Elizabethtown Area School District

Financing Discussion

November 13, 2018

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MUNICIPAL MARKET UPDATE

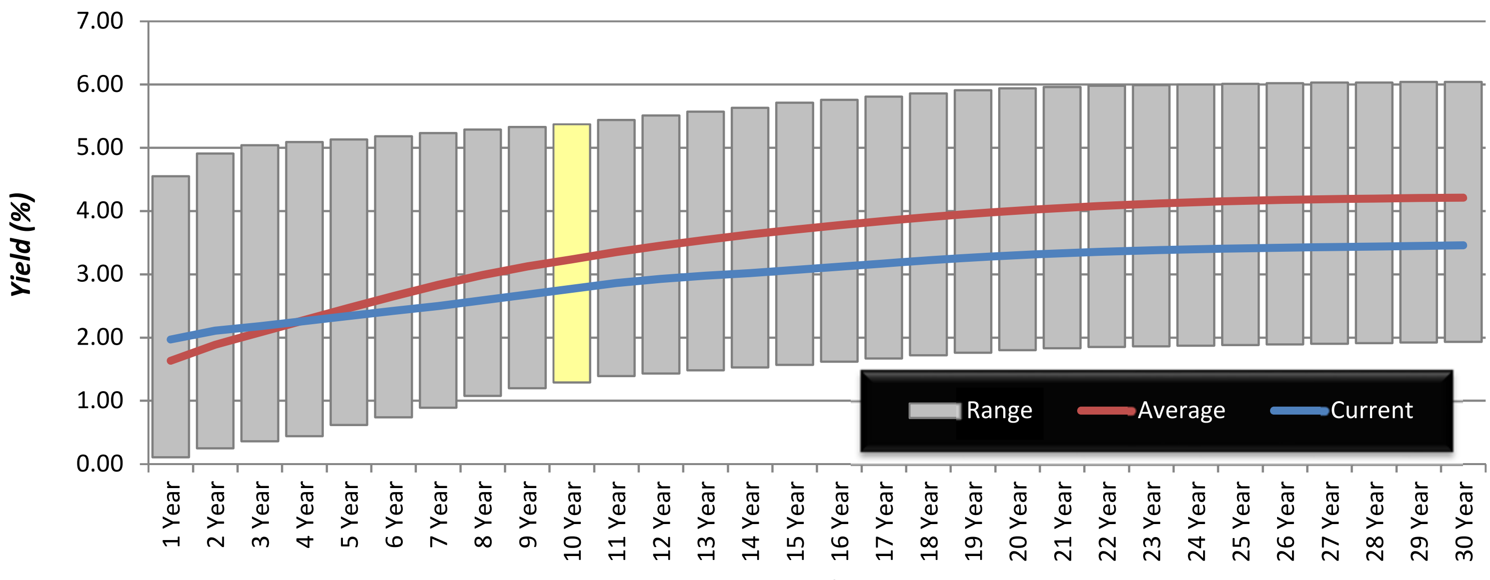
November 6, 2018

MMD YIELD CURVE

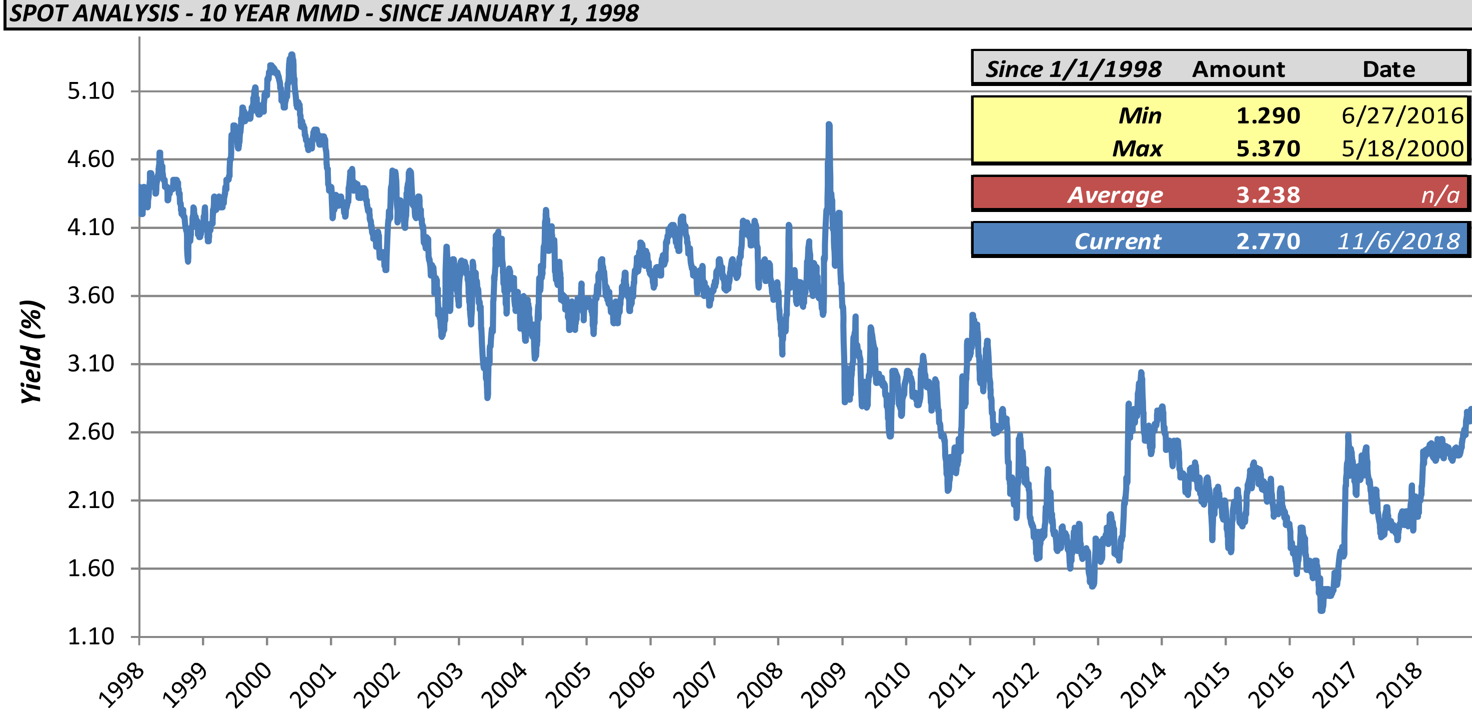
The MMD Yield Curve is a high grade municipal yield curve published daily by Municipal Market Data. It is one of the most commonly used benchmarks in municipal finance. The yields within the curve reflect the current yields for each maturity year at which bondholders would be likely to sell high quality (AAA rated) general obligation backed bonds. The yield curve is typically influenced by new issuances in the primary market as well as post-issuance trading in the secondary market.

Municipal bonds typically trade at a "spread to MMD", meaning the difference between the yield in a specific year of a bond issue and the respective yield in the MMD Yield Curve. While these spreads vary over time, they can be a meaningful and powerful tool in trying to compare relative yield levels in a volatile interest rate environment.

HISTORICAL MMD CURVE ILLUSTRATION - SINCE JANUARY 1, 1998



SPOT ANALYSIS - 10 YEAR MMD - SINCE JANUARY 1, 1998



Since 1/1/1998	Amount	Date
Min	**1.290**	6/27/2016
Max	**5.370**	5/18/2000
Average	**3.238**	*n/a*
Current	**2.770**	*11/6/2018*

I) New Money

- District is considering facility additions/renovations
  - For illustrative purposes only, handout shows four scenarios
    - $23.5 million initial project, $80 million second project
    - $23.5 million initial project, $50 million second project
    - $28.7million initial project, $80 million second project
    - $28.7million initial project, $50 million second project
  - Note: All projects are term limited by the useful life of the project. Projects procured under Act 39 (Esco projects) are further limited to the shorter of the useful life of the project or 20 years

II) Approaches to New Money Financing

- **Current Funding** – wait for construction bids
- **Advance Funding** – borrow all (or a portion) prior to construction bids
- **Multiple Financing** – spread borrowings over different calendar years, taking advantage of IRS limits and staggering impact vs. increased costs of issuance

III) Reimbursement Resolution

- A reimbursement resolution allows the issuer to pay itself back from the bond proceeds for costs related to the project
- A project may incur significant expenses prior to the financing
  - Feasibility studies
  - Traffic studies
  - Architect Fees
  - Legal Fees

IV) Borrowing Laws-Federal Tax Laws

The Internal Revenue Code (the "Code") permits the Issuer to borrow funds at a <u>tax-exempt</u> interest rate and invest the proceeds at an unlimited yield during the period of project construction, but not more than 3 years, if the reasonable expectations of the Issuer are to meet the following 3 tests:

1. <u>Expenditure Test</u> – spend 85% of the proceeds within 3 years;
2. <u>Time Test</u> – incur within 6 months a substantial binding obligation to expend at least 5% of the proceeds;
3. <u>Due Diligence Test</u> – proceed with due diligence to complete the capital project and expend the proceeds for the capital project

V) Borrowing Laws-Federal Tax Laws

- Local Government Unit Debt Act (LGUDA)
  - Borrowing limits (225% of average revenues for last 3 years ~$135 million)
  - Advertising requirements
  - DCED approval

V) Bank Qualification Considerations

- Current IRS tax law states that a tax exempt issuer (like the District) can issue $10 million of Bank Qualified ("BQ") bonds per calendar year
  - Holders of BQ bonds enjoy certain tax benefits, resulting in higher demand
  - Lower interest rates (5-25 bps)
  - Shorter call feature (5 yrs vs 7-10 years)

ELIZABETHTOWN AREA SCHOOL DISTRICT

Ungrandfathered Millage Strategies

1. **Fit millage impact under Act 1 Allowable Index Increase (the "Index")**
   a. *Increase up to the Index every year starting in 2019-2020 to phase in ungrandfathered millage gradually*
   b. *The District's 2019-2020 estimated Allowable Index Increase = 2.90% (0.48 mills)*
   c. *Seek exceptions and increase beyond the Index if possible*

2. **Use estimated interest earnings from construction fund toward project**
   a. *Input needed from architect to determine approximate interest earnings which would then be used to downsize the bond issue*

3. **Operating savings**
   a. *Custodial Supplies, Fuel and Utilities, Contracted Maintenance & Repairs, Transportation, Insurance Premiums, Personnel*

4. **Contribute cash towards Project**
   b. *Either temporarily borrow or permanently contribute a portion of existing reserves to help phase in borrowing capacity and millage impact*

5. **Break borrowing into smaller portions**
   a. *The District will have the ability to phase debt service into the budget more slowly*
   b. *$10,000,000 per calendar will allow for bank qualified borrowings (i.e. lower interest rates) and 5 year call features*

6. **Consider wrap around payment structure for borrowing(s)**

7. **Interest Rate Hedge**
   a. *Opportunity to preserve current interest rate environment for future borrowings within 12-18 month time frame*
   b. *Other local districts have utilized this strategy*

8. **Capitalize Interest**
   a. *The use of bond proceeds to phase the millage impact into the budget gradually*
   b. *Increases the size of the bond issue*

9. **Debt Restructuring**
   a. *Restructure a portion of outstanding debt to create capacity for new ungrandfathered debt*
   b. *EASD has utilized this strategy in the past*

10. **Consider using Capital Appreciation Bonds to reduce millage impact**
    a. *Tends to increase interest expense (compound interest)*

11. **Debt Act Referendum (Electoral Debt)**
    a. *Voters vote on debt service millage for specific project*

12. **Act 1 Referendum**
    a. *Voters vote on property tax increase beyond the Index – not specific project*

ELIZABETHTOWN AREA SCHOOL DISTRICT
SUMMARY OF OUTSTANDING INDEBTEDNESS

Debt Service Requirements

1 Fiscal Year Ended	2 G.O. Bonds Series of 2012	3 G.O. Bonds Series of 2013	4 G.O. Bonds Series of 2015	5 G.O. Bonds Series A of 2015	6 G.O. Bonds Series of 2016	7 G.O. Bonds Series A of 2016	8 G.O. Bonds Series of 2017	9 Total Debt Service
6/30/2019	1,436,008	930,960	318,699	280,998	174,315	204,010	383,120	3,728,109
6/30/2020	1,390,408	976,360	317,740	280,023	174,131	208,425	383,064	3,730,150
6/30/2021	1,345,208	1,030,460	316,570	283,835	173,921	197,788	382,993	3,730,774
6/30/2022	1,295,408	1,081,810	315,270	282,435	173,700	202,038	382,908	3,733,568
6/30/2023	1,248,678	1,128,850	318,885	280,948	173,419	196,138	382,813	3,729,729
6/30/2024	1,166,790	1,219,890	317,275	279,285	173,081	195,238	382,694	3,734,253
6/30/2025		2,477,540	315,525	282,473	172,744	159,731	382,556	3,790,569
6/30/2026		1,360,770	452,025	1,252,755	172,406	169,506	382,419	3,789,881
6/30/2027			1,771,075	1,352,613	172,069	159,281	382,281	3,837,319
6/30/2028			1,773,675	1,343,025	176,600	159,150	382,144	3,834,594
6/30/2029			1,774,775	1,345,975	176,000	159,000	381,997	3,837,747
6/30/2030			1,774,375	1,347,725	175,400	158,850	381,841	3,838,191
6/30/2031			1,481,900	1,126,650	667,300	158,700	381,684	3,816,234
6/30/2032					2,439,475	227,500	470,122	3,137,097
6/30/2033					2,349,725	308,975	481,919	3,140,619
6/30/2034						658,775	1,516,800	2,175,575
6/30/2035						653,025	1,519,000	2,172,025
6/30/2036						650,538	1,519,200	2,169,738
6/30/2037						649,700	1,517,400	2,167,100
6/30/2038						651,600	1,513,600	2,165,200
6/30/2039						647,600	1,512,700	2,160,300
6/30/2040						647,700	1,509,600	2,157,300
6/30/2041								
6/30/2042								
6/30/2043								
6/30/2044								
6/30/2045								
Totals	7,882,498	10,206,640	11,247,789	9,738,738	7,544,286	7,423,266	16,532,853	70,576,069

Local Effort Requirements

10 Fiscal Year Ended	11 G.O. Bonds Series of 2012	12 G.O. Bonds Series of 2013	13 G.O. Bonds Series of 2015	14 G.O. Bonds Series A of 2015	15 G.O. Bonds Series of 2016	16 G.O. Bonds Series A of 2016	17 G.O. Bonds Series of 2017	18 Total Local Effort
6/30/2019	1,218,677	790,065	271,553	239,129	172,225	191,105	369,666	3,252,420
6/30/2020	1,179,978	828,594	270,736	238,299	172,043	195,241	369,611	3,254,503
6/30/2021	1,141,619	874,506	269,739	241,544	171,836	185,276	369,543	3,254,063
6/30/2022	1,099,356	918,085	268,631	240,353	171,617	189,258	369,461	3,256,760
6/30/2023	1,059,698	958,006	271,711	239,087	171,339	183,731	369,369	3,252,941
6/30/2024	990,204	1,035,267	270,340	237,672	171,006	182,888	369,254	3,256,631
6/30/2025		2,102,580	268,848	240,384	170,673	149,627	369,122	3,301,235
6/30/2026		1,154,826	385,156	1,066,096	170,339	158,784	368,989	3,304,190
6/30/2027			1,509,074	1,151,075	170,006	149,206	368,856	3,348,217
6/30/2028			1,511,290	1,142,916	174,483	149,083	368,724	3,346,495
6/30/2029			1,512,227	1,145,426	173,890	148,942	368,582	3,349,067
6/30/2030			1,511,886	1,146,916	173,297	148,802	368,431	3,349,332
6/30/2031			1,262,678	958,780	659,299	148,661	368,280	3,397,699
6/30/2032					2,410,225	213,109	453,612	3,076,947
6/30/2033					2,321,551	289,431	464,995	3,075,977
6/30/2034						617,104	1,463,533	2,080,637
6/30/2035						611,718	1,465,656	2,077,373
6/30/2036						609,388	1,465,849	2,075,236
6/30/2037						608,603	1,464,112	2,072,715
6/30/2038						610,383	1,460,445	2,070,828
6/30/2039						606,636	1,459,577	2,066,213
6/30/2040						606,730	1,456,586	2,063,315
6/30/2041								
6/30/2042								
6/30/2043								
6/30/2044								
6/30/2045								
Totals	6,689,532	8,661,930	9,583,869	8,287,677	7,453,828	6,953,706	15,952,250	63,582,793

Principal*:	7,330,000	8,990,000	8,745,000	7,760,000	5,350,000	4,490,000	9,525,000	52,190,000
PE%:	28.40%	28.40%	27.76%	27.96%	2.25%	11.87%	6.59%	
PE% Status:	Temp	Temp	Temp	Temp	Temp	Temp	Temp	
AR% (2018 - 2019):	53.29%	53.29%	53.29%	53.29%	53.29%	53.29%	53.29%	
Call Date:	3/1/2017	11/15/2018	5/15/2020	11/15/2020	3/1/2022	3/1/2022	5/15/2022	
Purpose:	Cur Ref 2007	Adv Ref 2009A	Adv Ref 2010	Cur Ref 2010	Cur Ref 2011	New Money	New Money	
Average Rates:	2.13	2.50	2.43	2.43	2.40	2.84	2.96	

* Outstanding as of November 5, 2018

Scenario 1:

$23.5 Million near-term Project
$80 Million long-term Project

ELIZABETHTOWN AREA SCHOOL DISTRICT
ILLUSTRATION OF CONSTRUCTION DRAW SCHEDULE MECHANICS

1	2	3	4	5	6	7	8	9	10	11	12
							SOURCES				
Date	**Beginning Balance**	Construction Costs $19,306,800	Soft Costs $2,909,884	ESCO $1,300,000	Illustrative Costs of Issuance	**Total Draws**	Bonds	District Cash	Interest Earnings 1.75%	**Total Sources**	**Ending Balance**
1/1/2019											
2/1/2019											
3/1/2019					(167,463)	**(167,463)**	9,995,000			**9,995,000**	**9,827,538**
4/1/2019	**9,827,538**								14,607	**14,607**	**9,842,144**
5/1/2019	**9,842,144**								14,157	**14,157**	**9,856,301**
6/1/2019	**9,856,301**								14,649	**14,649**	**9,870,950**
7/1/2019	**9,870,950**	(1,072,600)	(161,660)	(72,222)		**(1,306,482)**			14,198	**14,198**	**8,578,666**
8/1/2019	**8,578,666**	(1,072,600)	(161,660)	(72,222)		**(1,306,482)**			12,750	**12,750**	**7,284,934**
9/1/2019	**7,284,934**	(1,072,600)	(161,660)	(72,222)		**(1,306,482)**			10,828	**10,828**	**5,989,279**
10/1/2019	**5,989,279**	(1,072,600)	(161,660)	(72,222)		**(1,306,482)**			8,615	**8,615**	**4,691,411**
11/1/2019	**4,691,411**	(1,072,600)	(161,660)	(72,222)		**(1,306,482)**			6,973	**6,973**	**3,391,902**
12/1/2019	**3,391,902**	(1,072,600)	(161,660)	(72,222)		**(1,306,482)**			4,879	**4,879**	**2,090,298**
1/1/2020	**2,090,298**	(1,072,600)	(161,660)	(72,222)	(194,950)	**(1,501,432)**	13,660,000		3,107	**13,663,107**	**14,251,972**
2/1/2020	**14,251,972**	(1,072,600)	(161,660)	(72,222)		**(1,306,482)**			21,183	**21,183**	**12,966,672**
3/1/2020	**12,966,672**	(1,072,600)	(161,660)	(72,222)		**(1,306,482)**			18,029	**18,029**	**11,678,219**
4/1/2020	**11,678,219**	(1,072,600)	(161,660)	(72,222)		**(1,306,482)**			17,357	**17,357**	**10,389,094**
5/1/2020	**10,389,094**	(1,072,600)	(161,660)	(72,222)		**(1,306,482)**			14,943	**14,943**	**9,097,555**
6/1/2020	**9,097,555**	(1,072,600)	(161,660)	(72,222)		**(1,306,482)**			13,522	**13,522**	**7,804,594**
7/1/2020	**7,804,594**	(1,072,600)	(161,660)	(72,222)		**(1,306,482)**			11,226	**11,226**	**6,509,337**
8/1/2020	**6,509,337**	(1,072,600)	(161,660)	(72,222)		**(1,306,482)**			9,675	**9,675**	**5,212,530**
9/1/2020	**5,212,530**	(1,072,600)	(161,660)	(72,222)		**(1,306,482)**			7,747	**7,747**	**3,913,795**
10/1/2020	**3,913,795**	(1,072,600)	(161,660)	(72,222)		**(1,306,482)**			5,629	**5,629**	**2,612,942**
11/1/2020	**2,612,942**	(1,072,600)	(161,660)	(72,222)		**(1,306,482)**			3,884	**3,884**	**1,310,343**
12/1/2020	**1,310,343**	(1,072,600)	(161,660)	(72,222)		**(1,306,482)**			1,885	**1,885**	**5,745**
	TOTALS	**(19,306,800)**	**(2,909,884)**	**(1,300,000)**	**(362,413)**	**(23,879,097)**	**23,655,000**	**0**	**229,842**	**23,884,842**	

Sample draw schedule for illustrative purposes only. Actual draw schedule to be provided by District's architect.

ELIZABETHTOWN AREA SCHOOL DISTRICT
ILLUSTRATION OF FINANCING SCENARIO- $23.5 MILLION NEAR TERM PROJECT; $80 MILLION LONG TERM PROJECT

	1	2	3	4	5	6
	ESTIMATED	ESTIMATED		ESTIMATED	ESTIMATED	
	2019	*2020*	Subtotal	*2023*	*2024*	Total
Principal	$9,995,000	$13,660,000	$23,655,000	$40,000,000	$40,000,000	$103,655,000
Construction Fund	$9,827,538	$13,465,050	$23,292,588	$39,607,500	$39,607,500	$102,507,588
Settlement Date:	3/1/2019	1/15/2020		5/15/2023	9/1/2024	

7	8	9	10	11	12	13	14	15	16	17	16	17	18	19
Fiscal Year Ending	Existing Local Effort	Actual Local Effort	Total Local Effort	Proposed Local Effort	Total Local Effort	Sub-Total Gross Millage Equivalent	Proposed Local Effort	Total Local Effort	Proposed Local Effort	Total Local Effort	Total Millage Equivalent	Cumulative Millage Equivalent	Millage Equivalent to be Identified	Cumulative Millage Equivalent to be Identified
6/30/2019	3,252,420		3,252,420		3,252,420			3,252,420		3,252,420				
6/30/2020	3,254,503	525,387	3,779,890		3,779,890	0.26		3,779,890		3,779,890	0.26	0.26	0.34	0.34
6/30/2021	3,254,063	524,392	3,778,455	848,476	4,626,931	0.42		4,626,931		4,626,931	0.42	0.68	0.34	0.68
6/30/2022	3,256,760	521,498	3,778,258	641,272	4,419,530	-0.10		4,419,530		4,419,530	-0.10	0.58	0.34	1.02
6/30/2023	3,252,941	523,422	3,776,362	641,099	4,417,461			4,417,461		4,417,461	0.00	0.57	0.34	1.36
6/30/2024	3,256,631	515,278	3,771,908	640,920	4,412,828		1,987,205	6,400,033		6,400,033	0.98	1.55	0.34	1.70
6/30/2025	3,301,235	472,847	3,774,082	640,738	4,414,819		1,992,114	6,406,933	1,398,337	7,805,270	0.69	2.25	0.34	2.04
6/30/2026	3,304,190	471,062	3,775,252	640,551	4,415,803		2,193,044	6,608,846	1,986,804	8,595,650	0.39	2.64	0.34	2.38
6/30/2027	3,348,217	425,067	3,773,284	640,360	4,413,644		2,189,915	6,603,559	2,177,923	8,781,482	0.09	2.73	0.35	2.73
6/30/2028	3,346,495	424,880	3,771,375	640,165	4,411,539		2,196,234	6,607,773	2,170,273	8,778,046				
6/30/2029	3,349,067	424,689	3,773,756	639,965	4,413,721		2,191,968	6,605,689	2,182,079	8,787,768				
6/30/2030	3,349,332	424,493	3,773,825	639,762	4,413,587		2,192,198	6,605,784	2,173,312	8,779,096				
6/30/2031	3,397,699	424,294	3,821,993	639,554	4,461,547		2,142,858	6,604,405	2,169,255	8,773,660				
6/30/2032	3,076,947	561,228	3,638,175	776,353	4,414,528		2,192,882	6,607,410	2,179,487	8,786,896				
6/30/2033	3,075,977	560,158	3,636,135	775,002	4,411,137		2,196,093	6,607,230	2,173,992	8,781,221				
6/30/2034	2,080,637	1,053,226	3,133,863	1,281,931	4,415,794		2,178,856	6,594,650	2,197,414	8,792,064				
6/30/2035	2,077,373	1,054,771	3,132,144	1,281,464	4,413,608		2,186,071	6,599,678	2,194,623	8,794,302				
6/30/2036	2,075,236	1,054,699	3,129,935	1,284,200	4,414,135		2,187,289	6,601,424	2,196,054	8,797,477				
6/30/2037	2,072,715	1,062,725	3,135,440	1,280,108	4,415,547		2,187,635	6,603,182	2,196,589	8,799,771				
6/30/2038	2,070,828	1,058,815	3,129,643	1,279,114	4,408,757		2,192,004	6,600,761	2,201,126	8,801,887				
6/30/2039	2,066,213	1,063,051	3,129,263	1,280,952	4,410,215		2,185,501	6,595,716	2,209,446	8,805,161				
6/30/2040	2,063,315	1,065,265	3,128,580	1,280,597	4,409,177		2,188,106	6,597,283	2,211,526	8,808,809				
6/30/2041		1,060,547	1,060,547	2,166,674	3,227,221		2,755,481	5,982,701	2,778,573	8,761,274				
6/30/2042		1,063,760	1,063,760	2,162,956	3,226,715		2,751,847	5,978,562	2,779,642	8,758,204				
6/30/2043		1,064,753	1,064,753	2,164,394	3,229,147		2,755,358	5,984,505	2,777,717	8,762,222				
6/30/2044		1,063,608	1,063,608	2,170,668	3,234,276		2,750,960	5,985,236	2,777,788	8,763,023				
6/30/2045							4,376,952	4,376,952	4,398,512	8,775,464				
6/30/2046							4,375,670	4,375,670	4,402,235	8,777,905				
6/30/2047							4,376,273	4,376,273	4,402,444	8,778,717				
6/30/2048							4,373,639	4,373,639	4,404,002	8,777,640				
6/30/2049							4,377,230	4,377,230	4,401,801	8,779,031				
6/30/2050							4,376,510	4,376,510	4,410,176	8,786,685				
6/30/2051							4,376,061	4,376,061	4,408,587	8,784,647				
6/30/2052							4,380,213	4,380,213	4,401,868	8,782,081				
6/30/2053							4,373,544	4,373,544	4,409,220	8,782,764				
6/30/2054														
6/30/2055														
TOTAL	63,582,793	18,463,912	82,046,704	26,437,271	108,483,975	0.58	87,179,707	195,663,682	84,770,801	280,434,483	2.73		2.73	

Assumes no state reimbursement
Estimated rates. Actual rates to be determined at the time of pricing.
Value of 1 Mill = 2,026,838

Year	Millage Rate	Assumed Index	Est. RE Revenue	Est. Incremental Millage	Est. Incremental RE Revenue
2019	16.6063	2.90%	33,658,280		
2020	17.0879	2.90%	34,634,370	0.48	976,090
2021	17.5834	2.90%	35,638,767	0.50	1,004,397
2022	18.0934	2.90%	36,672,291	0.51	1,033,524
2023	18.6181	2.90%	37,735,787	0.52	1,063,496
2024	19.1580	2.90%	38,830,125	0.54	1,094,338
2025	19.7136	2.90%	39,956,199	0.56	1,126,074
2026	20.2853	2.90%	41,114,929	0.57	1,158,730

Scenario 2:

$23.5 Million near-term Project
$50 Million long-term Project

ELIZABETHTOWN AREA SCHOOL DISTRICT
ILLUSTRATION OF FINANCING SCENARIO- $23.5 MILLION NEAR TERM PROJECT; $50 MILLION LONG TERM PROJECT

	1	2	3	4	5	6
	ESTIMATED 2019	ESTIMATED 2020	Subtotal	ESTIMATED 2023	ESTIMATED 2024	Total
Principal	$9,995,000	$13,660,000	$23,655,000	$25,000,000	$25,000,000	$73,655,000
Construction Fund	$9,827,538	$13,465,050	$23,292,588	$24,720,000	$24,720,000	$72,732,588
Settlement Date:	3/1/2019	1/15/2020		5/15/2023	9/1/2024	

7	8	9	10	11	12	13	14	15	16	17	16	17	18	19
Fiscal Year Ending	**Existing Local Effort**	**Actual Local Effort**	**Total Local Effort**	**Proposed Local Effort**	**Total Local Effort**	**Sub-Total Gross Millage Equivalent**	**Proposed Local Effort**	**Total Local Effort**	**Proposed Local Effort**	**Total Local Effort**	**Total Millage Equivalent**	**Cumulative Millage Equivalent**	**Millage Equivalent to be Identified**	**Cumulative Millage Equivalent to be Identified**
6/30/2019	3,252,420		3,252,420		3,252,420			3,252,420		3,252,420				
6/30/2020	3,254,503	525,387	3,779,890		3,779,890	0.26		3,779,890		3,779,890	0.26	0.26	0.23	0.23
6/30/2021	3,254,063	524,392	3,778,455	848,476	4,626,931	0.42		4,626,931		4,626,931	0.42	0.68	0.23	0.46
6/30/2022	3,256,760	521,498	3,778,258	641,272	4,419,530	-0.10		4,419,530		4,419,530	-0.10	0.58	0.23	0.69
6/30/2023	3,252,941	523,422	3,776,362	641,099	4,417,461			4,417,461		4,417,461	0.00	0.57	0.23	0.92
6/30/2024	3,256,631	515,278	3,771,908	640,920	4,412,828		1,257,128	5,669,956		5,669,956	0.62	1.19	0.23	1.15
6/30/2025	3,301,235	472,847	3,774,082	640,738	4,414,819		1,262,037	5,676,856	883,909	6,560,765	0.44	1.63	0.23	1.38
6/30/2026	3,304,190	471,062	3,775,252	640,551	4,415,803		1,261,851	5,677,654	1,257,694	6,935,347	0.18	1.82	0.22	1.60
6/30/2027	3,348,217	425,067	3,773,284	640,360	4,413,644		1,261,660	5,675,304	1,257,508	6,932,811	0.00	1.82	0.22	1.82
6/30/2028	3,346,495	424,880	3,771,375	640,165	4,411,539		1,261,465	5,673,004	1,257,317	6,930,320				
6/30/2029	3,349,067	424,689	3,773,756	639,965	4,413,721		1,261,265	5,674,987	1,257,122	6,932,108				
6/30/2030	3,349,332	424,493	3,773,825	639,762	4,413,587		1,261,062	5,674,648	1,256,922	6,931,571				
6/30/2031	3,397,699	424,294	3,821,993	639,554	4,461,547		1,260,854	5,722,401	1,256,719	6,979,119				
6/30/2032	3,076,947	561,228	3,638,175	776,353	4,414,528		1,260,642	5,675,170	1,256,511	6,931,681				
6/30/2033	3,075,977	560,158	3,636,135	775,002	4,411,137		1,260,426	5,671,562	1,256,299	6,927,861				
6/30/2034	2,080,637	1,053,226	3,133,863	1,281,931	4,415,794		1,260,205	5,675,999	1,256,083	6,932,082				
6/30/2035	2,077,373	1,054,771	3,132,144	1,281,464	4,413,608		1,259,981	5,673,589	1,255,862	6,929,451				
6/30/2036	2,075,236	1,054,699	3,129,935	1,284,200	4,414,135		1,259,753	5,673,888	1,255,638	6,929,526				
6/30/2037	2,072,715	1,062,725	3,135,440	1,280,108	4,415,547		1,259,523	5,675,070	1,255,410	6,930,480				
6/30/2038	2,070,828	1,058,815	3,129,643	1,279,114	4,408,757		1,259,289	5,668,046	1,255,180	6,923,225				
6/30/2039	2,066,213	1,063,051	3,129,263	1,280,952	4,410,215		1,259,054	5,669,269	1,254,946	6,924,215				
6/30/2040	2,063,315	1,065,265	3,128,580	1,280,597	4,409,177		1,258,815	5,667,993	1,254,711	6,922,703				
6/30/2041		1,060,547	1,060,547	2,166,674	3,227,221		1,834,267	5,061,487	1,840,102	6,901,590				
6/30/2042		1,063,760	1,063,760	2,162,956	3,226,715		1,839,403	5,066,118	1,835,335	6,901,453				
6/30/2043		1,064,753	1,064,753	2,164,394	3,229,147		1,837,699	5,066,846	1,838,765	6,905,611				
6/30/2044		1,063,608	1,063,608	2,170,668	3,234,276		1,834,318	5,068,594	1,835,341	6,903,935				
6/30/2045							3,462,451	3,462,451	3,463,689	6,926,140				
6/30/2046							3,459,569	3,459,569	3,466,170	6,925,739				
6/30/2047							3,459,921	3,459,921	3,466,531	6,926,452				
6/30/2048							3,463,217	3,463,217	3,459,848	6,923,065				
6/30/2049							3,464,053	3,464,053	3,460,969	6,925,022				
6/30/2050							3,462,146	3,462,146	3,464,237	6,926,383				
6/30/2051							3,462,088	3,462,088	3,464,242	6,926,330				
6/30/2052							2,824,977	2,824,977	2,773,572	5,598,549				
6/30/2053														
6/30/2054														
6/30/2055														
TOTAL	**63,582,793**	**18,463,912**	**82,046,704**	**26,437,271**	**108,483,975**	**0.58**	**55,829,115**	**164,313,091**	**54,096,629**	**218,409,720**	**1.82**		**1.82**	

Assumes no state reimbursement
Estimated rates. Actual rates to be determined at the time of pricing.
Value of 1 Mill = 2,026,838

Year	Millage Rate	Assumed Index	Est. RE Revenue	Est. Incremental Millage	Est. Incremental RE Revenue
2019	16.6063	2.90%	33,658,280		
2020	17.0879	2.90%	34,634,370	0.48	976,090
2021	17.5834	2.90%	35,638,767	0.50	1,004,397
2022	18.0934	2.90%	36,672,291	0.51	1,033,524
2023	18.6181	2.90%	37,735,787	0.52	1,063,496
2024	19.1580	2.90%	38,830,125	0.54	1,094,338
2025	19.7136	2.90%	39,956,199	0.56	1,126,074
2026	20.2853	2.90%	41,114,929	0.57	1,158,730

Scenario 3:

$28.6 Million near-term Project
$80 Million long-term Project

ELIZABETHTOWN AREA SCHOOL DISTRICT
ILLUSTRATION OF CONSTRUCTION DRAW SCHEDULE MECHANICS

1	2	3	4	5	6	7	8	9	10	11	12
							SOURCES				
Date	**Beginning Balance**	Construction Costs $23,750,799	Soft Costs $3,612,604	ESCO $1,300,000	Illustrative Costs of Issuance	**Total Draws**	Bonds	District Cash	Interest Earnings 1.75%	**Total Sources**	**Ending Balance**
1/1/2019											
2/1/2019											
3/1/2019					(167,463)	**(167,463)**	9,995,000			**9,995,000**	**9,827,538**
4/1/2019	**9,827,538**								14,607	**14,607**	**9,842,144**
5/1/2019	**9,842,144**								14,157	**14,157**	**9,856,301**
6/1/2019	**9,856,301**								14,649	**14,649**	**9,870,950**
7/1/2019	**9,870,950**	(1,319,489)	(200,700)	(72,222)		**(1,592,411)**			14,198	**14,198**	**8,292,737**
8/1/2019	**8,292,737**	(1,319,489)	(200,700)	(72,222)		**(1,592,411)**			12,326	**12,326**	**6,712,651**
9/1/2019	**6,712,651**	(1,319,489)	(200,700)	(72,222)		**(1,592,411)**			9,977	**9,977**	**5,130,217**
10/1/2019	**5,130,217**	(1,319,489)	(200,700)	(72,222)		**(1,592,411)**			7,379	**7,379**	**3,545,185**
11/1/2019	**3,545,185**	(1,319,489)	(200,700)	(72,222)		**(1,592,411)**			5,269	**5,269**	**1,958,042**
12/1/2019	**1,958,042**	(1,319,489)	(200,700)	(72,222)		**(1,592,411)**			2,816	**2,816**	**368,448**
1/1/2020	**368,448**	(1,319,489)	(200,700)	(72,222)	(233,725)	**(1,826,136)**	18,830,000		548	**18,830,548**	**17,372,859**
2/1/2020	**17,372,859**	(1,319,489)	(200,700)	(72,222)		**(1,592,411)**			25,821	**25,821**	**15,806,269**
3/1/2020	**15,806,269**	(1,319,489)	(200,700)	(72,222)		**(1,592,411)**			21,977	**21,977**	**14,235,835**
4/1/2020	**14,235,835**	(1,319,489)	(200,700)	(72,222)		**(1,592,411)**			21,159	**21,159**	**12,664,582**
5/1/2020	**12,664,582**	(1,319,489)	(200,700)	(72,222)		**(1,592,411)**			18,216	**18,216**	**11,090,387**
6/1/2020	**11,090,387**	(1,319,489)	(200,700)	(72,222)		**(1,592,411)**			16,484	**16,484**	**9,514,460**
7/1/2020	**9,514,460**	(1,319,489)	(200,700)	(72,222)		**(1,592,411)**			13,685	**13,685**	**7,935,734**
8/1/2020	**7,935,734**	(1,319,489)	(200,700)	(72,222)		**(1,592,411)**			11,795	**11,795**	**6,355,117**
9/1/2020	**6,355,117**	(1,319,489)	(200,700)	(72,222)		**(1,592,411)**			9,446	**9,446**	**4,772,151**
10/1/2020	**4,772,151**	(1,319,489)	(200,700)	(72,222)		**(1,592,411)**			6,864	**6,864**	**3,186,604**
11/1/2020	**3,186,604**	(1,319,489)	(200,700)	(72,222)		**(1,592,411)**			4,736	**4,736**	**1,598,929**
12/1/2020	**1,598,929**	(1,319,489)	(200,700)	(72,222)		**(1,592,411)**			2,300	**2,300**	**8,818**
	TOTALS	**(23,750,799)**	**(3,612,604)**	**(1,300,000)**	**(401,188)**	**(29,064,591)**	**28,825,000**	**0**	**248,408**	**29,073,408**	

Sample draw schedule for illustrative purposes only. Actual draw schedule to be provided by District's architect.

ELIZABETHTOWN AREA SCHOOL DISTRICT
ILLUSTRATION OF FINANCING SCENARIO- $28.6 MILLION NEAR TERM PROJECT; $80 MILLION LONG TERM PROJECT

	1	2	3	4	5	6
	ESTIMATED	ESTIMATED		ESTIMATED	ESTIMATED	
	2019	*2020*	Subtotal	*2023*	*2024*	Total
Principal	$9,995,000	$18,830,000	$28,825,000	$40,000,000	$40,000,000	$108,825,000
Construction Fund	$9,827,538	$18,596,275	$28,423,813	$39,607,500	$39,607,500	$107,638,813
Settlement Date:	3/1/2019	5/15/2020		5/15/2023	9/1/2024	

7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Fiscal Year Ending	Existing Local Effort	Actual Local Effort	Total Local Effort	Proposed Local Effort	Total Local Effort	Sub-Total Gross Millage Equivalent	Proposed Local Effort	Total Local Effort	Proposed Local Effort	Total Local Effort	Total Millage Equivalent	Cumulative Millage Equivalent	Millage Equivalent to be Identified	Cumulative Millage Equivalent to be Identified
6/30/2019	3,252,420		3,252,420		3,252,420			3,252,420		3,252,420				
6/30/2020	3,254,503	525,387	3,779,890		3,779,890	0.26		3,779,890		3,779,890	0.26	0.26	0.36	0.36
6/30/2021	3,254,063	524,392	3,778,455	881,942	4,660,397	0.43		4,660,397		4,660,397	0.43	0.69	0.36	0.72
6/30/2022	3,256,760	521,498	3,778,258	886,857	4,665,115			4,665,115		4,665,115	0.00	0.70	0.36	1.08
6/30/2023	3,252,941	523,422	3,776,362	886,684	4,663,046			4,663,046		4,663,046	0.00	0.70	0.36	1.44
6/30/2024	3,256,631	515,278	3,771,908	886,505	4,658,413		1,990,688	6,649,101		6,649,101	0.98	1.68	0.36	1.80
6/30/2025	3,301,235	472,847	3,774,082	886,323	4,660,404		1,995,597	6,656,001	1,391,475	8,047,476	0.69	2.37	0.36	2.16
6/30/2026	3,304,190	471,062	3,775,252	886,136	4,661,388		2,196,527	6,857,914	1,977,078	8,834,992	0.39	2.75	0.36	2.52
6/30/2027	3,348,217	425,067	3,773,284	885,945	4,659,229		2,193,398	6,852,627	2,271,207	9,123,834	0.14	2.90	0.38	2.90
6/30/2028	3,346,495	424,880	3,771,375	885,750	4,657,124		2,199,717	6,856,841	2,269,348	9,126,189				
6/30/2029	3,349,067	424,689	3,773,756	885,550	4,659,306		2,195,451	6,854,757	2,271,768	9,126,525				
6/30/2030	3,349,332	424,493	3,773,825	885,347	4,659,172		2,195,681	6,854,852	2,273,315	9,128,167				
6/30/2031	3,397,699	424,294	3,821,993	885,139	4,707,132		2,146,341	6,853,473	2,269,068	9,122,540				
6/30/2032	3,076,947	561,228	3,638,175	1,021,938	4,660,113		2,196,365	6,856,478	2,269,003	9,125,480				
6/30/2033	3,075,977	560,158	3,636,135	1,025,479	4,661,613		2,199,576	6,861,189	2,263,101	9,124,290				
6/30/2034	2,080,637	1,053,226	3,133,863	1,527,299	4,661,162		2,187,228	6,848,390	2,280,901	9,129,290				
6/30/2035	2,077,373	1,054,771	3,132,144	1,526,832	4,658,976		2,189,331	6,848,307	2,272,377	9,120,684				
6/30/2036	2,075,236	1,054,699	3,129,935	1,534,455	4,664,390		2,190,550	6,854,940	2,267,977	9,122,916				
6/30/2037	2,072,715	1,062,725	3,135,440	1,525,251	4,660,691		2,190,895	6,851,586	2,272,361	9,123,947				
6/30/2038	2,070,828	1,058,815	3,129,643	1,534,027	4,663,670		2,195,265	6,858,935	2,265,553	9,124,488				
6/30/2039	2,066,213	1,063,051	3,129,263	1,530,520	4,659,783		2,188,761	6,848,544	2,277,340	9,125,884				
6/30/2040	2,063,315	1,065,265	3,128,580	1,534,814	4,663,394		2,191,366	6,854,761	2,277,466	9,132,226				
6/30/2041		1,060,547	1,060,547	3,577,515	4,638,061		2,187,928	6,825,989	2,276,136	9,102,125				
6/30/2042		1,063,760	1,063,760	3,575,911	4,639,670		2,188,425	6,828,095	2,273,297	9,101,392				
6/30/2043		1,064,753	1,064,753	3,576,243	4,640,995		2,182,904	6,823,899	2,278,677	9,102,576				
6/30/2044		1,063,608	1,063,608	3,573,411	4,637,019		2,181,392	6,818,411	2,282,095	9,100,506				
6/30/2045							4,728,510	4,728,510	4,399,774	9,128,284				
6/30/2046							4,725,465	4,725,465	4,403,498	9,128,963				
6/30/2047							4,723,757	4,723,757	4,408,581	9,132,338				
6/30/2048							4,723,157	4,723,157	4,409,888	9,133,044				
6/30/2049							4,723,127	4,723,127	4,407,435	9,130,561				
6/30/2050							4,727,999	4,727,999	4,405,810	9,133,809				
6/30/2051							4,722,355	4,722,355	4,414,221	9,136,575				
6/30/2052							4,725,647	4,725,647	4,407,249	9,132,895				
6/30/2053							4,722,197	4,722,197	4,414,347	9,136,544				
6/30/2054														
6/30/2055														
TOTAL	**63,582,793**	**18,463,912**	**82,046,704**	**36,805,869**	**118,852,573**	**0.69**	**88,105,594**	**206,958,167**	**83,950,339**	**290,908,506**	**2.90**		**2.90**	

Assumes no state reimbursement
Estimated rates. Actual rates to be determined at the time of pricing.
Value of 1 Mill = 2,026,838

Year	Millage Rate	Assumed Index	Est. RE Revenue	Est. Incremental Millage	Est. Incremental RE Revenue
2019	16.6063	2.90%	33,658,280		
2020	17.0879	2.90%	34,634,370	0.48	976,090
2021	17.5834	2.90%	35,638,767	0.50	1,004,397
2022	18.0934	2.90%	36,672,291	0.51	1,033,524
2023	18.6181	2.90%	37,735,787	0.52	1,063,496
2024	19.1580	2.90%	38,830,125	0.54	1,094,338
2025	19.7136	2.90%	39,956,199	0.56	1,126,074
2026	20.2853	2.90%	41,114,929	0.57	1,158,730

Scenario 4:

$28.6 Million near-term Project
$50 Million long-term Project

ELIZABETHTOWN AREA SCHOOL DISTRICT
ILLUSTRATION OF FINANCING SCENARIO- $28.6 MILLION NEAR TERM PROJECT; $50 MILLION LONG TERM PROJECT

	1	2	3	4	5	6
	ESTIMATED *2019*	ESTIMATED *2020*	Subtotal	ESTIMATED *2023*	ESTIMATED *2024*	Total
Principal	$9,995,000	$18,830,000	$28,825,000	$25,000,000	$25,000,000	$78,825,000
Construction Fund	$9,827,538	$18,596,275	$28,423,813	$24,720,000	$24,720,000	$77,863,813
Settlement Date:	3/1/2019	1/15/2020		5/15/2023	9/1/2024	

7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Fiscal Year Ending	**Existing Local Effort**	**Actual Local Effort**	**Total Local Effort**	**Proposed Local Effort**	**Total Local Effort**	**Sub-Total Gross Millage Equivalent**	**Proposed Local Effort**	**Total Local Effort**	**Proposed Local Effort**	**Total Local Effort**	**Total Millage Equivalent**	**Cumulative Millage Equivalent**	**Millage Equivalent to be Identified**	**Cumulative Millage Equivalent to be Identified**
6/30/2019	3,252,420		3,252,420		3,252,420			3,252,420		3,252,420				
6/30/2020	3,254,503	525,387	3,779,890		3,779,890	0.26		3,779,890		3,779,890	0.26	0.26	0.24	0.24
6/30/2021	3,254,063	524,392	3,778,455	1,175,923	4,954,377	0.58		4,954,377		4,954,377	0.58	0.84	0.24	0.48
6/30/2022	3,256,760	521,498	3,778,258	886,857	4,665,115			4,665,115		4,665,115	-0.14	0.70	0.24	0.72
6/30/2023	3,252,941	523,422	3,776,362	886,684	4,663,046			4,663,046		4,663,046	0.00	0.70	0.24	0.96
6/30/2024	3,256,631	515,278	3,771,908	886,505	4,658,413		1,261,601	5,920,014		5,920,014	0.62	1.32	0.24	1.20
6/30/2025	3,301,235	472,847	3,774,082	886,323	4,660,404		1,266,510	5,926,914	887,683	6,814,597	0.44	1.76	0.24	1.44
6/30/2026	3,304,190	471,062	3,775,252	886,136	4,661,388		1,266,324	5,927,712	1,263,043	7,190,754	0.19	1.94	0.24	1.68
6/30/2027	3,348,217	425,067	3,773,284	885,945	4,659,229		1,266,133	5,925,362	1,262,857	7,188,218	0.00	1.94	0.26	1.94
6/30/2028	3,346,495	424,880	3,771,375	885,750	4,657,124		1,265,938	5,923,062	1,262,666	7,185,727				
6/30/2029	3,349,067	424,689	3,773,756	885,550	4,659,306		1,265,738	5,925,045	1,262,471	7,187,515				
6/30/2030	3,349,332	424,493	3,773,825	885,347	4,659,172		1,265,535	5,924,706	1,262,271	7,186,978				
6/30/2031	3,397,699	424,294	3,821,993	885,139	4,707,132		1,265,327	5,972,459	1,262,068	7,234,526				
6/30/2032	3,076,947	561,228	3,638,175	1,021,938	4,660,113		1,265,115	5,925,228	1,261,860	7,187,088				
6/30/2033	3,075,977	560,158	3,636,135	1,025,479	4,661,613		1,264,899	5,926,512	1,261,648	7,188,160				
6/30/2034	2,080,637	1,053,226	3,133,863	1,527,299	4,661,162		1,264,678	5,925,840	1,261,432	7,187,272				
6/30/2035	2,077,373	1,054,771	3,132,144	1,526,832	4,658,976		1,264,454	5,923,430	1,261,211	7,184,641				
6/30/2036	2,075,236	1,054,699	3,129,935	1,534,455	4,664,390		1,264,226	5,928,617	1,260,987	7,189,604				
6/30/2037	2,072,715	1,062,725	3,135,440	1,525,251	4,660,691		1,263,996	5,924,686	1,260,759	7,185,446				
6/30/2038	2,070,828	1,058,815	3,129,643	1,534,027	4,663,670		1,263,762	5,927,432	1,260,529	7,187,961				
6/30/2039	2,066,213	1,063,051	3,129,263	1,530,520	4,659,783		1,263,527	5,923,309	1,260,295	7,183,604				
6/30/2040	2,063,315	1,065,265	3,128,580	1,534,814	4,663,394		1,263,288	5,926,683	1,260,060	7,186,742				
6/30/2041		1,060,547	1,060,547	3,577,515	4,638,061		1,263,047	5,901,109	1,259,821	7,160,930				
6/30/2042		1,063,760	1,063,760	3,575,911	4,639,670		1,262,804	5,902,474	1,259,580	7,162,054				
6/30/2043		1,064,753	1,064,753	3,576,243	4,640,995		1,262,558	5,903,553	1,259,337	7,162,890				
6/30/2044		1,063,608	1,063,608	3,573,411	4,637,019		1,262,311	5,899,330	1,259,091	7,158,420				
6/30/2045							3,592,431	3,592,431	3,589,572	7,182,003				
6/30/2046							3,594,424	3,594,424	3,592,302	7,186,726				
6/30/2047							3,589,650	3,589,650	3,588,038	7,177,688				
6/30/2048							3,592,947	3,592,947	3,591,606	7,184,552				
6/30/2049							3,593,782	3,593,782	3,592,727	7,186,509				
6/30/2050							3,591,876	3,591,876	3,591,121	7,182,997				
6/30/2051							3,591,818	3,591,818	3,591,379	7,183,197				
6/30/2052							3,593,070	3,593,070	3,592,964	7,186,033				
6/30/2053							1,943,228	1,943,228	1,948,260	3,891,488				
6/30/2054														
6/30/2055														
TOTAL	**63,582,793**	**18,463,912**	**82,046,704**	**37,099,850**	**119,146,554**	**0.84**	**57,234,992**	**176,381,546**	**55,527,634**	**231,909,180**	**1.94**		**1.94**	

Assumes no state reimbursement
Estimated rates. Actual rates to be determined at the time of pricing.
Value of 1 Mill = 2,026,838

Year	Millage Rate	Assumed Index	Est. RE Revenue	Est. Incremental Millage	Est. Incremental RE Revenue
2019	16.6063	2.90%	33,658,280		
2020	17.0879	2.90%	34,634,370	0.48	976,090
2021	17.5834	2.90%	35,638,767	0.50	1,004,397
2022	18.0934	2.90%	36,672,291	0.51	1,033,524
2023	18.6181	2.90%	37,735,787	0.52	1,063,496
2024	19.1580	2.90%	38,830,125	0.54	1,094,338
2025	19.7136	2.90%	39,956,199	0.56	1,126,074
2026	20.2853	2.90%	41,114,929	0.57	1,158,730