

INDEPENDENT SCHOOL DISTRICT

# Update of Potential "Taxable" Refunding Opportunities 

## Monday, October 5, 2020

$\square$ Denton Independent School District ("DISD" or the "District") has actively deployed various debt management practices to lower the borrowing costs of taxpayers. Such actions have reduced the cost of voter-approved bonds and provided District taxpayers with more than $\$ 207$ million of direct savings since year 2005 !

* \$161,665,997 - Bond Refundings/Prepayment of Bonds
* $\$ 35,884,718$ - Lower Interest Rates from Prudent Use of Variable Rate Put Bonds
* \$ 9,508,402 - Use of Synthetic Debt Structures
\$207,059,117 - Total Savings to Taxpayers


## Savings from District's Debt Management Practices

- Variable Rate Debt: The District has strategically incorporated variable rate put bonds within its debt portfolio since year 2012 - lowering its borrowing cost by more than $\$ 33.2$ million in comparison to the sale of fixed rate bonds. As summarized below, the District's current interest rates on its existing variable rate bonds are $0.41 \%$ and $1.53 \%$.

| Summary of District's Existing Variable Rate Put Bonds |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Issue Description | Principal <br> Amount <br> Outstanding | Current Interest Rate Term | Mandatory <br> Tender Date | Current <br> Interest <br> Rate | Final Maturity |
| Variable Rate Unlimited Tax School Building Bonds, Series 2013 | $\$ 21,390,000$ | 3.0 Years | 08/01/2023 | 0.41\% | 08/01/2040 |
| Variable Rate Unlimited Tax School Building Bonds, Series 2014-B | 67,925,000 | 5.0 Years | 08/01/2024 | 1.53\% | 08/01/2044 |
| Totals | \$ 89,315,000 | --- | --- | --- | --- |

- Synthetic Debt Structures: The District has implemented two "synthetic fixed rate debt structures" (i.e. Series 2005-A and 2006-B Bonds) to potentially reduce the District's interest cost As of June 30, 2020, these structures have reduced the District's interest cost by more than $\$ 9.5$ million.


## Savings from District's Debt Management Practices

- Bond Refundings and Prepayment of Bonds: The District has implemented 9 refunding programs and prepaid $\$ 58.14$ million of existing bonds, generating more than $\$ 161.6$ million of savings.

| Sumpary of Interest Cost Savings - Bond Refunding Programs / Prepayment of Bonds |
| :--- | ---: | ---: | ---: | ---: |

## Summary of the District's Outstanding Callable Bonds

Denton ISD currently has $\$ 1,166,880,000$ of existing bonds eligible to be repaid or refinanced prior to maturity, as summarized in the table below.

| Denton ISD - Summary of Callable Bonds Outstanding - As of August 31, 2020 |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | :---: |

## "Taxable" Vs. "Tax-Exempt" Interest Rates

$\square$ Both tax-exempt and taxable interest rates continue to hover around their historical lows, primarily due to the economic uncertainty caused by the COVID-19 pandemic, potentially providing an opportunity for Denton ISD to complete a refunding of its existing bonds at a lower interest rate.


## Refunding Considerations

$\square$ "Tax-Exempt" Versus "Taxable" Refundings

- Definitions:
$>$ Advance Refunding: For purposes of certain tax and securities laws and regulations, a refunding in which the refunded issue remains outstanding (within a designated escrow account) for a period of more than 90 days after the issuance of the new refunding bonds.
$>$ Current Refunding: A refunding transaction where the municipal securities being refunded will all mature or be redeemed within 90 days or less from the date of issuance of the new refunding bonds.
- As a direct result of "The Tax Cuts and Jobs Act of 2017," Denton ISD may no longer complete a so-called advance refunding of its outstanding bonds on a "tax-exempt" basis, limiting the District's ability to lock-in today's interest rates.
- In lieu of a "tax-exempt" advance refunding, DISD may complete a "taxable" advance refunding of its bonds or, alternatively, wait to complete a "tax-exempt" current refunding.
- Based upon the District's existing debt portfolio, except for the Series 2011 Bonds, a refunding of Denton ISD's existing fixed rate, callable bonds must be completed on a "taxable" basis.


## Refunding Considerations

$\square$ State-Mandated "Par-to-Par" Test and Capital Appreciation Bonds

- Pursuant to existing State law, Denton ISD may not issue new bonds in a "par amount" that exceeds the "par amount" of the bonds being refunded.
- In order to comply with this State mandate and based upon the coupon structure of "taxable" securities demanded by potential investors, a "taxable" refunding may require the use of Capital Appreciation Bonds ("CABs"), something the District has historically tried to avoid given the higher cost associated with such bonds.
$\square$ Opportunity Cost of Advance Refundings (i.e. "Negative Arbitrage")
- As previously experienced with "tax-exempt" advance refundings, there are inefficiencies in the escrow account to repay DISD's refunded bonds until their redemption date since short-term investment rates generate less investment income than is permitted under Federal tax law (i.e. "Negative Arbitrage").
- Please note, "Negative Arbitrage" does not change the savings summarized herein as it is not an "actual" cost - It is solely an opportunity cost.


## "Taxable Refunding Monitor" - Callable Bonds Next 5 Years

$\square$ On the next several pages, we have examined potential refunding candidates within Denton ISD's existing debt portfolio that have a call date on or prior to August 15, 2025 (i.e. the next 5 years).

| Summary of Savings and Negative Arbitrage by Maturity |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Bond Series | Refunded <br> Maturity | Coupon | Bonds <br> Eligible to <br> be Refunded |  | Call Date | Present <br> Value <br> Savings <br> (Dollars) |  | Present <br> Value <br> Savings <br> (Percent) | Estimated <br> Negative <br> Arbitrage |  | Negative <br> Arbitrage as a Percentage of Savings | Savings Efficiency Percentage |
| Series 2012-B | 8/15/2023 | 5.000\% | \$ | 3,405,000 | 8/15/2022 | \$ | 104,709 | 3.08\% | \$ | 18,781 | 17.94\% | 84.79\% |
| Series 2012-B | 8/15/2024 | 5.000\% |  | 3,575,000 | 8/15/2022 |  | 244,659 | 6.84\% |  | 30,650 | 12.53\% | 88.87\% |
| Series 2012-B | 8/15/2025 | 5.000\% |  | 3,755,000 | 8/15/2022 |  | 396,493 | 10.56\% |  | 38,922 | 9.82\% | 91.06\% |
| Series 2012-B | 8/15/2029 | 3.125\% |  | 75,000 | 8/15/2022 |  | 5,774 | 7.70\% |  | 1,690 | 29.28\% | 77.35\% |
| Series 2012-B | 8/15/2030 | 3.250\% |  | 220,000 | 8/15/2022 |  | 19,969 | 9.08\% |  | 5,343 | 26.76\% | 78.89\% |
| Series 2012-B | 8/15/2031 | 3.250\% |  | 1,555,000 | 8/15/2022 |  | 147,184 | 9.47\% |  | 40,026 | 27.19\% | 78.62\% |
| Series 2012-B | 8/15/2032 | 5.000\% |  | 18,360,000 | 8/15/2022 |  | 4,593,849 | 25.02\% |  | 513,303 | 11.17\% | 89.95\% |
| Series 2012-B | 8/15/2033 | 5.000\% |  | 19,280,000 | 8/15/2022 |  | 5,195,144 | 26.95\% |  | 555,674 | 10.70\% | 90.34\% |
|  |  |  | \$ | 50,225,000 |  |  |  |  |  |  |  |  |
| Series 2012-D | 8/15/2026 | 4.000\% | \$ | 3,765,000 | 8/15/2022 | \$ | 349,685 | 9.29\% | \$ | 54,886 | 15.70\% | 86.43\% |
| Series 2012-D | 8/15/2027 | 5.000\% |  | 3,920,000 | 8/15/2022 |  | 631,584 | 16.11\% |  | 64,719 | 10.25\% | 90.71\% |
| Series 2012-D | 8/15/2028 | 5.000\% |  | 4,970,000 | 8/15/2022 |  | 866,321 | 17.43\% |  | 105,566 | 12.19\% | 89.14\% |
| Series 2012-D | 8/15/2029 | 4.000\% |  | 7,635,000 | 8/15/2022 |  | 1,016,025 | 13.31\% |  | 173,714 | 17.10\% | 85.40\% |
| Series 2012-D | 8/15/2030 | 2.850\% |  | 4,490,000 | 8/15/2022 |  | 277,632 | 6.18\% |  | 108,578 | 39.11\% | 71.89\% |
| Series 2012-D | 8/15/2031 | 4.000\% |  | 4,620,000 | 8/15/2022 |  | 715,477 | 15.49\% |  | 119,884 | 16.76\% | 85.65\% |
| Series 2012-D | 8/15/2032 | 4.000\% |  | 4,805,000 | 8/15/2022 |  | 779,846 | 16.23\% |  | 132,909 | 17.04\% | 85.44\% |
| Series 2012-D | 8/15/2033 | 3.000\% |  | 5,000,000 | 8/15/2022 |  | 391,639 | 7.83\% |  | 141,044 | 36.01\% | 73.52\% |
|  |  |  | \$ | 39,205,000 |  |  |  |  |  |  |  |  |

## Notes:

1.) Highlighted maturities produce at least $3 \%$ present value savings and have a "Negative Arbitrage to Present Value Savings" ratio of less than $60 \%$.
2.) Savings Efficiency Percentage equals present value savings/(present value savings + negative arbitrage).
"Taxable Refunding Monitor" - Callable Bonds Next 5 Years

Summary of Savings and Negative Arbitrage by Maturity

| Bond Series | Refunded <br> Maturity | Coupon | Bonds Eligible to be Refunded |  | Call Date |  | Present <br> Value <br> Savings <br> (Dollars) | Present <br> Value <br> Savings <br> (Percent) |  | mated <br> gative <br> itrage | Negative Arbitrage as a Percentage of Savings | Savings <br> Efficiency <br> Percentage |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Series 2014-A | 8/15/2025 | 4.000\% | \$ | 1,955,000 | 8/15/2024 | \$ | 8,978 | 0.46\% | \$ | 36,348 | 404.85\% | 19.81\% |
| Series 2014-A | 8/15/2026 | 5.000\% |  | 2,005,000 | 8/15/2024 |  | 78,344 | 3.91\% |  | 57,637 | 73.57\% | 57.61\% |
| Series 2014-A | 8/15/2027 | 5.000\% |  | 2,170,000 | 8/15/2024 |  | 150,237 | 6.92\% |  | 70,986 | 47.25\% | 67.91\% |
| Series 2014-A | 8/15/2028 | 5.000\% |  | 2,965,000 | 8/15/2024 |  | 244,391 | 8.24\% |  | 128,210 | 52.46\% | 65.59\% |
| Series 2014-A | 8/15/2029 | 5.000\% |  | 2,535,000 | 8/15/2024 |  | 266,921 | 10.53\% |  | 119,489 | 44.77\% | 69.08\% |
| Series 2014-A | 8/15/2030 | 5.000\% |  | 2,680,000 | 8/15/2024 |  | 336,272 | 12.55\% |  | 136,710 | 40.65\% | 71.10\% |
| Series 2014-A | 8/15/2031 | 5.000\% |  | 2,820,000 | 8/15/2024 |  | 404,005 | 14.33\% |  | 153,075 | 37.89\% | 72.52\% |
| Series 2014-A | 8/15/2032 | 5.000\% |  | 2,970,000 | 8/15/2024 |  | 470,225 | 15.83\% |  | 172,551 | 36.70\% | 73.16\% |
| Series 2014-A | 8/15/2033 | 5.000\% |  | 3,130,000 | 8/15/2024 |  | 555,803 | 17.76\% |  | 187,801 | 33.79\% | 74.74\% |
| Series 2014-A | 8/15/2034 | 5.000\% |  | 6,945,000 | 8/15/2024 |  | 1,305,932 | 18.80\% |  | 443,044 | 33.93\% | 74.67\% |
| Series 2014-A | 8/15/2035 | 5.000\% |  | 7,155,000 | 8/15/2024 |  | 1,402,786 | 19.61\% |  | 483,470 | 34.46\% | 74.37\% |
| Series 2014-A | 8/15/2036 | 5.000\% |  | 8,190,000 | 8/15/2024 |  | 1,651,970 | 20.17\% |  | 584,219 | 35.37\% | 73.87\% |
| Series 2014-A | 8/15/2037 | 5.000\% |  | 8,400,000 | 8/15/2024 |  | 1,675,733 | 19.95\% |  | 641,036 | 38.25\% | 72.33\% |
| Series 2014-A | 8/15/2038 | 5.000\% |  | 1,735,000 | 8/15/2024 |  | 363,084 | 20.93\% |  | 135,641 | 37.36\% | 72.80\% |
|  |  |  | \$ | 55,655,000 |  |  |  |  |  |  |  |  |

[^0]"Taxable Refunding Monitor" - Callable Bonds Next 5 Years

| Summary of Savings and Negative Arbitrage by Maturity |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Bond Series | Refunded <br> Maturity | Coupon | Bonds Eligible to be Refunded |  | Call Date | Present <br> Value Savings <br> (Dollars) |  | Present <br> Value <br> Savings <br> (Percent) | Estimated <br> Negative <br> Arbitrage |  | Negative <br> Arbitrage as <br> a Percentage of Savings | Savings <br> Efficiency <br> Percentage |
| Series 2015 | 8/15/2025 | 5.000\% | \$ | 7,830,000 | 2/15/2025 | \$ | $(55,830)$ | (0.71\%) | \$ | 150,026 |  | ---- |
| Series 2015 | 8/15/2026 | 5.000\% |  | 8,215,000 | 2/15/2025 |  | 149,826 | 1.82\% |  | 249,356 | 166.43\% | 37.53\% |
| Series 2015 | 8/15/2027 | 5.000\% |  | 8,635,000 | 2/15/2025 |  | 417,913 | 4.84\% |  | 301,226 | 72.08\% | 58.11\% |
| Series 2015 | 8/15/2028 | 5.000\% |  | 9,085,000 | 2/15/2025 |  | 559,537 | 6.16\% |  | 426,096 | 76.15\% | 56.77\% |
| Series 2015 | 8/15/2029 | 5.000\% |  | 9,540,000 | 2/15/2025 |  | 805,730 | 8.45\% |  | 489,801 | 60.79\% | 62.19\% |
| Series 2015 | 8/15/2030 | 4.000\% |  | 10,025,000 | 2/15/2025 |  | 571,539 | 5.70\% |  | 547,075 | 95.72\% | 51.09\% |
| Series 2015 | 8/15/2031 | 4.000\% |  | 8,725,000 | 2/15/2025 |  | 583,307 | 6.69\% |  | 507,946 | 87.08\% | 53.45\% |
| Series 2015 | 8/15/2032 | 4.000\% |  | 9,075,000 | 2/15/2025 |  | 674,166 | 7.43\% |  | 566,913 | 84.09\% | 54.32\% |
| Series 2015 | 8/15/2033 | 4.000\% |  | 9,430,000 | 2/15/2025 |  | 809,869 | 8.59\% |  | 609,071 | 75.21\% | 57.08\% |
|  |  |  | \$ | 80,560,000 |  |  |  |  |  |  |  |  |

[^1]
## "Taxable Refunding Monitor" - Callable Bonds Next 5 Years

Summary of Savings and Negative Arbitrage by Maturity

| Bond Series | Refunded <br> Maturity | Coupon | Bonds Eligible to be Refunded |  | Call Date |  | Present <br> Value <br> Savings <br> (Dollars) | Present <br> Value <br> Savings <br> (Percent) |  | timated <br> egative <br> bitrage | Negative <br> Arbitrage as a Percentage of Savings | Savings Efficiency Percentage |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Series 2015-A | 8/15/2026 | 5.000\% | \$ | 2,105,000 | 8/15/2025 | \$ | $(6,770)$ | (0.32\%) | \$ | 68,779 | --- | ---- |
| Series 2015-A | 8/15/2027 | 5.000\% |  | 2,210,000 | 8/15/2025 |  | 59,545 | 2.69\% |  | 83,484 | 140.20\% | 41.63\% |
| Series 2015-A | 8/15/2028 | 5.000\% |  | 2,330,000 | 8/15/2025 |  | 93,514 | 4.01\% |  | 119,518 | 127.81\% | 43.90\% |
| Series 2015-A | 8/15/2029 | 5.000\% |  | 2,460,000 | 8/15/2025 |  | 154,989 | 6.30\% |  | 138,466 | 89.34\% | 52.82\% |
| Series 2015-A | 8/15/2030 | 5.000\% |  | 2,550,000 | 8/15/2025 |  | 212,120 | 8.32\% |  | 156,188 | 73.63\% | 57.59\% |
| Series 2015-A | 8/15/2031 | 5.000\% |  | 2,680,000 | 8/15/2025 |  | 270,610 | 10.10\% |  | 175,366 | 64.80\% | 60.68\% |
| Series 2015-A | 8/15/2032 | 5.000\% |  | 2,820,000 | 8/15/2025 |  | 327,217 | 11.60\% |  | 198,285 | 60.60\% | 62.27\% |
| Series 2015-A | 8/15/2033 | 5.000\% |  | 2,970,000 | 8/15/2025 |  | 401,789 | 13.53\% |  | 216,049 | 53.77\% | 65.03\% |
| Series 2015-A | 8/15/2034 | 5.000\% |  | 7,835,000 | 8/15/2025 |  | 1,141,942 | 14.57\% |  | 607,887 | 53.23\% | 65.26\% |
| Series 2015-A | 8/15/2035 | 5.000\% |  | 8,220,000 | 8/15/2025 |  | 1,263,961 | 15.38\% |  | 677,363 | 53.59\% | 65.11\% |
| Series 2015-A | 8/15/2036 | 5.000\% |  | 7,840,000 | 8/15/2025 |  | 1,249,817 | 15.94\% |  | 683,637 | 54.70\% | 64.64\% |
| Series 2015-A | 8/15/2037 | 5.000\% |  | 8,230,000 | 8/15/2025 |  | 1,293,770 | 15.72\% |  | 769,821 | 59.50\% | 62.70\% |
| Series 2015-A | 8/15/2038 | 5.000\% |  | 8,645,000 | 8/15/2025 |  | 1,443,544 | 16.70\% |  | 829,148 | 57.44\% | 63.52\% |
| Series 2015-A | 8/15/2039 | 5.000\% |  | 10,870,000 | 8/15/2025 |  | 1,907,014 | 17.54\% |  | 1,068,273 | 56.02\% | 64.10\% |
| Series 2015-A | 8/15/2040 | 5.000\% |  | 11,415,000 | 8/15/2025 |  | 2,084,542 | 18.26\% |  | 1,148,781 | 55.11\% | 64.47\% |
| Series 2015-A | 8/15/2041 | 5.000\% |  | 11,980,000 | 8/15/2025 |  | 2,307,054 | 19.26\% |  | 1,222,575 | 52.99\% | 65.36\% |
| Series 2015-A | 8/15/2042 | 5.000\% |  | 11,830,000 | 8/15/2025 |  | 2,385,406 | 20.16\% |  | 1,223,964 | 51.31\% | 66.09\% |
| Series 2015-A | 8/15/2043 | 5.000\% |  | 12,570,000 | 8/15/2025 |  | 2,637,597 | 20.98\% |  | 1,318,242 | 49.98\% | 66.68\% |
| Series 2015-A | 8/15/2044 | 5.000\% |  | 13,200,000 | 8/15/2025 |  | 2,866,733 | 21.72\% |  | 1,402,886 | 48.94\% | 67.14\% |
| Series 2015-A | 8/15/2045 | 5.000\% |  | 12,715,000 | 8/15/2025 |  | 2,844,307 | 22.37\% |  | 1,369,207 | 48.14\% | 67.50\% |
|  |  |  | \$ | 145,475,000 |  |  |  |  |  |  |  |  |

## Notes:

1.) Highlighted maturities produce at least $3 \%$ present value savings and have a "Negative Arbitrage to Present Value Savings" ratio of less than $60 \%$.
2.) Savings Efficiency Percentage equals present value savings/(present value savings + negative arbitrage).

## Potential "Taxable" Advance Refunding Opportunity

$\square$ Based upon prevailing market conditions and the "Taxable Refunding Monitor," the table below summarizes Denton ISD's outstanding bonds which generate sufficient savings based upon prevailing market conditions to be considered for a potential "taxable" refunding program.

|  | Summary of Bonds to be Refunded |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |

$\square$ For purposes of this analysis, the following options have been prepared for your review.

- Option \#1 - Refund the Series 2012-B and Series 2012-D Bonds;
- Option \#2 - Refund the Series 2012-B, Series 2012-D and Series 2014-A Bonds; and
- Option \#3 - Refund the Series 2012-B, Series 2012-D, Series 2014-A and Series 2015-A Bonds.


## Option \#1 - Refund the Series 2012-B and Series 2012-D Bonds

$\square$ The table below summarizes the savings currently available to DISD by refunding a portion of its existing Series 2012-B and Series 2012-D Bonds ONLY on a "taxable" basis (net of all costs).

## Summary of Potential Savings Available - Series 2012-B and 2012-D Bonds Only

| Description | Summary <br> Of Results |
| :--- | ---: |
| Principal Amount of Series 2012-B and 2012-D Bonds to be Refunded | $\$ 89,430,000$ |
| Interest Rate on the Series 2012-B and 2012-D Bonds to be Refunded <br> "All-In" True Interest Cost on the Refunding Bonds <br> Escrow Yield | $4.49 \%$ |
| Total Debt Service Savings <br> Average Annual Savings (Years 2021/22 - 2032/33) (i.e. 12 Years) <br> Present Value Debt Service Savings (@ All-In TIC) | $1.80 \%$ |
| Present Value Savings as a Percentage of the Principal Amount <br> of the Series 2012-B and Series 2012-D Bonds to be Refunded | $\$ 16,903,888$ |
| Opportunity Cost of Advance Refunding (i.e. "Negative Arbitrage") | $1,408,657$ |
| "Negative Arbitrage" as a Percentage of Present Value Savings | $14,949,753$ |
| Maturity Amount of Capital Appreciation Bonds Needed (Fully Matures By August 15, 2021) | $16.72 \%$ |
| Current Refunding Alternative - Estimated Rate Movement to Provide Same Dollar Savings <br> (August 15, 2022 Call Date - Series 2012-B and Series 2012-D Bonds Only) | $\$ 1,085,000$ |

## Option \#2 - Refund the Series 2012-B, Series 2012-D and Series 2014-A Bonds

The table below summarizes the savings currently available to DISD by refunding a portion of its existing Series 2012-B, Series 2012-D and Series 2014-A Bonds on a "taxable" basis (net of all costs).

## Summary of Potential Savings Available - Series 2012-B, 2012-D and 2014-A Bonds

|  |  |
| :--- | :---: |
| Description | Summary |
| Principal Amount of Bonds to be Refunded | $\$ 141,125,000$ |
| Interest Rate on the Bonds to be Refunded <br> "All-In" True Interest Cost on the Refunding Bonds <br> Escrow Yield | $4.72 \%$ |
| Total Debt Service Savings |  |
| Average Annual Savings (Years 2021/22 - 2037/38) (i.e. 17 Years) |  |
| Present Value Debt Service Savings (@ All-In TIC) | $1.89 \%$ |
| Present Value Savings as a Percentage of the Principal Amount |  |
| of the Bonds to be Refunded | $0.25 \%$ |
| Opportunity Cost of Advance Refunding (i.e. "Negative Arbitrage") | $\$ 28,452,543$ |
| "Negative Arbitrage" as a Percentage of Present Value Savings | $1,673,679$ |
| Maturity Amount of Capital Appreciation Bonds Needed (Fully Matures By August 15, 2023) | $23,959,033$ |
| Current Refunding Alternative - Estimated Rate Movement to Provide Same Dollar Savings <br> (August 15, 2024 Call Date - Series 2014-A Bonds Only) | $\mathbf{1 6 . 9 8 \%}$ |

$\square$ The table below summarizes the savings currently available by refunding a portion of its existing Series 2012-B, Series 2012-D, Series 2014-A and Series 2015-A Bonds on a "taxable" basis (net of all costs).

## Summary of Potential Savings Available - Series 2012-B, 2012-D, 2014-A and 2015-A Bonds

|  |  |
| :--- | :---: |
| Description | Summary <br> Of Results |
| Principal Amount of Bonds to be Refunded | \$ 269,445,000 |
| Interest Rate on the Bonds to be Refunded <br> "All-In" True Interest Cost on the Refunding Bonds <br> Escrow Yield | $4.89 \%$ |
| Total Debt Service Savings <br> Average Annual Savings (Years 2021/22 - 2044/45) (i.e. 24 Years) <br> Present Value Debt Service Savings (@ All-In TIC) | $2.23 \%$ |
| Present Value Savings as a Percentage of the Principal Amount |  |
| of the Bonds to be Refunded | $0.32 \%$ |
| Opportunity Cost of Advance Refunding (i.e. "Negative Arbitrage") | $\$ 61,496,721$ |
| "Negative Arbitrage" as a Percentage of Present Value Savings | $2,562,363$ |
| Maturity Amount of Capital Appreciation Bonds Needed (Fully Matures By August 15, 2027) | $46,930,502$ |
| Current Refunding Alternative - Estimated Rate Movement to Provide Same Dollar Savings <br> (August 15, 2025 Call Date - Series 2015-A Bonds Only) | $\mathbf{1 7 . 4 2 \%}$ |

## Use of a "Parameters Bond Order" for Approval of a Refunding Bond Sale

$\square$ As previously utilized for Denton ISD's prior bond sales, the District's Board of Trustees may adopt a "Parameters Bond Order" to complete the sale of its Unlimited Tax Refunding Bonds, Taxable Series 2020-A (the "Taxable Series 2020-A Bonds"). The "Parameters Bond Order" authorizes DISD's Administration to approve the refunding bond sale if each of the established parameters is met.
$\square$ The following is a representative listing of the primary parameters we would currently recommend for the Taxable Series 2020-A Bonds:

1) The District achieves a "Present Value Savings as a Percentage of the Principal Amount of Bonds to be Refunded" ratio of at least $15.0 \%$;
2) Maximum principal amount to be issued - $\$ 269,445,000$ (The principal amount of the Series 2012B, Series 2012-D, Series 2014-A and Series 2015-A Bonds eligible to provide a savings);
3) Maximum "All-In" True Interest Rate (must not exceed) $-2.50 \%$;
4) Final maturity of the Taxable Series 2020-A Bonds - August 15, 2045; and
5) Sale must be completed prior to April 11, 2021 (i.e. 180 days).
$\square$ Unless each parameter listed above can be achieved, the Taxable Series 2020-A Bonds will not be issued until additional direction is received from the District.

## Preliminary Timetable - Taxable Series 2020-A Bonds

The preliminary timetable for the implementation of the proposed Taxable Series 2020-A Bonds is summarized below.


Board Meeting
Closing - Receipt of Funds


Preliminary Timetable - Taxable Series 2020-A Bonds

| Date* | Action Necessary |
| :---: | :--- |
| October 13, 2020 | Board Meeting - Discuss potential "Taxable" Refunding Program and consider "Parameters <br> Bond Order" authorizing the issuance of Denton ISD's Unlimited Tax Refunding Bonds, <br> Taxable Series 2020-A (the "Taxable Series 2020-A Bonds"). |
| November 6, 2020 | Completion of all actions necessary to complete the "Taxable" Refunding Program. |
| To Be Determined. | Bond Sale - Pricing of the Taxable Series 2020-A Bonds pursuant to specified parameters and <br> the District's Administration approves the necessary legal documents - Interest rates and <br> savings locked-in at this time. |
| December 3, 2020 | Closing - The "Taxable" Refunding Program is completed and Denton ISD begins paying the <br> lower interest rate on the Taxable Series 2020-A Bonds. |

[^2]


[^0]:    Notes:
    1.) Highlighted maturities produce at least $3 \%$ present value savings and have a "Negative Arbitrage to Present Value Savings" ratio of less than $60 \%$.
    2.) Savings Efficiency Percentage equals present value savings/(present value savings + negative arbitrage).

[^1]:    Notes:
    1.) Highlighted maturities produce at least $3 \%$ present value savings and have a "Negative Arbitrage to Present Value Savings" ratio of less than $60 \%$.
    2.) Savings Efficiency Percentage equals present value savings/(present value savings + negative arbitrage).

[^2]:    * Preliminary, subject to change.

