



# **NORTH CAROLINA TURNPIKE AUTHORITY**

**REQUEST FOR QUALIFICATIONS:**

**INVESTMENT BANKING SERVICES FOR THE AUTHORITY'S  
ISSUANCE OF**

**PROJECT TOLL  
REVENUE BONDS**

May 29, 2018

# NORTH CAROLINA TURNPIKE AUTHORITY

## REQUEST FOR QUALIFICATIONS FOR INVESTMENT BANKING SERVICES

### **DESCRIPTION:**

The North Carolina Turnpike Authority (the “Authority”) desires to receive a statement of qualifications from Investment Banking firms to assist the Authority in completing the proposed issuance of its non-recourse Toll Revenue Bonds, Series 2019 (the “Complete 540 Bonds”). The Statement of Qualifications will be used to select a senior-managing underwriter and co-managers for the financing of Phase I of the Complete 540 Project. Even though specific DBE/MBE/WBE/VBE goals are not required for this advertisement, the Authority encourages the submission of proposals from these firms and is committed to providing opportunity for small and disadvantaged businesses.

The Complete 540 Project is an extension of the Triangle Expressway from the NC 55 Bypass in Apex to US 64/US 264 (I-495) in Knightdale, completing the 540 Outer Loop around greater Raleigh. The total project cost is estimated to be \$2.2 billion and the project schedule is shown below:

Project Schedule	
Design public hearing	February 2018
Record of Decision published	Summer 2018
Design-build contract awarded for R-2828 (US 401 to I-40)	Fall/Winter 2018
Two design-build contracts awarded for R-2721 (NC 55 Bypass to US 401)	Spring/Summer 2019
Design-build contract awarded for R-2829 (I-40 to US 64/264 (I-495))	FY 2027

The Complete 540 Project is divided into four State Transportation Improvement Plan (STIP) projects (R-2721A, R-2721B, R-2828 and R-2829). The plan of finance and Complete 540 Bonds discussed in this RFQ relate to the financing of Phase I which extends the existing Triangle Expressway to a connection with Interstate 40 and includes three of the four STIP projects (R-2721A, R-2721B and R-2828). Additional information on the existing Triangle Expressway and proposed Complete 540 Project can be found on the Turnpike Projects page of Authority’s website (<https://www.ncdot.gov/turnpike/projects/>).

Under the current plan of financing, the Complete 540 Bonds will be issued on parity with the Authority’s outstanding Triangle Expressway System Senior Lien Revenue Bonds. The Authority currently has three series of Triangle Expressway System Toll Revenue bonds outstanding: (1) Triangle Expressway System Senior Lien Revenue Bonds, Series 2009A, (2) Triangle Expressway System Senior Lien Revenue Bonds, Series 2009B, and (3) Triangle Expressway System Senior Lien Turnpike Revenue Refunding Bonds, Series 2017. Official Statements for each issue are available on EMMA ([emma.msrb.org](http://emma.msrb.org)). Each official statement includes a Summary of the Trust Agreement as an Appendix.

The current schedule contemplates the Complete 540 Bonds will be issued April 2019. The Complete 540 Bonds are scheduled to be issued in an approximate par amount of \$561 million, consisting of approximately \$423 million of Current Interest Bonds, \$75 million of Convertible Capital Appreciation Bonds and \$64 million Capital Appreciation Bonds, although the plan of finance is subject to further revision. NCTA has also submitted a TIFIA Letter of Interest for a \$445 million direct loan along with a request to restructure their existing loan associated with the initial Triangle Expressway.

Concurrent with the selection process for Investment Banking firms, the Authority's staff, bond counsel, and financial advisor will be preparing certain necessary documents to complete these financings and also an application for a subordinate TIFIA loan for the Complete 540 Project. After the selection of the senior manager, the Authority will develop a final plan of finance, timeline and documents for accomplishing the financing. It is expected that the senior managing underwriter will be part of the financing team that develops and refines the plan of finance and develops the related financing documents.

The Authority is soliciting Investment Banking firms specifically for the issuance of the Complete 540 Bonds. The Authority is in no way obligated to retain the selected proposer for any future financings. It is at the sole discretion of the Authority to solicit future investment banking services or retain the selected firm(s) for future financings. The Authority is requesting services specific to the issuance of tax-exempt municipal debt, and as such is not requesting services to arrange equity or other types of private sector financing related to any public-private partnership transactions.

A tentative calendar for the review of the Statements of Qualifications is as follows:

May 29, 2018	RFQ circulated
June 11, 2018	Deadline for Questions
June 20, 2018	Proposals due to the Authority and PFM prior to 2:00pm
June 27, 2018	Selection Committee review proposals and shortlist
July 11, 2018	Interviews
TBD (Early August, 2018)	Authority's Governing Board Selection of Investment Banking Firm(s)

**The Authority may at its sole discretion determine that none of the Statements of Qualifications meet its goals and objectives and may elect to terminate the evaluation process.**

***SUBMISSION REQUIREMENTS:***

The Statements of Qualifications should be prepared in at least size 12 font and should be responsive to the items listed under "Proposal Requirements". The Statements of Qualifications should be marked "Statement of Qualifications for Project Bonds Investment Banking Services" and should be delivered via email to the following **no later than 2:00 p.m. eastern time on Wednesday, June 20, 2018:**

**David Roy, Finance Director**  
North Carolina Turnpike Authority  
1 South Wilmington Street  
1578 Mail Service Center  
Raleigh, NC 27699-1578  
(919) 707-2729  
[dwroy@ncdot.gov](mailto:dwroy@ncdot.gov)

***with copy to:***  
PFM Financial Advisors LLC  
Hope Scarpinato, Senior Managing Consultant  
[scarpinatoh@pfm.com](mailto:scarpinatoh@pfm.com)

It is the sole responsibility of the firm to assure that the Authority, prior to the time specified, receives the Statement of Qualifications. Any Statement of Qualifications received after the stated deadline will not be considered.

***ADDITIONAL INFORMATION AND ADDENDUM:***

If it becomes necessary to amend any part of this Request for Qualifications (RFQ), notice of the revision will be posted to the Authority's website (<https://connect.ncdot.gov/business/Turnpike/Pages/default.aspx>). No verbal or written information that is obtained other than by information in this document or addendum to this RFQ shall be binding on the Authority. Any questions concerning this RFQ should be submitted in writing and directed to Hope Scarpinato via email ([scarpinatoh@pfm.com](mailto:scarpinatoh@pfm.com)) by June 11, 2018.

***STATEMENT OF QUALIFICATIONS REQUIREMENTS:***

***The Statement of Qualifications shall include the following (in the following order and in accordance to the specified page limits, excluding exhibits). Those proposing to serve as a Co-manager need only respond to items 1-6 below:***

1. A letter of transmittal stating the proposer's understanding of the work to be performed and the names and titles of the persons who will be authorized to make representations for the proposer. (2-page limit)
2. General information about the proposer, including location of the office(s) from which the work will be performed, the primary contact persons for the investment banking and underwriting, and other members of the underwriting team. Include brief resumes for the core project team members. (6-page limit)
3. Describe your firm's marketing strategy and distribution capabilities for North Carolina and non-recourse Toll Revenue tax-exempt securities. Discuss your firm's ability and willingness, if necessary, to commit capital to underwrite the entire issue at a fair market price. In tabular form, prepare the following as of the date which such information is most recently available or make brief statements where appropriate: (2-page limit)
  - Total Capital
  - Equity Capital
  - Uncommitted (Excess Net) Capital
4. Provide a table summarizing the proposer's senior-managed underwriting experience since January 1, 2013 on transactions with a par amount greater than \$100,000,000 for **North Carolina Municipal Bonds**. Please indicate which transactions your core team members have led. Include **separately** the proposer's co-managed underwriting experience for the same time period for transactions greater than \$100,000,000 for **North Carolina Municipal Bonds**. Both tables should include the total number of transactions and the total par amount of transactions.
5. Provide a table summarizing the proposer's senior-managed underwriting experience since January 1, 2013 on transactions with a par amount greater than \$100,000,000 for non-recourse **Toll Revenue Bonds**. Please indicate which transactions your core team members have led. Include **separately** the proposer's co-managed underwriting experience for the same time period for transactions greater than \$100,000,000 for non-recourse **Toll Revenue Bonds**. Both tables should include the total number of transactions and the total par amount of transactions.

6. Provide a table summarizing the proposer's senior-managed underwriting experience since January 1, 2013 on transactions with a par amount greater than \$25,000,000 for **Capital Appreciation Bonds and/or Convertible CABs**. Please indicate which transactions your core team members have led. Include separately the proposer's co-managed underwriting experience for the same time period for transactions greater than \$25,000,000 for **Capital Appreciation Bonds and/or Convertible CABs**. Both tables should include the total number of transactions and the total par amount of transactions.
7. Enclosed with this RFQ, as Exhibit B, is a preliminary plan of finance for the Complete 540 Project prepared by NCTA's financial advisor. Please discuss this plan of finance and any changes you might recommend with particular attention to coverage, maturities, structure, financial products, flow of funds, reserves, etc. (3-page limit)
8. Discuss your recommendation for approaching rating agencies and/or credit enhancement. Include how these decisions might affect the pricing of the Complete 540 Bonds. (3-page limit)
9. *Please prepare two separate responses assuming the types of Project Bonds listed below. Please provide a detailed response for each credit category, separately identifying the fees for Current Interest Bonds, Capital Appreciation Bonds and Convertible Capital Appreciation Bonds, where applicable. As such, your response to Item 9 should include two (2) separate fee structures. Please submit your response to Item 9 in Exhibit A – Schedule of Takedowns and Fees, **provided in Excel format for data entry.***

List the detailed amount of the components of your Gross Spread (average takedown, management fee, risk, and expenses). Include a maturity by maturity takedown schedule assuming an ascending debt service structure for the following:

1. BBB-Rated non-recourse Toll Revenue Current Interest Bonds, Capital Appreciation Bonds and Convertible Capital Appreciation Bonds
2. Credit enhanced non-recourse Toll Revenue Current Interest Bonds, Capital Appreciation Bonds and Convertible Capital Appreciation Bonds

All fees will be considered negotiable as may be needed or desired to reflect actual market conditions at the time of any bond sale. For purposes of your proposal, please assume that the Authority will pay for disclosure services related to the official statement outside of the gross spread. The Authority may request the senior managing underwriter to provide outside counsel to provide disclosure services, but the selection of such counsel will be made in consultation with the Authority.

10. Please indicate the law firm, and the individuals at that law firm, which you propose to retain as counsel in this transaction and provide an estimate of their fees and expenses. In addition, indicate if they have had experience drafting disclosure for a non-recourse toll revenue financing.

**STATEMENT OF QUALIFICATIONS EVALUATION:**

After reviewing the written responses, firms will be evaluated and selected based upon the following criteria and allocation. The Selection Committee reserves the right to amend these criteria and their point value.

<i>Criteria</i>	<i>Points</i>
Experience of the firm’s primary personnel	25
Experience with similar transactions	20
Plan of Finance Discussion	20
Credit/Marketing Analysis	20
Pricing – gross spread, takedowns	15
Total	100

After reviewing qualifications, if firms are equal on the evaluation review, those qualified DBE/MBE/WBE/VBE firms will be given priority consideration.

**CONDITIONS AND LIMITATIONS:**

1. The Authority is soliciting Statements of Qualifications for the Project Bonds. The Authority is in no way obligated to retain the selected proposer for any future financings.
2. The Authority reserves the right to reject any and all statements of qualifications and to request clarification of information from any proposer.
3. All Statements of Qualifications received in response to this RFQ become the property of the Authority.
4. The Authority will not reimburse proposers for any costs associated with the preparation and submittal of any statements of qualifications, or for any travel costs that are incurred.
5. Proposer acknowledges that all information contained within their statement of qualifications is part of the public domain.
6. Proposers, their agents and associates, shall **refrain from contacting or soliciting any official of the Authority or NC Department of Transportation and their respective Board of Directors regarding this RFQ** upon the release of the RFQ. Failure to comply with the provision may result in disqualification of the proposer. Any and all questions regarding the RFQ should be submitted in writing and directed to Hope Scarpinato via email ([scarpinatoh@pfm.com](mailto:scarpinatoh@pfm.com)) by June 11, 2018.
7. This RFQ and the related responses of the selected proposer(s) will, by reference, become part of the formal agreement between the selected proposer and the Authority.
8. Compensation/Pricing. All fees shall be contingent upon completion of a financing. In the event the Authority elects to proceed with the financing, the Authority will use pricing and structuring information from the winning proposer’s RFQ during the actual pricing. **The winning proposer must be willing to complete a financing based on the terms proposed in Exhibit A.** Fees are subject to further negotiation on the part of the Authority or its Financial Advisor in order for the Authority to accomplish its financing objectives, including negotiations due to actual market conditions at the time of any bond sale.
9. The North Carolina Turnpike Authority is an equal opportunity Authority. All contracting and purchasing actions are made without regard to race, creed, national origin, color, sex, marital status, age, or disability.

**Exhibit A: Schedule of Takedowns and Fees**

BBB-Rated non-recourse Toll Revenue Bonds			
Date	Proposed Takedown		
	CIBs	CABs	CCABs
2020			
2021			
2022			
2023			
2024			
2025			
2026			
2027			
2028			
2029			
2030			
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2045			
2046			
2047			
2048			
2049			
2050			
2051			
2052			

Credit enhanced non-recourse Toll Revenue Bonds			
Date	Proposed Takedown		
	CIBs	CABs	CCABs
2020			
2021			
2022			
2023			
2024			
2025			
2026			
2027			
2028			
2029			
2030			
2031			
2032			
2033			
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2050			
2051			
2052			

Additional Fee Items		
	<u>\$/1000</u>	<u>Amount</u>
Management Fee		
Underwriter's Risk		
Expenses		
Other 1*		
Other 2*		
Total		

Additional Fee Items		
	<u>\$/1000</u>	<u>Amount</u>
Management Fee		
Underwriter's Risk		
Expenses		
Other 1*		
Other 2*		
Total		

\*Please explain "Other" fees, if any: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

\*Please explain "Other" fees, if any: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

## **Exhibit B: Plan of Finance**



## North Carolina Turnpike Authority

### Complete 540

As of 05/22/2018

#### A. Assumptions

##### *Triangle Expressway*

T&R  
O&M  
R&R

**Draft T&R Report prepared by CDM Smith - Scenario 3; Revenues end after 2049**

Provided by HNTB in August 2017

Provided by HNTB in August 2017

##### *Complete 540 - Phase 1*

Construction Start  
Open to Traffic  
Construction Cost

7/1/2018

R-2721A/B: Mar. 7, 2022; R-2828: Nov 6, 2020

\$1,248,926,293

Provided by HNTB in October 2017

T&R

Draft T&R Report prepared by CDM Smith which assumes 2025 Open date; 2.5% annual adjustment back to 2023 Open 1/4 of adjusted FY 2023 revenues assumed in FY 2022 for opening of first two sections

O&M

Provided by HNTB in August 2017

R&R

Provided by HNTB in August 2017

##### **Interest Rate**

Toll Revenue Bonds  
TIFIA Loan

BBB Revenue MMD as of 5/21/2018 plus 75 bps of cushion

3.96% (TIFIA Rate as of 5/22/2018 plus 75 bps of cushion)

##### **Series 2018 Toll Revenue Bonds**

Dated/Delivery Date  
Final Maturity  
Revenue Pledge

4/1/2019

7/1/2055

Gross pledge on parity lien with Series 2009 and Series 2017 Toll Revenue Bonds

##### **Common Toll Revenue Bonds DSRF**

Initial Deposit at Series 2017 Closing  
Triangle TR Bonds DSRF Transfer  
Balance Requirement

\$15,878,633

\$27,008,311

5-year Aggregate MADS

##### **TIFIA Loan**

Existing TIFIA Loan  
TIFIA Rate  
Triangle TIFIA DSRF Transfer  
Aggregate TIFIA Loan Average Life  
    New Complete 540 Loan Average Life  
    Refinanced Triangle Xway Loan Average Life

Refinanced on 4/1/2019

3.96% (TIFIA Rate as of 5/22/2018 plus 75 bps of cushion)

\$4,144,706

22.5 years

26.7 years

17.8 years

##### **Common TIFIA Loan DSRF**

Initial Deposit on first draw date  
Balance Requirement

\$5,855,294 (Additional funds for \$10 million aggregate reserve)

Until the balance is greater than the 10% of aggregate outstanding loan, deposit 10% of total excess revenues over new base case

##### **General Reserve**

TriEx General Reserve Fund Balance in FY 2022  
Minimum Reserve Balance

\$65,285,910

\$57,847,003

**TIFIA Loan - Original Triangle Xway**  
**B. Sources and Uses**

<b>Sources</b>						
	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>Total</b>
<b>TIFIA Loan - New Complete 540</b>	-	-	62,452,699	313,435,364	70,419,892	<b>446,307,956</b>
<b>TIFIA Loan - Original Triangle Xway</b>	430,405,953					<b>430,405,953</b>
<b>Series 2018 TR Bonds</b>						
TE CIBS Par Amount	143,083,249	279,486,751	-	-	-	<b>422,570,000</b>
TE CCABS Par Amount	25,302,354	49,423,484	-	-	-	<b>74,725,837</b>
TE CABS Par Amount	21,702,895	42,392,605	-	-	-	<b>64,095,500</b>
+Premium/-Discount	10,054,137	19,638,903	-	-	-	<b>29,693,040</b>
Bond Proceeds	200,142,635	390,941,743	-	-	-	<b>591,084,378</b>
NHP Program						-
NCDOT GARVEEs	-	11,753,684	231,246,316	-	-	<b>243,000,000</b>
NCDOT GARVEE State Match	-	3,917,895	77,082,105	-	-	<b>81,000,000</b>
<b>Total Sources</b>	<b>630,548,588</b>	<b>406,613,322</b>	<b>370,781,120</b>	<b>313,435,364</b>	<b>70,419,892</b>	<b>1,791,798,286</b>
<b>Uses</b>						
	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>Total</b>
<b>Construction Cost</b>						
Funded by TIFIA Loan	-	-	56,597,405	313,435,364	70,419,892	<b>440,452,661</b>
Funded by TR Bonds	93,532,926	390,941,743	-	-	-	<b>484,474,669</b>
Funded by NCDOT GARVEEs Bonds	-	11,753,684.41	231,246,316	-	-	<b>243,000,000</b>
Funded by NCDOT GARVEE State Match	-	3,917,895	77,082,105	-	-	<b>81,000,000</b>
Total	93,532,926	406,612,285	364,925,826	313,435,364	70,419,892	<b>1,248,926,293</b>
<b>Refinancing of TriEx TIFIA Loan</b>	430,405,953					430,405,953
<b>Issuance Costs</b>						
Deposit to TR Bonds DSRF	15,878,633					<b>15,878,633</b>
Deposit to TIFIA DSRF			5,855,294			<b>5,855,294</b>
Deposit to Capitalized Interest Fund	86,239,946					<b>86,239,946</b>
Underwriters' Discount	3,087,652					<b>3,087,652</b>
Cost of Issuance	1,403,478					<b>1,403,478</b>
Contingency	-	1,037	-	-	-	<b>1,037</b>
<b>Total Uses</b>	<b>630,548,588</b>	<b>406,613,322</b>	<b>370,781,120</b>	<b>313,435,364</b>	<b>70,419,892</b>	<b>1,791,798,286</b>

<b>Complete 540 TIFIA Loan Size Calculation</b>	
Construction Cost	1,248,926,293
<b>Financing Cost</b>	
Project Toll Revenue Bonds DSRF	15,878,633
Project Toll Revenue Bonds CAPI	86,239,946
Project Toll Revenue Bonds COI	1,403,478
<b>Sub-Total</b>	<b>103,522,057</b>
<b>Eligible Cost</b>	<b>1,352,448,350</b>
<b>Estimated TIFIA Loan</b>	<b>446,307,956</b>
<b>% of Eligible Costs</b>	<b>33.0%</b>
New Complete 540 TIFIA Loan	446,307,956
Outstanding Balance on TriEx Loan	430,405,953
<b>Total New TIFIA</b>	<b>876,713,908</b>

**C. Debt Service - Toll Revenue Bonds**

Fiscal Year	Series 2018 - Complete 540											TriEx Existing Toll Revenue Bonds (Series 2009 & Series 2017)	Common DSRF Interest Earnings	Toll Revenue Bonds Aggregate Net Debt Service	
	Current Interest Bonds			Convertible Capital Appreciation Bonds				Capital Appreciation Bonds			Total Gross Debt Service				Capitalized Interest
	Principal	Interest	DS	Original Principal	Accretion	Interest	DS	Original Principal	Accretion	DS					
2018															
2019		5,810,338	5,810,338								5,810,338	(5,810,338)	13,585,594	(158,786)	13,426,807
2020		23,241,350	23,241,350								23,241,350	(23,241,350)	15,116,844	(337,275)	14,779,569
2021		23,241,350	23,241,350								23,241,350	(23,241,350)	16,709,219	(356,978)	16,352,241
2022		23,241,350	23,241,350								23,241,350	(23,241,350)	17,893,344	(356,978)	17,536,366
2023		23,241,350	23,241,350								23,241,350	(11,620,675)	19,645,594	(356,978)	30,909,291
2024		23,241,350	23,241,350								23,241,350		21,615,844	(356,978)	44,500,216
2025		23,241,350	23,241,350								23,241,350		20,847,469	(381,120)	43,707,699
2026		23,241,350	23,241,350								23,241,350		20,847,719	(437,097)	43,651,971
2027		23,241,350	23,241,350								23,241,350		20,846,094	(468,937)	43,618,507
2028		23,241,350	23,241,350								23,241,350		20,850,594	(468,956)	43,622,988
2029		23,241,350	23,241,350			3,182,784	3,182,784				26,424,134		20,847,297	(590,841)	46,680,590
2030		23,241,350	23,241,350			6,365,568	6,365,568				29,606,918		20,848,000	(728,462)	49,726,455
2031		23,241,350	23,241,350			6,365,568	6,365,568				29,606,918		20,848,500	(760,612)	49,694,805
2032		23,241,350	23,241,350			6,365,568	6,365,568				29,606,918		20,849,875	(792,812)	49,663,980
2033		23,241,350	23,241,350			6,365,568	6,365,568				29,606,918		33,037,000	(823,762)	61,820,155
2034		23,241,350	23,241,350			6,365,568	6,365,568				29,606,918		34,612,000	(838,912)	63,380,005
2035		23,241,350	23,241,350			6,365,568	6,365,568				29,606,918		36,252,000	(838,912)	65,020,005
2036		23,241,350	23,241,350			6,365,568	6,365,568				29,606,918		37,832,000	(949,744)	66,489,174
2037		23,241,350	23,241,350			6,365,568	6,365,568				29,606,918		39,347,000	(1,077,531)	67,876,386
2038		23,241,350	23,241,350			6,365,568	6,365,568				29,606,918		23,067,000	(1,109,159)	51,564,759
2039		23,241,350	23,241,350	1,649,089	1,060,911	6,365,568	9,075,568				32,316,918		20,848,500	(1,138,098)	52,027,320
2040		23,241,350	23,241,350	15,559,856	10,010,144	6,225,732	31,795,732	8,124,250	16,875,750	25,000,000	80,037,082			(1,166,613)	78,870,469
2041		23,241,350	23,241,350	17,377,965	11,207,035	4,906,320	33,491,320	7,689,000	17,311,000	25,000,000	81,732,670			(1,195,415)	80,537,254
2042		23,241,350	23,241,350	19,150,061	12,379,939	3,428,475	34,958,475	7,275,750	17,724,250	25,000,000	83,199,825			(1,224,630)	81,975,195
2043		23,241,350	23,241,350	20,988,866	13,601,134	1,795,221	36,385,221	6,883,250	18,116,750	25,000,000	84,626,571			(1,253,944)	83,372,627
2044	37,810,000	23,241,350	61,051,350					6,510,750	18,489,250	25,000,000	86,051,350			(1,283,480)	84,767,870
2045	41,345,000	21,161,800	62,506,800					6,157,000	18,843,000	25,000,000	87,506,800			(1,322,446)	86,184,354
2046	45,085,000	18,887,825	63,972,825					5,821,500	19,178,500	25,000,000	88,972,825			(1,346,527)	87,626,298
2047	49,030,000	16,408,150	65,438,150					5,503,250	19,496,750	25,000,000	90,438,150			(1,346,527)	89,091,623
2048	53,215,000	13,711,500	66,926,500					5,201,250	19,798,750	25,000,000	91,926,500			(1,346,527)	90,579,973
2049	58,550,000	10,784,675	69,334,675					4,929,500	20,070,500	25,000,000	94,334,675			(1,346,527)	92,988,148
2050	18,615,000	7,564,425	26,179,425								26,179,425			(686,154)	25,493,271
2051	20,210,000	6,540,600	26,750,600								26,750,600			(25,781)	26,724,819
2052	21,910,000	5,429,050	27,339,050								27,339,050			(25,781)	27,313,269
2053	23,700,000	4,224,000	27,924,000								27,924,000			(25,781)	27,898,219
2054	25,560,000	2,920,500	28,480,500								28,480,500			(25,781)	28,454,719
2055	27,540,000	1,514,700	29,054,700								29,054,700			(25,781)	29,028,919
2056															
2057															
2058															
Total	422,570,000	695,991,313	1,118,561,313	74,725,837	48,259,163	83,194,206	206,179,206	64,095,500	185,904,500	250,000,000	1,574,740,518	(87,155,063)	496,347,484	(26,976,622)	1,956,956,318

**C. Debt Service - TriEx SE TIFIA Loan (Toll Revenue Backed)**

New Aggregate TIFIA Loan									Refinanced Original Triangle Expressway TIFIA Loan						New Complete 540 TIFIA Loan						
Fiscal Year	Loan Draw Amount	Loan Beginning Balance	Interest Due	Annual Payment	Interest Paid	Principal Paid	Unpaid Interest	Loan Ending Balance	Fiscal Year	Annual Payment	Interest Paid	Principal Paid	Unpaid Interest	Loan Ending Balance	Original Loan Principal Repayment	Fiscal Year	Annual Payment	Interest Paid	Principal Paid	Unpaid Interest	Loan Ending Balance
2018									2018							2018					
2019	430,405,953		4,249,345	7,704,974	4,249,345				2019	4,249,345	4,249,345			430,405,953		2019					
2020	62,452,699	426,950,324	16,944,116	15,559,056	15,559,056		1,385,060	490,788,083	2020	14,901,518	14,901,518			430,405,953	0	2020	657,537	657,537		1,385,060	60,382,130
2021	313,435,364	490,788,083	19,408,439	19,408,439	19,408,439			804,223,447	2021	10,387,048	10,387,048			430,405,953	0	2021	9,021,391	9,021,391		0	373,817,494
2022	70,419,892	804,223,447	31,847,249	31,847,249	31,847,249			874,643,339	2022	15,671,811	15,671,811			430,405,953	0	2022	16,175,437	16,175,437		0	444,237,386
2023		874,643,339	34,798,289	18,314,889	18,314,889		16,483,400	891,126,739	2023	17,123,998	17,123,998			430,405,953	0	2023	1,190,891	1,190,891		16,483,400	460,720,786
2024		891,126,739	35,512,376	17,756,188	17,756,188		17,756,188	908,882,927	2024	17,152,148	17,152,148			430,405,953	0	2024	604,040	604,040		17,756,188	478,476,974
2025		908,882,927	36,047,975	25,321,013	24,031,983	1,289,030	12,015,992	919,609,889	2025	18,359,725	17,070,695	1,289,030		429,116,923	1,289,030	2025	6,961,288	6,961,288		12,015,992	490,492,966
2026		919,609,889	36,420,208	37,074,696	34,408,280	2,965,416	2,310,928	918,955,401	2026	19,960,152	16,994,736	2,965,416		426,151,507	2,965,416	2026	17,114,544	17,114,544		2,310,928	492,803,894
2027		918,955,401	36,327,391	42,768,469	36,327,391	6,441,078		912,514,323	2027	21,287,350	16,846,272	4,441,078		421,710,429	4,441,078	2027	21,481,119	19,481,119	2,000,000	0	490,803,894
2028		912,514,323	36,106,048	44,159,222	36,106,048	8,053,174		904,461,149	2028	22,739,265	16,686,091	6,053,174		415,657,255	6,053,174	2028	21,419,957	19,419,957	2,000,000	0	488,803,894
2029		904,461,149	35,672,005	45,380,510	35,672,005	9,708,505		894,752,644	2029	24,102,054	16,393,549	7,708,505		407,948,750	7,708,505	2029	21,278,457	19,278,457	2,000,000	0	486,803,894
2030		894,752,644	35,318,395	46,909,632	35,318,395	11,591,237		883,161,407	2030	25,694,118	16,102,881	9,591,237		398,357,513	9,591,237	2030	21,215,514	19,215,514	2,000,000	0	484,803,894
2031		883,161,407	34,841,495	48,254,456	34,841,495	13,412,961		869,748,446	2031	27,128,515	15,715,554	11,412,961		386,944,552	11,412,961	2031	21,125,940	19,125,940	2,000,000	0	482,803,894
2032		869,748,446	34,340,267	49,494,776	34,340,267	15,154,509		854,593,937	2032	28,432,236	15,277,727	13,154,509		373,790,043	13,154,509	2032	21,062,540	19,062,540	2,000,000	0	480,803,894
2033		854,593,937	33,628,086	50,659,179	33,628,086	17,031,093		837,562,844	2033	29,739,650	14,708,557	15,031,093		358,758,950	15,031,093	2033	20,919,529	18,919,529	2,000,000	0	478,803,894
2034		837,562,844	32,974,715	52,608,203	32,974,715	19,633,488		817,929,356	2034	31,757,770	14,124,282	17,633,488		341,125,462	17,633,488	2034	20,850,432	18,850,432	2,000,000	0	476,803,894
2035		817,929,356	32,176,365	53,934,792	32,176,365	21,758,427		796,170,929	2035	33,177,895	13,419,468	19,758,427		321,367,035	19,758,427	2035	20,756,896	18,756,896	2,000,000	0	474,803,894
2036		796,170,929	31,336,243	55,260,068	31,336,243	23,923,825		772,247,104	2036	34,572,410	12,648,585	21,923,825		299,443,210	21,923,825	2036	20,687,658	18,687,658	2,000,000	0	472,803,894
2037		772,247,104	30,282,345	56,408,199	30,282,345	26,125,854		746,121,250	2037	35,868,005	11,742,151	24,125,854		275,317,356	24,125,854	2037	20,540,193	18,540,193	2,000,000	0	470,803,894
2038		746,121,250	29,188,077	56,682,398	29,188,077	36,494,321		709,626,929	2038	45,264,667	10,770,346	34,494,321		240,823,035	34,494,321	2038	20,417,731	18,417,731	2,000,000	0	468,803,894
2039		709,626,929	27,720,283	66,518,283	27,720,283	38,798,000		670,828,929	2039	46,205,313	9,407,313	36,798,000		204,025,035	36,798,000	2039	20,312,970	18,312,970	2,000,000	0	466,803,894
2040		670,828,929	25,951,976	91,912,289	25,951,976	65,960,313		604,868,616	2040	71,853,313	7,893,000	63,960,313		140,064,722	63,960,313	2040	20,058,976	18,058,976	2,000,000	0	464,803,894
2041		604,868,616	23,228,491	93,637,000	23,228,491	70,408,509		534,460,107	2041	73,787,350	5,378,841	68,408,509		71,656,213	68,408,509	2041	19,849,650	17,849,650	2,000,000	0	462,803,894
2042		534,460,107	20,431,779	95,069,590	20,431,779	74,637,811		459,822,296	2042	74,395,545	2,739,332	71,656,213		0	72,637,811	2042	20,674,045	17,692,447	2,981,598	0	459,822,296
2043		459,822,296	17,798,234	60,190,177	17,798,234	42,391,942		417,430,353	2043	0	0	0		0	0	2043	60,190,177	17,798,234	42,391,942	0	417,430,353
2044		417,430,353	16,110,355	61,624,439	16,110,355	45,514,084		371,916,269	2044	0	0	0		0	0	2044	61,624,439	16,110,355	45,514,084	0	371,916,269
2045		371,916,269	14,233,387	63,105,476	14,233,387	48,872,089		323,044,181	2045	0	0	0		0	0	2045	63,105,476	14,233,387	48,872,089	0	323,044,181
2046		323,044,181	12,285,136	64,576,353	12,285,136	52,291,217		270,752,964	2046	0	0	0		0	0	2046	64,576,353	12,285,136	52,291,217	0	270,752,964
2047		270,752,964	10,179,683	66,024,800	10,179,683	55,845,117		214,907,847	2047	0	0	0		0	0	2047	66,024,800	10,179,683	55,845,117	0	214,907,847
2048		214,907,847	7,942,012	67,494,156	7,942,012	59,552,144		155,355,703	2048	0	0	0		0	0	2048	67,494,156	7,942,012	59,552,144	0	155,355,703
2049		155,355,703	5,518,260	69,876,123	5,518,260	64,357,864		90,997,840	2049	0	0	0		0	0	2049	69,876,123	5,518,260	64,357,864	0	90,997,840
2050		90,997,840	3,378,395	26,560,889	3,378,395	23,182,494		67,815,346	2050	0	0	0		0	0	2050	26,560,889	3,378,395	23,182,494	0	67,815,346
2051		67,815,346	2,604,217	10,984,799	2,604,217	8,380,583		59,434,763	2051	0	0	0		0	0	2051	10,984,799	2,604,217	8,380,583	0	59,434,763
2052		59,434,763	2,264,881	11,714,603	2,264,881	9,449,722		49,985,041	2052	0	0	0		0	0	2052	11,714,603	2,264,881	9,449,722	0	49,985,041
2053		49,985,041	1,874,289	12,418,587	1,874,289	10,544,298		39,440,744	2053	0	0	0		0	0	2053	12,418,587	1,874,289	10,544,298	0	39,440,744
2054		39,440,744	1,449,759	12,991,245	1,449,759	11,541,486		27,899,257	2054	0	0	0		0	0	2054	12,991,245	1,449,759	11,541,486	0	27,899,257
2055		27,899,257	833,553	28,732,811	833,553	27,899,257		0	2055	0	0	0		0	0	2055	28,732,811	833,553	27,899,257	0	0
2056		0	0	0	0	0		0	2056	0	0	0		0	0	2056	0	0	0	0	0
2057		0	0	0	0	0		0	2057	0	0	0		0	0	2057	0	0	0	0	0
2058		0	0	0	0	0		0	2058	0	0	0		0	0	2058	0	0	0	0	0
Total	876,713,908		811,224,116	1,687,938,025	761,272,549	923,209,847	49,951,567		Total	743,811,203	313,405,250	430,405,953				Total	940,671,192	447,867,299	492,803,894	49,951,567	



**D. Common Debt Service Reserve Fund**

**TR Bonds Common Debt Service Reserve**

TriEx 2009 Bonds DSRF Transfer (Surety)	27,008,311
Complete 540 2018 Bonds DSRF Deposit	15,878,633
<b>Total</b>	<b>42,886,944</b>

Common Reserve Requirement: 5-year Aggregate MADS

Common Debt Service Reserve Fund - Toll Revenue Bonds										
Date	TriEx TR Bonds <sup>1</sup>	Complete 540 2018 TR Bonds	Semi-Annual Total	Annual Total	5-Year MADS	Semi-Annual Deposit	Annual Deposit	Semi-Annual Earnings	Annual Earnings	Ending Balance
7/1/2018	4,881,047		4,881,047							
1/1/2019	8,801,047		8,801,047		42,886,944					42,886,944
7/1/2019	4,784,547	5,810,338	10,594,884	19,395,931	42,886,944			158,786	158,786	42,886,944
1/1/2020	10,474,547	11,620,675	22,095,222		44,857,194	1,970,250		158,786		44,857,194
7/1/2020	4,642,297	11,620,675	16,262,972	38,358,194	44,857,194		1,970,250	178,489	337,275	44,857,194
1/1/2021	12,257,297	11,620,675	23,877,972		44,857,194			178,489		44,857,194
7/1/2021	4,451,922	11,620,675	16,072,597	39,950,569	44,857,194			178,489	356,978	44,857,194
1/1/2022	13,671,922	11,620,675	25,292,597		44,857,194			178,489		44,857,194
7/1/2022	4,221,422	11,620,675	15,842,097	41,134,694	44,857,194			178,489	356,978	44,857,194
1/1/2023	15,711,422	11,620,675	27,332,097		44,857,194			178,489		44,857,194
7/1/2023	3,934,172	11,620,675	15,554,847	42,886,944	44,857,194			178,489	356,978	44,857,194
1/1/2024	18,034,172	11,620,675	29,654,847		44,857,194			178,489		44,857,194
7/1/2024	3,581,672	11,620,675	15,202,347	44,857,194	44,857,194			178,489	356,978	44,857,194
1/1/2025	17,616,672	11,620,675	29,237,347		47,271,431	2,414,237		178,489		47,271,431
7/1/2025	3,230,797	11,620,675	14,851,472	44,088,819	47,271,431		2,414,237	202,631	381,120	47,271,431
1/1/2026	17,985,797	11,620,675	29,606,472		50,454,918	3,183,487		202,631		50,454,918
7/1/2026	2,861,922	11,620,675	14,482,597	44,089,069	50,454,918		3,183,487	234,466	437,097	50,454,918
1/1/2027	18,371,922	11,620,675	29,992,597		50,455,418	500		234,466		50,455,418
7/1/2027	2,474,172	11,620,675	14,094,847	44,087,444	50,455,418		500	234,471	468,937	50,455,418
1/1/2028	18,784,172	11,620,675	30,404,847		50,456,793	1,375		234,471		50,456,793
7/1/2028	2,066,422	11,620,675	13,687,097	44,091,944	50,456,793		1,375	234,485	468,956	50,456,793
1/1/2029	19,141,422	11,620,675	30,762,097		62,643,918	12,187,125		234,485		62,643,918
7/1/2029	1,705,875	14,803,459	16,509,334	47,271,431	62,643,918		12,187,125	356,356	590,841	62,643,918
1/1/2030	19,475,875	14,803,459	34,279,334		64,218,918	1,575,000		356,356		64,218,918
7/1/2030	1,372,125	14,803,459	16,175,584	50,454,918	64,218,918		1,575,000	372,106	728,462	64,218,918
1/1/2031	19,897,125	14,803,459	34,700,584		65,858,918	1,640,000		372,106		65,858,918
7/1/2031	951,375	14,803,459	15,754,834	50,455,418	65,858,918		1,640,000	388,506	760,612	65,858,918
1/1/2032	20,341,375	14,803,459	35,144,834		67,438,918	1,580,000		388,506		67,438,918
7/1/2032	508,500	14,803,459	15,311,959	50,456,793	67,438,918		1,580,000	404,306	792,812	67,438,918
1/1/2033	32,528,500	14,803,459	47,331,959		68,953,918	1,515,000		404,306		68,953,918
7/1/2033	508,500	14,803,459	15,311,959	62,643,918	68,953,918		1,515,000	419,456	823,762	68,953,918
1/1/2034	34,103,500	14,803,459	48,906,959		68,953,918			419,456		68,953,918
7/1/2034	508,500	14,803,459	15,311,959	64,218,918	68,953,918			419,456	838,912	68,953,918
1/1/2035	35,743,500	14,803,459	50,546,959		68,953,918			419,456		68,953,918
7/1/2035	508,500	14,803,459	15,311,959	65,858,918	68,953,918			419,456	838,912	68,953,918
1/1/2036	37,323,500	14,803,459	52,126,959		80,037,082	11,083,164		419,456		80,037,082
7/1/2036	508,500	14,803,459	15,311,959	67,438,918	80,037,082		11,083,164	530,288	949,744	80,037,082
1/1/2037	38,838,500	14,803,459	53,641,959		81,732,670	1,695,588		530,288		81,732,670
7/1/2037	508,500	14,803,459	15,311,959	68,953,918	81,732,670		1,695,588	547,244	1,077,531	81,732,670
1/1/2038	22,558,500	14,803,459	37,361,959		83,199,825	1,467,156		547,244		83,199,825
7/1/2038	508,500	14,803,459	15,311,959	52,673,918	83,199,825		1,467,156	561,915	1,109,159	83,199,825
1/1/2039	20,848,500	14,803,459	35,651,959		84,626,571	1,426,746		561,915		84,626,571
7/1/2039		17,513,459	17,513,459	53,165,418	84,626,571		1,426,746	576,183	1,138,098	84,626,571
1/1/2040		14,733,541	14,733,541		86,051,350	1,424,779		576,183		86,051,350
7/1/2040		65,303,541	65,303,541	80,037,082	86,051,350		1,424,779	590,430	1,166,613	86,051,350
1/1/2041		14,073,835	14,073,835		87,506,800	1,455,450		590,430		87,506,800
7/1/2041		67,658,835	67,658,835	81,732,670	87,506,800		1,455,450	604,985	1,195,415	87,506,800
1/1/2042		13,334,913	13,334,913		88,972,825	1,466,025		604,985		88,972,825
7/1/2042		69,864,913	69,864,913	83,199,825	88,972,825		1,466,025	619,645	1,224,630	88,972,825
1/1/2043		12,518,286	12,518,286		90,438,150	1,465,325		619,645		90,438,150
7/1/2043		72,108,286	72,108,286	84,626,571	90,438,150		1,465,325	634,298	1,253,944	90,438,150
1/1/2044		11,620,675	11,620,675		91,926,500	1,488,350		634,298		91,926,500
7/1/2044		74,430,675	74,430,675	86,051,350	91,926,500		1,488,350	649,182	1,283,480	91,926,500
1/1/2045		10,580,900	10,580,900		94,334,675	2,408,175		649,182		94,334,675
7/1/2045		76,925,900	76,925,900	87,506,800	94,334,675		2,408,175	673,264	1,322,446	94,334,675
1/1/2046		9,443,913	9,443,913		94,334,675			673,264		94,334,675
7/1/2046		79,528,913	79,528,913	88,972,825	94,334,675			673,264	1,346,527	94,334,675
1/1/2047		8,204,075	8,204,075		94,334,675			673,264		94,334,675
7/1/2047		82,234,075	82,234,075	90,438,150	94,334,675			673,264	1,346,527	94,334,675
1/1/2048		6,855,750	6,855,750		94,334,675			673,264		94,334,675
7/1/2048		85,070,750	85,070,750	91,926,500	94,334,675			673,264	1,346,527	94,334,675
1/1/2049		5,392,338	5,392,338		94,334,675			673,264		94,334,675
7/1/2049		88,942,338	88,942,338	94,334,675	94,334,675			673,264	1,346,527	94,334,675
1/1/2050		22,397,213	22,397,213		28,297,350	(66,037,325)		673,264		28,297,350
7/1/2050		3,270,300	3,270,300	25,667,513	28,297,350		(66,037,325)	12,890	686,154	28,297,350
1/1/2051		23,480,300	23,480,300		28,297,350			12,890		28,297,350
7/1/2051		2,714,525	2,714,525	26,194,825	28,297,350			12,890	25,781	28,297,350
1/1/2052		24,624,525	24,624,525		28,297,350			12,890		28,297,350
7/1/2052		2,112,000	2,112,000	26,736,525	28,297,350			12,890	25,781	28,297,350
1/1/2053		25,812,000	25,812,000		28,297,350			12,890		28,297,350
7/1/2053		1,460,250	1,460,250	27,272,250	28,297,350			12,890	25,781	28,297,350
1/1/2054		27,020,250	27,020,250		28,297,350			12,890		28,297,350
7/1/2054		757,350	757,350	27,777,600	28,297,350			12,890	25,781	28,297,350
1/1/2055		28,297,350	28,297,350		28,297,350			12,890		28,297,350
7/1/2055				28,297,350	28,297,350	(28,297,350)	(28,297,350)	12,890	25,781	28,297,350
<b>Total</b>	<b>496,347,484</b>	<b>1,570,958,306</b>	<b>2,067,305,790</b>			<b>(42,886,944)</b>	<b>(42,886,944)</b>	<b>26,976,622</b>	<b>26,976,622</b>	

1. Series 2009A, 2009B and 2017 Bond debt service

**E. Toll Revenue Debt - Debt Service Coverage**

Fiscal Year	Pledged Revenues			Toll Revenue Bonds Aggregate Net Debt Service (2)	TIFIA Loan Repayment (3)			Project Toll Revenue Bonds Coverage (4)=(1)/(2)	TIFIA Coverage (5)=(1)/[(2)+(3)]	All-in Coverage	
	Complete 540	Triangle Expressway			Pledged Revenues (1)	New Aggregate TIFIA Loan	TIFIA Common Reserve Earnings				Aggregate Repayment (3)
	Toll Revenues	Toll Revenues	Residual Approp Funds								
2022	3,193,764	67,790,000	1,371,972	72,355,736	17,536,366	31,847,249	(200,000)	31,647,249	4.13x	1.47x	0.91x
2023	19,950,531	71,856,000	1,386,651	93,193,182	30,909,291	18,314,889	(200,000)	18,114,889	3.02x	1.90x	1.06x
2024	30,899,812	76,269,000	1,400,271	108,569,083	44,500,216	17,756,188	(200,000)	17,556,188	2.44x	1.75x	1.05x
2025	39,270,762	80,964,000	1,413,141	121,647,903	43,707,699	25,321,013	(200,000)	25,121,013	2.78x	1.77x	1.06x
2026	45,691,039	85,838,000	1,397,967	132,927,006	43,651,971	37,074,696	(200,000)	36,874,696	3.05x	1.65x	1.03x
2027	50,664,316	91,107,000	1,411,059	143,182,376	43,618,507	42,768,469	(200,000)	42,568,469	3.28x	1.66x	1.03x
2028	55,134,014	96,565,000	1,426,304	153,125,318	43,622,988	44,159,222	(200,000)	43,959,222	3.51x	1.75x	1.07x
2029	58,963,910	102,328,000	1,441,984	162,733,894	46,680,590	45,380,510	(200,000)	45,180,510	3.49x	1.77x	1.01x
2030	62,449,915	108,601,000	1,457,424	172,508,339	49,726,455	46,909,632	(200,000)	46,709,632	3.47x	1.79x	1.11x
2031	66,194,679	114,720,000	1,474,933	182,389,611	49,694,805	48,254,456	(200,000)	48,054,456	3.67x	1.87x	1.15x
2032	70,058,326	120,558,000	1,490,850	192,107,176	49,663,980	49,494,776	(200,000)	49,294,776	3.87x	1.94x	1.20x
2033	74,043,632	126,587,000		200,630,632	61,820,155	50,659,179	(200,000)	50,459,179	3.25x	1.79x	1.15x
2034	78,206,188	132,900,000		211,106,188	63,380,005	52,608,203	(200,000)	52,408,203	3.33x	1.82x	1.19x
2035	82,454,894	139,596,000	13,322	222,064,216	65,020,005	53,934,792	(200,000)	53,734,792	3.42x	1.87x	1.23x
2036	86,972,681	146,426,000	47,416	233,446,097	66,489,174	55,260,068	(200,000)	55,060,068	3.51x	1.92x	1.19x
2037	91,851,321	152,780,000	83,741	244,715,063	67,876,386	56,408,199	(200,000)	56,208,199	3.61x	1.97x	1.28x
2038	96,225,378	158,755,000	124,106	255,104,485	51,564,759	65,682,398	(200,000)	65,482,398	4.95x	2.18x	1.36x
2039	99,489,597	165,028,000	71,512	264,589,109	52,027,320	66,518,283	(200,000)	66,318,283	5.09x	2.24x	1.39x
2040	102,124,345	171,693,000	25,000,000	298,817,345	78,870,469	91,912,289	(200,000)	91,712,289	3.79x	1.75x	1.23x
2041	104,694,914	177,562,000	25,000,000	307,256,914	80,537,254	93,637,000	(200,000)	93,437,000	3.82x	1.77x	1.24x
2042	107,414,609	182,132,000	25,000,000	314,546,609	81,975,195	95,069,590	(200,000)	94,869,590	3.84x	1.78x	1.25x
2043	110,254,992	186,401,000	25,000,000	321,655,992	83,372,627	60,190,177	(200,000)	59,990,177	3.86x	2.24x	1.47x
2044	112,988,695	190,747,000	25,000,000	328,735,695	84,767,870	61,624,439	(200,000)	61,424,439	3.88x	2.25x	1.48x
2045	115,800,585	195,185,000	25,000,000	335,985,585	86,184,354	63,105,476	(200,000)	62,905,476	3.90x	2.25x	1.47x
2046	118,682,751	199,591,000	25,000,000	343,273,751	87,626,298	64,576,353	(200,000)	64,376,353	3.92x	2.26x	1.49x
2047	121,585,301	203,979,000	25,000,000	350,564,301	89,091,623	66,024,800	(200,000)	65,824,800	3.93x	2.26x	1.50x
2048	124,510,778	208,454,000	25,000,000	357,964,778	90,579,973	67,494,156	(200,000)	67,294,156	3.95x	2.27x	1.51x
2049	127,369,193	217,581,000	25,000,000	369,950,193	92,988,148	69,876,123	(200,000)	69,676,123	3.98x	2.27x	1.59x
2050	130,244,714			130,244,714	25,493,271	26,560,889	(200,000)	26,360,889	5.11x	2.51x	1.92x
2051	133,104,948			133,104,948	26,724,819	10,984,799	(200,000)	10,784,799	4.98x	3.55x	1.10x
2052	136,016,410			136,016,410	27,313,269	11,714,603	(200,000)	11,514,603	4.98x	3.50x	1.10x
2053	138,932,490			138,932,490	27,898,219	12,418,587	(200,000)	12,218,587	4.98x	3.46x	1.10x
2054	141,711,140			141,711,140	28,454,719	12,991,245	(200,000)	12,791,245	4.98x	3.44x	1.10x
2055	144,545,363			144,545,363	29,028,919	28,732,811	(200,000)	28,532,811	4.98x	2.51x	1.22x

Minimum	2.44x	1.47x	0.91x
Avg. thru 2049	3.67x	1.94x	1.24x
Avg. thru 2059	3.90x	2.15x	1.28x

**F. Toll Revenue Flow of Funds**

Fiscal Year	Pledged Revenues			Debt Service and DSRF Deposits				Available Revenues after Debt Service	
	Complete 540	Triangle Expressway		Pledged Revenue	Aggregate Net TR Bonds Debt Service	TR Bonds Common DSRF Deposit/Release	Aggregate TIFIA Repayment		TIFIA Loan Common Deposit/Release
	Toll Revenues	Toll Revenues	Residual Approp Funds						
2022	3,193,764	67,790,000	1,371,972	72,355,736	(17,536,366)		(31,647,249)		23,172,122
2023	19,950,531	71,856,000	1,386,651	93,193,182	(30,909,291)		(18,114,889)		44,169,002
2024	30,899,812	76,269,000	1,400,271	108,569,083	(44,500,216)		(17,556,188)		46,512,679
2025	39,270,762	80,964,000	1,413,141	121,647,903	(43,707,699)	(2,414,237)	(25,121,013)		50,404,954
2026	45,691,039	85,838,000	1,397,967	132,927,006	(43,651,971)	(3,183,487)	(36,874,696)		49,216,852
2027	50,664,316	91,107,000	1,411,059	143,182,376	(43,618,507)	(500)	(42,568,469)		56,994,900
2028	55,134,014	96,565,000	1,426,304	153,125,318	(43,622,988)	(1,375)	(43,959,222)		65,541,733
2029	58,963,910	102,328,000	1,441,984	162,733,894	(46,680,590)	(12,187,125)	(45,180,510)		58,685,669
2030	62,449,915	108,601,000	1,457,424	172,508,339	(49,726,455)	(1,575,000)	(46,709,632)		74,497,252
2031	66,194,679	114,720,000	1,474,933	182,389,611	(49,694,805)	(1,640,000)	(48,054,456)		83,000,350
2032	70,058,326	120,558,000	1,490,850	192,107,176	(49,663,980)	(1,580,000)	(49,294,776)		91,568,419
2033	74,043,632	126,587,000		200,630,632	(61,820,155)	(1,515,000)	(50,459,179)		86,836,298
2034	78,206,188	132,900,000		211,106,188	(63,380,005)		(52,408,203)		95,317,980
2035	82,454,894	139,596,000	13,322	222,064,216	(65,020,005)		(53,734,792)		103,309,419
2036	86,972,681	146,426,000	47,416	233,446,097	(66,489,174)	(11,083,164)	(55,060,068)		100,813,692
2037	91,851,321	152,780,000	83,741	244,715,063	(67,876,386)	(1,695,588)	(56,208,199)		118,934,890
2038	96,225,378	158,755,000	124,106	255,104,485	(51,564,759)	(1,467,156)	(65,482,398)		136,590,172
2039	99,489,597	165,028,000	71,512	264,589,109	(52,027,320)	(1,426,746)	(66,318,283)		144,816,760
2040	102,124,345	171,693,000	25,000,000	298,817,345	(78,870,469)	(1,424,779)	(91,712,289)		126,809,809
2041	104,694,914	177,562,000	25,000,000	307,256,914	(80,537,254)	(1,455,450)	(93,437,000)		131,827,210
2042	107,414,609	182,132,000	25,000,000	314,546,609	(81,975,195)	(1,466,025)	(94,869,590)		136,235,799
2043	110,254,992	186,401,000	25,000,000	321,655,992	(83,372,627)	(1,465,325)	(59,990,177)		176,827,863
2044	112,988,695	190,747,000	25,000,000	328,735,695	(84,767,870)	(1,488,350)	(61,424,439)		181,055,037
2045	115,800,585	195,185,000	25,000,000	335,985,585	(86,184,354)	(2,408,175)	(62,905,476)		184,487,579
2046	118,682,751	199,591,000	25,000,000	343,273,751	(87,626,298)		(64,376,353)		191,271,101
2047	121,585,301	203,979,000	25,000,000	350,564,301	(89,091,623)		(65,824,800)		195,647,878
2048	124,510,778	208,454,000	25,000,000	357,964,778	(90,579,973)		(67,294,156)		200,090,649
2049	127,369,193	217,581,000	25,000,000	369,950,193	(92,988,148)		(69,676,123)		207,285,922
2050	130,244,714			130,244,714	(25,493,271)	66,037,325	(26,360,889)		144,427,879
2051	133,104,948			133,104,948	(26,724,819)		(10,784,799)		95,595,330
2052	136,016,410			136,016,410	(27,313,269)		(11,514,603)		97,188,537
2053	138,932,490			138,932,490	(27,898,219)		(12,218,587)		98,815,684
2054	141,711,140			141,711,140	(28,454,719)		(12,791,245)		100,465,176
2055	144,545,363			144,545,363	(29,028,919)	28,297,350	(28,532,811)	10,000,000	125,280,983
2056	147,436,270			147,436,270					147,436,270
2057	150,384,996			150,384,996					150,384,996
2058	153,392,696			153,392,696					153,392,696
2059	156,460,550			156,460,550					156,460,550
<b>Total</b>	3,689,370,497	3,971,993,000	266,012,655	7,927,376,152	(1,912,397,701)	44,857,194	(1,638,465,556)	10,000,000	4,431,370,089

**F. Flow of Funds**

Fiscal Year	Available Revenues after Debt Service	O&M Expenses		O&M Reserve	R&R		Residual Revenues	General Reserve Fund	
		Complete 540	TriEx	Deposit	Complete 540	TriEx		Beginning Balance	Ending Balance
2022	23,172,122	(4,600,000)	(17,726,207)	(1,259,393)		(7,025,428)	(7,438,907)	65,285,910	57,847,003
2023	44,169,002	(11,539,000)	(18,234,660)	(1,818,642)		(7,023,732)	5,552,969	57,847,003	63,399,973
2024	46,512,679	(14,425,000)	(18,774,571)	(800,230)	(145,571)	(7,009,695)	5,357,612	63,399,973	68,757,585
2025	50,404,954	(16,508,000)	(19,343,616)	(588,015)	(145,571)	(7,036,283)	6,783,469	68,757,585	75,541,054
2026	49,216,852	(17,768,000)	(19,936,006)	(379,349)	(145,571)	(7,007,792)	3,980,135	75,541,054	79,521,188
2027	56,994,900	(18,682,000)	(20,541,242)	(289,343)	(6,144,167)	(6,975,160)	4,362,988	79,521,188	83,884,177
2028	65,541,733	(19,370,000)	(21,172,548)	(234,662)	(6,144,167)	(8,845,250)	9,775,107	83,884,177	93,659,284
2029	58,685,669	(19,815,000)	(21,817,248)	(173,415)	(6,144,167)	(8,818,043)	1,917,796	93,659,284	95,577,080
2030	74,497,252	(20,269,000)	(22,498,586)	(181,488)	(6,144,167)	(8,817,447)	16,586,564	95,577,080	112,163,644
2031	83,000,350	(20,737,000)	(23,146,744)	(173,935)	(6,144,167)	(8,776,660)	24,021,844	112,163,644	136,185,487
2032	91,568,419	(21,217,000)	(23,773,735)	(168,778)	(6,144,167)	(8,733,734)	31,531,005	136,185,487	167,716,493
2033	86,836,298	(21,709,000)	(24,427,385)	(175,623)	(4,983,083)	(8,710,822)	26,830,384	167,716,493	194,546,877
2034	95,317,980	(22,214,000)	(25,092,138)	(178,854)	(4,983,083)	(8,727,241)	34,122,664	194,546,877	228,669,541
2035	103,309,419	(22,732,000)	(25,779,738)	(184,923)	(4,983,083)	(8,708,514)	40,921,160	228,669,541	269,590,701
2036	100,813,692	(23,263,000)	(26,484,551)	(189,523)	(4,983,083)	(8,687,968)	37,205,566	269,590,701	306,796,268
2037	118,934,890	(23,809,000)	(27,192,384)	(190,985)	(4,983,083)	(8,780,371)	53,979,067	306,796,268	360,775,335
2038	136,590,172	(24,211,000)	(27,916,000)	(155,810)	(4,983,083)	(12,093,768)	67,230,510	360,775,335	428,005,845
2039	144,816,760	(24,468,000)	(28,652,032)	(119,499)	(4,983,083)	(12,056,859)	74,537,288	428,005,845	502,543,133
2040	126,809,809	(24,726,000)	(29,413,166)	(123,179)	(4,983,083)	(11,997,975)	55,566,406	502,543,133	558,109,538
2041	131,827,210	(24,988,000)	(30,147,704)	(115,018)	(4,983,083)	(11,942,591)	59,650,813	558,109,538	617,760,352
2042	136,235,799	(25,253,000)	(30,843,280)	(103,455)	(4,983,083)	(11,909,297)	63,143,684	617,760,352	680,904,036
2043	176,827,863	(25,512,000)	(31,547,223)	(101,530)	(4,983,083)	(12,053,558)	102,630,470	680,904,036	783,534,506
2044	181,055,037	(25,761,000)	(32,268,962)	(101,052)	(4,983,083)	(12,048,634)	105,892,306	783,534,506	889,426,812
2045	184,487,579	(26,014,000)	(33,009,360)	(104,285)	(5,544,000)	(11,990,920)	107,825,015	889,426,812	997,251,826
2046	191,271,101	(26,268,000)	(33,776,681)	(108,815)	(5,544,000)	(12,002,555)	113,571,050	997,251,826	1,110,822,876
2047	195,647,878	(26,528,000)	(34,560,820)	(112,011)	(5,544,000)	(11,974,071)	116,928,976	1,110,822,876	1,227,751,852
2048	200,090,649	(26,777,000)	(35,365,307)	(111,770)	(5,544,000)	(11,921,687)	120,370,885	1,227,751,852	1,348,122,738
2049	207,285,922	(27,019,000)	(36,189,451)	(112,298)	(5,544,000)	(440,000)	137,981,173	1,348,122,738	1,486,103,910
2050	144,427,879	(27,262,000)	(37,035,830)	(115,447)	(5,544,000)	(12,000,000)	62,470,602	1,486,103,910	1,548,574,512
2051	95,595,330	(27,509,000)	(38,078,942)	(162,938)	(5,544,000)	(12,000,000)	12,300,450	1,548,574,512	1,560,874,962
2052	97,188,537	(27,759,000)	(39,151,988)	(168,421)	(5,544,000)	(12,000,000)	12,565,128	1,560,874,962	1,573,440,090
2053	98,815,684	(28,012,000)	(40,255,839)	(173,619)	(5,544,000)	(12,000,000)	12,830,226	1,573,440,090	1,586,270,317
2054	100,465,176	(28,268,000)	(41,391,391)	(178,955)	(5,544,000)	(12,000,000)	13,082,831	1,586,270,317	1,599,353,148
2055	125,280,983	(28,526,000)	(42,559,567)	(184,185)	(5,544,000)	(12,000,000)	36,467,231	1,599,353,148	1,635,820,379
2056	147,436,270	(28,788,000)	(43,761,317)	(190,065)	(5,544,000)	(12,000,000)	57,152,888	1,635,820,379	1,692,973,267
2057	150,384,996	(29,052,000)	(44,997,619)	(195,603)	(6,544,000)	(12,000,000)	57,595,774	1,692,973,267	1,750,569,041
2058	153,392,696	(29,321,000)	(46,269,479)	(202,047)	(12,000,000)	(12,000,000)	53,600,169	1,750,569,041	1,804,169,210
2059	156,460,550	(30,188,000)	(47,577,934)		(12,000,000)	(12,000,000)	54,694,616	1,804,169,210	1,858,863,825
<b>Total</b>	<b>4,431,370,089</b>	<b>(890,867,000)</b>	<b>(1,160,711,245)</b>	<b>(9,927,158)</b>	<b>(194,170,714)</b>	<b>(382,116,057)</b>	<b>1,793,577,915</b>		



