserve Fund establishment, and pay-go capital project financing--management currently anticipates adding to fund balance following the expected surplus in fiscal 2018, and reports no plans to materially spend down reserves in the next two years. Furthermore, town officials also indicated that the combined \$8 million of reserves held in the Debt Service and Affordable Housing Development Reserve funds are also available with the approval of council. Therefore, we expect the town's budgetary flexibility to remain very strong in the near term.

Very strong liquidity

In our opinion, Chapel Hill's liquidity is very strong, with total government available cash at 69.2% of total governmental fund expenditures and 7.1x governmental debt service in 2017. In our view, the town has strong access to external liquidity if necessary.

We believe the town's strong access to external liquidity is demonstrated by its frequent debt issuances of both GO- and appropriation-backed debt. It has historically maintained what we consider very strong cash balances, and given our expectation for fiscal years 2017 and 2018, we do not believe its cash position will materially weaken in the near term. While the state allows for what we view as permissive investments, we believe the town does not currently have any aggressive investments, with the majority of investments held in local government investment pools and mutual funds at the end of fiscal 2017. Additionally, we have not identified any contingent liabilities that could pose a material risk to the town's liquidity. Therefore, we do not expect Chapel Hill's liquidity position to deteriorate from its very strong position in the near term.

Strong debt and contingent liability profile

In our view, Chapel Hill's debt and contingent liability profile is strong. Total governmental fund debt service is 9.7% of total governmental fund expenditures, and net direct debt is 111.6% of total governmental fund revenue. Overall net debt is low at 1.3% of market value, and approximately 75.5% of the direct debt is scheduled to be repaid within 10 years, which are in our view positive credit factors.

The current transaction represents the second installment of bonds authorized in the town's November 2015 referendum; the remaining \$18.8 million is tentatively planned to be issued in several installments over the next three years. Additionally, the town expects to replace existing public safety facilities including its police headquarters and several fire stations, and is looking to address other space needs by combining public safety with other uses in a single multi-agency facility. While the total cost of the new facility is estimated between \$30 million and \$35 million, a portion of the anticipated debt may be offset with cash proceeds from the sale of the existing buildings. Despite the

plans for additional debt, we do not anticipate a substantial change in the town's debt profile due to its rapid amortization and steady growth in the assessed valuation.

Chapel Hill's combined required pension and actual other postemployment benefits (OPEB) contributions totaled 10.9% of total governmental fund expenditures in 2017. Of that amount, 4.4% represented required contributions to pension obligations, and 6.5% represented OPEB payments. The town made its full annual required pension contribution in 2017.

Chapel Hill participates in the statewide Local Governmental Employees' Retirement System (LGERS), a cost-sharing multiple-employer plan administered by the state. The town funds its annually required contribution at 100%, and reported a proportionate share of the net pension liability of \$12.7 million as of June 30, 2017. The LGERS plan was 91.4% funded at that time, calculated as fiduciary net position as a percentage of total pension liability. The town also maintains a single-employer, defined-benefit plan for qualified sworn law enforcement officers. The special separation allowance plan is funded on a pay-as-you-go basis with the town contributing \$296,694 in fiscal 2017. The plan reported a total pension liability of \$4.8 million at fiscal year-end 2017.

Additionally, the town provides other postemployment benefits through its Healthcare Benefits Plan--a single-employer, defined benefit plan--and has historically made contributions on a pay-as-you-go basis. The town pays all or a portion of the costs of coverage for the benefits based on years of service, and the plan is available to all qualified retirees until the age of 65 or until Medicare eligible. In fiscal 2017, the town transferred \$2.9 million of accumulated assets into its newly formed irrevocable trust for OPEB, which will help offset the unfunded liability that stood at \$64.2 million as of Dec. 31, 2014. The net OPEB liability totaled \$56 million as of June 30, 2017.

Very strong institutional framework

The institutional framework score for North Carolina municipalities is very strong.

Outlook

The stable outlook reflects our view of the town's maintenance of very strong reserves despite fiscal 2017's adequate budgetary performance resulting from a large planned drawdown, and a broad and diverse economy, which is anchored by a strong institutional presence. Furthermore, it reflects our expectation that the town's very strong management practices will contribute to a likely return to strong budgetary performance in the near term. For these reasons, we do not expect to change the rating over the two-year outlook period. Holding all other factors equal, if performance were to deteriorate significantly--potentially stemming from fixed cost pressure related to large pension and OPEB liabilities--causing a substantial weakening of reserves and liquidity, we could lower the rating.

Related Research

- S&P Public Finance Local GO Criteria: How We Adjust Data For Analytic Consistency, Sept. 12, 2013
- Incorporating GASB 67 And 68: Evaluating Pension/OPEB Obligations Under Standard & Poor's U.S. Local Government GO Criteria, Sept. 2, 2015

- Local Government Pension And Other Postemployment Benefits Analysis: A Closer Look, Nov.8, 2017

Ratings Detail (As Of March 21, 2018)		
Chapel Hill ltd oblig rfdg bnds		
<i>Long Term Rating</i>	AA+/Stable	Affirmed

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Richmond Office
One James Center
901 East Cary Street
11th Floor
Richmond, VA 23219

Ted Cole
Senior Vice President

804-697-2907
tcole@investdavenport.com

Charlotte Office
Independence Center
101 N. Tryon Street
Suite 1220
Charlotte, NC 28246

Mitch Brigulio
Senior Vice President

704-644-5414
mbrigulio@investdavenport.com

Raleigh Office
Glenwood Plaza
3605 Glenwood Ave.
Suite 390
Raleigh, NC 27612

Chazzo Habliston
Associate Vice President

chabliston@investdavenport.com
704-644-5413



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