

SUPPLEMENT DATED NOVEMBER 12, 2019
TO
OFFICIAL STATEMENT DATED OCTOBER 31, 2019
RELATING TO
\$40,840,000
STATE OF NEW HAMPSHIRE
TURNPIKE SYSTEM REVENUE BONDS
2019 REFUNDING SERIES

The Official Statement dated October 31, 2019, as supplemented by the Supplement dated November 7, 2019 (the “November 7 Supplement” and collectively, the “Official Statement”), relating to the above-referenced bonds is further supplemented as follows with capitalized terms not otherwise defined in this supplement used as defined in the Official Statement:

On November 12, 2019, Fitch Ratings, Inc. (“Fitch”) revised the outlook assigned to the 2019 Series Bonds from “positive” to “stable.” Fitch attributed the change in outlook to the recent actions taken to reduce to zero the toll rate at Exit 11, as described in the November 7 Supplement.

The first sentence of the section of the Official Statement entitled “RATINGS” is revised to read as follows:

“Fitch Ratings, Inc., Moody’s Investors Services, Inc. and S&P Global Ratings, a division of S&P Global have assigned their municipal bonds ratings of “A+” (outlook: stable), “Aa3” (outlook: stable) and “AA-” (outlook: stable), respectively, to the 2019 Series Bonds.”

THE STATE OF NEW HAMPSHIRE

SUPPLEMENT DATED NOVEMBER 7, 2019
TO
OFFICIAL STATEMENT DATED OCTOBER 31, 2019
RELATING TO
\$40,840,000
STATE OF NEW HAMPSHIRE
TURNPIKE SYSTEM REVENUE BONDS
2019 REFUNDING SERIES

The Official Statement dated October 31, 2019 (the “Official Statement”) relating to the above-referenced bonds of the State of New Hampshire is hereby supplemented as follows, with the section heading below referring to the corresponding section in the Official Statement. Capitalized terms not otherwise defined in this Supplement are used as defined in the Official Statement.

THE TURNPIKE SYSTEM

Central Turnpike (F. E. Everett)

On November 5, 2019, Governor Sununu announced that in connection with the Executive Council’s action on the State’s Ten-Year Transportation Plan (TYP), he was urging the Executive Council to take such action as may be necessary to reduce to zero the toll rate currently collected at the Exit 11 ramp tolls in Merrimack on the Central Turnpike.

The Governor’s proposal was introduced on November 6, 2019 at a previously scheduled meeting of the Governor’s Advisory Commission on Intermodal Transportation (GACIT), which reviews and approves projects for inclusion on the State’s Ten-Year Transportation Plan. The members of GACIT are the five members of the Executive Council and the Commissioner of the Department of Transportation (as a non-voting member). At its meeting on November 6, GACIT unanimously recommended that the Exit 11 Merrimack ramp tolls be reduced to zero effective January 1, 2020 and that the Department bring forward an item to take such action for the Governor’s consideration to include on the November 25, 2019 Executive Council agenda. If approved by the Executive Council at that meeting, no further Legislative approval is needed and the toll reduction would take effect as of January 1, 2020.

The Department asked Stantec to assist it in evaluating the impact of this toll reduction, which will include a direct loss of revenue at Exit 11 as well as an assumed 30% decline in revenue at Exit 10 in Merrimack due to diversion and a small reduction in operating expenses. If this change had been in effect for fiscal year 2019, the estimated impact would have been to reduce the net fiscal year 2019 Revenues by approximately \$1.2 million and the Revenue Bond Coverage Ratio and All Obligations Coverage Ratio shown on page 79 of the Stantec Traffic and Revenue Study attached as Appendix A to the Official Statement from 2.56 to 2.53 and from 1.90 to 1.88, respectively.

Based on input from Stantec regarding revised revenue projections, the Department’s estimated reduction in operating expenses and assuming increases in operating expenses of 2% annually, the Department estimates the aggregate net reduction to Turnpike System Revenues over the ten year period of 2020-2029 to be approximately \$11 million or 0.7% of projected total revenues. During this period, the greatest projected impact on the Debt Service Coverage Ratio would be a decline of 0.05 in years 2023 and 2024. The greatest projected impact on the All Obligation Coverage Ratio would be a decline of 0.03 in those years.

THE STATE OF NEW HAMPSHIRE

In the opinion of Locke Lord LLP, Bond Counsel, based upon an analysis of existing law and assuming, among other matters, compliance with certain covenants, interest on the 2019 Series Bonds is excluded from gross income for federal income tax purposes under the Internal Revenue Code of 1986 (the "Code"). Interest on the 2019 Series Bonds is not a specific preference item for purposes of the federal individual alternative minimum tax. Under existing law, interest on the 2019 Series Bonds is exempt from the New Hampshire personal income tax on interest and dividends. Bond Counsel expresses no opinion regarding any other tax consequences related to the ownership or disposition of, or the accrual or receipt of interest on, the 2019 Series Bonds. See "Tax Exemption" herein.

\$40,840,000
STATE OF NEW HAMPSHIRE
Turnpike System Revenue Bonds
2019 Refunding Series

Dated: Date of Delivery

Due: As shown on the inside cover

The 2019 Series Bonds will be issued as fully registered bonds, and when issued will be registered in the name of Cede & Co., as nominee for The Depository Trust Company ("DTC"), New York, New York. So long as Cede & Co. is the registered owner of the 2019 Series Bonds, principal and semiannual interest (payable May 1 and November 1, commencing May 1, 2020) are payable by The Bank of New York Mellon Trust Company, N.A., as Trustee and Paying Agent (the "Trustee"), to Cede & Co., as nominee for DTC. (See *Book-Entry Bonds* herein.) Purchasers shall acquire beneficial ownership interests in the 2019 Series Bonds in the denominations of \$5,000 or integral multiples thereof. The 2019 Series Bonds are not subject to redemption prior to maturity.

The 2019 Series Bonds are being issued for the purposes of refunding a portion of the outstanding Turnpike System Revenue Bonds, 2009 Series A and paying costs of issuance.

The 2019 Series Bonds are limited obligations of the State payable solely out of net revenues of the State of New Hampshire Turnpike System and are not general obligations of the State of New Hampshire or any political subdivision thereof, and neither the full faith and credit nor the taxing power of the State of New Hampshire or any political subdivision is pledged for the payment of the 2019 Series Bonds. (See *Security for the Bonds* herein.)

MATURITY SCHEDULE - See Inside Cover

The 2019 Series Bonds are offered subject to the final approving opinion of Locke Lord LLP, Boston, Massachusetts, Bond Counsel, and to certain other conditions. Public Resources Advisory Group has acted as Financial Advisor to the State with respect to the 2019 Series Bonds. Delivery of the 2019 Series Bonds to DTC or its custodial agent is expected on or about November 14, 2019.

MATURITY SCHEDULE

\$40,840,000

STATE OF NEW HAMPSHIRE

Turnpike System Revenue Bonds

2019 Refunding Series

<u>Due</u> <u>November 1</u>	<u>Principal</u> <u>Amount</u>	<u>Interest</u> <u>Rate</u>	<u>Price</u>	<u>Yield</u>	<u>CUSIP*</u> <u>644693</u>
2025	\$6,335,000	4.00%	115.383	1.310%	NA7
2026	8,535,000	5.00	124.031	1.370	NB5
2027	7,995,000	5.00	126.523	1.460	NC3
2028	8,885,000	5.00	128.865	1.540	ND1
2029	9,090,000	5.00	130.876	1.630	NE9

Statement pursuant to New Hampshire Revised Statutes Annotated 421-B:20 for New Hampshire investors:

In making an investment decision investors must rely on their own examination of the issuer and the terms of the offering, including the merits and risks involved. These securities have not been recommended by any Federal or state securities commission or regulatory authority. Furthermore, the foregoing authorities have not confirmed the accuracy or determined the adequacy of this document. Any representation to the contrary is a criminal offense.

* Copyright, American Bankers Association. CUSIP data herein are provided by CUSIP Global Services, managed by S&P Capital IQ on behalf of The American Bankers Association. The CUSIP numbers above have been assigned by an independent company not affiliated with the State and are included solely for the convenience of the holders of the 2019 Series Bonds. None of the State, the Underwriters or the Paying Agent is responsible for the selection or uses of the CUSIP numbers, and no representation is made as to their correctness on the 2019 Series Bonds or as indicated above. The CUSIP number for a specific maturity is subject to being changed after the issuance of the 2019 Series Bonds as a result of various subsequent actions including, but not limited to, a refunding in whole or in part of such maturity or as a result of the procurement of secondary market portfolio insurance or other similar enhancement by investors that is applicable to all or a portion of certain maturities of the 2019 Series Bonds.

STATE OF NEW HAMPSHIRE

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Executive Council

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No dealer, broker, salesperson or other person has been authorized by the State of New Hampshire (the “State”) to give any information or to make any representations, other than those contained in this Official Statement, and if given or made, such other information or representation must not be relied upon as having been authorized by the State. This Official Statement does not constitute an offer to sell or the solicitation of an offer to buy, nor shall there be any sale of the 2019 Series Bonds by any person in any jurisdiction in which it is unlawful for such person to make such offer, solicitation or sale. This Official Statement is not to be construed as a contract or agreement between the State and the purchasers or owners of any of the 2019 Series Bonds. The information and expressions of opinion contained herein are subject to change without notice and neither the delivery of this Official Statement nor any sale made hereunder shall, under any circumstances, create any implication that there has been no change in any of the information set forth herein since the date of this Official Statement.

This Official Statement contains forecasts, projections and estimates that are based on current expectations. In light of the important factors that may materially affect the financial condition of the New Hampshire Turnpike System generally and other economic and financial matters, the inclusion in this Official Statement of such forecasts, projections and estimates should not be regarded as a representation by the State that such forecasts, projections and estimates will occur. Such forecasts, projections and estimates are not intended as representations of fact or guarantees of results.

If and when included in this Official Statement, the words “expects,” “forecasts,” “projects,” “intends,” “anticipates,” “estimates” and analogous expressions are intended to identify forward-looking statements as defined in the Securities Act of 1933, as amended, and any such statements inherently are subject to a variety of risks and uncertainties that could cause actual results to differ materially from those projected. Such risks and uncertainties include, among others, general economic and business conditions, changes in fuel prices, changes in political, social and economic conditions, regulatory initiatives and compliance with governmental regulations, litigation, arbitration, force majeure events and various other events, conditions and circumstances affecting the New Hampshire Turnpike System, many of which are beyond the control of the State. These forward-looking statements speak only as of the date of this Official Statement. The State disclaims any obligation or undertaking to release publicly any updates or revisions to any forward-looking statement contained herein to reflect any change in the State’s expectations with regard thereto or any change in events, conditions or circumstances on which any such statement is based.

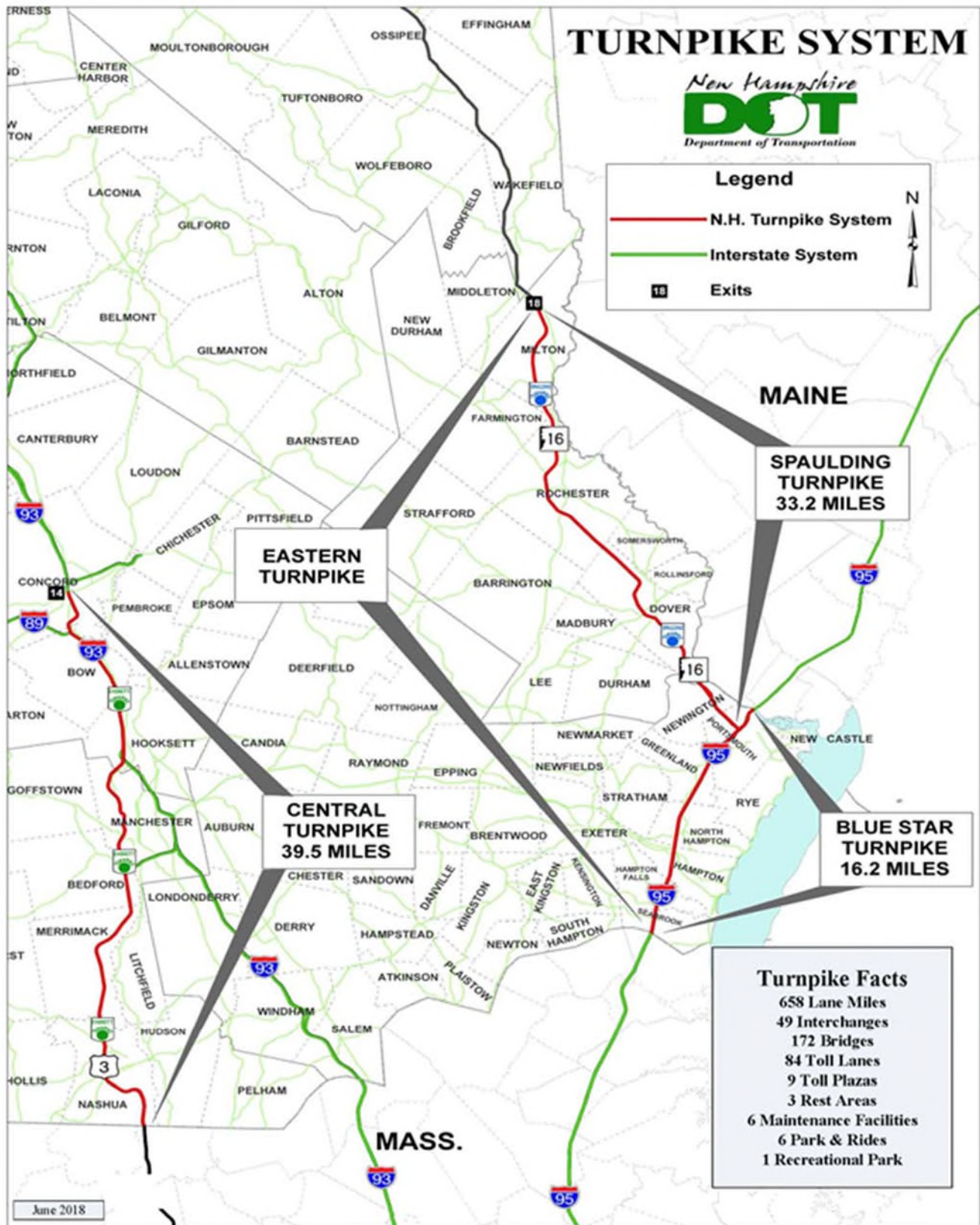
All quotations from and summaries and explanations of provisions of law and documents herein do not purport to be complete, and reference is made to such laws and documents for full and complete statements of their provisions. Any statements made in this Official Statement involving estimates or matters of opinion, whether or not expressly so stated, are intended merely as estimates or opinion and not as representations of fact. This Official Statement speaks as of its date except where specifically noted otherwise and is subject to change without notice. Neither the delivery of this Official Statement nor any sale made hereunder shall, under any circumstances, create any implication that there has been no change in any of the information set forth herein since the date hereof or imply that any information herein is accurate or complete as of any later date.

Third parties may engage in transactions that stabilize, maintain or otherwise affect the price of the 2019 Series Bonds, including transactions to (i) over allot in arranging the sales of the 2019 Series Bonds and (ii) makes purchases in sales of the 2019 Series Bonds for long or short accounts on a when-issued basis or otherwise, at such prices, in such amounts and in a manner beyond the State’s control. Such stabilization, if commenced, may be discontinued at any time.

References to web site addresses presented herein are for informational purposes only and may be in the form of a hyperlink solely for the reader’s convenience. Unless specified otherwise, such web sites and the information or links contained therein are not incorporated into, and are not part of, this Official Statement.

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**OFFICIAL STATEMENT
OF
THE STATE OF NEW HAMPSHIRE
\$40,840,000
TURNPIKE SYSTEM REVENUE BONDS
2019 REFUNDING SERIES
INTRODUCTION**

This Official Statement, including the cover page and the Appendices hereto, is being distributed by the State of New Hampshire (the “State”) in order to furnish information in connection with the sale by the State of its Turnpike System Revenue Bonds, 2019 Refunding Series, in the aggregate principal amount of \$40,840,000 (the “2019 Series Bonds”).

The 2019 Series Bonds were sold by competitive sale as set forth herein. See *Competitive Sale of the 2019 Series Bonds* and Appendix G.

The 2019 Series Bonds are authorized to be issued pursuant to Chapter 237-A of the New Hampshire Revised Statutes Annotated, as amended (the “Act”), and a general bond resolution (the “Bond Resolution”) of the State adopted by the Governor and Executive Council of the State (“Governor and Council”) on November 9, 1987, as amended and supplemented and as further supplemented by a Supplemental Resolution adopted by the Governor and Council on June 19, 2019. The State has authorized an aggregate of \$766,050,000 in Turnpike System Revenue Bonds to be issued under the Act (excluding Bonds issued for the purpose of refunding Outstanding Bonds) of which approximately \$715,830,618 have been issued to date. See *Program Responsibility and Management – The Act*.

The 2019 Series Bonds are being issued for the purpose of refunding \$50,725,000 of the Outstanding 2009 Series A Bonds (Federally Taxable – Build America Bonds – Direct Payment) that are due November 1, 2029 (the “Refunded Bonds”) in order to provide debt service savings to the New Hampshire Turnpike System (the “Turnpike System”) and paying the costs of issuance of the 2019 Series Bonds. See *Plan of Refunding*.

When issued, the 2019 Series Bonds will be on parity with the currently Outstanding Turnpike System Revenue Bonds, as follows:

<u>Series</u>	<u>Principal Amount Outstanding</u>
2009 Series A*	\$99,275,000
2009 Refunding Series B	15,240,000
2012 Refunding Series	5,325,000
2012 Series C	95,930,000
2012 Refunding Series B	26,015,000
2015 Series A	<u>30,030,000</u>
Total	\$271,815,000

* Excludes bonds to be refunded and defeased with proceeds of the 2019 Series Bonds.

As used herein, except as otherwise noted, the term “Bonds” refers to all Bonds Outstanding under the Bond Resolution. The term “Outstanding” excludes Bonds which have been refunded through the issuance of Refunding Bonds as described under *Summary of Certain Provisions of the Bond Resolution – Refunding Bonds*.

The Turnpike System, as shown on the map on page iv, presently consists of approximately 89 miles of limited access highway, 36 miles of which are part of the U.S. Interstate Highway System. The Turnpike System comprises three limited access highways: the Blue Star Turnpike (I-95) and the Spaulding Turnpike (which together are referred to as the Eastern Turnpike), and the Central Turnpike (also known as the F.E. Everett Turnpike and includes portions of U.S. Interstate Highways 93 and 293). The Turnpike System primarily serves the major cities located in the central and eastern sections of southern New Hampshire. The Blue Star segment of the Turnpike

System is 16.2 miles in length and constitutes a portion of US Interstate Highway 95. It extends from the Massachusetts state line in Seabrook, New Hampshire to the Maine state line in Portsmouth, New Hampshire.

The Spaulding Turnpike segment of the Turnpike System extends from Portsmouth, New Hampshire to Milton, New Hampshire. It is 33.2 miles in length and is the major artery for north-south travel in the eastern corridor of the State. The Central Turnpike extends for 39.5 miles from the Massachusetts state line in Nashua, New Hampshire to Exit 14 in Concord, New Hampshire. It constitutes a portion of US Interstate Highways 93 and 293.

The Capital Improvement Program is a multi-year program originally authorized by the New Hampshire Legislature in 1986 to improve and expand the Turnpike System. The expansion and improvement projects in the Capital Improvement Program are designed to provide safety improvements to the existing Turnpike System and increase the Turnpike System's capacity. Beginning with the 2019-2028 State Ten Year Plan, the Turnpike Capital Improvement Program projects have been included in and were approved through Chapter Law 358 Laws of 2018, signed into law by the Governor on July 2, 2018. Through June 30, 2019, a total of \$982 million of bond proceeds, investment earnings and available toll revenues had been expended on Capital Improvement Program projects of which \$716 million had been funded with the proceeds of bonds. The State currently estimates that the total cost of the Capital Improvement Program, including expenditures to date, is approximately \$1.550 billion through fiscal year 2030. The Department has begun the process of publishing the 2021-2030 State Ten Year Plan that includes \$524.7 million for the Turnpike Capital Improvement Program as proposed and is subject to change based on public hearings and the Legislative process. The Department currently expects to fund the Turnpike Capital Improvement Program entirely from non-bond funds. See *The Turnpike System* and *Capital Improvement Program*.

The 2019 Series Bonds are limited obligations of the State and, under the terms of the Bond Resolution, are payable solely from the net revenues generated by the Turnpike System and from other funds specifically available therefor. See *Security for the Bonds*.

The 2019 Series Bonds are not general obligations of the State or any political subdivision thereof and neither the full faith and credit nor the taxing power of the State or any political subdivision thereof is pledged for the payment of the 2019 Series Bonds. Additional Bonds ranking on a parity with or subordinate to the 2019 Series Bonds may be issued from time to time under the Bond Resolution upon satisfaction of certain conditions set forth therein. See *Security for the Bonds – Additional Indebtedness*.

Capitalized terms used herein and not otherwise defined have the meanings ascribed thereto in the Bond Resolution, and summary definitions of certain capitalized terms used herein are defined in the Glossary of Terms, attached hereto as Appendix F. Statements made herein with respect to the Act, the Bond Resolution and the 2019 Series Bonds are qualified in their entirety by a reference to such documents, copies of which are available upon request from the State Treasurer. See *Summary of Certain Provisions of the Bond Resolution*.

Except as otherwise expressly noted herein, all financial information pertaining to fiscal years through 2018 has been derived from audited financial statements of the Turnpike System. Information for fiscal year 2019 and later years is unaudited, preliminary or estimated, and is subject to change.

This Official Statement includes the following Appendices attached hereto:

- Appendix A – Traffic and Revenue Study.
- Appendix B – State Demographic and Economic Data.
- Appendix C – Turnpike System Audited Financial Statements, Fiscal Year 2018.
- Appendix D – Form of Continuing Disclosure Certificate.
- Appendix E – Proposed Form of Opinion of Bond Counsel.
- Appendix F – Glossary of Terms.
- Appendix G – Notice of Sale.

THE 2019 SERIES BONDS

Description of the 2019 Series Bonds

The 2019 Series Bonds are being issued in the aggregate principal amount, maturing in the years and amounts and bearing interest at rates per annum (calculated on the basis of a 360-day year of 30-day months), all as shown on the inside front cover of this Official Statement. The 2019 Series Bonds will be dated their date of issuance. Interest on the 2019 Series Bonds will be paid on May 1 and November 1 of each year, commencing May 1, 2020. The record date for the payment of interest shall be the fifteenth day of the calendar month preceding each interest payment date.

The 2019 Series Bonds are being issued only as fully registered bonds and, when issued, will be registered in the name of Cede & Co., as nominee for the Depository Trust Company (“DTC”), New York, New York. DTC will act as securities depository for the 2019 Series Bonds. Purchases of beneficial interests in the 2019 Series Bonds will be made in book-entry form, in the denomination of \$5,000 or any integral multiple thereof. Purchasers will not receive certificates representing their interest in 2019 Series Bonds purchased. So long as DTC or its nominee, Cede & Co., is Bondholder, payments of the principal of and interest on the 2019 Series Bonds will be made directly to such Bondholder. Disbursement of such payments to the DTC Participants (hereinafter defined) is the responsibility of DTC and disbursement of such payments to Beneficial Owners (hereinafter defined) is the responsibility of the DTC Participants and the Indirect Participants (hereinafter defined). See *Book-Entry Bonds*.

Redemption Provisions

The 2019 Series Bonds are not subject to redemption prior to maturity.

BOOK-ENTRY BONDS

General

The information provided under this caption *Book-Entry Bonds – General* has been provided by DTC. No representation is made by any of the State or the Trustee as to the accuracy or adequacy of such information provided by DTC or as to the absence of material adverse changes in such information subsequent to the date hereof.

The Depository Trust Company (“DTC”), New York, NY, will act as securities depository for the 2019 Series Bonds. The 2019 Series Bonds will be issued in fully-registered form registered in the name of Cede & Co. (DTC’s partnership nominee) or such other name as may be requested by an authorized representative of DTC. One fully-registered certificate will be issued for each maturity of the 2019 Series Bonds, each in the aggregate principal amount of such maturity, and each such certificate will be deposited with DTC.

DTC, the world’s largest securities depository, is a limited-purpose trust company organized under the New York Banking Law, a “banking organization” within the meaning of the New York Banking Law, a member of the Federal Reserve System, a “clearing corporation” within the meaning of the New York Uniform Commercial Code, and a “clearing agency” registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934. DTC holds and provides asset servicing for over 3.5 million issues of U.S. and non-U.S. equity issues, corporate and municipal debt issues, and money market instruments (from over 100 countries) that DTC’s participants (“Direct Participants”) deposit with DTC. DTC also facilitates the post-trade settlement among Direct Participants of sales and other securities transactions in deposited securities, through electronic computerized book-entry transfers and pledges between Direct Participants’ accounts. This eliminates the need for physical movement of securities certificates. Direct Participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations, and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation (“DTCC”). DTCC is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others such as both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, and clearing corporations that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly (“Indirect

Participants”). DTC has a Standard & Poor’s rating of AA+. The DTC Rules applicable to its Participants are on file with the Securities and Exchange Commission. More information about DTC can be found at www.dtcc.com.

Purchases of securities under the DTC system must be made by or through Direct Participants, which will receive a credit for such securities on DTC’s records. The ownership interest of each actual purchaser of each security deposited with DTC (“Beneficial Owner”) is in turn to be recorded on the Direct and Indirect Participants’ records. Beneficial Owners will not receive written confirmation from DTC of their purchase. Beneficial Owners are, however, expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the Direct or Indirect Participant through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in securities deposited with DTC are to be accomplished by entries made on the books of Direct and Indirect Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interests in securities deposited with DTC, except in the event that use of the book-entry system for such securities is discontinued.

To facilitate subsequent transfers, all securities deposited by Direct Participants with DTC are registered in the name of DTC’s partnership nominee, Cede & Co., or such other name as may be requested by an authorized representative of DTC. The deposit of securities with DTC and their registration in the name of Cede & Co. or such other DTC nominee do not effect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the securities deposited with it; DTC’s records reflect only the identity of the Direct Participants to whose accounts such securities are credited, which may or may not be the Beneficial Owners. The Direct and Indirect Participants will remain responsible for keeping account of their holdings on behalf of their customers.

Conveyance of notices and other communications by DTC to Direct Participants, by Direct Participants to Indirect Participants, and by Direct Participants and Indirect Participants to Beneficial Owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time.

Neither DTC nor Cede & Co. (nor any other DTC nominee) will consent or vote with respect to securities deposited with it unless authorized by a Direct Participant in accordance with DTC’s MMI Procedures. Under its usual procedures, DTC mails an Omnibus Proxy to the issuer of such securities or its paying agent as soon as possible after the record date. The Omnibus Proxy assigns Cede & Co.’s consenting or voting rights to those Direct Participants to whose accounts the securities are credited on the record date (identified in a listing attached to the Omnibus Proxy).

Principal and interest payments on securities deposited with DTC will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC’s practice is to credit Direct Participants’ accounts upon DTC’s receipt of funds and corresponding detail information from the issuer of such securities or its paying agent, on the payable date in accordance with their respective holdings shown on DTC’s records. Payments by Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in “street name,” and will be the responsibility of such Participant and not of DTC (nor its nominee), the issuer of such securities or its paying agent, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of principal and interest to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of the issuer of such securities or its paying agent, disbursement of such payments to Direct Participants will be the responsibility of DTC, and disbursement of such payments to the Beneficial Owners will be the responsibility of Direct and Indirect Participants.

DTC may discontinue providing its services as depository with respect to securities held by it at any time by giving reasonable notice to the issuer of such securities or its paying agent. Under such circumstances, in the event that a successor depository is not obtained, physical certificates are required to be printed and delivered to Beneficial Owners.

The State may decide to discontinue use of the system of book-entry-only transfers through DTC (or a successor securities depository). In that event, physical certificates will be printed and delivered to Beneficial Owners.

The information in this section concerning DTC and DTC's book-entry system has been obtained from sources that the State believes to be reliable, but the State takes no responsibility for the accuracy thereof.

Limitations

For so long as the 2019 Series Bonds are registered in the name of DTC or its nominee, Cede & Co., the State and the Trustee will recognize only DTC or its nominee, Cede & Co., as the registered Owner of such 2019 Series Bonds for all purposes, including payments, notices and voting.

Because DTC is treated as the Owner of the 2019 Series Bonds for substantially all purposes under the Bond Resolution, Beneficial Owners may have a restricted ability to influence in a timely fashion remedial action or the giving or withholding of requested consents or other directions. In addition, because the identity of Beneficial Owners is unknown to the State, to DTC and to the Trustee, it may be difficult to transmit information of potential interest to Beneficial Owners in an effective and timely manner. Beneficial Owners should make appropriate arrangements with their broker or dealer regarding distribution of information regarding the 2019 Series Bonds that may be transmitted by or through DTC.

Neither the State nor the Trustee shall have any responsibility or obligation with respect to:

- (i) the accuracy of the records of DTC, its nominee or any DTC Participant or Indirect Participant with respect to any beneficial ownership interest in any 2019 Series Bonds;
- (ii) the delivery to any DTC Participant or Indirect Participant or any other Person, other than a registered Owner, as shown in the Bond Register, of any notice with respect to any 2019 Series Bond;
- (iii) the payment to any DTC Participant or Indirect Participant or any other Person, other than a registered Owner, as shown in the Bond Register, of any amount with respect to the principal of, premium, if any, interest on, any 2019 Series Bond; or
- (iv) any consent given or other action taken by DTC as registered Owner.

Further, neither the State nor the Trustee can provide any assurances that DTC, the DTC Participants and such other intermediaries that may exist between the State and the beneficial owners will serve and act in the manner described in this Official Statement.

Prior to any discontinuation of the book-entry system with respect to the 2019 Series Bonds as hereinabove described, the State and the Trustee may treat DTC as, and deem DTC to be, the absolute Owner of the 2019 Series Bonds for all purposes whatsoever, including, without limitation:

- (i) the payment of principal of, premium, if any, and interest on the 2019 Series Bonds;
- (ii) giving notices with respect to the 2019 Series Bonds;
- (iii) registering transfers with respect to the 2019 Series Bonds.

PLAN OF REFUNDING

Upon delivery of the 2019 Series Bonds, the State will enter into a Refunding Trust Agreement with The Bank of New York Mellon Trust Company, N.A., as Trustee (the "Refunding Trustee"), to provide for the refunding of the Refunded Bonds. Upon receipt of the requisite proceeds of the 2019 Series Bonds, the Refunding Trustee will deposit irrevocably in the Refunding Trust Fund established under the Refunding Trust Agreement the amount sufficient to pay, when due, the interest on, and upon redemption, the outstanding principal of and redemption premium on the Refunded Bonds without further reinvestment. The Refunding Trust Fund is pledged solely for the benefit of the holders of the Refunded Bonds and is not available to pay any other Bonds. The Refunded Bonds will be redeemed on December 16, 2019 at a redemption price of 100%. Upon issuance of the 2019 Series Bonds and the deposit of funds into the Refunding Trust Fund, the Refunded Bonds will be defeased and no longer Outstanding under the Bond Resolution.

SOURCES AND USES OF FUNDS

The proceeds from the sale of the 2019 Series Bonds are expected to be applied as follows:

Sources	
Par Amount of 2019 Series Bonds	\$40,840,000.00
Original Issue Premium	<u>10,517,356.40</u>
Total Sources of Funds	<u>\$51,357,356.40</u>
Uses	
Deposit to Refunding Trust Fund	\$51,052,228.00
Costs of Issuance	238,847.73
Underwriter's Discount	<u>66,280.67</u>
Total Uses of Funds	<u>\$51,357,356.40</u>

SECURITY FOR THE BONDS

Pledge of Revenues

The Bonds, including the 2019 Series Bonds, are limited obligations of the State. The principal of, redemption premium, if any, and interest on the Bonds are payable solely from and are equally and ratably secured by a pledge of Revenues (hereinafter defined), subject only to the payment of Operating Expenses (hereinafter defined), and monies and securities on deposit from time to time in all accounts and subaccounts established by the Bond Resolution (except the Rebate Account) on the terms and in the manner provided in the Bond Resolution. **Revenues** means all tolls, rates, rents, fees, charges, receipts or other income derived or to be derived by the State from the ownership or operation of the Turnpike System, and all rights to receive the same. Proceeds of Bonds issued under the Act and of certain notes issued in anticipation of the receipt of Revenues are included in Revenues, but, unless otherwise provided by a Supplemental Resolution, Revenues do not include the proceeds of other borrowings by the State, or the proceeds of grants for limited purposes or of the disposition of property financed by such grants. **Operating Expenses** means the ordinary costs and expenses of the State for the operation, maintenance and repair of the Turnpike System, including working capital as provided in the Bond Resolution. Operating Expenses do not include the principal of and interest on bonds, notes or other evidences of indebtedness issued by the State for the purposes of the Turnpike System, Renewal and Replacement Costs (hereinafter defined) and depreciation.

All Bonds issued and outstanding under the Bond Resolution will be secured, equally and ratably without preference of any Bond over any other Bond, by the pledge created by the Bond Resolution and the covenants of the State made in the Bond Resolution. The State expects to issue additional bonds under the Bond Resolution on a parity with the 2019 Series Bonds and all other outstanding Bonds to finance and refinance the Capital Improvement Program. See *Security for the Bonds – Additional Indebtedness and Capital Improvement Program*.

Neither the full faith and credit nor the taxing power of the State or any political subdivision is pledged for the payment of the Bonds.

The enforceability of the Bonds and the Bond Resolution may be limited by the exercise of judicial discretion in accordance with general equitable principles and by bankruptcy, reorganization, insolvency, moratorium and other laws affecting creditors' rights generally heretofore or hereafter enacted to the extent constitutionally enforceable.

The rights and remedies of Bondholders under the Bond Resolution and other matters are summarized under *Summary of Certain Provisions of the Bond Resolution*.

Toll Rate Covenant

The State has covenanted in the Bond Resolution that it will establish and collect tolls and charges for the use of the Turnpike System adequate at all times, with other available funds, to provide for the proper operation and maintenance of the Turnpike System and for the timely payment of the principal of and interest on all Bonds, notes

or other evidences of indebtedness payable from the Revenues and all other required payments in connection with the Turnpike System.

Without limiting the generality of the foregoing, the State has covenanted that it will establish and collect tolls and charges sufficient so that in each fiscal year its Net Revenues (defined below) will be at least equal to the greater of: (a) 120% of Debt Service (as defined below); or (b) 100% of Debt Service plus the total amount of principal of and interest on all general obligation or other bonds, notes or other evidences of indebtedness (excluding principal of bond anticipation notes paid or to be paid from proceeds of bonds maturing after the end of the fiscal year) payable from Revenues during the fiscal year, and the additional amount, if any, required to be paid from the General Reserve Account to satisfy the Renewal and Replacement Requirement (hereinafter defined) for the fiscal year. **Net Revenues** means the Revenues (excluding (i) proceeds of Bonds and notes issued in anticipation of Bonds or of Revenues and (ii) proceeds of the sale or other disposition of all or any part of the Turnpike System, proceeds of insurance and condemnation awards received with respect to the Turnpike System (other than proceeds of use and occupancy insurance or any other insurance against loss of Revenues) and other items of an extraordinary and non-recurrent nature) after deducting Operating Expenses. **Debt Service** means with respect to each fiscal year the aggregate of the amounts to be set aside (or estimated to be required to be set aside) in the Debt Service Account in the fiscal year for the payment of the principal and sinking fund installments of and interest on Bonds, excluding debt service paid or to be paid from Bond proceeds or from any subsidy from the United States of America for the purpose. A failure to generate Net Revenues in accordance with the covenant described in this paragraph will not be considered a default by the State if the State is taking timely corrective action under the provisions described in the following paragraph.

The State has covenanted in the Bond Resolution that it will review the adequacy of its tolls and charges as soon as practicable after the end of each fiscal year. If this review indicates that the tolls and charges are, or will be, insufficient to meet the requirements described in the two preceding paragraphs or if it appears at any time that the tolls and charges are or will be insufficient, the State has covenanted that it will forthwith cause an independent engineer (the "Independent Engineer") to make a study and to recommend within 90 days after the beginning of the then current fiscal year a schedule of tolls and charges which will provide Revenues sufficient to comply with the requirements described in the two preceding paragraphs in the following fiscal year and to restore any deficiency at the earliest practicable time, unless the Independent Engineer certifies that such a schedule of tolls and charges is impracticable at that time and the State therefore cannot comply with such requirements and recommends instead a schedule of tolls and charges to comply as nearly as practicable with the requirements. If the tolls and charges are or will be insufficient, the State will place the schedule of tolls and charges recommended by the Independent Engineer in effect not later than 180 days after the beginning of the then current fiscal year.

Build America Bonds

The State issued its \$150,000,000 2009 Series A Bonds (the "2009 Series A Bonds") as "Build America Bonds" pursuant to the American Recovery and Reinvestment Act of 2009 and elected to receive subsidy payments ("Direct Payments") from United States Treasury equal to 35% of the taxable interest the State pays on the 2009 Series A Bonds. In order to receive the Direct Payments, the State is required to make certain filings with the Internal Revenue Service. If the State fails to make the required filings, it will not be eligible to receive the Direct Payments. Additionally, the proceeds of "Build America Bonds" have a number of limitations on their use. If the State were to use the proceeds of the 2009 Series A Bonds for expenditures other than capital expenditures, reasonably required reserve funds, and costs of issuance, the 2009 Series A Bonds would not be eligible for the Direct Payments. Direct Payments are treated as overpayments of tax, and accordingly are subject to offset against certain amounts that may be owed by the State to an agency of the United States of America. The Direct Payments have been reduced in recent years as a result of sequestration. See *Federal Sequestration* below. It is possible that the Direct Payments could be reduced further or eliminated as a result of a change in federal law. A portion of the 2009 Series A Bonds will be refunded with the proceeds of the 2019 Bonds. See *Plan of Refunding*.

The Bond Resolution defines "Debt Service," for all purposes thereunder, as being net of any subsidy received from the United States of America. Accordingly, the required calculation of Debt Service for purposes of meeting the requirements for the issuance of Additional Bonds and the Debt Service Reserve Account Requirement will be net of any Direct Payments from the United States Treasury expected to be received with respect to the 2009 Series A Bonds, which expected amounts currently take into account the impact of sequestration as described below.

The State covenanted in the applicable Supplemental Resolution to make all required filings in accordance with applicable rules of the United States Treasury in order to receive the Direct Payments contemporaneously with the payment of interest due on the 2009 Series A Bonds, and to deposit such payments, upon receipt, in the Revenue Account. The Bond Resolution requires that the State pay monthly from the Revenue Account to the Debt Service Account an amount equal to one-sixth of the amount of the interest coming due on the next interest payment date. Accordingly, the State will make monthly deposits to the Debt Service Account of the gross amount of interest due on the 2009 Series A Bonds. The deposit of the Direct Payments to the Revenue Account, when received, will reimburse the State for a portion of such interest.

Federal Sequestration. Certain federal funding received by the State, including the Direct Payments, have been adversely affected by implementation of certain provisions of the federal Budget Control Act of 2011 (the “Budget Control Act”), that was signed into law by the President on August 2, 2011. The Joint Select Committee on Deficit Reduction failed to reach an agreement on the deficit reduction actions as required by the Budget Control Act and, as a result, sequestration—a unique budgetary feature of the Budget Control Act—was triggered. Implementation of sequestration began on March 1, 2013 and has continued to date. Recent federal budget actions have extended sequestration applicable to Direct Payments to the end of federal fiscal year 2029.

The following table sets forth the applicable reduction in Direct Payments for each indicated fiscal year:

<u>Federal Fiscal Year</u>	<u>% Reduction of Direct Payments</u>
2014	7.2%
2015	7.3
2016	6.8
2017	6.9
2018	6.6
2019	6.2
2020	5.9

In this time frame, the State requested Direct Payments totaling \$20,349,142.32 associated with the 2009 Series A Bonds; the actual aggregate amount received for those years was reduced by approximately \$1.4 million or 6.8% of the total amount requested. For purposes of calculating and projecting Debt Service on Bonds, the State is currently assuming the annual reduction in Direct Payments will be 5.9% through fiscal year 2029.

Debt Service Reserve Account Requirement

The Bond Resolution establishes a Debt Service Reserve Account Requirement for the Bonds. The Debt Service Reserve Account Requirement is, as of any date of calculation, an amount equal to the maximum annual Debt Service during the then current or any future fiscal year on Outstanding Bonds; provided that in computing such requirement any Option Bonds Outstanding during such fiscal year shall be assumed to mature on their stated dates of maturity.

Under the Bond Resolution, the State may deposit a surety bond, insurance policy or letter of credit into the Debt Service Reserve Account to meet all or a part of the Debt Service Reserve Account Requirement. To date, the State has funded the Debt Service Revenue Account Requirement entirely in cash, which amount is invested in Permitted Investments in accordance with the Bond Resolution.

As of the date of issuance of the 2019 Series Bonds, the amount on deposit in the Debt Service Reserve Account, \$41,166,121, will be at least equal to the Debt Service Reserve Account Requirement.

Flow of Funds

The Bond Resolution establishes certain accounts and subaccounts. See *Summary of Certain Provisions of the Bond Resolution*. The State has covenanted in the Bond Resolution to deposit promptly all Revenues into the Revenue Account (other than the Revenues expressly required or permitted by the Bond Resolution to be credited to or deposited in any other account). The moneys in the Revenue Account are to be applied first to the payment of

Operating Expenses and then to payments required by the Bond Resolution to be paid from the Revenue Account into the following accounts in the following order:

- (1) Debt Service Account, Interest Subaccount;
- (2) Debt Service Account, Principal Subaccount;
- (3) Rebate Account;
- (4) Debt Service Reserve Account;
- (5) Insurance Reserve Account;
- (6) Special Redemption Account; and
- (7) General Reserve Account.

The Bond Resolution also establishes a Construction Account.

Renewal and Replacement Requirement

The Bond Resolution establishes a Renewal and Replacement Requirement with respect to each fiscal year, which Renewal and Replacement Requirement shall be an amount to be set forth in the Annual Budget, as determined by the State in its discretion, for Renewal and Replacement Costs for that fiscal year. **Renewal and Replacement Costs** are costs associated with major reconstruction, rehabilitation, renewals, replacements and extraordinary repairs necessary to the sound operation of the Turnpike System or to prevent loss of Revenues, but not costs associated with new construction, additions or extensions.

Additional Indebtedness

Additional Parity Bonds

Under the Bond Resolution the State may issue additional bonds ("Additional Bonds") on a parity with the then Outstanding Bonds to pay Project Costs or to refund Bonds or other obligations issued for the purpose of paying Project Costs. With the exceptions provided below, the issuance of each series of Additional Bonds shall be subject to the following conditions:

- (1) If bonds are being issued to pay Project Costs:
 - (A) An Authorized Officer must certify as to the estimated completion date and Project Costs of the Project or Projects for which Additional Bonds are being issued; and
 - (B) The Independent Engineer must state whether, to the best of its knowledge, the construction, improvement or acquisition of any highway or other facility is being projected or planned which may be materially competitive with any part of the Turnpike System, and the estimated date of completion of such highway or other facility; and
 - (C) An Authorized Officer must establish that the Net Revenues for any period of 12 consecutive calendar months out of the 24 calendar months next preceding the issuance of the Additional Bonds equal or exceed the Net Revenue Requirement for such 12 calendar months; provided that if any adjustment of toll rates shall have been placed in effect during such 12-month period, such Net Revenues may reflect the Revenues which the Authorized Officer estimates would have resulted had such toll rate adjustment been in effect for the entire 12-month period; and
 - (D) The Independent Engineer must certify for the then current and each future fiscal year to and including the fifth full fiscal year after the estimated Completion Date of the Project, an estimate of Revenues and a review of Operating Expenses as projected by an Authorized Officer, giving effect to, among other factors, any adjustment of toll rates which shall have been placed in effect subsequent to the beginning of the current fiscal year, as if such toll rate adjustment had been in effect from the beginning of the fiscal year until the effective date of any subsequent adjustment, and any adjustment of toll rates provided by an Authorized Officer to the Independent Engineer which, in the opinion of the Authorized Officer, would be necessary to comply with the toll rate covenant, as if such adjustment were to be in effect from its effective date as assumed by the Authorizing Officer; and

(E) An Authorized Officer must determine, on the basis of the certificate described in paragraph (1)(D), that (i) the estimated Net Revenues for the then current and each future fiscal year to and including the fifth full fiscal year after the estimated Completion Date of the Project equal or exceed the Net Revenue Requirement for each such fiscal year, and (ii) that the estimated Net Revenues for said fifth full fiscal year (I) equal or exceed one hundred twenty percent (120%) of the amount payable in the Maximum Annual Debt Service Year (as defined below) in respect of principal and sinking fund installments of and interest on the Series of Additional Bonds and all other Bonds Outstanding on the date of issuance of the Series of Additional Bonds, and (II) equal or exceed one hundred percent (100%) of the sum of (a) the amount payable in the Maximum Annual Debt Service Year in respect of principal and sinking fund installments of and interest on the Series of Additional Bonds and all other Bonds Outstanding on the date of issuance of the Series of Additional Bonds, (b) debt service on all general obligation or other bonds, notes or other evidences of indebtedness (excluding principal of bond anticipation notes to the extent they are to be paid from proceeds of bonds or other obligations maturing after the end of the Maximum Annual Debt Service Year) payable from Revenues during the Maximum Annual Debt Service Year, and (c) the additional amount, if any, required to be paid from the General Reserve Account to satisfy the Renewal and Replacement Requirement for said fifth fiscal year. In computing the Net Revenue Requirement and the amount described in subclause (ii) under this Clause, Variable Rate Bonds are deemed to bear interest at all times to the maturity thereof at a constant rate of interest equal to the Maximum Interest Rate, provided that to the extent that Variable Rate Bonds issued or to be issued include related select auction variable rate securities and residual interest bonds or other related issues which, taken together, are the equivalent of a fixed rate obligation of the State, such issues shall be aggregated and treated as a single issue of fixed rate Bonds. "Maximum Annual Debt Service Year" means the fiscal year, commencing with said fifth full fiscal year, in which the aggregate amount payable in respect of principal and sinking funds installments of and interest on (a) the Series of Additional Bonds and (b) all other Bonds Outstanding on the date of issuance of the Series of Additional Bonds is the greatest.

(2) (A) An Authorized Officer must certify that to the best of his or her knowledge and belief no Event of Default exists under the Bond Resolution and (B) the Trustee must certify that there is no Event of Default of which it has knowledge;

(3) Delivery to the Trustee of a certified copy of the Supplemental Resolution providing for the issuance of the Additional Bonds; and

(4) Delivery to the Trustee of an opinion of nationally recognized bond counsel, selected by the State and satisfactory to the Trustee, that the conditions precedent to the issuance of the Additional Bonds have been satisfied.

In connection with the issuance of Bonds to refund Bonds, the certificates described in paragraph (1) above are not required if any Authorized Officer certifies as to the Debt Service for each fiscal year in which Bonds are or will be Outstanding (a) with respect to the Bonds Outstanding immediately prior to the issuance of such refunding Bonds and (b) with respect to the Bonds to be Outstanding immediately thereafter, and demonstrates that the Debt Service computed for each fiscal year pursuant to clause (b) will not be greater than the Debt Service computed for that fiscal year pursuant to clause (a). The certificates described in paragraph (1) above shall be required in the case of Bonds issued to refund obligations other than Bonds (including the issuance of Bonds to retire notes issued in anticipation of Bonds) as if the Bonds were being issued for the Projects financed by the prior obligations.

The certificates described in paragraphs (1)(B), (1)(C), (1)(D) and (1)(E) above are not required for Bonds being issued to complete the payment of Project Costs of a Project for which Bonds have previously been issued, if (a) an Authorized Officer certifies that the aggregate Project Costs of the Project to be paid by the issuance of such Bonds (together with Project Costs paid from proceeds of any other Bonds issued for the Project pursuant to this provision) do not exceed ten percent (10%) of the total estimated Project Costs of the Project, and (b) the Independent Engineer certifies that estimated Net Revenues of the Turnpike System with the completed Project will exceed estimated Net Revenues of the Turnpike System without completion of the Project.

The certificates described in paragraphs (1)(B), (1)(C), (1)(D) and (1)(E) above are not required for Bonds being issued to pay Project Costs of a Project consisting of extraordinary repair, reconstruction or replacement of facilities of the Turnpike System that have been damaged, destroyed or lost in whole or in part, if the Independent Engineer certifies (a) that all available moneys in the Insurance Reserve Account have been or will be expended to meet such Project Costs and (b) that, after giving effect to the application of all available moneys in the Insurance

Reserve Account, the issuance of the Bonds is necessary to repair, reconstruct or replace the damaged, destroyed or lost property to the extent reasonably necessary for the proper conduct of the operations of the Turnpike System.

Subordinated Obligations

The State may also issue bonds, notes or other evidences of indebtedness for the purposes of the Turnpike System payable from the General Reserve Account and Revenues subordinate to the deposits and credits required to be made under the Bond Resolution and to the payments required for Operating Expenses, and may secure the bonds, notes or evidences of indebtedness by a pledge of the Revenues inferior to the pledge of the Revenues created by the Bond Resolution. Outstanding general obligation bonds issued for Turnpike System purposes are payable out of Revenues subject to the prior payment of amounts due and owing in respect of Outstanding Bonds. Currently, there is no outstanding subordinate indebtedness of the Turnpike System.

Operation and Maintenance of System

The State has covenanted in the Bond Resolution that it will operate, maintain and make improvements to the Turnpike System in accordance with prudent practice for this type of system. The Bond Resolution imposes requirements with respect to insurance (see *Risk Management-Insurance* below), annual budgets and the retention of Independent Engineers and also imposes restrictions on encumbrance of the Revenues and properties of the Turnpike System, all as summarized under *Security for the Bonds* and *Summary of Certain Provisions of the Bond Resolution*.

Risk Management-Insurance

Pursuant to the Bond Resolution, the State is required to maintain such insurance through insurance reserves or policies, as it deems prudent or necessary to protect the interests of the State and the Bondholders. The Bond Resolution requires the State to establish an account of the State (the “Insurance Reserve Account”) to be held and administered by the Treasurer which is currently funded at a level of \$3,733,200. In the event of any loss or damage to property of the Turnpike System, the State shall apply monies in the Insurance Reserve Account, to the extent monies are not available from a commercial insurance policy, as soon as practicable to repair and reconstruct or replace the damaged or lost property to the extent necessary for the proper operation of the Turnpike System.

The State is also required by the Bond Resolution to review on an annual basis the risks to the Turnpike System and the kind and amount of insurance in force and the amount on deposit in the Insurance Reserve Account. A report issued by the Commissioner of Insurance of the State describing the results of this study and providing for an adjustment to the required level in the Insurance Reserve Account for the ensuing fiscal year shall be delivered to the Treasurer within 60 days of the end of the prior fiscal year. In 2016, the New Hampshire Insurance Department contracted with Risk Management Solutions, Inc. (RMS) to conduct a risk assessment analysis to evaluate potential losses to the assets of the New Hampshire Turnpike. The report indicated that the Turnpike System would experience a loss exceeding \$3.4 million once every 100 years. As a result of the study, the Insurance Reserve Account requirement was set at \$3,400,000 to match the 100 years loss estimate. Most recently, on August 20, 2019, the Insurance Commissioner certified an increase to the Insurance Reserve Account requirement to \$3,733,200 to keep pace with the National Highway Construction Cost Index as indicated by data available from the Federal Highway Administration. Between June 2016 and March 2019, the National Highway Construction Cost Index increased 9.8%. If the State determines to cover certain risks to the Turnpike System by additional policies of insurance, such policies shall be in addition to the amount from time to time in the Insurance Reserve Account.

The State may issue Bonds pursuant to the Bond Resolution for the purpose of paying the costs, in excess of any amount in the Insurance Reserve Account plus any amounts available under insurance policies, for extraordinary repair, replacement or construction of certain facilities constituting a part of the Turnpike System which are damaged, destroyed or lost in whole or in part due to accident, act of God or the like, provided that the conditions as set forth in the Bond Resolution are met and the amount to be issued is within the limit set by the Act. See *Security for the Bonds – Additional Indebtedness-Additional Parity Bonds and Program Responsibility and Management – The Act*.

State law provides that claims in tort for damages to persons or property brought against the State or any agency, including the Turnpike System, are limited to the greater of the proceeds of any insurance policy procured

by the State or the sum of \$475,000 per claimant and \$3,750,000 per incident. The State currently maintains liability insurance for all Turnpike System vehicles and boiler insurance for specified building locations. No other insurance is currently in force.

The State has experienced no material casualty loss to the Turnpike System facilities since the Turnpike System's inception in 1950.

PROGRAM RESPONSIBILITY AND MANAGEMENT

The Act

The 2019 Series Bonds are being issued under the authority granted by the Act. The Act provides for the issuance by the State Treasurer of revenue bonds of the State for the Turnpike System in such amounts as the Governor and the five-member Executive Council (the "Council") shall determine, from time to time, subject to the current statutory limit of \$766,050,000 (excluding Bonds issued for the purpose of refunding outstanding Bonds). As of the date of this Official Statement, approximately \$715,830,618 of the \$766,050,000 statutory limit has been issued, not including the 2019 Series Bonds. Pursuant to the Act, Bonds may be secured by a resolution, by a trust or by a security agreement in a form determined by the State Treasurer with the approval of the Governor and Council.

The Act provides that Bonds issued thereunder constitute limited obligations of the State, and that the State has not pledged its full faith and credit for repayment of the Bonds, nor are the Bonds payable out of any other funds except for such other funds as provided in the Act. The Act further provides that any debt service fund, construction fund, debt service reserve fund, or other fund established in connection with the issuance of Bonds under the Act is to be kept separate from other moneys of the State.

Under the terms of the Act, the State pledges to and agrees with the Bondholders that until such Bonds, together with interest thereon, with interest on any unpaid installment of interest and all costs and expenses in connection with any action or proceedings by or on behalf of such holders, are fully met and discharged, or unless expressly permitted or otherwise authorized by the terms of each contract and agreement made or entered into by or on behalf of the State with or for the benefit of such holders, the State (a) will carry out and perform, or cause to be carried out and performed, each and every promise covenant, agreement or contract made or entered into by the State or on its behalf by or under the provisions of the Act and on its behalf to be performed and (b) will not issue any bonds, notes or other evidences of indebtedness, other than Bonds, having any rights secured by any pledge of or other lien or charge on the Revenues or any moneys or securities paid to or held by the State or the State Treasurer under the Act and shall not create or cause to be created any lien or charge on the Revenues or any such moneys or securities other than a lien and pledge thereon created by or pursuant to the provisions of the Act. See *Summary of Certain Provisions of the Bond Resolution*. Nothing in the Act, however, prevents the State from issuing evidences of indebtedness (1) which are secured by a pledge or lien that is expressly subordinate and junior in all respects to every lien and pledge created by or pursuant to the provisions of the Act or (2) for which the full faith and credit of the State is pledged and which are not expressly secured by any specific lien or charge on Revenues or any such moneys or securities or (3) that are secured by a pledge of or lien on moneys or funds to be derived on and after such date as every pledge or lien thereon created by or pursuant to the provisions of the Act are discharged and satisfied.

Executive Officers of the State

The principal executive officers of the State are the Governor, the State Treasurer, the Secretary of State and the Executive Council, all of whom are elected biennially. The Governor is vested with the executive power of the State and is responsible for the faithful execution of all laws enacted by the Legislature and the management of the executive departments of the State. The State Treasurer and the Secretary of State are elected by joint ballot of the House and Senate. The Council is elected by the people, one Councilor from each of five Councilor districts in the State. The Council's chief function is to provide advice and consent to the Governor in the executive function of government. The Governor and Council can negate each other both in nominations and appointments of executive officers, and a substantial portion of the executive powers of the Governor are subject to the advice and consent of the Council. All contracts, including those related to the Capital Improvement Program and toll rate changes must be approved by the Governor and Council. The State Treasurer, pursuant to the Act, is empowered to issue bonds to

finance improvements to the Turnpike System upon authorization by the Governor and Council, subject to the statutory debt limit.

Budget and Appropriation Process

The Legislature meets annually but adopts a State budget on a biennial basis. Prior to the beginning of each biennium, all departments of the State, including the Department of Transportation, are required by law to transmit to the Commissioner of the Department of Administrative Services (the “Commissioner”) requests for capital expenditures and estimates of operating expenditures, including personnel, equipment and program expenditures, for each fiscal year of the ensuing biennium.

Capital budget requests are summarized by the Commissioner and submitted to the Governor. After holding public hearings and evaluating additional information, the Governor prepares a capital budget for submission to the Legislature.

Operating budget requests and revenue estimates for each fiscal year of the ensuing biennium submitted by State agencies are also summarized and submitted to the Governor. Following public hearings, analysis of the requested operating budget, and consultation with the various department heads, the Governor prepares the final operating budget proposal, setting forth the financial program for the following two fiscal years.

By February 15th of each odd numbered year, the Governor must submit both a capital budget and an operating budget to the Legislature for its consideration. The Governor’s budget message sets forth, among other things, a program for meeting the expenditure needs of the State for the next biennium. Using the Governor’s budgets as a starting point, the House prepares and approves its own budgets, which are then submitted to the Senate. The Senate prepares and approves its budgets based on the House proposals. A legislative Conference Committee comprised of members from both chambers forges the final budget drafts to be approved by both chambers. After final budget bills are approved by the Legislature, they are presented to the Governor to be signed into law, allowed to pass into law after 5 days without signature, or vetoed. The State Constitution does not provide for a line item veto of appropriation bills by the Governor. If the Governor vetoes a budget bill, it is returned to the Legislature for an override vote or further legislative action. Once the budget bills become law, they represent the authorized operating and capital appropriation spending for each State department during each of the next two fiscal years.

Although there is no constitutional requirement that the Governor propose or the Legislature adopt a balanced budget, there is a statutory requirement that the Governor propose and the Legislature adopt a balanced budget. In addition, if there is a budget deficit from a prior biennial budget, the Governor’s budget proposal must address how this deficit will be eliminated in the current budget proposal. The Legislature has a similar statutory responsibility to approve a plan for addressing any past year’s budget deficit in the budget it adopts for the ensuing biennium. If there is a budget deficit, the Governor is required by statute to make recommendations to the Legislature as to the manner in which the deficit shall be eliminated.

On June 28, 2019, Governor Sununu vetoed House Bill 1 (HB1), which made appropriations for the expenses of certain departments of the State, and House Bill 2 (HB2), which related to State fees, funds, revenues and expenditures, in each case for fiscal years ending June 30, 2020 and June 30, 2021.

Following the Governor’s veto, the House and the Senate approved a continuing resolution that kept the State operating at its fiscal year 2019 funding levels through September 30, 2019. On September 25, 2019, Chapter 345 Laws of 2019 went into effect, ending the continuing resolution and establishing a budget for fiscal years 2020-2021.

In addition to the budget procedures set forth above, the State is required by the Bond Resolution to file with the Treasurer, for each fiscal year, an annual budget relating to the Turnpike System. This budget must be consistent with the biennial budget enacted by the Legislature.

Department of Transportation

The Department of Transportation is administered by a Commissioner, an Assistant Commissioner and a Deputy Commissioner. The Commissioner, the Assistant Commissioner and the Deputy Commissioner are appointed by the Governor and are confirmed by the Governor and the Council for four-year terms. The Commissioner of the Department of Transportation has overall responsibility for the general supervision, control and direction on behalf of the Department of Transportation over all matters pertaining to location, alteration, construction, reconstruction and maintenance of the State's 4,606 miles of State highways and 2,161 bridges, including the Turnpike System.

The following individuals are the principal administrators of the Department of Transportation and the Capital Improvement Program:

Victoria F. Sheehan, Commissioner for the Department of Transportation. Ms. Sheehan took office on October 19, 2016. The Commissioner oversees a \$650 million state agency of over 1,600 employees dedicated to providing safe and efficient transportation systems. Ms. Sheehan brings both transportation engineering and management experience in projects and programs to her role as Commissioner. In her years as a dedicated public employee, she has worked as a resident engineer in bridge maintenance and as a project manager with a record of delivering contracts on-time and on-budget. She has extensive experience in asset and performance management. In her previous position as Manager of Strategic Planning and Highway Performance at the Massachusetts Department of Transportation, Ms. Sheehan was responsible for the Highway Division's \$5 billion capital plan and annual \$600 million operating budget. While at MassDOT, Ms. Sheehan also served as the Program Manager for the state's \$3 billion Accelerated Bridge Program. Commissioner Sheehan is originally from Ireland, and has a Master's Degree in Structural Engineering and Architecture from the University of Edinburgh.

William J. Cass, P.E., Assistant Commissioner for the Department of Transportation. Mr. Cass took office on April 17, 2015. The Assistant Commissioner serves as Chief Engineer for the Department of Transportation. Prior to that, he served as the Director of Project Development, Department of Transportation for eight years. Mr. Cass previously served as the Assistant Director of Project Development for three years. He was Project Director, formerly Project Manager, for the I-93 reconstruction and widening project from Salem to Manchester, and has been involved with the project throughout its development. He has 29 years of experience in various design and management capacities for the Department of Transportation. He has a Bachelor of Science degree in Civil Engineering from the University of New Hampshire (1985).

Christopher M. Waszczuk, P.E., Deputy Commissioner for the Department of Transportation. Mr. Waszczuk took office on February 10, 2016 as Deputy Commissioner after spending the preceding nine months as the Director of Project Development. He is responsible for strategic planning and development of financial, administrative and human capital programs, policy development and is the Department's liaison with the Department of Information Technology. Mr. Waszczuk has over 30 years of experience with the Department of Transportation, the first fourteen years as a structural engineer within the Bridge Design Bureau, followed by six years as a Project Manager within the Highway Design Bureau, four years as the Chief Project Manager for Project Development, and six years as the Turnpikes Administrator. Mr. Waszczuk has led several notable initiatives including the development and implementation of the northeast region's first Open Road Tolling ("ORT") facility at the Hampton Mainline Toll, a second ORT facility at the Hooksett Mainline Toll, development of the Hooksett Welcome Center re-development project, development of a tri-state violation reciprocal agreement involving NH-ME-MA, and the implementation of Lean Staffing in Toll Operations. Chris graduated magna cum laude with a Bachelor of Science degree in Civil Engineering from the University of Massachusetts at Amherst.

David M Rodrigue, P.E., Director of Operations for the Department of Transportation. The Director of Operations oversees the Bureaus of Turnpikes, Highway Maintenance, Bridge Maintenance, Traffic, Transportation Systems Management and Operations, and Mechanical Services. The Division includes over 1,150 employees and has an Operating budget exceeding \$150 million. Prior to becoming the Director of Operations in February of 2016, Mr. Rodrigue served the Department as the Assistant Director of Operations, he worked in 3 of the 5 Highway Maintenance Districts, was the Department's first Traffic Management Center/ITS Program Manager, was the Traffic Operations Engineer and worked 9 years in the bureau of construction. Mr. Rodrigue's priorities include leading a Division with a commitment to safety, environmental compliance, risk based asset management, the

importance of maintenance and preservation as well as innovation and technology to improve efficiency and effectiveness.

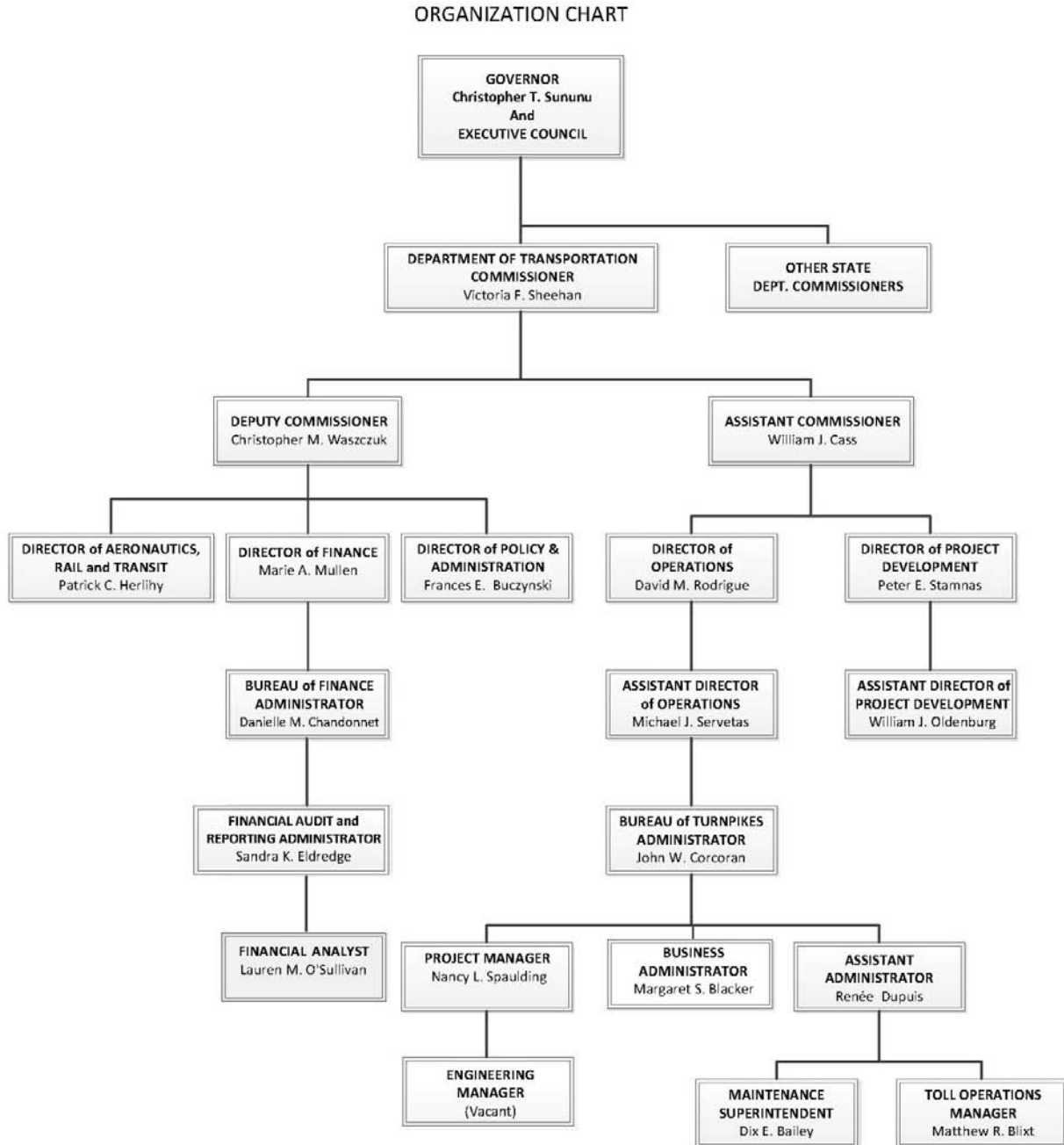
Marie A. Mullen, Director of Finance for the New Hampshire Department of Transportation. Ms. Mullen joined the Finance and Contracts Bureau in September 2009 as a Financial Analyst, and then served as Financial Reporting Administrator before being promoted to her current position in 2014. Prior to joining the Department of Transportation, she worked in various analytic and supervisory roles for high-tech, manufacturing and insurance companies within New Hampshire. Ms. Mullen has successfully led various financing efforts for the Department including Turnpike revenue bonds, GARVEE bonds and a \$200 million TIFIA loan for the I-93 Salem-Manchester project. Ms. Mullen graduated from Assumption College with a Bachelor of Arts degree in Accounting and later earned a Master's degree in Business Administration from the University of New Hampshire.

Danielle M. Chandonnet, Finance Administrator for the Department of Transportation. The Administrator directs and supervises the operations of the Division of Finance. Ms. Chandonnet graduated from the University of Massachusetts at Lowell with a Bachelor of Science degree in Mathematics, Southern New Hampshire University with a Master's of Science degree in Business Education, and Johns Hopkins University with an Advanced Graduate Certificate in Business Leadership. She has been employed by the Department of Transportation since 2015 and has more than twenty years of experience in finance and accounting leadership.

Sandra K. Eldredge, Financial Audit and Reporting Administrator for the Department of Transportation. Ms. Eldredge joined Finance and Contracts in October 2019. She will assist the Finance Administrator in her duties, implement program objectives, supervise staff and approve policy and procedural changes. Sandra has her Master's in Business Administration from Babson College, with concentrations in Finance and Management Information Systems. She also obtained a Bachelor of Science in Accounting from Babson College. She has thirty years of experience working in private and public companies in various senior financial and accounting managerial roles.

Lauren M. O'Sullivan, Financial Analyst for the Department of Transportation. Ms. O'Sullivan joined the Finance and Contracts Bureau in 2015. Prior to joining the Department of Transportation, she worked as a Policy and Communications Analyst for the Massachusetts State Auditor and Senior Analyst for the Tax Policy, Revenue Forecasting & Economic Analysis unit at New York City's Office of Management and Budget. Ms. O'Sullivan graduated from The College at Brockport, State University of New York with a Bachelor of Arts degree in Political Science and International Studies and earned a Master's in Public Administration degree specializing in state and local finance from Syracuse University.

The following chart shows the organization of State government relating to the Turnpike System:



The Department of Transportation comprises five Divisions (Operations, Project Development, Finance, Policy & Administration, and Aeronautics, Rail and Transit) as described below.

Operations

The Division of Operations maintains and supervises the State's transportation network and maintains the Department of Transportation's equipment.

The Bureau of Turnpikes is within the Operations Division of the Department of Transportation. The organizational structure of the Bureau of Turnpikes consists of four major sections: Toll Operations, Maintenance, Engineering and Administration. All managers of the Turnpike sections report to the Administrator of Turnpikes who, in turn, reports to the Director of Operations of the Department of Transportation. As of June 30, 2019 of the 204 permanent full-time employee positions of the Bureau of Turnpikes, 105 are assigned to Toll Operations, 58 are assigned to the Maintenance section, 7 are assigned to the Engineering section and 34 are assigned to Administration. The Bureau of Turnpikes is responsible for maintenance and operation of the approximately 89-mile Turnpike System, which includes 658 lane miles, 172 bridges, 49 interchanges and 25 facilities, consisting of: nine toll plazas, six maintenance facilities, six Park and Rides, three welcome areas and one recreational park. The Bureau of Turnpikes coordinates with the Project Development Division of the Department of Transportation, which is responsible for the Capital Improvement Program Projects relating to the Turnpike System.

John W. Corcoran, P.E., Administrator of the Bureau of Turnpikes. Mr. Corcoran was named the Administrator of the Bureau effective August 7, 2015. Mr. Corcoran became the Assistant Administrator of the Bureau of Turnpikes in October of 2006. Prior to joining the Bureau of Turnpikes, he had served as the Assistant Administrator of the Traffic Bureau from October of 2000. He began his career with the Highway Design Bureau in 1989 after receiving his Bachelor of Science in Civil Engineering from Clarkson University and is a registered Professional Engineer in the State of New Hampshire.

Nancy L. Spaulding, P.E., Project Manager of the Bureau of Turnpikes. Ms. Spaulding is a recent addition to the Bureau of Turnpikes coming from a background within the Department from Project Development in Final Design and Preliminary Design, Bureau of Right of Way and most recently in Operations Highway Maintenance District 3. Prior to joining the Department in 2007, Ms. Spaulding spent over 20 years in the private sector working for consulting firms on various state agency roadway projects in New Hampshire, Vermont and Maine. Ms. Spaulding received her Bachelor of Science in Civil Engineering from the University of New Hampshire and is a registered Professional Engineer in the State of New Hampshire.

Renée Dupuis, Assistant Administrator of the Bureau of Turnpikes. Mrs. Dupuis became the Assistant Administrator of the Bureau of Turnpikes in April of 2016. She is responsible for overseeing the Toll Operations and Operations sections of the Bureau. Prior to becoming the Assistant Administrator Mrs. Dupuis was the E-ZPass Program Manager for the Bureau of Turnpikes for 8 years. Mrs. Dupuis received her Bachelor of Science in Business Studies with a concentration in Human Resource Management from Southern New Hampshire University in 2008.

Margaret S. Blacker, Business Administrator of the Bureau of Turnpikes. From 1989 to 1995, Ms. Blacker worked for the Department of Transportation's Bureau of Budget and Finance and was responsible for the preparation of audit-quality financial statements for the Turnpike System. After working for the Department's Bureau of Public Works as the Business Administrator from 1995 to 1998, she began working for the Bureau of Turnpikes, where she is responsible for financial management and analysis. Ms. Blacker has a B.S. degree in Accounting from Franklin Pierce College and completed her Master's in Business Administration program with New Hampshire College in the spring of 2000.

Dix E. Bailey, Maintenance Superintendent of the Bureau of Turnpikes. Mr. Bailey began his career with the Department of Transportation in 1984 as a laborer. He has held several positions in Project Development up to and including Geological Exploration Superintendent before being promoted to his current position in February of 2005.

Matthew R. Blixt, became the Toll Collection Manager of the Bureau of Turnpikes in July 2017. Mr. Blixt is responsible for the management of toll collection systems and operations, overseeing over 300 full and part-time

personnel. Mr. Blixt has worked for the Department of Transportation, Bureau of Turnpikes for 11 years. He is a New Hampshire Certified Public Manager, received a Bachelor of Science degree from Plymouth State University in 2006 and is currently in process of obtaining his Master's in Business Administration.

Toll Operations Section. The Toll Operations Section manages the toll collection activities at all toll plazas. Toll Operations is responsible for collecting and preparing all toll receipts for pickup by a security service. Processing of receipts is done by a banking institution. The bank counts and deposits the receipts daily in the Turnpike System account and provides data and reports to the Turnpike System. Turnpikes Administration Section (below) audits the toll collection data and presents the results of the audits to Toll Operations and Turnpike Management. All electronic E-ZPass transactions are processed by the customer service center, which provides monthly reporting of customer activity. The reporting of revenue is reviewed and audited by the Turnpike Administration Section.

There are presently nine toll plazas comprised of six main line plazas and three ramp plazas. There are a total of 84 lanes of toll operation on the Turnpike System of which 24 are dedicated E-ZPass lanes and four Open Road Tolling (ORT) lanes. The number of E-ZPass lanes is predicated on the expected E-ZPass usage.

Maintenance Section. The Maintenance Section is responsible for the year-round maintenance of the entire Turnpike System and the operation of the Seabrook Rest Area on I-95. The Hooksett Welcome Centers on I-93 are operated by Granite State Hospitality as a public-private partnership. In addition, the Turnpike System maintains Hilton Park on the Spaulding Turnpike in Dover and six Park and Ride facilities located in Rochester, Hampton, Hooksett, Dover, and two in Nashua.

Winter maintenance of the Turnpike System is primarily concerned with the removal of snow and ice from the roadways and toll plazas. Summer maintenance involves drainage cleanout, guardrail repairs, vegetation control, the repair of property damage, litter control and small maintenance improvement projects.

The Bureau of Turnpikes owns its own fleet of vehicles for maintenance activities. The Bureau of Turnpikes manages and operates approximately 141 pieces of motorized equipment, including, but not limited to, 49 plow trucks, 10 wheel-loaders, 5 skid steer loaders, 26 mowing tractors, 2 backhoes, a mini-excavator, a heavy sign truck (assigned to and used by the Traffic Bureau), a heavy bridge crane truck (assigned to and used by Bridge Maintenance), and 2 street sweepers. In addition, during winter maintenance, plow and salting trucks are hired from private contractors on an as-needed basis to supplement the permanent fleet and facilitate the removal of snow and ice from the highways.

There are six maintenance facilities on the Turnpike System, which are located in Hooksett, Merrimack, Nashua, Hampton, Rochester and Dover. The Bureau of Mechanical Services maintains all of the Central Turnpike Fleet through their headquarters in Concord, NH and the Eastern Turnpike Fleet through their North Hampton Satellite Garage and their embedded heavy equipment mechanic at the Dover Maintenance Facility to maintain turnpike vehicles in good working condition. The Bureau of Turnpikes replaces major items of equipment (i.e. trucks, cars, pay loaders, tractors) in a timely manner in order to ensure that an efficient fleet of vehicles is available to maintain the Turnpike System. The Bureau is pursuing the construction of a maintenance facility between Exits 3 and 4 along Route 16 in Newington to replace the Dover maintenance facility.

Engineering Section. The Engineering section is responsible for the oversight and management of the Renewal and Replacement Program (see *The Turnpike System – Maintenance of the Turnpike System* below) as well as the Capital Improvement Program for the Turnpike System.

The section acts as an administrative liaison between the Bureau of Turnpikes and private contractors and designers. The section also undertakes design and plan reviews, and manages smaller-scale projects on the System. In addition, the Engineering section manages and coordinates the granting of encroachment permits on the Turnpike System and Turnpike's building maintenance staff oversees the operation and maintenance of twenty-five (25) facilities.

Administration Section. The Administration section is responsible for the administration and financial activities of the Bureau of Turnpikes, including budget preparation, financial reconciliation, audit functions, accounts payable, accounts receivable and payroll. It accounts for the expenditure of the Turnpike System's

operating funds as authorized by the State Legislature. These data flow into the Department of Transportation's Bureau of Finance and Contracts, and are processed and entered into the statewide accounting and budgeting system.

Other Services. Other Divisions and Bureaus in the Department of Transportation provide assistance and support to the Bureau of Turnpikes for its operations, particularly for construction projects associated with the Capital Improvement Program, as well as programs of a continuing nature. These Divisions and Bureaus invoice the Bureau of Turnpikes for all services provided to the Bureau of Turnpikes.

A special bridge maintenance crew under the supervision of the Bridge Maintenance Engineer performs routine maintenance and manually washes the 172 bridges on the Turnpike System.

A special sign crew under the supervision of the Traffic Bureau Engineer performs routine sign maintenance on the Turnpike System.

The State Police patrol the Turnpike System, and costs for this service are reimbursed from Turnpike System funds. The State Police are supervised solely by the Department of Safety, and not by the Department of Transportation.

The Department of Business and Economic Affairs (DBEA), Division of Travel and Tourism provides the staffing and daily operations of the Turnpike welcome and information center in Seabrook as well as disseminate travel information to visitors. At the Hooksett North and South Rest Areas, DBEA staffs and operates two visitor information centers.

The Bureau of Mechanical Services provides the maintenance for the motorized fleet of vehicles at the Bureau of Turnpikes as described above.

The Bureau of Traffic maintains all signs and signals on the Turnpike System.

The Bureau of Transportation, Systems, Management, and Operations (TSMO) maintains all of the Turnpike System's Intelligent Transportation System (ITS) devices such as highway cameras, Roadway Weather Instrument Stations (RWIS), Dynamic Message Signs (DMS), and other equipment to support the radio or fiber network.

Project Development

The Division of Project Development is responsible for transportation engineering including planning, design, right of way acquisition, materials research and testing, and construction administration of all transportation projects. The Division is responsible for assuring that all highway projects and programs identified by the office of the Commissioner of the Department of Transportation are implemented, and for maintaining a coordinated management effort in carrying out the State's highway transportation programs, including the Capital Improvement Program for the Turnpike System.

Finance

The Division of Finance is responsible for all departmental (including Turnpike System) accounting, financial statements, external audit compliance, purchasing and budget control, property, contracts and grants management, data processing, assistance with departmental planning, inventory control, and printing. The Department of Transportation's Bureau of Finance and Contracts operates a computerized general ledger system that produces financial statements and executes revenue bond issuances and refunding's in coordination with the State Treasurer.

Policy & Administration

The Division of Policy and Administration is responsible for the development and coordination of policies and performance metrics to support and enhance the mission of the Department. The Human Resources Bureau, Office of Federal Labor Compliance, Office of Hearings and Legislation, Office of Public Information and Executive Office Administration are the programs assigned to the Division of Policy and Administration.

Aeronautics, Rail and Transit

The Division of Aeronautics, Rail and Transit has responsibilities involving several of the State's various modes of transportation, including aviation, rail, transit, bicycle, and pedestrian.

The Division bureaus have many similar functions, including statewide responsibility for federal and/or state aid for airports, railroad, public/mass transportation programs, and regulatory and safety inspection programs.

In addition to planning functions, the Division provides input and guidance to the many providers and users of the state's inter-modal transportation system.

Personnel

Labor Relations

A single labor organization, the State Employees Association of N.H. Inc. ("SEA") represents all State employees with the exception of certain law enforcement employees. This labor organization is affiliated with the Service Employees International Union as Local 1984, CtW (Change to Win Federation), CLC (Canadian Labor Council). All Bureau of Turnpikes employees may join this organization. Labor relations between the Bureau of Turnpikes and its employees traditionally have been satisfactory. Strikes by State employees are illegal under State law.

Every two years a new collective bargaining agreement is negotiated, which provides certain rights and procedures to protect the interests of all State employees. The two-year agreement period coincides with the State's operating budget. After a period in evergreen status at the end of the 2015-2017 collective bargaining agreement, the State reached agreement effective June 7, 2018 with the SEA, the New Hampshire Troopers Association (NHTA), the Teamsters and the five New England Police Benevolent Association (NEPBA) bargaining units, including: Probation Parole Officers, Local 265; Probation Parole Officer Supervisors, Local 270; and NH Fish and Game Conservation Officers, Local 40; and NH Fish and Game Supervisory Officers, Local 45; and Liquor Investigators, Local 260. The agreements expired on June 30, 2019. Currently, the collective bargaining agreement for Turnpike employees is in evergreen status. The State began negotiations with the SEA, NHTA, NEPBA and the Teamsters in October of 2018 and is currently in arbitration on the master agreement with the Department of Transportation sub-unit of SEA declaring an impasse. Upon completion of this round of bargaining, the new collective bargaining agreements, once ratified by each of the four unions and funded by the State legislature, are expected to remain in effect from its effective date through June 30, 2021. The complete text of the current collective bargaining agreements with the SEA, the NHTA, the Teamsters and the NEPBA can be found on the Division of Personnel website under Labor Relations, at: https://das.nh.gov/hr/labor_rel/labor_relations.aspx.

Pensions and Other Benefits

All full-time classified State employees, including all full-time permanent Bureau of Turnpikes employees, are required to become members of and make contributions to the New Hampshire Retirement System (the "Retirement System"). In addition, the State makes contributions to the Retirement System based on percentage rates for each member's annual earnable compensation. These rates include a "normal contribution" rate and an "accrued liability contribution" rate and are based on biennial actuarial valuations.

Detailed information regarding the Retirement System, including, in particular, its funded status and aggregate unfunded liabilities are set forth in the State's Information Statement dated March 27, 2019 (the "Information Statement") under the heading "STATE RETIREMENT SYSTEM". Specific reference is made to portion of the Information Statement entitled "STATE RETIREMENT SYSTEM." The Information Statement was filed with the Municipal Securities Rulemaking Board ("MSRB") Electronic Municipal Market Access website ("EMMA") on March 27, 2019 pursuant to the State's continuing disclosure obligations.

The Information Statement also contains information regarding other post-employment benefits, principally retiree health insurance costs. See "HEALTH CARE COVERAGE FOR RETIRED EMPLOYEES" therein. Beginning October 1, 2017, the retiree premium contribution increased by law to twenty percent (20%) of the total

monthly retiree health premium for each non-Medicare eligible retiree and spouse. As of January 1, 2019 the non-Medicare premium contribution is \$191.26 per covered retiree or spouse and \$382.52 per retiree and spouse.

The Turnpike System incurred and is expected to incur the following approximate costs related to pension and health insurance in the fiscal years shown below:

Expenses Payable During the Fiscal Year Ending June 30	Permanent Employee Pension	Permanent Employee Health	Permanent Employee Dental	Retiree Health	Total
2018 (Actual)	\$ 999,099	\$ 2,725,712	\$ 174,902	\$ 750,055	\$4,649,768
2019 (Actual)	\$1,012,380	\$ 2,872,338	\$ 169,367	\$ 632,758	\$4,686,843
2020 (Est.)	\$1,148,660	\$ 3,504,845	\$ 201,218	\$ 691,600	\$5,546,323
2021 (Est.)	\$1,165,331	\$3,708,991	\$ 208,904	\$ 748,900	\$5,832,126

THE TURNPIKE SYSTEM

General Description

The Turnpike System as shown on the map on page iv presently consists of 89 miles of limited access highway, 36 miles of which are part of the U.S. Interstate Highway System. The Turnpike System comprises a total of approximately 658 total lane miles, 172 bridges, 49 interchanges, and 25 facilities. Since beginning operations in 1950, the Turnpike System has contributed to the development of the New Hampshire economy. It has also been a major factor in the growth of the tourist industry in the State. The Turnpike System consists of three limited access highways: the Blue Star Turnpike (I-95) and the Spaulding Turnpike (together referred to as the Eastern Turnpike), and the Central Turnpike. The Turnpike System primarily serves the major cities located in the central and eastern sections of southern New Hampshire. See *State Demographic and Economic Data* in Appendix B for a general description of the State and its economy, including population, personal income, employment and employers, state and local taxation, housing, building activity, transportation and education.

Other than the northbound and southbound Welcome Centers in Hooksett, no food, gas or vehicle service facilities are located on the Turnpike System, with the exception of vending machines at the Seabrook rest area which are operated by a private vendor and a state licensing agency for the Blind and Visually Impaired. Motorist services are located near most interchanges on the Turnpike System and are privately operated. State operated liquor stores are located at two welcome centers in Hooksett on the Central Turnpike (I-93) and at two sites along the Blue Star Turnpike (I-95). The Bureau of Turnpikes does not receive any revenue from the liquor store operations, which are under the supervision of the State Liquor Commission, nor from the vending installation. Beginning in May 2015, the Bureau of Turnpikes began receiving guaranteed rent for fuel and concession sales at the Hooksett Welcome Centers under a 35-year ground lease contract. In subsequent fiscal years, in addition to the guaranteed rent, the Bureau has received percentage concession rent and fuel rent when certain thresholds of gross sales and fuel sales are exceeded at the Welcome Centers.

Eastern Turnpike

Blue Star Turnpike (I-95)

The Blue Star Turnpike segment extends from the Massachusetts state line in Seabrook, New Hampshire to the Maine state border in Portsmouth, New Hampshire. It is 16.2 miles long and constitutes a portion of I-95. The Blue Star Turnpike serves as the major connecting road between the states of Maine and Massachusetts. It also parallels the seacoast and, as such, is the major artery for tourist traffic to the New Hampshire coast from Massachusetts and Maine. The route also connects with several major highways in New Hampshire, including Route 101, Route 4 and the Spaulding Turnpike. Two toll plazas are located in Hampton, one for main line traffic and one for vehicles entering and leaving the Turnpike System at NH Route 101.

Hampton also has both a maintenance facility and a Park and Ride facility to encourage carpooling. The Seabrook Welcome Center provides a modern rest area, vending machines, and parking for motorists and

commercial vehicles, allowing for the convenience of Turnpike System patrons. The Seabrook Welcome Center is operated and maintained by the Department of Business and Economic Affairs, Division of Travel and Tourism through a memorandum of agreement with the Department.

Replacement of Taylor River Bridge

The construction project replaced the I-95 red-listed bridge with two 72' span bridges (one northbound and one southbound). Construction began in May of 2015 and was completed in May of 2018.

I-95 Piscataqua River Bridge Rehabilitation

Constructed in 1971, the I-95 Piscataqua River Bridge steel girder concrete deck approach structure along with the High Truss main span are in need of deck preservation to extend their life cycle and minimize the overall life cycle cost to maintain this crossing. The bridge is New Hampshire's highest priority preservation bridge.

This project is the last in a series of high profile projects to address the condition of the three bridges over the Piscataqua River between New Hampshire and Maine. While Maine DOT has been the lead in administering this project, NHDOT has been fully involved in this collaborative effort. The work involves primarily removing the pavement, performing partial and full-depth deck repair as needed, and installing new membrane and repaving on the 1,344 foot long main truss span as well as the 1,810 foot New Hampshire approach span and the 1,344 foot Maine approach span. Other work includes replacement of bridge rail (excepting the Southwest portion of the New Hampshire approach span, where rail was replaced when the sound wall was built), median barrier, drainage system, and 18 expansion joints. Work also includes rehabilitation of 18 other expansion joints.

Maintenance of traffic is a significant issue. Much of the work will be required to be done in off-season periods, maintaining 3 lanes of traffic in each direction during summer months, with movable barrier to accommodate short duration, off peak lane closures. This project is part of the Turnpike Renewal and Replacement (TRR) Program.

The Memorandum of Agreement between the two states outlines the responsibilities for each during the project and allows New Hampshire to reimburse Maine for New Hampshire's share of costs for engineering design and applicable construction work incurred by Maine. The division of costs between New Hampshire and Maine for the total project is 46.4% by NHDOT, and 53.6% by MaineDOT and Maine Turnpike Authority. This cost sharing is based on the location of the State Line and the portions of the bridge located in each state. The expected cost of the project is \$61.8 million, with NHDOT responsible for \$28.7 million. The funds for this rehabilitation have been included in the Department's fiscal year 2020-2021 budget.

In accordance with the provisions in Chapter 144, Laws of 2009, the Piscataqua River Bridge is eligible for federal funds and state highway funds. In the event of emergency repairs or repair to damage from a catastrophic event, the Department of Transportation, rather than the Bureau of Turnpikes, shall remain liable for such repairs. The Bureau of Turnpikes is responsible for the routine maintenance of the bridge. This section of highway remains eligible for federal funds because no new toll plazas were constructed.

Spaulding Turnpike

The Spaulding Turnpike segment of the Turnpike System, including the 11.2 mile Spaulding Turnpike extension, extends from the traffic circle in Portsmouth, New Hampshire to Exit 18 in Milton, New Hampshire. It is 33.2 miles long and is a part of the major north-south artery connecting the three major urban centers on the eastern side of the State. This segment of the Turnpike System connects the Blue Star Turnpike (I-95) to Route 16 (a major roadway to northern New Hampshire in the eastern portion of the State). It also connects the major cities of eastern New Hampshire (Portsmouth, Dover and Rochester) and intersects with several other major highways (State Routes 4, 11 and 125 and U.S. Route 202). It has two toll plazas located in Dover and in Rochester, two maintenance facilities located in Rochester and Dover and Park and Ride facilities located at Exit 9 in Dover and Exit 13 in Rochester. In addition, for the convenience of the Turnpike System patrons, a Park and Ride / Bus Station is located at Exit 9 in Dover, a Park and Ride with bus shelter is located at Exit 13 in Rochester, and a park with picnic facilities is provided at Hilton Park, also in Dover.

Newington-Dover Improvements

Construction work continues to advance on the \$288 million project which includes transportation infrastructure improvements within a 3.5-mile stretch of the Spaulding Turnpike in Newington between Exit 1 (Gosling Road) and the Dover Toll Plaza just north of Exit 6. This project will enhance long-term mobility and safety in an area that experiences heavy traffic congestion, and significant peak hour delays.

When completed by 2023, the project will reduce traffic congestion, improve safety, and enhance air quality and water quality within the Spaulding Turnpike over the Little Bay. It will provide four lanes in each direction between Exit 3 (Woodbury Avenue) and Exit 6 (U.S. Route 4/Dover Point Road), three lanes in each direction south of Exit 3 and north of Exit 6, and reduction of five existing partial access interchanges to three full access interchanges (Exit 3, 4, and 6). The final contract will include the rehabilitation/replacement of General Sullivan Bridge for intermodal use (pedestrian, bicycle and recreational use). An environmental re-evaluation for the General Sullivan Bridge is underway and is anticipated to be completed in winter of 2019 and construction to begin in 2021. In support of expanded maintenance operation, the investment includes the construction of a new Newington Maintenance Facility located between Exit 3 and Exit 4. The improvements will permit the next infrastructure investment for the Spaulding Turnpike to convert the Dover and Rochester toll facilities to All Electronic Tolling (AET).

The construction has been split into seven construction contracts. The contracts consist of the following:

- Construction of new Southbound Little Bay Bridge - Completed
- Newington, Spaulding Turnpike Improvements – Completed
- Rehabilitation of the Existing Little Bay Bridges - Completed
- Dover, Spaulding Turnpike Improvements - Completion in October 2020
- General Sullivan Bridge Rehabilitation - Completion in July 2023
- Newington Maintenance Facility – Completion in summer of 2021
- Dover & Rochester Toll Improvements and Conversion to AET - AET implementation summer of 2021 and completion in summer of 2022

Central Turnpike (F.E. Everett)

The Central Turnpike, commonly known as the F.E. Everett, extends from the Massachusetts state line in Nashua, New Hampshire to Exit 14 in Concord, New Hampshire. Its distance is 39.5 miles and, in part, constitutes portions of US Interstate Highways 93 and 293. The Central Turnpike connects three urban centers in New Hampshire (the cities of Concord, Manchester, and Nashua). The route also connects with the major East-West roads in New Hampshire (Route 101, Route 4 and I-89). Five toll plazas are located on the Central Turnpike: two at Hooksett (main line and ramp), a main line plaza in Bedford, and ramp plazas in Merrimack at Exit 11 and Merrimack Industrial Interchange. There are maintenance facilities in Nashua, Merrimack and Hooksett. Park and Ride facilities are provided in Hooksett at Exit 11 and in Nashua at Exits 7 and 8.

In addition, two full service Welcome Centers, providing food, fuel, concessions, information and rest room facilities, are located in Hooksett for the convenience of Turnpike System patrons. The Central Turnpike also has a Department of Safety, Division of Motor Vehicle (DMV) satellite office, an E-ZPass Walk-In-Center (WIC) and bus station (not operated by the Turnpike System) in Nashua.

Merrimack-Bedford-Manchester Widening

Widening of the Frederick E. Everett Turnpike (FEET) to improve traffic operations and safety is included in the State's Ten Year Transportation Improvement Plan. The project will rehabilitate the bridge that carries the FEET over Greeley Street, and will replace the FEET Bridges over Pennichuck Brook, the structure conveying Baboosic Brook beneath the FEET, and the Baboosic Lake Road and Wire Road Bridges over the FEET. The FEET improvements will be comprised of three segments: segment 1 from the vicinity of Exit 8 in Nashua northerly to the vicinity of Exit 10 in Merrimack; segment 2 from the vicinity of Exit 11 in Merrimack northerly to the southern limit of the Bedford toll plaza; and segment 3 from the northern limit of the Bedford toll plaza northerly through the I-293 interchange. The project will also include approach work on Wire Road and Baboosic Lake Road. Sidewalks

will be constructed along both sides of Baboosic Lake Road. A sidewalk will be considered along the northern side of Wire Road.

This project will be broken out into four (4) construction projects with the first project on the northern end from FEET Exit 13 to I-293 interchange expected to advertise in December of 2020 with construction starting in 2021.

Manchester I-293 Exit 6 and 7 Improvements

Improvements to the I-293 Exit 6 and Exit 7 interchanges are included in the State's Ten Year Transportation Improvement Plan. This project will reconstruct and expand I-293 in the vicinity of Exits 6 (Amoskeag Street) and 7 (Front Street). The I-293 improvements will entail the addition of one travel lane both northbound and southbound, and will begin just north of the Exit 5 interchange and extend north approximately 3.3 miles. The Exit 6 interchange will be reconfigured and will include improvements to the adjoining city streets. Exit 7 will be relocated approximately 0.74 miles north of its existing location and reconfigured to provide full access to I-293. NH 3A (Front Street) will be realigned to the relocated Exit 7 and extended 0.94 miles to intersect Dunbarton Road. The improvements will be comprised of two segments. Segment 1 will reconstruct and widen Exit 6. Segment 2 will reconstruct Exit 7.

This project will be broken out into two (2) construction projects with the first project at the I-293 Exit 7 expected to advertise for construction in fiscal year 2024.

I-93 Bow-Concord Project

The Bow-Concord section of Interstate 93 (from the I-89/I-93 interchange to the I-93/I-393 interchange) serves as a critical link for statewide travel to the White Mountains and the Lakes Region, as well as an important local route within Concord. The continued pressures of high traffic volumes, coupled with geometric and operational problems, suggest the need for improvements to the I-93 Corridor through Bow and Concord.

From 2010 to 2016, four Red List bridges within the project limits were taken off the red list due to either rehabilitation or replacement. The bridge carrying I-93 over Loudon Road (NH Route 9) at Exit 14 was rehabilitated in 2010; however, no widening was included in that project. Replacement of the two bridges carrying I-93 over I-89 in Bow was completed in 2015. These bridges were constructed to accommodate six lanes at that location; however, only five lanes were provided. The bridge carrying NH Route 3A over I-93 at Exit 12 was replaced in 2016. This bridge was constructed to accommodate up to eight lanes (four in each direction) for I-93 and three lanes on NH Route 3A.

The proposed widening project covers a distance of approximately 4.5 miles from south of the I-93/Interstate Route 89 (I-89) Interchange in Bow to just north of the I-93/Interstate Route 393 (I-393) Interchange (Exit 15) in Concord. The segment of I-93 from Bow to Exit 14 is part of the Central Turnpike. The project also extends along I-89 from its terminus with Route 3A (Bow Junction) approximately 4,700 feet to the west. Along I-393 the project extends from just west of the bridge over the Merrimack River to the Route 202/North Main Street intersection, a distance of approximately 4,600 feet. The project is expected to be jointly funded with Turnpike Capital Program funds and Federal Highway funds for the non-Turnpike portion.

Currently, the project is in the State's Ten Year Improvement Plan and the Turnpike portion is fully funded in the proposed 2021-2030 State Ten Year Plan. However, the expansion portion of the project remains in the design phase as input from impacted communities is considered.

Maintenance of the Turnpike System

The Turnpike System is maintained and repaired by the Bureau of Turnpikes of the State Department of Transportation. All maintenance and repair costs have been funded from turnpike operating revenues since the beginning of the Turnpike System in 1950. The Turnpike System funds Renewal and Replacement Costs from budgeted appropriations at levels based on independent engineer recommendations. In addition to the appropriations set aside for renewal and replacement, the balance of the Turnpike General Reserve Account and

cash with the Treasurer as of September 30, 2019 was \$100,192,888. The General Reserve Account is used to fund Capital Construction Expenditures and can be used for unanticipated Renewal and Replacement Costs.

Since 1986, the Bureau of Turnpikes has resurfaced an average of approximately 10% of the total lane miles of the Turnpike System each year, with the exception of fiscal years 2005 and 2006 (during which no resurfacing was performed), repaired and planned for the rehabilitation of at least one bridge every 2-3 years, guardrail and drainage rehabilitation or replacement project every other year as well as bridge painting project. The unanticipated magnitude of repairs needed for the I-95 Piscataqua River Bridge nearly exceeds a typical annual Turnpike renewal and replacement budget. Due to the high anticipated costs associated with the repairs, the Turnpike Bureau deferred improvements to drainage, guardrail, signing, and other assets, while preserving funding of pavement preservation and striping applications. The Bureau Renewal and Replacement Program goal is to continue to resurface sufficient lane miles annually to complete a full repavement cycle of the entire Turnpike System every ten years, guardrail and drainage project on the even years, bridge painting and a ITS project on the odd years, along with a signing and bridge project every 3-5 years depending on the need.

The contracted independent engineering consultant, HNTB, Inc. (HNTB) completed a review and assessment of the Renewal and Replacement Program in May 2017. The assessment provided recommendations on program funding levels and provided insight on the condition of the Turnpike infrastructure. Condition of the Turnpike facilities was determined through visual inspections of infrastructure (pavements, bridges, guardrail, drainage, signing, etc.). HNTB deemed the Turnpike facilities to be in “good” condition, characterized as a state whereby the various components are in appropriate working order to provide the necessary level of service and require only the anticipated minimal maintenance that would be expected for the life cycle of the facility.

As a result of the HNTB assessment of the condition of the Turnpike facilities, the recommended funding for the renewal and replacement Program for fiscal years 2018 through 2023 is \$81,000,000. Major expenditures are planned for replacement of the Turnpike Administration Building, resurfacing, bridge rehabilitation, guardrail replacement, drainage repairs, bridge painting and toll plaza repairs. The following projects have been completed or are planned for fiscal years 2018 through 2023 as part of the Renewal and Replacement Program at an increased funding level of \$100.9 million as costs are known on several large projects:

- Resurfacing on Central and Eastern Turnpike
- Deck Rehabilitation of the I-95 High Level Bridge at the Maine state line
- Replacement of the Turnpike Administration Building
- Rehabilitation of three (3) bridges
- General bridge preservation
- Bridge painting
- Guard-rail upgrades and replacements
- Toll plaza building rehabilitations
- Drainage replacement and repairs
- Pavement markings
- Replacement of overhead signs and sign structures

Funding for the renewal and replacement Program in the proposed 2021-2030 State Ten Year Plan is \$151.6 million, an increase of \$14.3 million over the 2019-2028 State Ten Year Plan. The increase is due to the actual bid prices on the I-95 Piscataqua Bridge Rehabilitation being higher than initially estimated.

Historically there have been fluctuations in annual expenditures for the renewal and replacement program. The number of lane miles requiring resurfacing varies from year to year. Beginning in fiscal year 1988, a Bridge Rehabilitation Program was initiated by the Department. The Department’s Bridge Rehabilitation Program rehabilitates bridges on the Turnpike System that exhibit signs of deterioration and are not included as part of the Capital Improvement Program. In an effort to prolong their overall lifespan, bridges that are not funded through the Renewal and Replacement Program but that are part of the operating budget of the Bureau, may also receive continuing preventive maintenance and minor rehabilitation by the Turnpike Bridge Maintenance crew. The Department’s Bridge Rehabilitation Program for the Turnpike System is expected to continue to address bridge rehabilitation requirements of the Turnpike System in order to maintain a sufficiency rating on all bridges of “good,”

or better. Bridges not included for repairs in the current Bridge Rehabilitation Program are either in a turnpike study area or are scheduled for replacement in the Capital Improvement Program.

The following table indicates the funds expended on a GAAP basis since fiscal year 2003 and projected expenditures for the Renewal and Replacement Program for the Turnpike System through fiscal year 2021. All information for fiscal years 2003 through 2018 is audited and fiscal year 2019 is preliminary, unaudited and subject to change. Information for fiscal years 2020 and 2021 is based on proposed budget and is subject to change.

RENEWAL AND REPLACEMENT EXPENDITURES
Fiscal Years 2003 through 2021
GAAP Basis and Budget (\$000's)

<u>Fiscal Year</u>	<u>Amount</u>
2003	\$ 7,058
2004	4,973
2005	3,114
2006	4,567
2007	8,552
2008	11,842
2009	7,805
2010	7,793
2011	14,309
2012	9,320
2013	9,628*
2014	11,279*
2015	8,229*
2016	7,911*
2017	9,251*
2018	8,689*
2019	8,711**
2020	22,880***
2021	22,349***

* Beginning in 2013, Renewal and Replacement Costs are capitalized, if appropriate, per Generally Accepted Accounting Principles (GAAP). For fiscal year 2018, approximately \$8.1 million was expensed and \$0.6 million was capitalized.

** Preliminary, unaudited.

*** Approved fiscal year 2020-2021 Biennial Budget.

Management's Discussion of the Turnpike System

Condition of the Turnpike System Facilities

The Department of Transportation believes that the Turnpike System continues to receive adequate preventive maintenance, allowing for facilities to be maintained in good condition. HNTB's Renewal and Replacement Program assessment dated May 16, 2017 reported the infrastructure of the System to be in generally good condition. The State continues to appropriate sufficient funds to provide for renewal and replacement of facilities as scheduled. These include such items as resurfacing of main line roadways and interchange ramps in addition to a Bridge Rehabilitation Program which includes bridge deck replacement and substructure repair.

The Department of Transportation believes that the current plans for operation and maintenance of the Turnpike System, together with the improvements under the Capital Improvement Program, will keep the Turnpike System operationally sound and its condition good to excellent.

All 172 bridge structures on the Turnpike System are inspected every two years and rated by the Department of Transportation's Bureau of Bridge Design in accordance with national bridge inspection standards. The Department's Bridge Rehabilitation Program from fiscal years 2017 through 2020 includes five bridges scheduled for rehabilitation and two scheduled for painting (the "Bridge Rehabilitation Program").

Funding for the Bridge Rehabilitation Program is provided through the Capital Improvement Program, the Renewal and Replacement Program and in some cases federal funding.

Renewal and Replacement Costs

The Turnpike System did not expend the full amount of its fiscal years 2018 and 2019 appropriation for Renewal and Replacement Costs due to commencement delays of the I-95 Piscataqua River Bridge rehabilitation project (that was dependent upon the completion of the Sarah Mildred Long bridge replacement), replacement of the Turnpike Administration Building, fluctuations in contract award timing, and payment timing. In fiscal year 2018 the carry forward was \$9.8 million and in fiscal year 2019 \$14.7 million of which \$12.3 million was committed through approved contracts. Unspent appropriations are carried forward to be spent in future years.

The Department of Transportation projects that appropriations for Renewal and Replacement Costs will be sufficient to meet the needs of the Turnpike System and intends to continue funding in ensuing years to adequately maintain the infrastructure of the Turnpike System.

Historical and Projected Operating Expenses

The Bureau of Turnpikes has projected Operating Expenses that are consistent with the historical expenses, and reflect a continuing commitment to cost effective management and operation. In the judgment of the Department of Transportation, the projected Operating Expenses provide a reasonable estimate of future costs.

Turnpike System Revenue and Traffic Trends

Prior to June 30, 2005, toll revenue comprised five components: cash toll receipts, charge account payments, charge account interest, token sales revenue and miscellaneous income. With the implementation of the E-ZPass electronic toll collection program, cash and E-ZPass are the main components of toll revenue.

Rates of growth in toll revenues may differ from growth in toll transactions due primarily to (i) changes in toll rates, (ii) changes in amounts and utilization of E-ZPass (New Hampshire E-ZPass accounts receive a toll discount of 30% for passenger vehicles and 10% for commercial vehicles) and (iii) a changing mix of vehicle classes. The last system-wide toll increase was instituted in October 2007. Tolls were increased only at the Hampton main line plaza effective July 1, 2009.

Passenger vehicles traveling the Turnpike System comprised approximately 93.9% of the total traffic during fiscal year 2019, with commercial vehicles at 6.1%. Utilization of E-ZPass reached 79.6% of all traffic in fiscal year 2019, with usage in 78.6% of passenger vehicles and 93.0% of commercial vehicles. Until December 31, 2005, passenger vehicles could use Turnpike System tokens, which provided a 50% toll discount. Until September 30, 2005, commercial vehicles participating in the Turnpike System commercial charge program received a 30% discount. See *Toll Collection, Rates and Schedules*. The token and commercial charge discount programs were highly popular, with approximately 60% of passenger traffic using tokens and approximately 50% of commercial traffic using the commercial charge discount program during the twelve months ended June 30, 2005. As discussed in *Toll Collection, Rates and Schedules*, these discount programs have been terminated and replaced by E-ZPass electronic toll collection program, which offers a 30% discount for passenger vehicles and a 10% discount for commercial vehicles.

The table below shows toll transaction and revenue trends for the Turnpike System during the annual periods beginning with fiscal year 2004 and ending with fiscal year 2019, with toll revenue presented on a cash basis, which differs from the Turnpike System Comprehensive Annual Financial Reports, which are reported on a GAAP basis.

ANNUAL TRAFFIC AND TOLL REVENUE TRENDS
New Hampshire Turnpike System
For the Years Ended June 30

Fiscal Year	Toll Transactions	Percent Change from Prior Period	Toll Revenues*	Percent Change from Prior Period
2019	123,699,814	1.28%	\$132,907,000	1.92%
2018	122,145,223	1.64	130,405,000	1.93
2017†	120,173,383	1.54	127,938,000	0.63
2016	118,354,448	5.39	127,143,000	4.77
2015††	112,301,452	0.73	121,353,000	3.27
2014	111,482,133	2.99	117,516,000	1.69
2013	108,245,229	-0.44	115,562,000	-1.10
2012	108,718,537	0.00	116,844,000	0.16
2011	108,723,856	0.36	116,659,180	0.54
2010	108,336,576	0.63	116,036,026	11.67
2009	107,653,154	-4.90	103,907,003	3.40
2008	113,186,722	-2.00	100,406,992	22.20
2007	115,457,650	0.80	82,175,322	7.20
2006+	114,562,787	4.10	76,633,131	16.20
2005#	110,040,272	-0.50	65,956,309	0.30
2004#	110,573,506	0.50	65,780,607	2.20

* Excludes charge account interest and miscellaneous income.

† Fiscal year 2017 Annual Toll Revenues was revised.

†† The Exit 12 Bedford Road toll plaza on the Central Turnpike was discontinued as of July 18, 2014.

+Beginning with fiscal year 2006, Toll Revenue amounts agree to the Annual Financial Reports. Cash basis revenue was used in prior years.

Hampton toll plaza: One-way tolls September-October 2003 and July-October 2004.

Revenue growth was higher than traffic growth in fiscal years 2004 and 2005, due to one-way toll collection at the Hampton toll plaza during September and October 2003, and July through October 2004. During these periods, tolls at this facility were doubled in the northbound direction, but traffic was only counted northbound and not southbound.

In fiscal year 2006, an upgrade to a more sophisticated, more accurate toll collection system likely caused an inflated 4.1% increase in the transaction count. Toll transactions decreased in fiscal years 2008 and 2009 primarily as a result of the economic slowdown and increasing gasoline prices. In addition, traffic diversion resulting from the system-wide toll rate increase effective October 22, 2007 adversely affected toll transaction counts in fiscal years 2008 and 2009.

In fiscal year 2006, the discounts on tolls changed with the conversion from token and commercial charge card programs to the E-ZPass program. Beginning July 2005, the discount on tolls was reduced from 50% to 30% for passenger vehicles and from 30% to 10% for commercial vehicles participating in the New Hampshire E-ZPass program. The conversion was completed in August 2005.

The commercial charge card program was effective through September 30, 2005 and tokens were accepted through December 31, 2005, at a discount of 30% and 50%, respectively. This impacted revenue in fiscal years 2006 and 2007, as the market share for E-ZPass continued to grow once these programs were discontinued and replaced with the lower discounted E-ZPass program.

The transition to E-ZPass and related upgrades to toll collection systems initially adversely affected the Turnpike System's earnings and cash flows. The capital costs were largely funded using federal funds, thus minimizing impact to Turnpike finances. Operating start-up costs associated with E-ZPass were offset to some extent by the elimination of the token and commercial charge discount programs and efforts by the Turnpike System to reschedule renewal and replacement projects and to control expenses generally. In addition, the Turnpike System

planned the transponder distribution program with the assumption that transponder purchases would be capitalized; however, it was determined that the cost of the transponder purchases would be required to be charged to operating expense in the year of purchase. Therefore, due to the initial discount program, additional net expenditures of \$1.7 million and \$3.3 million were recorded in fiscal year 2005 and fiscal year 2006, respectively.

In fiscal year 2008, toll fares were increased on October 22, 2007 at the Hooksett main line plaza, Bedford main line plaza, Rochester plaza, Dover plaza, Hampton main line plaza, and Hampton side plaza. This improved earnings and cash flow allowed acceleration of the Capital Improvement Program as well as fund the Renewal and Replacement Program to the level recommended by the independent engineer, HNTB, in October 2006.

Despite the decline in toll transactions in fiscal year 2009, toll revenue continued to increase in that year due to the full effect of the October 2007 toll increase.

On July 1, 2009, fares were increased at Hampton main line toll plaza to fund a portion of the purchase of a 1.6 mile section of I-95 and the then current Capital Improvement Program, including the implementation of open road tolling at Hampton (and two other improvements to the Blue Star Turnpike), which was needed to relieve significant congestion issues and environmental concerns. Open Road Tolling (ORT) allows drivers who have an E-ZPass device to pay their toll electronically without slowing down to pass through a conventional toll lane. ORT has reduced congestion and traffic delays as well as harmful vehicle emissions.

The Hampton main line toll rate increase drove an 11.7% increase in toll revenues on a modest 0.6% increase in toll transactions for fiscal year 2010 over fiscal year 2009.

The total toll transactions for fiscal year 2011 resulted in a gain of 0.4% in traffic and a gain of 0.5% in revenue over the previous fiscal year. Robust traffic growth in the first half of fiscal year 2011 was eroded in the second half by the impact of winter storms in January and February, along with high gas prices that materialized in April, 2011.

For fiscal year 2012, the total number of toll transactions was essentially flat and revenue was slightly higher (0.16%) as compared to fiscal year 2011. Modest growth elsewhere on the Turnpike System was eroded by reductions attributed to the opening of the Manchester Airport Access Road (MAAR), where a new interchange was constructed around the existing Bedford main line plaza to provide free access from the Central Turnpike (F.E. Everett) to the Manchester airport. The MAAR opened on November 11, 2011 and through June 30, 2012 resulted in 1.2 million fewer transactions at the Bedford main line plaza or 11.1% less than the same period in the prior year. This resulted in \$1.1 million less toll revenue at the Bedford location. In addition, the Merrimack Exit 12 ramp toll plazas experienced a reduction of 208,399 transactions, or approximately \$88,000 in lost toll revenue. The other two Merrimack ramp plazas experienced slight (0.8% at Exit 11) to good (20.2% at Exit 10 due to opening of Merrimack Outlet stores) growth in traffic that largely offset the losses experienced at Exit 12. Extracting the Bedford and Merrimack plazas, the rest of the Turnpike system experienced growth of roughly 1.3% for fiscal year 2012.

For fiscal year 2013, toll transactions and toll revenues were slightly lower as compared to 2012. Toll transactions were lower by 475,000 or 0.44% and revenue was lower by \$1.3 million or 1.1%. These reductions were primarily attributed to the continued loss of revenue from the opening of the Manchester-Boston Regional Airport Access Road (MAAR), where a new interchange was constructed around the existing Bedford main line plaza to provide free access from the Central Turnpike (F.E. Everett) to the Manchester airport. The MAAR opened on November 11, 2011 and in fiscal year 2013 resulted in 1.0 million fewer transactions at the Bedford main line plaza or 6.1% less than fiscal year 2012. This resulted in \$1.1 million less toll revenue at the Bedford location. In addition, the Merrimack Exit 12 ramp toll plazas experienced a reduction of 219,405 transactions, or \$108,489 in lost toll revenue. Extracting the Bedford and Merrimack plazas, the rest of the Turnpike system experienced nominal growth of 0.1% for fiscal year 2013.

For fiscal year 2014, toll transactions and toll revenues were modestly higher as compared to 2013. Toll transactions increased by 3.2 million or 3.0% and revenue increased by \$2.0 million or 1.7%. Healthy increases in traffic and revenue were experienced at all plazas except the Merrimack Exit 12 (Bedford Road) ramp plazas which experienced a slight decline. The negative impact of the MAAR on traffic and revenue softened with a rebound in transactions of 3.4% over the prior year experienced at the Bedford plaza, coupled with an increase in revenue of

2.9%. Healthy growth in traffic (4.7%) and revenue (4.4%) was experienced at the Rochester plaza primarily attributed to the capital improvements that were completed on the Spaulding Turnpike in the Rochester area in fiscal year 2013.

For fiscal year 2015, toll transactions and toll revenues increased modestly. Healthy increases in traffic (1.3%) and revenue (2.1%) were experienced during the first half of the fiscal year, which were later eroded by the severe winter weather and corresponding negative impact on traffic and revenue that was experienced in January and February, 2015. Further eroding growth from fiscal year 2014 was the closure of the Merrimack Exit 12 (Bedford Road) ramp plazas, where toll collection was discontinued on July 18, 2014. The closure of the Exit 12 ramp plazas is estimated to have resulted in a loss of approximately 2.3 million transactions and \$940,000 in revenue in fiscal year 2015. The overall net impact to operating income was approximately \$600,000.

For fiscal year 2016, the overall Turnpike System experienced an increase in traffic transactions of 6.1 million or 5.4% over fiscal year 2015. With a mild winter and low gas prices contributing to the increase, total transactions of 118.4 million surpassed the peak number of vehicle transactions last seen in fiscal year 2007.

For fiscal year 2017, the overall Turnpike System continued to see an increase in traffic transactions of 1.8 million or 1.5% growth over fiscal year 2016. However, toll revenue growth was flat due to the composition of toll transactions between cash and E-ZPass usage. In fiscal year 2017, 75.7% of total toll transactions used the E-ZPass system from 73.6% in fiscal year 2016. Non-New Hampshire E-ZPass users do not benefit from the 30% passenger vehicle and 10% commercial vehicle discounts.

For fiscal year 2018, the overall Turnpike System experienced an increase in traffic transactions of 1.97 million or 1.6% over fiscal year 2017. The growth in revenue was due to a growth in non-New Hampshire E-ZPass (and non-discounted) users of 6.5%. E-ZPass usage system-wide increased to 78.0%.

For fiscal year 2019, the overall Turnpike System experienced an increase in traffic transactions of 1.55 million or 1.3% over fiscal year 2018. The growth in revenue was due to a growth in non-New Hampshire E-ZPass (and non-discounted) users of 4.7% over fiscal year 2018. E-ZPass usage system-wide increased to 79.6%.

Traffic and Revenue Study

In connection with the issuance of the 2019 Series Bonds, Stantec Consulting Services Inc. (“Stantec”) conducted the traffic and revenue study for the Turnpike System attached hereto as Appendix A. Stantec analyzed historical traffic and revenue data for the entire Turnpike System to determine historical trends, and reviewed previous traffic and revenue projections and compared them to actual traffic and revenue data recorded by the Bureau. In addition, Stantec reviewed the historical and proposed Turnpike System Capital Improvement Program, as well as historical and projected expenditures for the Turnpike System related to operations, maintenance, renewal and replacement, and toll processing. Supplemental analysis was also completed to evaluate revenue and expense impacts as a result of implementing All Electronic Tolling (AET) in Dover and Rochester as well as the potential implementation of AET in Bedford if financially feasible. The projects described below and their projected impacts to traffic were considered in this study.

Central (F.E. Everett) Turnpike Region

Major transportation improvement projects programmed for funding or recently completed that could affect volumes on the Central Turnpike are:

- Interstate 93 Widening – This project will provide two additional travel lanes in each direction over the 20-mile segment between the Massachusetts state line and Manchester, New Hampshire. When this project is completed, it is possible that traffic will increase on sections of the Central Turnpike north of Manchester and possibly decrease south of Manchester, due to congestion relief on I-93. In 2014, the State dedicated federal funding to cover a portion of the construction costs and funded the remaining \$200 million needed to complete the entire project by 2020 with an increase in motor vehicle fuel fees (referred to as a “road toll” in New Hampshire laws) of 4.2 cents.

- Open Road Tolling (ORT)/All Electronic Tolling (AET) Implementation - The Bedford ORT or AET (if deemed financially feasible) is currently planned at the Bedford main line toll plaza with construction currently expected in fiscal years 2022 and 2023. It is estimated that during construction, traffic will not be adversely affected because the Bureau will maintain the necessary number of toll lanes in each direction. The purpose of ORT and AET is to enhance the convenience of the tolling process, reduce congestion and pollution and generally make the Turnpike a more attractive alternative to motorists.
- Manchester Exit 6 & 7 – This project is on I-293 (FEET) in Manchester and will reconstruct the Exit 6 Interchange (Amoskeag circle) and provide a new interchange for Exit 7 (NH 3A). The project will also consist of roadway widening and bridge work in this area. This project could temporarily decrease traffic on the Central Turnpike in Manchester from friction that routinely occurs with construction, however all traffic lanes would be available during construction. Construction is anticipated to start in 2023.
- Nashua to Bedford Widening – This project will widen the Central Turnpike from Exit 8 in Nashua to I-293 in Bedford. Construction is planned to begin in fiscal year 2021 and extend through fiscal year 2025. This project could temporarily decrease traffic on the Central Turnpike from friction that routinely occurs with construction, however all traffic lanes would be available during construction.

Blue Star Turnpike Region

Planned transportation improvement projects that could affect traffic volumes on the Blue Star Turnpike include:

- Rehabilitation of the I-95 Piscataqua River Bridge - This project began construction in fiscal year 2019 and is expected to be completed in the fall of 2022. This project may divert traffic off of the Turnpike during construction to the Sarah Mildred Long Bridge or Memorial Bridge.

Spaulding Turnpike Region

Planned transportation improvement projects that could affect traffic volumes on the Spaulding Turnpike include:

- Newington-Dover Turnpike Widening – This project involves the widening of the Spaulding Turnpike between Exit 3 and Exit 6. Construction began in September 2010 with the construction of the new Little Bay Bridge and continues with the construction of the Newington construction contract. The planned completion date for the widening is in 2020. However, final design for the reconstruction of the General Sullivan Bridge is not expected to start until the first part of fiscal year 2020. It is expected final design will take about 16 months, with advertising for construction commencing in the summer of fiscal year 2021 with a completion date in the fall of fiscal year 2023. Similar to the Turnpike construction in Rochester, some additional traffic and revenue growth is expected after the roadway is fully widened in 2020.
- AET Implementation - AET is planned at the Dover and Rochester plazas in fiscal years 2021 and 2022. It is estimated that during construction, traffic will not be adversely affected because the Bureau will maintain the necessary number of toll lanes in each direction. The purpose of AET is to enhance the convenience of the tolling process, reduce congestion and pollution and generally make the Turnpike a more attractive alternative to motorists.

Toll Collection, Rates and Schedules

Collection of Tolls and Control Procedures

The Turnpike System uses an open barrier system of toll collection consisting of nine toll plazas (five main line and four ramps).

All plazas include dedicated E-ZPass as well as attended lanes for all classes of vehicles with the exception of the Hooksett Ramp which has no dedicated E-ZPass lanes. E-ZPass transponders can be read in the attended lanes. The Hampton and Hooksett Main Plazas each have four open road tolling lanes in addition to attended lanes. The Merrimack Exit Plazas each have two Automatic Coin Machine (ACM) lanes for passenger cars with exact change only (E-ZPass is not accepted in ACM lanes and are not staffed).

The Turnpike System deployed the E-ZPass electronic toll collection system in July, 2005. Electronic toll collection permits a vehicle to pass through a toll plaza without stopping and collects the toll fare by electronic communication. Benefits include convenience for patrons, increased plaza capacity, reduced congestion, reduced vehicle emissions and improved air quality, as well as the potential for other uses, such as enhanced traffic management. E-ZPass participants establish prepaid accounts that are charged for each toll transaction. Participants receive notice to replenish their accounts when account balances reach specified levels or, alternatively, participants can elect to have their accounts replenished automatically from specified credit card accounts. Participants purchase transponders that are mounted either on windshields or license plates. As a vehicle with a transponder passes through an E-ZPass toll lane, an antenna reads information from the transponder and charges the appropriate account. Participants also have the convenience of being able to use E-ZPass lanes at toll facilities in most northeastern states.

All electronic E-ZPass transactions are processed by a Customer Service Center (“CSC”). The CSC is generally a contracted agency that performs many functions and each function has a cost associated with it. On October 7, 2015, the Turnpike System entered into a contract with Cubic Transportation Systems, Inc.(Cubic) in the amount of \$51.9 million for design, testing, installation and maintenance services for the operation of the NH E-ZPass back office and CSC (customer billings, collections and service) operation system for the Turnpike System through June 30, 2021 with an option to renew, at the sole discretion of the State, for up to (3) additional (3) year optional operation periods up to, but not beyond June 30, 2030. Cubic began back office operations on April 1, 2017. Some of the typical functions are:

- Opening and closing of accounts
- Maintaining the account information database
- Distribution of transponders
- Dispute resolution
- Receiving and posting to accounts prepaid toll revenue via cash, check, or credit card
- Debiting accounts based upon toll revenue charged to account holders (transponders)
- Processing of violations encountered in agency toll lanes including administrative violations
- Marketing

E-ZPass lanes opened at the Hooksett and Bedford toll plazas on July 11, 2005 and at the Hampton main line plaza on August 3, 2005. E-ZPass was deployed to all ramp and main line plazas by August 15, 2005. Rates for transponders have continued to decrease as technology has evolved. On July 1, 2019, the price was reduced to \$7.15 for interior transponders, \$13.24 for exterior transponders, and \$10.14 for On the Go Transponder Kits.

The implementation of E-ZPass represented a major change both for the Turnpike System and its patrons. The use of E-ZPass has grown significantly since it was deployed in fiscal year 2006, from 40% of toll transactions in October 2005 to 79.6% at the end of fiscal year 2019. The Turnpike System will deploy E-ZPass lanes and attended lanes in accordance with the traffic demand. The toll rate increase in October of 2007 resulted in the elimination of many exact change lanes due to the \$1.00 fare. The Turnpike System has successfully deployed Open Road Tolling at the Hampton main line toll plaza with implementation on June 17, 2010, and at the Hooksett main line toll plaza on May 22, 2013.

In June 2008, Chapter 84 of the Laws of 2008 was enacted allowing the Department of Transportation to suspend the registration renewal privileges for New Hampshire registered vehicles with unpaid E-ZPass violations.

The process officially started on July 27, 2009 for a registered vehicle that had 20 unpaid violations. Beginning in March, 2014, the amount was reduced to ten unpaid violations.

On July 1, 2010, the Turnpike System instituted a new invoicing system to supplant the violation-based system. Unpaid transactions would be invoiced to customers and include the toll amount, as well as a processing fee of \$1.00 payable within 30 days. If payment is not received, a second invoice is forwarded to the customer for the toll amount and a \$1.50 processing fee payable within 30 days. If payment is not received after the subsequent 30 day period, the unpaid transaction becomes a violation subject to an administrative fee of \$25.

Pursuant to New Hampshire RSA 237:12, certain motor vehicles and operators, primarily government vehicles for employees and officials, are allowed toll-free passage on the Turnpike System. The State estimates that in fiscal year 2019, toll-free passage constitutes no more than 0.2% of toll transactions on the Turnpike System.

Cash toll revenues are transported by a security service to a depository bank where they are sorted, processed and deposited to the Turnpike System account. This process of central cash counting only requires that the toll plazas place all toll revenues into secured money bags which are picked up by the security service. This process relieves the Turnpike System from costly equipment replacements, material purchases and personnel labor costs required for processing toll revenue.

The Bureau of Turnpikes uses internal control procedures based on vehicle classifications and axle counts to audit all toll lanes. In addition, the Bureau utilizes an Audit Supervisor and staff to review all toll attendant performance and toll operating procedures and to conduct all tests and evaluations necessary to ensure the revenue collection system and the central cash operation performs in accordance with policy and procedures.

The internal auditor also reviews E-ZPass activity reported by the CSC, checking it against an independent count of traffic. Audits are performed on transponder inventory and sales, prepaid revenue activity, and credit card merchant and cash account reconciliations performed by the CSC. Transactions are also traced from the lane to the customer accounts to verify the validity of the transactions. Similar testing is performed on individual prepaid toll account balances and violations.

An audit committee reviews the results of toll attendant audits on a weekly basis. This committee is comprised of financial and toll management, audit supervisor and staff, and an internal auditor.

Toll Rates

The Commissioner of the Department of Transportation with the approval of the Governor and Council is authorized to establish toll rates for the Turnpike System. Tolls are set at levels at least sufficient to meet all obligations under the Bond Resolution, including operating expenses and maintenance costs and debt service on Bonds issued for Turnpike System purposes. State law expressly provides that a bond resolution authorizing turnpike revenue bonds may include provisions setting forth the duties of the State in relation to the fixing, revision and collection of tolls and that the State has pledged to perform all such duties as set forth in such bond resolution.

Several toll rate adjustments have been made since the commencement of the Turnpike System's operation to provide necessary revenue for expansion and improvement to, and continued operation and maintenance of the Turnpike System.

On October 16, 1989, toll rate increases were implemented on the entire Turnpike System. These adjustments, authorized by the Governor and Council, affected all users of the Turnpike System and provided a substantial increase in toll revenues. The toll rates were adjusted to increase toll revenue to meet increased operating, maintenance and rehabilitation costs, the debt service on Bonds issued and to be issued in conjunction with the Capital Improvement Program and other obligations.

The October 1989 toll rates for passenger vehicles were increased at all toll plazas an additional \$0.25 above the previous rate. Further, the adjustments included a reduction in the discount token program from 50% to 40% off the full fare. In addition, toll rates for commercial vehicles were increased, and a discount was implemented for participants in the commercial charge program that provided a discount of between 5% and 30% based on the total number of monthly charge transactions. At the same time, the toll rates were also authorized by

the Governor and Council for two new toll plazas (Merrimack Industrial Interchange and Bedford Road) which opened in October and November, 1990, respectively.

In July 1990, the Governor and Council voted to restore the 50% token discount, which had been in effect from the mid-1970s until the October 1989 change to 40%. Prior to implementation, the Department of Transportation had studied the financial impact of the proposed change in discount and concluded that it would not adversely affect the ability to generate the revenue required to implement the Capital Improvement Program. On November 1, 1995, the Governor and Council voted to change the commercial charge discount from variable discount rates ranging from 5% to 30% to a fixed discount rate of 30%.

To establish a more equitable toll system, the Department of Transportation adopted a new vehicle classification system in October 1989. This classification system consisted of nine classes, four for passenger vehicles and the remainder for commercial vehicles. In July 1990, the classification system was expanded to twelve classes to provide special toll rates for dual wheel motor homes and pick-up trucks.

With the elimination of the token program and the implementation of the electronic toll collection system, the classification system was modified once again, effective January 1, 2006. The special rates for dual wheel motor homes and pick-up trucks were eliminated. This twelve vehicle classification system is still in use today, however, all dual wheel vehicles are now considered commercial vehicles.


In July 2005, the Turnpike System began deployment of E-ZPass lanes. As a part of the E-ZPass program implementation, the token and commercial charge discount programs were terminated. The commercial charge discount program was terminated effective September 30, 2005. Effective September 1, 2005, sales of discount tokens ceased, and tokens were no longer accepted after December 31, 2005. E-ZPass transactions for New Hampshire accounts provide a 30% discount for passenger vehicles and a 10% discount for commercial vehicles in accordance with State law in RSA 237:11, V.

On October 22, 2007, toll rate adjustments were authorized by the Governor and Executive Council, affecting all users of the Turnpike System. The toll adjustments increased the rates by \$0.25 for passenger vehicles and by \$0.50 for commercial vehicle classes at the Hooksett main line plaza, Bedford main line plaza, and Dover, Rochester, and Hampton ramps. Rates at the Hampton main line plaza were increased by \$0.50 for passenger vehicles and by \$1.00 for commercial vehicles. These increases were projected to increase annual revenues by approximately \$23.5 million, which will allow the replacement of "Red List" bridges on the Turnpike System as well as other capital improvements to address safety, capacity, and condition needs.

Effective July 1, 2009, toll rate adjustments were authorized by the Governor and Executive Council increasing the rates at the Hampton main line plaza by \$0.50 for passenger cars and by \$1.00 for commercial vehicle classes. The additional annual revenues of approximately \$11.6 million allowed for the installation of Open Road Tolling at Hampton (and two other improvements to the Blue Star Turnpike), which was needed to relieve significant congestion issues and environmental concerns. The additional revenues helped fund the purchase from the Department of Transportation of the 1.6 mile section of I-95, extending the Blue Star Turnpike completing the connection of the Blue Star Turnpike to the Maine state line in 2010 and 2011.

The following table sets forth the schedule of current toll rates:

TURNPIKE SYSTEM TOLL RATE SCHEDULE
EFFECTIVE July 1, 2009
Bedford Road Toll discontinued July 18, 2014

	Fare		2 axles - single rear tires	3 axles - single rear tires	4 axles - single rear tires	5 axles - single rear tires	2 axles - dual rear tires	3 axles - dual rear tires	4 axles - dual rear tires	5 axles - dual rear tires	6 axles - dual rear tires	7 axles - dual rear tires	8 axles - dual rear tires	9 axles - dual rear tires
	Plaza	Type/Class	1	2	3	4	5	6	7	8	9	10	11	12
Hooksett Main I-93		Cash Fare	1.00	1.25	1.50	1.75	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50
		E-ZPass Fare	0.70	0.88	1.05	1.23	1.80	2.25	2.70	3.15	3.60	4.05	4.50	4.95
Hooksett Ramp I-93, Exit 11		Cash Fare	0.50	0.75	1.00	1.25	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50
		E-ZPass Fare	0.35	0.53	0.70	0.88	0.90	1.35	1.80	2.25	2.70	3.15	3.60	4.05
Bedford Main F.E. Everett		Cash Fare	1.00	1.25	1.50	1.75	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50
		E-ZPass Fare	0.70	0.88	1.05	1.23	1.80	2.25	2.70	3.15	3.60	4.05	4.50	4.95
Exit 11 F.E. Everett		Cash Fare	0.50	0.75	1.00	1.25	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50
		E-ZPass Fare	0.35	0.53	0.70	0.88	0.90	1.35	1.80	2.25	2.70	3.15	3.60	4.05
Merrimack Industrial F.E. Everett, Exit 10		Cash Fare	0.50	0.75	1.00	1.25	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50
		E-ZPass Fare	0.35	0.53	0.70	0.88	0.90	1.35	1.80	2.25	2.70	3.15	3.60	4.05
Hampton Main Blue Star Tpk, I-95		Cash Fare	2.00	2.25	2.50	2.75	4.00	4.50	5.00	5.50	6.00	6.50	7.00	7.50
		E-ZPass Fare	1.40	1.58	1.75	1.93	3.60	4.05	4.50	4.95	5.40	5.85	6.30	6.75
Hampton Side I-95, Exit 2		Cash Fare	0.75	1.00	1.25	1.50	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00
		E-ZPass Fare	0.53	0.70	0.88	1.05	1.35	1.80	2.25	2.70	3.15	3.60	4.05	4.50
Dover Toll Spaulding Tpk, Rt 16		Cash Fare	0.75	1.00	1.25	1.50	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00
		E-ZPass Fare	0.53	0.70	0.88	1.05	1.35	1.80	2.25	2.70	3.15	3.60	4.05	4.50
Rochester Toll Spaulding Tpk, Rt 16		Cash Fare	0.75	1.00	1.25	1.50	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00
		E-ZPass Fare	0.53	0.70	0.88	1.05	1.35	1.80	2.25	2.70	3.15	3.60	4.05	4.50

Turnpike System - Historical Revenues and Expenditures

The Turnpike System is part of the State primary government and is accounted for as an enterprise fund of the State. Except as noted for fiscal year 2019, the financial information below is derived from audited financial statements of the Turnpike System.

STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET ASSETS New Hampshire Turnpike System (in thousands)

	<u>Unaudited</u> 2019	2018	<u>Fiscal Years Ended June 30</u>		
			2017	2016	2015
<u>Operating Revenues</u>					
Tolls and Other Operating Revenue	\$145,932	\$134,839	\$131,388	\$130,714	\$124,412
<u>Operating Expenses</u>					
Personnel Services	10,429	10,644	9,850	9,074	9,868
Payroll Benefits	2,092	6,880	6,064	5,026	5,599
Enforcement	8,354	8,208	8,748	7,221	6,312
Renewal and Replacement	9,700	8,128	9,144	7,523	7,544
Supplies, Materials and Other [†]	1,837	1,822	4,807	2,238	3,467
Equipment and Repairs [†]	4,951	5,133	4,475	3,991	4,988
Indirect Costs	2,626	2,473	2,460	2,501	2,645
Welcome Centers [‡]	1,011	960	880	939	-
Heat, Light, and Power	1,102	1,054	986	939	1,095
Bank and Credit Card Fees	3,266	3,503	2,915	2,538	2,328
Rentals	839	928	1,051	632	1,076
E-ZPass Processing Fees	6,788	6,303	6,909	6,869	6,362
Transponder Expense	823	765	758	1,055	620
Depreciation and Amortization	24,392	26,628	27,286	22,143	22,398
Impairment of Capital Assets	-	-	-	-	27,675
GASB 75 Pension Expense Adjustment [*]	-	-	39,990	-	-
GASB 68 Pension Expense Adjustment ^{§§}	-	-	-	-	-
Total Operating Expenses	78,210	83,429	123,323	72,689	101,977
Operating Income	67,722	51,410	5,065	58,025	22,435
<u>Non-Operating Revenues (Expenses)</u>					
Investment Income	2,314	1,080	434	998	87
Welcome Center Revenue [‡]	1,277	1,016	884	774	118
Facility and Sustainment Reinvestment Reserve ^{**}	191	169	-	-	-
Build America Bonds Subsidy ^{**}	2,932	2,922	-	-	-
Miscellaneous Income	1,099	335	4,524	3,135	3,157
Gain/ (Loss) on the Sale of Other Capital Assets	29	340	88	46	7
Interest on Bonds and Note	(13,208)	(14,101)	(13,142)	(15,402)	(14,005)
Miscellaneous Expense	(32)	(44)	(48)	(79)	(390)
Local Non-Operating Expense [§]	(946)	(1,183)	-	-	-
Total Non-Operating Revenues/(Expenses)	(6,344)	(9,466)	(7,260)	(10,528)	(11,026)
Change in Net Position Before Capital Contributions	61,378	41,944	(2,195)	47,497	11,409
Capital Contributions	89	104	44	87	74
Change in Net Position	61,467	42,048	(2,151)	47,584	11,483
Net Position – July 1[*]	634,348	592,300	594,451	546,867	535,384
Net Position – June 30[*]	\$695,815	\$634,348	\$592,300	\$594,451	\$546,867

[†]Beginning in fiscal year 2015, certain identified Supplies, Materials and Other costs were moved to Equipment and Repair.

[‡]Beginning in fiscal year 2016, expenses related to operation of the Welcome Centers are reported separately. Prior fiscal years reported Welcome Center expenses in the other operating expense lines.

^{*}Fiscal year 2017 Net Position restated per GASB 75 for other post-employment benefits liability reporting. The net position in fiscal year 2017 is reduced by \$40.0 million to \$592.3 million from \$632.29 million.

^{**}Hooksett Welcome Center Concession Operations began in fiscal year 2015.

^{**}Beginning in fiscal year 2018, revenue received for the Facility Sustainment and Reinvestment Reserve and Build America Bonds Subsidy are reported separately. Prior fiscal years reported these revenues in Miscellaneous Income.

[§]Local Non-Operating expense is a one-time expenses associated with the City of Dover utility work on the Spaulding Turnpike expansion project related to fiscal year 2017.

Management Discussion of Historical Revenues and Expenditures

Fiscal Year 2019

Fiscal year 2019 gross revenue available for operating expenses, debt service, reserves, and capital improvements increased by \$13.0 million or 9.3% over the prior year. The fiscal year 2019 revenues included:

Description	(Amounts in thousands)
Total Operating Revenues	\$145,932
Investment Income	2,314
Welcome Center Revenue	1,277
Facility Sustainment Reserve	191
BABS Subsidy	2,932
Miscellaneous Income	1,128
Gross Revenue	\$153,745

Operating revenue increased by \$11.1 million or 8.2% to \$145.9 million over the same period. This increase in revenue is primarily due to an increase in toll revenue of \$2.5 million and an increase in recognized violation fee revenue of \$8.5 million. The combined toll operating revenue for fiscal year 2019 totaled \$132.9 million. Of this amount, the Blue Star Turnpike generated \$67.6 million, the Central Turnpike, \$47.7 million, and the Spaulding Turnpike, \$17.7 million. The remaining \$13.0 million was generated primarily through receipts from toll violations and evasions.

Operating expenses decreased by \$5.2 million or 6.3% to \$78.2 million from the prior year primarily due to a decrease in other post-employment liabilities of \$4.8 million. The State moved to the Medicare Advantage Plan for retiree health care resulting in savings for current and projected liabilities. Pollution remediation liabilities per GASB 49 *Accounting and Financial Reporting for Pollution Remediation Obligations* and reduced renewal and replacement program activities due to a delay in the commencement of the I-95 High-level bridge rehabilitation project to allow for the completion of the Sarah Mildred Long bridge replacement that is also along the New Hampshire and Maine border also contributed to the reduction.

Total non-operating expenses decreased by \$3.1 million or 33.0% to \$(6.3) million primarily because of an increase in investment income of \$1.2 million, Hooksett Welcome Centers income of \$0.3 million, as well as a decrease in interest payable on bonds of \$0.9 million.

For fiscal years 2019, 2018, and 2017, the Turnpike System operating expenses for renewal and replacement were \$9.7 million, \$8.1 million, and \$9.1 million, respectively. Renewal and replacement capitalized expenses for fiscal years 2019, 2018, and 2017 were \$0.2 million, \$0.6 million, and \$0.1 million respectively. For fiscal year 2020, the budget for renewal and replacement is \$22.9 million. Appropriations for renewal and replacement expenditures do not lapse and are carried forward and made available in subsequent years.

Capital Improvement Program net capital assets increased \$0.7 million or 0.1% to \$923.9 million over the prior year. The Turnpike System capitalized \$24.3 million primarily construction in progress, and work in progress – computer software. Accumulated depreciation offsets the increases in capital assets by \$23.6 million.

Overall net position for the Turnpike System increased by \$61.5 million or 9.7% to \$695.8 million over fiscal year 2019.

Total liabilities decreased \$38.9 million or 8.3% to \$428.5 million. This change was driven by a decrease in outstanding principal on revenue bond liabilities, liabilities associated with other post-employment benefits, liabilities associated with future pension costs, and a small decrease in long-term pollution remediation at Hampton Toll, Newington Country Store, and Taylor River Bridge.

Current liabilities consist primarily of accrued operating expenses, unearned revenue, and the current portion of revenue bonds. Current liabilities increased by \$2.2 million or 3.6% due to a \$2.9 million increase in short-term revenue bonds payable. The short-term revenue bonds payable liability increased due to the 2012A bonds

having two scheduled principal payments in the next twelve months. The second principal payment will be the final payment for these bonds.

Non-current liabilities decreased by \$41.1 million primarily due to a \$32.9 million decrease in revenue bonds payable per current debt schedule and a \$7.7 million decrease in liabilities related to future pension and other post-employment benefits obligations.

Restricted assets at fair market value are segregated into the following accounts as of June 30, 2019:

	(Amounts in thousands)	
Restricted Asset	2019	2018
Revenue Bond Debt Service Reserve Account	\$ 39,855	\$ -
Revenue Bond Insurance Reserve Account	3,666	3,523
Total Investments – Restricted	43,521	3,523
Revenue Bond Principal Debt Service Account	1,425	16,382
Revenue Bond Interest Debt Service Account	15,486	4,924
Revenue Bond Debt Service Reserve Account	4,547	41,159
Facility Sustainment and Reinvestment Reserve Account	514	323
Total Cash & Cash Equivalents – Restricted	21,972	62,788
Total Restricted Assets	\$65,493	\$66,311

Fiscal Year 2018

Fiscal year 2018 gross revenue available for operating expenses, debt service, reserves, and capital improvements increased by \$3.4 million or 2.5% over the prior year. The fiscal year 2018 revenues included:

Description	(Amounts in thousands)
Total Operating Revenues	\$134,839
Investment Income	1,080
Welcome Center Revenue	1,016
Facility Sustainment Reserve	169
BABS Subsidy	2,922
Miscellaneous Income	<u>675</u>
Gross Revenue	\$140,701

Total operating revenues increased \$3.5 million or 2.6% to \$134.8 million over the prior year.

Total operating expenses, excluding a prior year restatement of expense of approximately \$40.0 million for the implementation of GASB Statement No. 75 *Accounting and Financial Reporting for Post-employment Benefits Other Than Pensions*, decreased \$2.9 million or 3.4% from the previous year due to a decrease in pollution remediation liabilities per GASB 49 *Accounting and Financial Reporting for Pollution Remediation Obligations* and reduced renewal and replacement program activities due to a delay in the commencement of the I-95 High-level bridge rehabilitation project to allow for the completion of the Sarah Mildred Long bridge replacement that is also along the New Hampshire and Maine border.

Total non-operating expenses increased by \$2.2 million or 30.4% to \$9.5 million primarily because of an increase in bond interest expense of \$1.0 million and \$1.2 million for expenses associated with the City of Dover utility work on the Spaulding Turnpike expansion project. Revenue from the City of Dover was recognized in fiscal year 2017 to offset these project costs. The bond interest expense increased over fiscal year 2017 due to capitalizing less interest expense to construction in progress in fiscal year 2018 compared to fiscal year 2017. Without this adjustment, bond interest expense would have declined from fiscal year 2017.

Renewal and replacement operating expenses for fiscal years 2018 and 2017 were \$8.1 million and \$9.1 million respectively. Renewal and replacement capitalized expenses for fiscal years 2018 and 2017 were \$0.6 million and \$0.1 million respectively. For fiscal year 2019, the renewal and replacement budget was \$14.3 million.

Appropriations for renewal and replacement expenditures do not lapse and are carried forward and made available in subsequent years.

Capital Improvement Program net capital assets increased \$7.9 million or 0.9% to \$923.3 million over the prior year. The Turnpike System capitalized \$28.5 million primarily in infrastructure, construction in progress, and work in progress – computer software. Accumulated depreciation offset the increases in capital assets by \$20.6 million.

Total liabilities decreased \$23.9 million or 4.9% to \$467.4 million. This change was driven by a decrease in outstanding principal on revenue bond liabilities, liabilities associated with other post-employment benefits, and the pollution remediation liability at the Hampton Tolls. This was offset by increases in accounts payable for capital construction and operations invoices, unearned revenue for E-ZPass pre-paid deposits and revenue received from local municipalities in advance of construction for municipal-owned portions of the Spaulding Turnpike expansion project.

Current liabilities consist primarily of accrued operating expenses, unearned revenue, and the current portion of revenue bonds. Current liabilities increased by \$15.2 million or 32.5% due to a \$9.2 million increase in short-term revenue bonds payable, a \$3.1 million increase in unearned revenue primarily from funds received for E-ZPass pre-paid deposits on account as well as funds received in advance from the City of Dover for utility work, and a \$2.9 million increase in accounts payable for capital construction and operations invoices.

Non-current liabilities, including a prior year \$40.7 million restatement for implementation of GASB Statement No. 75 *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, decreased by \$39.1 million primarily due to an \$30.0 million decrease in revenue bonds payable per current debt schedule, an \$8.5 million decrease in other post-employment benefits payable, and a \$1.3 million decrease in other liabilities offset by a \$0.7 million increase in claims and compensated absences payable and future pension obligations.

Restricted assets at fair market value were segregated into the following accounts as of June 30, 2018:

	(Amounts in thousands)	
Restricted Assets	2018	2017
Revenue Bond Debt Service Reserve Account	\$ -	\$13,954
Revenue Bond Insurance Reserve Account	3,523	3,434
Total Investments – Restricted	3,523	17,388
Revenue Bond Principal Debt Service Account	16,382	9,266
Revenue Bond Interest Debt Service Account	4,924	5,190
Revenue Bond Debt Service Reserve Account	41,159	27,396
Facility Sustainment and Reinvestment Reserve Account	323	154
Total Cash & Cash Equivalents – Restricted	62,788	42,006
Total Restricted Assets	\$66,311	\$59,394

Fiscal Year 2017

Fiscal year 2017 gross revenue available for operating expenses, debt service, reserves, and capital improvements increased by \$1.7 million or 1.2% over the prior year. The fiscal year 2017 revenues included:

Description	(Amounts in thousands)
Total Operating Revenues	\$131,388
Investment Income	434
Welcome Center Revenue	884
Facility Sustainment Reserve	154
BABS Subsidy	2,915
Local Contributions	1,203
Miscellaneous Income	<u>340</u>
Gross Revenue	\$137,318

Total operating revenues increased \$0.7 million or 0.5% to \$131.4 million over the prior year.

Total operating expenses increased \$13.6 million or 18.8% over the previous year due to a confluence of factors:

- \$1.8 million increase in payroll and benefit expenses primarily due to cost-of-living payroll adjustments and overtime incurred to support winter operations as well as increases in employer-paid health benefits, workers' compensation and pension costs;
- \$1.5 million increase in enforcement activities by the Department of Safety due to increases in cost-of-living payroll adjustments, employer-paid health benefits, and replacement vehicles;
- \$2.4 million of increased liability due to additional mandates on testing at active pollution remediation sites for new chemical contaminants;
- \$1.6 million in increased renewal and replacement activities due to timing of construction project activities;
- \$1.2 million in increased costs for winter maintenance as compared with the previous year's mild winter;
- \$5.1 million of additional depreciation expense primarily due to the capitalization of equipment and infrastructure in fiscal year 2017.

Total non-operating expenses decreased approximately \$3.3 million or 31.0% to \$7.3 million primarily as a result of a decrease in bond interest expense of \$2.3 million augmented by an increase in miscellaneous income for the recognition of revenue earned for City of Dover utility work of \$1.2 million.

Renewal and replacement operating expenses for fiscal years 2017 and 2016 were \$9.1 million and \$7.5 million respectively. Renewal and replacement capitalized expenses for fiscal years 2017 and 2016 were \$0.1 million and \$0.4 million respectively. For fiscal year 2018, the budget was \$12.8 million. Appropriations for renewal and replacement expenditures do not lapse and are carried forward and made available in subsequent years.

Capital Improvement Program net capital assets increased \$13.2 million or 1.5% to \$915.3 million over the prior year. The Turnpike System capitalized \$39.3 million primarily in infrastructure, construction in progress, and equipment. Accumulated depreciation offset the increases in capital assets by \$26.1 million.

Total liabilities decreased \$23.3 million or 4.9% to \$450.6 million from the prior year. This change was driven primarily by a decrease in revenue bond debt in both short and long-term bonds payable. Both current and non-current liabilities experienced decreases, \$8.4 million and \$14.9 million, respectively.

Current liabilities consist primarily of accrued operating expenses, unearned revenue, and the current portion of revenue bonds. The decrease in current liabilities is the result of a \$10.0 million reduction in short-term revenue bonds payable. This was offset by a \$1.3 million increase in unearned revenue primarily from funds received in advance by the City of Dover for utility work.

Non-current liabilities decreased by \$14.9 million primarily due to a \$20.7 million decrease in revenue bonds payable per current debt schedule offset by a \$2.4 million increase in liabilities related to pollution remediation and a \$3.7 million increase in future pension obligations.

Restricted assets at fair market value were segregated into the following accounts as of June 30, 2017:

	(Amounts in thousands)	
Restricted Assets	2017	2016
Revenue Bond Debt Service Reserve Account	\$13,954	\$ 9,966
Revenue Bond Cash Construction Account	-	14,110
Revenue Bond Insurance Reserve Account	3,434	3,003
Total Investments – Restricted	17,388	27,079
Revenue Bond Cash Construction Account	-	5,038
Revenue Bond Principal Debt Service Account	9,266	13,279
Revenue Bond Interest Debt Service Account	5,190	5,676
Revenue Bond Debt Service Reserve Account	27,396	31,387
Facility Sustainment and Reinvestment Reserve Account	154	-
Total Cash & Cash Equivalents – Restricted	42,006	55,380
Total Restricted Assets	\$59,394	\$82,459

Fiscal Year 2016

Fiscal year 2016 gross revenue available for operating expenses, debt service, reserves and capital improvements increased by \$7.9 million or 6.2% over the prior year. The fiscal year 2016 revenues included:

Description	(Amounts in thousands)
Total Operating Revenues	\$130,714
Investment Income	998
Welcome Center Revenue	774
BABS Subsidy	2,894
Miscellaneous Income	287
Gross Revenue	\$135,667

Total operating revenues increased by \$6.3 million or 5.1% to \$130.7 million. The increase was due primarily to increased E-ZPass toll revenue of 6.7% spurred by low fuel costs and favorable travel weather.

Total operating expenses excluding prior year one-time impairment expenses of \$27.7 million, decreased \$1.6 million or 2.2% from the previous year due to a \$1.7 million pollution remediation liability reduction per GASB 49 *Accounting and Financial Reporting for Pollution Remediation Obligations* and the mild winter. The mild winter resulted in nearly \$2.2 million in decreased cost of supplies (salt and sand), rental equipment, and personnel expenses related to winter maintenance. Offsetting the decrease was a \$0.9 million increase in Enforcement and Traffic Bureau-related expenditures and \$0.9 million increase in transponder expense and E-ZPass processing fees as transponders nearing the end of their battery life are replaced and costs related to E-ZPass usage system-wide increases.

Total non-operating expenses decreased approximately \$0.5 million or 4.5% to \$10.5 million. The primary decrease was the result of an increase in investment income and Welcome Center revenue. Investment income increased as portions of the 2015 Series A revenue bond proceeds were invested resulting in a \$0.9 million increase in interest earnings. Welcome Center revenue increased as the Hooksett Welcome Centers on the Central Turnpike completed their first full operating year resulting in a \$0.7 million increase in rental income and revenue sharing from fuel and concession sales. Offsetting the increase in non-operating revenues was a \$1.4 million increase in the interest on bonds and note as a result of the 2015 Series A revenue bond issuance.

Renewal and replacement operating expenses for fiscal years 2016 and 2015 were \$7.5 million and \$7.5 million respectively. Renewal and replacement capitalized expenses for fiscal years 2016 and 2015 were \$0.4 million and \$0.7 million respectively. For fiscal year 2017, the budget was \$9.6 million. Appropriations for renewal and replacement expenditures do not lapse and are carried forward and made available in subsequent years.

Capital Improvement Program net capital assets increased by \$24.7 million or 2.8% over the prior year to \$902.1 million. Infrastructure increased by \$11.7 million or 1.2% to \$962.9 million. Construction in Progress increased by \$27.5 million or 24.1% over the prior year to \$141.7 million due to the proceeds from the issuance of the 2015 Series A revenue bonds making cash available to advance capital projects on the Eastern and Central Turnpikes.

Total liabilities decreased \$23.7 million from the prior year. This change is driven primarily by a decrease in non-current liabilities of \$31.9 million due to a \$30.7 million decrease in long-term revenue bonds payable.

Current liabilities consist primarily of accrued operating expenses, unearned revenue, and the current portion of revenue bonds. The increase in current liabilities is the result of an \$8.4 million increase in short-term revenue bonds payable and a \$1.3 million increase in unearned revenue offset in part by a decrease in accounts payable of \$1.2 million due to the timing of payments on construction projects.

Non-current liabilities decreased by \$31.9 million primarily due to a \$30.7 million decrease in revenue bonds payable per current debt schedule.

Restricted assets at fair market value were segregated into the following accounts as of June 30, 2016:

	(Amounts in thousands)	
Restricted Assets	2016	2015
Revenue Bond Debt Service Reserve Account (Investment)	\$ 9,966	\$ 37,984
Revenue Bond Cash Construction Account (Investment)	14,110	29,503
Revenue Bond Insurance Reserve Account (Investment)	3,003	3,006
Total Investments – Restricted	27,079	70,493
Revenue Bond Cash Construction Account	5,038	20,309
Revenue Bond Principal Debt Service Account	13,279	10,009
Revenue Bond Interest Debt Service Account	5,676	5,441
Revenue Bond Debt Service Reserve Account	31,387	3,146
Total Cash & Cash Equivalents – Restricted	55,380	38,905
Total Restricted Assets	\$ 82,459	\$ 109,398

Fiscal Year 2015

Fiscal year 2015 gross revenue available for operating expenses, debt service, reserves and capital improvements increased by \$5.3 million or 4.3% over the prior year. The fiscal year 2015 revenues included:

Description	(Amounts in thousands)
Total Operating Revenue	\$124,412
Investment Income	87
Welcome Center Revenue	118
BABS Subsidy	2,905
Miscellaneous Income	<u>252</u>
Gross Revenue	\$127,774

Total operating revenue increased by \$5.1 million or 4.3% to \$124.4 million over the prior year. The increase was due primarily to increased toll revenue from commercial vehicles and E-ZPass customers.

Total operating expenses increased by \$17.1 million or 20.2% to \$102.0 million over the prior year. The increase in 2015 over the prior fiscal year was due to the impairment of the unbuilt portions of the Nashua – Hudson

Circumferential Highway project. The two projects identified for impairment (10644 and 10644A) were initiated in the 1970s and although costs were incurred for preliminary engineering design and land/property purchases, neither project was ultimately completed. The projects were also not included in the State's ten-year capital improvement plan nor have been funded. The cumulative effect of this impairment was a one-time charge of \$27.7 million to operating expenses (Impairment) and a reduction to non-current assets of the same. The expense did not have a cash impact on Turnpike operations. Absent the impairment, actual operating expenses would have decreased by \$10.6 million.

Total non-operating expenses decreased approximately \$1.4 million or 11.5% to \$11.0 million. The primary decrease was the result of a reduction of \$1.5 million in interest expense on bonds and note.

Renewal and replacement operating expenses for fiscal years 2015 and 2014 were \$7.5 million and \$9.4 million respectively. Renewal and replacement capitalized expenses for fiscal years 2015 and 2014 were \$0.7 million and \$1.8 million respectively. For fiscal year 2016, the budget was \$9.7 million. Appropriations for renewal and replacement expenditures do not lapse and are carried forward and made available in subsequent years.

Capital Improvement Program net capital assets decreased by \$13.1 million or 1.5% from the prior year to \$877.4 million. Infrastructure increased by \$60.4 million or 6.8% to \$951.2 million. However, this was offset by a net reduction of \$27.7 million in land and infrastructure, due to the impairment of the unbuilt portions of the Nashua – Hudson Circumferential Highway project.

Total liabilities increased by \$14.4 million over the prior year. The increase is primarily due to an increase in non-current liabilities. Current liabilities decreased by \$16.0 million primarily due to the decrease in revenue bonds payable and note payable to State Highway Fund.

Current liabilities consist primarily of accrued operating expenses, unearned revenue, and the current portion of revenue bonds and note payable. The decrease in current liabilities was primarily due to the decrease of \$13.4 million in note payable to State Highway Fund and \$3.4 million in revenue bonds payable. Accounts payable increased by \$2.6 million due to the timing of payments on construction projects, slightly offsetting the decrease in current liabilities.

Non-current liabilities increased by \$30.4 million primarily due to a \$31.0 million increase in revenue bonds payable from the 2015 Series A bond issuance offset by a \$1.6 million decrease in pension expense.

Restricted assets at fair market value were segregated into the following accounts as of June 30, 2015:

	(Amounts in thousands)	
Restricted Assets	2015	2014
Revenue Bond Debt Service Reserve Account (Investment)	\$ 37,984	\$ 29,989
Revenue Bond Cash Construction Account (Investment)	29,503	-
Revenue Bond Insurance Reserve Account (Investment)	3,006	3,001
Total Investments – Restricted	70,493	32,990
Revenue Bond Cash Construction Account	20,309	-
Revenue Bond Principal Debt Service Account	10,009	11,164
Revenue Bond Interest Debt Service Account	5,441	5,748
Revenue Bond Debt Service Reserve Account	3,146	8,834
Total Cash & Cash Equivalents – Restricted	38,905	25,746
Total Restricted Assets	\$ 109,398	\$ 58,736

Debt Service Coverage

SCHEDULE OF DEBT SERVICE COVERAGE RATIO For the Fiscal Years 2019 - 2001 (Amounts in thousands)

Fiscal Year	Gross Revenues	Direct Operating Expenses	(A) Net Revenue Available for Service	(B) Revenue Bond Service Requirement	(A / B) Revenue Bond Coverage Ratio	(C) G.O. Debt Service Requirements	(D) Renewal and Replacement	(B+C+D) Total	(A / (B+C+D)) All Obligations Coverage Ratio
2019	\$149,881	\$44,118	\$105,763	\$41,330	² 2.56	-	\$14,270	\$55,600	1.90 ³
2018	137,421	48,673	88,748	41,343	² 2.15	-	12,820	54,163	1.64
2017	133,046	49,903	83,143	41,345	² 2.01	-	9,600	50,945	1.63
2016	132,725	43,023	89,702	41,332	² 2.17	-	9,700	51,032	1.76 ⁴
2015	124,811	44,361	80,450	39,091	² 2.06	-	8,900	47,991	1.68 ⁴
2014	119,373	42,469	76,904	39,044	² 1.97	-	10,000	49,044	1.57 ⁴
2013	118,027	42,213	75,814	38,299	² 1.98	-	9,800	48,099	1.58 ⁴
2012	118,856	40,653	78,203	33,328	2.35	-	9,200	42,528	1.84 ⁴
2011	119,314	42,339	76,975	33,745	2.28	\$ 599	9,800	44,144	1.74 ⁴
2010	119,407	40,171	79,236	29,656	2.67	669	9,600	39,925	1.98
2009	107,660	40,361	67,299	25,873	2.60	1,597	10,040	37,510	1.79
2008	106,814	37,122	69,692	25,710	2.71	1,713	8,300	35,723	1.95
2007	89,054	36,158	52,896	28,078	1.88	2,985	6,047	37,110	1.43
2006	83,054	41,784	41,270	25,831	1.60	4,219	5,871	35,921	1.15
2005	68,318	30,041	38,277	27,003	1.42	4,246	5,700	36,949	1.04
2004	66,463	26,568	39,895	23,865	1.67	4,842	5,600	34,307	1.16
2003	67,086	24,505	42,581	24,749	1.72	5,183	5,700	35,632	1.20
2002	66,218	23,877	42,341	26,452	1.60	5,415	5,365	37,232	1.14
2001	63,981	21,352	42,629	25,352	1.68	5,696	5,431	36,479	1.17

1. Fiscal years 2006 through 2019 calculations of Direct Operating Expenses deduct the entire amount of current year depreciation expense (Turnpikes, Federal, & Highway match portions). Prior year calculations reflect the historical practice of deducting only the Turnpikes portion of depreciation expense.

2. For fiscal years 2013 through 2019, the debt service requirement consists of total payments to the Debt Service Account as required by the bond resolution. Debt service requirement calculations in the previous fiscal years consisted of the actual principal and interest paid during the fiscal year. Debt service reflects reduced Build America Bonds subsidy payments resulting from federal sequestration.

3. Unaudited toll covenant calculations indicate adequate toll revenues for fiscal year 2019. The revenue bond coverage ratio was satisfied at 2.56 for the 1.2 times test. The all obligations coverage ratio was satisfied at 1.90 for the 1.0 times test, as calculated by the Department.

4. During fiscal year 2016, a note payable of \$418 thousand (including interest) was made to the State Highway Fund. This payment was final payment to the State Highway Fund for the I-95 Piscataqua River Bridge Acquisition. The Turnpike System's unrestricted cash balances at June 30, 2011-2016 was deemed more than sufficient to satisfy the Note Payable to the State Highway Fund and accordingly, the Note Payable to State Highway Fund was not included in the all obligations ratio for fiscal years 2011 through 2016.

5. Gross Revenues less Federal revenue of \$1.3 million.

TURNPIKE SYSTEM INDEBTEDNESS

As of June 30, 2019, the Turnpike System had \$335,855,000 of Turnpike System Revenue Bonds Outstanding (including the Refunded Bonds) and no State of New Hampshire general obligation bonds to be paid from Turnpike System Revenues. The following table presents Outstanding Turnpike System Revenue Bond Debt Service in each fiscal year on an accrual basis.

TURNPIKE SYSTEM DEBT SERVICE ^{*(1)} For Fiscal Years 2020 through 2043 (on an Accrual Basis)

Fiscal Year Ending June 30	Existing Debt Service**	Debt Service on 2019 Series Bonds	Total Debt Service Payable By Turnpike
2020	\$39,899,449	\$1,209,889	\$41,109,339
2021	39,187,471	1,978,650	41,166,121
2022	32,391,387	1,978,650	34,370,037
2023	25,505,107	1,978,650	27,483,757
2024	24,114,675	1,978,650	26,093,325
2025	12,711,612	6,201,983	18,913,595
2026	9,302,929	9,611,383	18,914,313
2027	9,303,492	9,615,750	18,919,242
2028	9,301,263	9,620,333	18,921,596
2029	9,301,238	9,624,250	18,925,488
2030	11,373,629	3,181,500	14,555,129
2031	15,186,630		15,186,630
2032	15,194,044		15,194,044
2033	15,197,519		15,197,519
2034	15,204,916		15,204,916
2035	15,211,258		15,211,258
2036	15,218,826		15,218,826
2037	15,226,028		15,226,028
2038	15,235,890		15,235,890
2039	15,243,377		15,243,377
2040	9,433,197		9,433,197
2041	6,522,167		6,522,167
2042	6,520,900		6,520,900
2043	543,400		543,400
	\$382,330,403	\$56,979,689	\$439,310,093

* Totals may not add due to rounding.

⁽¹⁾ Net of direct payments expected to be received from the United States Treasury in the amount of 35% of the taxable interest payable by the State in connection with its \$150,000,000 Turnpike System Revenue Bonds, 2009 Series A (Federally Taxable - Build America Bonds - Direct Payment).

** Excludes debt service on bonds to be refunded with proceeds of the 2019 Series Bonds.

CAPITAL IMPROVEMENT PROGRAM

In 1986, the State Legislature adopted the State's first Ten-Year Capital Improvement Program for transportation in New Hampshire, including specific components relating to the Turnpike System. Every two years, this long term capital program is updated and revised. The Turnpike System component of the Ten-Year Plan, as from time to time modified by the Legislature, is referred as the "Capital Improvement Program." The current total estimated cost of the Capital Improvement Program, including expenditures to date, is approximately \$1.550 billion through fiscal year 2028, which the State has funded and intends to fund through Bond proceeds, investment

earnings, available toll revenues and federal funds. As of June 30, 2019, approximately \$981.8 million had been expended on the Capital Improvement Program, of which approximately \$715.8 million had been funded with proceeds of Bonds.

The Capital Improvement Program is intended to improve the safety, condition, and capacity of the Turnpike System. A summary of the major projects currently underway and future projects is as follows:

Projects underway or complete and open to traffic financed with Turnpike funds:*

Central Turnpike

- Engineering and rehabilitation of an F.E. Everett Turnpike/I-93 bridges in Bow and Concord (A21).
- Engineering and construction for the widening of F.E. Everett Turnpike from Nashua to Bedford (A26).
- Engineering, Right-of-Way acquisitions and construction for Exit 6 & Exit 7 Interchange Improvements in Manchester (A27).
- Implementation of ORT or AET at Bedford (D5c).

Spaulding Turnpike

- Engineering and right-of-way acquisition in Newington and Dover on the Spaulding Turnpike including widening Little Bay Bridges and reconstructing Spaulding Turnpike in Newington (B12). Construction of the Dover portion of the Spaulding Turnpike and rehabilitation of the General Sullivan Bridge in Dover (B13).

Blue Star Turnpike

- Engineering and construction of the bridge on the Blue Star Turnpike carrying I-95 over the Taylor River in North Hampton and Hampton (C4).
- AET construction and implementation at Dover and Rochester toll facilities (D5 d and e).

The planning and scheduling of projects for the Capital Improvement Program is a dynamic process with changing priorities, based in part on traffic growth, right-of-way acquisition needs, environmental constraints, and financial constraints. Such factors can also result in modification in cost as schedules of particular projects in the Capital Improvement Plan.

The State modifies the Capital Improvement Program from time to time in order to address particular needs of the Turnpike System, and prepares a monthly report to track the progress, expenditures, and estimated cost of the projects in the Program. The timing of particular projects listed above is subject to change as a result of various factors, including permitting and environmental issues that may arise, as well as other unforeseen factors.

The following is a brief description of the projects that comprise the Capital Improvement Program for the Turnpike System, including current cost estimates (which include monies already spent) and projected completion dates. Projected construction costs for the Capital Improvement Program were based on estimated construction costs in the year of project advertising applying an annual inflation rate of 2.8%. The Department considers these construction estimates reasonable. Current projects in the State Ten Year Plan are expected to be funded on a pay-as-you-go basis and the Department does not currently plan to issue additional bonds or increase toll rates to support the program. This is subject to change based on needs of the Turnpike System and its users.

* Letter and number at the end of each project denotes project reference under heading "Project Descriptions" hereafter.

Project Descriptions

<u>Central Turnpike</u>	<u>Description</u>	<u>Estimated Cost (Millions)</u>	<u>Completion Date</u>
Project A1	Preliminary engineering and right-of-way acquisition for Exits 8 and 11, including ramp toll facilities (Merrimack/Nashua).	\$1.3	December 1989 ⁽¹⁾
Project A2	Construction of new interchange at Exit 8 to relieve traffic congestion at Interchange 7 (Nashua).	\$10.1	June 1988 ⁽¹⁾
Project A3	Preliminary engineering and right-of-way acquisition for Exits 1 and 2 (Nashua).	\$26.2	June 2001 ⁽¹⁾
Project A4	Reconstruction of Exit 11 and construction of northbound “off” and southbound “on” ramp toll facilities (Merrimack).	\$11.0	July 1993 ⁽¹⁾
Project A5	Engineering, right-of-way acquisition, and construction of new mainline toll plaza (Bedford).	\$5.4	January 1989 ⁽¹⁾
Project A6	Engineering, right-of-way acquisition, and construction of a new interchange two miles south of Exit 11 (formerly Exit 8). Merrimack Industrial Park Interchange includes “off” and southbound “on” toll facilities (Merrimack).	\$22.4	October 1990 ⁽¹⁾
Project A7	Engineering, right-of-way acquisition and construction of Camp Sargent Road bypass. Project will interconnect Amherst Street in Nashua with the new interchange Project A6 (Merrimack).	\$8.2	December 1994 ⁽¹⁾
Project A8	Preliminary engineering and right-of-way acquisition for widening the Central Turnpike between Exits 3 and 7 (Nashua).	\$22.8	April 2002 ⁽¹⁾
Project A10	Engineering, right-of-way acquisition, and construction of a portion of the southern segment of the circumferential highway in Nashua.	\$42.3	July 2001 ⁽²⁾
Project A11	Engineering and right-of-way acquisition of the northern segment of the circumferential highway (Nashua/Hudson/Litchfield).	\$32.1	June 2005 ⁽¹⁾
Project A12	Reconstruction of Exits 1 and 2 and construction of connector to the circumferential highway (Nashua).	\$59.4	August 2002 ⁽¹⁾
Project A13	Widening and reconstruction of Central Turnpike between Exits 3 and 7 (Nashua).	\$84.7	May 2002 ⁽¹⁾
Project A14	Engineering, right-of-way acquisition, and construction of Bedford Road Interchange including toll facilities (Merrimack).	\$6.9	November 1990 ⁽¹⁾
Project A15	Reconstruction of the Exit 5 Granite St Bridge with two new ramps (Manchester).	\$22.8	June 2006 ⁽¹⁾
Project A16	Study of feasibility of widening Central Turnpike between I-89 Interchange and Interchange I-393 (Bow/Concord).	\$0.1	August 1992 ⁽¹⁾
Project A17	Construction of southbound only toll facilities of Central Turnpike and southbound on-ramp at Exit 1 (Nashua).	\$0.4	⁽³⁾
Project A18	Engineering, right-of-way, and construction of F.E. Everett bridge over the Souhegan River in Merrimack.	\$16.0	July 2011 ⁽¹⁾
Project A19	Engineering and construction of the roadway approaches including expansion of the Bedford toll plaza (Merrimack-Bedford).	\$7.4	December 2004 ⁽¹⁾

<u>Central Turnpike</u>	<u>Description</u>	<u>Estimated Cost (Millions)</u>	<u>Completion Date</u>
Project A20	Engineering, right-of-way acquisition, and construction of US Rte. 3 bridge over the F. E. Everett Turnpike in Bedford including widening from Merrimack to Bedford.	\$11.6	July 2013 ⁽¹⁾
Project A21	I-93 bridge re-decking for 4 bridges in Bow and Concord, and engineering for I-93 corridor widening	\$33.6	June 2016
Project A22	Rehabilitation of 5 bridges in the Manchester mill yard.	\$32.4	November 2016
Project A23	I-293 bridge rehabilitation over Black Brook between exit 6 and exit 7.	\$4.1	October 2025 ⁽⁷⁾
Project A24	Remove Merrimack Exit 12 Toll Plaza	\$0.5	December 2014 ⁽¹⁾
Project A25	Nashua to Bedford ITS deployment on F.E.E.T.	\$4.1	October 2016
Project A26	Engineering, Right-of-Way acquisitions and construction of F.E.E.T. widening of 3 locations from Nashua to Bedford	\$153.8	June 2025
Project A27	Engineering, Right-of-Way acquisitions and construction for Exit 6 & Exit 7 Interchange Improvements in Manchester	\$165.7	June 2028

<u>Spaulding Turnpike</u>	<u>Description</u>	<u>Estimated Cost (Millions)</u>	<u>Completion Date</u>
Project B1	Engineering, right-of-way acquisition and reconstruction of the Gosling Rd Interchange (Newington/Portsmouth).	\$13.4	November 1993 ⁽¹⁾
Project B2	Safety improvements on the Spaulding Turnpike to include median guardrail and safety improvements (Dover/Rochester).	\$6.6	June 2002 ⁽¹⁾
Project B3	Expansion of Dover Toll Plaza (Dover).	\$1.5	July 2000 ⁽⁴⁾
Project B4	Right-of-way acquisition in median of Spaulding Turnpike (Newington).	\$2.7	March 1993 ⁽¹⁾
Project B5	Engineering of by-pass around North Conway.	\$0.1	December 1990 ⁽¹⁾
Project B6	Dover/Somersworth Weeks traffic circle.	\$1.0	December 1994 ⁽¹⁾
Project B7	Engineering for design of Exit 10 on the Spaulding Turnpike (Dover).	\$4.1	June 2006 ⁽¹⁾
Project B8	Construction of Exit 10 on the Spaulding Turnpike (Dover).	--	Future Project ⁽⁵⁾
Project B9	Reconstruction and right-of-way acquisition for Exit 6W/US Rte. 4 (Scammell Bridge) (Dover).	\$13.0	November 1997 ⁽¹⁾
Project B10	Engineering, right-of-way acquisition, and construction of Exits 11 through 16 (Rochester).	\$127.6	May 2016 ⁽⁸⁾
Project B11	Engineering, right-of-way acquisition, and construction of the Turnpike ramps at Exit 4 associated with NH 16/US (Newington/Dover).	\$13.4	June 2006 ⁽¹⁾
Project B12	Engineering, right-of-way acquisition, and construction of Newington-Dover; Little Bay Bridge widening and Newington construction	\$162.6	September 2017
Project B13	Dover, General Sullivan Bridge Construction ⁽⁶⁾	\$84.3	August 2023

<u>Blue Star (Route I-95) Turnpike</u>	<u>Description</u>	<u>Estimated Cost (Millions)</u>	<u>Completion Date</u>
Project C1	Expansion of Hampton Toll Plaza (Hampton/North Hampton).	\$2.4	July 1991 ⁽¹⁾

<u>Blue Star (Route I-95) Turnpike</u>	<u>Description</u>	<u>Estimated Cost (Millions)</u>	<u>Completion Date</u>
Project C2	Engineering and Construction of roadway widening of the approaches to the Hampton main line toll plaza (Hampton).	\$2.5	June 2003 ⁽¹⁾
Project C3	Engineering and construction for the widening of the Hampton ramp toll plaza and approaches (Hampton).	\$7.1	June 2006 ⁽¹⁾
Project C4	I-95, Replacement of the Taylor River Bridge on the Blue Star Highway and replacement or removal of the Taylor River Dam in Hampton at mile 3.6501	\$16.8	October 2019
Project C6	Repair and Improve bridge on Route 107 over I-95 in Seabrook	\$3.5	June 2014 ⁽¹⁾
Project C7	Construction of sound wall in Portsmouth	\$2.9	May 2013 ⁽¹⁾

<u>System Wide</u>	<u>Description</u>	<u>Estimated Cost (Millions)</u>	<u>Completion Date</u>
Project D1	Administrative	\$37.1	on-going
Project D2	Consultant Studies.	\$0.8	on-going
Project D3	Electronic Toll Collection equipment including signs.	\$25.3	December 2005 ⁽¹⁾
Project D4	Intelligent Transportation deployment on the Blue Star and Spaulding Turnpikes.	\$2.3	on-going
Project D5	Construction of Open Road Tolling at the following locations:		
	a) Hampton	\$16.8	June 2011 ⁽¹⁾
	b) Hooksett	\$22.5	October 2013 ⁽¹⁾
	c) Bedford	\$18.0	June 2023
	d) Dover	\$12.4	October 2021
	e) Rochester	\$14.0	October 2022
Total		\$1,400.0⁽⁶⁾	

(1) Actual completion date.

(2) The segment between Route 3A and the Central Turnpike is complete; the portion from Route 3A to Route 111 has been deferred.

(3) The Legislative authority to build the Nashua toll facilities was repealed in fiscal year 2001.

(4) Removed from the State's 10-year Highway Improvement Plan.

(5) Project delayed pending completion of engineering study for exit 10 in Dover.

(6) Numbers may not add due to rounding.

(7) Project delayed pending completion of engineering study for exits 6 and 7 in Manchester.

(8) The Taylor River Dam replacement project has been placed "on hold" until further notice.

**CAPITAL IMPROVEMENT PROGRAM EXPENDITURES
FISCAL YEARS 1986 THROUGH 2021**

Set forth below is a table of Capital Improvement Program expenditures on an unaudited cash basis for fiscal years 1986 through 2009, on a GAAP basis for fiscal years 2010 through 2019, and on a forecasted basis for fiscal years 2020 and 2021. The timing and amounts of forecasted capital expenditures are subject to change.

Fiscal Year <u>Ending June 30,</u>	<u>Capital Expenditures</u>
1986	\$ 3,703,014
1987	12,846,330
1988	15,092,609
1989	34,183,782
1990	31,457,483
1991	25,308,194
1992	29,988,101
1993	33,941,502
1994	30,665,402
1995	40,452,057
1996	29,198,433
1997	24,917,835
1998	26,260,770
1999	30,544,034
2000	19,719,168
2001	10,148,747
2002	6,469,689
2003	10,242,505
2004	19,437,590
2005	20,503,930
2006	13,176,569
2007	8,514,987
2008	9,159,186
2009	23,250,730
2010	66,088,919
2011	51,613,827
2012	59,322,096*
2013	77,656,689
2014	52,836,197
2015	31,356,833
2016	44,040,110
2017	35,282,902
2018	33,229,735
2019	21,184,616**
Actual	<u>981,794,571</u>
2020	43,520,000***
2021	48,940,000***
Estimated	92,460,000
Total	<u>\$1,074,254,571</u>

* The Annual Report with Respect to Turnpike System Revenue Bonds dated February 22, 2013 reported \$59,142,096, which was understated by \$180,000.

** Fiscal year 2019 unaudited.

*** Fiscal years 2020-2021 Approved Budget.

Contingencies

Delays in obtaining the many necessary permits, licenses and approvals to commence construction are not unusual occurrences with major highway projects. It has been and continues to be the policy of the Department of Transportation that it will not award contracts for construction projects unless the requisite permits, licenses and approvals have been obtained.

Certain delays and cost increases have been experienced with some of the projects in the Capital Improvement Program. It is possible that ongoing and future projects in the Capital Improvement Program may experience similar delays or cost increases or that other unforeseen circumstances may arise. As a result, the estimated cost of completing projects within the Capital Improvement Program could increase, requiring the State to modify the Capital Improvement Program or take other action to address such increased cost. Changes in the Capital Improvement Program or other actions may also be required in the event that revenues are below projections.

In addition, completion of the Capital Improvement Program may require additional appropriations by the State Legislature, and possibly increases in toll rates, which are required to be approved by Governor and Council. The Capital Improvement Program may be expanded, contracted or otherwise changed by legislation in the future.

Increases in toll rates at existing facilities and the location and configuration of new toll facilities are matters that can be the subject of controversy. The State intends to pursue resolution of any such issues in a timely manner so that the assumed toll revenue sources will be in place. There is no new toll facility on the horizon needed. If any of the assumed additional revenue sources are not available as needed, alternatives would need to be pursued. Available alternatives would include, among other things, (i) implementing alternative revenue increases at existing toll facilities, (ii) funding Capital Improvement Program projects through other sources or (iii) curtailing expenditures within the Capital Improvement Program.

There are various bills pending before the State Legislature from time to time which relate to the Turnpike System covering subjects including changes in Turnpike System construction projects and the Turnpike System toll structure. Pursuant to RSA 237-A the State is obligated to perform the covenants made by it in the Bond Resolution, including, without limitation, the obligations regarding the establishment and collection of tolls as described under *Security for the Bonds - Toll Rate Covenant*. In the opinion of Bond Counsel, any legislation would be subject to the provisions of Article 1, Section 10 of the United States Constitution prohibiting any law impairing the obligation of contracts and therefore could not unconstitutionally impair the obligations of the State under the Bonds and the Bond Resolution, including its obligation under those covenants. The State does not believe that any legislation having this effect is likely to be enacted.

OTHER PLANNED CONSTRUCTION PROJECTS

The Department of Transportation may construct new feeder roads to portions of the Turnpike System, and it maintains an ongoing program of maintenance and improvement for existing feeder roads. However, the State's Ten-Year Transportation Improvement Plan does not include additional plans to construct competing roads that would (a) provide an alternative to travel on the Turnpike System or (b) have a material adverse impact on traffic on or revenue from the Turnpike System.

SUMMARY OF CERTAIN PROVISIONS OF THE BOND RESOLUTION

The Bond Resolution contains terms and conditions relating to the issuance and sale of Bonds under it, including various covenants and security provisions, certain of which are summarized below. Certain provisions of the Bond Resolution are described under the caption *Security for the Bonds*. This summary does not purport to be comprehensive or definitive and is subject to all of the provisions of the Bond Resolution, to which reference is hereby made, copies of which are available from the State Treasurer and the Trustee. This summary uses various terms defined in the Bond Resolution. Summaries of certain capitalized terms used herein are defined in the Glossary of Terms, attached hereto as Appendix F.

Bonds Authorized

Under the Bond Resolution the State may issue Bonds which bear a fixed rate of interest (“Fixed Rate Bonds”), Bonds which provide for a variable interest rate (“Variable Rate Bonds”), Bonds which provide for mandatory redemption at the option of the registered owner (“Option Bonds”), or deep discount Bonds (“Original Issue Discount Bonds”). Following the issuance of the 2019 Series Bonds, the only other Bonds then Outstanding will be \$99,275,000 of the 2009 Series A Bonds, \$15,240,000 of the 2009 Refunding Series B Bonds, \$5,325,000 of the 2012 Refunding Series Bonds, \$95,930,000 of the 2012 Series C Bonds, \$26,015,000 of the 2012 Refunding Series B Bonds and \$30,030,000 of the 2015 Series A Bonds. As used herein, the term “Bonds” refers to all Bonds then Outstanding under the Bond Resolution. The term “Outstanding” excludes Bonds which have been refunded through the issuance of Refunding Bonds as described under Refunding Bonds below.

Bond Resolution to Constitute Contract

The Bond Resolution constitutes a contract between the State and the Bondholders. The pledge made in the Bond Resolution with respect to the Bonds and the covenants and agreements therein are for the equal benefit and security of the holders of all Bonds, all of which, regardless of their time of issue or maturity, rank equally without preference, priority or distinction of any Bond over any other, except as expressly provided in the Bond Resolution.

Pledge of Bond Resolution

The Bond Resolution pledges for the payment of the principal of, redemption premium, if any, and interest on the Bonds, the proceeds of the sale of such Bonds, the Revenues and all moneys and securities in all accounts and subaccounts established by or pursuant to the Bond Resolution, other than the Rebate Account, subject only to the application of Revenues for the payment of Operating Expenses in accordance with the terms of the Bond Resolution.

The Bonds are limited obligations of the State. Neither the full faith and credit nor the taxing power of the State or of any political subdivision thereof is pledged to the payment of the Bonds. See *Security for the Bonds – Pledge of Revenues*.

Additional Bonds

The Bond Resolution authorizes the issuance of Bonds in one or more series without limitation as to amount except as limited by law (current statutory limit of \$766,050,000 excluding refunding Bonds) and the terms of the Bond Resolution. The Bond Resolution permits the issuance of Additional Bonds on a parity with all other then Outstanding Bonds for the purposes of paying Project Costs and refunding (directly or indirectly) Bonds or other obligations issued for the purpose of paying Project Costs. The 2019 Series Bonds are being issued pursuant to the Bond Resolution provisions relating to Additional Bonds. Additional Bonds may be issued by the State only upon the filing with the Trustee of the certificates, opinions and documents described under the caption *Security for the Bonds - Additional Indebtedness - Additional Parity Bonds*.

Refunding Bonds

The Bond Resolution permits the issue of one or more series of Bonds (“Refunding Bonds”) for the purpose of refunding Bonds. Refunding Bonds may be issued by the State only upon certifying that the Debt Service for each Fiscal Year in which Bonds are or will be Outstanding will not be increased as a result of the issuance of Refunding Bonds; provided that, in lieu of such certification, the State may file with the Trustee the certificates described in paragraphs (1)(A) through (1)(E) under the caption *Security for the Bonds - Additional Indebtedness - Additional Parity Bonds*.

The above-described certificates shall be required in the case of Bonds issued to refund other obligations issued for the purpose of paying Project Costs as if the Bonds were being issued for the Projects financed by such other obligations.

Additional Security

The Bond Resolution provides that in connection with the initial issuance of any Series of Bonds, the State may obtain letters of credit, lines of credit, insurance or similar obligations, agreements or instruments (“Additional Security”) securing or providing for the purchase of such Series of Bonds by the issuer of such Additional Security. The State may enter into agreements with the issuer of such Additional Security with respect to the adjustments of the interest rates or other provisions of the Series of Bonds secured thereby. The State may also agree to directly reimburse the issuers of Additional Security for amounts paid thereunder (“Reimbursement Obligations”) and such Reimbursement Obligations may be deemed to be Additional Bonds under the Bond Resolution and entitled to the same security as the Bonds upon payments of amounts thereunder.

Establishment of Accounts and Subaccounts

The Bond Resolution establishes the following accounts and subaccounts all of which shall be held by the Treasurer, except as noted below:

- (1) Construction Account
- (2) Revenue Account
- (3) Debt Service Account, containing an Interest Subaccount and a Principal Subaccount (to be held by the Trustee)
- (4) Rebate Account (to be held by the Trustee)
- (5) Special Redemption Account (to be held by the Trustee)
- (6) Debt Service Reserve Account (to be held by the Trustee)
- (7) Insurance Reserve Account
- (8) General Reserve Account

Application of Bond Proceeds

The application of the proceeds of each Series of Bonds is governed by the provisions of the applicable Supplemental Resolution providing for their issue. For a description of the application of proceeds of the 2019 Series Bonds, see *Sources and Uses of Funds*. Each supplemental resolution shall designate the Bonds to be issued thereunder by an appropriate series designation and shall also specify: (a) the authorized principal amount of the Series of Bonds; (b) the purpose or purposes for which the Series of Bonds is being issued, and if the Bonds are being issued to pay Project Costs, the Project or Projects for which the Bonds are being issued; (c) the date of the Bonds; (d) the provisions for the sale of the Bonds; and (e) any other provisions required to be inserted by other provisions of the Bond Resolution.

Subordinate Lien Obligations

Notwithstanding anything to the contrary in the Bond Resolution, the State may issue bonds, notes or other evidences of indebtedness for the purposes of the Turnpike System payable from the General Reserve Account and the Revenues, subordinate to the deposits and credits required to be made under the Bond Resolution and to the payments required for Operating Expenses, and may secure the bonds, notes or evidences of indebtedness by a pledge of the Revenues inferior to the pledge of the Revenues created by the Bond Resolution. The proceeds of the inferior obligations may be pledged as security for the inferior obligations free and clear of the lien of the Bond Resolution.

Revenue Account

The State shall deposit all of the Revenues into the Revenue Account as promptly as practicable after receipt (other than the Revenues expressly required or permitted by the Bond Resolution to be credited to or deposited in any other account). Moneys in the Revenue Account shall be applied first to the payment of Operating Expenses and then, not later than the twentieth day of each month, except as described below, to the following purposes and in the following order:

- (1) for deposit in the Interest Subaccount of the Debt Service Account, an amount equal to one-sixth of the installment of interest next coming due plus, at any time, any amount required to pay interest on overdue principal;
- (2) for deposit in the Principal Subaccount of the Debt Service Account, an amount equal to one-twelfth of the installment of principal or sinking fund installment next coming due plus, at any time, any amount required to pay principal of Bonds which has been accelerated;
- (3) for deposit in the Rebate Account, such amounts and at such times as are required by supplemental resolution;
- (4) for deposit in the Debt Service Reserve Account, an amount, which together with other amounts on deposit in such Account, will equal the Debt Service Reserve Account Requirement;
- (5) for deposit in the Insurance Reserve Account from time to time, an amount, which together with other amounts on deposit in such Account, will equal the Insurance Reserve Requirement;
- (6) for deposit in the Special Redemption Account from time to time, such amounts as are required to pay accrued interest on the purchase or redemption of Bonds or to reimburse such Account for accrued interest already paid; and
- (7) for deposit in the General Reserve Account, the balance, if any, remaining after making the deposits required by paragraphs (1) through (6) above.

Application of Funds and Accounts

The Bond Resolution provides that the proceeds of Bonds, Revenues and other moneys deposited in the various accounts and subaccounts under the Bond Resolution shall be applied as follows:

Construction Account. Amounts on deposit in the Construction Account shall be applied to the payment of the Project Costs of the respective Projects for which the Bonds are issued. Any balance in the Construction Account not required to pay Project Costs of a Project shall be deposited in the Debt Service Reserve Account to the extent necessary to cause the amount in such Account to equal the Debt Service Reserve Account Requirement and, as the State shall determine, the balance shall be transferred to the Special Redemption Account or be retained in the Construction Account for the purpose of paying Project Costs of other Projects.

Debt Service Account. Amounts on deposit in the Debt Service Account will be applied to the payment of principal (including sinking fund installments) of and interest on the Bonds.

The State may purchase Bonds from available funds and credit them against an installment of principal or sinking fund installment applicable to them at the applicable principal amount or sinking fund redemption price by delivering them to the Trustee for cancellation at least sixty (60) days before the principal due date or sinking fund installment date.

Special Redemption Account. The State may deposit in the Special Redemption Account any moneys not otherwise required by the Bond Resolution to be deposited or applied, including excess proceeds after the completion of a Project and proceeds of insurance or condemnation or other disposition of Turnpike System assets. Amounts in the Special Redemption Account may be applied by the Trustee at

the direction of the Treasurer to the redemption of Bonds or to the purchase of Bonds at prices not exceeding the earliest available redemption price (excluding accrued interest).

Debt Service Reserve Account. If at any time the amount on deposit and available therefor in the Debt Service Account is insufficient to pay an installment of interest or principal or a sinking fund installment when due, amounts in the Debt Service Reserve Account will be applied to the deficiency. If on the twentieth day of any month the amount on deposit in the Debt Service Reserve Account is in excess of the Debt Service Reserve Account Requirement, the excess shall be deposited in the Revenue Account unless the excess accrued prior to the Completion Date of a Project from the investment of proceeds of Bonds issued to finance or refinance the Project, in which case the excess shall be deposited in the Construction Account unless otherwise provided by a Supplemental Resolution. In lieu of any or all of the required deposits into the Debt Service Reserve Account, the State may cause to be deposited therein a surety bond, an insurance policy or a letter of credit in an amount equal to the difference between the Debt Service Reserve Account Requirement and the sums then on deposit in such Account, if any.

General Reserve Account. Amounts on deposit in the General Reserve Account shall be applied in the following order of priority: (1) to make up any deficiencies in payments from the Revenue Account required by the Bond Resolution; (2) to provide funds to pay Renewal and Replacement Costs to the extent necessary to meet the Renewal and replacement Requirement for the then current Fiscal Year; (3) to pay general obligation bonds issued by the State for purposes of the Turnpike System; and (4) subject to the terms of any pledge securing any subordinate lien obligations issued in accordance with the Bond Resolution, for any other lawful purpose of the Turnpike System.

Insurance Reserve Account. The State has deposited the sum of \$3,000,000 into the Insurance Reserve Account, which amount will be available to insure against risks that would otherwise be covered by policies of insurance. The State will maintain the Insurance Reserve Account at the Insurance Reserve Requirement, which Requirement shall at all times be no less than \$3,000,000. If there is a deficiency in the amounts available in the Debt Service Account to pay an installment of interest or principal or a sinking fund installment when due, after first taking account of any transfers from the Debt Service Reserve Account and the General Reserve Account, the State shall make up the deficiency by transfer from the Insurance Reserve Account and the State shall reimburse the Insurance Reserve Account from the next available moneys in the Revenue Account after payment of Operating Expenses and after any required payments into the Debt Service Account, Rebate Account and Debt Service Reserve Account.

Rebate Account. There is to be established within the Rebate Account a subaccount to be known as the 2019 Series Bonds Rebate Subaccount into which the sum of (i) any excess of (A) the aggregate amount earned on all Nonpurpose Investments (as defined in Section 148 of the Code), acquired with any Gross Proceeds (as defined in the Code), over (B) the amount which would have been earned if all Nonpurpose Investments in such accounts were invested at a rate equal to the yield on the 2019 Series Bonds, plus (ii) any income attributable to the investment of any excess described in clause (i) above or this clause (ii) to be deposited. Within 45 days after the close of each bond year, the Treasurer shall compute and certify the amount of such excess, if any, for such bond year, and the Treasurer shall deposit such amount into the 2019 Series Bonds Rebate Subaccount from the Revenue Fund.

If at the close of any bond year the amount in the 2019 Series Bonds Rebate Subaccount exceeds the amount that would be required to be paid to the United States if the 2019 Series Bonds were no longer Outstanding, upon certification thereof by the Treasurer, such excess shall promptly be paid to the Treasurer for deposit in the Revenue Account.

Within 60 days after the close of the fifth twelve-month period from the date of issuance of the 2019 Series Bonds and at least once in each five-year period thereafter, the Treasurer shall cause to be paid to the United States the full amount then required to be paid under the rebate provisions of the Code. Within 60 days after the 2019 Series Bonds are no longer Outstanding, the Treasurer shall cause to be paid to the United States the full amount then required to be paid under the rebate provisions of the Code as calculated by the Treasurer. If the amount in the 2019 Series Bonds Rebate Subaccount is insufficient to pay the amount required to be paid, the Treasurer shall be

liable to make up that deficiency from the Revenue Account no later than 15 days prior to each date on which a rebate payment is due.

The provisions described above shall be complied with by the State in order to meet the requirements of the Code such that interest on the 2019 Series Bonds shall be and remain excludable from the gross income of the recipients thereof for federal income tax purposes; provided, however, that the State shall not be required to comply with any such provision with respect to the 2019 Series Bonds in the event the State receives an opinion of nationally recognized bond counsel that compliance with such provision is no longer required to satisfy the requirements of the Code or that compliance with some other provision in lieu of a provision described above will satisfy said requirements in which case compliance with such other provision specified in such opinion shall constitute compliance with provisions described above.

Investment of Accounts

Moneys in the Revenue Account and the General Reserve Account not needed for immediate disbursement may be invested by the Treasurer as permitted by law. Other moneys held by the Treasurer or by the Trustee under the Bond Resolution which are not needed for immediate disbursement shall, to the extent practicable and reasonable, be invested in Permitted Investments (as defined below) by the Treasurer in the case of accounts held by the Treasurer, or by the Trustee as directed by the Treasurer (or in the discretion of the Trustee if no direction is received from the Treasurer) in the case of other accounts, subject to the following:

- (1) The Permitted Investments must mature or be redeemable at the option of the holder at or before the time when the moneys are expected to be needed;
- (2) In the case of the Debt Service Reserve Account, the only Permitted Investments are direct and general obligations of, or obligations unconditionally guaranteed by the United States of America;
- (3) Moneys in several accounts may be invested in undivided interests in the same Permitted Investments if they are otherwise eligible for each of the several funds. Permitted Investments may be transferred in kind at fair market value from one account to another when transfers are required if they are eligible for the transferee account; and
- (4) In the event that invested moneys in an account are required for expenditure or transfer, the investments shall be sold or redeemed to the extent necessary, subject to the notice provisions of the Uniform Commercial Code to the extent applicable. Permitted Investments may be sold by one account to another if eligible for investment by the latter.

The term “**Permitted Investments**” means the following, to the extent permitted by New Hampshire Revised Statutes Annotated 6:7 and 6:8 as amended from time to time:

- (a) Defeasance Obligations;
- (b) bonds, notes or other evidences of indebtedness issued or guaranteed by the Banks for Cooperatives, Federal Intermediate Credit Banks, Federal Home Loan Bank System, Federal Land Banks, Farmers Home Administration, Student Loan Marketing Association, Federal National Mortgage Association or Government National Mortgage Association;
- (c) direct and general obligations of any state of the United States for the payment of the principal of and interest on which the full faith and credit of the state is pledged, provided that at the time of their purchase, such obligations are rated in either of the two highest rating categories by Moody’s Investors Service, Inc. and Standard & Poor’s Corporation;
- (d) interest-bearing deposit accounts, certificates of deposit or similar banking arrangements maturing within one year, which are either (i) fully insured by the Federal Deposit Insurance Corporation, or (ii) fully secured at all times by Defeasance Obligations, or (iii) with a bank or trust company that is

rated in either of the two highest rating categories by Moody's Investors Service, Inc. and Standard & Poor's Corporation;

(e) repurchase agreements, with a term of not more than one year or due on demand, relating to and fully secured by Defeasance Obligations with a bank or trust company, or with a government bond dealer reporting to, trading with, and recognized as a primary dealer by, the Federal Reserve Bank of New York; provided that the market value of such securities is marked-to-market weekly and maintained at one hundred four percent (104%) of the repurchase price plus accrued interest specified in the agreement and that such securities are segregated from the unencumbered assets of such bank or trust company or government bond dealer; and provided further that the agreement shall expressly authorize the Trustee to liquidate the purchased securities in the event of the insolvency of the party required to repurchase such securities or the commencement against such party of a case under the federal Bankruptcy Code or the appointment of or taking possession by a trustee or custodian in a case against such party under the Bankruptcy Code; and

(f) investment agreements with a bank or bank holding company which is rated at their time of purchase in either of the two highest rating categories by Moody's Investors Service, Inc. and Standard & Poor's Corporation, which agreements have been approved for sale by a national securities exchange and all regulatory authorities having jurisdiction.

Permitted Investments may be purchased from or through the Trustee.

Except as set forth below or as otherwise provided in the supplemental resolution providing for the issuance of a Series of Bonds, all income from investments in any account established under the Bond Resolution (including net profit from the sale of any investment) shall accrue to and be held in the account. Income from investment of the Special Redemption Account shall be transferred to the Debt Service Account and credited against the amounts otherwise required to be deposited in the Debt Service Account. For the period until the Completion Date of a Project financed by Bonds (or until the Project is discontinued pursuant to the Bond Resolution) income accruing from investment of the proceeds of Bonds issued to finance or refinance the Project which have been deposited in the Debt Service Account, the Construction Account, and the Debt Service Reserve Account, shall be deposited in the Construction Account, or as otherwise provided by the supplemental resolution under which the Bonds are issued for the Project. The 1990 Series Supplemental Resolution provides that all such income accruing from investments in the Debt Service Account and the Debt Service Reserve Account shall be deposited in the Revenue Account. Any loss from investment of a fund or account shall be charged to the account but, unless otherwise made up, shall be set off against income from investment of the account which would otherwise be deposited in another account.

Except as otherwise provided in the Supplemental Resolution providing for the issuance of a Series of Bonds, investments shall be valued at cost (plus amortized discount or minus amortized premium but excluding accrued interest to the date of purchase) plus accrued interest to the date as of which they are valued unless the Treasurer or the Trustee determines that a lower valuation is necessary by reason of uncertainty of payment or anticipated loss on sale prior to maturity.

Covenants

Tolls and Charges. See *Security for the Bonds – Toll Rate Covenant.*

Annual Budget. For each Fiscal Year the State shall file with the Treasurer an annual budget relating to the Turnpike System, which annual budget shall be consistent with the then current biennial budget enacted by the State Legislature. The State may at any time adopt and file with the Treasurer an amended or supplemental annual budget for the Fiscal Year then in progress. The annual budget shall show projected Operating Expenses, Debt Service, Renewal and Replacement Costs and other payments from the Revenue Account and the General Reserve Account and the Revenues to be available to pay the same.

Independent Engineer. The State shall retain one or more independent consulting engineers or engineering firms, having a national reputation for knowledge and experience in analyzing the operations of this type of system, to perform the duties of the Independent Engineer under the Bond Resolution.

Operation, Maintenance and Improvement of the System. The State shall operate and maintain the Turnpike System and make improvements to the same in accordance with prudent practice for this type of system.

Insurance. The State shall at all times maintain such insurance with respect to the Turnpike System, either through insurance reserves or through insurance policies, as it determines is prudent or necessary to protect the interests of the State and the bondholders. In the event of loss or damage to property covered by the insurance, the State shall repair and reconstruct or replace the damaged or lost property as soon as practicable and to the extent necessary for the proper conduct of its operations and shall apply the proceeds of the insurance for that purpose to the extent needed. Any excess proceeds from property insurance shall be paid to the Trustee for deposit in the Debt Service Reserve Account to the extent necessary to cause the amount in the Debt Service Reserve Account to equal the Debt Service Reserve Account Requirement and the balance shall be deposited, as the State shall determine, in the Construction Account (for the purpose of paying Project Costs of Projects designated by the State) or the Special Redemption Account.

The State, acting through its Department of Insurance, shall annually review the kinds and amounts of insurance policies and self-insurance maintained by the State with respect to the Turnpike System and no later than sixty days after the end of each Fiscal Year shall deliver to the Treasurer a report describing the insurance then in effect and a certificate from the Commissioner of Insurance of the State setting forth the Insurance Reserve Requirement for the next Fiscal Year or any portion thereof. If at any time the Insurance Reserve Requirement shall be increased as described above or if as of the last business day of a Fiscal Year the balance in the Insurance Reserve Account shall be less than the Insurance Reserve Requirement for that Fiscal Year, the certificate required by the foregoing sentence shall also specify the dates and amounts of deposits to the Insurance Reserve Account during the next succeeding Fiscal Year so that no later than the last day of such next succeeding Fiscal Year the balance in the Insurance Reserve Account shall equal the Insurance Reserve Requirement as of that date.

No Encumbrance or Disposition of the Revenues or Properties of the Turnpike System. The State shall not sell, mortgage, lease or otherwise dispose of or encumber the Revenues or any properties of the Turnpike System, except that:

(1) the State may sell, lease, or otherwise dispose of for fair market value any portion of the properties of the Turnpike System which in the reasonable judgment of the State has become obsolete or worn out, or no longer used or useful, or which is to be or has been replaced by other property; and

(2) except as provided in paragraph (1), the State may also sell, lease, or otherwise dispose of for fair market value any portion of the properties of the Turnpike System upon filing with the Trustee a certificate (a) of the Independent Engineer stating that the sale, lease or other disposition is in accordance with prudent practice for this type of system and containing the statements required by paragraph (1)(D) under the caption *Security for the Bonds - Additional Indebtedness - Additional Parity Bonds*, and (b) of an Authorized Officer containing the statements required by paragraph (1)(E) thereunder, as if the date of the sale, lease or other disposition were a date of issuance of Bonds.

If any portion of the properties of the Turnpike System is taken by eminent domain, any moneys received by the State as a result shall be paid to the Trustee for deposit in the Debt Service Reserve Account to the extent necessary to cause the amount in the Debt Service Reserve Account to equal the Debt Service Reserve Account Requirement, and any balance shall be paid into the Revenue Account if the balance is not in excess of one percent (1%) of the principal amount of the Outstanding Bonds. If the balance exceeds that sum, it shall be deposited, as the State shall determine, in the Construction Account (for the purpose of paying Project Costs of Projects designated by the State) or the Special Redemption Account.

Books of Account; Annual Audit. The State shall keep proper books and accounts relating to the Turnpike System. Within one hundred eighty days after the end of each Fiscal Year, the State shall file with the Trustee an annual financial statement, certified by an independent certified or registered public accountant or an independent firm of certified or registered public accountants. The report of the auditor shall state whether there has come to the attention of the auditor in the course of its examination any Default under the Bond Resolution and, if so, the nature of the Default.

Carrying Out Projects. The State shall proceed with due diligence to carry out and complete the Projects financed by the issuance of Bonds. The State may, however, discontinue a Project prior to its completion by written notice to the Treasurer and the Trustee, with a certificate of an Authorized Officer stating that, by reason of change of circumstance not reasonably expected at the time of issuance of the Bonds, completion of the Project is no longer consistent with prudent practice for this type of system.

Federal Income Tax. Except as otherwise provided as to a Series of Bonds in the Supplemental Resolution providing for their issuance, the State shall not make any use of Bond proceeds or take any other action that would cause the interest on a Series of Bonds to become included in gross income for federal income tax purposes, and shall not fail to take any other lawful action necessary for interest on a Series of Bonds to be or continue to be excluded from gross income for federal income tax purposes.

Events of Default; Acceleration of Maturities

An “**Event of Default**” under the Bond Resolution means any one of the following events:

- (1) The State fails to make any payment of principal or redemption price of any of the Bonds when due, whether at maturity or by proceedings for redemption or otherwise.
- (2) The State fails to make any payment of interest on any of the Bonds when due and the failure continues for thirty (30) days.
- (3) The State fails to make any payment required to be made into any account held by the Trustee under the Bond Resolution and the failure continues for thirty (30) days.
- (4) The State sells, mortgages, leases or otherwise disposes of or encumbers the Revenues or any properties of the Turnpike System in violation of the Bond Resolution, or makes an agreement to do so.
- (5) Any part of the Turnpike System shall be damaged or destroyed to the extent of impairing its efficient operation and having a material adverse effect on Revenues and shall not be promptly repaired, replaced or reconstructed.
- (6) The State fails to perform any other covenant or agreement contained in the Bond Resolution and the failure continues for sixty (60) days after written notice to the State by the Trustee or to the State and the Trustee by the owners of not less than twenty-five percent (25%) in principal amount of the Outstanding Bonds.

Upon the occurrence of an Event of Default and so long as the default is not cured, either the Trustee or the holders of 25% in principal amount of the Outstanding Bonds, in addition to their other remedies under the Bond Resolution, may (by written notice to the State and the Trustee) declare the principal of all Outstanding Bonds, and the interest accrued thereon, to be due and payable immediately.

Payment of Funds to the Trustee; Application of Funds

If an Event of Default occurs and has not been cured, the Treasurer, upon demand of the Trustee, will pay over to the Trustee the funds and investments in the Construction Account, and the Treasurer, upon demand of the Trustee, will pay over to the Trustee all Revenues on hand and all moneys and investments then held by the Treasurer in any funds and accounts held by it under this Bond Resolution and shall transfer to the Trustee, as received and in the form received, all subsequent Revenues. After a transfer of the moneys and investments in an account pursuant to the preceding sentence, the Trustee shall administer the account until all Events of Default have been cured.

If at any time the available funds are insufficient for the payment of the principal or redemption price and interest then due on the Bonds, the following accounts (other than funds held in trust for the payment or redemption of particular Bonds) shall be used in the following order:

Debt Service Account
Debt Service Reserve Account

General Reserve Account
Insurance Reserve Account
Construction Account
Special Redemption Account

and the State shall promptly restore from the Revenue Account any amount taken for this purpose from any account other than the Debt Service Account. The moneys shall be applied in the following order of priority:

First, to the payment of all unpaid interest then due on Bonds (including any interest on overdue principal and, to the extent permitted by law, interest on overdue interest at the same rate) in the order in which the same becomes due, and, if the amount available is sufficient to pay the unpaid interest which became due on any date in part but not in full, then to the payment of that interest ratably; and

Second, to the payment of the unpaid principal or redemption price of Bonds then due ratably without regard to when the same became due.

Other Remedies

The Trustee may pursue any available remedy at law or in equity to collect the payment of principal or redemption price of and interest on the Bonds or to enforce the performance of any provisions of the Bonds or the Bond Resolution. The Trustee may maintain a proceeding even if it does not possess any of the Bonds or does not produce them in the proceeding.

The owners of a majority in principal amount of Outstanding Bonds may direct the time, method and place of conducting any proceeding for any remedy available to the Trustee, but the Trustee may refuse to follow any direction that conflicts with law or the Bond Resolution, is unduly prejudicial to the rights of any bondholder, or would involve the Trustee in liability from its own funds.

Limitation on Suits

A bondholder may bring an action at law to recover the principal or redemption price or interest due or overdue on its Bond or Bonds. A bondholder may pursue any other remedy at law or in equity with respect to the Bond Resolution or the Bonds only if:

- (a) the bondholder gives the Trustee written notice of a continuing Event of Default;
- (b) the owners of at least twenty-five percent (25%) in principal amount of Outstanding Bonds make a written request to the Trustee to pursue the remedy;
- (c) the bondholders making the request offer to the Trustee indemnity satisfactory to the Trustee against any loss, liability or expense;
- (d) the Trustee does not comply with the request within sixty (60) days after receipt of the request and the offer of indemnity; and
- (e) during the sixty (60) day period the owners of a majority in principal amount of Outstanding Bonds do not give the Trustee a direction inconsistent with the request.

Defeasance

The obligations, pledge, covenants and agreements of the State under the Bond Resolution (other than the covenant with respect to federal Income Tax and its obligations with respect to defeasance) shall be discharged and satisfied as to any Bond for which there have been irrevocably set aside with the Trustee sufficient funds, or Defeasance Obligations certified by an independent public accounting firm of national reputation to be in such principal amounts, bearing interest at such rates and with such maturities as will provide sufficient funds to pay the principal or redemption price and interest when due on the Bond, and when all proper fees and expenses of the Trustee pertaining to the Bond have been paid or provided for to the satisfaction of the Trustee. An escrow account

held by the Trustee as contemplated by this paragraph may be restructured to provide substitute Defeasance Obligations meeting the criteria set forth in the Bond Resolution, to the extent and as provided in the agreement establishing such escrow account.

Notwithstanding the foregoing, in the case of Bonds which are to be redeemed prior to their stated maturities, no deposit in accordance with the preceding paragraph shall operate as a discharge and satisfaction until the Bonds have been irrevocably called or designated for redemption and proper notice of the redemption has been given or provision satisfactory to the Trustee has been irrevocably made for doing so.

Amending the Bond Resolution

Without Consent of Bondholders. The State, acting through the Governor and Council, may from time to time, with the written concurrence of the Trustee but without the consent of any bondholder, adopt Supplemental Resolutions (a) to provide for the issuance of Additional Bonds; (b) to make changes in the Bond Resolution which may be required to permit the Bond Resolution to be qualified under the Trust Indenture Act of 1939, as amended; and (c) for any one or more of the following purposes:

- (1) to cure or correct any ambiguity, defect or inconsistency in the Bond Resolution;
- (2) to add additional covenants and agreements of the State for the purpose of further securing the payment of the Bonds;
- (3) to limit or surrender any right, power or privilege reserved to or conferred upon the State by the Bond Resolution;
- (4) to confirm any lien or pledge created or intended to be created by the Bond Resolution;
- (5) to confer upon the bondholders additional rights or remedies or to confer upon the Trustee for the benefit of the bondholders additional rights, duties, remedies or powers; and
- (6) to modify the Bond Resolution in any other respect, provided that the modification shall not be effective until after the Outstanding Bonds affected by the modification cease to be Outstanding.

With Consent of Bondholders. With the written concurrence of the Trustee and the consent of the owners of not less than sixty-six and two thirds percent (66 2/3%) in principal amount of the Outstanding Bonds, the State may from time to time adopt Supplemental Resolutions for the purpose of making other changes in the Bond Resolution; provided, however, that without the consent of the owner of each Bond affected, no Supplemental Resolution shall:

- (1) change the maturity date for the payment of the principal of any Bond or the dates for the payment of interest on any Bond or the terms of the redemption of any Bond, or reduce the principal amount of any Bond or the rate of interest on any Bond or the redemption price of any Bond;
- (2) reduce the requirement of consents under this proviso for a Supplemental Resolution; or
- (3) give to any Bond preference over any other Bond.

It shall not be necessary that the consents of the bondholders approve the particular wording of the proposed Supplemental Resolution if the consents approve the substance. After the owners of the required percentage of Bonds have filed their consents with the Trustee, the Trustee shall mail notice to the bondholders. No action or proceeding to invalidate the Supplemental Resolution shall be instituted or maintained unless it is commenced within sixty (60) days after the Trustee has notified the State that it has mailed the notice to the bondholders.

COMPETITIVE SALE OF THE 2019 SERIES BONDS

After competitive bidding on October 31, 2019, the 2019 Series Bonds were awarded to Jefferies LLC (the "Underwriter"). The Underwriter has supplied the information as to the public offering prices and yields of the 2019

Series Bonds set forth on the inside cover hereof. The Underwriter has informed the State that if all of the 2019 Series Bonds are resold to the public at those prices and yields, they anticipate the total Underwriter's compensation to be \$66,280.67. The Underwriter may change the public offering prices and yields from time to time.

TAX EXEMPTION

In the opinion of Locke Lord LLP, Bond Counsel to the State ("Bond Counsel"), based upon an analysis of existing laws, regulations, rulings, and court decisions, and assuming, among other matters, compliance with certain covenants, interest on the 2019 Series Bonds is excluded from gross income for federal income tax purposes under Section 103 of the Internal Revenue Code of 1986 (the "Code"). Bond Counsel is of the further opinion that interest on the 2019 Series Bonds will not be included in computing the alternative minimum taxable income of Bondholders who are individuals. Bond Counsel expresses no opinion regarding any other federal tax consequences arising with respect to the ownership or disposition of, or the accrual or receipt of interest on, the 2019 Series Bonds.

The Code imposes various requirements relating to the exclusion from gross income for federal income tax purposes of interest on obligations such as the 2019 Series Bonds. Failure to comply with these requirements may result in interest on the 2019 Series Bonds being included in gross income for federal income tax purposes, possibly from the date of original issuance of the 2019 Series Bonds. The State has covenanted to comply with such requirements to ensure that interest on the Bonds will not be included in federal gross income. The opinion of Bond Counsel assumes compliance with these requirements.

Bond Counsel is also of the opinion that, under existing law, interest on the 2019 Series Bonds is exempt from the New Hampshire personal income tax on interest and dividends. Bond Counsel expresses no opinion regarding any other New Hampshire tax consequences arising with respect to the 2019 Series Bonds. Bond Counsel also has not opined as to the taxability of the 2019 Series Bonds or the income therefrom under the laws of any state other than New Hampshire. A complete copy of the proposed form of opinion of Bond Counsel is set forth in Appendix E hereto.

To the extent the issue price of any maturity of the 2019 Series Bonds is less than the amount to be paid at maturity of such 2019 Series Bonds (excluding amounts stated to be interest and payable at least annually over the term of such 2019 Series Bonds), the difference constitutes "original issue discount," the accrual of which, to the extent properly allocable to each Beneficial Owner thereof, is treated as interest on the 2019 Series Bonds which is excluded from gross income for federal income tax purposes and is exempt from the New Hampshire personal income tax on interest and dividends. For this purpose, the issue price of a maturity of the 2019 Series Bonds is the reasonably expected initial offering price or the first price at which a substantial amount of such maturity of the 2019 Series Bonds is sold to the public, as applicable. The original issue discount with respect to any maturity of the 2019 Series Bonds accrues daily over the term to maturity of such 2019 Series Bonds on the basis of a constant interest rate compounded semiannually (with straight-line interpolations between compounding dates). The accruing original issue discount is added to the adjusted basis of such 2019 Series Bonds to determine taxable gain or loss upon disposition (including sale, redemption, or payment on maturity) of such 2019 Series Bonds. Beneficial Owners of the 2019 Series Bonds should consult their own tax advisors with respect to the tax consequences of ownership of 2019 Series Bonds with original issue discount, including the treatment of purchasers who do not purchase such 2019 Series Bonds in the original offering to the public at the reasonably expected initial offering price to the public, the first price at which a substantial amount of such 2019 Series Bonds is sold to the public or, if applicable, a combination thereof.

2019 Series Bonds purchased, whether at original issuance or otherwise, for an amount greater than the stated principal amount to be paid at maturity of such 2019 Series Bonds, or, in some cases, at the earlier redemption date of such 2019 Series Bonds ("Premium Bonds"), will be treated as having amortizable bond premium for federal income tax purposes and for purposes of the New Hampshire personal income tax on interest and dividends. No deduction is allowable for the amortizable bond premium in the case of obligations, such as the Premium Bonds, the interest on which is excluded from gross income for federal income tax purposes. However, a Beneficial Owner's basis in a Premium Bond will be reduced by the amount of amortizable bond premium properly allocable to such Beneficial Owner. Beneficial Owners of Premium Bonds should consult their own tax advisors with respect to the proper treatment of amortizable bond premium in their particular circumstances.

Bond Counsel has not undertaken to determine (or to inform any person) whether any actions taken (or not taken) or events occurring (or not occurring) after the date of issuance of the 2019 Series Bonds may adversely affect the value of, or the tax status of interest on, the 2019 Series Bonds.

Although Bond Counsel is of the opinion that interest on the 2019 Series Bonds is excluded from gross income for federal income tax purposes and is exempt from the New Hampshire personal income tax on interest and dividends, the ownership or disposition of, or the accrual or receipt of interest on, the 2019 Series Bonds may otherwise affect a Beneficial Owner's federal or state tax liability. The nature and extent of all such other tax consequences will depend upon the particular tax status of the Beneficial Owner or the Beneficial Owner's other items of income, deduction or exclusion. Bond Counsel expresses no opinion regarding any such other tax consequences, and Beneficial Owners should consult with their own tax advisors with respect to such consequences.

Risk of Future Legislative Changes and/or Court Decisions

Legislation affecting tax-exempt obligations is regularly considered by the United States Congress and may also be considered by the New Hampshire legislature. Court proceedings may also be filed, the outcome of which could modify the tax treatment of obligations such as the 2019 Series Bonds. There can be no assurance that legislation enacted or proposed, or actions by a court, after the date of issuance of the 2019 Series Bonds will not have an adverse effect on the tax status of interest on the 2019 Series Bonds or the market value or marketability of the 2019 Series Bonds. These adverse effects could result, for example, from changes to federal or state income tax rates, changes in the structure of federal or state income taxes (including replacement with another type of tax), or repeal (or reduction in the benefit) of the exclusion of interest on the 2019 Series Bonds from gross income for federal or state income tax purposes for all or certain taxpayers.

For example, H.R. 1, signed into law on December 22, 2017, reduces the corporate tax rate, modifies individual tax rates, eliminates many deductions, and raises the income threshold above which the individual alternative minimum tax is invoked, among other things. These changes may increase, reduce or otherwise change the financial benefits of owning state and local government bonds. Additionally, Bondholders should be aware that future legislative actions (including federal income tax reform) may retroactively change the treatment of all or a portion of the interest on the 2019 Series Bonds for federal income tax purposes for all or certain taxpayers. In all such events, the market value of the 2019 Series Bonds may be affected and the ability of Bondholders to sell their 2019 Series Bonds in the secondary market may be reduced. The 2019 Series Bonds are not subject to special mandatory redemption, and the interest rates on the 2019 Series Bonds are not subject to adjustment, in the event of any such change in the tax treatment of interest on the 2019 Series Bonds.

Investors should consult their own financial and tax advisors to analyze the importance of these risks.

LITIGATION

There is no controversy or litigation of any nature now pending or threatened, restraining or enjoining the issuance, sale, execution or delivery of the 2019 Series Bonds, or in any way contesting or affecting the validity of the 2019 Series Bonds or any proceedings of the State taken with respect to the issuance or sale thereof, or the pledge or application of any moneys or security provided for the payment of the 2019 Series Bonds, or the existence or powers of the State with respect to the Turnpike System.

The State is not a party to any litigation or other proceeding pending or, to the knowledge of the State, threatened in any court, agency or other administrative body (either state or federal) which, if decided adversely to the State, would have a material effect on the financial condition of the Turnpike System.

The Turnpike System is involved in certain lawsuits, claims and grievances arising in the normal course of business, including claims for personal injury, property damage and disputes over eminent domain proceedings. In the opinion of the State Attorney General's Office, payment of claims by the Turnpike System for amounts not covered by insurance in the aggregate, are not expected to have a material adverse effect on the Turnpike's financial position.

RATINGS

Fitch Ratings, Inc., Moody's Investors Services, Inc. and S&P Global Ratings, a division of S&P Global have assigned their municipal bonds ratings of "A+" (outlook: positive), "Aa3" (outlook: stable) and "AA-" (outlook: stable), respectively, to the 2019 Series Bonds.

Each such rating reflects only the views of the respective rating agency, and an explanation of the significance of such rating should be obtained from such rating agency. Generally, a rating agency bases its rating on the information and materials furnished to it and on investigations, studies and assumptions of its own. The above ratings are not recommendations to buy, sell or hold the 2019 Series Bonds. There is no assurance such ratings will continue for any given period of time or that such ratings will not be revised downward or withdrawn entirely by the rating agencies, if in the judgment of such rating agencies, circumstances so warrant. Any such downward revision or withdrawal of such ratings may have an adverse effect on the market price of the 2019 Series Bonds.

FINANCIAL ADVISOR

Public Resources Advisory Group, New York, New York, is serving as Financial Advisor in connection with the issuance of the 2019 Series Bonds. The Financial Advisor is an independent advisory firm and is not engaged in the business of underwriting, trading, or distributing municipal securities or other public securities. The Financial Advisor is not obligated to undertake to make an independent verification of, or to assume responsibility for the accuracy, completeness or fairness of the information contained in the Official Statement.

TRAFFIC AND REVENUE STUDY

The State has engaged Stantec to provide the Traffic and Revenue Study included herein as Appendix A. Stantec has advised the State that it has reviewed the summaries contained in this Official Statement of the information, estimates and projections contained in the Traffic and Revenue Study included herein as Appendix A and that, in its opinion, the statements made herein are correct and fairly present in summary form the information contained in such Traffic and Revenue Study, and that all material assumptions or qualifications with respect to such statements are reflected in Appendix A. Stantec has consented to the inclusion in this Official Statement of the Traffic and Revenue Study. The traffic and revenue projections contained in the Traffic and Revenue Study are based on various assumptions. No assurances can be given that actual conditions will not materially and adversely differ from such assumed conditions. The Traffic and Revenue Study included in Appendix A should be read in its entirety.

LEGALITY FOR INVESTMENT

Under the laws of the State, the 2019 Series Bonds are authorized investments for fiduciaries and may be legally deposited as security for public funds in the State.

CONTINUING DISCLOSURE

The State has covenanted with the Trustee for the benefit of the holders of the 2019 Series Bonds to provide certain financial information and operating data relating to the Turnpike System by not later than 240 days following the end of each fiscal year during which the 2019 Series Bonds are outstanding (the "Annual Report"), and to provide notices of certain enumerated, significant events. The Annual Report and notices of significant events will be filed on behalf of the State with the MSRB through EMMA. The specific nature of the information to be contained in the Annual Report or the notices of significant events is summarized in Appendix D - "Form of Continuing Disclosure Certificate."

The following sentence describes the one instance in the previous five years of non-compliance with the terms of its undertakings entered into pursuant to the Rule.

The State did not file notice of a rating change that occurred in April, 2011 with respect to its Turnpike System Revenue Bonds until December 2, 2014.

The State has established written policies to ensure that future continuing disclosure filings will be made with EMMA in a timely fashion.

LEGAL MATTERS

Legal matters incident to the authorization and sale of the 2019 Series Bonds are subject to the approval of Locke Lord LLP, Boston, Massachusetts, Bond Counsel, whose opinions will be dated the date of the issuance of the Bonds and will speak only as of that date. The form of the approving opinion of Locke Lord LLP is set forth in Appendix E hereto.

VERIFICATION OF MATHEMATICAL COMPUTATIONS

The arithmetical accuracy of certain computations included in the schedules provided by Public Resources Advisory Group, on behalf of the State relating to the computation of the funds necessary to be deposited into the Refunding Trust Fund in order to pay, when due, interest on and upon redemption, the outstanding principal of and redemption premium on the Refunded Bonds will be verified by Robert Thomas CPA, LLC. Such computations will be based solely upon assumptions and information supplied by Public Resources Advisory Group, on behalf of the State. Robert Thomas CPA, LLC will restrict its procedures to verifying the arithmetical accuracy of certain computations and has not made any study or evaluation of the assumptions and information upon which the computations are based and, accordingly, will not express an opinion on the data used, the reasonableness of the assumptions or the achievability of future events.

TURNPIKE SYSTEM FINANCIAL STATEMENTS

The Turnpike System's financial statements for the fiscal year ended June 30, 2018, presented in accordance with generally accepted accounting principles, and the report of the State's independent auditors, KPMG LLP, with respect thereto ("2018 Financial Statements"), were filed on December 27, 2018 with the MSRB through EMMA. Specific reference is hereby made to the 2018 Financial Statements. The 2018 Financial Statements are the most recently available audited financial statements and are also available on the State of New Hampshire Department of Transportation website at: <http://www.nh.gov/dot/media/publications.htm>. The 2018 Financial Statements are also included in the State's Comprehensive Annual Financial Report for the fiscal year ended June 30, 2018, which was filed on December 28, 2018 with the MSRB through EMMA and includes the report of the State's independent auditors, KPMG LLP. KPMG LLP has not been engaged to perform, since the date of its report referenced above, any procedures on the financial statements addressed in that report. KPMG LLP has not performed any procedures relating to this Official Statement. Fiscal year 2019 financial statements are not expected to be available until December, 2019.

MISCELLANEOUS

The financial data and other information contained herein have been obtained from the State's records and other sources which are believed to be reliable. However, no assurance can be given that any of the assumptions or estimates contained herein will be realized.

Neither this Official Statement nor any advertisement of the 2019 Series Bonds is to be construed as a contract with the holders of the 2019 Series Bonds. Any statements made in this Official Statement involving matters of opinion or of estimates, whether or not expressly so identified, are intended merely as such and not as representations of fact.

Additional information concerning the State or the Turnpike System may be obtained upon written request to the Office of the State Treasurer, State House Annex, Concord, New Hampshire 03301, or by calling (603) 271-2621.

State of New Hampshire

By: /s/ William F. Dwyer
State Treasurer

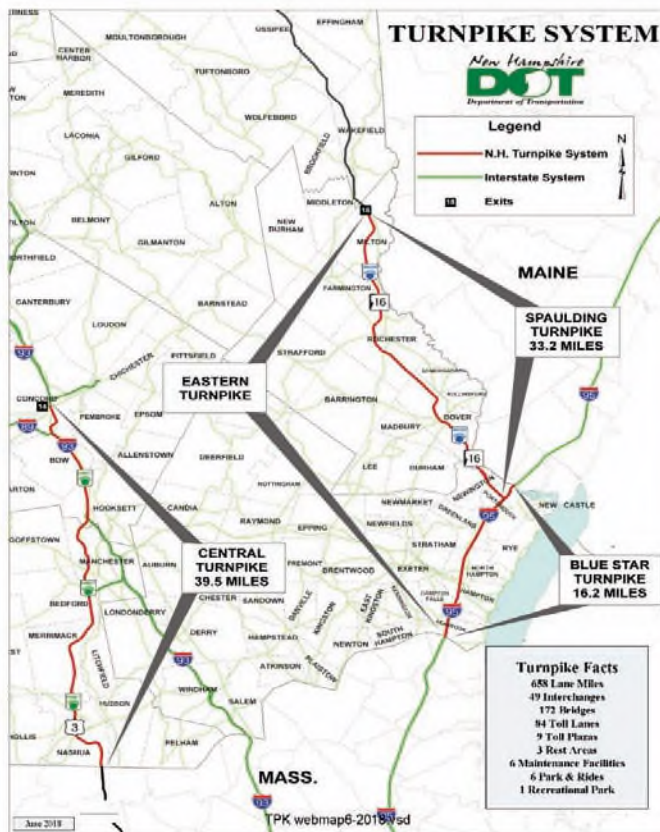
October 31, 2019

APPENDIX A

TRAFFIC AND REVENUE STUDY

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New Hampshire Turnpike System Traffic and Revenue Study



Prepared for:



New Hampshire Department of Transportation

Prepared by:



October 23, 2019

Sign-off Sheet

This document entitled New Hampshire Turnpike System Traffic and Revenue Study was prepared by Stantec Consulting Services Inc. ("Stantec") for the account of New Hampshire Department of Transportation (the "Client") in connection with the issuance of the State of New Hampshire Turnpike System Revenue Bonds, 2019 Refunding Series (the "2019 Refunding"). Any reliance on this document by any third party other than in connection with the issuance of the 2019 Refunding Bonds is strictly prohibited. The material in it reflects Stantec's professional judgment in light of the scope, schedule and other limitations stated in the document and in the contract between Stantec and the Client. The opinions in the document are based on conditions and information existing at the time the document was published and do not consider any subsequent changes. In preparing the document, Stantec did not verify information supplied to it by others. Any use which a third party makes of this document is the responsibility of such third party. Such third party agrees that Stantec shall not be responsible for costs or damages of any kind, if any, suffered by it or any other third party as a result of decisions made or actions taken based on this document.

Prepared by



(signature)

Phil Eshelman

Reviewed by



(signature)

Suzanne Seegmuller

Approved by



(signature)

Rick Gobeille

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NEW HAMPSHIRE TURNPIKE SYSTEM TRAFFIC AND REVENUE STUDY

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NEW HAMPSHIRE TURNPIKE SYSTEM TRAFFIC AND REVENUE STUDY

Executive Summary

October 23, 2019

EXECUTIVE SUMMARY

Stantec Consulting Services Inc. was retained by the New Hampshire Department of Transportation (NHDOT) to conduct this traffic and revenue study for the New Hampshire Turnpike System (the “Turnpike System”) in connection with the issuance of the 2019 Refunding Bonds. Stantec analyzed historical traffic and revenue data for the entire Turnpike System to determine historical trends, correlated traffic with key economic indicators, and researched demographic data and other factors that have affected recent traffic and/or will affect future traffic. In addition, Stantec reviewed the historical and proposed Turnpike Capital Improvement Program as well as historical and projected expenditures for the Turnpike System related to operations, maintenance, renewal and replacement, and toll processing.

All of this information and analyses was then used to develop a traffic and revenue model to estimate annual traffic and toll revenue for the ten-year period from Fiscal Year 2020 (i.e., July 2019 – June 2020) through Fiscal Year 2029. Actual Fiscal Year (FY) 2018, unaudited actual for FY 2019 and projected annual toll revenues are summarized in Table ES-0.1. These forecasts assume no future toll increases. They take into account the planned conversion of the Dover and Rochester tolling plazas to all-electronic tolling (AET) in July 2021, as well as growth in traffic from the widening and improvement projects on the Spaulding Turnpike.

Table ES-0.1: FY 2018 – FY2019 and Projected Annual Toll Revenues, FY 2020-2029 (in millions)

Fiscal Year	Central Turnpike	Blue Star Turnpike	Spaulding Turnpike ¹	Total
2018 Actual	\$ 46.9	\$ 65.3	\$ 17.2	\$ 129.4
2019 ²	\$ 47.7	\$ 67.6	\$ 17.7	\$ 132.9
2020	\$ 48.2	\$ 67.3	\$ 17.8	\$ 133.4
2021	\$ 48.5	\$ 68.1	\$ 18.2	\$ 134.8
2022	\$ 48.9	\$ 68.9	\$ 16.4	\$ 134.2
2023	\$ 49.4	\$ 69.8	\$ 17.2	\$ 136.4
2024	\$ 49.8	\$ 70.7	\$ 17.6	\$ 138.1
2025	\$ 50.3	\$ 71.7	\$ 17.9	\$ 139.9
2026	\$ 50.8	\$ 72.6	\$ 18.2	\$ 141.7
2027	\$ 51.3	\$ 73.7	\$ 18.6	\$ 143.5
2028	\$ 51.8	\$ 74.7	\$ 18.9	\$ 145.4
2029	\$ 52.3	\$ 75.7	\$ 19.3	\$ 147.3

Data will not necessarily add to totals because of rounding.

1. Toll revenues only; does not include any Video Tolling Fee due to AET conversion in FY 2022.

2. FY2019 are unaudited actuals.

The study also included the use of a financial model to estimate net revenues, operating costs, debt service requirements, and bond coverage ratios and cash reserves for the Turnpike System. The analysis of the

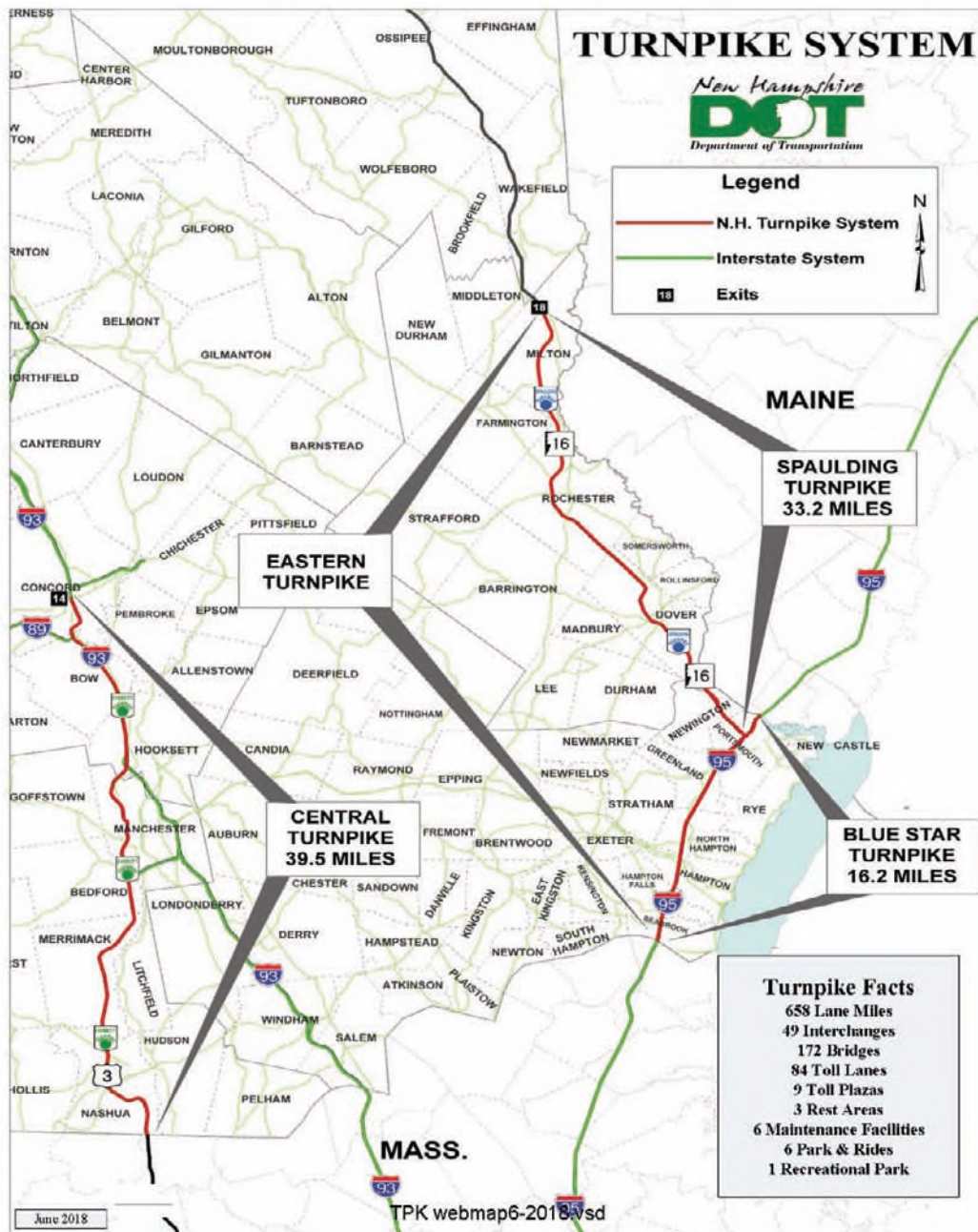
NEW HAMPSHIRE TURNPIKE SYSTEM TRAFFIC AND REVENUE STUDY

Executive Summary

October 23, 2019

financial plan showed that sufficient revenues will be generated to fund the proposed capital plan and to meet both the state's bond resolution's minimum debt service coverage requirements as well as the Turnpike's internal minimum requirements for the year forecast period, FY 2020-2029.

Figure ES-1: Project Study Area



NEW HAMPSHIRE TURNPIKE SYSTEM TRAFFIC AND REVENUE STUDY

Introduction

October 23, 2019

1.0 INTRODUCTION

The New Hampshire Department of Transportation (NHDOT) retained Stantec Consulting Services Inc. (Stantec) to prepare this investment-grade traffic and revenue (T&R) Study for their New Hampshire Turnpike System. In conducting this study, historical traffic and revenue data for the entire Turnpike System were collected and analyzed to determine historical trends and travel characteristics. Previous traffic and revenue projections were reviewed and compared to actual traffic and revenue data recorded by NHDOT.

This study also included a review of the historical and proposed Turnpike Capital Improvement Program, as well as historical and projected expenditures for the Turnpike System related to operations, maintenance, renewal and replacement, and toll processing. An additional review was conducted for regional and national economic factors such as gross domestic product, fuel cost impacts, housing and employment. The study also examined feeder and competitive roads and their impact on traffic on the Turnpike System.

All of this information and analyses was then used to develop a traffic and revenue model to estimate annual traffic and toll revenue for Fiscal Years 2020 through 2029. FY 2018 data and previous Fiscal Years are actual results; FY 2019 data are based on unaudited actuals and are subject to change. The study also included the development of a financial model to estimate net revenues, operating costs, debt service requirements and bond coverage ratios. An assessment was made to determine whether the toll revenues would be sufficient to meet the Turnpike bond requirements.

1.1 ORGANIZATION OF THE REPORT

The remainder of this report is organized into the following chapters:

Chapter 2 - Description of the New Hampshire Turnpike System. Provides context for the study area and a timeline of events that have impacted corridor performance.

Chapter 3 – Historical Tolled Traffic and Gross Toll Revenues. Summarizes historical traffic and revenue for each roadway and compares a recent forecast to actual totals.

Chapter 4 – Review of Proposed Capital Improvement Program. Tabulates Turnpike capital improvement expenditures (past and future) by roadway and details major projects.

Chapter 5 – Review of Historical and Projected Operation, Maintenance, Renewal and Replacement, and Debt Service Expenditures. Presents a review of historical and projected Turnpike System operational expenditures and of the Turnpike System's historical and projected debt service expenditures.

Chapter 6 - Review of National and Regional Socio-economic Conditions. Describes historical trends as well as existing and forecasted socioeconomic conditions, and the assumptions used to assess future development in the study area.

NEW HAMPSHIRE TURNPIKE SYSTEM TRAFFIC AND REVENUE STUDY

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Chapter 7 – Transportation Projects Relative to the New Hampshire Turnpike System. Lists existing feeder roads and competitive roads for each Turnpike. Selected competitive travel time data are compared, and potential impacts of planned infrastructure projects are assessed.

Chapter 8 – Traffic and Revenue Projections, 2020 - 2029. Presents the T&R forecasts for the Turnpike System, and summarizes the assumptions and conditions used in preparing those forecasts.

Chapter 9 - Financial Model Analyses. Presents a financial analysis of the Turnpike System considering capital expenditures, operating expenditures, and debt service requirements as well as Turnpike System toll revenues and other revenues. This chapter also includes a cash flow analysis of the Turnpike System, as well as an analysis of the Turnpike System's debt service coverage ratios.

NEW HAMPSHIRE TURNPIKE SYSTEM TRAFFIC AND REVENUE STUDY

Description of the New Hampshire Turnpike System

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2.0 DESCRIPTION OF THE NEW HAMPSHIRE TURNPIKE SYSTEM

2.1 EXISTING PROJECT STUDY AREA

The current Turnpike System is an open barrier toll system comprised of 49 interchanges, 9 toll plazas, 84 toll payment lanes, and approximately 89 linear miles. The system is composed of three independent Turnpike systems: the Central (F.E. Everett) Turnpike, the Blue Star Turnpike, and the Spaulding Turnpike, as shown in Figure 2.1.

The Central Turnpike, also known as the F.E. Everett Turnpike (or “FEET”) is the longest at 39.5 miles, extending from the Massachusetts state line in Nashua, New Hampshire to Exit 14 in Concord, New Hampshire. It comprises, in part, a portion of U.S. Interstate Highways 93 and 293 and connects the three largest cities in New Hampshire (Nashua, Manchester and Concord). The Central Turnpike also connects with major east-west highways such as NH 101, US 4 as well as Interstate 89. Currently there are two mainline toll plazas at Hooksett and Bedford, and three ramp plazas at Hooksett (I-93 Exit 11), Continental Boulevard (FEET Exit 11), and Merrimack Industrial Drive (FEET Exit 10). Tolling at Bedford Road (FEET Exit 12) ramp plaza was discontinued in late July 2014.

The Blue Star Turnpike extends from the Massachusetts state line in Seabrook, New Hampshire to the Maine state line in Portsmouth, New Hampshire. It is 16.2 miles in length and it covers the entirety of Interstate 95 in New Hampshire. The Blue Star Turnpike connects with major highways that include NH 101 and US 4. There is a mainline toll plaza and an entry/exit (“side”) toll plaza on the Blue Star Turnpike, both located in the Town of Hampton.

The Spaulding Turnpike is 33.2 miles long, extending from Portsmouth, New Hampshire, to Exit 18 in Milton, New Hampshire. It is the major north-south road in the eastern portion of the state, and connects the Blue Star Turnpike to NH 16, the major roadway to northern New Hampshire along the state’s eastern border. It links the three major cities in eastern New Hampshire (Portsmouth, Dover and Rochester) and connects to several major highways including US 4, NH 16, NH 125 and Interstate 95. There are two mainline toll locations at Dover and Rochester. The Spaulding Turnpike and Blue Star Turnpike are also collectively known as the Eastern Turnpike.

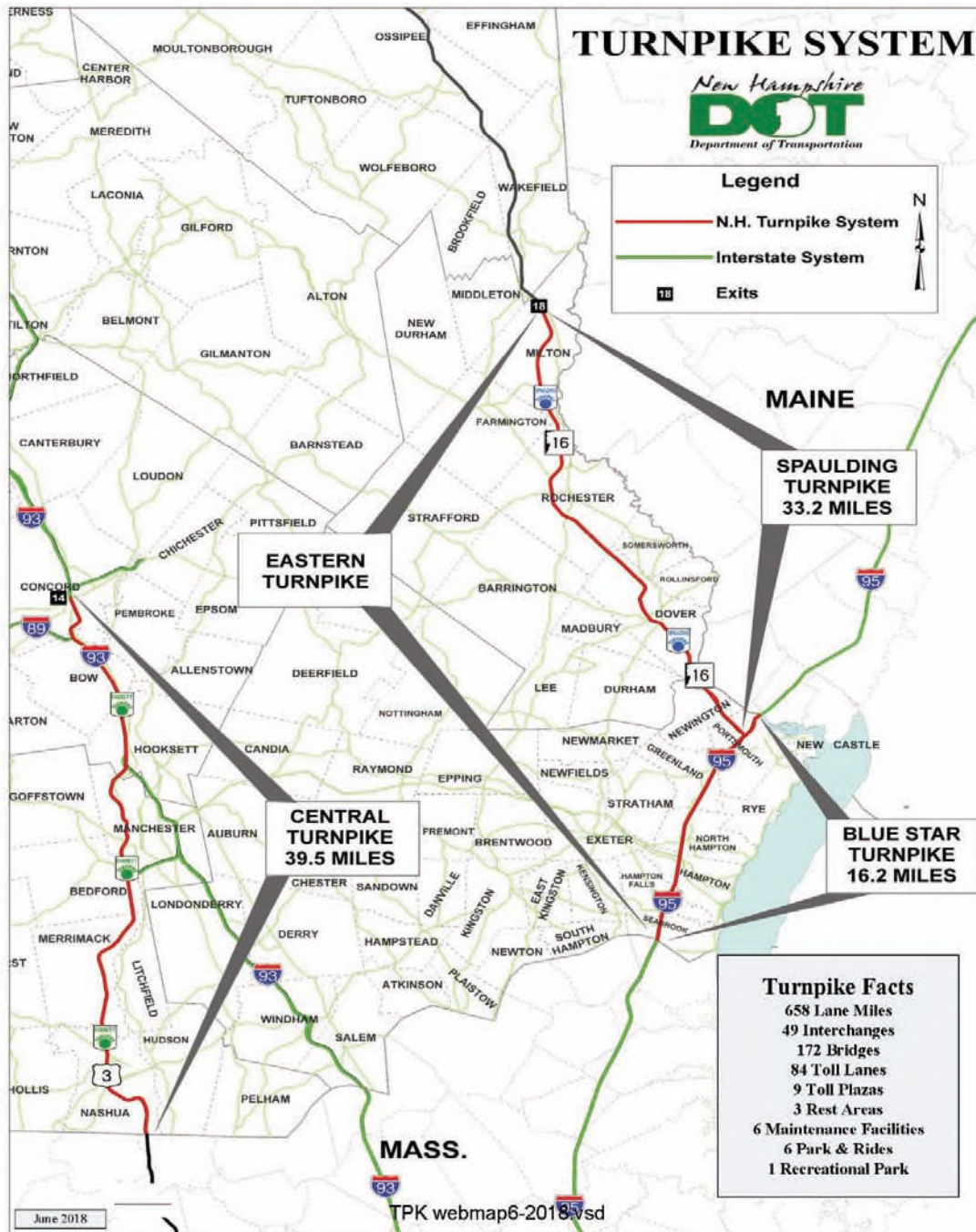
System changes in recent years have tended towards retraction rather than expansion. In June 2014 the toll plaza at the Bedford ramp ceased collecting tolls and was subsequently demolished. The Turnpike Bureau is also planning to convert the two plazas on the Spaulding Turnpike (Dover and Rochester) to all-electronic tolling (AET), which will lower operating costs.

NEW HAMPSHIRE TURNPIKE SYSTEM TRAFFIC AND REVENUE STUDY

Description of the New Hampshire Turnpike System

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Figure 2.1: Project Study Area and Major Roadways



NEW HAMPSHIRE TURNPIKE SYSTEM TRAFFIC AND REVENUE STUDY

Description of the New Hampshire Turnpike System

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2.2 MAJOR EVENTS

The major events that occurred in the development of the Turnpike System are summarized in Table 1, as follows:

Table 2.1: Major Events on the New Hampshire Turnpike

Date	Activity
1950 (Jun. 24)	First toll plaza opens - Hampton (toll was 20¢ for a passenger car).
1955	Completion of the Nashua to Manchester segment of the Central Turnpike.
1955 (Aug. 21)	Merrimack Toll Plaza opens. Toll was 25¢ for a passenger car.
1955	Tokens authorized providing a 1/3 discount. Two types of tokens were authorized. An "A" token had a trip fare value of 10¢ and a "B" token had a trip fare value of 15¢. Tokens could be used by any class of vehicle.
1956	The Portsmouth to Dover segment of the Spaulding Turnpike was completed.
1956 (Oct. 3)	Dover Toll Plaza opens. Toll was 10¢ for a passenger car.
1957	Increase in toll rate at Dover Toll to 15¢ for a passenger car.
1957	The Manchester to Concord segment of the Central Turnpike was completed.
1957	The Dover to Rochester segment of the Spaulding Turnpike was completed.
1957 (Aug. 29)	The Rochester Toll Plaza opens. Toll was 15¢ for a passenger car.
1957 (Aug. 30)	The Hooksett Toll Plaza opens. Toll was 25¢ for a passenger car.
1961	The rate decreased at Dover Toll to 10¢ for a passenger car.
1961 (Jun. 21)	Toll rate increased at Hampton Toll to 25¢ for a passenger car.
1972	Initiated charge program for commercial accounts. A 1/3 discount was provided in the program.
1975 (Jul. 1)	Toll rate increase at Hampton Toll to 40¢ for a passenger car.
1977	Eastern Turnpike (I-95) widened from 4 to 8 lanes.
1977 (Feb. 1)	Reconstruction and relocation of Hampton Toll completed with new ramp and mainline plazas opened to traffic.
1977 (Apr. 1)	Toll rates at Hooksett and Merrimack Tolls increased to 40¢ for a passenger car. Discontinued the sale of "A" tokens. Tokens restricted to two axle or four tire vehicles. Eliminated the 1/3 discount for commercial charge accounts.
1979 (Aug. 23)	Tolls eliminated at the Hampton Ramp Toll Plaza.
1979	Central Turnpike widened from 4 to 6 lanes from the junction of I-93/I-293 in Bow.

NEW HAMPSHIRE TURNPIKE SYSTEM TRAFFIC AND REVENUE STUDY

Description of the New Hampshire Turnpike System

October 23, 2019

Date	Activity
1979 (Dec. 3)	Reconstruction completed on new Hooksett Toll Plaza ramp and mainline barrier.
1979 (Dec. 3)	Toll rates increased as follows. Merrimack, Hooksett & Hampton (main) 50¢ for a passenger car. Dover 15¢ for a passenger car. Rochester 20¢ for a passenger car.
1979 (Dec. 3)	Discount for commuter tokens increased to 50%.
1981 (Jul. 1)	Toll reinstated on the Hampton Ramp Toll Plaza.
1981 (Aug. 20)	Spaulding Turnpike Extension opened from Rochester to Milton.
1986 (Dec. 1)	Automated truck charge system initiated.
1987 (Apr. 15)	Toll rates increased at Dover & Rochester Toll to 25¢ for a passenger car.
1987 (Jul. 1)	Toll increased at Hampton Toll (mainline to 75¢ and ramp to 40¢ for a passenger car).
1987 (Oct. 28)	Toll reduced at Hampton Toll (mainline to 50¢ and ramp to 25¢ for a passenger car).
1987	Exit 8 Interchange, Nashua, New Hampshire. The first project to be completed in the Ten-Year Plan to expand and improve the New Hampshire Turnpike System (Chapter 203, Laws of 1986) was the Exit 8 Interchange in Nashua, New Hampshire that opened to traffic in June 1987.
1988 (Jan. 1)	Toll increased at Hampton Main Toll to 75¢ for passenger cars, Hampton Ramp remains at 25¢.
1989 (Jan. 4)	Merrimack Toll Plaza (Mainline and Ramps) closed. On this date, the Merrimack Toll Plaza discontinued collection of tolls and was dismantled.
1989 (Jan. 4)	Bedford Toll Plaza opened to traffic.
1989 (Jan. 4)	Exit 11 Ramp (Temporary) Toll Plaza opened to traffic. On this date, the Exit 11 Toll Plaza opened to traffic replacing the dismantled Merrimack Toll (Ramps).
1989 (Oct. 16)	General toll rate increase for entire Turnpike System. Increase of 25 cents at each plaza for passenger cars. Substantial increase for commercial vehicles (to recognize weight on turnpike infrastructure). Discount for commercial charge program 5% to 30% graduated. Discount for commuters decreased from 50% to 40%.
1990 (Jul. 11)	Commuter discount (Tokens) revised from 40% to 50%. Change in commercial charge discount (5-30%) applies to total transactions monthly.
1990 (Oct. 2)	Merrimack Industrial Interchange Toll Plaza opened to traffic.
1990 (Nov. 29)	Bedford Road Interchange Toll Plaza opened to traffic.
1991 (Feb. 4)	“Honor System” Toll Collection Began at Exit 11 Toll Plaza. Initiated unattended toll collection at Exit 11 Toll Plaza between the hours of 9 PM and 5 AM daily.
1991 (May 15)	Hampton Main Toll Plaza expansion completed.

NEW HAMPSHIRE TURNPIKE SYSTEM TRAFFIC AND REVENUE STUDY

Description of the New Hampshire Turnpike System

October 23, 2019

Date	Activity
1991 (Aug. 30)	Cheshire Toll Bridge began operation by the Bureau of Turnpikes.
1991 (Oct. 1)	Bedford Toll Plaza Toll Collection System Conversion.
1991 (Nov. 18)	Exit 11 Interchange Toll Plaza opens to traffic.
1991 (Dec. 1)	Hampton Main Toll Plaza Toll Collection System Conversion.
1992 (Feb.)	Hampton Ramp Toll Plaza Toll Collection System Conversion.
1992 (Apr. 1)	Dover Toll Plaza Toll Collection System Conversion.
1992 (Jun. 1)	Rochester Toll Plaza Toll Collection System Conversion.
1992 (Aug. 3)	Cheshire Bridge closed for rehabilitation.
1992 (Nov. 14)	Exit 11 Toll Plaza Toll Collection System Conversion.
1993 (Aug. 9)	"Honor System" Toll Collection begins at Cheshire Toll Bridge.
1993 (Jul. 30)	Exit 11 Interchange (Merrimack) completed as part of the Capital Improvement Program.
1993 (Nov. 18)	Gosling Road Interchange on the Spaulding Turnpike opened.
1993 (Dec. 20)	"Honor System" Toll Collection begins at Exit 10 and Exit 12.
1994 (Jun.)	Two seasonal toll lanes added to Hooksett Main Toll Plaza.
1994 (Jun.)	Hampton Main Toll Plaza changed to all-attended operation.
1994 (Nov. 1)	Increased discount in Commercial Charge Program to 50%.
1995 (Jul. 30)	Changes at Hampton Main Toll Plaza adding one reversible lane (replacing standard ACM lane) allowing 10 operational lanes in one direction of travel for the first time.
1995 (Aug. 4)	Initiated Tandem Toll Collection at Hampton Main Toll Plaza.
1995 (Aug. 14)	"Honor System" Toll Collection began at Hooksett Ramp Toll Plaza.
1995 (Aug. 14)	"Bi-directional" Toll Collection began at Rochester Toll Plaza.
1995 (Aug. 14)	"HOV" (High Occupancy Vehicle) Test began at Bedford Toll.
1995 (Oct.)	Reactivated Automatic Toll Lanes at Hampton Main Toll.
1995 (Nov. 1)	Truck charge card discount set at a flat 30% rate.
1996 (May)	Hampton Main Toll Plaza converted to entirely attended operation with all automatic lane equipment taken out of service.
1997 (Jun.)	Expanded Hampton Ramp Toll Plaza from 5 to 7 toll lanes.
1997 (Nov.)	Ended a two-year HOV Test at Bedford Toll Plaza.
2000 (Jul. 19)	Expansion of Dover Toll Plaza complete.

NEW HAMPSHIRE TURNPIKE SYSTEM TRAFFIC AND REVENUE STUDY

Description of the New Hampshire Turnpike System

October 23, 2019

Date	Activity
2001 (Jul. 1)	Toll collection ceased at Cheshire Toll Bridge - per legislation.
2002 (Apr. 5)	Rochester Toll Plaza staffing changed back to conventional staffing.
2002	Completed the 5 th lane project at the Hampton Toll Plaza on I-95.
2003 (Jul. 23)	Opened an additional lane for the first time at the Hooksett Ramp toll facility.
2003 (Aug. 21)	One-way toll collection test initiated at the Hampton Toll Plaza.
2003 (Nov. 1)	Two-way tolling returns to Hampton Main Toll Plaza for the winter months.
2004 (Jan. 9)	Hampton Ramp Toll Plaza converted to all attended capability.
2004 (Jan. 29)	Two new toll lanes, one north and one south, at Bedford Toll Plaza, were opened to revenue collection.
2004 (Jun. 30)	One-way toll collection reinstated at the Hampton Toll Plaza.
2004 (Oct. 21)	Two-way tolling returns to Hampton Main Toll Plaza.
2005 (Mar.)	Hampton Ramp converted to an all attended plaza just like Hampton Main.
2005 (Apr. 12)	Hooksett Ramp converted back to a 24/7/365 plaza.
2005 (Jul. 11)	The first NH toll facilities to be converted to E-ZPass – Hooksett Main, Hooksett Ramp and Bedford Toll. Cars with NH E-ZPass tags receive a 30% discount from cash (compared to a 50% discount for tokens) and trucks with NH E-ZPass receive a 10% discount from cash (compared to a 30% discount with the Commercial Charge program). Non-New Hampshire E-ZPass tagholders pay the cash rates.
2005 (Jul. 18)	Phase Two of E-ZPass conversion takes place: Merrimack Ramp Toll Plazas (Exits 10, 11 and 12).
2005 (Aug. 2)	Phase Three of E-ZPass deployed at Hampton Main and Hampton Ramp.
2005 (Aug. 3)	The price of transponders increased from \$5.00 to \$23.85 each.
2005 (Aug. 15)	Phase Four of E-ZPass deployed at Dover and Rochester Toll Plazas.
2005 (Sept. 1)	NH Turnpike Token Sales cease per HB 2 of the FY 2006/FY 2007 biennial budget.
2005 (Sept. 26)	Price of transponders increased – from \$23.85 to \$24.61 for flat packs.
2005 (Sept. 30)	Commercial Charge Program ends at 11:59:59. Magnetically encoded card system replaced by E-ZPass .
2006 (Jan. 1)	NH Turnpike Tokens (B) are no longer accepted as valid toll fare payment per state law. Staffed ACM lanes from 1-1 through 1-9-2006 to ensure that motorists were aware that tokens are no longer accepted.

NEW HAMPSHIRE TURNPIKE SYSTEM TRAFFIC AND REVENUE STUDY

Description of the New Hampshire Turnpike System

October 23, 2019

Date	Activity
2007 (Oct. 22)	New toll rate implemented at Dover \$0.50-\$0.75; Rochester \$0.50-\$0.75, Hampton Ramp \$0.50-\$0.75; Bedford and Hooksett \$0.75-\$1.00; and Hampton Main \$1.00-\$1.50.
2008 (May 1)	New terms, conditions, application and transponder price change went into effect. Price changed for interior tag from \$24.61 to \$20.95, and exterior tag from \$31.83 to \$33.04.
2008 (Jun. 9 & 16)	Granite Street ramps open to traffic at Exit 5 in Manchester.
2009 (Jun. 30)	HB 391 passes, authorizing the Turnpike Bureau to purchase the 1.6 miles of I-95 from the Portsmouth Traffic Circle to the Maine border, and authorizing the following projects: Hampton Open Road Tolling ("ORT"), Bedford ORT, Hooksett ORT, Portsmouth I-95 Soundwall, Seabrook NH 107 Bridge over I-95 and the Dover segment of the Newington –Dover Projects.
2009 (Jul. 1)	New toll rate implemented at Hampton Main \$1.50 → \$2.00.
2010 (Jun. 17)	ORT lanes opened at Hampton Main plaza, allowing high-speed toll collection for E-ZPass customers.
2011 (Nov. 11)	Manchester Airport Access Road opens, connecting to the Central Turnpike near the Bedford Main plaza. Vehicles using this road avoid all tolls in the Bedford/Merrimack area.
2012 (Apr. 1)	E-ZPass transponder prices changed. Price dropped for interior tag from to \$20.95 to \$8.90, and exterior tag from \$33.04 to \$15.19.
2012 (Jun. 14)	Premium Outlets, with 100 stores and more than 400,000 square feet, opens adjacent to Exit 10 in Merrimack, increasing toll transactions at Exit 10.
2013 (May 22)	ORT lanes opened at Hooksett Main plaza, allowing high-speed toll collection for E-ZPass customers.
2014 (Jul. 18)	Tolls were discontinued at the Bedford Road ramps (Exit 12 of the Central Turnpike).
2015 (May)	Violation cameras installed in cash lanes of NH Turnpike system.
2015 (July 7)	Spaulding Turnpike southbound exit 2 off ramp permanently closed.
2015 (Sept/Nov)	Opening of NHDOT P3 initiative with Granite State Hospitality for a new Hooksett Rest Areas on I93 Northbound and Southbound.
2017 (March)	Management of E-ZPass system transitioned to Cubic.
2017 (March 27)	E-ZPass transponders price change. Price dropped for an interior tag from \$8.90 to \$7.40 and exterior tag from \$15.19 to \$13.49.
2018 (Sept. 4)	Spaulding Turnpike northbound exit 2 on ramp permanently closed.
2019 (July 1)	E-ZPass transponders price change. Price dropped for an interior tag from \$7.40 to \$7.15 and exterior tag from \$13.49 to \$13.24.

NEW HAMPSHIRE TURNPIKE SYSTEM TRAFFIC AND REVENUE STUDY

Historical Tolled Traffic and Gross Toll Revenues

October 23, 2019

3.0 HISTORICAL TOLLED TRAFFIC AND GROSS TOLL REVENUES

This section discusses historical traffic and toll revenue trends of the Turnpike System.

3.1 HISTORICAL TOLL TRANSACTIONS AND TOLL REVENUE TRENDS

Figure 3.1 illustrates toll transactions and revenue for the entire Turnpike System for FY 1950 through FY 2019. Both toll transaction and revenue graphs show that toll transactions and revenues have increased consistently across the Turnpike System. The graph shows that there were some short periods where toll transactions decreased but later recovered, and these coincide with economic recessions and toll rate increases. Revenues generally increased across the Turnpike System, although the growth was relatively flat for some short time periods. Tolls were last increased system wide in October 2007; the toll increases prior to that were in October 1989 and December 1979. After the 1989 toll increase, both traffic and revenue increased steadily until 2005. In July 2005, **E-ZPass** was implemented on the Turnpike System, and the toll discount was lowered from 50 percent to 30 percent for passenger cars and from 30 percent to 10 percent for commercial vehicles. NHDOT stopped accepting tokens (which provided a 50 percent discount for passenger cars) in January 2006.

The October 2007 toll increase – 25 cents for cars and 50 cents for trucks at most locations – brought about a small decline in traffic but a significant increase in toll revenue. In FY 2009, traffic continued to decrease but revenue increased over the previous year due to the October 2007 toll increase, though some of the traffic decrease could also be attributed to economic conditions, gas prices, and factors that caused traffic levels to flatten, then decrease, throughout the nation (as further discussed in Section 6.1). In 2009 the Hampton Main Plaza's toll increased from \$1.50 to \$2.00 which had little effect on traffic but increased revenues at that location.

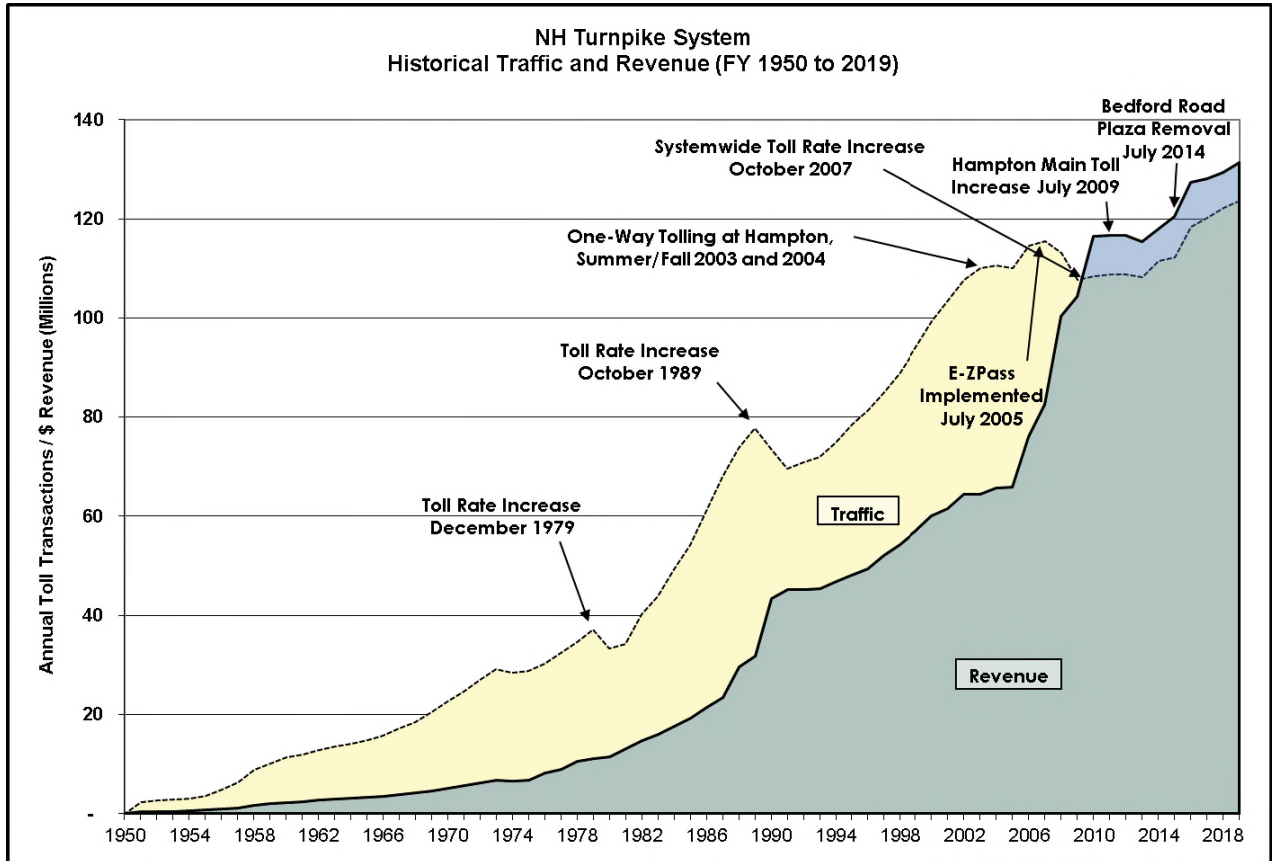
In November 2011 the Manchester Airport Access Road opened adjacent to the Bedford toll plaza. This new exit bypasses the plaza to connect the Central Turnpike and the Manchester Airport. Motivated drivers passing through this section of the Turnpike may also use the interchange to avoid the Bedford plaza entirely (discussed in section 7.2.1). These new untolled paths have caused some losses in traffic and revenue. FY 2013 saw the opening of an outlet mall in Merrimack, which has contributed to most of the growth in traffic observed at Exit 10. In July 2014 – a few weeks into FY 2015 - the Bedford Ramp Toll was discontinued. This slowed apparent systemwide growth in the year after the change, but overall effects have been negligible.

NEW HAMPSHIRE TURNPIKE SYSTEM TRAFFIC AND REVENUE STUDY

Historical Tolloed Traffic and Gross Toll Revenues

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Figure 3.1: NH Turnpike System Historical Toll Transactions and Toll Revenue Trends Through 2019



3.2 TOLL TRANSACTION TRENDS

Table 3.1 summarizes the annual toll transactions between FY 1991 and FY 2019 for each of the three Turnpikes as well as the entire Turnpike System. Annual toll transactions across the Turnpike System have increased in twenty-three out of the twenty-eight years shown. However, Blue Star Turnpike transactions decreased in both FY 2004 and FY 2005 due to the inability to record southbound traffic data at the Hampton Toll Plaza during the one-way tolling experiments conducted by NHDOT in the Summer/Fall of 2003 and 2004. The diversion caused by the October 2007 toll increase contributed to both the FY 2008 and 2009 decrease in Turnpike traffic, and the Central Turnpike's free interchange with the Manchester Airport Access Road in November 2011 contributed to some toll traffic loss in the Bedford area in FY 2012 and FY 2013. Tolling was discontinued at the Bedford Road Ramps (Exit 12) in July of 2014. This location had averaged 6,500 transactions per day in FY 2014. A small shift in traffic from Exit 11 to the newly untolled Exit 12 was associated with this closure.

NEW HAMPSHIRE TURNPIKE SYSTEM TRAFFIC AND REVENUE STUDY

Historical Tolled Traffic and Gross Toll Revenues

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Table 3.1: NH Turnpike System Historical Annual Toll Transactions (in millions)

Fiscal Year	Central Turnpike	Blue Star Turnpike	Spaulding Turnpike	Total System
1991	32.5	23.4	13.7	69.6
1992	33.2	23.6	14.0	70.8
1993	33.5	24.0	14.5	72.0
1994	34.7	24.8	15.4	74.9
1995	35.9	26.1	16.5	78.5
1996	37.2	27.0	17.2	81.4
1997	38.9	28.1	18.0	85.0
1998	40.6	29.4	19.0	89.0
1999	42.6	31.4	20.0	94.0
2000	45.3	33.2	20.9	99.4
2001	47.6	34.0	22.0	103.6
2002	49.3	35.8	22.6	107.7
2003	50.5	36.4	23.1	110.0
2004 ¹	52.2	34.6	23.8	110.6
2005 ^{1,2}	53.9	32.2	23.9	110.0
2006 ²	54.6	36.6	23.3	114.6
2007	54.7	37.4	23.4	115.5
2008 ³	53.8	36.6	22.8	113.2
2009	51.5	34.7	21.4	107.7
2010 ⁴	51.9	35.3	21.1	108.3
2011	52.4	35.3	21.1	108.7
2012 ⁵	51.5	35.8	21.5	108.7
2013	50.7	35.8	21.8	108.2
2014	52.2	36.8	22.5	111.5
2015 ⁶	51.4	37.7	23.3	112.3
2016	53.8	39.8	24.7	118.4
2017	54.5	40.4	25.3	120.2
2018	55.3	41.1	25.8	122.1
2019 ⁷	55.9	41.6	26.2	123.7

¹ One-way tolling at Hampton Main Toll Plaza.

² Conversion to new toll system and implementation of **E-ZPass**.

³ General toll Increase October 22, 2007.

⁴ Hampton Main toll Increase July 1, 2009.

⁵ Manchester Airport Access Road opened November 2011.

⁶ Bedford Road Ramp (Exit 12) Toll Plaza Removed July 2014.

⁷ FY2019 are unaudited actuals.

Notes: Non-paying transactions (valid and violations) are included in these numbers.

Data will not necessarily sum to totals due to rounding.

NEW HAMPSHIRE TURNPIKE SYSTEM TRAFFIC AND REVENUE STUDY

Historical Tolled Traffic and Gross Toll Revenues

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Toll transactions on the individual Turnpikes increased at an average annual rate of 2.0 percent on the Central Turnpike, 2.3 percent on the Spaulding Turnpike, and 2.1 percent on the Blue Star Turnpike during the FY 1991 to FY 2019 time period, for a systemwide growth rate of 2.1 percent.

Historical toll transaction trends between FY 1950 and FY 2019 are illustrated in Figure 3.2 with volumes indexed to FY 1991 values. From this graphic, we can observe that the three general toll rate increases occurred close to periods of economic recessions, and in all cases, toll traffic transactions decreased. Transaction growth also slowed down during the other economic recession periods.

Between FY 1991 and FY 2003, total toll transactions across the entire Turnpike System increased annually by an average of 3.9 percent per year. After that time there was a period of flattened traffic for several years, through about 2007, followed by a 2.0 percent decrease in FY 2008. Traffic continued to decline another 4.9 percent in FY 2009 both as a result of the mid-FY 2008 toll increase and the economic downturn. This was followed by low growth rates of 0.6 percent in FY 2010 and 0.4 percent in FY 2011. There was no overall growth from FY 2011 to FY 2012, mainly due to a shift in traffic to the free Manchester Airport Access Road (MAAR) interchange on the Central Turnpike. FY 2013 had a slight decrease in traffic of 0.4 percent with more Central Turnpike traffic shifting to the free MAAR interchange, while FY 2014 saw some recovery with 3.0 percent growth in toll transactions.

Traffic growth has been moderate since FY 2014. The Central Turnpike saw a 1.6 percent decrease in transactions after the removal of the Bedford Road Ramp plaza. FY 2016 saw strong growth across all Turnpikes, with a system-wide growth of 5.4 percent. The past two years have seen growth stabilize to approximately 1.5 percent per year.

NEW HAMPSHIRE TURNPIKE SYSTEM TRAFFIC AND REVENUE STUDY

Historical Tolled Traffic and Gross Toll Revenues

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Figure 3.2: NH Turnpike System Historical Toll Transaction Trends Through 2019

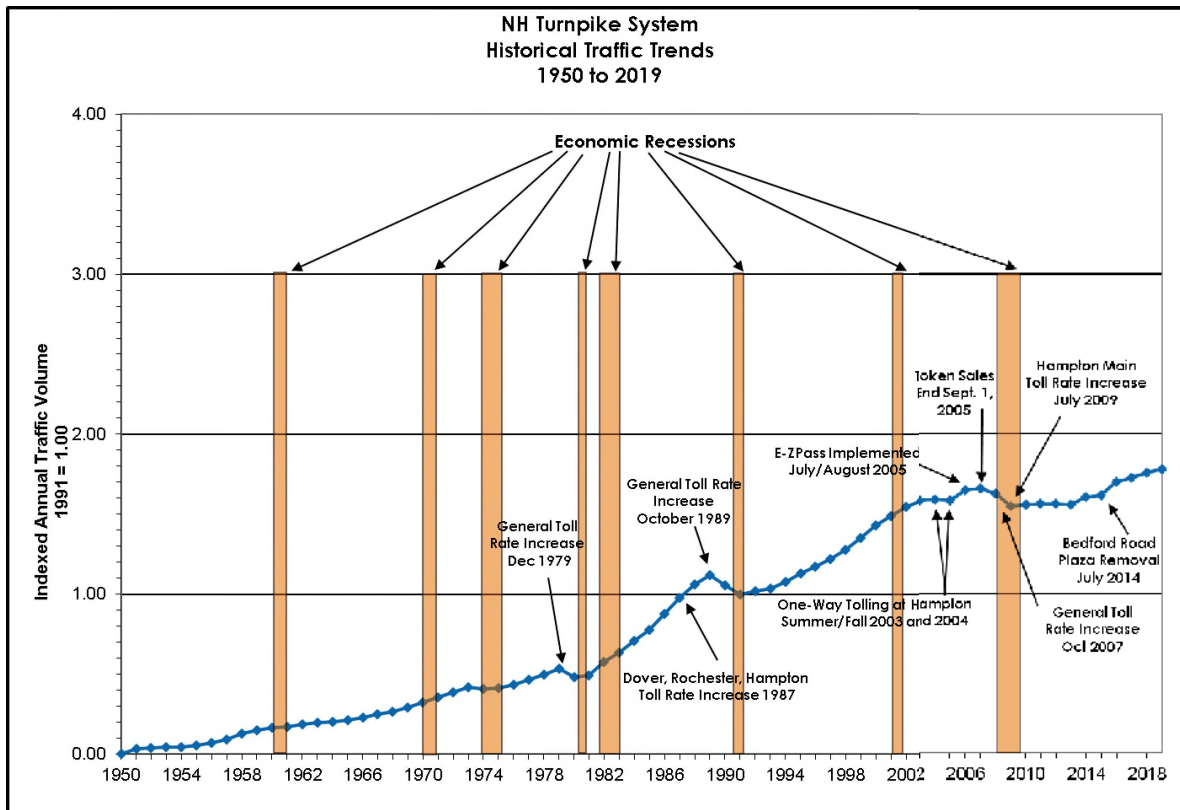


Figure 3.3 through Figure 3.5 show the historical toll transaction trends for cars and trucks on each of the three Turnpikes for the FY 1991-2018 period. (Actuals detailed by vehicle class for FY 2019 were not finalized at the publishing of this analysis.) The three Turnpikes exhibited similar patterns in car traffic, growing steadily from FY 1991 through the early 2000s, followed by flat growth in FY 2006 and 2007 and declines in FY 2009 and 2010. Annual traffic between FY 2010 and FY 2013 remained virtually unchanged, but during FY 2014-2018 grew to levels exceeding previous highs seen in FY 2005.

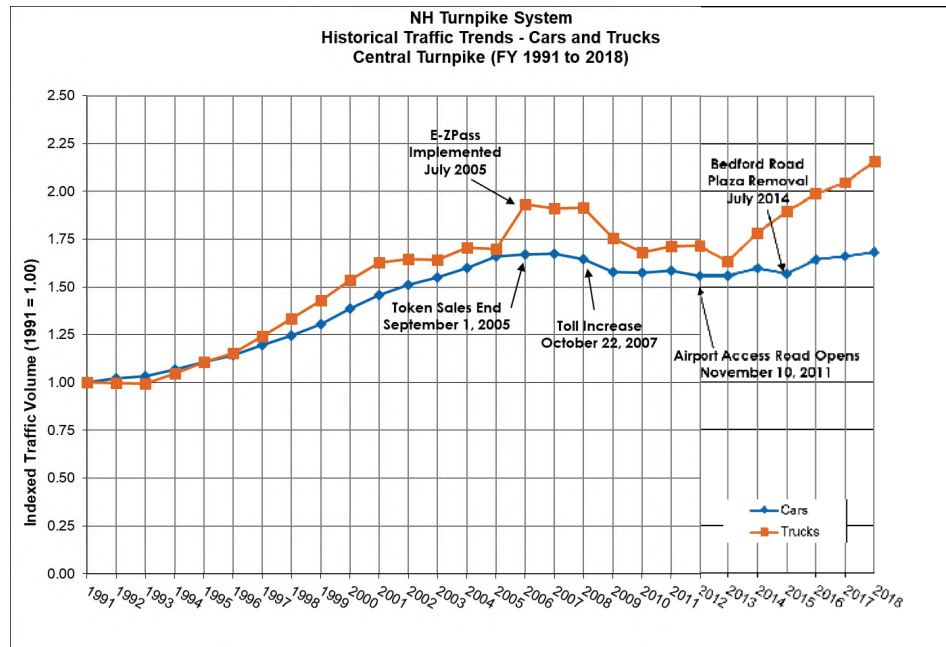
The Central and Spaulding Turnpikes, both serving more local than long-distance traffic, had flat-to-declining truck growth in 2006 through 2008, while the Blue Star Turnpike – more of a long-haul route – saw increasing truck traffic from FY 2006 through 2008. All three facilities saw a decline in truck traffic in FY 2009 and FY 2010 due to the downturn in the economy and FY 2008 toll increases. Similar to the car traffic, the truck traffic changed very little between FY 2010 and FY 2013, except at the Central Turnpike which saw some traffic loss due to the free MAAR interchange. Promising growth in truck transactions was seen in FY 2014-2016 on all three Turnpikes, with an average annual growth rate of 5.7 percent. Growth faltered in FY 2018, particularly among cars, leaving the overall annual passenger car transaction total 0.2 percent below the 2017 totals.

NEW HAMPSHIRE TURNPIKE SYSTEM TRAFFIC AND REVENUE STUDY

Historical Tolloed Traffic and Gross Toll Revenues

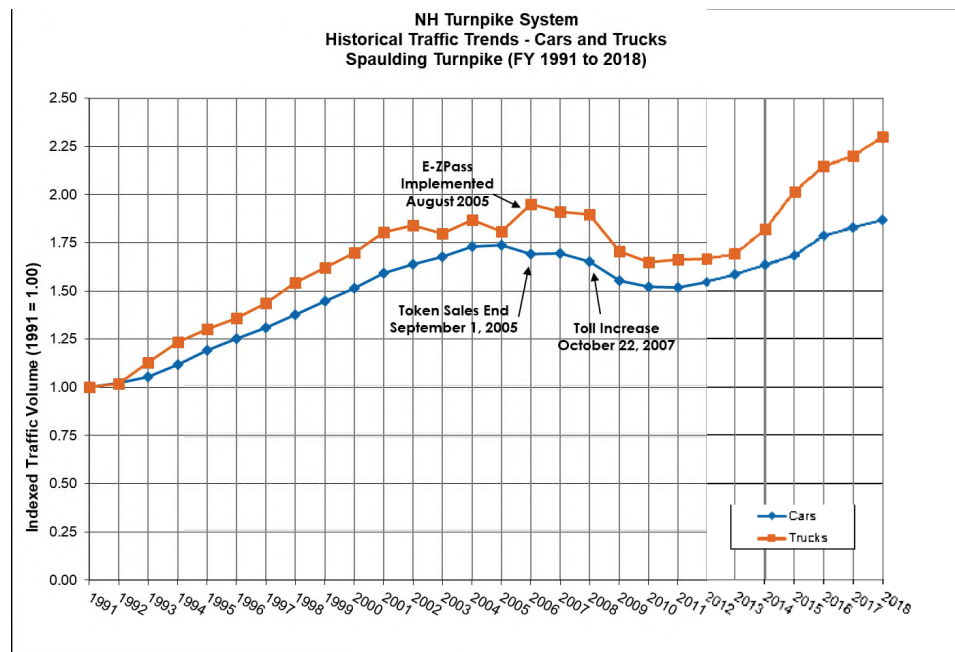
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Figure 3.3: Central Turnpike Historical Car and Truck Trends, FY 1991-2018*



*Most recently available audited actuals.

Figure 3.4: Spaulding Turnpike Historical Toll Car and Truck Trends, FY 1991-2018*



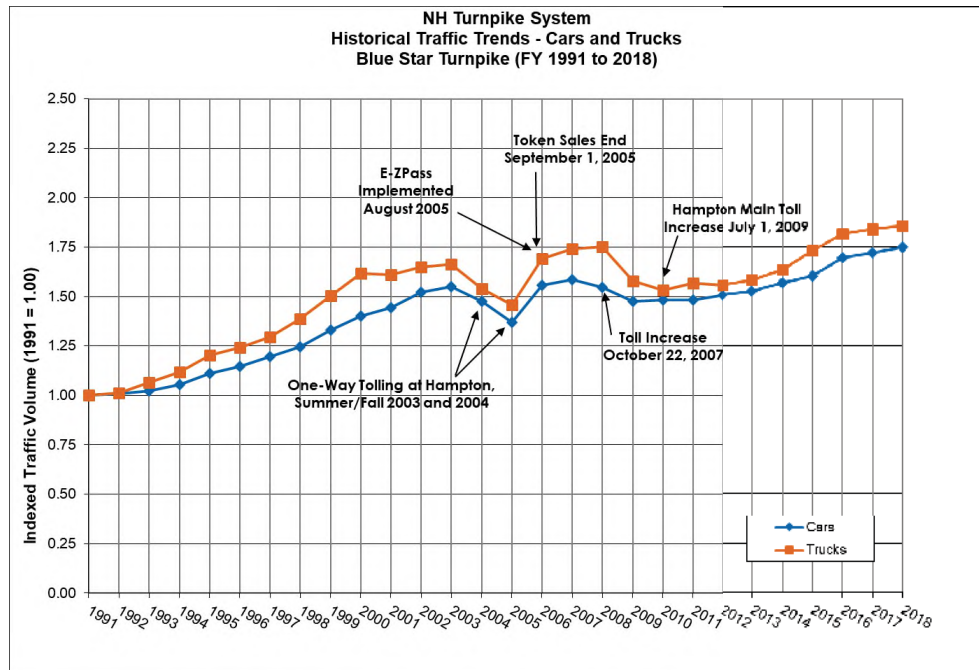
*Most recently available audited actuals.

NEW HAMPSHIRE TURNPIKE SYSTEM TRAFFIC AND REVENUE STUDY

Historical Tolled Traffic and Gross Toll Revenues

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Figure 3.5: Blue Star Turnpike Historical Toll Car and Truck Trends, FY 1991-2018*



*Most recently available audited actuals.

3.3 TOLL REVENUE TRENDS

Annual toll revenues for each of the three Turnpikes as well as the entire system are summarized in Table 3.2 for the period FY 1991 to FY 2019.

NEW HAMPSHIRE TURNPIKE SYSTEM TRAFFIC AND REVENUE STUDY

Historical Tolloed Traffic and Gross Toll Revenues

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Table 3.2: NH Turnpike System Historical Annual Toll Revenues (in millions)

Fiscal Year	Central Turnpike	Blue Star Turnpike	Spaulding Turnpike	Total System
1991	\$18.9	\$20.8	\$5.5	\$45.3
1992	\$18.9	\$20.7	\$5.5	\$45.2
1993	\$18.8	\$20.8	\$5.7	\$45.4
1994	\$19.5	\$21.4	\$6.0	\$46.9
1995	\$19.8	\$22.2	\$6.2	\$48.1
1996	\$20.4	\$22.5	\$6.4	\$49.3
1997	\$21.6	\$23.8	\$6.7	\$52.2
1998	\$22.5	\$24.8	\$7.1	\$54.3
1999	\$23.6	\$26.1	\$7.4	\$57.1
2000	\$25.0	\$27.5	\$7.7	\$60.2
2001	\$26.0	\$27.5	\$8.0	\$61.5
2002	\$27.5	\$28.6	\$8.2	\$64.4
2003	\$27.3	\$28.7	\$8.4	\$64.4
2004 ¹	\$28.1	\$29.1	\$8.6	\$65.8
2005 ^{1,2}	\$28.7	\$28.4	\$8.8	\$65.9
2006 ²	\$33.6	\$32.3	\$10.1	\$76.0
2007	\$36.7	\$34.8	\$11.1	\$82.6
2008 ³	\$42.9	\$43.4	\$14.1	\$100.3
2009	\$43.5	\$46.3	\$14.7	\$104.4
2010 ⁴	\$44.0	\$58.1	\$14.5	\$116.6
2011	\$44.2	\$58.2	\$14.4	\$116.7
2012 ⁵	\$43.3	\$58.8	\$14.6	\$116.6
2013	\$41.9	\$58.8	\$14.7	\$115.4
2014	\$43.2	\$59.6	\$15.1	\$117.9
2015 ⁶	\$43.7	\$61.0	\$15.7	\$120.4
2016	\$46.1	\$64.7	\$16.7	\$127.5
2017	\$46.3	\$65.0	\$16.9	\$128.1
2018	\$46.9	\$65.3	\$17.2	\$129.4
2019 ⁷	\$47.7	\$67.6	\$17.7	\$132.9

¹ One-way tolling at Hampton Main Toll Plaza.

² Conversion to new toll system and implementation of **E-ZPass**.

³ General toll Increase October 22, 2007.

⁴ Hampton Main toll Increase July 1, 2009.

⁵ The free Manchester Airport Access Road interchange on the Central Turnpike opened November 11, 2011.

⁶ Bedford Road Ramp (Exit 12) Toll Plaza Removed July 2014.

⁷ FY2019 unaudited actuals.

Notes: This table shows the historical toll revenues recorded on a cash basis.

FY 1991-2006 reported figures are derived from the Turnpike System's internal, monthly traffic and revenue report, which is prepared from information from the Turnpike System's **E-ZPass** and toll collection system vendors and does not include other income such as property sales.

Fiscal Years 2006-2011 figures are derived from the Turnpike System's internal accounting system and do not include property sales or other income.

Data will not necessarily add to totals because of rounding.

NEW HAMPSHIRE TURNPIKE SYSTEM TRAFFIC AND REVENUE STUDY

Historical Tolled Traffic and Gross Toll Revenues

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The table shows that annual toll revenues across the Turnpike System have increased in twenty-three out of the twenty-seven years in the period shown. The first large increase in toll revenues occurred between FY 2005 and FY 2006 due to the implementation of **E-ZPass** on the Turnpike System and discontinuation of token usage, which coincided with a decrease in the toll discount rate. In FY 2008, there was another significant increase in revenues - \$17.7 million or 21.4 percent over FY 2007— due to the October 2007 toll increase, and FY 2009 also saw a revenue increase of 4.1 percent due to this toll increase. The July 1, 2009 toll increase at the Hampton Main Plaza increased systemwide revenue by 11.6 percent in FY 2010 compared to the previous year. There was little change in total system revenue between FY 2010 and FY 2012, however, some losses were seen in FY 2012 and FY 2013 on the Central Turnpike due to the opening of the Manchester Airport Access Road on November 11, 2011 and the following shift in traffic from the Bedford area toll plazas to this free interchange. This reduced systemwide toll revenues for those two years. As the economy started improving, FY 2014 saw 2.2 percent revenue growth over FY 2013. FY 2016 was a particularly strong year of revenue growth, with a total increase of 5.9 percent. Recent years have been considerably weaker with 0.5 percent growth in FY 2017 and 1.0 percent growth in FY 2018. However it appears growth in FY 2019 recovered with a 2.7 percent annual growth rate.

Between FY 1991 and FY 2019, toll revenues increased annually by an average of 3.9 percent per year across the entire Turnpike System. The individual Turnpikes experienced annual revenue growth rates of 3.4 percent on the Central Turnpike, 4.3 percent on the Spaulding Turnpike, and 4.3 percent on the Blue Star Turnpike.

Figure 3.6 shows historical annual toll revenues between FY 1950 and FY 2019. This graphic shows that total system wide toll revenues showed little to no growth during most periods of economic recession. The exceptions were the economic recession in the early 1980s when revenue actually increased, and the recent recession, due to the general toll increase in October 2007 and the Hampton Main toll increase in July 2009. Even after the official end of the recent recession, toll revenue remained flat for several years. However, the improving economy is finally leading to some traffic growth, on the New Hampshire Turnpike System and on a nationwide basis, which experienced toll revenue growth from FY 2014 through FY 2019.

NEW HAMPSHIRE TURNPIKE SYSTEM TRAFFIC AND REVENUE STUDY

Historical Tolloed Traffic and Gross Toll Revenues

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Figure 3.6: NH Turnpike System Historical Toll Revenues Through 2019

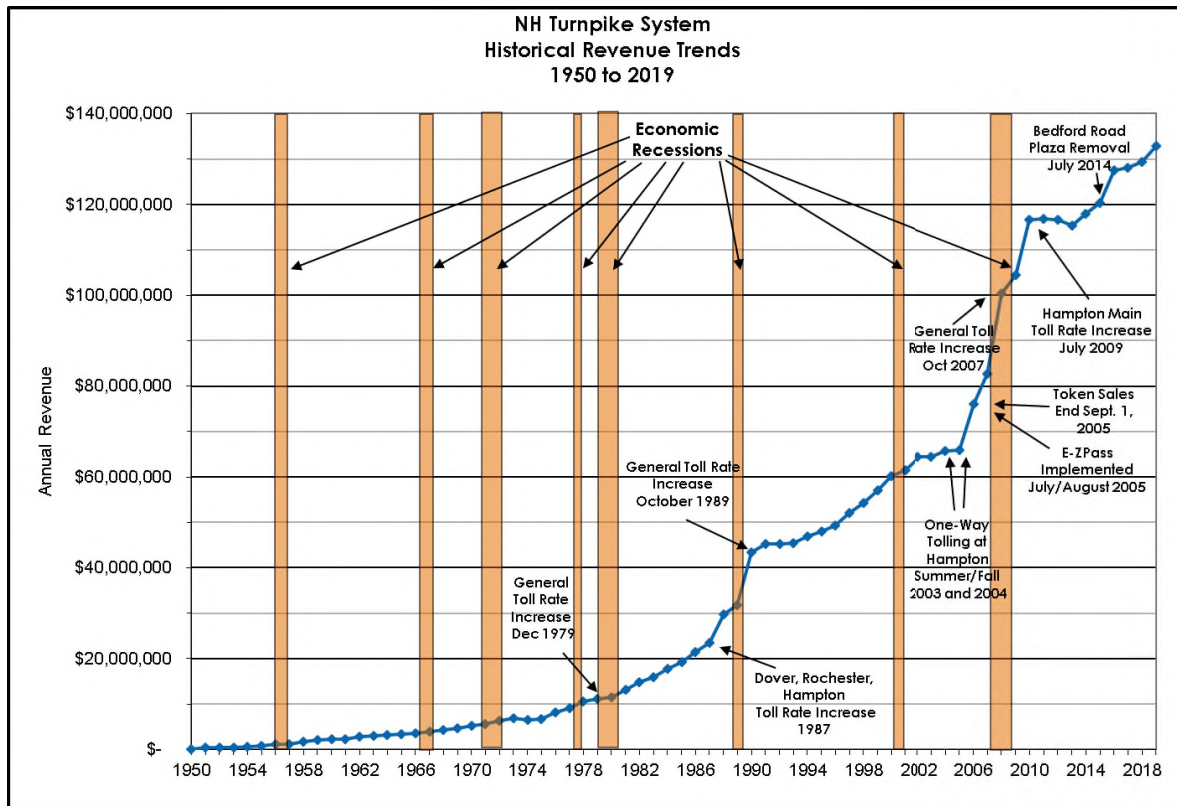


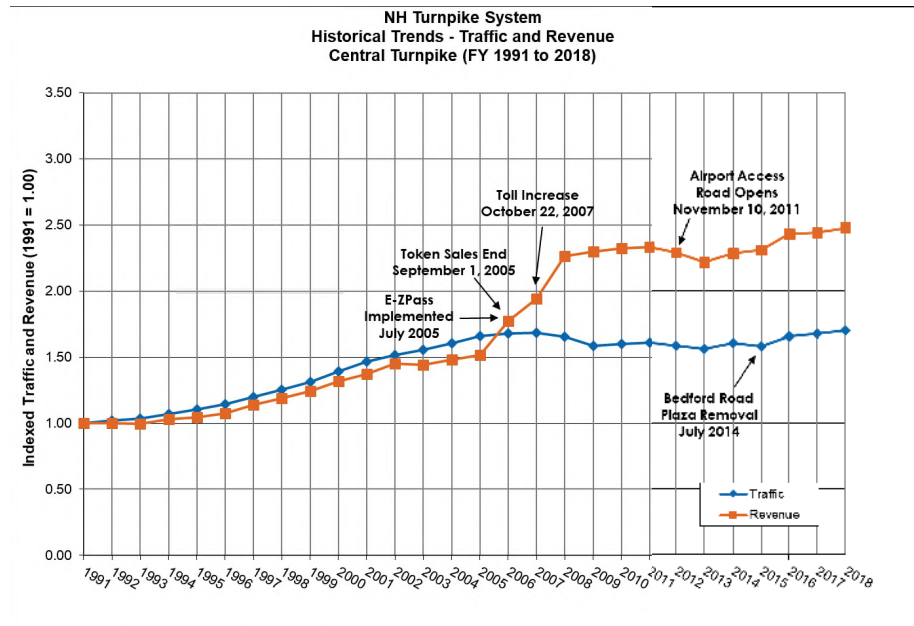
Figure 3.7 through Figure 3.9 show historical toll transaction and revenue trends for each of the three Turnpikes for the FY 1991 to FY 2018 period. Through about FY 2005, total toll revenue generally increased consistently on each Turnpike, with a small decrease on the Blue Star Turnpike in FY 2005. Also, toll revenues on the Blue Star Turnpike experienced very little growth between FY 2002 and FY 2005, due in part to the one-way tolling experiment. In FY 2005/2006 through FY 2007, all three Turnpikes experienced a flattening and then a decline in traffic after the October 2007 toll increase. After FY 2009 traffic has remained nearly flat on all three Turnpikes until FY 2014, when it increased by three percent over FY 2013. Toll revenues grew at a greater rate than usual in the past decade due to **E-ZPass** implementation and the end of token sales in FY 2006 (increasing the tolls for discounted trips), the October 2007 systemwide toll increase, and the July 2009 Hampton Main toll increase. The recovering traffic growth in FY 2014 increased total toll revenue by 2.2 percent. Toll revenue growth has suffered comparatively greater stagnation than traffic growth in recent years, with revenues growing by 0.5 percent and 1.0 percent in 2017 and 2018, respectively.

NEW HAMPSHIRE TURNPIKE SYSTEM TRAFFIC AND REVENUE STUDY

Historical Tolloed Traffic and Gross Toll Revenues

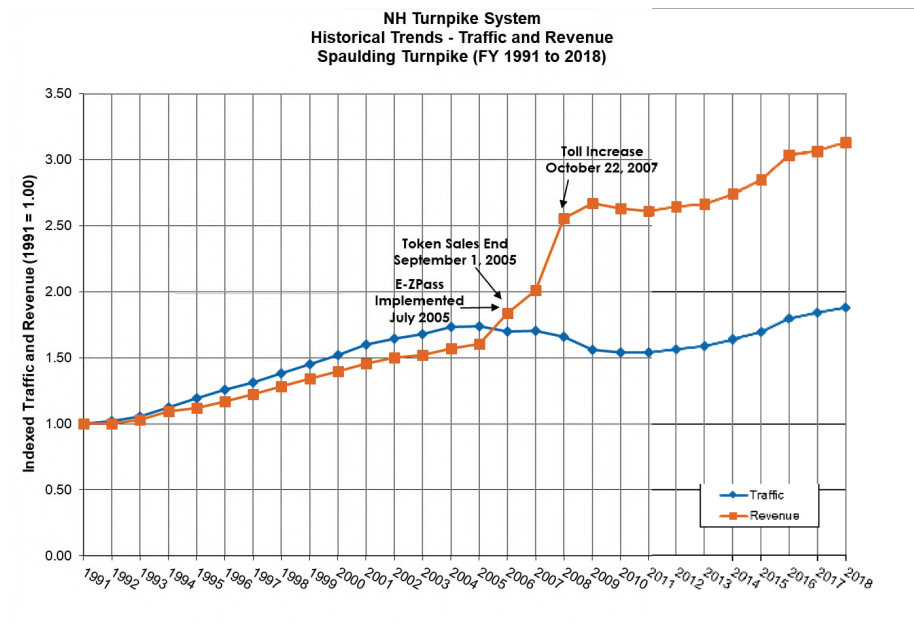
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Figure 3.7: Central Turnpike Historical Toll Transaction and Revenue Trends, 1991-2018*



*Most recently available audited actuals.

Figure 3.8: Spaulding Turnpike Historical Toll Transaction and Revenue Trends, 1991-2018*



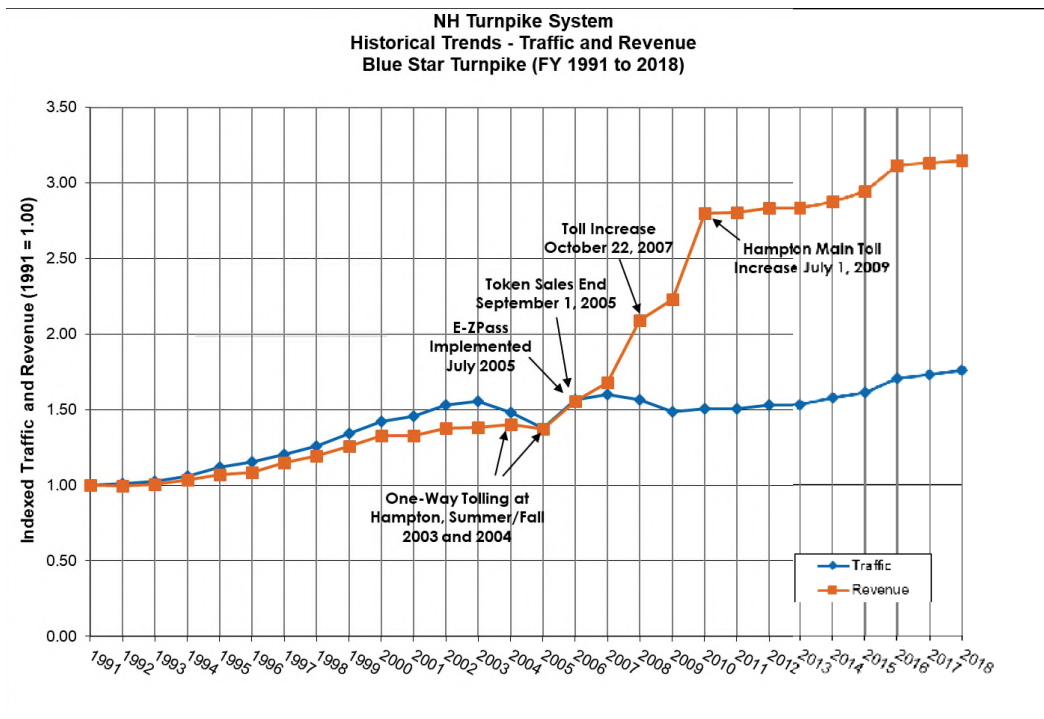
*Most recently available audited actuals.

NEW HAMPSHIRE TURNPIKE SYSTEM TRAFFIC AND REVENUE STUDY

Historical Tolloed Traffic and Gross Toll Revenues

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Figure 3.9: Blue Star Turnpike Historical Toll Transaction and Revenue Trends, 1991-2018*



*Most recently available audited actuals.

NEW HAMPSHIRE TURNPIKE SYSTEM TRAFFIC AND REVENUE STUDY

Historical Tolled Traffic and Gross Toll Revenues

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3.4 COMPARISON OF ACTUAL TOLL REVENUES TO RECENT PROJECTIONS

Jacobs Engineering conducted a traffic and revenue study for the Turnpike System in 2015, and subsequently updated it in December of 2016. Table 3.3 compares Jacobs's projections against the actual toll revenues collected by the Turnpike System for the fiscal years 2017 through 2019. Jacobs's 2016 projections slightly overestimated the actual revenue collected in two of these three years. The 2017 estimate was over by 1.2 percent, 2018 by 1.4 percent, and 2019 was on target. These differences are within the range of expected tolerances.

Table 3.3: Actual Toll Revenues vs. December 2016 Projections, Millions

Fiscal Year	December 2016 Projected Revenue	Actual Revenue	Percent Difference Actual vs. Projected
2017	\$129.6	\$128.1	-1.2%
2018	\$131.3	\$129.4	-1.4%
2019 ¹	\$132.9	\$132.9	0.0%

¹ FY2019 unaudited actuals.

NEW HAMPSHIRE TURNPIKE SYSTEM TRAFFIC AND REVENUE STUDY

Review of Proposed Capital Improvement Program

October 23, 2019

4.0 REVIEW OF PROPOSED CAPITAL IMPROVEMENT PROGRAM

This section presents a review of the Turnpike System's historical and proposed capital improvement program for the period FY 2008-2029 as shown in Table 4.1.

Table 4.1: 2008 – 2029 Historical and Proposed NHDOT Capital Expenditures, Millions

Fiscal Year	Central Turnpike	Blue Star Turnpike	Spaulding Turnpike	Other Projects ¹	Total Turnpike
2008	\$0.4	\$0.2	\$7.4	\$3.1	\$11.1
2009	\$6.5	\$0.2	\$18.5	\$0.9	\$26.1
2010	\$9.7	\$11.8	\$42.0	\$2.9	\$66.4
2011	\$7.3	\$4.5	\$39.9	\$1.2	\$52.7
2012	\$12.5	\$1.0	\$32.7	\$0.7	\$46.9
2013	\$27.3	\$5.0	\$32.4	\$5.5	\$70.2
2014	\$21.2	\$2.4	\$20.4	\$5.9	\$49.7
2015	\$14.5	\$0.8	\$13.6	\$3.0	\$31.8
2016	\$10.3	\$4.9	\$26.3	\$0.4	\$42.0
2017	\$6.7	\$2.8	\$22.6	\$0.0	\$32.1
2018	\$3.5	\$3.3	\$20.8	-	\$27.5
Total '08-'18	\$119.7	\$36.8	\$276.4	\$23.5	\$456.6
2019	\$2.5	-	\$17.2	\$1.4	\$21.1
2020	\$14.0	-	\$19.9	-	\$33.9
2021	\$18.8	-	\$30.8	-	\$49.6
2022	\$46.7	-	\$14.7	-	\$61.4
2023	\$52.8	-	\$10.3	-	\$63.1
2024	\$50.3	-	\$ 6.9	-	\$57.2
2025	\$58.7	-	-	-	\$58.7
2026	\$47.6	-	-	-	\$47.6
2027	\$51.2	-	-	-	\$51.2
2028	\$63.4	-	-	-	\$63.4
2029	\$42.5	-	-	-	\$42.5
Total '19-'29	\$448.5	-	\$99.8	\$1.4	\$549.7

¹ Miscellaneous Turnpike System Projects funded with Federal Aid and matched with Turnpike funds, and/or Systemwide projects.

Notes:

Central Turnpike Projects include: Bow-Concord I-93 Widening, Manchester Exit 6 & 7 Interchange Improvements, Bedford ORT, and Nashua-Bedford Turnpike widening.

Completed Blue Star Turnpike Projects include: I-95 Bridge over the Taylor River.

Spaulding Turnpike Projects include: Newington-Dover Exit 6 reconstruction, General Sullivan Bridge Rehabilitation, Maintenance Facility Construction, and Improvements at Dover & Rochester Toll Plazas.

Data will not necessarily add to totals because of rounding.

This table is based on cash basis (not accrual).

NEW HAMPSHIRE TURNPIKE SYSTEM TRAFFIC AND REVENUE STUDY

Review of Proposed Capital Improvement Program

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Over the eleven-year period FY 2008–FY 2018, Turnpike System-funded capital expenditures totaled \$456.4 million. The largest share of this - \$276.4 million - was spent on Spaulding Turnpike projects. Funding sources for these projects include toll revenues, other Turnpike System revenues and Turnpike System bond proceeds. Total Turnpike system capital expenditures are programmed at a total of \$549.7 million over the FY 2019–FY 2029 period.

After the completion of the Turnpike expansion in Nashua in the late 1990s, the ten-year capital improvement program had few major projects with the exception of the implementation of E-ZPass and the construction of the Granite Street interchange in Manchester. The toll rate increase in 2007, the first since 1989, allowed the capital improvement program to move forward with the expansion of the Spaulding Turnpike in Rochester along with improvement projects such as addressing red-listed bridges and improving safety and congestion on the Turnpike System.

Eighty-two percent of Turnpike System capital expenditures over the next eleven years will be for projects on the Central Turnpike, including reconstruction of Exits 6 and 7, roadway widening from Exit 8 in Nashua to I-293 in Bedford, and Bow-Concord I-93 widening project. Ongoing capital expenditures on the Spaulding Turnpike include the Exit 6 interchange reconstruction, General Sullivan Bridge Rehabilitation, and Dover & Rochester Toll Plaza improvements. No major capital improvement projects are planned for the Blue Star Turnpike at this time.

NEW HAMPSHIRE TURNPIKE SYSTEM TRAFFIC AND REVENUE STUDY

Review of Historical and Projected Operation, Maintenance, Renewal and Replacement, and Debt Service Expenditures

October 23, 2019

5.0 REVIEW OF HISTORICAL AND PROJECTED OPERATION, MAINTENANCE, RENEWAL AND REPLACEMENT, AND DEBT SERVICE EXPENDITURES

This section presents a review of historical and projected Turnpike System operational expenditures that consist of administrative costs, toll operations costs, maintenance costs, state police enforcement costs, welcome centers and rest areas, renewal and replacement (R&R) costs, toll processing costs, and conversion to all-electronic tolling on the Spaulding Turnpike. It also includes a review of the Turnpike System's historical and projected debt service expenditures.

Administrative costs include administrative salaries, benefits, expenses, equipment, indirect costs, cleaning, utilities, travel costs, audit expenses, and payments to other state agencies or DOT Bureaus for services.

Toll operations costs include toll operations salaries, benefits, expenses, utilities, toll system warranty, equipment and travel costs.

Maintenance costs include maintenance salaries, benefits, expenses, rents and lease costs, utilities, equipment and travel costs.

Renewal and replacement costs are related to construction projects to preserve, maintain and upgrade the existing infrastructure (i.e., paving, signing, guardrail, bridge rehabilitation, building and toll plaza repairs, bridge painting, etc.).

Toll processing costs include banking and credit card fees, **E-ZPass**-related costs (customer service center expenses, walk-in center expenses, Interagency Group (IAG) organizational dues, violation processing expenses, and vehicle registration look-up fees), toll system maintenance expenses through a vendor, and transponder purchases and replacement.

5.1 TOLL PROCESSING COSTS

Table 5.1 summarizes historical and projected NHDOT toll processing expenses for the period FY 2008 through FY 2029.

The majority of Toll Processing costs go to funding the **E-ZPass** customer service center (CSC). These costs have steadily increased over the past eleven years, rising from \$4.3 million in 2008 to a high of \$6.9 million in 2017, driving the net increase in total processing costs over the same period.

NEW HAMPSHIRE TURNPIKE SYSTEM TRAFFIC AND REVENUE STUDY

Review of Historical and Projected Operation, Maintenance, Renewal and Replacement, and Debt Service Expenditures

October 23, 2019

Table 5.1: FY 2008 – 2029 Historical and Forecasted Toll Processing Costs, Millions

Fiscal Year	E-ZPass CSC Costs	Toll Maintenance Costs	E-ZPass Transponder Expenses	Total Toll Processing Costs
2008	\$4.3	\$1.0	\$0.8	\$6.1
2009	\$5.1	\$1.3	\$0.7	\$7.1
2010	\$5.3	\$1.6	\$0.8	\$7.7
2011	\$5.8	\$1.8	\$0.8	\$8.4
2012	\$5.3	\$1.4	\$0.8	\$7.5
2013	\$5.0	\$1.3	\$0.5	\$6.8
2014	\$5.9	\$0.8	\$0.6	\$7.3
2015	\$6.4	\$1.7	\$0.6	\$8.7
2016	\$6.9	\$1.2	\$1.1	\$9.2
2017	\$6.9	\$1.5	\$0.8	\$9.2
2018	\$6.3	\$2.1	\$0.8	\$9.2
Total '08-'18	\$63.2	\$15.7	\$8.3	\$87.2
2019 ¹	\$6.8	\$1.9	\$0.8	\$9.5
2020 ^{2,3}	\$15.6	\$2.5	\$0.5	\$18.6
2021 ³	\$12.1	\$5.8	\$0.5	\$18.4
2022 ⁴	\$13.7	\$4.4	\$0.5	\$18.6
2023	\$14.0	\$2.6	\$0.5	\$17.1
2024	\$14.3	\$2.7	\$0.5	\$17.5
2025	\$14.6	\$2.7	\$0.5	\$17.8
2026	\$14.9	\$2.8	\$0.5	\$18.2
2027	\$15.4	\$2.8	\$0.5	\$18.7
2028	\$16.0	\$2.9	\$0.5	\$19.4
2029	\$16.4	\$2.5	\$0.5	\$19.4
Total '19-'29	\$153.8	\$33.6	\$5.8	\$193.2

Note: Historical and forecasted data from NHDOT, and may not necessarily add to totals because of rounding.

¹ 2019 unaudited actual values.

² Increases in E-ZPass CSC costs are due to increases in E-ZPass accounts and invoice/violations transactions, increases in credit card rates under the new Merchant of Record, increases in postage rates especially for transponders, cost of additional customer's correspondence notification, and cost of new system design deliverables.

³ Increases in Toll Maintenance Costs attributed to the future advertisement of a Lane System RFP as the existing contract is expiring and upgrades to lane system equipment are necessary.

⁴ Values reflect impact of AET implementation at Dover and Rochester in FY 2022.

NHDOT estimates that approximately \$193.2 million will be spent on toll processing between FY 2019 and FY 2029, with **E-ZPass** customer service center costs accounting for \$156.8 million or approximately 80 percent of that total. Future transponder purchases are forecasted at \$0.5 million per year beginning in FY2020, yielding a total of \$5.8 million over the eleven-year period. NHDOT recovers the transponder expenses by selling the transponder to the customer at cost. The Bureau has decreased the price of transponders twice in recent years, as shown in Table 5.2.

NEW HAMPSHIRE TURNPIKE SYSTEM TRAFFIC AND REVENUE STUDY

Review of Historical and Projected Operation, Maintenance, Renewal and Replacement, and Debt Service Expenditures

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Table 5.2 E-ZPass Tag Price History

Time Period	Interior Tag	Exterior Tag
Prior	\$8.90	\$15.19
3/27/17 to 7/1/19	\$7.40	\$13.49
7/1/19 to present	\$7.15	\$13.24

5.2 OPERATING EXPENDITURES

Table 5.3 summarizes historical and projected NHDOT expenses for the period FY 2008 through FY 2029.

Table 5.3: FY 2008 – 2029 Historical and Forecasted NHDOT Operating Expenditures, Millions

FY	Existing Operating Expenditure	Dover & Rochester AET Savings	State Police Enforcement	Toll Processing	Welcome Centers & Rest Areas	Tpk Funding of DOT-Hwy	O&M Lapse	Total O&M	Existing R&R Program	1-95 Payments from	1-95 Advance Payment	Additional R&R	Total Operating Expense
2008	\$24.9		\$5.2	\$6.1	\$0.0	\$0.9	\$0.0	\$37.1	\$11.8	\$0.0	\$0.0	\$0.0	\$48.9
2009	\$26.6		\$5.4	\$7.1	\$0.0	\$1.2	\$0.0	\$40.3	\$7.8	\$0.0	\$0.0	\$0.0	\$48.1
2010	\$26.3		\$5.0	\$7.7	\$0.0	\$1.1	\$0.0	\$40.1	\$7.8	\$30.0	\$0.0	\$0.0	\$77.9
2011	\$28.0		\$4.9	\$8.4	\$0.0	\$1.0	\$0.0	\$42.3	\$14.3	\$20.0	\$0.0	\$0.0	\$76.6
2012	\$25.5		\$4.9	\$7.5	\$1.2	\$1.6	\$0.0	\$40.7	\$9.2	\$26.0	\$0.0	\$0.0	\$75.9
2013	\$26.8		\$5.5	\$6.8	\$1.2	\$1.9	\$0.0	\$42.2	\$9.6	\$5.9	\$20.1	\$0.0	\$77.8
2014	\$25.8		\$5.8	\$7.3	\$1.2	\$2.4	\$0.0	\$42.5	\$11.3	\$5.9	\$9.1	\$0.0	\$68.8
2015	\$26.6		\$6.3	\$8.7	\$1.0	\$1.8	\$0.0	\$44.4	\$8.2	\$5.9	\$8.3	\$0.0	\$66.8
2016	\$24.1		\$7.2	\$9.2	\$0.9	\$1.6	\$0.0	\$43.0	\$7.9	\$0.4	\$0.0	\$0.0	\$51.3
2017	\$28.8		\$8.7	\$9.2	\$0.9	\$2.3	\$0.0	\$49.9	\$9.3	\$0.0	\$0.0	\$0.0	\$59.2
2018	\$27.9		\$8.2	\$9.2	\$1.0	\$2.3	\$0.0	\$48.6	\$8.7	\$0.0	\$0.0	\$0.0	\$57.3
Total '09-'18	\$291.3	\$0.0	\$67.1	\$87.2	\$7.4	\$18.1	\$0.0	\$471.1	\$105.9	\$94.1	\$37.5	\$0.0	\$708.6
2019 ¹	\$22.9		\$8.4	\$9.5	\$1.0	\$2.3	\$0.0	\$44.1	\$14.3				\$58.4
2020	\$35.6		\$8.6	\$18.6	\$1.1	\$2.5	-\$3.0	\$63.3	\$10.9			\$25.4	\$99.6
2021	\$35.4		\$8.7	\$18.4	\$1.2	\$2.5	-\$3.0	\$63.2	\$12.0			\$10.3	\$85.5
2022 ²	\$35.4	-\$2.1	\$8.9	\$18.6	\$1.2	\$2.5	-\$3.0	\$61.6	\$13.2			\$0.7	\$75.5
2023	\$36.1	-\$2.1	\$9.1	\$17.1	\$1.2	\$2.6	-\$3.0	\$61.0	\$14.4				\$75.4
2024	\$36.8	-\$2.2	\$9.3	\$17.5	\$1.2	\$2.6	-\$3.0	\$62.2	\$13.3				\$75.5
2025	\$37.6	-\$2.2	\$9.5	\$17.8	\$1.3	\$2.7	-\$3.0	\$63.6	\$13.6				\$77.2
2026	\$38.3	-\$2.3	\$9.6	\$18.2	\$1.3	\$2.7	-\$3.0	\$64.9	\$13.8				\$78.7
2027	\$39.1	-\$2.3	\$9.8	\$18.7	\$1.4	\$2.8	-\$3.0	\$66.5	\$14.1				\$80.6
2028	\$39.9	-\$2.4	\$10.0	\$19.4	\$1.4	\$2.8	-\$3.0	\$68.1	\$14.4				\$82.5
2029	\$40.7	-\$2.4	\$10.2	\$19.4	\$1.4	\$2.9	-\$3.0	\$69.2	\$14.7				\$83.9
Total '19-'29	\$397.7	-\$18.0	\$102.2	\$193.2	\$13.8	\$28.8	-\$30.0	\$687.6	\$148.6	\$0.0	\$0.0	\$36.4	\$872.6

¹Values are 2019 unaudited actuals, not model forecasts. Reduction of Existing Operating Expenditures from FY 2018 to FY 2019 is primarily due to a decrease of approximately \$4.8M in pension and other post-employment benefits.

² Values reflect impact of AET implementation in FY 2022.

The dollar values shown are tabulated on a cash basis. All numbers are tied to the Operating and Maintenance Report (Bureau of Turnpikes), except for certain financial categories which tie to the Comprehensive Annual Financial Reports. Data will not necessarily add to totals because of rounding.

NEW HAMPSHIRE TURNPIKE SYSTEM TRAFFIC AND REVENUE STUDY

Review of Historical and Projected Operation, Maintenance, Renewal and Replacement, and Debt Service Expenditures

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The Turnpike System's total annual operating expenditures (Operating and Maintenance, Renewal and Replacement, and I-95 Payments Costs) over the past eleven years ranged from a low of \$48.1 million in FY 2009 to a high of \$77.9 million in FY 2010. FY 2018 operating expenditures were \$57.3 million. Total operating expenditures amounted to \$708.6 million over the eleven-year period FY 2008-2018. About 41 percent of that total, \$291.3 million, was spent on existing operating expenditures, and \$87.2 million, roughly 12 percent, was spent on Toll Processing. Payments from the Bureau of Turnpikes' General Reserve Fund for the acquisition of a portion of I-95 into the Blue Star Turnpike greatly increased overall expenses in fiscal years 2010-2013. As this payment became smaller in FY 2014, total operating expenses declined by \$9.0 million or 12 percent from FY 2013 to FY 2014.

Total operating expenditures for the period FY 2019-2029 are projected to total \$872.6 million, about 23 percent higher than the expenditures of the previous eleven-year period. Factors that contribute to this projected increase include increased costs of toll operations, maintenance, and toll processing - in addition to background inflation. Toll processing costs in particular greatly increase from 2019-2029 compared to previous years – projected to more than double from \$87.2 million to \$193.2 million over the coming eleven years. This is due to the growth of E-ZPass accounts, invoice/violation transactions, increased credit card costs and increases in transactions, postage cost, and the implementation of AET in Dover and Rochester and new lane system.

Operation and maintenance expenditures are budgeted to provide for unforeseen costs. The amount not spent - the lapse - is shown in Table 5.4 over the twelve-year period from FY 2008 through 2019. The lapse has ranged from \$4.6 million in FY 2017 to \$11.8 million in FY 2018. Of these funds, Turnpike System renewal and replacement funds are carried forward to the following year; all other lapses for operating expenses return to retained earnings or the Bureau of Turnpikes' General Reserve Account.

Table 5.4: FY 2008 – 2019 Historical Lapse

FY	Lapse	Transfer from Retained Earnings	Net
2008	\$5,008,397	-	\$5,008,397
2009	\$4,736,858	-	\$4,736,858
2010	\$6,048,295	-	\$6,048,295
2011	\$8,367,782	\$27,500	\$8,340,282
2012	\$6,088,130	\$500,000	\$5,588,130
2013	\$11,017,323	\$106,060	\$10,911,263
2014	\$8,716,360	\$1,105,000	\$7,611,360
2015	\$10,656,141	\$1,937,159	\$8,718,982
2016	\$13,132,855	\$4,820,000	\$8,312,855
2017	\$11,311,176	\$6,680,900	\$4,630,276
2018	\$12,436,547	\$600,000	\$11,836,547
2019	\$ 7,669,772	\$2,296,000	\$5,373,772
Total '08-'19	\$105,189,636	\$18,072,619	\$87,117,017

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5.3 DEBT SERVICE REQUIREMENTS

Table 5.5 presents historical and scheduled debt service requirements for the period FY 2008-2029.

Table 5.5: FY 2008 – 2029 Historical and Scheduled Debt Service Expenditures, Millions

Fiscal Year	Existing Revenue Bonds	BABs Interest Subsidy ¹	Reduction in Subsidy due to 2019 Refunding	Projected Savings on 2019 Refunding	Net Total Revenue Bond Debt Service
2008	\$25.7	\$0.0	\$0.0	\$0.0	\$25.7
2009	\$25.9	\$0.0	\$0.0	\$0.0	\$25.9
2010	\$30.9	-\$1.3	\$0.0	\$0.0	\$29.6
2011	\$36.9	-\$3.1	\$0.0	\$0.0	\$33.8
2012	\$36.4	-\$3.1	\$0.0	\$0.0	\$33.3
2013	\$41.4	-\$3.1	\$0.0	\$0.0	\$38.3
2014	\$41.9	-\$2.9	\$0.0	\$0.0	\$39.0
2015	\$42.0	-\$2.9	\$0.0	\$0.0	\$39.1
2016	\$44.1	-\$2.8	\$0.0	\$0.0	\$41.3
2017	\$44.2	-\$2.9	\$0.0	\$0.0	\$41.3
2018	\$44.2	-\$2.9	\$0.0	\$0.0	\$41.3
Total '08-'18	\$413.6	-\$25.1	\$0.0	\$0.0	\$388.5
2019 ²	\$44.3	-\$2.9	\$0.0	\$0.0	\$41.3
2020	\$44.3	-\$2.9	\$0.7	-\$0.9	\$41.1
2021	\$44.3	-\$2.9	\$1.0	-\$1.2	\$41.1
2022	\$37.4	-\$2.9	\$1.0	-\$1.2	\$34.3
2023	\$30.4	-\$2.8	\$1.0	-\$1.2	\$27.4
2024	\$28.9	-\$2.6	\$1.0	-\$1.2	\$26.1
2025	\$23.3	-\$2.5	\$1.0	-\$2.7	\$19.1
2026	\$23.1	-\$2.3	\$0.9	-\$2.6	\$19.1
2027	\$22.9	-\$2.1	\$0.7	-\$2.4	\$19.1
2028	\$22.7	-\$1.9	\$0.5	-\$2.2	\$19.1
2029	\$22.5	-\$1.7	\$0.3	-\$2.0	\$19.1
Total '19-'29	\$344.0	-\$27.6	\$8.4	-\$17.9	\$307.0

¹ Under current federal law, sequestration of reimbursements for direct-pay bonds (BABs) extended through FY 2029. The reduction in funding as a result of sequestration is 5.9% for FY2020. Revenue Interest Rebate has been reduced by 5.9% through 2029.

² Values are 2019 unaudited actuals, not model forecasts.

Note: Data will not necessarily add to totals because of rounding.

Historical total revenue bond debt service payments ranged from a low of \$25.7 million in FY 2008 to a high of \$44.2 million in FY 2017 and FY 2018. Over the eleven-year period FY 2008-2018, the cumulative total revenue bond debt service was \$413.6 million. The historical BABs interest subsidy over this ten-year period totaled \$25.1 million, resulting in a net total revenue bond debt service of \$388.5 million.

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Scheduled total revenue bond debt service expenditures are projected to decrease over the period FY 2019-2029 from a high of \$44.3 million in FY 2019 through FY 2021 to a low of \$22.5 million in FY 2029. The cumulative total revenue bond debt service payment over this period is estimated to be \$344.0 million or about 17 percent less than the previous eleven-year period. The majority of this amount will be for existing revenue bond payments. Over the eleven-year forecast period FY 2019-2029, the total BABs interest subsidy is estimated to total \$27.6 million. The 2019 Refunding Bonds will reduce the subsidy amount while also introducing savings on existing debt service. This will result in a net total revenue bond debt service of \$307 million over the period 2019-2029.

6.0 REVIEW OF NATIONAL AND REGIONAL SOCIO-ECONOMIC CONDITIONS

6.1 ECONOMIC BACKDROP AND OUTLOOK FOR THE FUTURE

Any forecast of toll traffic and revenues will, of necessity, recognize the significant variations that can and do occur in the national, regional and local economies and population changes within the Turnpike corridors. Considering this, Stantec performed a detailed analysis of the historical economic trends seen over the last few decades, particularly as they relate to the economic influences that occurred and how traffic on the Turnpike facilities reacted to those trends.

In the preparation of Turnpike traffic and toll revenue forecasts, we considered a number of important national and regional economic trends that influence traffic and motorist behavior. Historically, passenger vehicle traffic has generally correlated to Gross Domestic Product (GDP), while truck traffic growth has shown some correlation to the Industrial Production Index (IPI). Factors such as unemployment and gas prices have also affected vehicle-miles traveled (VMT) by passenger vehicles.

6.1.1 Gross Domestic Product (GDP)

Figure 6.1 shows the real annual GDP from 1980 through the end of 2018, the most recent annual data available. From 2000 through 2018, real GDP in the United States increased at an average annual rate of 1.9 percent. This period included the 2001 recession and the recession that began in late 2007 and ended in June 2009. This most recent recession, which some economists termed the “Great Recession”, was far more severe than originally predicted and significantly deeper and longer than previous recessions. In 2008, real GDP decreased by 0.1 percent, and in 2009 the recession reached its nadir, with real GDP decreasing by 2.5 percent. Since 2010, the U.S. economy has recovered and shown consistent growth. Real GDP increased on an annual basis by between 1.6 and 2.6 percent in the years 2010 to 2016, then increased at an annual rate of 2.2 percent in 2017 and 2.9 percent in 2018, according to the most recently available data.¹ The first quarter 2019 real GDP was estimated at \$18.9 trillion.² Note that gray shaded areas on the figures in this section represent U.S. recessions as determined by the National Bureau of Economic Research. Recessions are technically defined as two consecutive calendar quarters of negative GDP growth.

¹ Bureau of Economic Analysis, News Release: [Gross Domestic Product](#), May 30, 2019.

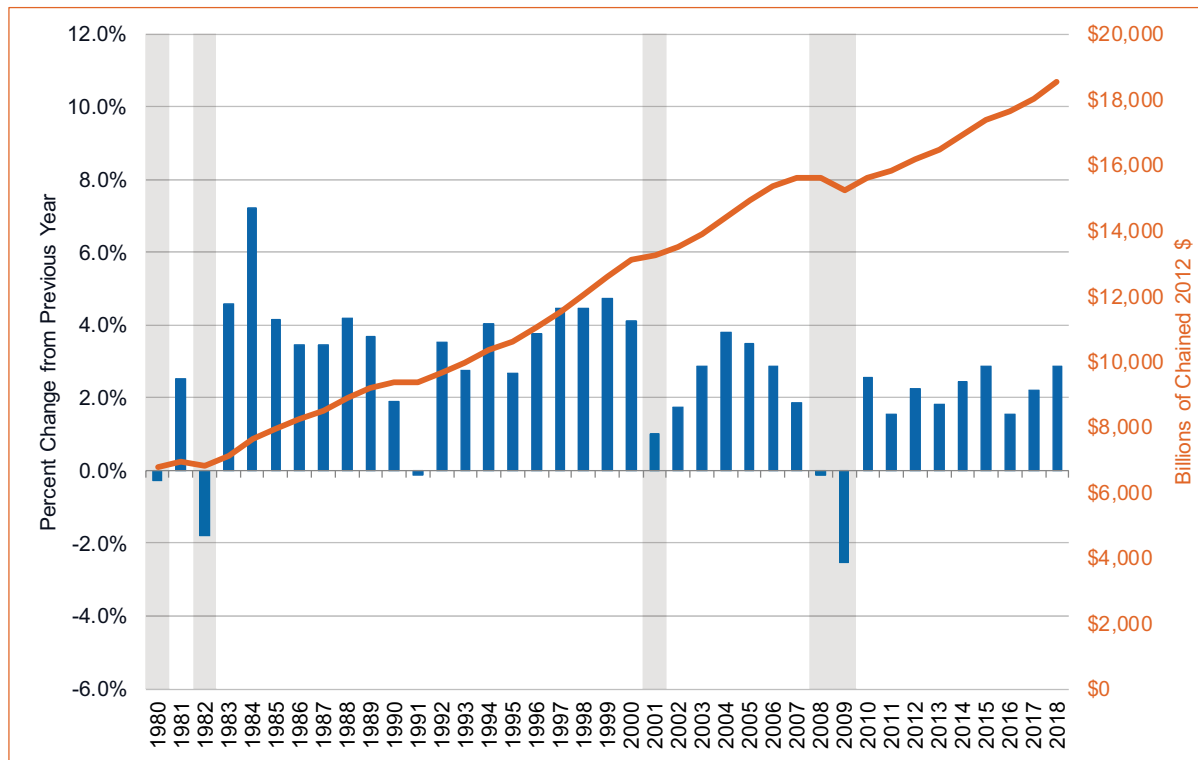
² Ibid.

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Figure 6.1: Real Gross Domestic Product, Annual 1980 to 2018



Source: U.S. Census Bureau, Bureau of Economic Analysis, National Bureau of Economic Research.

Note: gray shaded areas of the graphic represent U.S. recessions.

Financial and economic analysts expect the U.S. economy to continue to grow in the near-term future. The most recent consensus forecast, derived from projections from more than 50 financial institutions and professional forecasting firms, is that real GDP will grow by 2.5 percent in 2019 and 1.8 percent in 2020.³ Longer term, in the 2021-2025 timeframe, the consensus forecast is for real GDP to continue to grow by 1.9 percent annually.⁴

6.1.2 Industrial Production Index (IPI)

The Industrial Production Index (IPI) is a measure of real output published by the Board of Governors of the Federal Reserve System. The index is measured as a percentage of real output of a given base year, 2012 as noted by the Board of Governors of the Federal Reserve System, National Bureau of Economic Research. Stantec has been tracking traffic volumes on the Turnpike and other toll facilities throughout the northeast for over a decade and has found that growth in commercial traffic generally correlates to growth in IPI.

³ "Blue Chip Economic Indicators: Top Analysts' Forecasts of the U.S. Economic Outlook for the Year Ahead", Wolters and Kluwer Law & Business, June 10, 2019.

⁴ "Blue Chip Economic Indicators: Top Analysts' Forecasts of the U.S. Economic Outlook for the Year Ahead", Wolters and Kluwer Law & Business, March 10, 2019.

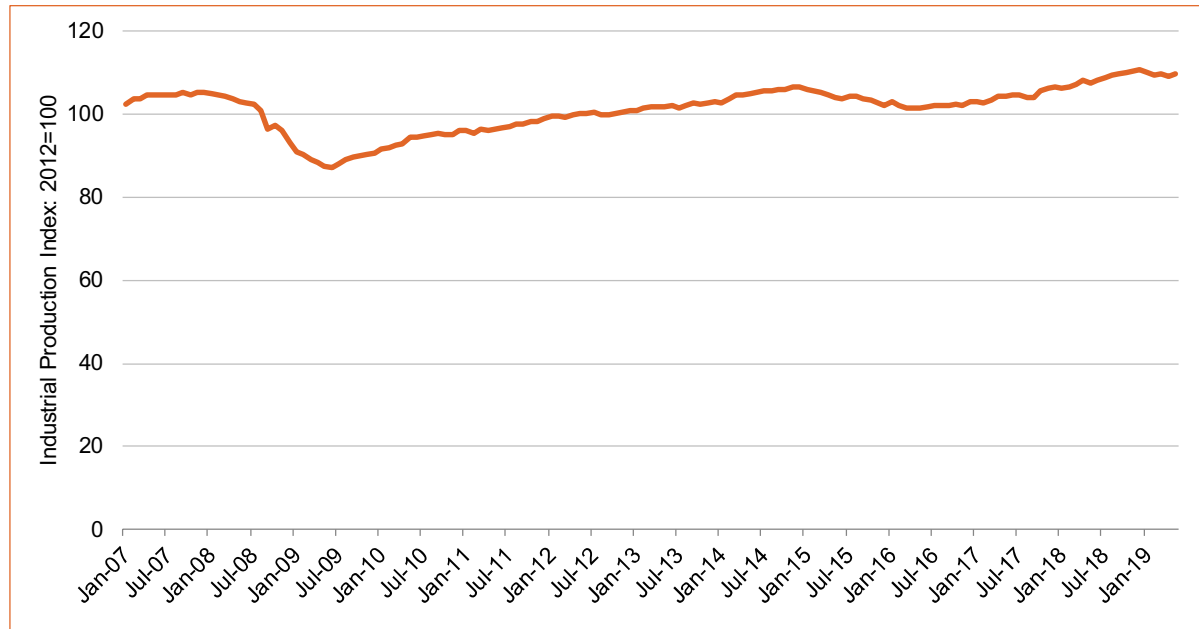
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As shown in Figure 6.2, the IPI hit its most recent trough in June 2009, the last month of the 2007 to 2009 recession. Since that time, it has generally been on an upward trajectory, increasing by 25.8 percent from June 2009 to May 2019.

Figure 6.2: Industrial Production Index (IPI), Monthly January 2007 to May 2019



Source: Board of Governors of the Federal Reserve System, National Bureau of Economic Research.

Based on consensus forecasts developed by financial institutions and industry analysts, the IPI is forecasted to increase by 1.7 percent in 2019 and by 1.4 percent in 2020.⁵ Longer term, in the 2021-2025 timeframe, the consensus forecast is for the index to continue to grow by 2.0 percent annually.⁶

6.1.3 Unemployment Rates

At the beginning of 2008, the national unemployment rate was 5.0 percent, as it had been similarly for years. By October 2009 during the depth of the recent recession, unemployment peaked at approximately 10.0 percent. Total employment has since recovered and finally eclipsed its pre-recession peak, reaching 156.8 million persons in April 2019.⁷ Consequently, as shown in Figure 6.3, the national unemployment rate has fallen to 3.6 percent as of April 2019.

⁵ Blue Chip Economic Indicators: Top Analysts' Forecasts of the U.S. Economic Outlook for the Year Ahead", Wolters and Kluwer Law & Business, June 10, 2019.

⁶ Blue Chip Economic Indicators: Top Analysts' Forecasts of the U.S. Economic Outlook for the Year Ahead", Wolters and Kluwer Law & Business, March 10, 2019.

⁷ "Bureau Of Labor Statistics, Economic News Release, Employment Situation Summary Table A. Household Data, Seasonally Adjusted, Data Extracted June 17, 2019.

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Figure 6.3: Civilian Unemployment Rate, Seasonally Adjusted, Monthly January 2000 to April 2019



Source: U.S. Department of Labor, Bureau of Labor Statistics, National Bureau of Economic Research.

Note: gray shaded areas of the graphic represent U.S. recessions.

Long-term forecasts of employment tend to differ, depending on varying assumptions of the impact of long-term structural trends such as advances in information technology, outsourcing, and an aging population. The U.S. Congressional Budget Office (CBO) has forecasted that the unemployment rate will remain under 5.0 percent through 2029 with a forecast of 4.2 percent for 2021, 4.6 percent for 2022, then increasing to 4.8 percent for the 2023-2027 time period before falling to 4.7 percent for 2028-2029.⁸

6.1.4 National Trends in Vehicle Miles Traveled (VMT)

The United States experienced an historic flattening and drop in vehicle-miles traveled (VMT) on its highways, starting in 2008 and lasting until approximately 2014. A reduction in VMT means less revenue – in the form of gasoline taxes or tolls – for funding transportation operation, maintenance and capital expenses. However, beginning in mid-2014, VMT experienced a growth trend, increasing at an even more rapid rate than in the 1990s until a very recent plateau occurred in early 2018.

Figure 6.4 depicts the 12-month moving total of national travel mileage on all U.S. highways, from 1971 through the first quarter of 2019. As seen in this figure, there were temporary reductions in VMT during military combat, oil crises and economic recessions. Despite these temporary “dips”, the VMT continued

⁸ “The Budget and Economic Outlook: 2019 to 2029”, Congressional Budget Office Report, January 2019.

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to grow rapidly over the years. The figure shows that, in recent years, with the exception of short, flat periods during the 1991 and 2001 recessions (each less than one year), VMT grew at a steady pace through about 2005, then grew at a much slower pace through 2008. The increase in gas prices and the downturn in economic activity that took hold in late 2008 resulted in a significant reduction in total national travel mileage after the December 2007 peak. VMT declined throughout 2008 and early 2009. From the official end of the recession in mid-2009 through 2013, VMT generally remained flat. Then, in 2014 through 2017, VMT increased at a strong rate not seen since the late 1990s. 2016 experienced the largest annual increase in VMT since tracking began in 1971.⁹ This upward trend in VMT is likely due to an improved economy, employment and population growth, and a reduction in fuel prices.

In addition, recent data have shown that the Millennials, many of whom delayed purchasing a car, are now buying cars and driving more because they are now employed. On the other hand, there are factors that may slow down VMT growth over time, including baby boomers retiring and driving less, the ability of workers to work remotely, and communication technologies that can substitute for in-person interaction.¹⁰ The State Smart Transport Initiative (SSTI) concluded in a 2014 report that a decline in per-capita VMT reflected “changing demographics, saturated highways, and a rising preference for compact, mixed-use neighborhoods, which reduce the need for driving.”¹¹ These factors may have come into play in the past few years; from late 2017 through early 2019, nationwide VMT has experienced little growth.

⁹ U.S. Department of Energy, Alternative Fuels Data Center, Maps and Data - Annual Vehicle Miles Traveled in the U.S.

¹⁰ “Vehicle Miles Traveled: Another Look at Our Evolving Behavior”, Jill Misliniski, March 17, 2017.

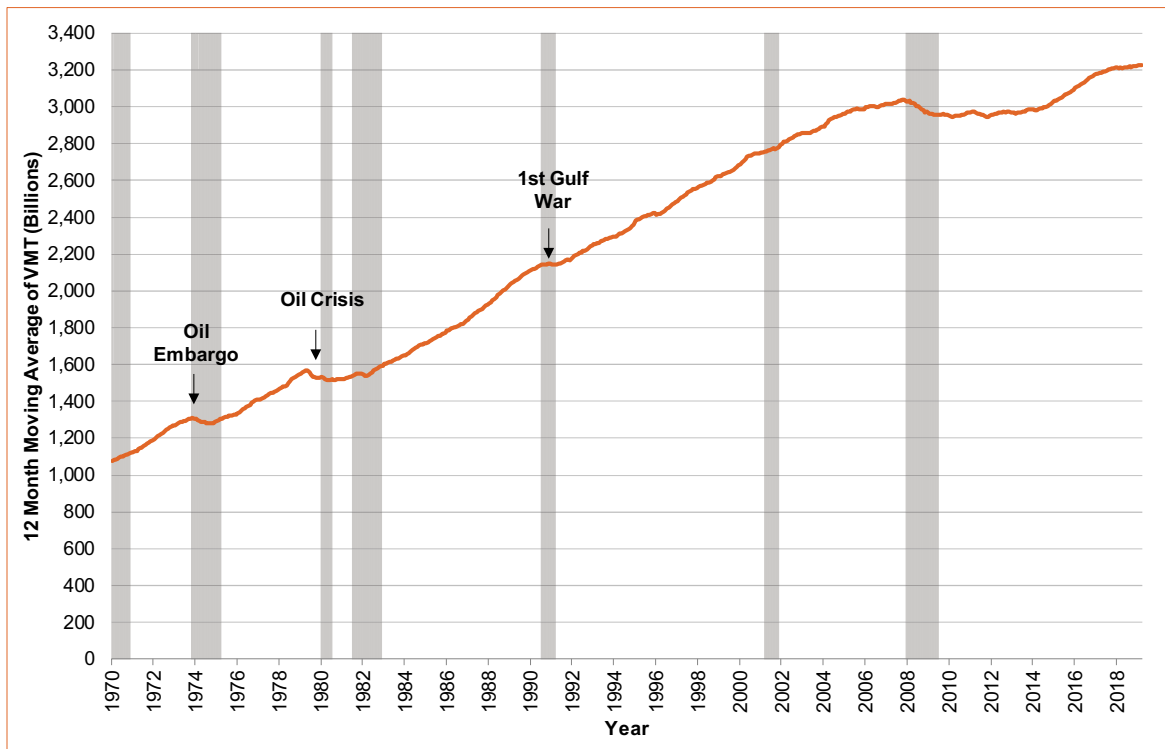
¹¹ State Smart Transportation Initiative News, “Per capita VMT drops for ninth straight year; DOTs taking notice,” Chris Cahill, February 24, 2014.

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Figure 6.4: Vehicle Miles Traveled, Monthly January 1971 to March 2019



Source: U.S. Department of Transportation, Federal Highway Administration, National Bureau of Economic Research.

The Federal Highway Administration prepares long term (20- and 30-year) forecasts of VMT each year for three different economic outlooks- baseline, low economic growth, and high economic growth. In its May 2018 report (the most recent report available), FHWA highlights “prospects for future economic growth, alternative interpretations of the causes of recent declines in vehicle ownership and use (particularly among younger Americans), and the potential effects on vehicle use of dramatic innovations in technology such as the advent of autonomous vehicles” as sources of uncertainty in its forecasts. While not attempting to capture the impacts of all these uncertainties in its forecasts, FHWA projects VMT growth under three different economic outlooks- baseline, low economic growth, and high economic growth, with the most recent forecasts shown in Table 6.1.¹² Interestingly, growth in vehicle mileage for single unit and combination trucks is forecast to be at a higher rate than light duty vehicles.

¹² “FHWA Forecasts of Vehicle Miles Traveled (VMT): Spring 2018,” Office of Highway Policy Information, May 2018, as accessed on September 5, 2018 at https://www.fhwa.dot.gov/policyinformation/tables/vmt/vmt_forecast_sum.pdf

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Table 6.1: FHWA Long-Term Growth Forecasts of National Vehicle Miles Traveled (VMT)

Vehicle Class	Compound Annual Growth Rates					
	Low Economic Growth Outlook		Baseline Economic Growth Outlook		High Economic Growth Outlook	
	2016-2036 (20-Year)	2016-2046 (30-Year)	2016-2036 (20-Year)	2016-2046 (30-Year)	2016-2036 (20-Year)	2016-2046 (30-Year)
Light-Duty Vehicles	0.9%	0.7%	1.1%	0.8%	1.3%	1.0%
Single-Unit Trucks	1.4%	1.5%	1.8%	1.9%	2.3%	2.4%
Combination Trucks	1.2%	1.2%	1.6%	1.6%	1.9%	1.9%
TOTAL	0.9%	0.8%	1.2%	0.9%	1.3%	1.1%

Source: Office of Highway Policy Information U.S. DOT, Federal Highway Administration, May 2018. Most recent report available.

The Energy Information Administration (EIA) projects a similar differential between light duty vehicles and trucks for the 2018-2050 timeframe with lower projected rates of growth than in the FHWA forecasts for two vehicle categories but higher projected growth for the heaviest vehicle category:¹³

- 0.6 percent annually for light duty vehicles less than 8,501 pounds,
- 1.4 percent annually for light duty trucks (commercial trucks 8,501 to 10,000 pounds gross vehicle weight rating), and
- 1.3 percent annually for freight trucks greater than 10,000 pounds.

6.1.5 Fuel Cost Impacts on Travel

Gasoline prices are often cited as one of the primary factors that have a significant impact on travel trends. Figure 6.5 presents historical and projected gasoline and crude prices from the U.S. Energy Information Administration (EIA). Between the depths of the recession in December 2008 and mid-2011, gas prices jumped by more than 130 percent to \$4.13 in today's dollars. After three years of high gas prices, the prices plunged from \$3.69 in June 2014 to under \$2 per gallon in the first quarter of 2016¹⁴. Between the spring of 2016 and third quarter of 2017, gas prices generally remained in the \$2.20 to \$2.40 range. Since then (September 2017 through May 2019), prices have averaged \$2.65 per gallon, and the most recent EIA report indicates that U.S. monthly average regular gasoline retail prices are expected to be fairly stable for the rest of 2019, averaging \$2.69 per gallon over that period.¹⁵ U.S. regular gasoline retail prices are forecast to average \$2.63 per gallon for 2019 overall and increase slightly to an average of \$2.75 in 2020.¹⁶

¹³ Annual Energy Outlook, 2019, Transportation Sector Key Indicators accessed on March 15, 2019 at <https://www.eia.gov/outlooks/aeo/data/browser/#/?id=7-AEO2019&cases=ref2019&sourcekey=0>

¹⁴ "Short-Term Energy Outlook," U.S. Energy Information Administration, June 2019.

¹⁵ Ibid

¹⁶ Ibid

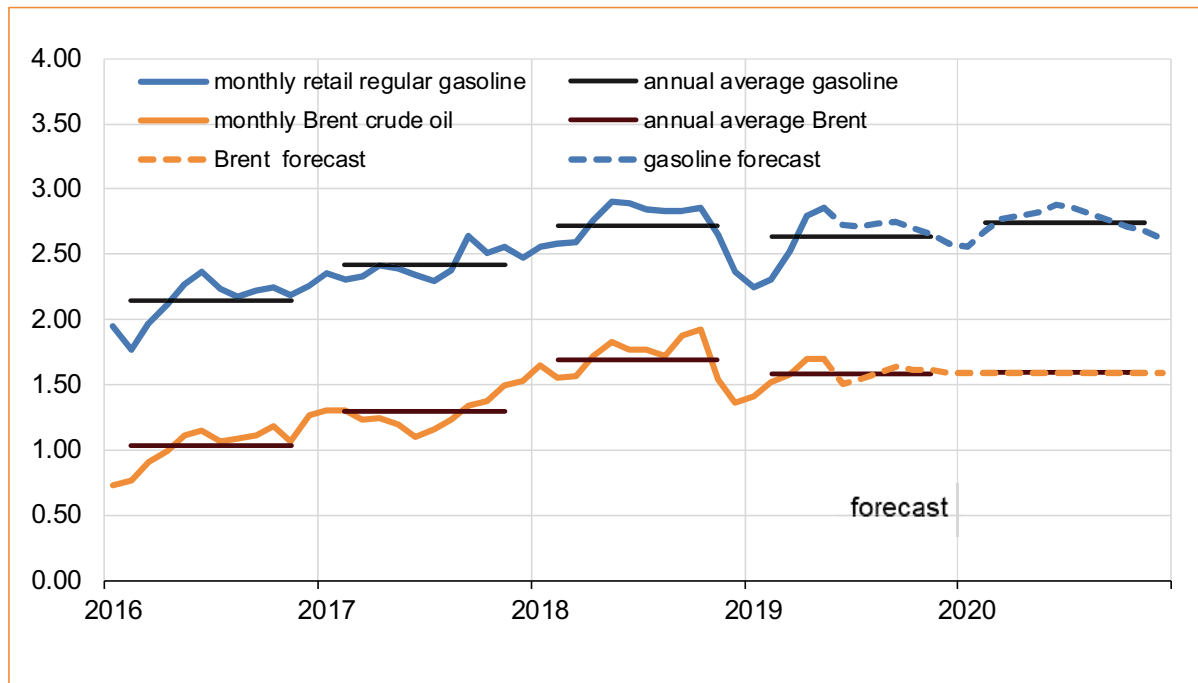
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As shown in the graph, the retail price for gasoline is expected to remain under \$3.00 per gallon in the near-term future. In addition to the reduced gas prices, it is important to note that average fuel economy increased by 29 percent ¹⁷ between 2004 and 2017, the latest year for which final fuel economy data are available.

Figure 6.5: U.S. Gasoline and Crude Oil Prices, Monthly January 2016 to December 2020



Source: U.S. Department of Energy, U.S Energy Information Administration, Short-Term Energy Outlook, June 2019.

This relatively low, static forecast of future oil and gas prices may be reassuring; however, this figure does not show the level of uncertainty in these projections. Figure 6.6 presents the EIA's projections for West Texas Intermediate (WTI) Crude Oil Price. The base projection is similar to that illustrated in Figure 6.5, but it is the possible range of this price that represents a downside risk to the U.S. economy and VMT. Based on options markets, the 95 percent confidence interval for WTI is between 73 percent more to 61 percent less than current forecasts for December 2020.¹⁸ Recognizing the impact fuel prices have on motorist behavior, with a wide range of possible future prices of oil and gasoline, accurately projecting traffic volumes has become an increasingly difficult task.

¹⁷Executive Summary: Greenhouse Gas Emissions, Fuel Economy, and Technology since 1975 EPA Automotive Trends Report, U.S. Environmental Protection Agency, March 2019, page ES6

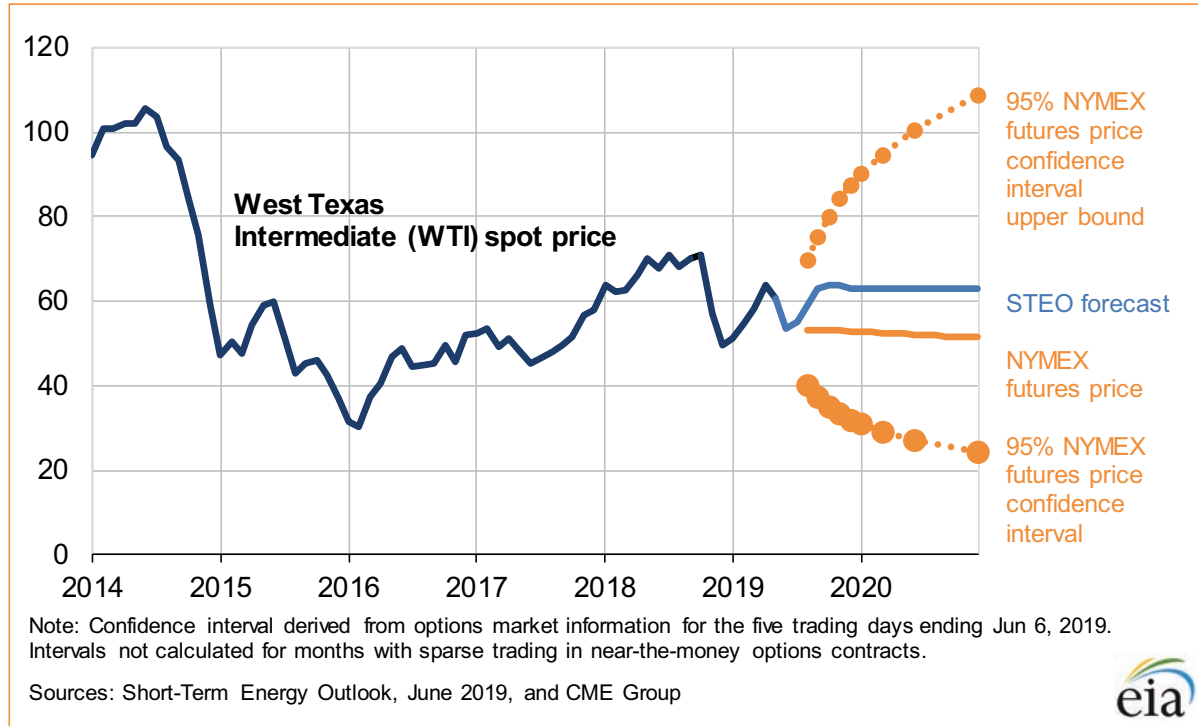
¹⁸ Short-Term Energy Outlook U.S. Energy Information Administration, June 2019.

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Figure 6.6: West Texas Intermediate (WTI) Crude Oil Prices and NYMEX Confidence Intervals, Monthly January 2014 to December 2020 (dollars per barrel)



Source: U.S. Department of Energy, Energy Information Administration, Short-Term Energy Outlook and CME Group, June 2019.

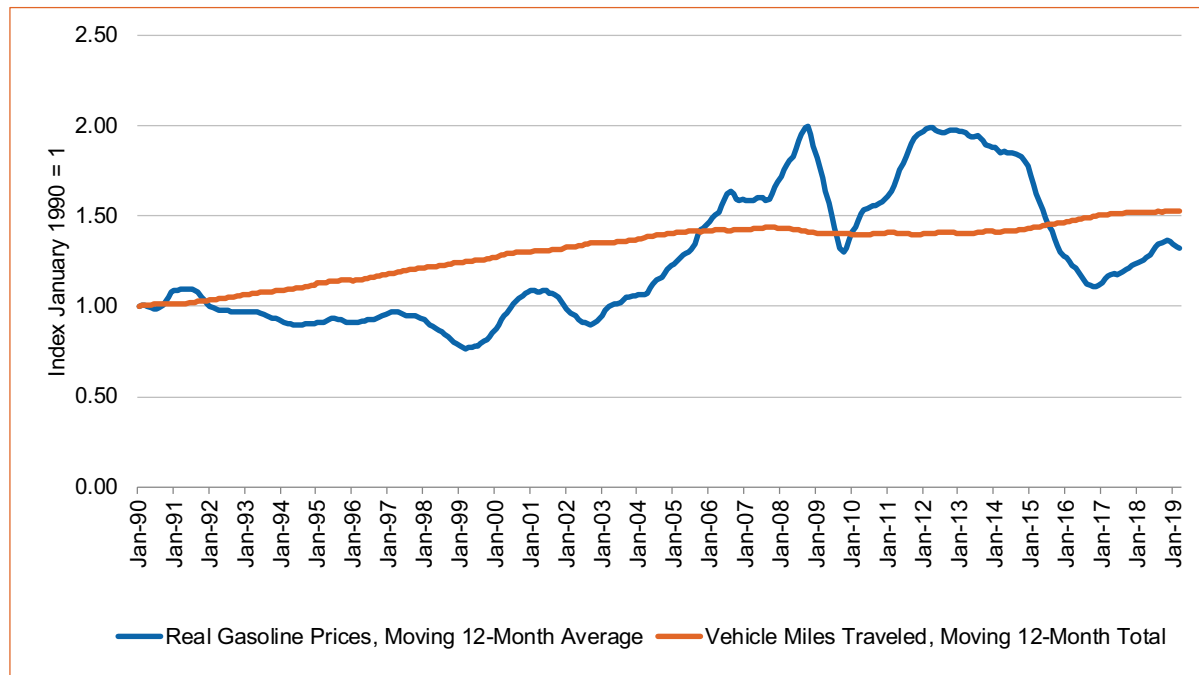
To understand the potential impact of future gas prices on traffic, we can look at their historical correlations. Figure 6.7 presents VMT across the United States as compared to real retail gasoline prices from 1990 through the beginning of 2019. The VMT and real gas prices represent a 12-month moving total and average, respectively, to remove any seasonality factors; all data are indexed to the 12 months ending January 1990. While the Great Recession began at the end of 2007, there was still a flattening, then decline, in vehicle miles traveled that started several years before, which is partially attributed to rising gas prices. The continuation of the decline, post-fall 2008, would be more attributable to the economic meltdown, as gas prices dropped significantly by early 2009. Gas prices then increased throughout the rest of 2009 and through the spring of 2011 with no noticeable change to VMT. However, between 2014 and 2016 there was a precipitous drop in gas prices which coincided with a steep increase in VMT. These data show that it is difficult to pinpoint the elasticity of travel as it relates to gas prices; however, very large gas price changes do generally result in a change in driving behavior.

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Figure 6.7: National VMT vs. Real Gas Prices, Moving 12-Month Average, 1990 to 2019



Source: U.S. Department of Energy, Energy Information Administration and U.S. Department of Transportation, Federal Highway Administration, June 2019.

6.2 NEW HAMPSHIRE DEMOGRAPHIC TRENDS

This section of the chapter summarizes historical and future demographic and economic conditions for the state of New Hampshire itself, including population and employment trends and developments in household income and tourism.

6.2.1 Population

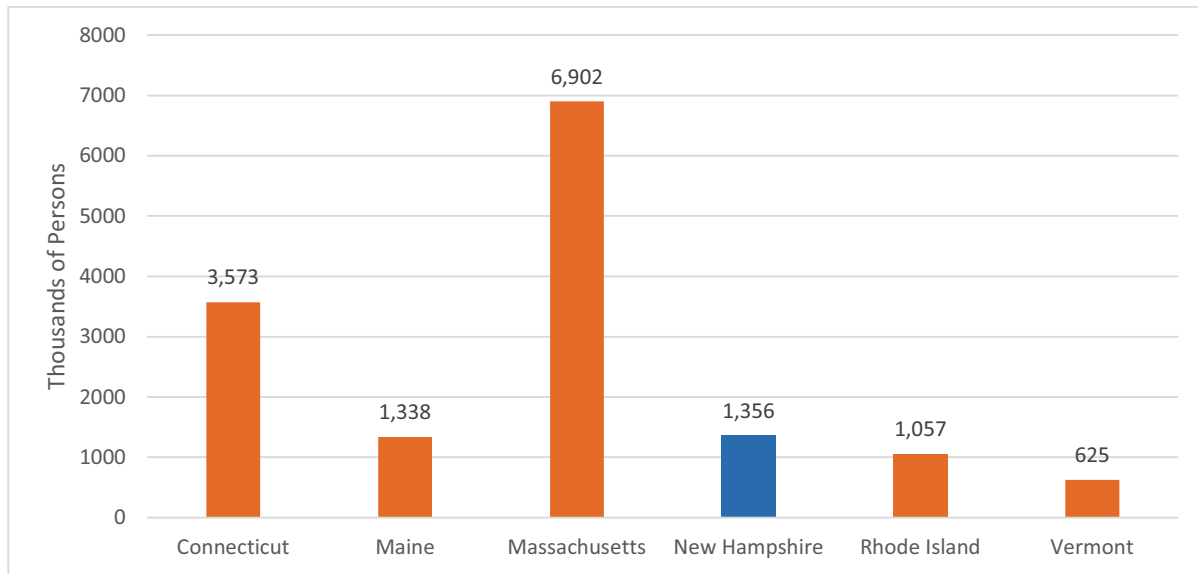
New Hampshire's current population, estimated at 1.36 million people, makes it the third most populous state in the region, as shown in Figure 6.8, but one of the least populous states in the United States.

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Figure 6.8: Resident Population in New England States in 2018



Source: U.S. Census Bureau.

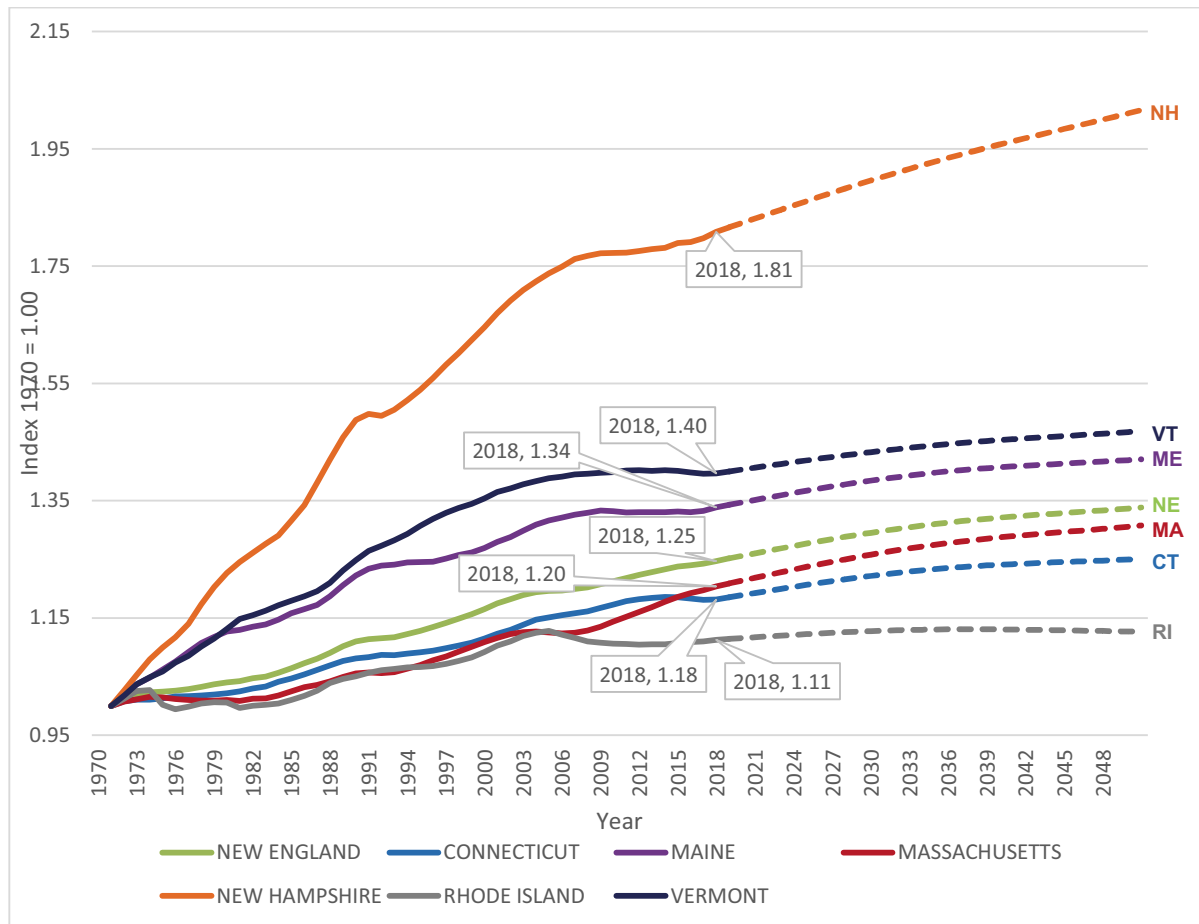
New Hampshire's population has grown significantly over the past 45 years, and is expected to continue to grow, albeit at much slower rates than in the past. From 1970 to 2018, the resident population in New Hampshire grew from 738,000 to 1.36 million, an increase of over 80 percent. This rate of population growth was the highest achieved in New England over this time period, as shown in Figure 6.9. In fact, the population growth rate in New Hampshire was almost double that of any other state in the region.

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Figure 6.9: Index of Resident Population in New England States from 1970 to 2018, forecast to 2050



Source: Woods & Poole Economics.

A closer look at population growth in New Hampshire, however, shows that it has been weakening. From 1970 to 1979, the population grew at an average annual rate of 2.3 percent. Average annual growth in population decreased to 2.0 percent from 1980 to 1989, and again to 0.9 percent from 1990 to 1999. The trend continued in the 2000s, with average annual growth in population reaching 0.7 percent from 2000 to 2009.

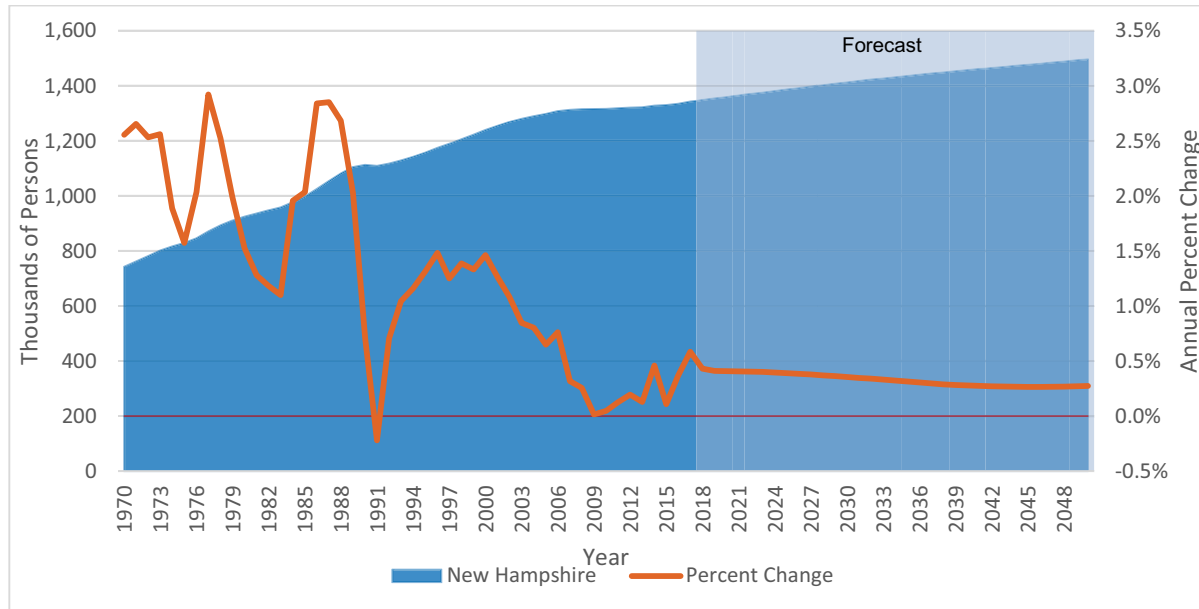
This trend of declining population growth is expected to continue into the near future. While the population is expected to reach 1.4 million by 2028, average annual rates of growth are expected to remain below 0.5 percent in the future. These trends are depicted in Figure 6.10.

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Figure 6.10: Actual and Forecasted Resident New Hampshire Population and Percent Change, 1970 to 2050



Source: Woods & Poole Economics.

For regional planning purposes, the State of New Hampshire also publishes county population projections in 5 year intervals to the year 2040, as shown in Table 6.2. According to the projections, the total population is slated to grow from 1.33 million in 2015 to 1.43 million in 2040, an overall increase of approximately 7.2 percent. Among the various counties, Belknap, Carroll, and Sullivan counties are expected to see the highest rates of growth. Coos County is the only county expected to lose population over the 25-year period.

Table 6.2: Resident Population Projections for New Hampshire Counties

Jurisdiction	2020	2025	2030	2035	2040	2045
New Hampshire	1,359,643	1,386,973	1,412,816	1,436,375	1,457,337	1,476,982
Belknap County	61,312	62,200	63,101	64,015	64,943	65,884
Carroll County	48,672	49,703	50,756	51,831	52,928	54,049
Cheshire County	76,280	76,816	77,357	77,901	78,448	79,000
Coos County	31,494	31,261	31,030	30,801	30,574	30,348
Grafton County	90,289	91,815	93,366	94,944	96,549	98,180
Hillsborough County	415,498	424,621	432,748	439,434	444,508	448,702
Merrimack County	150,719	153,256	155,837	158,461	161,129	163,843
Rockingham County	311,674	320,180	328,013	334,820	340,455	345,462
Strafford County	130,346	133,287	136,293	139,368	142,512	145,727
Sullivan County	43,359	43,834	44,315	44,800	45,291	45,787

Source: Woods & Poole Economics.

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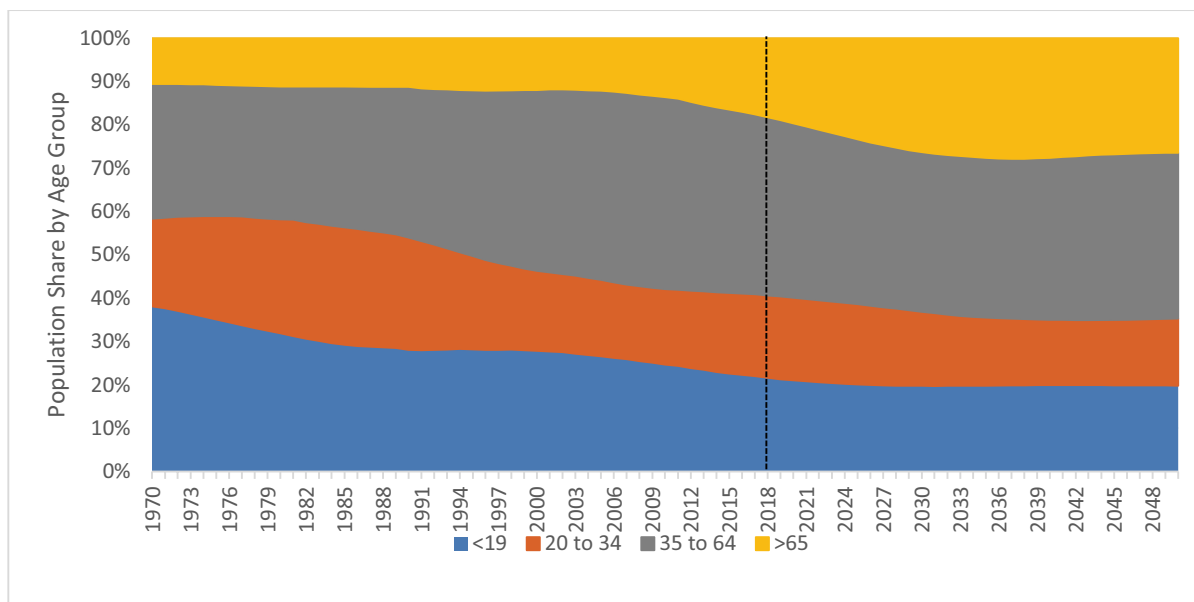
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6.2.2 Population Age Distribution

Similar to national trends, the median age of the population in New Hampshire is increasing. In 1990, the median age in New Hampshire was 32.8 years, which increased to 37.1 years in 2000. By the 2010 Census, New Hampshire had a median age of 41.1 years, making it the 4th oldest state in the United States behind Maine (42.7 years), Vermont (41.5 years), and West Virginia (41.3 years). In 2017, the last year for which data are available, the median age had gone up to 43 years.

Figure 6.11 shows the proportion of New Hampshire population in each of the four main age groups for the years 1970-2050. The 0-19 age group declined from 28.2 percent of the total population in 1990 to 22.0 percent in 2017. More dramatically, the 20-34 age group decreased from 26.0 percent in 1990 to 17.3 percent in 2008, before rebounding somewhat to 18.9 percent by 2017. From 1990 to 2017 the 35-64 age group increased from 34.7 percent to 41.5 percent and the 65+ age group increased from 11.3 percent to 17.6 percent.

Figure 6.11: Age Distribution of Population in New Hampshire



Source: Woods & Poole Economics.

6.3 NEW HAMPSHIRE ECONOMIC TRENDS

The national and regional economies have a large impact on economic conditions in New Hampshire. Economic performance at the state level tends to mirror the economic performance of the nation but there are some areas, such as household income and unemployment, where New Hampshire tends to outperform the rest of the country.

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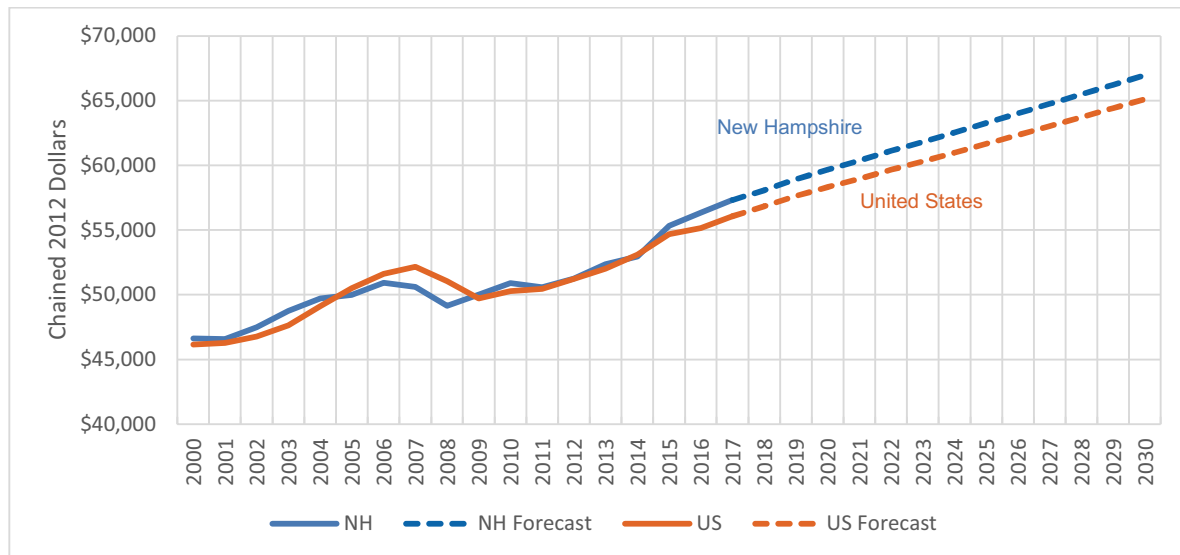
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6.3.1 Output and Growth

As shown in Figure 6.12, real per capita GDP in New Hampshire reached \$57,324 in 2017, slightly greater than the level of real per capita GDP observed in the United States as a whole (\$56,070). In fact, since 2000, the trend in real per capita GDP in New Hampshire has mirrored the trend observed in the United States – it generally increased from 1997 to 2007 and then decreased during the most recent recession before rebounding in 2010.

Figure 6.12: Actual and Forecasted Real per Capita Gross Domestic Product in New Hampshire and the United States, 2000 to 2030



Source: Woods & Poole Economics.

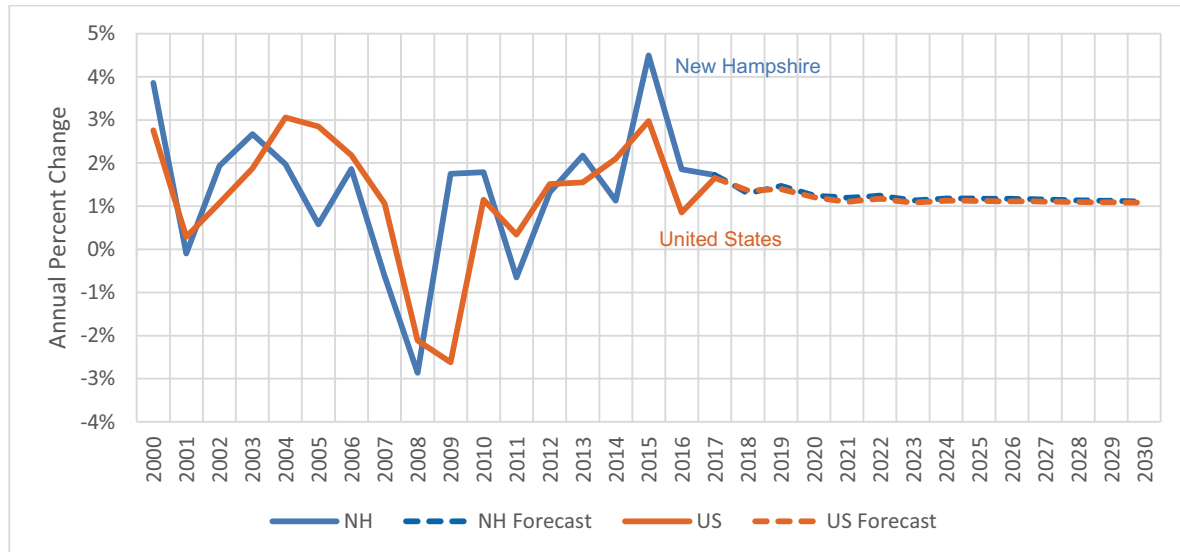
With respect to total output, the New Hampshire economy has performed very similarly to the United States' economy as a whole over the past decade and a half. At the end of the 1990s and the very beginning of the 2000s, real total GDP was increasing rapidly, growing between 2.4 and 6.3 percent per year. The 2001 recession caused growth in real total GDP to slow significantly, but from 2002 to 2006 the annual change in real total GDP fluctuated between 1.4 and 4.0 percent. The 2007 to 2009 recession caused real total GDP to contract in the state although it shrank at a slightly slower pace than that observed in the country as a whole. Following the recession, real total GDP started to grow again, achieving a 2.9 percent increase in 2010 with subsequent increases of around one percent each year since then. New Hampshire's GDP per capita eclipsed the national average between 2015 and 2017 and is projected to remain above average for the foreseeable future.

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Figure 6.13: Actual and Forecasted Change in Real Total Gross Domestic Product in New Hampshire and the United States, 2000 to 2030

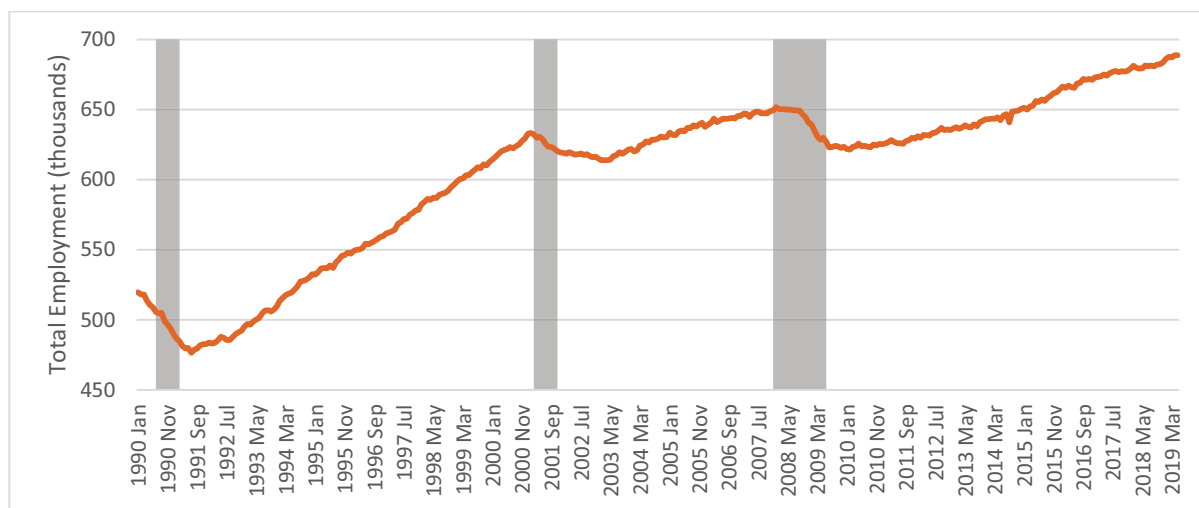


Source: Woods & Poole Economics.

6.3.2 Employment

Nonfarm employment in New Hampshire increased to 689,800 in May 2019, a growth of 1.4 percent over the previous year. Since July 2009, the end of the last recession, employment has increased by 6.0 percent, and gross employment passed its pre-recession peak of 652,700 by April of 2015. Figure 6.14 depicts New Hampshire employment levels from 1990 to present.

Figure 6.14: Actual Nonfarm Employment in New Hampshire, 1990 to 2019



Source: U.S. Bureau of Labor Statistics.

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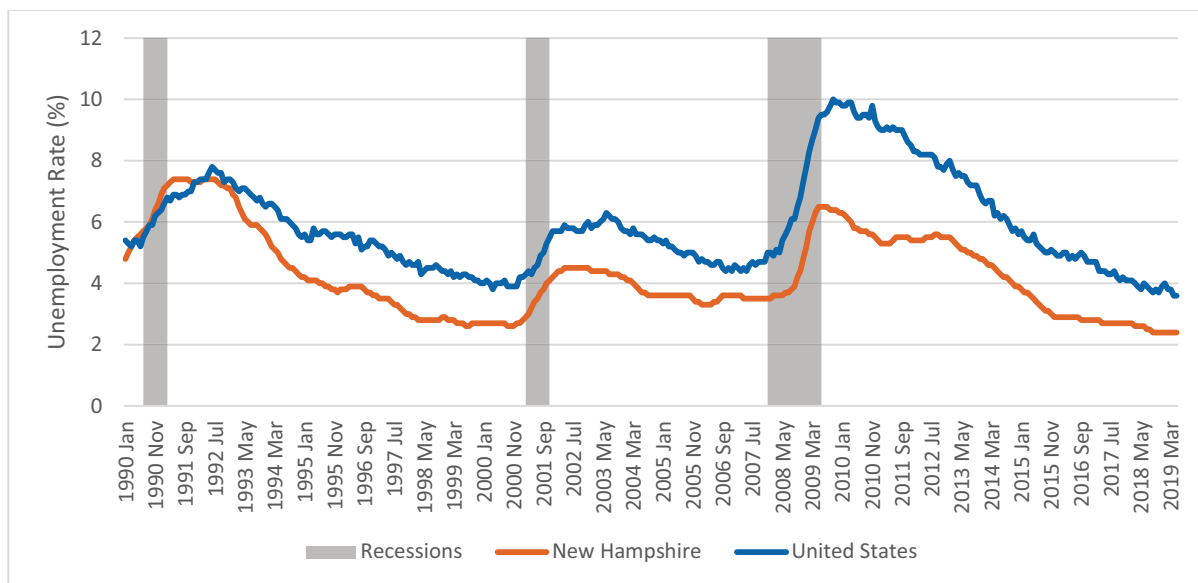
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Figure 6.15 displays the unemployment rate in both New Hampshire and the United States from January 1990 to May 2019. As shown in the graph, the labor market in New Hampshire with respect to unemployment has historically outperformed the labor market in the United States except for a brief period in the early 1990s.

As expected, unemployment tends to rise during recessions and fall during periods of economic expansion. The labor market in the United States was hit particularly hard by the 2008 recession. The unemployment rate in the country increased from 5.0 percent in January 2008 to 10.0 percent in October 2009. The labor market fared better in New Hampshire during the same period, where the unemployment rate reached a high of only 6.7 percent. The most recent data available from the Bureau of Labor Statistics suggest that the unemployment rates for both the United States and New Hampshire are reaching record lows as the job market saturates. The unemployment rates in New Hampshire and the United States stood at 2.4 and 3.6 percent, respectively, in May 2019 – both the lowest rate in over 30 years.

Figure 6.15: Unemployment Rate in New Hampshire and the United States, January 1990 to May 2019



Source: U.S. Bureau of Labor Statistics.

6.3.3 Income

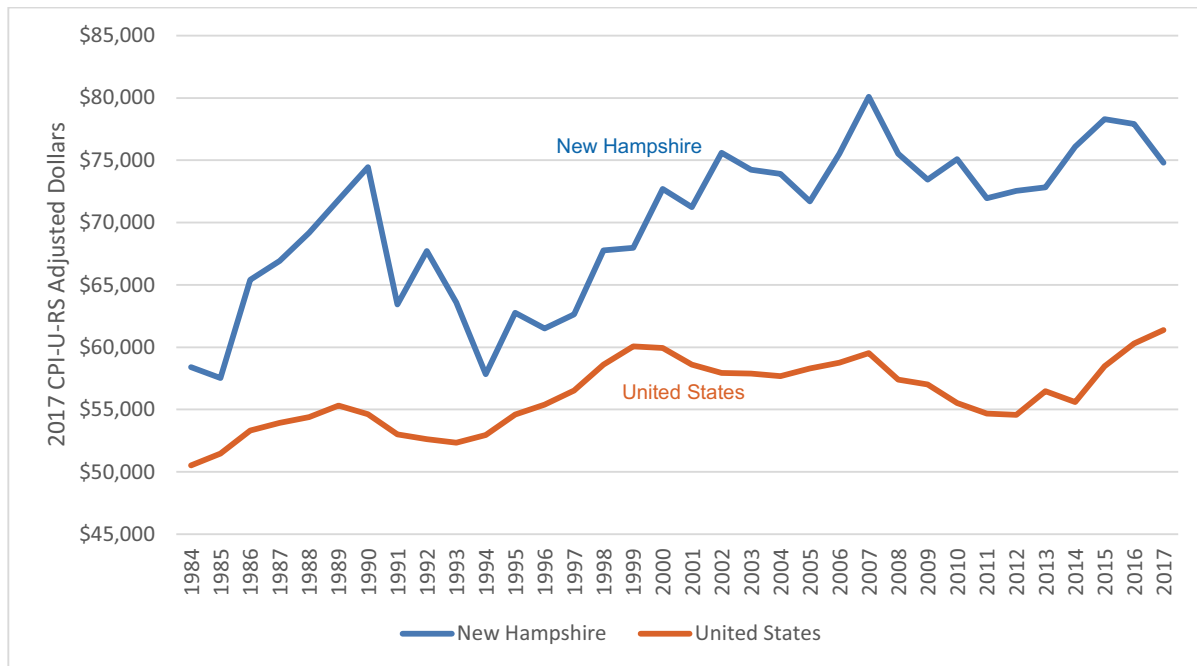
New Hampshire consistently ranks high among states in household income. In 2017, real median household income in New Hampshire, as shown in Figure 6.16, reached \$74,801, although this is still below the state's pre-recession peak median household income of \$80,088. According to American Community Survey Data, New Hampshire ranked seventh among all US States and Territories on this measure. Nevertheless, real household income increased in New Hampshire by 29.3 percent since, growing at an average annual rate of 1.1 percent. As shown in Figure 6.16, it is substantially higher than the level of real household income in the broader United States.

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Figure 6.16: Real Median Household Income in New Hampshire and the United States, 1984 to 2017



Source: US Census Bureau.

Note: 2017 is most recent year available.

6.3.4 Tourism and Travel Trends

According to the state's Division of Travel and Tourism Development, New Hampshire ranks as one of the top ten states with respect to the importance of tourism to the state economy. Visitors to New Hampshire were far more likely to be on a leisure trip, rather than on a business trip. Tourism is driven, in large part, by outdoor seasonal attractions, such as skiing during winter months. There are also periodic attractions, such as NASCAR races and Bike Week. Tourism levels are generally affected by prevailing economic conditions, fuel and travel costs, and weather conditions. Because New Hampshire has no sales tax, many residents from neighboring states often travel to New Hampshire for retail shopping.

Tourist activity in New Hampshire has continued to grow since the most recent recession. Overnight visitor trips increased from 10.2 million in 2011 to 10.9 million in 2017 (the most recent data available), an increase of 6.9 percent. The number of overnight visitor days also increased from 31.3 million in 2011 to 33.1 million in 2017, an increase of 5.8 percent. The continued improvement in the U.S. and regional economies, combined with inexpensive retail gasoline prices, should help these trends continue into the near future.

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Table 6.3: Tourist Activity in New Hampshire

Fiscal Year	Overnight Visitor Trips (millions)	Overnight Visitor Days (millions)	Total Spending (\$million)
2011	10.2	31.3	5,057
2013	10.4	31.7	5,227
2014	10.5	32.0	5,376
2015	10.7	32.5	5,403
2016	10.7	32.4	5,364
2017	10.9	33.1	5,516
'11 - '17 Change	6.9%	5.8%	9.1%
CAGR	1.1%	0.9%	1.5%

Source: Dean Runyan Associates for NH Division of Travel and Tourism Development.
Note: 2017 is the most recent data available..

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7.0 TRANSPORTATION PROJECTS RELATIVE TO THE NEW HAMPSHIRE TURNPIKE SYSTEM

This section identifies the existing feeder and competitive (diversionary) roads to the New Hampshire Turnpike System and includes future transportation projects slated for New Hampshire that may affect traffic on the System.

7.1 FEEDER ROADS

Several roadways direct traffic, or feed, into the Turnpike System. The classification of these roadways varies from interstate highways to arterials and collectors. Some of the feeder roads to the Central Turnpike are:

US Route 3 from Massachusetts	NH Route 130	Bedford Road
I-93	NH Route 111	East Dunstable Road
I-293	Somerset Parkways	Manchester Airport Access Road (Raymond Wieczorek Drive)
I-89	Industrial Drive	NH Route 101
NH Route 101A	Continental Boulevard	

For the Blue Star Highway, some of the feeder roads are:

I-95 from Massachusetts	Spaulding Turnpike	NH Route 101
NH Route 33	NH Route 107	
I-95 from Maine	Market Street	

For the Spaulding Turnpike, some of the feeder roads are:

I-95, the Blue Star Turnpike	US Route 202	NH Route 11
NH Route 125	NH Route 108	
US Route 4	NH Route 155	

7.2 COMPETITIVE ROADS

Several roadways compete with the Turnpike System, varying from arterials to collectors. We identified the following parallel routes as the most likely free alternatives for each New Hampshire Turnpike segment:

Central Turnpike – US Route 3 / NH 3A

Spaulding Turnpike – Dover Point Rd / NH 9 / NH 108

Blue Star Turnpike – US Route 1

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7.2.1 Central Turnpike Parallel Routes - US Route 3 and NH 3A

US Route 3 and NH 3A are parallel routes to the Central Turnpike (Figure 7.1). From Nashua, US Route 3 is located west of the Merrimack River until it crosses the river via the Queen City Bridge in Manchester. US Route 3 then continues north along the east side of the river, cutting through downtown Manchester until the route crosses the river again in Concord to run through downtown Concord. NH 3A follows the Merrimack River along the eastern side from Massachusetts and joins I-293 at Exit 2 in Manchester where it crosses the river and continues north along I-293 until it diverges from I-293 at Exit 7. NH 3A then continues north along the west side of the river to Concord where it converges with US Route 3 when US Route 3 crosses back over from the Merrimack River.

The areas of congestion along US Route 3 are generally focused around Webster Street / Elm Street in downtown Manchester to the Budweiser Plant located in Merrimack (FEE Turnpike Exit 10, Merrimack Industrial). An alternative route to US Route 3 to bypass Manchester would be to take I-93 Exit 9 from the north to I-293 southbound and reconnect with US Route 3 at Exit 3.

US Route 3 intersects four times with the Central Turnpike along the route. The four Turnpike exit interchanges are:

Exit 13 – I-93 / FEE Turnpike in Concord.

Exit 4 – I-293 / FEE Turnpike in Manchester.

Exit 3 – I-293 / US Route 3 / NH 3A Interchange.

Exit 7 – FEE Turnpike / NH101A / US Route 3 split in Nashua.

NH 3A intersects with the Central Turnpike along these Turnpike junctions:

Exit 12 – I-93 / FEE Turnpike in Concord.

Exit 11 – FEE Turnpike in Hooksett (Hooksett Ramp Toll Plaza).

Exit 7 (NB Exit only) – I-293 / FEE Turnpike in Manchester.

Exit 3 – I-293 / US Route 3 / NH 3A Interchange.

NH 3A also intersects I-93 at Exit 10, which is immediately south of the I-93 junction with the FEE Turnpike.

US Route 3 runs parallel to the Central Turnpike from Nashua to Manchester and drivers going to or from Merrimack can use this alternate route to avoid the Merrimack ramp toll plazas (Merrimack Industrial, Exit 11 and Bedford Road). Drivers traveling on the Central Turnpike can avoid the Bedford Toll Plaza by using the Manchester Airport Access Road (Raymond Wieczorek Drive, FEE Turnpike Exit 13) which opened in 2011. It is possible for drivers to take this exit (from both northbound and southbound directions), make a series of short turns, and re-enter the Turnpike at the same exit, thus bypassing the Bedford Toll Plaza.

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NH 3A runs parallel to the Central Turnpike and is an alternate route that can be taken to avoid the Hooksett Toll Plaza. The roadway is toll free between Exit 3 (FEE Turnpike junction with I-293) in Bedford and FEE Turnpike junction with I-93 in Hooksett. NH 3A connects to the Turnpike at Exit 11 in Hooksett, at Hackett Hill Road where the Hooksett Ramp Toll Plaza is situated as well as at Exit 12 in Concord.

A longer alternate route to the Central Turnpike would be a composite route consisting of the US Route 3 and NH 3A routes from the state line to Concord. Though toll-free, the US Route 3 / NH 3A option is a slower, more congested route than the Central Turnpike, with numerous signalized intersections.

A driver traveling between Exit 3 (FEE Turnpike at I-293) in Manchester and Exit 7 (FEE Turnpike at NH 101A / US Route 3) in the north Nashua area would take approximately 17 minutes to travel the 14 miles on the Central Turnpike versus about 28 minutes on the parallel US Route.

In the Concord area, a driver traveling between Exit 14 (FEE Turnpike at Loudon Road) and FEE Turnpike at I-93 on the Central Turnpike would take approximately 18 minutes whereas it would take approximately 24 minutes to make the 14-mile trip on the parallel NH 3A.

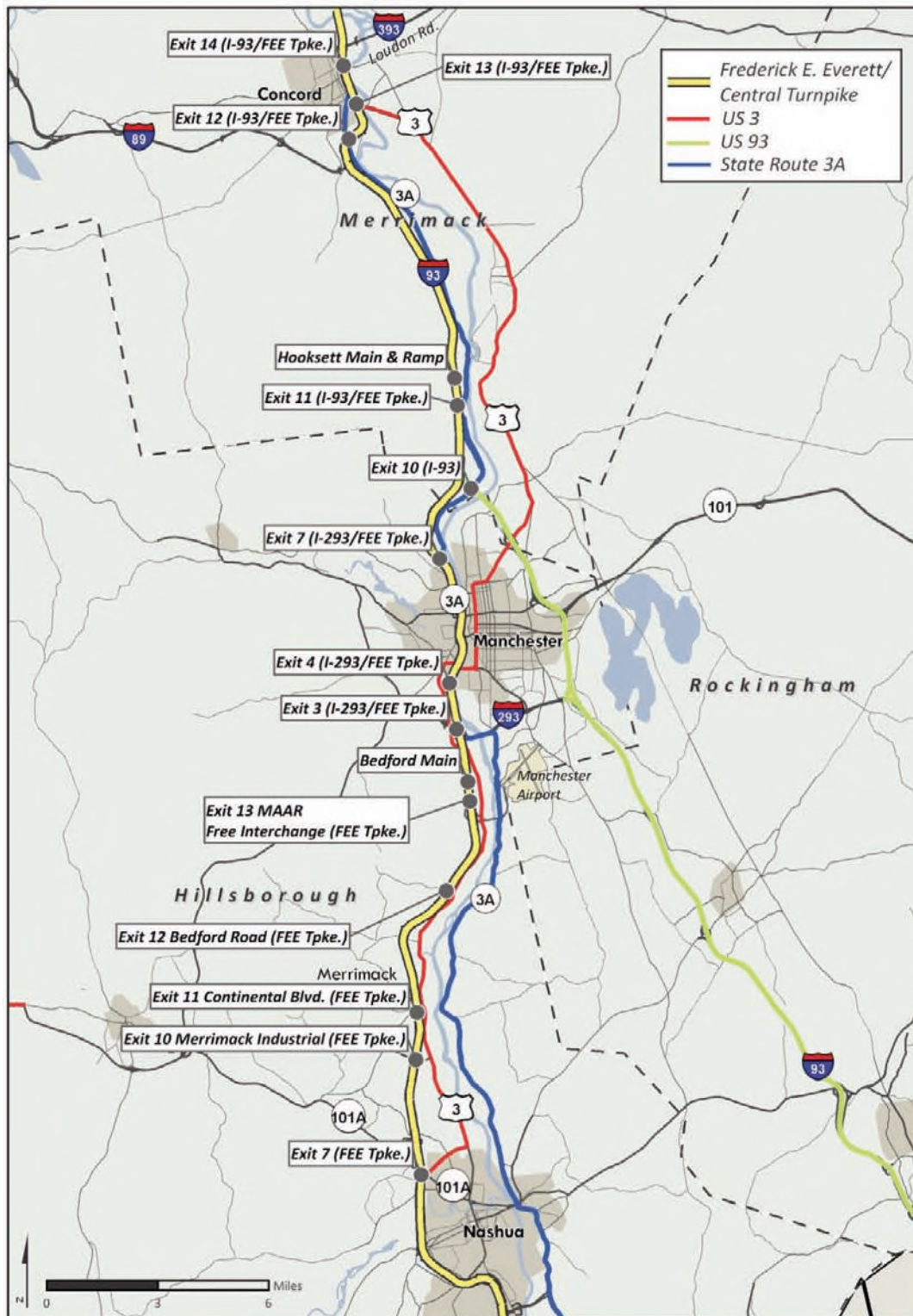
Travel time data were collected to estimate the length of time it would take for a driver to bypass the Bedford Toll Plaza by using the Manchester Airport Access Road. Results show that this total movement adds approximately 2 to 4 minutes to the total travel time on the Central Turnpike. Due to the configuration of the interchange, it takes less time to make this diversion when traveling northbound compared to traveling southbound.

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Figure 7.1: Central Turnpike and Parallel Routes



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7.2.2 Spaulding Turnpike Parallel Routes - Dover Point Rd / NH 9 / NH 108

The combination of Dover Point Road, NH 9, and NH 108 make up a parallel route that can be used as an alternative to the Spaulding Turnpike (Figure 7.2). Dover Point Road runs parallel with Spaulding Turnpike (NH 16) beginning at Exit 6 and ending at NH 108 in downtown Dover, where Exit 7 also intersects with NH 108. The Dover Mainline Toll Plaza is located between Exits 6 and Exit 7. The travel route path similarity to the Dover Toll Segment makes Dover Point Road a viable alternate route to bypass the toll plaza.

Travel time comparisons in Google Maps between Exit 6 and Exit 8 showed that vehicles that use Dover Point Road would take 11 minutes to traverse the 6 miles, versus 8 minutes on the Turnpike.

NH 108 traverses through downtown Dover and joins with NH 9, which leads to Spaulding Turnpike Exit 8. The two routes share the same travel path until they intersect with NH 16B and the Spaulding Turnpike at Exit 9. NH 108 continues to travel at a parallel path with the Rochester Toll Segment while NH 9 diverts away. NH 108, a major arterial through route in the region, runs along Rochester Hill Road and connects Dover with Rochester. NH 16B also runs parallel to the Turnpike through this region.

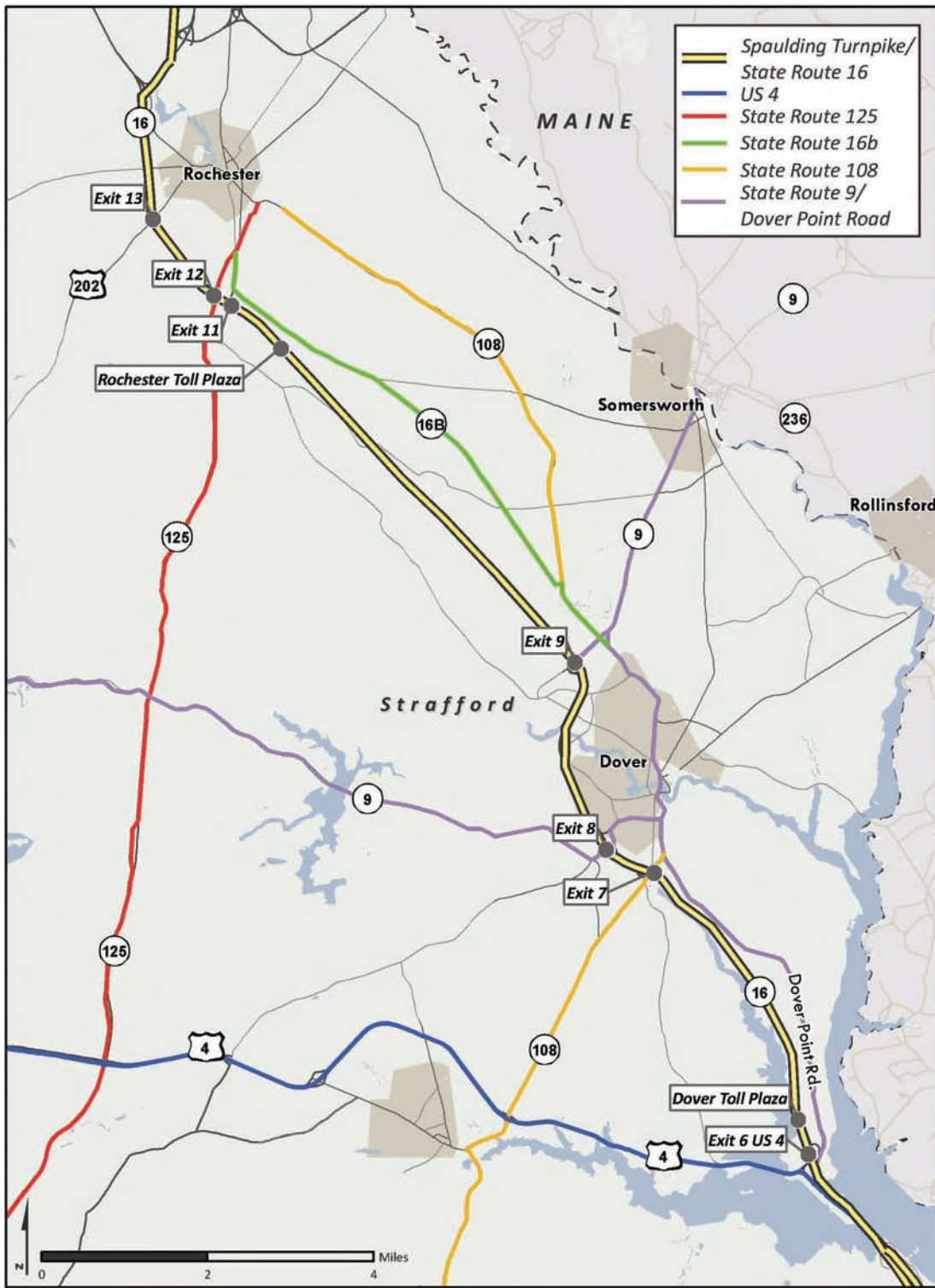
Travel time data comparisons in the Rochester area between Exit 8 and Exit 12 (a distance of 11 miles apart) showed that vehicles that use the combined NH 9 / NH 108 route would take more than double the time than if they used the Spaulding Turnpike (23 minutes on NH 9 / NH 108, versus 11 minutes on the Turnpike). Travel times along NH 16B show similar travel times – 24 minutes.

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Figure 7.2: Spaulding Turnpike and Parallel Routes



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7.2.3 Blue Star Turnpike Parallel Route - US Route 1

The best alternate route to the Blue Star Turnpike is US Route 1. Like US Route 3 in Merrimack, US Route 1 was the only major north-south arterial before the Turnpike was built. US Route 1 is the only accessible route that allows a bypass of the Hampton Toll Plaza (Exit 2) from Massachusetts (Figure 7.3). Starting at Blue Star Turnpike Exit 1 Junction, US Route 1 runs parallel with the Turnpike and reconnects with the Blue Star and Spaulding Turnpikes at Portsmouth Circle. The next toll-free interchange access to the Blue Star Turnpike after the Hampton Main Toll Plaza is 6.9 miles, where NH 33 carries commercial traffic from the Pease International Tradeport.

Travel time data in the Hampton area between Exit 1 (NH 107) and Exit 5 revealed that the use of the alternate route of US Route 1 would take more than twice as long (36 minutes) as driving the 14 miles on the Blue Star Turnpike, which would take approximately 13 minutes.

7.2.4 Summary of Alternate Routes

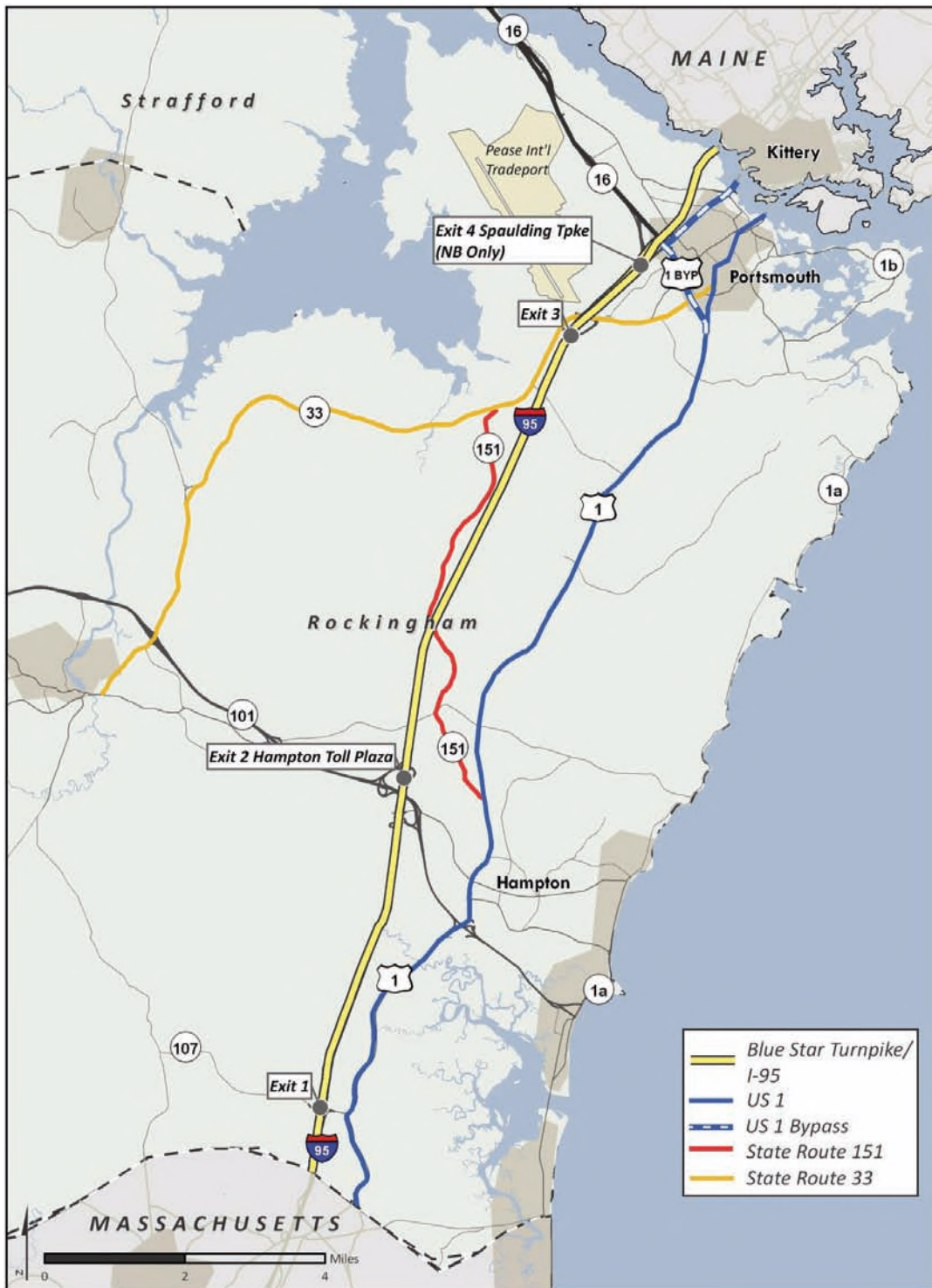
A review of the alternate routes suggests that at all toll locations on the entire New Hampshire Turnpike System, there are often alternate routes for those choosing not to pay a toll. For longer trips, free alternative routes are not preferable, due to their slower speeds, varying degrees of congestion, and often, traffic signals. In the Merrimack area, however, there were only one-to-two minute variations in travel time on tolled and free routes for short, local trips. The local ramp toll facilities appear to be primarily used by long distance trips either beginning or terminating at locations in relatively close proximity to these exits.

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Figure 7.3: Blue Star Turnpike and Parallel Routes



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7.3 POTENTIAL FUTURE TRANSPORTATION PROJECTS

There are several potential highway projects scheduled for completion in the forecast period that may impact traffic volumes on the NH Turnpike System. These projects were drawn from the Turnpike System Priority Capital Program and the Ten-Year Improvement Plan for 2009 to 2028, as well as from regional Transportation Improvement Programs (TIPs) developed by the largest metropolitan planning organizations (MPOs) in the state. Projects from the Priority Capital Program are identified by the State Number in parentheses for clarification. Potential future highway and projects that can potentially impact traffic on the NH Turnpike System are summarized in the following sections.

7.3.1 Central (Everett) Turnpike Region

Major transportation improvement projects programmed for funding or recently completed that could affect volumes on the Central Turnpike are:

Deployment of Intelligent Transportation Systems along the Central (F.E. Everett) Turnpike (29408) – Construction is now two-thirds complete and full completion is expected autumn 2019. This could result in improvements in future traffic flow.

Open Road Tolling (ORT) Implementation at Bedford (16100) – Previously planned ORT improvements have been discontinued, and AET feasibility is being assessed. Hooksett ORT was completed in 2013, while Bedford ORT had been slated for completion in FY 18. Pending the completion of the project's re-assessment, construction is planned to begin mid-2020. Note that conversion to AET at the Bedford toll plaza has *not* been considered in Stantec's traffic and revenue forecasts.

Nashua-Merrimack-Bedford FEET Turnpike Widening (13761) – This project will widen the Turnpike from Exit 8 in Nashua to I-293 in Bedford. Design work has is nearly complete, and construction is expected to start in FY 2021. No traffic changes have been assumed during the forecast period.

Bow-Concord I-93 (13742) – I-93 is planned to be widened from I-89 to the limit of the F.E. Everett Turnpike at Exit 14. Public hearings for the project were held in 2017 and 2018, and construction is forecasted to begin in 2026. No traffic changes have been assumed during the forecast period.

Manchester Exit 6 & 7 – This project is on I-293 (FEET) in Manchester and will reconstruct the Exit 6 Interchange (Amoskeag circle) and provide a new interchange for Exit 7 (NH 3A). The project will also consist of roadway widening and bridge work in this area. This project could temporarily decrease traffic on the Central Turnpike in Manchester from friction that routinely occurs with construction, however all traffic lanes would be available during construction. Construction is anticipated to start in 2023.

7.3.2 Blue Star Turnpike Region

No major transportation improvement projects that would impact Blue Star Turnpike traffic are planned at this time.

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7.3.3 Spaulding Turnpike Region

Planned transportation improvement projects that could affect traffic volumes on the Spaulding Turnpike include:

Newington-Dover Turnpike Widening (11238) – This project involves the widening of the Spaulding Turnpike between Exit 1 and the Dover Toll Plaza, just north of Exit 6, with improvements to interchanges, bridge widening and rehabilitation, and construction of park ‘n’ ride lots. The southbound Little Bay Bridge widening and park n’ ride lots at Dover and Rochester have been completed, while the Newington portion of the widening was completed in the fall of 2016. The Dover portion of the widening is anticipated to be completed in FY 2021. Similar to the Turnpike expansion in Rochester, some additional traffic and revenue growth is expected after the roadway is fully widened. This is reflected explicitly in the forecast.

Improvements at Dover and Rochester Toll Plazas (29440) – All-electronic tolling (AET) was chosen to be implemented at the Dover and Rochester Toll plazas. The AET conversion will be completed in the summer of 2021. AET conversions are associated with decreases in toll revenue and increases in fee revenue. The forecast reflects these impacts.

Nearly \$500 million in funded capital improvements that are planned for the FY 2019 through FY 2028 time period will have a positive effect on the New Hampshire Turnpike System improving customer satisfaction and making travel safer and less congested. In terms of traffic and revenue, the improvements will provide capacity for the growth that has been projected.

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8.0 TRAFFIC AND REVENUE PROJECTIONS, 2020 - 2029

This section discusses the methodologies and assumptions used in projecting traffic and revenue for the New Hampshire Turnpike System. It presents the traffic and revenue projections for FY 2020 through FY 2029.

8.1 TOLL RATES

8.1.1 Assumed Toll Rates

No toll increases have been assumed during the forecast period. Table 8.1 shows the cash and **E-ZPass** toll rates for passenger cars (Class 1) and Class 8 (five-axle) trucks. Note that the **E-ZPass** toll applies only for New Hampshire **E-ZPass** accounts. Patrons with **E-ZPass** from other agencies are charged the same toll rate as cash. Cash tolls apply to drivers from both New Hampshire and other agencies. Overall 48% of cars and 29% of trucks pay the discounted rate **E-ZPass**.

Table 8.1: Toll Rates for Select Vehicle Classes on the New Hampshire Turnpike System

Turnpike	Toll Plaza	Car (Class 1) Tolls		Five-Axle Truck (Class 8) Tolls	
		Cash	E-ZPass ¹	Cash	E-ZPass ¹
Central Turnpike	Hooksett Main	\$ 1.00	\$ 0.70	\$ 3.50	\$ 3.15
	Hooksett Ramp	\$ 0.50	\$ 0.35	\$ 2.50	\$ 2.25
	Bedford Main	\$ 1.00	\$ 0.70	\$ 3.50	\$ 3.15
	Exit 11	\$ 0.50	\$ 0.35	\$ 2.50	\$ 2.25
	Exit 10/Merrimack Industrial	\$ 0.50	\$ 0.35	\$ 2.50	\$ 2.25
Blue Star Turnpike	Hampton Main	\$ 2.00	\$ 1.40	\$ 5.50	\$ 4.95
	Hampton Side	\$ 0.75	\$ 0.53	\$ 3.00	\$ 2.70
Spaulding Turnpike	Dover Toll	\$ 0.75	\$ 0.53	\$ 3.00	\$ 2.70
	Rochester Toll	\$ 0.75	\$ 0.53	\$ 3.00	\$ 2.70

¹Tolls for patrons with New Hampshire-issued **E-ZPass** transponders. Patrons with **E-ZPass** transponders issued by other agencies pay the cash toll rate

8.1.2 Reasonableness of Tolls / Comparison to Other E-ZPass Toll Facilities

Figure 8.1 compares the passenger car toll rates in cents per mile on the Blue Star, Spaulding and Central Turnpikes to other various **E-ZPass** toll roads in the northeastern quadrant of the U.S.A. Standard peak period toll rates are shown for each facility. A discounted **E-ZPass** toll rate is shown for those facilities that offer discounted **E-ZPass**. The Blue Star Turnpike has the highest passenger car per-mile toll rate of the three New Hampshire Turnpikes, but there are still thirteen major **E-ZPass** toll roads that have higher cash toll rates. The Central Turnpike and Spaulding Turnpikes are among the toll facilities with the lowest passenger car toll rates per mile. It can be said that the New Hampshire Turnpike passenger car toll rates are reasonable or below average compared to toll rates at other **E-ZPass** toll facilities.

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Figure 8.1: Passenger Car Toll Rates per Mile on Select E-ZPass Toll Facilities

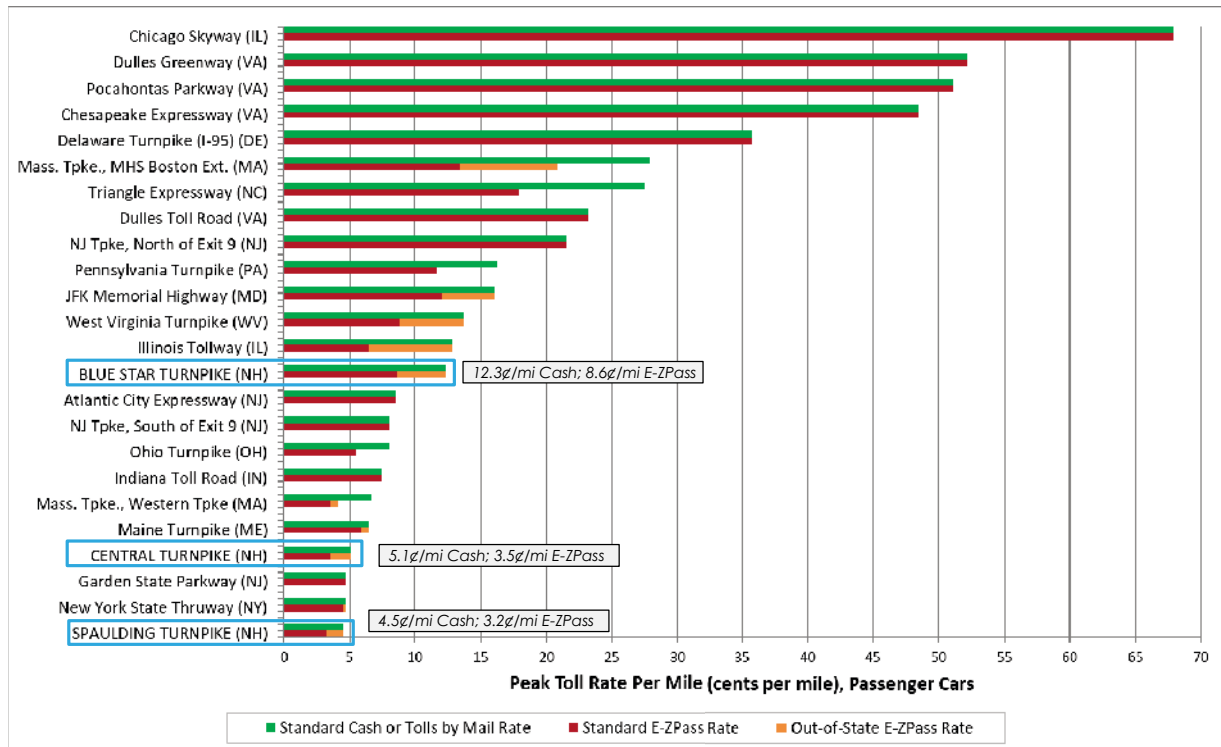


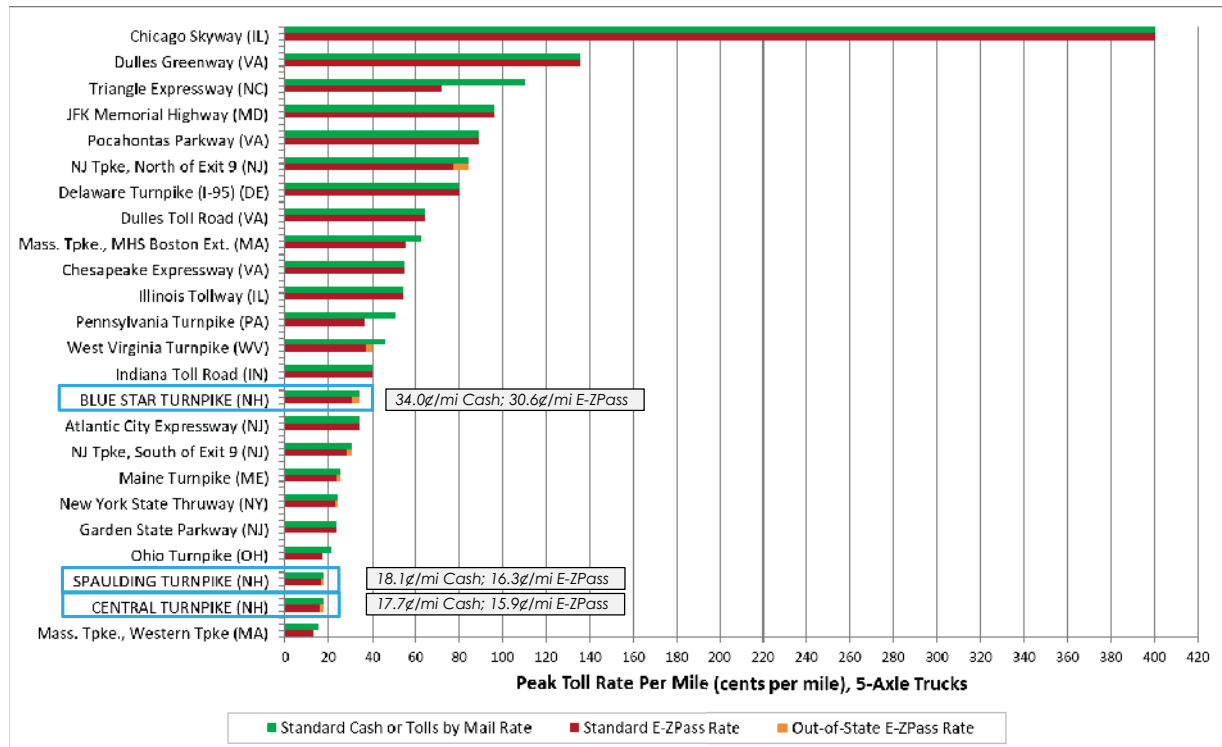
Figure 8.2 shows a similar comparison for five-axle vehicles. Again, although the Blue Star Turnpike has the highest toll rates of the three New Hampshire toll facilities, there are fourteen major **E-ZPass** toll facilities that have higher five-axle truck toll rates. Both the Central and Spaulding Turnpikes are among the toll facilities with low commercial toll rates per mile. It can be said that the New Hampshire Turnpike commercial vehicle toll rates are reasonable or below average compared to other **E-ZPass** toll facilities.

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Figure 8.2: Commercial Vehicle Toll Rates on Select E-ZPass Toll Facilities



8.2 METHODOLOGY USED FOR TRAFFIC AND REVENUE FORECASTS

8.2.1 Fiscal Year 2019 Estimates

The first step in the forecasting process was to develop model estimates for FY 2019 based on unaudited actuals. For each location, the historical patterns of seasonal growth were determined based on fiscal years 2015 through 2018, and this same pattern was applied to each location based upon the most recent 2019 data available.

8.2.2 Correlation to Economic Factors

The second step in developing the traffic and revenue projections was to develop a base of FY 1991 through FY 2019 toll transactions. Historical car toll transaction growth was then correlated to gross domestic product (GDP) and historical truck growth was correlated to increases in the U.S. total industrial production (IPI).

Future car and truck toll transactions were projected separately by applying the historical correlations to projected GDP and total IPI growth rates estimated by industry experts in the Blue Chip Economic Indicators. We expect that traffic growth throughout the forecast period will not be as high as it was in the

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1990s and early 2000s, due to such factors as Baby Boomers retiring, younger people driving less and technology making road travel less necessary, as discussed in Section 6.0 of this report. Therefore, some dampening was also applied to traffic growth rates over the forecast years.

8.2.3 E-ZPass Market Shares

E-ZPass market shares were then projected for each facility separately for cars and trucks, and these market shares were applied to obtain projected cash and **E-ZPass** transactions. The market share projections were based on observing the growth in **E-ZPass** market share over the past several years. A maximum market share for each facility was assumed to be reached by FY 2026. Most of the growth in market share would be in the first few years of the forecast, with gradually less growth in market share in each subsequent year until the maximum is reached.

Additionally, as **E-ZPass** tags that are issued by the New Hampshire DOT (“Home”) are assessed a lower toll rate than other **E-ZPass** tags (“Away”), it was necessary to estimate future “Home” versus “Away” **E-ZPass** customers to calculate toll revenue correctly. In recent years, the “Home” share of **E-ZPass** trips at each toll location has generally declined slightly, as other states such as Ohio and Rhode Island installed electronic tolling technology at their facilities and began issuing **E-ZPass** tags themselves. Additionally, the Massachusetts Department of Transportation (MassDOT) converted to all-electronic tolling in FY 2017 and saw a large increase in E-ZPass market penetration with their issuance of free transponders, further contributing to this trend. We assumed that the future ratio of “Home” to “Away” transactions would stay the same as it is today, and not continue to decline. This may be a slightly conservative assumption, as a declining “Home” share means an increasing “Away” share, and “Away” **E-ZPass** traffic does not receive a discount.

The average cash and **E-ZPass** toll rates were then applied to the projected annual cash and **E-ZPass** transactions, respectively, in order to determine total cash and **E-ZPass** toll revenues for the period FY 2019-2029.

8.2.4 System Changes and Developments

Some recent and future changes to the New Hampshire Turnpike System and its environs were investigated further to determine their effects on traffic and toll revenue. The Bedford Road (Exit 12) toll plazas were removed in July 2014, eliminating a small revenue source and shifting some traffic away from the nearby Exit 11 ramp plazas. The opening of the Manchester Airport Access Road (MAAR) with its free interchange on the Turnpike in November 2011 and the opening of the Merrimack Premium Outlets in June 2012 affected traffic at certain plazas on the Central Turnpike for a couple of years; however, no further traffic shifts are expected. In addition, open-road tolling (ORT) has commenced at several mainline plazas in recent years. This change has not caused any noticeable traffic or revenue changes; therefore, we have estimated that converting other plazas to include ORT will not affect their traffic or the revenue collected.

Two system changes are expected to have an effect on traffic and revenue: the conversion of the Dover and Rochester mainline plazas to all-electronic tolling (AET), and the widening of sections of the Spaulding Turnpike.

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8.2.4.1 All-Electronic Tolling (AET) Conversion

In our base forecast, All Electronic Tolling (AET) is set to begin at the Dover and Rochester mainline plazas in July 2021, the beginning of FY 2022.

Additional analysis is necessary for facilities converting to AET, because there are some uncollectable revenues associated with Video Tolling. In addition, Video Tolling often requires more time to collect compared to E-ZPass. It can take several months after a trip is made to invoice and collect tolls from these customers.

Based upon Stantec's experience with other AET facilities, we are assuming no additional traffic growth at the two toll locations due to AET implementation. Stantec assumed that AET conversion would not change customer behavior in terms of payment type; cash customers will by default become Video Tolling customers. A fixed percentage of Video Tolling revenue was deemed uncollectable based upon comparable systems. The uncollectability of Video Tolling revenues is due to numerous independent variables that each cause changes to the ultimate amount of revenue collected, as described below:

Non-Usable Video Images: Not all license plates are readable due to various reasons such as weather or obstructions, or the plate may be a temporary one in the window of the vehicle, or it may be missing. In addition, there could be technical issues with the camera (image is too bright, dark, or blurry) or the plate may be out of view of the camera.

Business Rules: If the cost of collecting from certain customers is higher than the revenue that could potentially be collected, it is often not feasible to go after these customers. Agencies have business rules that determine which Video Tolling customers they will and will not pursue, which could change over time. For example, many agencies do not pursue customers with non-U.S. license plates because there is no DMV agreement in place to obtain vehicle ownership/registration information.

Invalid DMV record: A number of license plates do not match to valid DMV records, and therefore an invoice cannot be sent to these drivers.

Invalid Addresses: Many people who move do not change their address attached to their DMV vehicle registration and do not have mail forwarded; therefore, they would not be able to receive a Video Tolling invoice. When the first invoice is returned to the Department because of a bad address, another invoice would not be sent.

Nonpayment of Toll Bills / Violators: Of customers who receive toll bills, a certain share pay after receiving the first invoice, which includes a \$1 processing fee per transaction. Those that do not pay receive a second invoice for the toll amount plus a \$1.50 processing fee per transaction. If this is not paid, a third invoice is sent ("Violations Notice") which currently includes an Administrative fee of \$25 per transaction.

Dismissals/Forgiveness: AET facilities typically offer forgiveness of late fees or violations and dismissal of tolls for a very small share of customers. Reasons include incorrect identification of license plates, transponders mistakenly charged more than once for a trip, and other such errors or disputes.

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8.2.4.2 Spaulding Turnpike Construction and Widening

About five miles of the Spaulding Turnpike were widened in the Rochester area between FY 2008 and FY 2013. Traffic growth was strong immediately following the completion of the widening north of the Rochester Toll Plaza, growing at an average annual rate of 6 percent between FY 2014 and FY 2016. However, the most recent data has shown traffic growth reduced to an average of 2.5 percent annually over FY 2016-FY 2018.

Currently, NHDOT is widening the Spaulding Turnpike and Little Bay Bridges in the Dover area. As this project has been under construction for several years without any apparent reduction in traffic volumes – since the NHDOT has maintained and will continue to maintain two lanes of traffic during construction – no traffic reductions have been assumed in our Dover Toll Plaza traffic forecasts. In addition, since this project adds new capacity to the Turnpike, we have assumed that when the construction is essentially completed in FY 2020 that there will be an additional increase in traffic of 2.0 percent (beyond forecasted background growth) and an additional increase in traffic of 1.0 percent each year for the following years until the end of the 11-year forecast period.

8.3 TOLL TRANSACTION PROJECTIONS BY TURNPIKE

The FY 2018 actual and projected future annual toll transactions on the New Hampshire Turnpike System during the period FY 2018-2029 are presented in Table 8.2. No toll increases are assumed in these forecasts. For reference, historical annual toll transactions were shown earlier in Table 3.1. A detailed summary of traffic, revenue, and **E-ZPass** market share by facility is presented in Table 8.3.

Table 8.2: FY 2018 and Projected Annual Toll Transactions, FY 2018-2029 (in millions)

Fiscal Year	Central Turnpike	Blue Star Turnpike	Spaulding Turnpike	Total
2018 (Actual)	55.3	41.1	25.8	122.1
2019 ¹	55.9	41.6	26.2	123.7
2020	56.6	42.2	26.5	125.3
2021	57.0	42.6	27.1	126.7
2022	57.6	43.1	27.5	128.2
2023	58.1	43.6	28.0	129.7
2024	58.6	44.1	28.5	131.2
2025	59.2	44.6	29.0	132.8
2026	59.7	45.2	29.5	134.4
2027	60.3	45.7	30.0	136.0
2028	60.8	46.3	30.5	137.6
2029	61.4	46.8	31.0	139.3

Note: Data will not necessarily add to totals because of rounding.

¹ FY2019 are unaudited actuals.

Table 8.3: Detailed Traffic and Revenue, FY 2018 Actual, FY 2019 Unaudited Actual, and FY 2020-2029 Projections

Barriers/Ramps	Actual	18-19	Actual	19-20	20-21	2020	2021	21-22	2022	22-23	2023	23-24	Projected			25-26	26-27	27-28	28-29		
	Growth	Growth	2019 (1)	Growth	Growth	Growth	Growth	Growth	Growth	Growth	Growth	Growth	2024	24-25	Growth	Growth	Growth	Growth			
CENTRAL TPKE																					
Hooksett Barrier	28.3	0.89%	28.6	1.30%	29.0	0.81%	29.2	0.92%	29.5	0.93%	29.7	0.93%	30.0	0.93%	30.3	0.93%	30.6	0.93%	31.2	0.93%	31.5
Hooksett Ramp	3.1	2.43%	3.2	0.18%	3.2	0.82%	3.2	0.93%	3.3	0.95%	3.3	0.95%	3.3	0.97%	3.4	0.97%	3.4	0.97%	3.5	0.97%	3.5
Bedford Barrier	17.8	1.53%	18.1	1.15%	18.3	0.81%	18.5	0.92%	18.6	0.93%	18.8	0.93%	19.0	0.93%	19.1	0.93%	19.3	0.93%	19.7	0.93%	19.9
Exit 11 Ramp	3.2	2.02%	3.3	2.50%	3.4	0.80%	3.4	0.91%	3.4	0.91%	3.5	0.91%	3.5	0.92%	3.5	0.92%	3.6	0.92%	3.6	0.92%	3.7
Exit 10 Ramp	2.7	-0.76%	2.7	0.21%	2.7	0.81%	2.7	0.91%	2.8	0.92%	2.8	0.92%	2.8	0.92%	2.8	0.92%	2.9	0.92%	2.9	0.92%	2.9
Subtotal	55.3	1.17%	55.9	1.21%	56.6	0.81%	57.0	0.93%	57.6	0.93%	58.1	0.93%	58.6	0.93%	59.2	0.93%	59.7	0.93%	60.8	0.93%	61.4
BLUE STAR TPKE																					
Hampton Barrier	25.6	1.63%	26.0	1.20%	26.3	1.06%	26.6	1.10%	26.9	1.21%	27.2	1.22%	27.5	1.22%	27.9	1.22%	28.2	1.23%	28.6	1.23%	29.3
Hampton Ramp	15.5	0.73%	15.6	1.62%	15.9	1.04%	16.0	1.06%	16.2	1.17%	16.4	1.18%	16.6	1.18%	16.8	1.18%	17.0	1.18%	17.2	1.18%	17.6
Subtotal	41.1	1.29%	41.6	1.36%	42.2	1.05%	42.6	1.09%	43.1	1.19%	43.6	1.20%	44.1	1.21%	44.6	1.21%	45.2	1.21%	45.7	1.21%	46.8
SPAULDING TPKE																					
Dover Barrier	15.3	1.31%	15.5	0.90%	15.6	2.92%	16.1	2.03%	16.4	2.03%	16.8	2.13%	17.1	2.13%	17.5	2.14%	17.9	2.14%	18.2	2.14%	19.0
Rochester Barrier	10.5	2.65%	10.8	0.93%	10.9	0.92%	11.0	1.02%	11.1	1.03%	11.2	1.13%	11.4	1.13%	11.5	1.13%	11.6	1.13%	11.7	1.13%	12.0
Subtotal	25.8	1.47%	26.2	1.30%	26.5	2.09%	27.1	1.62%	27.5	1.63%	28.0	1.73%	28.5	1.73%	29.0	1.74%	29.5	1.74%	30.0	1.74%	31.0
TOTAL:	122.1	1.27%	123.7	1.28%	125.3	1.16%	126.7	1.12%	128.2	1.17%	129.7	1.19%	131.2	1.20%	132.8	1.20%	134.4	1.20%	136.0	1.20%	139.3
Total Toll Revenue (millions)																					
Barriers/Ramps	Actual	18-19	Actual	19-20	20-21	2020	2021	21-22	2022	22-23	2023	23-24	Projected			25-26	26-27	27-28	28-29		
	Growth	Growth	2019 (1)	Growth	Growth	Growth	Growth	Growth	Growth	Growth	Growth	Growth	2024	24-25	Growth	Growth	Growth	Growth			
CENTRAL TPKE																					
Hooksett Barrier	\$26.4	0.46%	\$26.5	1.42%	\$26.9	0.69%	\$27.1	0.83%	\$27.3	0.89%	\$27.5	0.92%	\$27.8	0.95%	\$28.0	0.96%	\$28.3	1.00%	\$28.6	1.00%	\$29.2
Hooksett Ramp	\$1.6	5.95%	\$1.7	1.16%	\$1.7	0.72%	\$1.7	0.88%	\$1.7	0.98%	\$1.8	1.00%	\$1.8	1.05%	\$1.8	1.06%	\$1.8	1.10%	\$1.8	1.10%	\$1.9
Bedford Barrier	\$16.3	2.66%	\$16.7	1.34%	\$16.9	0.66%	\$17.0	0.81%	\$17.2	0.87%	\$17.3	0.90%	\$17.5	0.93%	\$17.6	0.94%	\$17.8	1.00%	\$18.0	1.00%	\$18.3
Exit 11 Ramp	\$1.3	5.41%	\$1.4	0.28%	\$1.4	0.62%	\$1.4	0.76%	\$1.4	0.81%	\$1.4	0.85%	\$1.4	0.87%	\$1.5	0.89%	\$1.5	0.95%	\$1.5	0.95%	\$1.5
Exit 10 Ramp	\$1.3	0.37%	\$1.3	-0.11%	\$1.3	0.70%	\$1.3	0.84%	\$1.3	0.89%	\$1.3	0.91%	\$1.3	0.93%	\$1.4	0.94%	\$1.4	0.98%	\$1.4	0.98%	\$1.4
Subtotal	\$46.9	1.34%	\$47.5	1.52%	\$48.2	0.68%	\$48.5	0.82%	\$48.9	0.89%	\$49.4	0.91%	\$49.8	0.94%	\$50.3	0.95%	\$50.8	1.00%	\$51.3	1.00%	\$52.3
BLUE STAR TPKE																					
Hampton Barrier	\$54.1	1.56%	\$54.9	1.57%	\$55.8	1.09%	\$56.4	1.19%	\$57.0	1.33%	\$57.8	1.36%	\$58.6	1.37%	\$59.4	1.38%	\$60.2	1.40%	\$61.0	1.40%	\$62.8
Hampton Ramp	\$11.2	1.59%	\$11.4	1.60%	\$11.6	0.97%	\$11.7	1.08%	\$11.8	1.23%	\$12.0	1.28%	\$12.1	1.29%	\$12.3	1.31%	\$12.4	1.35%	\$12.6	1.35%	\$12.9
Subtotal	\$65.3	1.41%	\$66.2	1.73%	\$67.3	1.07%	\$68.1	1.17%	\$68.9	1.31%	\$69.8	1.35%	\$70.7	1.36%	\$71.7	1.36%	\$72.6	1.39%	\$73.7	1.39%	\$75.7
SPAULDING TPKE																					
Dover Barrier	\$10.2	1.76%	\$10.4	1.21%	\$10.5	2.77%	\$10.8	-8.97%	\$9.8	5.56%	\$10.4	2.28%	\$10.6	2.28%	\$10.9	2.27%	\$11.1	2.22%	\$11.4	2.22%	\$11.9
Rochester Barrier	\$7.0	2.96%	\$7.2	1.09%	\$7.3	0.77%	\$7.3	-10.90%	\$6.5	4.89%	\$6.9	1.28%	\$6.9	1.28%	\$7.0	1.27%	\$7.1	1.21%	\$7.2	1.21%	\$7.4
Subtotal	\$17.2	2.25%	\$17.6	1.15%	\$17.8	1.95%	\$18.2	-9.75%	\$16.4	5.29%	\$17.2	1.88%	\$17.6	1.89%	\$17.9	1.88%	\$18.2	1.82%	\$18.6	1.83%	\$19.3
TOTAL:	\$129.4	1.50%	\$131.3	1.58%	\$133.4	1.04%	\$134.8	-0.42%	\$134.2	1.64%	\$136.4	1.26%	\$138.1	1.27%	\$139.9	1.28%	\$141.7	1.31%	\$143.5	1.31%	\$147.3
E-ZPass Market Shares																					
Barriers/Ramps	Actual	18-19	Actual	19-20	20-21	2020	2021	21-22	2022	22-23	2023	23-24	Projected			25-26	26-27	27-28	28-29		
	Growth	Growth	2019 (1)	Growth	Growth	Growth	Growth	Growth	Growth	Growth	Growth	Growth	2024	24-25	Growth	Growth	Growth	Growth			
CENTRAL TPKE																					
Hooksett Barrier	74.8%	1.8%	76.6%	0.3%	76.9%	0.8%	77.7%	0.6%	78.3%	0.5%	78.8%	0.4%	79.2%	0.3%	79.5%	0.3%	79.7%	0.0%	79.7%	0.0%	79.7%
Hooksett Ramp	73.1%	1.9%	75.0%	0.3%	75.3%	0.7%	76.0%	0.6%	76.6%	0.5%	77.1%	0.3%	77.4%	0.3%	77.7%	0.2%	78.0%	0.0%	78.0%	0.0%	78.0%
Bedford Barrier	77.7%	1.7%	79.4%	0.4%	79.8%	0.8%	80.6%	0.6%	81.2%	0.5%	81.7%	0.3%	82.0%	0.3%	82.3%	0.2%	82.6%	0.0%	82.6%	0.0%	82.6%
Exit 11 Ramp	82.3%	1.5%	83.8%	0.7%	84.5%	0.8%	85.3%	0.6%	85.9%	0.5%	86.4%	0.3%	86.8%	0.3%	87.1%	0.2%	87.3%	0.0%	87.3%	0.0%	87.3%
Exit 10 Ramp	80.4%	1.4%	81.8%	0.6%	82.4%	0.8%	83.2%	0.6%	83.8%	0.5%	84.3%	0.3%	84.7%	0.3%	84.9%	0.2%	85.2%	0.0%	85.2%	0.0%	85.2%
Subtotal	76.4%	1.7%	78.1%	0.4%	78.5%	0.8%	79.2%	0.6%	79.9%	0.5%	80.4%	0.3%	80.7%	0.3%	81.0%	0.2%	81.3%	0.0%	81.3%	0.0%	81.3%
BLUE STAR TPKE																					
Hampton Barrier	80.1%	1.7%	81.8%	0.5%	82.3%	0.8%	83.1%	0.6%	83.7%	0.5%	84.2%	0.4%	84.6%	0.3%	84.9%	0.3%	85.1%	0.0%	85.1%	0.0%	85.2%
Hampton Ramp	79.3%	1.8%	81.1%	0.3%	81.4%	0.8%	82.2%	0.6%	82.8%	0.5%	83.3%	0.3%	83.6%	0.3%	83.9%	0.2%	84.2%	0.0%	84.2%	0.0%	84.2%
Subtotal	79.8%	1.7%	81.5%	0.4%	81.9%	0.8%	82.7%	0.6%	83.4%	0.5%	83.9%	0.3%	84.2%	0.3%	84.5%	0.3%	84.8%	0.0%	84.8%	0.0%	84.8%
SPAULDING TPKE																					
Dover Barrier	79.1%	1.7%	80.8%	0.4%	81.2%	0.8%	82.0%	0.6%	82.6%	0.5%	83.1%	0.3%	83.4%	0.3%	83.7%	0.2%	83.9%	0.0%	84.0%	0.0%	84.0%
Rochester Barrier	77.4%	1.7%	79.1%	0.4%	79.5%	0.8%	80.3%	0.6%	80.9%	0.5%	81.4%	0.3%	81.8%	0.3%	82.1%	0.2%	82.3%	0.0%	82.3%	0.0%	82.3%
Subtotal	78.4%	1.7%	80.1%	0.4%	80.5%	0.8%	81.3%	0.6%	81.9%	0.5%	82.4%	0.3%	82.8%	0.3%	83.1%	0.2%	83.3%	0.0%	83.3%	0.0%	83.3%
TOTAL:	78.0%	1.7%	79.7%	0.4%	80.1%	0.8%	80.9%	0.6%	81.5%	0.5%	82.0%	0.3%	82.3%	0.3%	82.6%	0.3%	82.9%	0.0%	82.9%	0.0%	82.9%

1. FY 2019 are unaudited actuals from NHDOT monthly data sources.

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Total toll transactions increased from 122.1 million toll transactions in FY 2018 to 123.9 million in FY 2019, a gain of 1.4 percent. Overall transaction growth slows in FY 2020 to 1.1 percent and remains between 1.1 and 1.2 percent for subsequent years. The Dover plaza of the Spaulding Turnpike sees strong growth of 2.9 percent after widening work is complete in FY 2021. For the final six years of the forecast period, it is forecasted that Turnpike toll traffic will grow 1.2 percent per year. Between FY 2019 and FY 2029, the projected average annual growth rates in paid toll transactions for the Central, Blue Star and Spaulding Turnpikes are 1.0 percent, 1.2 percent and 1.7 percent respectively, with the overall Turnpike toll transaction average growth rate at 1.2 percent.

8.4 REVENUE PROJECTIONS BY TURNPIKE

8.4.1 Toll Revenue

The actual and projected annual toll revenue on the New Hampshire Turnpike System during the period FY 2018-2029 is presented in Table 8.4. The forecast assumes existing toll levels for the duration of the forecast, and the conversion from cash to AET on the Spaulding Turnpike at the beginning of FY 2022. The toll revenue forecasts account for toll revenue only and do not include associated fee revenue. Detailed toll revenue projections for each toll plaza were presented previously in Table 8.3 (see Table 3.2 for historical toll revenues recorded on a cash basis). Note that FY 2019 revenue is unaudited actuals that differ slightly from the detailed revenue results by plaza as shown previously as these are from NHDOT Finance Division.

Table 8.4: FY 2018 and Projected Annual Toll Revenue, FY 2019-2029 (in millions)

Fiscal Year	Central Turnpike	Blue Star Turnpike	Spaulding Turnpike ¹	Total
2018 Actual	\$ 46.9	\$ 65.3	\$ 17.2	\$ 129.4
2019 ²	\$ 47.7	\$ 67.6	\$ 17.7	\$ 132.9
2020	\$ 48.2	\$ 67.3	\$ 17.8	\$ 133.4
2021	\$ 48.5	\$ 68.1	\$ 18.2	\$ 134.8
2022	\$ 48.9	\$ 68.9	\$ 16.4	\$ 134.2
2023	\$ 49.4	\$ 69.8	\$ 17.2	\$ 136.4
2024	\$ 49.8	\$ 70.7	\$ 17.6	\$ 138.1
2025	\$ 50.3	\$ 71.7	\$ 17.9	\$ 139.9
2026	\$ 50.8	\$ 72.6	\$ 18.2	\$ 141.7
2027	\$ 51.3	\$ 73.7	\$ 18.6	\$ 143.5
2028	\$ 51.8	\$ 74.7	\$ 18.9	\$ 145.4
2029	\$ 52.3	\$ 75.7	\$ 19.3	\$ 147.3

Data will not necessarily add to totals because of rounding.

1. Toll revenues only; does not include any Video Tolling Fee due to AET conversion in FY 2022.

2. FY2019 are unaudited actuals.

Projected toll revenues for FY 2019 are \$132.9 million – about a 2.7 percent increase from FY 2018 revenues. Toll revenue on the Spaulding Turnpike is estimated to drop by 9.7 percent between FY 2021

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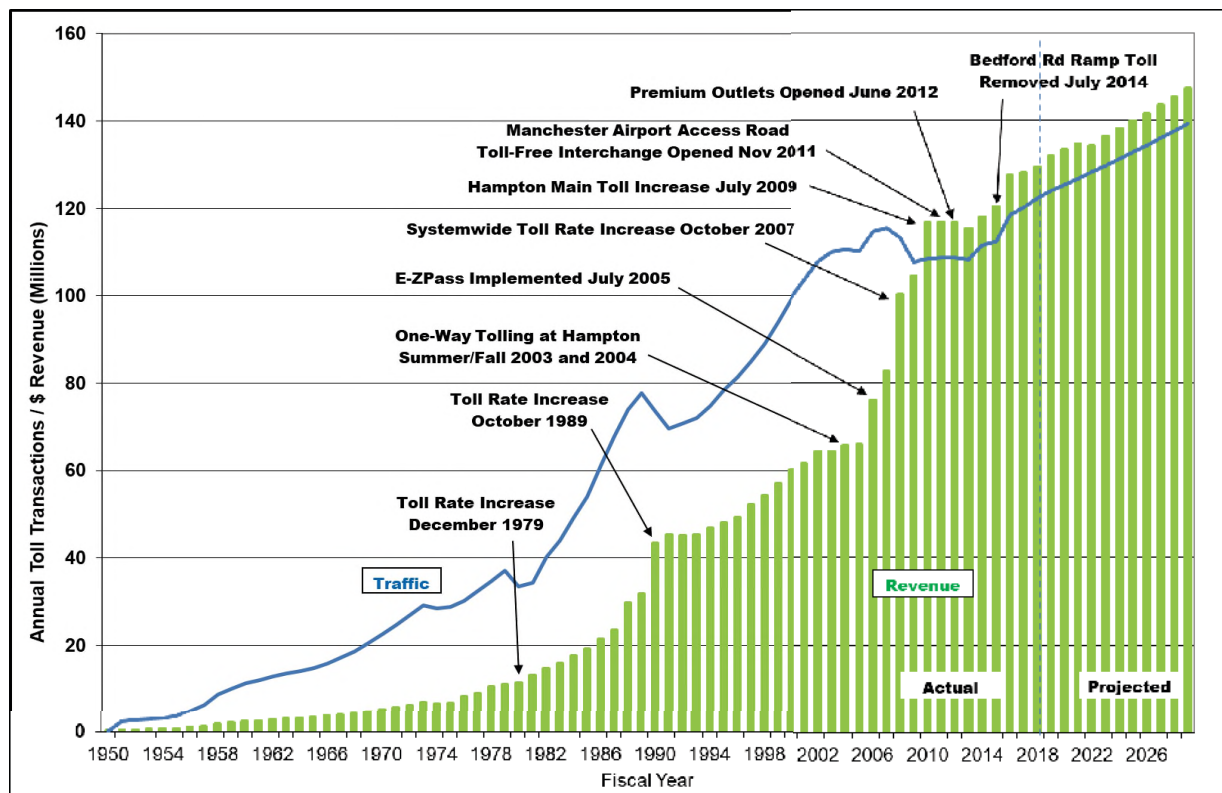
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and FY 2022 due to AET implementation. This reduction is due in part to the lag associated with revenue collections after a system crossover, and in part due to lower collection rates compared to other system designs. Spaulding revenue recover by 5.3 percent in FY 2023, the first full year of revenue collection, and stabilize at healthy revenue growth rates of 1.8 to 1.9 percent. From FY 2024 onward, systemwide revenue is expected to grow 1.3 percent per year. Toll revenues on the Central, Blue Star and Spaulding Turnpikes are expected to grow at an average annual rate of 0.9 percent, 1.1 percent and 0.9 percent respectively between FY 2019 and FY 2029, and the overall Turnpike annual revenue growth rate is estimated to be 1.0 percent.

Historical and projected toll transactions and revenues for the entire New Hampshire Turnpike System over the period FY 1950 to 2029 are presented in Figure 8.3.

Figure 8.3: NH Turnpike System Historical and Projected Toll Transaction and Revenue Trends, FY 1950-2029



8.4.2 Video Tolling Fee Revenue

A portion of the Spaulding Turnpike's future Video Tolling transactions are expected to be assessed fees which account for the added cost of processing these transactions. Table 8.5 presents projected fee revenue attributable to the Spaulding Turnpike's conversion to AET. During FY 2022, the first year of AET operations on the Spaulding Turnpike, fee revenues associated with AET are expected to total \$2.7 million.

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Fees would grow to \$4.6 million in FY 2023, and steadily grow to \$4.9 million by FY 2029. The fee revenue projections assume the following:

A portion of video transactions cannot be billed, or customers are unwilling to ever pay their toll and fee,

A portion of transactions are self-declared as video transactions within seven days. Customers making these transactions do not receive an invoice and are only assessed their toll. No fee is assessed.

Of customers who receive toll bills, a certain share pays after receiving the first invoice, which includes a \$1 processing fee per transaction. Those that do not pay receive a second invoice for the toll amount plus a \$1.50 processing fee per transaction.

If the 2nd invoice is not paid, a third invoice is sent ("Violations Notice") which currently includes an administrative fee of \$25 per transaction. Some portion of customers receiving a Violations Notice may also have their fees forgiven by the Turnpike.

The proportions of transactions which are assessed no fee, the \$1.00, \$1.50, and /or \$25 administrative fee per transaction, or have their fee forgiven, are based on Stantec's observations of other AET toll facilities in the northeast.

The projections assume that during the first year of AET operations, a portion of fee revenue will not be collected until the following fiscal year. This lag in fee revenue collections reflects the additional time needed to identify transactions, send an invoice, and ultimately collect the associated revenues, which typically takes up to 5 months.

Table 8.5: Projected Video Tolling Fee Revenue Attributable to AET, FY 2022-2029 (in millions)

Fiscal Year	Central Turnpike	Blue Star Turnpike	Spaulding Turnpike	Total
2022	n/a	n/a	\$2.7	\$2.7
2023	n/a	n/a	\$4.6	\$4.6
2024	n/a	n/a	\$4.6	\$4.6
2025	n/a	n/a	\$4.6	\$4.6
2026	n/a	n/a	\$4.6	\$4.6
2027	n/a	n/a	\$4.7	\$4.7
2028	n/a	n/a	\$4.8	\$4.8
2029	n/a	n/a	\$4.9	\$4.9

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8.5 E-ZPASS MARKET SHARE PROJECTIONS

Table 8.6 presents the FY 2018 and projected **E-ZPass** market shares on the New Hampshire Turnpike System through FY 2029. Detailed **E-ZPass** market shares for each toll plaza were presented previously in Table 8.3.

Table 8.6: Actual and Projected E-ZPass Market Shares, FY 2019-2029

Fiscal Year	Central Turnpike	Blue Star Turnpike	Spaulding Turnpike	Total
2018 ¹	76.4%	79.8%	78.4%	78.0%
2019 ²	78.1%	81.5%	70.1%	79.6%
2020	78.5%	81.9%	80.5%	80.1%
2021	79.2%	82.7%	81.3%	80.9%
2022	79.9%	83.4%	81.9%	81.5%
2023	80.4%	83.9%	82.4%	82.0%
2024	80.7%	84.2%	82.8%	82.3%
2025	81.0%	84.5%	83.1%	82.6%
2026-2029	81.3%	84.8%	83.3%	82.9%

¹ Actual.

² FY2019 is unaudited actual.

Total New Hampshire **E-ZPass** market share increased from 78.0 percent in FY 2018 to 79.6 percent in FY 2019. Growth in **E-ZPass** market share is expected to slow and flatten over time, as shown in the table. It is assumed to reach an overall maximum share of about 82.9 percent in FY 2026. The market share will differ by plaza, as it does currently. The Blue Star Turnpike, which has fewer commuters and more long-distance travelers than the Central and Spaulding Turnpikes, is expected to have slightly higher market share than the others because **E-ZPass** continues to be adopted by drivers from other states, as more and more agencies implement electronic toll collection.

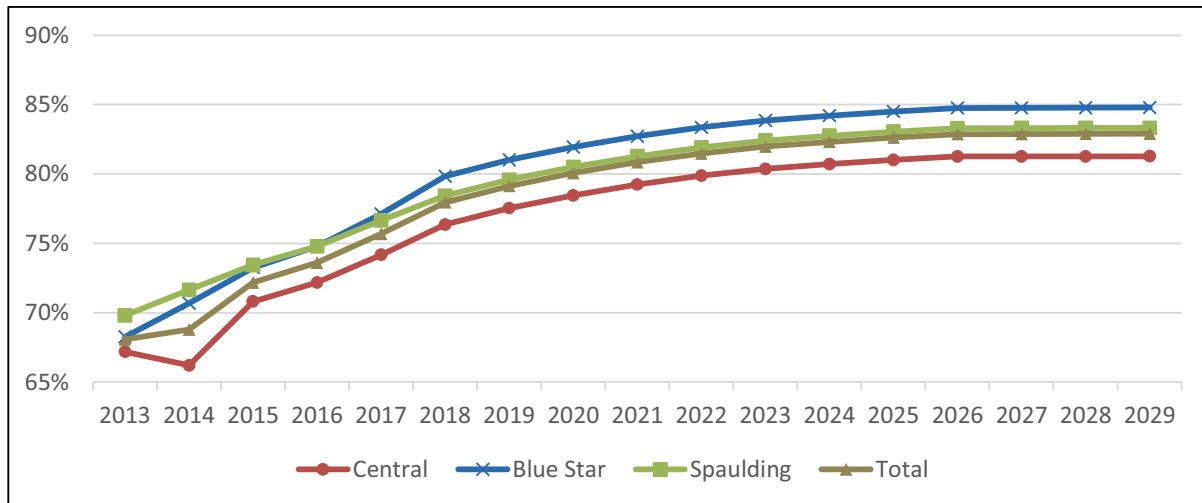
Figure 8.4 shows the historical and projected **E-ZPass** market shares for the period FY 2013 to FY 2029.

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Figure 8.4: NH Turnpike Historical and Projected E-ZPass Market Shares, FY 2013-2029



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9.0 FINANCIAL MODEL ANALYSES

This section presents a financial analysis of the Turnpike System. The analysis considers Turnpike System capital expenditures, operating expenditures and debt service requirements as well as Turnpike System toll revenues and other revenues. The analysis also includes a cash flow analysis of the Turnpike System, as well as an analysis of the Turnpike System's debt service coverage ratios.

9.1 TOTAL TURNPIKE SYSTEM EXPENDITURES

Table 9.1 shows historical and projected capital, operating, and debt service expenditures for the 22-year period FY 2008 to FY 2029.

Table 9.1: Historical and Projected Total NH Turnpike Expenditures, Millions

FY	Capital Expenditures	O&M	Debt Service	Renewal and Replacement	I-95 Payments	Total Expenditures
2008	\$10.9	\$37.1	\$25.7	\$11.8	\$0.0	\$85.5
2009	\$26.1	\$40.3	\$25.9	\$7.8	\$0.0	\$100.1
2010	\$66.4	\$40.1	\$29.6	\$7.8	\$30.0	\$173.9
2011	\$52.7	\$42.3	\$33.8	\$14.3	\$20.0	\$163.1
2012	\$46.9	\$40.7	\$33.3	\$9.2	\$26.0	\$156.1
2013	\$70.2	\$42.2	\$38.3	\$9.6	\$26.0	\$186.3
2014	\$49.7	\$42.5	\$39.0	\$11.3	\$15.0	\$157.5
2015	\$31.8	\$44.4	\$39.1	\$8.2	\$14.2	\$137.7
2016	\$42.0	\$43.0	\$41.3	\$7.9	\$0.4	\$134.6
2017	\$32.1	\$49.9	\$41.3	\$9.3	\$0.0	\$132.6
2018	\$27.5	\$48.6	\$41.3	\$8.7	\$0.0	\$126.1
Total '09-'18	\$456.4	\$471.1	\$388.5	\$105.9	\$131.6	\$1,553.6
2019 ¹	\$21.1	\$44.1	\$41.3	\$14.3	\$0.0	\$120.8
2020	\$33.9	\$63.3	\$41.1	\$36.3	\$0.0	\$174.6
2021	\$49.6	\$63.2	\$41.1	\$22.3	\$0.0	\$176.2
2022 ²	\$61.4	\$61.6	\$34.3	\$13.9	\$0.0	\$171.2
2023	\$63.1	\$61.0	\$27.4	\$14.4	\$0.0	\$165.9
2024	\$57.2	\$62.2	\$26.1	\$13.3	\$0.0	\$158.7
2025	\$58.7	\$63.6	\$19.1	\$13.6	\$0.0	\$155.0
2026	\$47.6	\$64.9	\$19.1	\$13.8	\$0.0	\$145.4
2027	\$51.2	\$66.5	\$19.1	\$14.1	\$0.0	\$150.9
2028	\$63.4	\$68.1	\$19.1	\$14.4	\$0.0	\$165.0
2029	\$42.5	\$69.2	\$19.1	\$14.7	\$0.0	\$145.5
Total '19-'29	\$549.7	\$687.6	\$307.0	\$185.0	\$0.0	\$1,729.2

Note: Data will not necessarily add to totals because of rounding.

1. FY 2019 are unaudited actuals.

2. Values reflect impact of AET implementation at Dover and Rochester in FY 2022.

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Historical total Turnpike System expenditures over the FY 2008-2018 period have ranged from a low of \$85.5 million in FY 2008 to a high of \$186.3 million in FY 2013. Cumulative Turnpike System expenditures for the eleven-year period FY 2008-2018 totaled \$1,553.6 million with 55.3 percent or \$859.7 million accounting for by the sum of operating expenses and debt service expenditures. Total Turnpike System expenditures are projected to vary in the eleven-year FY 2019-2029 forecast period, ranging from a low of \$127.6 million in FY 2019 to a high of \$175.9 million in FY 2021. Cumulative Turnpike System expenditures over the eleven-year forecast period FY 2018-2029 are projected to be \$1,729.5 million or 1.11 times what was spent over the previous eleven years. Some 39.8 percent or \$687.6 million of this total amount is estimated to be for O&M expenditures and 17.8 percent of the total or \$307 million will be for Turnpike System debt service requirements. Some 31.8 percent, or \$549.7 million, of total expenditures over this eleven-year period are expected to be capital expenditures, while 10.7 percent, or \$185.0 million, is expected for renewal and replacement.

9.2 TURNPIKE SYSTEM FUNDS

Table 9.2 presents historical and projected toll revenues, other revenues, interest income, and bond proceeds for the Turnpike System over the 22-year period FY 2008-2029.

Historical annual Turnpike System revenues, which include toll revenue, transponder revenue, interest income and other revenue, ranged from a low of \$107.0 million in FY 2008 to a high of \$136.2 million in FY 2018. Total revenue including bond proceeds ranged from a low of \$107.0 million in FY 2008 to a high of \$268.1 million in FY 2010. Cumulative funds including net bond proceeds over the eleven-year FY 2008-2018 period totaled \$1,654.6 million with toll revenues accounting for 78.1 percent of this amount or \$1292.7 million. Over the forecast period FY 2019-2029, annual Turnpike System revenues are projected to range from a low of \$141.4 million in FY 2020 to a high of \$160.9 million in FY 2029. Total Turnpike revenues over the eleven-year forecast period are \$1,658.8 million or approximately 0.3 percent more than revenues accumulated in the prior eleven years. Toll revenues are estimated to account for 92.1 percent or \$1,527.5 million of the projected \$1,658.8 million in total Turnpike System funds over the next eleven years.

It should be noted that the increase in "Other Revenue" in FY 19 is primarily attributed to the implementation of the E-ZPass System's second invoice and violation processing in FY 2019. This additional processing along with the general increase in violations throughout the system contributed to the increase in Other Revenue.

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Table 9.2: FY 2008 to FY 2029 Historical and Projected NH Turnpike Funds, Millions

FY	Toll Revenue ¹	Video Tolling Fee Revenue	Transponder Revenue	Other Revenue ²	Hooksett Service Area Revenue	Interest Income	Total Revenues	Net Bond Proceeds for Construction ³	Total Turnpike Funds
2008	\$100.4	N/A	\$0.9	\$3.2	N/A	\$2.5	\$107.0	\$0.0	\$107.0
2009	\$103.9	N/A	\$0.7	\$2.2	N/A	\$0.8	\$107.6	\$0.0	\$107.6
2010	\$116.0	N/A	\$0.7	\$1.8	N/A	\$0.8	\$119.3	\$148.8	\$268.1
2011	\$116.7	N/A	\$0.8	\$1.2	N/A	\$0.2	\$118.9	\$0.0	\$118.9
2012	\$116.8	N/A	\$0.7	\$1.1	N/A	\$0.1	\$118.7	\$0.0	\$118.7
2013	\$115.6	N/A	\$0.5	\$1.6	N/A	\$0.1	\$117.8	\$118.5	\$236.3
2014	\$117.5	N/A	\$0.6	\$1.1	N/A	\$0.1	\$119.3	\$0.0	\$119.3
2015	\$121.4	N/A	\$0.6	\$2.2	\$0.1	\$0.1	\$124.4	\$52.3	\$176.7
2016	\$127.1	N/A	\$1.1	\$1.8	\$0.8	\$1.0	\$131.8	\$0.0	\$131.8
2017	\$127.9	N/A	\$0.9	\$3.9	\$0.9	\$0.4	\$134.0	\$0.0	\$134.0
2018	\$129.4	N/A	\$0.8	\$3.9	\$1.0	\$1.1	\$136.2	\$0.0	\$136.2
Total '08-'18	\$1,292.7	\$0.0	\$8.3	\$24.0	\$2.8	\$7.2	\$1,335.0	\$319.6	\$1,654.6
2019 ⁴	\$132.9	N/A	\$0.9	\$12.5	\$1.3	\$2.3	\$149.9		\$149.9
2020	\$133.4	N/A	\$0.5	\$4.1	\$1.3	\$2.1	\$141.4		\$141.4
2021	\$134.8	N/A	\$0.5	\$4.2	\$1.3	\$1.9	\$142.7		\$142.7
2022 ⁵	\$134.2	\$2.7	\$0.5	\$4.3	\$1.3	\$1.7	\$144.7		\$144.7
2023	\$136.4	\$4.6	\$0.5	\$4.4	\$1.4	\$1.4	\$148.6		\$148.6
2024	\$138.1	\$4.6	\$0.5	\$4.4	\$1.4	\$1.3	\$150.3		\$150.3
2025	\$139.9	\$4.6	\$0.5	\$4.5	\$1.4	\$1.2	\$152.1		\$152.1
2026	\$141.7	\$4.6	\$0.5	\$4.6	\$1.4	\$1.2	\$154.0		\$154.0
2027	\$143.5	\$4.7	\$0.5	\$4.7	\$1.4	\$1.2	\$156.1		\$156.0
2028	\$145.4	\$4.8	\$0.5	\$4.8	\$1.4	\$1.2	\$158.1		\$158.1
2029	\$147.3	\$4.9	\$0.5	\$4.9	\$1.4	\$1.9	\$160.9		\$160.9
Total '19-'29	\$1,527.5	\$35.5	\$5.9	\$57.4	\$15.0	\$17.5	\$1,658.8		\$1,658.8

¹ Historical toll revenues measured on a cash basis and were used as a base for the toll revenue forecast.

² From Bureau of Turnpikes Financial Model Plan.

³ Does not include cost for issuance premiums or payments into restricted debt service accounts.

⁴ FY 2019 are unaudited actuals; increases in Other Revenue in FY 2019 are a results of backlog of violation processing with a more detailed explanation in the text of the report.

⁵ Values reflect impact of AET implementation in FY 2022.

Note: Data will not necessarily add to totals because of rounding.

9.3 TURNPIKE COVERAGE RATIO ANALYSIS

Table 9.3 presents an analysis of the Bureau of Turnpikes' revenue bond debt service coverage ratios and all obligation bond coverage ratios for the forecast period FY 2019-2029.

The analysis shows that the Bureau of Turnpikes' revenue bond debt service coverage ratio is expected to range from a high of 4.79 in FY 2029 to a low of 1.90 in FY 2020. The low 1.90 revenue bond debt service coverage ratio in FY 2020 satisfies both the bond resolution's minimum requirement of 1.2 as well as the Bureau of Turnpikes' internal minimum coverage requirement of 1.3.

In comparison, the all obligation coverage ratio is projected to range from a high of 2.72 in FY 2022 to a low of 1.22 in FY 2020. The low all obligation coverage ratio of 1.22 in FY 2020 satisfies the both the bond resolution's minimum requirement of 1.0 and the Bureau of Turnpikes' internal minimum requirement of 1.1.

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Table 9.3: NH Turnpike Debt Coverage Analysis, FY 2019-2029, Millions

Item	FY 2019	FY 2020	FY 2021	FY 2022 ⁵	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Turnpike Revenues ¹	\$149.9	\$141.4	\$142.7	\$144.7	\$148.6	\$150.3	\$152.1	\$154.0	\$156.1	\$158.1	\$160.9
O&M Expenses ²	\$44.1	\$63.3	\$63.2	\$61.6	\$61.0	\$62.2	\$63.6	\$64.9	\$66.5	\$68.1	\$69.2
Net Revenues (Sub-Total) (A)	\$105.8	\$78.1	\$79.5	\$83.1	\$87.7	\$88.1	\$88.5	\$89.1	\$89.6	\$90.0	\$91.7
Revenue Bond Debt Service (B) ³	\$41.3	\$41.1	\$41.1	\$34.3	\$27.4	\$26.1	\$19.1	\$19.1	\$19.1	\$19.1	\$19.1
Revenue Bond Debt Service Coverage Ratio (A/B)	2.56	1.90	1.93	2.42	3.19	3.38	4.63	4.66	4.69	4.71	4.79
Existing Turnpike R&R Expenses (C)	\$14.3	\$22.9	\$22.3	\$13.9	\$14.4	\$13.3	\$13.6	\$13.8	\$14.1	\$14.4	\$14.7
Debt Service and Other Obligations (Sub-Total) (B+C) ⁴	\$55.6	\$63.9	\$63.4	\$48.2	\$41.8	\$39.4	\$32.7	\$32.9	\$33.2	\$33.5	\$33.8
All Obligation Coverage Ratio (A/(B+C))	1.90	1.22	1.25	1.72	2.09	2.24	2.71	2.71	2.70	2.68	2.71

¹ Includes Toll Revenue, Other Revenue, Transponder Revenue, and Interest Income. FY 2019 are unaudited actuals.

² Includes Administrative Expenses, Toll Operations, Maintenance, Safety & Enforcement, Toll Processing, Welcome Centers and Rest Areas, and Turnpike Funding to Highway and O&M Lapses. R&R and I-95 Payments not included.

³ Includes projected 2019 Refunding Bonds.

⁴ Additional R+R has been excluded from the all obligation sub-total and coverage ratio.

⁵ Values reflect impact of AET implementation in FY 2022.

⁶ FY 2020, 2021 and 2022 All Obligation Coverage Ratio with removing Portsmouth-Kittery High-Level Bridge R&R would be 1.49, 1.49, and 1.75, respectively.

Table 9.4 is a projected cash flow analysis of the Turnpike System. The analysis reveals that the projected Bureau of Turnpikes cash reserves will be positive throughout the eleven-year forecast period. Cash reserves as a percentage of Bureau of Turnpikes toll revenues are projected to range from a high of 77 percent in FY 2019 to a low of 9 percent in FY 2024.

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Table 9.4: Projected Cash Flow Analysis, FY 2019-2029 (in millions)

Item	FY 2019	FY 2020	FY 2021	FY 2022 ²	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Net Income ¹	\$50.2	\$0.8	\$16.1	\$34.9	\$45.8	\$48.8	\$55.8	\$56.2	\$56.4	\$56.5	\$57.9
Net Bond Proceeds for Construction	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Set Aside Reserve on Bonds/Debt Service Reserve Funds Release	\$0.0	\$0.0	\$0.2	\$6.8	\$6.9	\$1.4	\$7.1	\$0.0	\$0.0	\$0.0	\$0.0
Capital Expenditures	\$21.1	\$33.9	\$49.6	\$61.4	\$63.1	\$57.2	\$58.7	\$47.6	\$51.2	\$63.4	\$42.5
Beginning Cash	\$103.8	\$129.7	\$96.5	\$63.3	\$43.5	\$33.2	\$26.2	\$30.3	\$38.9	\$44.1	\$37.2
Annual Capital Surplus / (Deficit)	\$29.1	-\$33.1	-\$33.5	-\$26.5	-\$17.3	-\$8.4	-\$2.9	\$8.6	\$5.2	-\$7.0	\$15.4
Cash-Accrual Adjustments	-\$3.2										
Deferred Revenue Acct - Prepaid Tolls (restricted)	\$14.8	\$13.0	\$13.0	\$13.0	\$13.0	\$13.0	\$13.0	\$13.0	\$13.0	\$13.0	\$11.7
Ending Cash	\$114.9	\$83.5	\$50.3	\$30.5	\$20.2	\$13.2	\$17.3	\$25.9	\$31.1	\$24.2	\$40.8
Cash as a Percent of Tpke Revenues	77%	59%	35%	21%	14%	9%	11%	17%	20%	15%	25%

¹ Net Revenues less Revenue Bond Debt Service less Other Obligations less Renewal and Replacement.

² Values reflect impact of AET implementation in FY 2022.

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9.4 LIMITS AND DISCLAIMERS

It is Stantec's opinion that the traffic and toll revenue estimates provided herein represent reasonable and achievable levels of traffic and toll revenues that can be expected to accrue on the Turnpike System over the forecast period and that they have been prepared in accordance with accepted industry-wide practice. However, as should be expected with any forecast, and given the uncertainties within the current economic climate, it is important to note the following assumptions which, in our opinion, are reasonable:

This report presents the results of Stantec's consideration of the information available as of the date hereof and the application of our experience and professional judgment to that information. It is not a guarantee of any future events or trends.

The traffic and gross toll revenue estimates will be subject to future economic and social conditions, demographic developments and regional transportation construction activities that cannot be predicted with certainty.

The estimates contained in this report, while presented with numeric specificity, are based on a number of estimates and assumptions which, though considered reasonable to us, are inherently subject to economic and competitive uncertainties and contingencies, most of which are beyond the control of any tolling authority and cannot be predicted with certainty. In many instances, a broad range of alternative assumptions could be considered reasonable. Changes in the assumptions used could result in material differences in estimated outcomes.

Stantec's traffic and gross toll revenue estimations only represent our best judgment and we do not warrant or represent that the actual gross toll revenues will not vary from our estimates.

We do not express any opinion on the following items: socioeconomic and demographic forecasts, proposed land use development projects and potential improvements to the regional transportation network.

The standards of operation and maintenance on all of the system will be maintained as planned within the business rules and practices.

The general configuration and location of the system and its interchanges will remain as discussed in this report.

Access to and from the system will remain as discussed in this report.

No other competing highway projects, tolled or non-tolled are assumed to be constructed or significantly improved in the Turnpike System corridors during the forecast period, except those identified within this report.

Major highway improvements that are currently underway or fully funded will be completed as planned.

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The system will be well maintained, efficiently operated, and effectively signed to encourage maximum usage.

No reduced growth initiatives or related controls that would significantly inhibit normal development patterns will be introduced during the estimate period.

There will be no future serious protracted recession during the estimate period.

There will be no protracted fuel shortage during the estimate period.

No local, regional, or national emergency will arise that will abnormally restrict the use of motor vehicles.

In Stantec's opinion, the assumptions underlying the projections provide a reasonable basis for the toll revenue projections. However, any financial projection is subject to uncertainties. Inevitably, some assumptions used to develop the projections will not be realized, and unanticipated events and circumstances may occur. There are likely to be differences between the projections and actual results, and those differences may be material. Because of these uncertainties, Stantec makes no guaranty or warranty with respect to the traffic and toll revenue projections in this Study.

This document, and the opinions, analysis, evaluations, or recommendations contained herein are for the sole use and benefit of the contracting parties. There are no intended third party beneficiaries, and Stantec Consulting Services Inc. (and its affiliates) shall have no liability whatsoever to any third parties for any defect, deficiency, error, omission in any statement contained in or in any way related to this document or the services provided.

Neither this document nor any information contained therein or otherwise supplied by Stantec Consulting Services Inc. in connection with the study and the services provided to our client shall be used in connection with any financing solicitation, proxy, and proxy statement, proxy soliciting materials, prospectus, Securities Registration Statement or similar document without the express written consent of Stantec Consulting Services Inc.

STATE DEMOGRAPHIC AND ECONOMIC DATA

General

New Hampshire is located in the New England census region and is bordered by the states of Maine, Massachusetts and Vermont and the Province of Quebec, Canada. The State is 9,304 square miles in area and has 18 miles of general coastline on the Atlantic Ocean and 131 miles of tidal shoreline.

Population

New Hampshire experienced an increase in population between 2008 and 2018, with more rapid growth between 2016 and 2018. The State's population was 1,356,458 in 2018 according to the U.S. Census Bureau. Population has increased by 3.1% since 2008 and 2.3% since 2013. The table below shows New Hampshire's resident population and the change in its population relative to New England and the nation.

Population Trends (In Thousands)						
<u>Year</u>	<u>New Hampshire</u>	<u>Change During Period</u>	<u>New England</u>	<u>Change During Period</u>	<u>United States</u>	<u>Change During Period</u>
2008	1,316	0.3%	14,340	0.4%	304,094	1.0%
2009	1,316	0.0	14,404	0.4	306,772	0.9
2010	1,317	0.1	14,470	0.5	309,326	0.8
2011	1,320	0.2	14,530	0.4	311,580	0.7
2012	1,324	0.3	14,590	0.4	313,874	0.7
2013	1,326	0.2	14,645	0.4	316,058	0.7
2014	1,333	0.5	14,704	0.4	318,386	0.7
2015	1,336	0.2	14,730	0.2	320,743	0.7
2016	1,342	0.4	14,759	0.2	323,071	0.7
2017	1,350	0.6	14,803	0.3	325,147	0.6
2018	1,356	0.4	14,853	0.3	327,167	0.6
Percent Change:						
2008-2018		3.1%		3.6%		7.6%
2013-2018		2.3%		1.4%		3.5%

Source: U.S. Census Bureau.

Personal Income

The State's per capita personal income increased 33.8% between 2008 and 2018 (as contrasted with an increase of 30.5% in the per capita personal income for the United States and a 31.3% increase for the New England region). The State's per capita personal income ranked 7th in 2018 with \$61,405 or 114.3% of the national average. The State's total personal income for 2018 was \$83.29 billion. The following table sets forth information on personal income for New Hampshire, New England and the United States since 2008.

**Comparisons of New Hampshire Personal Income
to New England and United States, 2008-2018**

<u>Year</u>	<u>New Hampshire Total Personal Income (In Millions)</u>	<u>Per Capita Personal Income</u>			<u>Percent Change</u>			<u>New Hampshire Per Capita Personal Income Ranking⁽¹⁾</u>
		<u>New Hampshire</u>	<u>New England</u>	<u>United States</u>	<u>New Hampshire</u>	<u>New England</u>	<u>United States</u>	
2008	60,396	\$45,897	\$51,012	\$40,904	2.3%	3.7%	2.7%	8
2009	59,597	45,283	50,158	39,284	(1.3)	(1.7)	(4.0)	7
2010	62,306	47,317	52,147	40,546	4.5	4.0	3.2	7
2011	65,443	49,585	54,135	42,735	4.8	3.8	5.4	8
2012	68,558	51,782	55,833	44,599	4.4	3.1	4.4	9
2013	68,117	51,354	55,548	44,851	(0.8)	(0.5)	0.6	9
2014	70,507	52,884	57,933	47,060	3.0	4.3	4.9	9
2015	73,430	54,950	60,617	48,985	3.9	4.6	4.1	9
2016	76,247	56,800	62,026	49,883	3.4	2.3	1.8	7
2017	80,122	59,360	64,334	51,731	4.5	3.7	3.7	7
2018	83,293	61,405	66,592	53,712	3.4	3.5	3.8	7

Source: U.S. Department of Commerce, Bureau of Economic Analysis.

⁽¹⁾ Does not include the District of Columbia.

Civilian Labor Force, Employment and Unemployment

Average annual employment growth rate in New Hampshire tracked that of the greater region but was lower than the national growth rate from 2008 to 2018. The following table sets forth the level of employment in New Hampshire, the other New England states and the United States.

Employment in New Hampshire, New England States and the United States

	<u>Employment (In Thousands)</u>		<u>Average Annual Growth</u>
	<u>2008</u>	<u>2018</u>	<u>2008-2018</u>
New Hampshire.....	714	743	0.40%
Connecticut.....	1,775	1,827	0.29
Maine.....	663	675	0.18
Massachusetts.....	3,261	3,678	1.21
Rhode Island.....	526	533	0.13
Vermont.....	338	337	(0.03)
New England.....	7,278	7,793	0.69
United States.....	137,241	149,074	0.84

Source: U.S. Department of Labor, Bureau of Labor Statistics, Local Area Unemployment Statistics Division.

In the last ten years, New Hampshire's annual unemployment rate was lower than the rates for New England and the United States. The table below sets forth information on the civilian labor force, employment and unemployment statistics since 2008.

Labor Force Trends (Not Seasonally Adjusted) New Hampshire Labor Force (In Thousands)				Unemployment Rate		
<u>Year</u>	<u>Civilian Labor Force</u>	<u>Employed</u>	<u>Unemployed</u>	<u>New Hampshire</u>	<u>New England</u>	<u>United States</u>
2008	743	714	29	3.9%	5.5%	5.8%
2009	744	698	46	6.2	8.0	9.3
2010	738	695	43	5.8	8.4	9.7
2011	736	697	40	5.4	7.7	9.0
2012	741	700	41	5.5	7.2	8.1
2013	741	704	38	5.1	6.9	7.4
2014	743	712	32	4.3	5.9	6.2
2015	745	720	25	3.4	4.9	5.3
2016	751	730	21	2.9	4.1	4.9
2017	754	734	20	2.7	3.9	4.4
2018	762	743	19	2.5	3.5	3.9

Source: U.S. Department of Labor, Bureau of Labor Statistics, Local Area Unemployment Statistics Division.

Composition of Employment

The service sector was the largest employment sector in New Hampshire in 2018, accounting for 46.8% of nonagricultural employment, as compared to 42.0% in 2008. This sector surpassed retail and wholesale trade as the primary economic activity of New Hampshire in 1991. This upward trend in service sector employment parallels the shift in the national economy, where services was the largest employment sector, accounting for 46.7% of employment in 2018, up from 43.0% in 2008.

The second largest employment sector in New Hampshire during 2018 was wholesale and retail trade, accounting for 18.0% of total employment as compared to 14.5% nationally. In 2008, wholesale and retail trade accounted for 19.2% of total employment in New Hampshire.

Manufacturing remains an important economic activity in New Hampshire although the percentage has dropped in recent years. Manufacturing accounted for 10.4% of nonagricultural employment in 2018, down from 11.7% in 2008. For the United States as a whole, manufacturing accounted for 8.5% of nonagricultural employment in 2018, versus 9.8% in 2008. The following table sets out the composition of nonagricultural employment in the State and the United States.

Composition of Nonagricultural Employment in New Hampshire and the United States

	New Hampshire		United States	
	<u>2008</u>	<u>2018</u>	<u>2008</u>	<u>2018</u>
Manufacturing	11.7%	10.4%	9.8%	8.5%
Durable Goods	8.9	7.7	6.2	5.3
Nondurable Goods	2.8	2.6	3.6	3.2
Nonmanufacturing	88.3	89.6	90.2	91.5
Construction & Mining	4.2	4.1	5.8	5.4
Wholesale and Retail Trade	19.2	18.0	15.4	14.5
Service Industries	42.0	46.8	43.0	46.7
Government	14.7	13.2	16.4	15.1
Finance, Insurance & Real Estate	5.9	5.1	6.0	5.7
Transportation & Public Utilities	2.3	2.5	3.7	4.0

Source: U.S. Department of Labor, Bureau of Labor Statistics.

Largest Employers

The following table lists the twenty largest employers in the State (based on number of employees) and their approximate number of employees presented in the New Hampshire Business Review Book of Lists 2019.

Largest Employers

	<u>Company</u>	<u>Employees</u>	<u>Primary New Hampshire Site</u>	<u>Principal Product</u>
1.	Dartmouth Hitchcock.	9,790	Lebanon	Acute Care Hospital
2.	DeMoulas & Market Basket	9,000	Nashua	Supermarket
3.	Wal-Mart Stores Inc.	7,886	Bedford	Retail Department Store
4.	BAE Systems Electronic Systems	6,000	Nashua	Aerospace, Defense & Information Security
5.	Hannaford (Delhaize Group)	5,300	Manchester	Supermarket
6.	Fidelity Investments	5,200	Merrimack	Financial Services
7.	Liberty Mutual - Northern N.E. Division	5,058	Bedford	Insurance
8.	Elliot Hospital	4,000	Manchester	Acute Care Hospital
9.	Dartmouth College	3,741	Hanover	Private College
10.	Concord Hospital	3,492	Concord	Acute Care Hospital
11.	Catholic Medical Center	3,050	Manchester	Acute Care Hospital
12.	Southern New Hampshire Medical Center	2,723	Nashua	Acute Care Hospital
13.	Shaws Supermarkets Inc.	2,619	Stratham	Supermarket
14.	Home Depot	2,571	Manchester	Hardware Store
15.	Connection	2,505	Merrimack	Technology
16.	Wentworth-Douglass Hospital	2,500	Dover	Acute Care Hospital
17.	Genesis HealthCare	2,378	Concord	Long-Term Health Care
18.	Southern New Hampshire University	2,093	Manchester	Private College
19.	Eversource	1,800	Manchester	Electric Utility
20.	SIG Sauer Inc.	1,800	Portsmouth	Firearms Manufacturer

Source: *New Hampshire Business Review*, Book of Lists 2019.

State and Local Taxation

The State finances its operations through a combination of specialized taxes, user charges and revenues received from the State liquor sales and distribution system. The most important taxes are the business profits and business enterprise taxes and a meals and rooms tax. The State does not levy any personal earned income tax or general sales tax but does impose a tax on interest and dividends. The State believes its tax structure has played an important role in the State's economic growth.

New Hampshire has generally been the highest among all states in local property tax collections per \$1,000 of personal income, because local property taxes were traditionally the principal source of funding for primary and secondary education.

Housing

According to the 2017 American Community Survey 5-year estimates, housing units in the State numbered 627,619, of which 83.9% were occupied. The tenure of occupied housing units in the State was 70.7% owner occupied and 29.3% renter occupied. According to the New Hampshire Housing Finance Authority's latest housing data release, the median purchase price of all primary homes sold in 2018 was \$254,000, an increase of 5.8% from 2017. The median price for primary non-condominium homes sold in 2018 was \$268,933, an increase of 5.5% from 2017.

The table below sets forth housing prices and rents in recent years.

Housing Statistics
Median Purchase Price and Median Gross Rent

	Owner-Occupied Non-Condominium Housing Unit <u>Median Purchase Price</u>	Percent <u>Change</u>	Renter-Occupied Housing Unit Median <u>Gross Rent</u> ⁽¹⁾	Percent <u>Change</u>
2007	\$269,900	1.8%	\$946	1.9%
2008	250,000	(7.4)	969	2.4
2009	217,000	(13.2)	969	0.0
2010	223,500	3.0	980	1.1
2011	214,400	(4.1)	984	0.3
2012	212,500	(0.9)	1,005	2.2
2013	227,500	7.1	1,018	1.3
2014	229,933	1.1	1,037	1.9
2015	233,533	1.6	1,069	3.1
2016	242,400	3.8	1,113	4.1
2017	255,000	5.2	1,143	2.7
2018	268,933	5.5	1,177	3.0

Source: New Hampshire Housing Finance Authority.

⁽¹⁾ Includes utilities.

Building Activity

The pattern of building activity in New Hampshire in recent years, as evidenced by the issuance of residential building permits, has generally paralleled that of the New England region. Since, 2012 and onwards, the number of permits and dollar value had increased significantly throughout the state, New England, and the nation, averaging 6.8% to 11.6% growth. Further, property valuation has grown nearly every year since 2012. The state has averaged 12.7% growth in valuation, New England 8.7% and the nation 11.6%. New Hampshire is leading the region and nation on average in permit and valuation growth.

Building Permits Issued
By Number of Units and New Unit Valuation
(Value in millions)

	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
New Hampshire							
Single Family	1,682	2,136	2,190	2,424	2,680	2,711	2,710
Multi-Family	<u>614</u>	<u>652</u>	<u>1,215</u>	<u>1,339</u>	<u>1,116</u>	<u>914</u>	<u>1,735</u>
Total	2,296	2,788	3,405	3,763	3,796	3,625	4,445
Value	\$426	\$566	\$654	\$737	\$760	\$758	\$875
New England							
Single Family	14,186	16,670	16,754	16,412	17,935	18,016	18,159
Multi-Family	<u>8,923</u>	<u>11,965</u>	<u>12,195</u>	<u>17,547</u>	<u>14,660</u>	<u>15,144</u>	<u>16,216</u>
Total	23,109	28,635	28,949	33,959	32,595	33,160	34,375
Value	\$4,675	\$6,567	\$6,191	\$7,228	\$7,232	\$7,437	\$7,730
United States							
Single Family	518,695	620,802	640,318	695,998	750,796	819,976	855,322
Multi-Family	<u>310,963</u>	<u>370,020</u>	<u>411,806</u>	<u>486,584</u>	<u>455,846</u>	<u>462,001</u>	<u>473,495</u>
Total	829,658	990,822	1,052,124	1,182,582	1,206,642	1,281,977	1,328,827
Value	\$140,425	\$177,656	\$194,350	\$223,611	\$237,102	\$258,505	\$271,120

Source: U.S. Census Bureau.

Transportation

New Hampshire has more than 4,600 miles of State and federal highways. In 1986, the State Legislature enacted a highway plan to serve as a guideline for highway development in the State. A major component of the 1986 highway plan legislation as amended to date provides for continued development of the State's Turnpike System. Since December 2009, the State has issued \$306 million of its Turnpike System revenue bonds to finance capital improvements to the Turnpike System. The State has also issued \$178.25 million of Federal Highway Grant Anticipation ("GARVEE") Bonds since November 2010 to finance a portion of the costs of improvements to Interstate 93 from the Massachusetts border to Manchester. Effective July 1, 2014, State law authorized the use of a 4.2 cent increase in motor vehicle fuel fees (referred to as a "road toll" in New Hampshire law) to fund \$200 million in general obligation bonds or revenue bonds or both to complete the I-93 Salem to Manchester widening project. The State entered into a \$200 million Federal Transportation Infrastructure Finance and Innovation Act (TIFIA) loan in May, 2016. The TIFIA loan, which has a favorable 1.09% interest rate, will allow the Department to perform additional bridge repair and pavement maintenance and completion of the I-93 project within the time frame of the law. The road toll increase will expire once all debt service payments for the I-93 project have been made or 20 years after the initial issuance of such bonds, whichever is earlier. The TIFIA financing is scheduled to fully amortize by June 2034.

There are twenty-five airports open to the public in the State, of which three have scheduled air service (Manchester, Portsmouth, and Lebanon), and twenty-two serve general aviation. Manchester-Boston Regional Airport, the State's largest commercial passenger and air cargo airport, has grown from 427,657 enplanements in fiscal year 1994 to 978,216 enplanements in fiscal year 2018. The airport experienced a 0.7% decrease in enplanements in fiscal year 2018 as compared with fiscal year 2017. Manchester-Boston Regional Airport is the third largest cargo airport in New England. Air cargo activity remained strong in fiscal year 2018, with the airport processing approximately 180 million pounds of air cargo.

During the past two decades, Manchester-Boston Regional Airport has undertaken a number of expansion, improvement and renovation projects. The new terminal project in 1992 was financed with bonds guaranteed by the State (and subsequently refunded and paid in 2002), while other projects have been financed by the City of Manchester through the issuance of airport revenue bonds both for new money and refunding purposes. These projects were designed to keep airport facilities and infrastructure updated and to enhance the airport's capacity for increased passenger and freight traffic in the future. In June 2018, Chapter 287, Laws of 2018, made changes to aircraft registration fees effective January 1, 2019. The revised registration fees are currently anticipated to reduce General Fund revenue by \$350,000 in fiscal year 2019 and \$700,000 in fiscal year 2020. The State expects to have a better understanding of the decrease in aircraft registration revenue at the end of calendar year 2019, the first full year of aircraft registrations with the revised fees.

Rail freight service is provided by eight railroads. The Portsmouth Harbor is an important commercial shipping center that can accommodate deep-draft vessels. The State Port Authority Marine Terminal is located on Noble's Island in Portsmouth Harbor.

Chapter 291, Laws of 2018 (HB 267), which became effective August 24, 2018, repealed the legislation that created the New Hampshire Rail Transit Authority ("NHRTA") and further repurposed the NHRTA into the New Hampshire Transportation Council. The Council's purpose is to study and evaluate alternative modes of transportation including but not limited to new technologies, bus, rail, highway, marine, and air transportation. As currently established, the New Hampshire Transportation Council does not have authority to issue bonds.

Education

New Hampshire provides a mix of public and private educational opportunities. The education function of the State is carried out through the State Board of Education, the Department of Education and the University System of New Hampshire. The State Board and the Department of Education provide curriculum guidance and administrative support to 176 public school districts ranging in grades from kindergarten through grade twelve. In addition to public education, there are numerous private preparatory schools in the State, including Phillips Exeter Academy in Exeter and St. Paul's School in Concord.

At the university level, the State offers undergraduate and graduate programs in liberal arts and various sciences through the University System of New Hampshire, which includes the University of New Hampshire, Keene State College, Plymouth State University and Granite State College. The State also supports a network of seven community colleges through the Community College System of New Hampshire located throughout the State. The Community Colleges offer a two-year associates degree and a variety of certificates in approximately 100 different industrial, business and health programs. In addition to the state-supported University System of New Hampshire and Community College System of New Hampshire, twenty higher educational institutions (17 non-profit and 3 private for-profit) are also located in New Hampshire, including Dartmouth College in Hanover. Since 1983, over 50% of New Hampshire high school graduates have continued their education beyond the high school level.

As the following table indicates, as of 2017 the educational level of New Hampshire residents over the age of 25 was higher than that of the nation as a whole.

<u>Level of Education</u>	<u>2007</u> ⁽¹⁾		<u>2017</u> ⁽²⁾	
	<u>New Hampshire</u>	<u>United States</u>	<u>New Hampshire</u>	<u>United States</u>
9-11 years	97.1%	93.6%	98.1%	94.9%
12 years	90.5	84.5	93.0	88.0
1-3 years post-secondary	59.5	54.4	65.0	60.9
4 or more years post-secondary	32.5	27.5	36.9	32.0

⁽¹⁾ Source: U.S. Census Bureau, 2007 American Community Survey Estimates

⁽²⁾ Source: U.S. Census Bureau, 2017 American Community Survey 1-Year Estimates

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APPENDIX C

**TURNPIKE SYSTEM AUDITED FINANCIAL STATEMENTS
FISCAL YEAR 2018**

(Included by Reference and Filed with the
Municipal Securities Rulemaking Board through its
Electronic Municipal Market Access website)

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FORM OF CONTINUING DISCLOSURE CERTIFICATE

This Continuing Disclosure Certificate (the “Disclosure Certificate”) is executed and delivered by the State of New Hampshire (the “State”) in connection with the issuance of its \$40,840,000 Turnpike System Revenue Bonds, 2019 Refunding Series, dated their date of delivery (the “Bonds”). The Bonds are being issued pursuant to the General Bond Resolution of the State authorizing the issuance of State of New Hampshire Turnpike System Revenue Bonds, adopted November 9, 1987, as amended and supplemented to date (the “Resolution”). The State covenants and agrees as follows:

SECTION 1. Purpose of the Disclosure Certificate. This Disclosure Certificate is being executed and delivered by the State for the benefit of the Owners of the Bonds and in order to assist the Participating Underwriters in complying with the Rule.

SECTION 2. Definitions. In addition to the definitions set forth in the Resolution which apply to any capitalized term used in this Disclosure Certificate, the following capitalized terms shall have the following meanings:

“Annual Report” shall mean any Annual Report provided by the State pursuant to, and as described in, Sections 3 and 4 of this Disclosure Certificate.

“Final Official Statement” means the official statement of the State dated October 31, 2019, prepared in connection with the Bonds.

“Listed Events” shall mean any of the events listed in Section 5(a) of this Disclosure Certificate.

“MSRB” means the Municipal Securities Rulemaking Board established pursuant to Section 15B(b)(1) of the Securities Exchange Act of 1934, or any successor thereto or to the functions of the MSRB contemplated by this Disclosure Certificate. Until otherwise designated by the MSRB or the Securities and Exchange Commission, filings with the MSRB are to be made through the Electronic Municipal Market Access (EMMA) website of the MSRB, currently located at <http://emma.msrb.org>. “Owners of the Bonds” shall mean the registered owners, including beneficial owners, of the Bonds.

“Owners of the Bonds” shall mean the registered owners, including beneficial owners, of the Bonds.

“Participating Underwriter” shall mean any of the original underwriters of the Bonds required to comply with the Rule in connection with offering of the Bonds.

“Rule” shall mean Rule 15c2-12 adopted by the Securities and Exchange Commission under the Securities Exchange Act of 1934, as the same may be amended from time to time.

SECTION 3. Provision of Annual Reports.

(a) The State shall, not later than 240 days after the end of each fiscal year, provide to the MSRB an Annual Report which is consistent with the requirements of Section 4 of this Disclosure Certificate. The Annual Report may be submitted as a single document or as separate documents comprising a package, and may cross-reference other information as provided in Section 4 of this Disclosure Certificate; provided that the audited financial statements of the State may be submitted when available separately from the balance of the Annual Report.

(b) If the State is unable to provide to the MSRB an Annual Report by the date required in subsection (a), the State shall timely send a notice to the MSRB in substantially the form attached as Exhibit A.

SECTION 4. Content of Annual Reports. The State’s Annual Report shall contain or incorporate by reference the following:

(a) to the extent not included in the financial statements described in (b) below, the financial information and operating data for the preceding fiscal year of the type included in the information appearing in the Final Official Statement under the headings *The Turnpike System – General Description* with respect to the first paragraph under such heading on page 21, - *Maintenance of the Turnpike System* with respect to the table captioned *Renewal and Replacement Expenditures* on page 26, - *Toll Rates* with respect to the table captioned *Turnpike System Toll Rate Schedule* on page 35, - *Turnpike System – Historical Revenues and Expenditures* with respect to the table captioned *Statement of Revenues, Expenses and Changes in Net Assets* on page 36, - *Management Discussion of Historical Revenues and Expenditures* (only with respect to the preceding fiscal year) on pages 37 and 38, *Turnpike System Indebtedness* with respect to the table captioned *Turnpike System Debt Service* on page 45, and *Capital Improvement Program* with respect to the tables captioned *Project Descriptions* on pages 47 through 49 and *Capital Improvement Program Expenditures* on page 50; provided, however, that references to the Final Official Statement for the Bonds as a means of identifying such financial information and operating data shall not prevent the State from reorganizing such material in subsequent official statements or annual information reports, and

(b) the most recently available audited financial statements of the State pertaining to the Turnpike System, prepared in accordance with generally accepted accounting principles.

If audited financial statements of the State pertaining to the Turnpike System for the preceding fiscal year are not available when the Annual Report is submitted, the Annual Report will include unaudited financial statements for the preceding fiscal year.

Any or all of the items listed above may be incorporated by reference from other documents, including official statements of debt issues with respect to which the State is an “obligated person” (as defined by the Rule), which (i) are available to the public on the MSRB internet website, or (ii) have been filed with the Securities and Exchange Commission. The State shall clearly identify each such other document so incorporated by reference.

The State reserves the right (i) to provide financial statements which are not audited if no longer required by law, (ii) to modify from time to time the format of the presentation of such information or date, and (iii) to modify the accounting principles it follows to the extent required by law, by changes in generally accepted accounting principles, or by changes in mandated State statutory principles as in effect from time to time; provided that the State agrees that the exercise of any such right will be done in a manner consistent with the Rule.

SECTION 5. Reporting of Significant Events.

(a) The State shall give notice, in accordance with subsection 5(b) below, of the occurrence of any of the following events with respect to the Bonds:

1. principal and interest payment delinquencies;
2. non-payment related defaults, if material;
3. unscheduled draws on the debt service reserves reflecting financial difficulties;
4. unscheduled draws on the credit enhancements reflecting financial difficulties;
5. substitution of the credit or liquidity providers or their failure to perform;
6. adverse tax opinions, the issuance by the Internal Revenue Service of proposed or final determination of taxability, Notices of Proposed Issue (IRS Form 5701-TEB) or other material notices or determinations with respect to the tax status of the Bonds, or other material events affecting the tax status of the Bonds;
7. modifications to rights of Bondholders, if material;
8. (i) bonds calls, if material, and (ii) tender offers;
9. defeasances;

10. release, substitution or sale of property securing repayment of the Bonds, if material;
11. rating changes;
12. bankruptcy, insolvency, receivership or similar event of the State*;
13. the consummation of a merger, consolidation, or acquisition involving the State or the sale of all or substantially all of the assets of the State, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms, if material;
14. appointment of a successor or additional trustee or the change of name of a trustee, if material;
15. incurrence of a financial obligation of the State, if material, or agreement to covenants, events of default, remedies, priority rights, or other similar terms of a financial obligation of the State, any of which affect Bondholders, if material; and
16. default, event of acceleration, termination event, modification of terms, or other similar events under the terms of a financial obligation of the State, any of which reflect financial difficulties.[†]

(b) Upon the occurrence of a Listed Event described in subsections (a)(2), (7), (8)(i), (10), (13), (14) or (15), the State shall as soon as possible determine if such event is material under applicable federal securities laws.

(c) Upon the occurrence of a Listed Event, the State shall, in a timely manner not in excess of ten (10) business days after the occurrence of the event, file a notice of such occurrence with the MSRB.

SECTION 6. Transmission of Information and Notices. Unless otherwise required by law, all notices, documents and information provided to the MSRB shall be provided in electronic format as prescribed by the MSRB and shall be accompanied by identifying information as prescribed by the MSRB.

SECTION 7. Amendment; Waiver. Notwithstanding any other provision of this Disclosure Certificate, the State may amend this Disclosure Certificate and any provision of this Disclosure Certificate may be waived if such amendment or waiver is permitted by the Rule, as evidenced by an opinion of counsel expert in federal securities law (which may also include bond counsel to the State), to the effect that such amendment or waiver would not cause the Disclosure Certificate to violate the Rule. The first Annual Report filed after enactment of any amendment to or waiver of this Disclosure Certificate shall explain, in narrative form, the reasons for the amendment or waiver and the impact of the change in the type of information being provided in the Annual Report.

If the amendment provides for a change in the accounting principles to be followed in preparing financial statements, the Annual Report for the year in which the change is made shall present a comparison between the financial statements or information prepared on the basis of the new accounting principles and those prepared on the basis of the former accounting principles. The comparison shall include a qualitative discussion of the differences in the accounting principles and the impact of the change in the accounting principles on the presentation of the financial information in order to provide information to investors to enable them to evaluate the ability of the State

* As noted in the Rule, this event is considered to occur when any of the following occur: (i) the appointment of a receiver, fiscal agent or similar officer for the State in a proceeding under the U.S. Bankruptcy Code or in any proceeding under state or federal law in which a court or governmental authority has assumed jurisdiction over substantially all of the assets or business of the State, or if such jurisdiction has been assumed by leaving the existing governing body and officials or officers in possession but subject to the supervision and orders of a court or governmental authority, or (ii) the entry of an order confirming a plan of reorganization, arrangement or liquidation by a court or governmental authority having supervision or jurisdiction over substantially all of the assets or business of the State.

[†] For purposes of event numbers (15) and (16) in Section 5(a) of the Disclosure Certificate, the term “financial obligation” means a (i) debt obligation; (ii) derivative instrument entered into in connection with, or pledged as security or a source of payment for, an existing or planned debt obligation; or (iii) guarantee of (i) or (ii). The term “financial obligation” excludes municipal securities for which a final official statement has been provided to the MSRB consistent with the Rule.

to meet its obligations. To the extent reasonably feasible, the comparison shall also be quantitative. A notice of the change in the accounting principles shall be sent to the MSRB.

SECTION 8. Additional Information. Nothing in this Disclosure Certificate shall be deemed to prevent the State from disseminating any other information, using the means of dissemination set forth in this Disclosure Certificate or any other means of communication, or including any other information in any Annual Report or notice of occurrence of a Listed Event, in addition to that which is required by this Disclosure Certificate. If the State chooses to include any information in any Annual Report or notice of occurrence of a Listed Event in addition to that which is specifically required by this Disclosure Certificate, the State shall have no obligation under this Certificate to update such information or include it in any future Annual Report or notice of occurrence of a Listed Event.

SECTION 9. Default. The State acknowledges that its undertakings set forth in this Disclosure Certificate are intended to be for the benefit of, and enforceable by, the beneficial owners from time to time of the Bonds. In the event the State shall fail to perform its duties hereunder, the State shall have the option to cure such failure within a reasonable time (but not exceeding 30 days with respect to the undertakings set forth in Section 3(a) of this Disclosure Certificate or five business days with respect to the undertakings set forth in Sections 3(b) and 5 of this Disclosure Certificate) from the time the State receives written notice of such failure from any beneficial owner of the Bonds. The present address of the State is State of New Hampshire, 25 Capitol Street, Room 121, Concord, New Hampshire 03301, attention: State Treasurer.

In the event the State does not cure such failure in the time specified above, the Trustee may (and, at the request of beneficial owners representing at least 25% in aggregate principal amount of Outstanding Bonds, and upon receipt of indemnification satisfactory to the Trustee, shall), take such actions as may be necessary and appropriate, including seeking specific performance by court order, to cause the State to comply with its obligations under this Disclosure Certificate. Without regard to the foregoing, any beneficial owner may take such actions as may be necessary and appropriate, including seeking specific performance by court order, to cause the State to comply with its obligations under this Disclosure Certificate. A default under this Disclosure Certificate shall not be deemed an Event of Default under the Resolution, and the sole remedy under this Disclosure Certificate in the event of any failure of the State to comply with this Disclosure Certificate shall be an action to compel performance. The State expressly acknowledges and the beneficial owners are hereby deemed to expressly agree that no monetary damages shall arise or be payable hereunder nor shall any failure to comply with this Disclosure Certificate constitute an event of default with respect to the Bonds.

SECTION 10. Beneficiaries. This Disclosure Certificate shall inure solely to the benefit of the Owners of the Bonds from time to time, and shall create no rights in any other person or entity.

Date: November 14, 2019

STATE OF NEW HAMPSHIRE

By: _____
State Treasurer

Governor

Commissioner of Department of
Transportation

(Exhibit A: Form of Notice of Failure to File Annual Report)
(Exhibit B: Filing Information Relating to the Municipal Securities Rulemaking Board)

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PROPOSED FORM OF OPINION



111 Huntington Avenue
9th Floor
Boston, MA 02199-7613
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www.lockelord.com

[Date of Delivery]

The Honorable William F. Dwyer
State Treasurer
State House Annex
Concord, New Hampshire 03301

\$40,840,000
State of New Hampshire
Turnpike System Revenue Bonds
2019 Refunding Series
Dated Date of Delivery

We have acted as Bond Counsel to the State of New Hampshire (the “State”) in connection with the issuance by the State of the above-referenced Bonds (the “Bonds”). In such capacity, we have examined the law and such certified proceedings and other papers as we have deemed necessary to render this opinion.

The Bonds are issued pursuant to Chapter 237-A of the New Hampshire Revised Statutes Annotated (the “Act”) and a General Bond Resolution of the State adopted by the Governor and Council on November 9, 1987, as heretofore supplemented and amended (the “Resolution”).

As to questions of fact material to our opinion we have relied upon representations and covenants of the State contained in the Resolution and in the certified proceedings and other certifications of public officials furnished to us, without undertaking to verify the same by independent investigation.

Based on our examination, we are of the opinion, under existing law, as follows:

1. The State has the legal right and authority to adopt the Resolution and to issue the Bonds.
2. The Resolution has been duly adopted by the State and is in full force and effect and constitutes a valid and binding obligation of the State enforceable in accordance with its terms.
3. Pursuant to the Act, the Resolution provides for the benefit of the owners from time to time of the Bonds a valid and binding pledge of and lien on the Revenues (as defined in the Resolution) and moneys and securities on deposit from time to time in all accounts and subaccounts established by or pursuant to the Resolution, other than the Rebate Account, on a parity with other bonds to be issued under the Resolution, after payment of Operating Expenses (as so defined).
4. The Bonds have been duly authorized, executed and delivered by the State, have been duly authenticated and delivered under the Resolution and constitute valid and binding special obligations of the State, enforceable in accordance with their terms.

5. Interest on the Bonds is exempt from the New Hampshire personal income tax on interest and dividends. We express no opinion regarding any other New Hampshire tax consequences arising with respect to the Bonds or any tax consequences arising with respect to the Bonds under the laws of any state other than New Hampshire.
6. Interest on the Bonds is excluded from the gross income of the owners of the Bonds for federal income tax purposes. In addition, interest on the Bonds is not a specific preference item for purposes of the federal individual alternative minimum tax. In rendering the opinions set forth in this paragraph, we have assumed compliance by the State with all requirements of the Internal Revenue Code of 1986 that must be satisfied subsequent to the issuance of the Bonds in order that interest thereon be, and continue to be, excluded from gross income for federal income tax purposes. The State has covenanted to comply with all such requirements. Failure by the State to comply with certain of such requirements may cause interest on the Bonds to become included in gross income for federal income tax purposes retroactive to the date of issuance of the Bonds. We express no opinion regarding any other federal tax consequences arising with respect to the Bonds.

This opinion is expressed as of the date hereof, and we neither assume nor undertake any obligation to update, revise, supplement or restate this opinion to reflect any action taken or omitted, or any facts or circumstances or changes in law or in the interpretation thereof, that may hereafter arise or occur, or for any other reason.

The rights of the holders of the Bonds and the enforceability of the Bonds and the Resolution are subject to bankruptcy, insolvency, reorganization, moratorium and other similar laws affecting creditors' rights heretofore or hereafter enacted to the extent constitutionally applicable and their enforcement may also be subject to the exercise of judicial discretion in appropriate cases.

LOCKE LORD LLP

GLOSSARY OF TERMS

The following is a list of summary definitions of certain capitalized terms used in this Official Statement.

“Act” means Chapter 237-A of the New Hampshire Revised Statutes Annotated, as amended.

“Additional Bonds” means Bonds other than the Turnpike System Revenue Bonds, 1987 Series issued under the Bond Resolution.

“Annual Budget” means the annual operating budget adopted in accordance with the Bond Resolution.

“Authorized Officer” means the Commissioner or the Assistant Commissioner of the Department of Transportation of the State or their successors or delegates.

“Bondholders” means the registered owner of the Bonds from time to time as shown in the books kept by the bond registrar.

“Bond Resolution” means the general bond resolution adopted by the Governor and Executive Council of the State on November 9, 1987, as amended and supplemented by Supplemental Resolutions dated November 9, 1987, March 21, 1990, March 27, 1991, August 12, 1992, February 9, 1994, February 3, 1999, August 31, 2001, June 4, 2003, June 25, 2003, November 2, 2005, October 21, 2009, June 22, 2011, February 8, 2012, June 20, 2012, April 22, 2015 and June 19, 2019 and as further amended and supplemented from time to time by Supplemental Resolutions.

“Bonds” means the Turnpike System Revenue Bonds issued from time to time under the Bond Resolution and any Bond or Bonds issued in exchange for or replacement of a previously issued Bond.

“Capital Improvement Program” means the multi-year program authorized by the New Hampshire Legislature in 1986, as subsequently amended and supplemented.

“Completion Date” means the date on which a Project is first ready for normal continuous operation as determined by an Authorized Officer. If a Project consists of more than one portion, the Completion Date of the Project is the latest Completion Date of any portion of the Project.

“Construction Account” means the Turnpike System Revenue Bond Construction Account established by the Bond Resolution.

“Debt Service” means with respect to each Fiscal Year or other period the aggregate of the amounts to be set aside (or estimated to be required to be set aside) in the Debt Service Account pursuant to the Bond Resolution in the Fiscal Year or other period for the payment of the principal and sinking fund installments of and interest on Bonds, excluding debt service paid or to be paid from Bond proceeds or from any subsidy from the United States of America for the purpose.

“Debt Service Account” means the Turnpike System Revenue Bond Debt Service Account established by the Bond Resolution.

“Debt Service Reserve Account” means the Turnpike System Revenue Bond Debt Service Reserve Account established by the Bond Resolution.

“Debt Service Reserve Account Requirement” means, as of any date of calculation, an amount equal to the maximum annual Debt Service during the then current or any future Fiscal Year on Outstanding Bonds; provided that in computing such requirement any Option Bonds Outstanding during such Fiscal Year shall be assumed to mature on their stated dates of maturity.

“Defeasance Obligations” means (i) any direct and general obligations of, or any obligations unconditionally guaranteed by, the United States of America, (ii) any obligations of any state or political subdivision of a state (collectively, “Municipal Bonds”) that are fully secured as to principal and interest by an irrevocable pledge of moneys or direct and general obligations of, or obligations unconditionally guaranteed by, the United States of America, which moneys or obligations are segregated in trust and pledged for the benefit of the owners of the Municipal Bonds, and (iii) certificates of ownership of the principal of or interest on direct and general obligations of, or obligations unconditionally guaranteed by, the United States of America, which obligations are held in trust by a commercial bank which is a member of the Federal Reserve System.

“Default” means a Default as defined in the Bond Resolution.

“Event of Default” means an Event of Default as defined in the Bond Resolution.

“Fiscal Year” means the fiscal year of the State with respect to the Turnpike System as established from time to time. The Fiscal Year is now the twelve-month period ending June 30.

“General Reserve Account” means the Turnpike System General Reserve Account established by the Bond Resolution.

“Independent Engineer” means the engineer or engineering firm or firms retained by the State pursuant to the Bond Resolution.

“Insurance Reserve Account” means the Turnpike System Insurance Reserve Account established under the Bond Resolution.

“Insurance Reserve Requirement” means, with respect to any Fiscal Year, the amount required by the Bond Resolution to be on deposit in the Insurance Reserve Account.

“Maximum Interest Rate” shall mean, with respect to any particular Series of Variable Rate Bonds, a numerical rate of interest that shall be the maximum rate of interest that such Variable Rate Bonds may at any particular time bear, as determined under the Supplemental Resolution authorizing such Variable Rate Bonds.

“Net Revenue Requirement” means with respect to each Fiscal Year or other period an amount equal to the greater of: (a) one hundred twenty percent (120%) of Debt Service; or (b) one hundred percent (100%) of Debt Service plus the total amount of principal of and interest on all general obligation or other bonds, notes or other evidences of indebtedness (excluding principal of bond anticipation notes to the extent they are paid or to be paid from proceeds of bonds or other obligations maturing after the end of the Fiscal Year or other period) payable from Revenues during the Fiscal Year or other period and the additional amount, if any, required to be paid from the General Reserve Account to satisfy the Renewal and Replacement Requirement for the Fiscal Year or other period.

“Net Revenues” means the Revenues (excluding (a) proceeds of Bonds and notes issued in anticipation of Bonds or of Revenues and (b) the proceeds of the sale or other disposition of all or any part of the Turnpike System, proceeds of insurance and condemnation awards received with respect to the Turnpike System (other than proceeds of use and occupancy insurance or any other insurance against loss of Revenues) and other items of an extraordinary and non-recurrent nature) after deducting Operating Expenses.

“Operating Expenses” means the ordinary costs and expenses of the State for the operation, maintenance and repair of the Turnpike System, including working capital as provided in the Bond Resolution. Operating Expenses do not include the principal of and interest on bonds, notes or other evidences of indebtedness issued by the State for the purposes of the Turnpike System. Operating Expenses also do not include Renewal and Replacement Costs and depreciation.

“Option Bonds” means Bonds which by their terms may be tendered by and at the option of the Bondholder for payment by the State prior to the stated maturity thereof, or the maturities of which may be extended by and at the option of the Bondholder.

“Original Issue Discount Bonds” means bonds originally reoffered to the public at a price (excluding accrued interest) of less than 98% of their principal amount.

“Outstanding”, when used to modify Bonds, refers to Bonds issued under the Bond Resolution, excluding: (a) Bonds which have been exchanged or replaced, or delivered to the Trustee for credit against a principal payment or a sinking fund installment; (b) Bonds which have been paid; (c) Bonds which have been purchased by the Trustee from moneys held under the Bond Resolution; (d) Bonds which have become due and for the payment of which moneys have been duly provided; and (e) Bonds with respect to which the obligations of the State under the Bond Resolution have been discharged or otherwise defeased pursuant to the Bond Resolution.

“Project” means any construction, improvement, extension, addition, alteration, reconstruction, extraordinary repair, dismantling, equipping or reequipping of or to the Turnpike System, or any one or more of the foregoing, which is designated as a Project by Supplemental Resolution.

“Project Costs” means all costs of carrying out a Project and, without limiting the generality of the foregoing, may include (a) preliminary expenses, (b) the cost of acquiring property, franchise, easements, rights-of-way and other property rights necessary or convenient for the Project, (c) engineering architectural and legal expenses, (d) expenses for estimates of cost and revenues, (e) expenses for plans, specifications, traffic estimates, studies and surveys, (f) other expenses incident or necessary to determining the feasibility or practicability of the Project, (g) administrative expenses, (h) construction costs, (i) interest prior to the Completion Date of any Project, (j) the establishment of or contribution to such reserves as may be required by the Bond Resolution, and (k) such other expenses as may be incurred in the financing of the Project or in carrying it out and placing it in operation.

“Rebate Account” means the Turnpike System Revenue Bond Rebate Account established by the Bond Resolution.

“Renewal and Replacement Costs” means costs associated with major reconstruction, rehabilitation, renewals, replacements and extraordinary repairs necessary to the sound operation of the Turnpike System or to prevent the loss of Revenues, but not costs associated with new construction, additions or extensions.

“Renewal and Replacement Requirement” means, with respect to each Fiscal Year, an amount to be set forth in the Annual Budget for Renewal and Replacement Costs for that Fiscal Year.

“Revenue Account” means the Turnpike System Revenue Account established by the Bond Resolution.

“Revenues” means all tolls, rates, fees, charges, receipts or other income derived or to be derived by the State from the ownership or operation of the Turnpike System, and all rights to receive the same. Without limiting the generality of the foregoing, Revenues include rentals, proceeds of insurance or condemnation or other disposition of Turnpike System assets (except as provided below), proceeds of use and occupancy insurance or any other insurance against loss of Revenues, proceeds of bonds issued under the Act for the Turnpike System, proceeds of notes issued in anticipation of operating Revenues (unless set aside to pay notes of the same character), grants, loans and other contributions from any governmental unit (except as provided below) and earnings from the investment of Revenues. Unless otherwise provided by Supplemental Resolution, Revenues do not include the proceeds of other borrowings by the State or the proceeds of grants for limited purposes or of the disposition of property financed by such grants.

“Series” or **“Series of Bonds”** or **“Bonds of a Series”** means a series of Bonds authorized by the Bond Resolution.

“Special Redemption Account” means the Turnpike System Revenue Bond Special Redemption Account established by the Bond Resolution.

“State” means the State of New Hampshire.

“Supplemental Resolution” means a resolution adopted by the Governor and Executive Council under the Bond Resolution.

“Treasurer” means the Treasurer of the State.

“Trustee” means the Trustee appointed pursuant to the Bond Resolution and any successor Trustee.

“Turnpike System” means the complete turnpike system of the State as defined in Chapters 237 and 237-A of the New Hampshire Revised Statutes Annotated, as amended, together with any improvement or addition constructed or acquired after the adoption of the Bond Resolution.

“Variable Rate Bonds” means Bonds issued with a variable, adjustable, convertible or other similar rate that is not fixed in percentage for the entire term of thereof at the date of issue of the Bonds.

NOTICE OF SALE

\$41,935,000*
STATE OF NEW HAMPSHIRE
TURNPIKE SYSTEM REVENUE BONDS
2019 REFUNDING SERIES

Notice is hereby given that electronic bids will be received until 10:15 A.M. (local Concord, New Hampshire time) on Thursday, October 31, 2019 by William F. Dwyer, State Treasurer of the State of New Hampshire, for the purchase of \$41,935,000* State of New Hampshire Turnpike System Revenue Bonds, 2019 Refunding Series (the "Bonds").

Description of the Bonds

The Bonds will be issued only as fully registered bonds in book-entry form. The Bonds will be dated their date of delivery and will be issued in denominations of \$5,000 or any integral multiple thereof. Interest on the Bonds will be calculated on a 30/360 day basis and will be payable semi-annually on May 1 and November 1, commencing May 1, 2020.

Principal on the Bonds will be paid on November 1 in the following years and amounts:

<u>Year</u>	<u>Principal Amount*</u>
2025	\$6,690,000
2026	8,725,000
2027	8,190,000
2028	9,045,000
2029	9,285,000

Authorization and Security

The Bonds are authorized to be issued pursuant to Chapter 237-A of the New Hampshire Revised Statutes Annotated, as amended, and a general bond resolution (the "Bond Resolution") of the State adopted by the Governor and Executive Council of the State ("Governor and Council") on November 9, 1987, as amended and supplemented and as further supplemented by a Supplemental Resolution adopted by the Governor and Council on June 19, 2019.

The Bonds are limited obligations of the State payable solely out of net revenues of the State of New Hampshire Turnpike System and are not general obligations of the State of New Hampshire or any political subdivision thereof, and neither the full faith and credit nor the taxing power of the State of New Hampshire or any political subdivision is pledged for the payment of the Bonds.

Changes to Principal Amounts

The preliminary aggregate principal amount of the Bonds and the preliminary annual principal amounts as set forth in this Notice of Sale (the "Preliminary Aggregate Principal Amount" and the "Preliminary Annual Principal Amounts," respectively, and collectively, the "Preliminary Amounts") may be revised before the date established for submission of electronic bids. **ANY SUCH REVISIONS (THE "REVISED AGGREGATE PRINCIPAL AMOUNT" AND THE "REVISED ANNUAL PRINCIPAL AMOUNTS," RESPECTIVELY, AND COLLECTIVELY, THE "REVISED AMOUNTS") WILL BE PUBLISHED AS AN AMENDMENT TO THE NOTICE OF SALE AND DISTRIBUTED ON MUNIOS.COM NOT LATER THAN 9:00 A.M. (LOCAL CONCORD, NEW HAMPSHIRE TIME) ON THE ANNOUNCED DATE FOR RECEIPT OF BIDS.** In the event that no such revisions are made, the Preliminary Amounts will constitute the Revised Amounts.

* Preliminary, subject to change.

BIDDERS SHALL SUBMIT BIDS BASED ON THE REVISED AMOUNTS AND THE REVISED AMOUNTS WILL BE USED TO COMPARE BIDS AND SELECT A WINNING BIDDER.

After selecting the winning bid, the State will determine the final aggregate principal amount of the Bonds and each final annual principal amount (the “Final Aggregate Principal Amount” and the “Final Annual Principal Amounts,” respectively; and collectively, the “Final Amounts”). The determination will be made in order to meet the State’s desired debt service savings profile. In determining the Final Amounts, the State will not reduce or increase the Revised Aggregate Principal Amount by more than 15 percent of such amount. THE SUCCESSFUL BIDDER MAY NOT WITHDRAW ITS BID OR CHANGE THE INTEREST RATES BID OR THE INITIAL REOFFERING PRICES AS A RESULT OF ANY CHANGES MADE TO THE REVISED AMOUNTS WITHIN THESE LIMITS. The dollar amount bid by the successful bidder will be adjusted to reflect any adjustments in the aggregate principal amount of the Bonds. Such adjusted bid price will reflect changes in the dollar amount of the underwriters, discount and original issue discount/premium, if any, but will not change the selling compensation per \$1,000 of par amount of Bonds from the selling compensation that would have been received based on the purchase price of the winning bid and the initial public offering prices. The interest rate specified by the successful bidder for each maturity at the Initial Reoffering Prices (as defined herein) will not change. The Final Amounts and the adjusted purchase price will be communicated to the successful bidder as soon as possible, but no later than 4:00 P.M. (local Concord, New Hampshire time) on the day of the sale.

Optional Redemption

The Bonds are not subject to optional redemption prior to maturity.

Book-Entry Only

Initially, one bond certificate for each maturity will be issued to The Depository Trust Company, New York, New York (“DTC”) or its nominee, which will be designated as the securities depository for the Bonds. So long as DTC is acting as securities depository for the Bonds, a book-entry system will be employed, evidencing ownership of the Bonds in principal amounts of \$5,000 and multiples thereof, with transfers of ownership effected on the records of DTC and its participants pursuant to rules and procedures established by DTC and its participants. Principal of and interest on the Bonds will be payable to DTC or its nominee as registered owner of the Bonds. Principal of and interest on the Bonds will be payable in lawful money of the United States of America by The Bank of New York Mellon Trust Company, N.A., as Paying Agent. Transfers of principal and interest payments to beneficial owners (the “Beneficial Owners”) will be the responsibility of such participants and other nominees of the Beneficial Owners. The State will not be responsible or liable for maintaining, supervising or reviewing the records maintained by DTC, its participants or persons acting through such participants.

In the event that (a) DTC determines not to continue to act as securities depository for the Bonds, (b) the State determines that DTC is incapable of discharging its duties or that continuation with DTC as securities depository is not in the best interests of the State or (c) the State determines that continuation of the book-entry system of evidence and transfer of ownership of the Bonds is not in the best interests of the State or the Beneficial Owners, the State will discontinue the book-entry system with DTC. If the State fails to identify another qualified securities depository to replace DTC, the State will cause the execution and delivery of replacement bonds in the form of fully registered certificates.

Electronic Bidding Procedures

Proposals to purchase Bonds (all or none) must be submitted electronically via *PARITY*. Bids will be communicated electronically to the State at 10:15 A.M., local Concord, New Hampshire time, on Thursday, October 31, 2019. Prior to that time, a prospective bidder may (1) submit the proposed terms of its bid via *PARITY*, (2) modify the proposed terms of its bid, in which event the proposed terms as last modified will (unless the bid is withdrawn as described herein) constitute its bid for the Bonds or (3) withdraw its proposed bid. Once the bids are communicated electronically via *PARITY* to the State, each bid will constitute an irrevocable offer to purchase the Bonds on the terms therein provided. For purposes of the electronic bidding process, the time as maintained on *PARITY* shall constitute the official time. The State will not accept bids by any means other than electronically via *PARITY*.

Disclaimer

Each prospective bidder shall be solely responsible to submit its bid via *PARITY* as described above. Each prospective bidder shall be solely responsible to make necessary arrangements to access *PARITY* for the purpose of submitting its bid in a timely manner and in compliance with the requirements of the Notice of Sale. Neither the State nor *PARITY* shall have any duty or obligation to provide or assure access to *PARITY* to any prospective bidder, and neither the State nor *PARITY* shall be responsible for proper operation of, or have any liability for any delays or interruptions of, or any damages caused by, *PARITY*. The State is using *PARITY* as a communication mechanism, and not as the State's agent, to conduct the electronic bidding for the Bonds. The State is not bound by any advice and determination of *PARITY* to the effect that any particular bid complies with the terms of this Notice of Sale and in particular the "Bid Specifications" hereinafter set forth. All costs and expenses incurred by prospective bidders in connection with their submission of bids via *PARITY* are the sole responsibility of the bidders; and the State is not responsible, directly or indirectly, for any of such costs or expenses. If a prospective bidder encounters any difficulty in submitting, modifying, or withdrawing a bid for the Bonds, the bidder should telephone *PARITY* at i-Deal (212) 404-8102 and notify the State's Financial Advisor, Public Resources Advisory Group, by facsimile at (212) 566-7816. To the extent any instructions or directions set forth in *PARITY* conflict with this Notice of Sale, the terms of this Notice of Sale shall control. For further information about *PARITY*, potential bidders may contact *PARITY* at i-Deal (212) 404-8102.

Bid Specifications

Bidders should state the rate or rates of interest that the Bonds are to bear, in multiples of 1/8 or 1/20 of one percent. Any number of rates may be named, except that Bonds maturing on the same date must bear interest at the same rate. Bids must be for not less than 100% of the par value of the aggregate principal amount of the Bonds. No interest rate may exceed 4.00% for the 2025 maturity and 5.00% for the 2026 through 2029 maturities, inclusive. No bid for other than all of the Bonds will be accepted.

Term Bonds

Terms Bonds are not permitted.

Bond Insurance

The State has not contracted for the issuance of any policy of municipal bond insurance for the Bonds. If the Bonds qualify for any such policy or commitment therefor, any purchase of such insurance or commitment shall be at the sole option and expense of the successful bidder, and any increased costs of issuance or delivery of the Bonds resulting by reason of such insurance or commitment shall be assumed by such bidder. Bids shall not be conditioned upon the issuance of any such policy or commitment. Any failure of the Bonds to be so insured or of any such policy or commitment to be issued, or any rating downgrade or other material event occurring relating to the issuer of any such policy or commitment, shall not in any way relieve the successful bidder of its contractual obligations arising from the acceptance of its bid for the purchase of the Bonds.

Basis of Award

The Bonds will be awarded to the bidder offering to purchase all of the Bonds at the lowest interest cost to the State. The lowest interest cost shall be determined in accordance with the true interest cost (TIC) method by doubling the semi-annual interest rate (compounded semi-annually) necessary to discount the debt service payments from the payment dates to the date of the Bonds (November 14, 2019) and to the price bid, excluding interest accrued to the date of delivery, if any. If there is more than one such proposal making said offer at the same lowest true interest cost, the Bonds will be sold to the bidder whose proposal is selected by the Treasurer by lot from among all such proposals at the same lowest true interest cost. It is requested that each bid be accompanied by a statement of the true interest cost computed at the interest rate or rates stated in such bid in accordance with the above method of calculation (computed to six decimal places) but such statement will not be considered as a part of the bid.

Bids will be accepted or rejected promptly after receipt and not later than 3:00 P.M. (local Concord, New Hampshire time) on the date of the sale.

The State reserves the right to reject any or all proposals and to reject any proposals not complying with the Notice of Sale. The State also reserves the right, so far as permitted by law, to waive any irregularity or informality with respect to any proposal.

Right to Change the Notice of Sale and to Postpone Offering

The State reserves the right to make changes to the Notice of Sale and also reserves the right to postpone, from time to time, the date and time established for the receipt of bids. ANY SUCH POSTPONEMENT WILL BE ANNOUNCED VIA MuniOS.com NOT LATER THAN 9:00 A.M. (LOCAL CONCORD, NEW HAMPSHIRE TIME) ON THE ANNOUNCED DATE FOR RECEIPT OF BIDS. If any date and time fixed for the receipt of bids and the sale of the Bonds is postponed, an alternative sale date and time will be announced via MuniOS.com at least 48 hours prior to such alternative sale date. On any such alternative sale date and time, any bidder may submit an electronic bid for the purchase of the Bonds in conformity in all respects with the provisions of this Notice of Sale, except for the date and time of sale and except for any changes announced over MuniOS.com at the time the sale date and time are announced.

CUSIP Numbers

It is anticipated that CUSIP identification numbers will be printed on the Bonds. Public Resources Advisory Group, (the “Financial Advisor”) will timely apply for CUSIP numbers with respect to the Bonds as required by MSRB Rule G-34. All expenses in relation to the printing of CUSIP numbers on the Bonds shall be paid for by the State; provided, however, that the CUSIP Service Bureau charge for the assignment of the numbers shall be the responsibility of and shall be paid for by the successful bidder.

Expenses

The State will pay: (i) the cost of the preparation of the Bonds; (ii) the fees and expenses of Bond Counsel, and the Financial Advisor; (iii) the fees of the rating agencies relating to the Bonds, and (iv) the cost of preparation and printing of the Official Statement.

Undertakings of the Successful Bidder

The successful bidder shall make a bona fide public offering of the Bonds and shall, within 30 minutes of being notified of the award of the Bonds, advise the State in writing (via facsimile transmission) of the initial public offering prices of the Bonds (the “Initial Reoffering Prices”). The successful bidder must, by facsimile transmission or delivery received by the State Treasurer within 24 hours after notification of the award, furnish the following information to Bond Counsel to complete the Official Statement in final form, as described below:

- A. Selling compensation (aggregate total anticipated compensation to the underwriters expressed in dollars, based on the expectation that all Bonds are sold at the prices or yields at which the successful bidder advised the State Treasurer that the Bonds were initially offered to the public).
- B. The identity of the underwriters if the successful bidder is part of a group or syndicate.
- C. Any other material information the State Treasurer determines is necessary to complete the Official Statement in final form.

Establishment of Issue Price

The successful bidder shall assist the State in establishing the issue price of the Bonds and shall execute and deliver to the State on the Closing Date an “issue price” or similar certificate, in the applicable form set forth in Exhibit 1 to this Notice of Sale, setting forth the reasonably expected initial offering prices to the public or the sale prices of the Bonds together with the supporting pricing wires or equivalent communications, with such modifications as may be appropriate or necessary in the reasonable judgment of the successful bidder, the State and Bond Counsel and a certification regarding the Debt Service Reserve Account. All actions to be taken by the State under this Notice of Sale to establish the issue price of the Bonds may be taken on behalf of the State by the Financial Advisor and any notice or report to be provided to the State may be provided to the Financial Advisor.

Competitive Sale Requirements. The State expects that the competitive sale requirements (“competitive sale requirements”) set forth in Treasury Regulation § 1.148-1(f)(3)(i) (defining “competitive sale” for purposes of establishing the issue price of the Bonds) will apply to the sale of the Bonds because:

- (1) the State has disseminated this Notice of Sale to potential underwriters in a manner that is reasonably designed to reach potential underwriters;
- (2) all bidders will have an equal opportunity to bid;
- (3) the State may receive bids from at least three underwriters of municipal bonds who have established industry reputations for underwriting new issuances of municipal bonds; and
- (4) the State anticipates awarding the sale of the Bonds to the bidder who submitted a firm offer to purchase the Bonds at the highest price (or lowest interest cost), as set forth in this Notice of Sale.

Any bid submitted pursuant to this Notice of Sale shall be considered a firm offer for the purchase of the Bonds, as specified in the bid. By submitting a bid, each bidder shall be deemed to confirm that it has an established industry reputation for underwriting new issuances of municipal bonds and that it will be an “underwriter” (as defined below) that intends to reoffer the Bonds to the public.

In the event that the competitive sale requirements are not satisfied, the State shall so advise the successful bidder. In this event, the successful bidder may use either Option A or Option B, set forth below.

Failure to Meet the Competitive Sale Requirements – Option A – The 10% Test to Apply. If the competitive sale requirements are not satisfied, the successful bidder may, at its option, use the first price at which 10% of a maturity of the Bonds (the “10% test”) is sold to the public as the issue price of that maturity, applied on a maturity-by-maturity basis, of the Bonds. The successful bidder shall advise the Financial Advisor if any maturity of the Bonds satisfies the 10% test as of the date and time of the award of the Bonds.

If the competitive sale requirements are not satisfied, then until the 10% test has been satisfied as to each maturity of the Bonds or all of the Bonds are sold to the public, the successful bidder agrees to promptly report to the Financial Advisor the prices at which the unsold Bonds of each maturity have been sold to the public, which reporting obligation shall continue, whether or not the Closing Date has occurred, until the 10% test has been satisfied for each maturity of the Bonds or until all the Bonds of a maturity have been sold. The successful bidder shall be obligated to report each sale of Bonds to the Financial Advisor until notified in writing by the State or the Financial Advisor that it no longer needs to do so. If the successful bidder uses Option A, the successful bidder shall provide to the State on or before the Closing Date the certificate attached to this Notice of Sale as Exhibit 1 – Option A.

By submitting a bid and if the competitive sale requirements are not met, each bidder confirms that: (i) any agreement among underwriters, any selling group agreement and each third-party distribution agreement (to which the bidder is a party) relating to the initial sale of the Bonds to the public, together with the related pricing wires, contains or will contain language obligating each underwriter, each dealer who is a member of the selling group, and each broker-dealer that is a party to such third-party distribution agreement, as applicable, to report the prices at which it sells to the public the unsold Bonds of each maturity allotted to it until it is notified by the successful bidder that either the 10% test has been satisfied as to the Bonds of that maturity or all Bonds of that maturity have been sold to the public, if and for so long as directed by the successful bidder and as set forth in the related pricing wires and (ii) any agreement among underwriters relating to the initial sale of the Bonds to the public, together with the related pricing wires, contains or will contain language obligating each underwriter that is a party to a third-party distribution agreement to be employed in connection with the initial sale of the Bonds to the public to require each broker-dealer that is a party to such third-party distribution agreement to report the prices at which it sells to the public the unsold Bonds of each maturity allotted to it until it is notified by the successful bidder or such underwriter that either the 10% test has been satisfied as to the Bonds of that maturity or all Bonds of that maturity have been sold to the public if and for so long as directed by the successful bidder or such underwriter and as set forth in the related pricing wires.

Sales of any Bonds to any person that is a related party to an underwriter shall not constitute sales to the public for purposes of this Notice of Sale. Further, for purposes of this Notice of Sale:

- (1) “public” means any person other than an underwriter or a related party,
- (2) “underwriter” means (A) any person that agrees pursuant to a written contract with the State (or with the lead underwriter to form an underwriting syndicate) to participate in the initial sale of the Bonds to the public and (B) any person that agrees pursuant to a written contract directly or indirectly with a person described in clause (A) to participate in the initial sale of the Bonds to the public (including a member of a selling group or a party to a third-party distribution agreement participating in the initial sale of the Bonds to the public), and
- (3) a purchaser of any of the Bonds is a “related party” to an underwriter if the underwriter and the purchaser are subject, directly or indirectly, to (i) more than 50% common ownership of the voting power or the total value of their stock, if both entities are corporations (including direct ownership by one corporation of another), (ii) more than 50% common ownership of their capital interests or profits interests, if both entities are partnerships (including direct ownership by one partnership of another), or (iii) more than 50% common ownership of the value of the outstanding stock of the corporation or the capital interests or profit interests of the partnership, as applicable, if one entity is a corporation and the other entity is a partnership (including direct ownership of the applicable stock or interests by one entity of the other).

Failure to Meet the Competitive Sale Requirements – Option B – The Successful Bidder Agrees to Hold the Price of Maturities of Bonds for Which the 10% Test in Option A Is Not Met as of the Sale Date. The successful bidder may, at its option, notify the Financial Advisor in writing, which may be by email (the “Hold the Price Notice”), not later than 4:00 p.m. on the Sale Date, that it has not sold 10% of the maturities of the Bonds listed in the Hold the Price Notice (the “Hold-the-Offering-Price Maturities”) and that the successful bidder will not offer the Hold-the-Offering-Price Maturities to any person at a price that is higher than the initial offering price to the public during the period starting on the Sale Date and ending on the earlier of (i) the close of the fifth business day after the Sale Date or (ii) the date on which the successful bidder has sold at least 10% of the applicable Hold-the-Offering-Price Maturity to the public at a price that is no higher than the initial offering price to the public. If the successful bidder uses Option B and delivers a Hold the Price Notice to the Financial Advisor, the successful bidder shall provide to the State on or before the Closing Date the certificate attached to this Notice of Sale as Exhibit 1 – Option B.

Delivery of the Bonds

The Bonds will be delivered on or about November 14, 2019 (unless a notice of change in the delivery date is announced on MuniOS.com not later than 1:00 P.M. (local Concord, New Hampshire time) on the last business day prior to any announced date for receipt of bids) in Boston on behalf of DTC against payment of the purchase price therefor in Federal Funds.

Documents to be Delivered at Closing

It shall be a condition to the obligation of the successful bidder to accept delivery of and pay for the Bonds that contemporaneously with or before accepting the Bonds and paying therefore, the successful bidder shall be furnished, without cost, with (a) the approving opinion of the firm of Locke Lord LLP, Boston, Massachusetts, Bond Counsel to the State, as to the validity and tax status of the Bonds, substantially in the form as provided in Appendix E to the Preliminary Official Statement, referred to below; (b) a certificate of the State Treasurer and the Commissioner of the Department of Transportation to the effect that, to the best of their respective knowledge and belief, the Official Statement referred to below, both as of its date and as of the date of delivery of the Bonds, does not contain any untrue statement of a material fact and does not omit to state a material fact necessary to make the statements made therein, in light of the circumstances under which they were made, not misleading; (c) a certificate of the Attorney General of the State in form satisfactory to Bond Counsel, dated as of the date of delivery of the Bonds and receipt of payment therefor, to the effect that there is no litigation pending or, to the Attorney General’s knowledge, threatened seeking to restrain or enjoin the issuance or delivery of the Bonds, in any way affecting the validity of the Bonds or in any way contesting the power of the State Treasurer to sell the Bonds as contemplated in this Notice of Sale; and (d) a Continuing Disclosure Certificate substantially in the form as provided in Exhibit D to the Preliminary Official Statement.

Official Statement

The Preliminary Official Statement dated October 23, 2019 (the “Preliminary Official Statement”) and the information contained therein have been deemed final by the State as of its date within the meaning of Rule 15c2-12 of the Securities and Exchange Commission (“Rule 15c2-12”) with permitted omissions, but is subject to change without notice and to completion or amendment in the Official Statement in final form (the “Final Official Statement”).

The State, at its expense, will make available to the successful bidder a reasonable number of copies of the Final Official Statement, for delivery to each potential investor requesting a copy of the Final Official Statement and to each person to whom the bidder and members of its bidding group initially sell the Bonds, within seven business days of the award of the Bonds, provided that the successful bidder cooperate in providing the information required to complete the Final Official Statement.

The successful bidder shall comply with the requirements of Rule 15c2-12 and the rules of the Municipal Securities Rulemaking Board, including an obligation, if any, to update the Final Official Statement.

Continuing Disclosure

In order to assist bidders in complying with Rule 15c2-12(b)(5) promulgated by the Securities and Exchange Commission, the State will undertake to provide annual reports and notices of certain significant events. A description of this undertaking is set forth in the Preliminary Official Statement and a form of such undertaking is provided in Exhibit D to the Preliminary Official Statement.

Additional Information

For further information relating to the Bonds, reference is made to the Preliminary Official Statement prepared for and authorized by the State Treasurer. The Preliminary Official Statement may be obtained by accessing the following website: www.munios.com. For further information, please contact the undersigned at the Office of the State Treasurer, State House Annex, Concord, New Hampshire 03301 (telephone 603-271-2624; telecopy 603-271-3922) or Public Resources Advisory Group, 39 Broadway, Suite 1210, New York, New York 10006, Attention: Monika Conley (telephone 212-566-7800; telecopy 212-566-7816).

THE STATE OF NEW HAMPSHIRE

By /s/ William F. Dwyer
State Treasurer

Date: October 23, 2019

EXHIBIT 1

Issue Price Certificate for Use if the Competitive Sale Requirements are Met

\$ _____
**STATE OF NEW HAMPSHIRE
TURNPIKE SYSTEM REVENUE BONDS
2019 REFUNDING SERIES**

ISSUE PRICE CERTIFICATE

The undersigned, on behalf of [NAME OF UNDERWRITER] (the “Successful Bidder”), hereby certifies as set forth below with respect to the sale of the above-captioned obligations (the “Bonds”) of the State of New Hampshire (the “Issuer”).

A. Issue Price.

1. Reasonably Expected Initial Offering Prices.

(a) As of the Sale Date, the reasonably expected initial offering prices of the Bonds to the Public by the Successful Bidder are the prices listed in Schedule A (the “Expected Offering Prices”). The Expected Offering Prices are the prices for the Maturities of the Bonds used by the Successful Bidder in formulating its bid to purchase the Bonds. Attached as Schedule B is a true and correct copy of the bid provided by the Underwriter to purchase the Bonds.

(b) the Successful Bidder was not given the opportunity to review other bids prior to submitting its bid.

(c) The bid submitted by the Successful Bidder constituted a firm offer to purchase the Bonds.

2. Defined Terms.

(a) *Maturity* means Bonds with the same credit and payment terms. Bonds with different maturity dates, or Bonds with the same maturity date but different stated interest rates, are treated as separate Maturities.

(b) *Public* means any person (including an individual, trust, estate, partnership, association, company, or corporation) other than an Underwriter or a related party to an Underwriter. The term “related party” for purposes of this certificate generally means any two or more persons who have more than 50 percent common ownership, directly or indirectly.

(c) *Sale Date* means the first day on which there is a binding contract in writing for the sale of a Maturity of the Bonds. The Sale Date of the Bonds is _____, 2019.

(d) *Underwriter* means (i) any person, including the Successful Bidder, that agrees pursuant to a written contract with the Issuer (or with the lead underwriter to form an underwriting syndicate) to participate in the initial sale of the Bonds to the Public, and (ii) any person that agrees pursuant to a written contract directly or indirectly with a person described in clause (i) of this paragraph to participate in the initial sale of the Bonds to the Public (including a member of a selling group or a party to a third-party distribution agreement participating in the initial sale of the Bonds to the Public).

B. Debt Service Reserve Account.

We understand that the Debt Service Reserve Account secures all Outstanding Bonds issued under the Bond Resolution, including the Bonds. We understand that maintaining the Debt Service Reserve Account Requirement, currently \$ _____, in the Debt Service Reserve Account was a material factor in obtaining the ratings on the Bonds. Insofar as maintaining such Debt Service Reserve Requirement was material to obtaining such rating, and as the ratings were a material factor in selling the Bonds, the Successful Bidder certifies that maintaining such Debt Service Reserve Requirement in the Debt Service Reserve Account in such amount is reasonably required in that it (i) was a material factor in selling the Bonds at the lowest possible yield and (ii) is reasonable and customary in marketing similar issues of tax exempt obligations.

C. Reliance.

The representations set forth in this certificate are limited to factual matters only. Nothing in this certificate represents the Successful Bidder's interpretation of any laws, including specifically Sections 103 and 148 of the Internal Revenue Code of 1986, as amended, and the Treasury Regulations thereunder. The undersigned understands that the foregoing information will be relied upon by the Issuer with respect to certain of the representations set forth in the Tax Certificate relating to the Bonds and with respect to compliance with the federal income tax rules affecting the Bonds, and by Locke Lord LLP in connection with rendering its opinion that the interest on the Bonds is excluded from gross income for federal income tax purposes, the preparation of the Internal Revenue Service Form 8038-G, and other federal income tax advice that it may give to the Issuer from time to time relating to the Bonds.

Dated: November __, 2019

[SUCCESSFUL BIDDER]

By: _____
Name:
Title:

SCHEDULE A
REASONABLY EXPECTED INITIAL OFFERING PRICES
(Attached)

SCHEDULE B
COPY OF UNDERWRITER'S BID
(Attached)

EXHIBIT 1 – OPTION A

**Issue Price Certificate for Use if the Competitive Sale Requirements are Not Met
and the 10% Test to Apply**

\$ _____
**STATE OF NEW HAMPSHIRE
TURNPIKE SYSTEM REVENUE BONDS
2019 REFUNDING SERIES**

ISSUE PRICE CERTIFICATE

The undersigned, on behalf of _____ (the (“Successful Bidder”)[, on behalf of itself and [NAMES OF OTHER UNDERWRITERS]] hereby certifies as set forth below with respect to the sale and issuance of the above-captioned obligations (the “Bonds”).

A. Issue Price.

1. **Sale of the Bonds.** As of the Sale Date, [except as set forth in paragraph 2 below,] for each Maturity of the Bonds, the first price at which at least 10% of such Maturity of the Bonds was sold to the Public on the Sale Date is the respective price listed in Schedule A.

[Only use the next paragraph if the 10% test has not been met or all of the Bonds have not been sold for one or more Maturities as of the Closing Date.]

2. For each Maturity of the Bonds as to which no price is listed in Schedule A, as set forth in the Notice of Sale for the Bonds, until the 10% test has been satisfied as to each Maturity of the Bonds or all of the Bonds are sold to the Public, the Successful Bidder agrees to promptly report to the Issuer’s financial advisor, Public Resources Advisory Group (the “Financial Advisor”), the prices at which the unsold Bonds of each Maturity have been sold to the Public, which reporting obligation shall continue after the date hereof until the 10% test has been satisfied for each Maturity of the Bonds or until all the Bonds of a Maturity have been sold. The Successful Bidder shall continue to report each sale of Bonds to the Financial Advisor until notified by email or in writing by the Issuer or the Financial Advisor that it no longer needs to do so.

3. **Defined Terms.**

(a) *Issuer* means the State of New Hampshire.

(b) *Maturity* means Bonds with the same credit and payment terms. Bonds with different maturity dates, or Bonds with the same maturity date but different stated interest rates, are treated as separate Maturities.

(c) *Public* means any person (including an individual, trust, estate, partnership, association, company, or corporation) other than an Underwriter or a related party to an Underwriter. The term “related party” for purposes of this certificate generally means any two or more persons who have more than 50 percent common ownership, directly or indirectly.

(d) *Underwriter* means (i) any person, including the Successful Bidder, that agrees pursuant to a written contract with the Issuer (or with the lead underwriter to form an underwriting syndicate) to participate in the initial sale of the Bonds to the Public, and (ii) any person that agrees pursuant to a written contract directly or indirectly with a person described in clause (i) of this paragraph to participate in the initial sale of the Bonds to the Public (including a member of a selling group or a party to a third-party distribution agreement participating in the initial sale of the Bonds to the Public).

B. Debt Service Reserve Account.

We understand that the Debt Service Reserve Account secures all Outstanding Bonds issued under the Bond Resolution, including the Bonds. We understand that maintaining the Debt Service Reserve Account Requirement, currently \$ _____, in the Debt Service Reserve Account was a material factor in obtaining the ratings on the Bonds. Insofar as maintaining such Debt Service Reserve Requirement was material to obtaining such rating, and as the ratings were a material factor in selling the Bonds, the Successful Bidder certifies that maintaining such Debt Service Reserve Requirement in the Debt Service Reserve Account in such amount is reasonably required in that it (i) was a material factor in selling the Bonds at the lowest possible yield and (ii) is reasonable and customary in marketing similar issues of tax exempt obligations.

C. Reliance.

The representations set forth in this certificate are limited to factual matters only. Nothing in this certificate represents the Successful Bidder's interpretation of any laws, including specifically Sections 103 and 148 of the Internal Revenue Code of 1986, as amended, and the Treasury Regulations thereunder. The undersigned understands that the foregoing information will be relied upon by the Issuer with respect to certain of the representations set forth in the Tax Certificate relating to the Bonds and with respect to compliance with the federal income tax rules affecting the Bonds, and by Locke Lord LLP in connection with rendering its opinion that the interest on the Bonds is excluded from gross income for federal income tax purposes, the preparation of the Internal Revenue Service Form 8038-G, and other federal income tax advice that it may give to the Issuer from time to time relating to the Bonds.

Dated: November __, 2019

[SUCCESSFUL BIDDER]

By: _____
Name:
Title:

SCHEDULE A

SALE PRICES

[(Attached)]

or

[Complete Schedule Below]

Maturity

Price

EXHIBIT 1 – OPTION B

Issue Price Certificate for Use if the Competitive Sale Requirements are Not Met and the Hold the Price Rule Is Used

\$ _____
**STATE OF NEW HAMPSHIRE
TURNPIKE SYSTEM REVENUE BONDS
2019 REFUNDING SERIES**

ISSUE PRICE CERTIFICATE

The undersigned, on behalf of [NAME OF SUCCESSFUL BIDDER] (the “Successful Bidder”)[, on behalf of itself and [NAMES OF OTHER UNDERWRITERS]] hereby certifies as set forth below with respect to the sale and issuance of the above-captioned obligations (the “Bonds”).

A. Issue Price.

1. ***Sale of the General Rule Maturities.*** As of the date of this certificate, for each Maturity of the General Rule Maturities, the first price at which at least 10% of such Maturity of the Bonds was sold to the Public is the respective price listed in Schedule A.

[2. ***Initial Offering Price of the Hold-the Offering-Price Maturities.***

(a) The Successful Bidder offered the Hold-the-Offering-Price Maturities to the Public for purchase at the respective initial offering prices listed in Schedule A (the “Initial Offering Prices”) on or before the Sale Date, which correspond to the yields shown on Schedule A and on the inside cover of the Official Statement relating to the Bonds dated the Sale Date. A copy of the pricing wire or equivalent communication for the Bonds is attached to this certificate as Schedule B.

(b) The Successful Bidder agrees that (i) for each Maturity of the Hold-the-Offering-Price Maturities it will neither offer nor sell any of the unsold Bonds of such Maturity to any person at a price that is higher than the Initial Offering Price for such Maturity during the Holding Period for such Maturity (the “hold-the-offering-price rule”), and (ii) any selling group agreement shall contain the agreement of each dealer who is a member of the selling group, and any third-party distribution agreement shall contain the agreement of each broker-dealer who is a party to the third-party distribution agreement, to comply with the hold-the-offering-price rule. Pursuant to such agreement, no Underwriter (as defined below) has offered or sold any unsold Bonds of a Maturity of the Hold-the-Offering-Price Maturities at a price that is higher than the respective Initial Offering Price for that Maturity of the Bonds during the Holding Period.]

[2.][3.] ***Defined Terms.*** [keep applicable definitions, depending on sale outcome]

(a) ***General Rule Maturities*** means those Maturities of the Bonds listed in Schedule A hereto as the “General Rule Maturities.”

(b) ***Hold-the-Offering-Price Maturities*** means those Maturities of the Bonds listed in Schedule A hereto as the “Hold-the-Offering-Price Maturities.”

(c) ***Holding Period*** means, with respect to a Hold-the-Offering-Price Maturity, the period starting on the Sale Date and ending on the earlier of (a) the close of the fifth business day after the Sale Date, or (ii) the date on which the Underwriters have sold at least 10% of such Hold-the-Offering-Price Maturity to the Public at prices that are no higher than the Initial Offering Price for such Hold-the-Offering-Price Maturity.

(d) ***Issuer*** means the State of New Hampshire.

(e) *Maturity* means Bonds with the same credit and prepayment terms. Bonds with different maturity dates, or Bonds with the same maturity date but different stated interest rates, are treated as separate Maturities.

(f) *Public* means any person (including an individual, trust, estate, partnership, association, company or corporation) other than an Underwriter or a related party to an Underwriter. The term “related party” for purposes of this certificate generally means any two or more persons who have more than 50 percent common ownership, directly or indirectly.

(g) *Sale Date* means the first day on which there is a binding contract in writing for the sale of a Maturity of the Bonds. The Sale Date of the Bonds is _____, 2019.

(h) *Underwriter* means (i) any person, including the Successful Bidder, that agrees pursuant to a written contract with the Issuer (or with the lead underwriter to form an underwriting syndicate) to participate in the initial sale of the Bonds to the Public, and (ii) any person that agrees pursuant to a written contract directly or indirectly with a person described in clause (i) of this paragraph to participate in the initial sale of the Bonds to the Public (including a member of a selling group or a party to a third-party distribution agreement participating in the initial sale of the Bonds to the Public).

B. Debt Service Reserve Account.

We understand that the Debt Service Reserve Account secures all Outstanding Bonds issued under the Bond Resolution, including the Bonds. We understand that maintaining the Debt Service Reserve Account Requirement, currently \$ _____, in the Debt Service Reserve Account was a material factor in obtaining the ratings on the Bonds. Insofar as maintaining such Debt Service Reserve Requirement was material to obtaining such rating, and as the ratings were a material factor in selling the Bonds, the Successful Bidder certifies that maintaining such Debt Service Reserve Requirement in the Debt Service Reserve Account in such amount is reasonably required in that it (i) was a material factor in selling the Bonds at the lowest possible yield and (ii) is reasonable and customary in marketing similar issues of tax exempt obligations.

C. Reliance.

The representations set forth in this certificate are limited to factual matters only. The certifications contained herein are not necessarily based on personal knowledge, but may instead be based on either inquiry deemed adequate by the undersigned or institutional knowledge (or both) regarding the matters set forth herein. Nothing in this certificate represents the Successful Bidder’s interpretation of any laws, including specifically Sections 103 and 148 of the Internal Revenue Code of 1986, as amended, and the Treasury Regulations thereunder. The undersigned understands that the foregoing information will be relied upon by the Issuer with respect to certain of the representations set forth in the Tax Certificate relating to the Bonds, to which this certificate is attached as an exhibit, and with respect to compliance with the federal income tax rules affecting the Bonds, and by Locke Lord LLP in connection with rendering its opinion that the interest on the Bonds is excluded from gross income for federal income tax purposes, the preparation of the Internal Revenue Service Form 8038 and other federal income tax advice that it may give to the Issuer from time to time relating to the Bonds.

Dated: November __, 2019

[SUCCESSFUL BIDDER]

By: _____
Name:
Title:

SCHEDULE A
SALE PRICES OF THE GENERAL RULE MATURITIES AND
INITIAL OFFERING PRICES OF THE HOLD-THE-OFFERING-PRICE MATURITIES
(ATTACHED)

SCHEDULE B
PRICING WIRE OR EQUIVALENT COMMUNICATION
(ATTACHED)

