

Notes to Exhibit RB-23 Page 1

- 1 The expense provisions are those used in the filing, adjusted for the indicated rate change.
- 2 Selected by North Carolina Rate Bureau
- 3 See Exhibit RB-23, Page 3
- 4 $[(2) + (3)] \times (a)$
- 5 See Exhibit RB-23, Pages 4-6
- 6 $(2) + (3) - (4) - (5)$
- 7 Investment income on agents balances is calculated as $0.198 \times 1.021 \times (c)$, where 0.198 is the factor for agents balances held for less than 90 days and 1.021 is a factor to correct for overdue balances. The figures are sourced from North Carolina Rate Bureau and ISO.
- 8 $(6) + (7)$
- 9 $(d) / (e)$
- 10 $(8) \times (9)$

Assumptions

- (a) Current corporate tax rate, based on the Tax Cut and Jobs Act of 2017.
- (b) See Exhibit RB-23, Pages 11-13. Calculated as 1- average post-tax yield/average pre-tax yield.
- (c) See Exhibit RB-23, Page 10
- (d) See Exhibit RB-23, Page 14
- (e) See Exhibit RB-23, Page 15
- (f) See Exhibit RB-23, Page 3
- (g) See Exhibit RB-23, Pages 4-6
- (h) Compensation for Assessment Risk based on the analysis of Milliman incorporated in the filing, adjusted for the indicated rate change.

NCRB - Pro Forma Statutory Rate of Return (Including Investment Income on Surplus) Dwelling Fire			
	Pre-Tax	Tax Liability	Post-Tax
1 Premiums	100.00%		
Loss & LAE	61.40%		
Commissions	10.90%		
Other Acquisition & General	13.34%		
Taxes, Licenses, & Fees	2.80%		
Policyholder Dividends	0.40%		
Compensation for Assessment Risk	2.66%		
2 Pro Forma Underwriting Profit	8.50%		
3 Installment Fee Income	0.63%		
4 Regular Tax		1.92%	
5 Additional Tax Due to IRS Treatment of Reserves		-0.07%	
6 Total Return from Underwriting Post-Tax			7.28%
7 Investment Gain on Insurance Transaction	3.78%		
Less Investment Income on Agents Balances	0.78%		
Net Investment Gain on Insurance Transaction	3.00%	0.50%	2.50%
8 Investment Gain on Surplus	4.62%	0.76%	3.85%
9 Total Return as a Percent of Premium (post-tax)			13.64%
10 Premium-to-Net Worth Ratio			0.81
11 Total Return as a Percent of Net Worth (post-tax)			10.99%
<i>Lines (1) to (8) are expressed as a percentage of premium.</i>			

Assumptions and Parameters

(a) Underwriting Income Tax Rate	21.00%
(b) Investment Income Tax Rate	16.52%
(c) Pre-tax Investment Yield	3.87%
(d) Premium-to-Surplus Ratio	0.92
(e) Net Worth-to-Surplus Ratio	1.14
(f) Installment Fee Income	0.63%
(g) Additional Tax Due to IRS Treatment of Loss Reserves and UEPR	-0.07%
(h) Compensation for Assessment Risk	2.66%

Notes to Exhibit RB-23 Page 1A

1 The expense provisions are those used in the filing, adjusted for the indicated rate change.

2 Selected by North Carolina Rate Bureau

3 See Exhibit RB-23, Page 3

4 $[(2) + (3)] \times (a)$

5 See Exhibit RB-23, Pages 4-6

6 $(2) + (3) - (4) - (5)$

7 Investment income on agents balances is calculated as $.198 \times 1.021 \times (c)$, where .198 is the factor for agents balances held for less than 90 days and 1.021 is a factor to correct for overdue balances. The figures are sourced from North Carolina Rate Bureau and ISO.

8 $(c) \times [1 / (d) + 0.199 \times 0.5347]$, where 0.199 is the prepaid expense ratio from Page 7 and 0.5347 is the UEPR ratio from Page 7.

9 $(6) + (7) + (8)$

10 $(d) / (e)$

11 $(9) \times (10)$

Assumptions

(a) Current corporate tax rate, based on the Tax Cut and Jobs Act of 2017.

(b) See Exhibit RB-23, Pages 11-13. Calculated as $1 - \text{average post-tax yield} / \text{average pre-tax yield}$.

(c) See Exhibit RB-23, Page 10

(d) See Exhibit RB-23, Page 14

(e) See Exhibit RB-23, Page 15

(f) See Exhibit RB-23, Page 3

(g) See Exhibit RB-23, Pages 4-6

(h) Compensation for Assessment Risk based on the analysis of Milliman incorporated in the filing, adjusted for the indicated rate change.

**NORTH CAROLINA
Dwelling Fire
INSTALLMENT CHARGES AS A PERCENT OF PREMIUM**

Year	Percentage
2017	0.64%
2016	0.59%
2015	0.56%
2014	0.60%
2013	0.78%
Average	0.63%

Source: NCRB

**North Carolina
Dwelling Fire
Calculation of Additional Tax Liability**

1. Collected Earned Premium for Current Year	100.00%
2. Unearned Premium Reserve 12/31/Current	52.64%
3. Unearned Premium Reserve 12/31/Prior	54.13%
4. Increase: (2) - (3)	-1.49%
5. 20% of Increase = Taxable Income	-0.30%
6. Additional Tax Liability due to Unearned Premium Reserve	-0.06%
7. Unpaid Loss Current Year	37.45%
8. Discounted Unpaid Loss Prior Year	36.47%
9. Unpaid Loss Prior Year	38.51%
10. Discounted Unpaid Loss Prior Year	37.50%
11. Additional Income	-0.03%
12. Additional Tax Liability due to Loss Reserve Discounting	-0.01%
13. Total Additional Tax Liabilities (6) + (12)	-0.07%

**NORTH CAROLINA
Dwelling Fire
Calculation of Taxable Income**

Calculation of Unpaid Loss for Current Accident Year (AY)					Calculation of Discounted Unpaid Loss for Current AY			Calculation of Discounted Unpaid Loss for Prior AY			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
AY Avg Acc Date	AY Pay Pattern	Percent Unpaid	Total Losses	Unpaid Losses	AY at 12/31 yr t	Discount Factor	Discounted Unpaid Loss	AY at 12/31/yr t-1	Unpaid Losses	Discount Factor	Discounted Unpaid Loss
0.5	55.61%	44.39%	61.397	27.25	2018	0.973657	26.5336				
1.5	89.33%	10.67%	63.131	6.73	2017	0.969631	6.5298	2017	28.021	0.973657	27.2829
2.5	94.67%	5.33%	64.914	3.46	2016	0.98464	3.4091	2016	6.925	0.969631	6.7142
3.5	100.00%	0.00%	66.747	0.00	2015	0.98464	0.0000	2015	3.560	0.98464	3.5053
4.5	100.00%	0.00%	68.632	0.00	2014	0	0.0000	2014	0.000	0.98464	0.0000
5.5	100.00%	0.00%	70.570	0.00	2013	0	0.0000	2013	0.000	0	0.0000
6.5	100.00%	0.00%	72.563	0.00	2012	0	0.0000	2012	0.000	0	0.0000
7.5	100.00%	0.00%	74.612	0.00	2011	0	0.0000	2011	0.000	0	0.0000
								2010	0.000	0	0.0000
Totals				37.45	36.47			38.51		37.50	

Notes to Pages 4 and 5

Page 4

- 2 Page 8, line (2) divided by Page 8, line (1)
- 3 (2) divided by 1 plus the 7 year average growth rate of Dwelling Fire premiums in North Carolina.
- 4 (2) - (3)
- 5 (4) x 20%
- 6 (5) x current corporate tax rate
- 7 Unpaid current-year losses at year-end as a percent of current year premium.
Sum of Page 5, Column (5)
- 8 Discounted unpaid current-year losses at year-end as a percent of current year premium.
Sum of Page 5, Column (8)
- 9 Unpaid prior-year losses at year-end as a percent of current year premium.
Sum of Page 5, Column (10)
- 10 Discounted unpaid prior-year losses at year-end as a percent of current year premium.
Sum of Page 5, Column (12)
- 11 Change in loss reserve discount: [(7) - (8)] - [(9) - (10)]
- 12 (11) x current corporate tax rate
- 13 (6) + (12)

Page 5

- 1 Midpoint of number of years since end of accident period
- 2 Special Property payout pattern from IRS Rev. Proc 2016-58
- 3 1 - (2)
- 4 Latest period losses are based on projected loss ratio from Page 1. For previous years,
losses are detrended at the 7 year average premium growth rate for Dwelling Fire in North Carolina.
- 5 (3) x (4)
- 6 Accident Year at current year end
- 7 IRS discount factors for Special Property from Rev. Proc 2019-06
- 8 (5) x (7)
- 9 Accident Year at prior year end
- 10 Column (3), previous period x Column (4), current period
- 11 IRS discount factors for Special Property from Rev. Proc 2019-06
- 12 (10) x (11)

NCRB Investment Income Calculation		
Dwelling Fire		
Projected Investment Earnings on Loss, Loss		
Adjustment Expense and Unearned Premium Reserves		
A. UNEARNED PREMIUM RESERVES		
1. Direct Earned Premiums		1,000,000
2. Mean Unearned Premium Reserve	53.47%	534,700
3. Deductions for Prepaid Expenses		
Commissions & Brokerage	10.90%	
Taxes, Licenses, & Fees (5/6)	2.33%	
Other Acquisition & General (1/2)	6.67%	
Total	19.90%	
4. Deduction for Prepaid Expense: (2) x (3)		106,405
5. Net Unearned Premium Reserve Subject to Investment (2) - (4)		428,295
B. Loss and Loss Expense Reserves		
1. Direct Earned Premiums		1,000,000
2. Expected Incurred Loss & LAE-to-Premium Ratio	61.40%	613,974
3. Expected Mean Loss and LAE Reserve-to-Incurred Ratio	89.35%	548,575
C. Net Policyholder Funds Subject to Investment (A5 + B3)		976,870
D. Average Rate of Return		3.87%
E. Investment Earnings from Net Reserves: (C) x (D)		37,803
F. Average Rate of Return as a Percent of Direct Earned Premiums: (E) / (A1)		3.78%

**NORTH CAROLINA
Dwelling Fire**

**ESTIMATED INVESTMENT EARNINGS ON UNEARNED
PREMIUM RESERVES AND ON LOSS RESERVES**

EXPLANATORY NOTES

Line A-1

Calculations displayed are per million of direct earned premiums.

Line A-2

The mean unearned premium reserve (UEPR) is determined by multiplying the direct earned premiums in line A-1 by the ratio of the mean unearned premium reserve to the direct earned premium for the current calendar year ended 12/31. The data are for North Carolina Fire insurance (from statutory Page 14 of the Annual Statement) for all companies which wrote Dwelling Fire in the most recent calendar year.

1 NC Fire Direct Earned Premium for most recent calendar year	213,782,422
2 NC Fire UEPR at end of most recent calendar year	112,545,362
3 NC Fire UEPR at end of previous calendar year	116,086,201
4 Mean NC Fire UEPR	114,315,782
5 Ratio [(4) / (1)]	53.47%

Line A-3

Deduction for prepaid expenses

Certain production expenses, such as commissions and reinsurance, are assumed to be incurred when the policy is written and before the premium is paid. In addition, half of Other Acquisition and General expenses and 5/6 of Taxes, Licenses and Fees are assumed to be prepaid.

**NORTH CAROLINA
Dwelling Fire**

**ESTIMATED INVESTMENT EARNINGS ON UNEARNED
PREMIUM RESERVES AND ON LOSS RESERVES**

EXPLANATORY NOTES

Line B-2

The expected loss and loss adjustment expense ratio is consistent with the expense provisions used in the filing.

Line B-3

The mean loss reserve is calculated by multiplying the incurred losses in line B-2 by the ratio for mean loss reserves to incurred losses. The latter figures are based on total statutory Page 14 figures for North Carolina Fire direct losses incurred and direct losses unpaid for all companies writing Dwelling Fire in North Carolina in 2017. The adjustment for loss expense reserves is based on nationwide industry aggregates for the Homeowners line.

6 Direct Losses Incurred	2013	136,761,812
7 Direct Losses Incurred	2014	43,158,269
8 Direct Losses Incurred	2015	104,490,797
9 Direct Losses Incurred	2016	70,550,363
10 Direct Losses Incurred	2017	123,225,922
11 Direct Losses Unpaid	2012	44,814,079
12 Direct Losses Unpaid	2013	104,621,425
13 Direct Losses Unpaid	2014	34,562,766
14 Direct Losses Unpaid	2015	78,177,895
15 Direct Losses Unpaid	2016	55,733,024
16 Direct Losses Unpaid	2017	66,350,617
17 Mean Loss Reserve	2013	74,717,752
18 Mean Loss Reserve	2014	69,592,096
19 Mean Loss Reserve	2015	56,370,331
20 Mean Loss Reserve	2016	66,955,460
21 Mean Loss Reserve	2017	61,041,821
22 Ratio	2013	0.546
23 Ratio	2014	1.612
24 Ratio	2015	0.539
25 Ratio	2016	0.949
26 Ratio	2017	0.495
27 Average Loss Reserve		0.829
28 Ratio of LAE Reserves to Loss Reserves		0.252
29 Ratio of Incurred LAE to Incurred Loss		0.161
30 Loss & LAE Reserve [(27) x (1+(28))/(1+(29))]		0.893

**NORTH CAROLINA
Dwelling Fire**

**ESTIMATED INVESTMENT EARNINGS ON UNEARNED
PREMIUM RESERVES AND ON LOSS RESERVES**

EXPLANATORY NOTES

Line E

The average rate of return is the average of the pretax current yield calculated on Page 11 and the pretax embedded yield. The embedded yield (see Page 12) is the sum of the ratio of investment income to invested assets for the most recent year plus the ten year average ratio of capital gains to invested assets (see Page 13). The current yield is the estimated currently available rate of return (including both income and capital gains) on the industry investment portfolio (see Page 11).

Embedded Yield	3.42%
Current Yield	4.32%
Average	3.87%

Portfolio Yield and Tax Rate - Current Yield				
Investable Asset	Percent of Assets	Estimated	Tax Rate	Estimated
		Prospective Pre-Tax Return		Prospective Post-Tax Return
Bonds				
US Gov't	9.80%	2.30%	21.00%	1.82%
Municipal	25.81%	1.85%	5.25%	1.76%
Industrial	28.53%	3.19%	21.00%	2.52%
Preferred Stock	0.34%	5.91%	13.13%	5.13%
Common Stock	26.13%	10.33%	19.20%	8.35%
Mortgage Loans	1.10%	4.10%	21.00%	3.24%
Real Estate	0.82%	7.80%	21.00%	6.16%
Cash & Short-term Investments	7.46%	2.40%	21.00%	1.90%
Rate of Return Before Expenses	100.00%	4.62%	18.29%	3.78%
Investment Expenses		0.30%	21.00%	0.24%
Portfolio Rate of Return		4.32%	18.10%	3.54%

Sources

Preferred Stock	Current yield on iShares Preferred Stock Index ETF, 5/9/2019
Real Estate	REIT Sector Cost of Equity, using 3 month average T-Bill for risk free rate, 7.93% ERP, 0.68 Beta (source: Damodaran Online)
Cash	3 month Treasury rate, averaged over 3 months (source: US Treasury)
Municipal	Maturity weighted avg of 3 month avg MBIS Investment Grade yield curve; linearly interpolated
Industrial	Three month average of HQM par yields (source: FRED); linearly interpolated
Treasury	Three month average of Treasury yields; linearly interpolated (source: US Treasury)
Common Stock	7.93% ERP (source: Damodaran Online) plus 3 month average T-Bill Rate
Investment Expenses	Investment Expenses from statutory Page 12 of the Annual Statement (Exhibit of Net Investment Income) divided by Cash and Invested Assets from statutory Page 2 of the Annual Statement (Assets), as compiled in the 2018 edition of A.M. Best's Aggregates and Averages.

Portfolio Yield and Tax Rate Embedded Yield			
		Income	Tax Rate
Bonds			
	Taxable	23,362,682	21.00%
	Non-Taxable	9,714,339	5.25%
Stocks			
	Taxable	7,610,774	13.13%
	Non-Taxable	1,785,853	5.25%
Mortgage Loans		755,495	21.00%
Real Estate		1,839,346	21.00%
Contract Loans		622	21.00%
Cash & Short Term Inv		980,167	21.00%
All Other		10,228,290	21.00%
Total		56,277,568	16.72%
Inv. Expenses		5,185,109	21.00%
Net Inv. Income		51,092,459	16.29%
Mean Invested Assets		1,676,831,258	
Inv. Inc. Yield Rate		3.05%	16.29%
Capital Gains (10 yr. avg.) (% of Inv. Assets)		0.37%	0.00%
Invest. Yield Rate (pre-tax)		3.42%	14.53%
Invest. Yield Rate (post-tax)		2.92%	

Source: A.M. Best's Aggregates and Averages, 2018 Edition, statutory Page 12 of the Annual Statement - Exhibit of Net Investment Income (Column 2 - Earned During Year). For capital gains, see Exhibit RB-23, Page 13.

**Realized Capital Gains or Losses
As a Percentage of Mean Invested Assets
(Amounts in Thousands of Dollars)**

Calendar Year	Mean Invested Assets	Realized Capital Gains Amount	Percent
2008	1,288,393,875	(21,018,623)	-1.63%
2009	1,274,678,809	(8,079,575)	-0.63%
2010	1,330,998,082	8,100,143	0.61%
2011	1,366,568,026	7,563,305	0.55%
2012	1,400,656,619	9,035,405	0.65%
2013	1,473,600,834	12,163,890	0.83%
2014	1,543,882,375	12,093,078	0.78%
2015	1,567,611,077	9,887,732	0.63%
2016	1,596,937,470	8,086,268	0.51%
2017	1,676,831,258	15,725,303	0.94%
Total	14,520,158,422	53,556,926	0.37%

"Mean Invested Assets" is the average of current and prior year values for Cash & Invested Assets from statutory Page 2 of the Annual Statement (Assets). Source for data is 2008-2018 editions of A.M. Best's Aggregates and Averages.

North Carolina**Dwelling Fire****Premium-to-Surplus Ratios**

Year	Ratio
2017	0.86
2016	0.80
2015	0.78
2014	0.80
2013	0.86
2012	1.06
2011	1.14
2010	0.95
2009	0.93
2008	0.97
Average	0.92

Data from NAIC Statutory Filings for all groups writing Dwelling Fire insurance in North Carolina. Weighted average is calculated using North Carolina Dwelling Fire insurance premiums.

**North Carolina
Dwelling Fire
Calculation of Ratio of GAAP Net Worth to Statutory Surplus**

	2012	2013	2014	2015	2016
Policyholder Surplus	587,061,063,988	653,380,281,255	675,233,591,461	674,150,481,028	700,833,588,840
+ Deferred Acquisition Costs	28,717,782,350	30,010,149,317	31,242,614,928	32,401,590,297	33,046,102,666
+ Non-Admitted DTA Provision	12,829,214,564	11,638,345,594	11,237,499,832	12,112,807,244	11,544,280,333
+ Non-admitted Assets (non-tax part)	36,238,971,886	33,348,888,924	33,563,586,431	40,260,421,135	43,722,898,341
+ Provision for Reinsurance	2,595,871,371	2,471,928,096	2,392,301,235	2,251,585,712	2,185,395,913
+ Provision for FASB 115(after-tax)	42,220,449,087	14,722,750,582	25,814,318,855	16,081,984,811	10,015,172,605
- Surplus Notes	(12,279,333,642)	(12,190,299,603)	(11,673,768,635)	(12,446,044,946)	(12,027,889,160)
GAAP-adjusted Net Worth	697,384,019,604	733,382,044,165	767,810,144,106	764,812,825,281	789,319,549,538
Ratio of Net Worth to Surplus	1.19	1.12	1.14	1.13	1.13
Five Year Average	1.14				

Source: ISO

NCRB - Pro Forma Statutory Rate of Return Dwelling Insurance - Extended Coverage			
	Pre-Tax	Tax Liability	Post-Tax
1 Premiums	100.00%		
Loss & LAE	42.89%		
Commissions	9.50%		
Other Acquisition & General	6.27%		
Taxes, Licenses, & Fees	2.70%		
Policyholder Dividends	0.40%		
Net Cost of Reinsurance	27.85%		
Compensation for Assessment Risk	1.89%		
2 Pro Forma Underwriting Profit	8.50%		
3 Installment Fee Income	0.63%		
4 Regular Tax		1.92%	
5 Additional Tax Due to IRS Treatment of Reserves		-0.01%	
6 Total Return from Underwriting Post-Tax			7.22%
7 Investment Gain on Insurance Transaction	1.79%		
Less Investment Income on Agents Balances	0.71%		
Net Investment Gain on Insurance Transaction	1.08%	0.18%	0.90%
8 Total Return as a Percent of Premium (post-tax)			8.12%
9 Premium-to-Net Worth Ratio			0.81
10 Total Return as a Percent of Net Worth (post-tax)			6.55%

Lines (1) to (8) are expressed as a percentage of premium.

Assumptions and Parameters

(a) Underwriting Income Tax Rate	21.00%
(b) Investment Income Tax Rate	16.52%
(c) Pre-tax Investment Yield	3.87%
(d) Premium-to-Surplus Ratio	0.92
(e) Net Worth-to-Surplus Ratio	1.14
(f) Installment Fee Income	0.63%
(g) Additional Tax Due to IRS Treatment of Loss Reserves and UEPR	-0.01%
(h) Net Cost of Reinsurance	27.85%
(i) Compensation for Assessment Risk	1.89%

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- 8 $(6) + (7)$
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Assumptions

- (a) Current corporate tax rate, based on the Tax Cut and Jobs Act of 2017.
- (b) See Exhibit RB-24, Pages 11-13. Calculated as $1 - \text{average post-tax yield} / \text{average pre-tax yield}$.
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- (h) Net Cost of Reinsurance based on the analysis of AON and incorporated in the filing, adjusted for the indicated rate change.
- (i) Compensation for Assessment Risk based on the analysis of Milliman incorporated in the filing, adjusted for the indicated rate change.

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	Pre-Tax	Tax Liability	Post-Tax
1 Premiums	100.00%		
Loss & LAE	42.89%		
Commissions	9.50%		
Other Acquisition & General	6.27%		
Taxes, Licenses, & Fees	2.70%		
Policyholder Dividends	0.40%		
Net Cost of Reinsurance	27.85%		
Compensation for Assessment Risk	1.89%		
2 Pro Forma Underwriting Profit	8.50%		
3 Installment Fee Income	0.63%		
4 Regular Tax		1.92%	
5 Additional Tax Due to IRS Treatment of Reserves		-0.01%	
6 Total Return from Underwriting Post-Tax			7.22%
7 Investment Gain on Insurance Transaction	1.79%		
Less Investment Income on Agents Balances	0.71%		
Net Investment Gain on Insurance Transaction	1.08%	0.18%	0.90%
8 Investment Gain on Surplus	5.31%	0.88%	4.44%
9 Total Return as a Percent of Premium (post-tax)			12.56%
10 Premium-to-Net Worth Ratio			0.81
11 Total Return as a Percent of Net Worth (post-tax)			10.12%
<i>Lines (1) to (8) are expressed as a percentage of premium.</i>			

Assumptions and Parameters

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(f) Installment Fee Income	0.63%
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(i) Compensation for Assessment Risk	1.89%

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- 8 $(c) \times [1 / (d) + 0.5823 \times 0.4914]$, where 0.5823 is the prepaid expense ratio from Page 7 and 0.4914 is the UEPR ratio from Page 7.
- 9 $(6) + (7) + (8)$
- 10 $(d) / (e)$
- 11 $(9) \times (10)$

Assumptions

- (a) Current corporate tax rate, based on the Tax Cut and Jobs Act of 2017.
- (b) See Exhibit RB-24, Pages 11-13. Calculated as $1 - \text{average post-tax yield} / \text{average pre-tax yield}$.
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- (h) Net Cost of Reinsurance based on the analysis of AON and incorporated in the filing, adjusted for the indicated rate change.
- (i) Compensation for Assessment Risk based on the analysis of Milliman incorporated in the filing, adjusted for the indicated rate change.

NORTH CAROLINA
Dwelling Insurance - Extended Coverage
INSTALLMENT CHARGES AS A PERCENT OF PREMIUM

Year	Percentage
2017	0.64%
2016	0.59%
2015	0.56%
2014	0.60%
2013	0.78%
Selected Value	0.63%

Source: NCRB

**North Carolina
Dwelling Insurance - Extended Coverage
Calculation of Additional Tax Liability**

1. Collected Earned Premium for Current Year	100.00%
2. Unearned Premium Reserve 12/31/Current	48.37%
3. Unearned Premium Reserve 12/31/Prior	48.51%
4. Increase: (2) - (3)	-0.15%
5. 20% of Increase = Taxable Income	-0.03%
6. Additional Tax Liability due to Unearned Premium Reserve	-0.01%
7. Unpaid Loss Current Year	25.93%
8. Discounted Unpaid Loss Prior Year	25.25%
9. Unpaid Loss Prior Year	26.01%
10. Discounted Unpaid Loss Prior Year	25.33%
11. Additional Income	0.00%
12. Additional Tax Liability due to Loss Reserve Discounting	0.00%
13. Total Additional Tax Liabilities (6) + (12)	-0.01%

NORTH CAROLINA
Dwelling Insurance - Extended Coverage
Calculation of Taxable Income

Calculation of Unpaid Loss for Current Accident Year (AY)					Calculation of Discounted Unpaid Loss for Current AY			Calculation of Discounted Unpaid Loss for Prior AY			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
AY Avg Acc Date	AY Pay Pattern	Percent Unpaid	Total Losses	Unpaid Losses	AY at 12/31 yr t	Discount Factor	Discounted Unpaid Loss	AY at 12/31/yr t-1	Unpaid Losses	Discount Factor	Discounted Unpaid Loss
0.5	55.61%	44.39%	42.893	19.04	2018	0.973657	18.5366				
1.5	89.33%	10.67%	43.025	4.59	2017	0.969631	4.4502	2017	19.097	0.973657	18.5938
2.5	94.67%	5.33%	43.158	2.30	2016	0.98464	2.2665	2016	4.604	0.969631	4.4639
3.5	100.00%	0.00%	43.291	0.00	2015	0.98464	0.0000	2015	2.309	0.98464	2.2735
4.5	100.00%	0.00%	43.424	0.00	2014	0	0.0000	2014	0.000	0.98464	0.0000
5.5	100.00%	0.00%	43.558	0.00	2013	0	0.0000	2013	0.000	0	0.0000
6.5	100.00%	0.00%	43.693	0.00	2012	0	0.0000	2012	0.000	0	0.0000
7.5	100.00%	0.00%	43.827	0.00	2011	0	0.0000	2011	0.000	0	0.0000
								2010	0.000	0	0.0000
Totals				25.93	25.25			26.01		25.33	

Notes to Pages 4 and 5

Page 4

- 2 Page 8, line (2) divided by Page 8, line (1)
- 3 (2) divided by 1 plus the 7 year average growth rate of Dwelling Insurance - Extended Coverage premiums in North Carolina.
- 4 (2) - (3)
- 5 (4) x 20%
- 6 (5) x current corporate tax rate
- 7 Unpaid current-year losses at year-end as a percent of current year premium.
Sum of Page 5, Column (5)
- 8 Discounted unpaid current-year losses at year-end as a percent of current year premium.
Sum of Page 5, Column (8)
- 9 Unpaid prior-year losses at year-end as a percent of current year premium.
Sum of Page 5, Column (10)
- 10 Discounted unpaid prior-year losses at year-end as a percent of current year premium.
Sum of Page 5, Column (12)
- 11 Change in loss reserve discount: [(7) - (8)] - [(9) - (10)]
- 12 (11) x current corporate tax rate
- 13 (6) + (12)

Page 5

- 1 Midpoint of number of years since end of accident period
- 2 Special Property payout pattern from IRS Rev. Proc 2016-58
- 3 1 - (2)
- 4 Latest period losses are based on projected loss ratio from Page 1. For previous years,
losses are detrended at the 7 year average premium growth rate for Dwelling Insurance - Extended Coverage in North Carolina.
- 5 (3) x (4)
- 6 Accident Year at current year end
- 7 IRS discount factors for Special Property from Rev. Proc 2019-06
- 8 (5) x (7)
- 9 Accident Year at prior year end
- 10 Column (3), previous period x Column (4), current period
- 11 IRS discount factors for Special Property from Rev. Proc 2019-06
- 12 (10) x (11)

**NCRB Investment Income Calculation
Dwelling Insurance - Extended Coverage**

**Projected Investment Earnings on Loss, Loss
Adjustment Expense and Unearned Premium Reserves**

A. UNEARNED PREMIUM RESERVES

1. Direct Earned Premiums		1,000,000
2. Mean Unearned Premium Reserve	49.14%	491,400
3. Deductions for Prepaid Expenses		
Commissions & Brokerage	9.50%	
Taxes, Licenses, & Fees (5/6)	2.25%	
Other Acquisition & General (1/2)	3.14%	
Cost of Reinsurance	43.34%	
Total	58.23%	
4. Deduction for Prepaid Expense: (2) x (3)		286,142
5. Net Unearned Premium Reserve Subject to Investment (2) - (4)		205,258

B. Loss and Loss Expense Reserves

1. Direct Earned Premiums		1,000,000
2. Expected Incurred Loss & LAE-to-Premium Ratio	42.89%	428,927
3. Expected Mean Loss and LAE Reserve-to-Incurred Ratio	60.18%	258,111

C. Net Policyholder Funds Subject to Investment (A5 + B3) 463,369

D. Average Rate of Return 3.87%

E. Investment Earnings from Net Reserves: (C) x (D) 17,932

F. Average Rate of Return as a Percent of Direct Earned Premiums: (E) / (A1) 1.79%

NORTH CAROLINA
Dwelling Insurance - Extended Coverage

ESTIMATED INVESTMENT EARNINGS ON UNEARNED
PREMIUM RESERVES AND ON LOSS RESERVES

EXPLANATORY NOTES

Line A-1

Calculations displayed are per million of direct earned premiums.

Line A-2

The mean unearned premium reserve (UEPR) is determined by multiplying the direct earned premiums in line A-1 by the ratio of the mean unearned premium reserve to the direct earned premium for the current calendar year ended 12/31. The data are for North Carolina Allied Lines insurance (from statutory Page 14 of the Annual Statement) for all companies which wrote Dwelling Insurance - Extended Coverage in the most recent calendar year.

1 NC Allied Lines Direct Earned Premium for most recent calendar year	249,790,305
2 NC Allied Lines UEPR at end of most recent calendar year	120,812,171
3 NC Allied Lines UEPR at end of previous calendar year	124,686,420
4 Mean NC Allied Lines UEPR	122,749,296
5 Ratio [(4) / (1)]	49.14%

Line A-3

Deduction for prepaid expenses

Certain production expenses, such as commissions and reinsurance, are assumed to be incurred when the policy is written and before the premium is paid. In addition, half of Other Acquisition and General expenses and 5/6 of Taxes, Licenses and Fees are assumed to be prepaid.

NORTH CAROLINA
Dwelling Insurance - Extended Coverage

**ESTIMATED INVESTMENT EARNINGS ON UNEARNED
PREMIUM RESERVES AND ON LOSS RESERVES**

EXPLANATORY NOTES

Line B-2

The expected loss and loss adjustment expense ratio is consistent with the expense provisions used in the filing.

Line B-3

The mean loss reserve is calculated by multiplying the incurred losses in line B-2 by the ratio for mean loss reserves to incurred losses. The latter figures are based on total statutory Page 14 figures for NC Allied Lines direct losses incurred and direct losses unpaid for all companies writing Dwelling Insurance - Extended Coverage in North Carolina in 2017. The adjustment for loss expense reserves is based on nationwide industry aggregates for the Homeowners line.

6 Direct Losses Incurred	2013	54,370,019
7 Direct Losses Incurred	2014	70,749,863
8 Direct Losses Incurred	2015	70,202,684
9 Direct Losses Incurred	2016	126,737,675
10 Direct Losses Incurred	2017	74,001,415
11 Direct Losses Unpaid	2012	38,555,719
12 Direct Losses Unpaid	2013	30,271,468
13 Direct Losses Unpaid	2014	32,119,812
14 Direct Losses Unpaid	2015	33,833,302
15 Direct Losses Unpaid	2016	68,978,452
16 Direct Losses Unpaid	2017	55,475,077
17 Mean Loss Reserve	2013	34,413,594
18 Mean Loss Reserve	2014	31,195,640
19 Mean Loss Reserve	2015	32,976,557
20 Mean Loss Reserve	2016	51,405,877
21 Mean Loss Reserve	2017	62,226,765
22 Ratio	2013	0.633
23 Ratio	2014	0.441
24 Ratio	2015	0.470
25 Ratio	2016	0.406
26 Ratio	2017	0.841
27 Average Loss Reserve		0.558
28 Ratio of LAE Reserves to Loss Reserves		0.252
29 Ratio of Incurred LAE to Incurred Loss		0.161
30 Loss & LAE Reserve [(27) x (1+(28))/(1+(29))]		0.602

NORTH CAROLINA
Dwelling Insurance - Extended Coverage

**ESTIMATED INVESTMENT EARNINGS ON UNEARNED
PREMIUM RESERVES AND ON LOSS RESERVES**

EXPLANATORY NOTES

Line E

The average rate of return is the average of the pretax current yield calculated on Page 11 and the pretax embedded yield. The embedded yield (see Page 12) is the sum of the ratio of investment income to invested assets for the most recent year plus the ten year average ratio of capital gains to invested assets (see Page 13). The current yield is the estimated currently available rate of return (including both income and capital gains) on the industry investment portfolio (see Page 11).

Embedded Yield	3.42%
Current Yield	4.32%
Average	3.87%

Portfolio Yield and Tax Rate - Current Yield				
Investable Asset	Percent of Assets	Estimated	Tax Rate	Estimated
		Prospective Pre-Tax Return		Prospective Post-Tax Return
Bonds				
US Gov't	9.80%	2.30%	21.00%	1.82%
Municipal	25.81%	1.85%	5.25%	1.76%
Industrial	28.53%	3.19%	21.00%	2.52%
Preferred Stock	0.34%	5.91%	13.13%	5.13%
Common Stock	26.13%	10.33%	19.20%	8.35%
Mortgage Loans	1.10%	4.10%	21.00%	3.24%
Real Estate	0.82%	7.80%	21.00%	6.16%
Cash & Short-term Investments	7.46%	2.40%	21.00%	1.90%
Rate of Return Before Expenses	100.00%	4.62%	18.29%	3.78%
Investment Expenses		0.30%	21.00%	0.24%
Portfolio Rate of Return		4.32%	18.10%	3.54%

Sources

Preferred Stock	Current yield on iShares Preferred Stock Index ETF, 5/9/2019
Real Estate	REIT Sector Cost of Equity, using 3 month average T-Bill for risk free rate, 7.93% ERP, 0.68 Beta (source: Damodaran Online)
Cash	3 month Treasury rate, averaged over 3 months (source: US Treasury)
Municipal	Maturity weighted avg of 3 month avg MBIS Investment Grade yield curve; linearly interpolated
Industrial	Three month average of HQM par yields (source: FRED); linearly interpolated
Treasury	Three month average of Treasury yields; linearly interpolated (source: US Treasury)
Common Stock	7.93% ERP (source: Damodaran Online) plus 3 month average T-Bill Rate
Investment Expenses	Investment Expenses from statutory Page 12 of the Annual Statement (Exhibit of Net Investment Income) divided by Cash and Invested Assets from statutory Page 2 of the Annual Statement (Assets), as compiled in the 2018 edition of A.M. Best's Aggregates and Averages.

Portfolio Yield and Tax Rate			
Embedded Yield			
		Income	Tax Rate
Bonds			
	Taxable	23,362,682	21.00%
	Non-Taxable	9,714,339	5.25%
Stocks			
	Taxable	7,610,774	13.13%
	Non-Taxable	1,785,853	5.25%
Mortgage Loans		755,495	21.00%
Real Estate		1,839,346	21.00%
Contract Loans		622	21.00%
Cash & Short Term Inv		980,167	21.00%
All Other		10,228,290	21.00%
Total		56,277,568	16.72%
Inv. Expenses		5,185,109	21.00%
Net Inv. Income		51,092,459	16.29%
Mean Invested Assets		1,676,831,258	
Inv. Inc. Yield Rate		3.05%	16.29%
Capital Gains (10 yr. avg.) (% of Inv. Assets)		0.37%	0.00%
Invest. Yield Rate (pre-tax)		3.42%	14.53%
Invest. Yield Rate (post-tax)		2.92%	

Source: A.M. Best's Aggregates and Averages, 2018 Edition, statutory Page 12 of the Annual Statement - Exhibit of Net Investment Income (Column 2 - Earned During Year). For capital gains, see Exhibit RB-24, Page 13.

**Realized Capital Gains or Losses
As a Percentage of Mean Invested Assets
(Amounts in Thousands of Dollars)**

Calendar Year	Mean Invested Assets	Realized Capital Gains Amount	Percent
2008	1,288,393,875	(21,018,623)	-1.63%
2009	1,274,678,809	(8,079,575)	-0.63%
2010	1,330,998,082	8,100,143	0.61%
2011	1,366,568,026	7,563,305	0.55%
2012	1,400,656,619	9,035,405	0.65%
2013	1,473,600,834	12,163,890	0.83%
2014	1,543,882,375	12,093,078	0.78%
2015	1,567,611,077	9,887,732	0.63%
2016	1,596,937,470	8,086,268	0.51%
2017	1,676,831,258	15,725,303	0.94%
Total	14,520,158,422	53,556,926	0.37%

"Mean Invested Assets" is the average of current and prior year values for Cash & Invested Assets from statutory Page 2 of the Annual Statement (Assets). Source for data is 2008-2018 editions of A.M. Best's Aggregates and Averages.

North Carolina**Dwelling Insurance - Extended Coverage****Premium-to-Surplus Ratios**

Year	Ratio
2017	0.85
2016	0.78
2015	0.78
2014	0.82
2013	0.85
2012	0.98
2011	1.04
2010	0.96
2009	1.01
2008	1.12
Average	0.92

Data from NAIC Statutory Filings for all groups writing Dwelling Insurance - Extended Coverage insurance in North Carolina. Weighted average is calculated using North Carolina Dwelling Insurance - Extended Coverage insurance premiums.